Sustainable Growth in Condominium Sector Supported by Market Trends and Demographics

An Analysis of the Toronto, Montreal and Vancouver Condominium Markets

This Royal LePage research study was completed by housing market economist Will Dunning during the summer of 2013. It discusses trends in condominium markets for the three largest urban agglomerations in Canada.

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Highlights

Key Facts

According to Statistics Canada's National Household Survey, in the three largest urban centres of Canada (Toronto, Montreal, and Vancouver Census Metropolitan Areas, or "CMAs"):

- As of 2011, about two-thirds of a million households (669,490) lived in condominiums. This was 14.9% of total households in these communities. For all of Canada, the share was lower at 8.2%.
- During 2006 to 2011, new condominiums provided 37.7% of new dwellings in the three CMAs. For all of Canada, the share was 20.2%.

In this report, the terms **condominium**, or **condo**, refer to a form of housing where a specified apartment within a building is individually owned, while use of and access to common facilities in the building, such as recreational facilities, heating and cooling systems, elevators, and exterior areas are controlled by an association of owners. Low density dwellings, sometimes referred to as town houses or semi-detached homes, were not the focus of this study. The terms "condominium apartment," "condominium," and "condo" are used interchangeably within.

Data from Canada Mortgage and Housing Corporation Housing ("CMHC") shows that the pace of construction of new apartments has been very strong in recent years, averaging 43,774 units per year. More than 80% of these apartments are condominiums.

Demographic projections developed by the author suggest that during the next twenty years, the requirement for new condominiums in the three CMAs might be in the range of 26,000 to 32,000 new units per year. This would be 43% to 53% of total requirements (all types of housing) for the three CMAs, and 14% to 18% of total housing requirements for all of Canada.

Comparing actual starts of condominiums in recent years (averaging 43,774 units per year in the three CMAs, during 2008 to 2012) to the demographic requirements (26,000 to 32,000 units per year during the next 20 years), actual production has exceeded estimated requirements.

Data from the Royal LePage *House Price Survey* indicate that during various time periods, prices for condominiums have increased at about the same rates as for single-family homes. During the past 20 years:

- In the Montreal area, condominium prices increased by 5.5% per year versus 5.1% per year for single-family homes.
- In the Toronto area, the price rise for condominium averaged 5.1% per year versus 5.9% per year for single-family homes.
- In the Vancouver area, the figures are 4.5% for condominiums versus 5.7% for single-family homes.

Condominium vacancy rates are low in these three communities. As of October 2012, CMHC reported rental apartment vacancy rates of 2.8% for Montreal CMA, 1.7% for Toronto CMA, and 1.8% for Vancouver CMA. Forecasts from Canada Mortgage and Housing Corporation expect little change in the vacancy situations.

Key Findings

- Strong activity in condominium markets **is not sufficient evidence of a "housing bubble"** as the activity has been based on strong demand for the housing, both from consumers who will live in the condominiums and from investors who intend to make the condominiums available as rentals. An essential element of a "bubble" is that demand becomes divorced from economic fundamentals and that has not occurred in the markets for condominiums.

- **Strong demand has been generated by several economic factors,** including exceptionally low interest rates, strong job creation in central areas of Canada's cities (especially for young professionals) and shifting consumer preferences (for example, to live close to work and/or to take advantage of the amenities that exist in high density neighbourhoods). Low interest rates and strong demand for quality rental apartments in good locations have encouraged investment in condominiums. **In addition, low vacancy rates in the rental apartment market,** and rents that are increasing more rapidly than overall inflation, are signalling the existence of housing shortages and that there is a need for more construction of condominiums in order to restore a healthy balance between supply and demand.

- The result of these positive conditions is that in recent times there has been more construction of condominiums than we might expect based on "demographic" factors alone.

- It is likely that **future construction will slow** to levels that are more in line with the growth rate and evolving demographics of the population.

- Even with growth slowing, **it is expected that a high level of construction of new condominiums will continue.**

- Condominium living plays an important and well-established role within the housing markets of Canada's largest cities. **That role will continue to grow,** resulting in continued demand and expansion of the inventories through new housing production.

- **The condo market may experience some turbulence in the short term** as we see a transition from very high levels of sales activity to lower but still high condo start volumes. A further **complication is that tightening of the federal government's mortgage insurance rules have been a drag on housing activity** (especially for first-time buyers) and impacts of those changes will continue to evolve.

- A further complication is that **changes to the federal government's mortgage insurance rules have negatively affected housing activity** (especially for first-time buyers) and impacts of those changes will continue to evolve.

- In short, during the next two years or so, **there may be some instability in the condominium market** while a new set of longer-run trends become established. Even during that period of transition, large numbers of consumers will continue to move into condominiums due to favourable economic factors and lifestyle considerations.

- Some commentary points to the US experience of housing boom-and-bust as a possible outcome for Canada, including for the condominium market. While there are some similarities (including brisk house price appreciation and rising consumer debt) there are also some very important differences. In Canada borrowers and lenders alike are highly cognizant of risks and are behaving cautiously – **strong housing demand in Canada is solidly based upon ability-to-pay and upon the state of the broader economy.**

- **Prices of condominiums are consistent with rents** for comparable rental options, once the level of interest rates is taken into consideration. This fact supports the conclusion that there is no bubble in Canadian condominium markets.

- It can reasonably be expected that over the long-term, **condominiums will experience price growth similar to that seen for the so-called "traditional" housing forms.**

Introduction and Summary

Dimensions of the Condominium Market

According to the 2011 National Household Survey (the partial replacement for the Census of Canada), there were more than one million condominiums in Canada at the time. This represented just over 8% of all dwellings in Canada. In other words one out of every 12 dwellings in Canada is a condominium.

As is shown in the table below, large shares of condominiums are found in the three largest urban centres of Canada. In combination, they accounted for about 670,000 condos or 61.6% of the condominium inventory in Canada. Within these three areas, condominiums accounted for almost 15% of all dwellings, far above the 8.2% share for all of Canada[1].

Table 1
Condominiums in Three Census Metropolitan Areas of Canada, 2011

	Montreal CMA	Toronto CMA	Vancouver CMA	3 CMAs Combined	Canada
Condominiums (dwelling units)	182,700	279,880	206,910	669,490	1,086,235
As % of Total Dwellings in Area	11.3%	14.1%	23.2%	14.9%	8.2%
% of Canadian Condominiums	16.8%	25.8%	19.0%	61.6%	100.0%

Source: 2011 National Household Survey - Statistics Canada, 99-014-X2011026; compiled by the author

Construction of new condominiums has accelerated in recent times. The 2011 National Household Survey found that about 210,000 of these dwellings were constructed between 2006 and the time of the survey in 2011, amounting to 20% of all dwellings constructed during that period. For the three Census Metropolitan Areas, the condominium shares were even higher, at about 35% for both Montreal CMA and Toronto CMA, and 47% for Vancouver. As the next table shows, in the combined area of the three CMAs, 38% of new dwellings were condos.[2]

Table 2
Dwelling Units Constructed During 2006-2011

	Condominiums	All Dwellings	Condos as % of Total
Canada	210,460	1,042,425	20.2%
Montreal CMA	38,300	108,590	35.3%
Toronto CMA	60,965	176,445	34.6%
Vancouver CMA	41,620	88,500	47.0%
3 CMAs Combined	140,885	373,535	37.7%

Source: 2011 National Household Survey - Statistics Canada, 99-014-X2011026; compiled by the author

1 Looking further into the data: in the rest of Canada (excluding the three CMAs) there were just 416,745 condominiums, which amounted to just 4.7% of the dwellings in the rest of Canada.

2 In the remainder of Canada, about 70,000 new condominiums were constructed, representing 10% of all new dwellings.

In discussions about Canadian housing markets, condominiums have been receiving increased amounts of attention. In major cities, condominium activity has become increasingly obvious, due to a large and growing number of projects that are under construction. It is understandable that the burgeoning numbers of highly-visible high-rise projects will attract discussion.

Many analysts and commentators have expressed concern about the sustainability of the increased activity, and some have identified associated risks, including the federal Minister of Finance who cited condominium activity in the Toronto area as part of his rationale for introducing measures intended to slow the housing market[3]. As well, the Bank of Canada, in its June 2013 "Financial System Review", stated the following:

> "In the Toronto condominium market, the number of unsold high-rise units in the pre-construction and under-construction stages has remained near the high levels observed since early 2012. If the investor component of demand has boosted construction in the condominium market beyond demographic requirements, this market may be more susceptible to shifts in buyer sentiment. Furthermore, if the upcoming supply of units is not absorbed by demand as they are completed over the next 12 to 30 months, the supply-demand discrepancy would become more apparent, increasing the risk of an abrupt correction in prices and residential construction activity."

The Bank of Canada goes on to express concern that a downturn in this segment of the market:

> "could spread to other segments of the housing market as buyers and sellers adjust their expectations. Such a correction would reduce household net worth, confidence and consumption spending, with negative spillovers to income and employment. These adverse effects would weaken the credit quality of banks' loan portfolios and could lead to tighter lending conditions for households and businesses. This chain of events could then feed back into the housing market, causing the drop in house prices to overshoot."

The Author's Evolving Thoughts

The author of this report has been involved in discussions about risks in the Toronto condominium market. My thoughts have evolved over time. Researching and writing this report at the request of Royal LePage has given me an opportunity to further explore my thoughts on this topic, to contribute to this evolving discussion and to expand my analysis to include two other major condominium markets in Canada: Vancouver and Montreal.

I began to publish research on the Toronto condominium market several years ago, expressing concerns about strong growth in sales and construction of new condominiums and the possibility that as the projects became completed there might not be enough people ready to move into the units. Should that be the case there would be a flood of unoccupied units coming onto the resale housing market resulting in price reductions and a long and painful market correction.

The next step in the analysis was to use a demographic model (which estimates how much housing will be required by the future population). I estimated that during 2006 to 2011, for the Toronto Census Metropolitan Area ("CMA") the annual requirement for condominiums was about 14,000 to 15,000 units per year. This includes both condominium and rental condominiums.

In recent times, starts of condominiums (in the Toronto CMA) have far exceeded that estimated requirement of 14,000 to 15,000 units per year (with the average at about 20,400 units per year during 2008 to 2012). But what will matter in the housing market is how many units become available to be occupied as construction is completed. From 2008 to 2012 completions of condominiums averaged about 15,750 units per year, which is tolerably close to the estimated "demographic requirement". In short, while a painful correction has long been predicted it has not yet materialized.

3 Since 2008, the federal government has made four sets of changes to its mortgage insurance policies. By making it more difficult for many potential home buyers to obtain mortgages, these policy changes have been intended to reduce housing activity. The fourth of these sets of changes took effect in July 2012. It was in association with the 4th set of changes that Minister Flaherty expressed concerns about condominium activity.

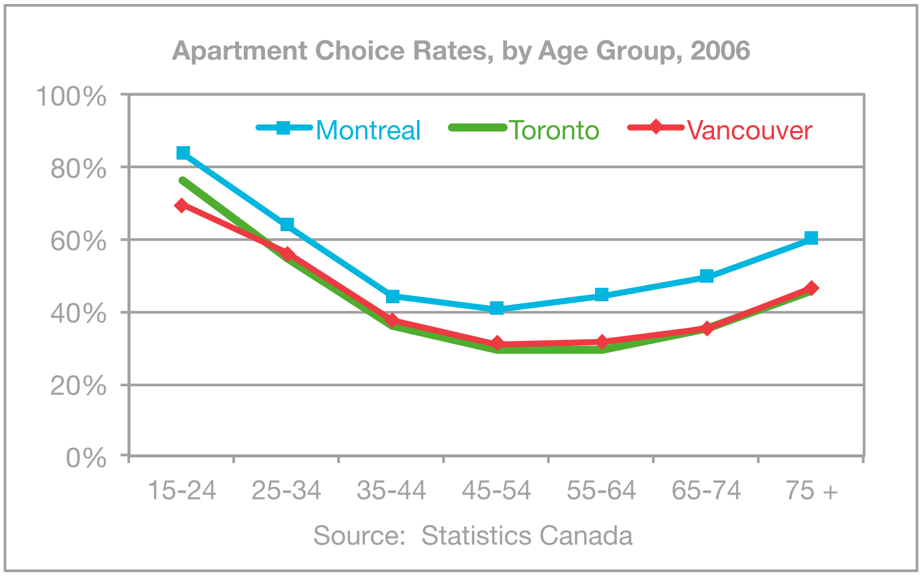
A key issue now (and the issue highlighted in the Bank of Canada report quoted above) is pace at which units will be completed in the future, whether there will be sufficient demand for the units to be occupied and what might happen if the supply of completions far exceeds the number of people who want to move into the condominiums.

To date, the ability of builders to start construction on condominium projects has surpassed their capacity to complete construction. In other words, it appears that there are "bottlenecks" in the construction process that have limited the number of units that can be completed. A key question is whether completions will soon escalate sharply or whether the annual volumes of completions will remain constrained to more-or-less match the estimated "requirement".

Among informed and credible housing market analysts, opinions are sharply divided about the future pace of completions and therefore about impacts on the condo market. I confess that I am on the fence about future rates of completions, and that it is a very important piece of the puzzle. But this is not the only important issue that will determine the future of the condominium market in Toronto or elsewhere. My evolving thoughts are now considering that…

Demographics Is Not Always Destiny

Demographic estimates of housing requirements generally assume that future generations will make choices similar to those made by

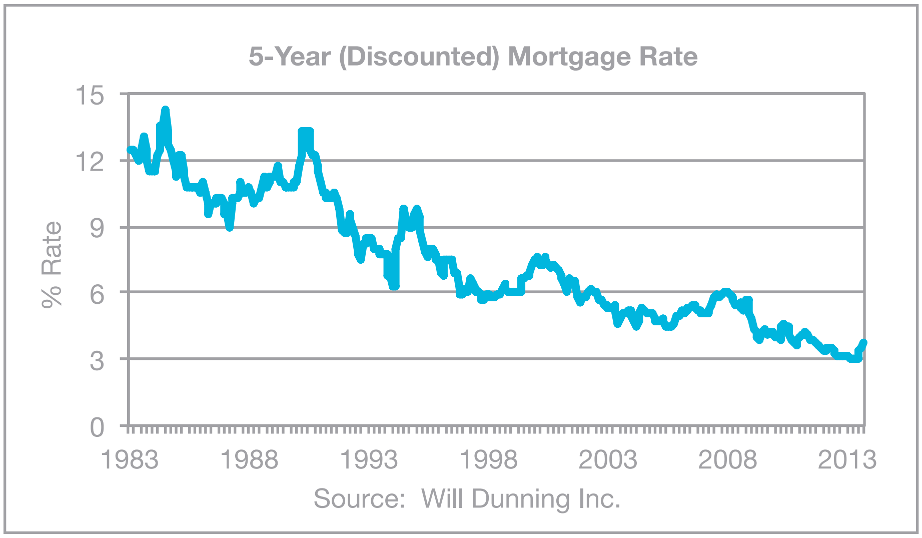


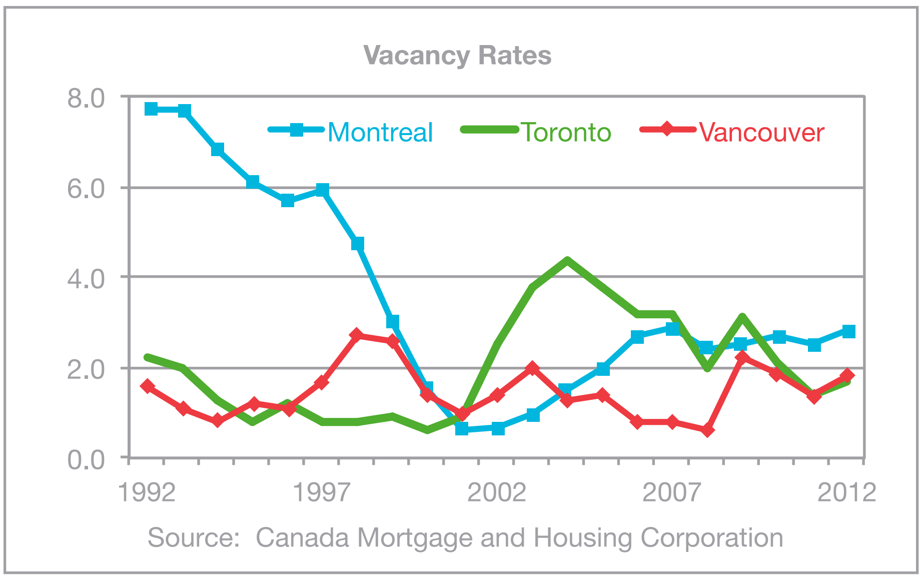
current and/or prior generations. For example, if in the 35 to 44 years age group, 35.7% of households live in condominiums (as was the case in 2006 for the Toronto CMA) the analyst might assume that the same percentage will apply for future groups of 35 to 44 year olds. But the choice rates do not stay constant over time. There are many reasons that the choice rates may change, and these changes can have very large impacts upon the housing types that will be in demand by the future populations. Several overlapping factors have most likely caused the condominium choice rates to rise in recent times, thereby increasing the need for condominiums to well above the levels that are estimated by demographic models:

- Increased congestion of transportation systems (roads and public mass transit) incent people to live closer to their workplaces. For those who work in highly densified core locations and want to live nearby, the available and affordable option is frequently an condominium (to be occupied as an owner or a renter).

- Delayed marriage means that a rising percentage of households are singles (with just one income rather than two, which affects total household income and therefore the housing cost that can be afforded). For a population that is increasingly single, condominiums are an affordable option. Moreover, since a single presumably needs less living space than a couple (or a family with children), the condominium housing form becomes more acceptable and appropriate compared to the larger units that can be found in the low-rise housing sector.

- Similarly, delayed childbearing can be expected to influence housing choices, causing demand to shift towards condominiums, away from low-rise forms.





- Increasing educational attainment by females is resulting in higher incomes for them (and is probably contributing to delayed marriage and/or childbearing). This is raising interest in (and ability to afford) ownership of condominiums.

- An increasing share of the population has immigrated to Canada, frequently from countries and cities where high-density housing options are much more prevalent. These immigrants arrive in Canada with different expectations about housing options (and with more interest in condominium living) than the Canadian-born population.

- Mortgage interest rates in Canada are at the lowest level in a generation, and possibly at the lowest level ever. This has greatly increased the affordability of condominiums, which has increased demand to levels higher than it would otherwise be. The chart to the right shows estimates of mortgage interest rates for five-year, fixed-rate mortgages, after typical discounts.

- Living in an condominium in a highly-developed neighbourhood, versus a low-rise home in a low-density neighbourhood, involves a trade-off: less private space (inside the dwelling and in private outdoor areas) in exchange for a larger set of public amenities (such as restaurants and cafes, shopping, entertainment venues, etc.) as well as closer proximity to work and friends. Inner urban areas are becoming increasingly "amenity rich", which is changing the equation in their favour. Indeed, there is a "virtuous circle", in which increased density and increased amenities support additional growth of each other. These three Canadian cities are now definitely well into "take-off mode".

- Patterns of housing choice also depend on what supplies are available. If people want to live in condominiums, but there aren't enough condominiums available, the choice rates shown by the data may be lower than is actually desired by the population. Data on vacancies indicates that in recent times there has not been an over-supply of condominiums. In particular, vacancy rates in the three study areas have either moved sideways (Montreal and

Vancouver) or fallen (Toronto). Recent levels of condominium construction in these three areas are in part catch-up for activity that did not occur during earlier years. The most recent forecasts of vacancy rates from Canada Mortgage and Housing Corporation point to continued low vacancy rates for 2013 and 2014. While CMHC has not drawn this conclusion, there is an implication that CMHC does not expect an oversupply of condominiums: if there was an over-supply, it would encourage movements out of the traditional rental market, bringing rising vacancy rates. CMHC also reports that vacancy rates for rented condominiums have “held steady”, which implies that there is not an oversupply of new condominiums, at least as of the most recent survey in October 2012.

- Demand for condominiums is also influenced by job creation in a group of industries (“high income services”) that are often located in the core areas and provide incomes high enough to support purchase of condominiums (especially at recent low interest rates) or to rent equivalent accommodations. In the Toronto area (but not in Montreal or Vancouver), strong growth in these industries has been a further strongly positive factor.

These factors are causing choice rates for condominiums to rise as compared to historic rates. This helps greatly to explain why condominium activity has recently exceeded the so-called demographic requirement. Depending on how these factors evolve in the coming years, we could well see levels of condominium activity that continue to exceed the demographic requirements.

We should also expect that at some time the choice rates for condominiums will stop rising (or rise less rapidly), and this would mean a reduction in the need to build new condominiums. The estimates we have of demographic requirements – at stable choice rates – give us an approximate indication of the numbers of condominiums that will be required once choice rates stabilize at some future time. And those requirements will remain substantial.

Demographic Estimates

Most housing market analysts set the current demographic requirement for housing in Canada at about 180,000 new units per year. The demographic projections developed for this report indicate that for 2011 to 2016, for the three Census Metropolitan Areas combined, the annual demographic requirement is about 62,000 units per year, which is about 35% of the total requirement for Canada. Within that total, this report develops two scenarios.

- In the first scenario, dwelling type choices are assumed to be unchanged. In this analysis, the annual requirement for condominiums in the three CMAs is about 27,000 units per year. This is 43% of the total requirement for the three CMAs, and about 15% of the total dwelling requirement for Canada.
- In the second scenario, it is assumed that there will be a very gradual shift towards condominiums and away from low density housing (at a rate of 0.1 percentage points per year). In this scenario, the requirement for condominiums during 2011 to 2016 is about 32,000 units per year. This is 51% of the total for the three CMAs and about 18% of the total dwelling requirement for Canada. It is quite possible to imagine scenarios with more rapid shifting and therefore even larger requirements for condominiums.
- In either of these scenarios, construction of new condominiums, in just these three major urban areas, will amount to a substantial share of Canada's total housing requirements.

Table 3
Two Scenarios for Demographic Requirements in Canada's Three Largest CMAs

Type of Dwelling	Low Density	Medium Density	High Density	Total	% High Density
First Scenario – Stable Choice Rates					
2011-2016	31,741	3,812	26,823	62,377	43.0%
2016-2021	31,161	3,750	26,958	61,869	43.6%
2021-2026	29,626	3,397	25,684	58,707	43.7%
2026-2031	30,036	3,418	24,386	57,840	42.2%
Per Year Over 20 Years	30,641	3,595	25,963	60,198	43.1%
% of Total	51%	6%	43%	100%	
Second Scenario – Gradual Rise in Share for High Density					
2011-2016	26,600	3,812	31,965	62,377	51.2%
2016-2021	25,403	3,750	32,716	61,869	52.9%
2021-2026	23,312	3,397	31,997	58,707	54.5%
2026-2031	23,158	3,418	31,264	57,840	54.1%
Per Year Over 20 Years	24,618	3,595	31,985	60,198	53.1%
% of Total	41%	6%	53%	100%	

Source: Projections by Will Dunning Inc.

Notes: "low density" includes single-detached, single-attached, semi-detached, duplexes, and movable dwelling; "medium density" is row or town homes; "high density" is condominium buildings

During recent times, actual starts of condominiums have been far in excess of these estimated demographic requirements for condominiums. The table below contrasts actual starts versus the requirements. The data indicates that actual activity has been about 60% higher than the requirements that are based on stable choice rates, and almost 40% higher than the scenario in which choice rates gradually rise. The clear implication is that there has been a very strong shift in consumer preferences towards condominiums, and that choice rates have increased sharply.

Table 4
Condominium Starts versus Demographic Requirements in Three Major Centres of Canada

	Toronto CMA	Montreal CMA	Vancouver CMA	Combined
Average Annual Starts 2008-2012	20,383	13,805	9,586	43,774
Estimated Annual Requirements 2011-2016				
Stable Choice Rates	12,722	8,176	5,925	26,823
Shifting Choice Rates	15,053	9,939	6,972	31,965

Source: Canada Mortgage and Housing Corporation; estimates by Will Dunning Inc.

Market Trends and Outlook

The exercise of forecasting yields useful insights about how the housing market functions: what factors are important? In this author's experience, key findings are:

- The critical factor for housing demand is job creation: having jobs gives people the financial ability to be active in the housing market.

- Interest rates and housing affordability are also important, but most of the time they are less important than job creation.

- At times, interest rates become highly important, for example when mortgage interest rates change by large amounts they can result in large swings in the housing market.

- Moreover, interest rates and affordability, as well as job creation, are more powerful in the condominium market than for low-rise homes.

- Another important finding is that housing activity is influenced by changes in house prices. Rising prices encourage buying, in both the resale and new construction arenas. To an economist, this might appear counter-intuitive, because rising prices are supposed to reduce demand. But housing is not just a "consumption good". It can also be seen as an "investment good", especially as part of a retirement fund. Therefore, if prices have risen in the past and people believe that prices will behave the same way in future, they may decide to buy more housing (to move-up in the market or renovate their home). This is an "investment motive". It doesn't apply only to investors; it can apply to any home buyer, in the low-rise or high-rise sector, who sees their housing as both a place to live and an asset.

- Another finding with important implications is that rising (or falling) house values affect job creation. This is known as a "wealth effect". When home prices rise, people feel more confident and may decide to spend or invest more; they might also choose to borrow from their (increased) home equity to spend or invest. Alternatively, if prices fall, consumer confidence and spending are reduced and jobs are lost. Experience has shown that the positive wealth effect from rising prices operates gradually, since most people won't act immediately when prices rise; on the other hand, negative reactions to falling prices can be very rapid (as we saw during the recession that started in the fall of 2008).

- Finally, housing activity is an important creator of jobs. In the new construction arena, housing starts result in thousands of jobs in the construction industry, as well as in industries that provide goods (materials and components) as well as services (in a wide range of activities, such as design, planning, marketing, finance, etc). Most of the goods and services employed in housing construction originate within Canada, and therefore housing starts have a high "employment multiplier". Among all of the physical products that we buy, there are very few that have as much "domestic content": measured on the basis of jobs created per dollar spent, housing construction is a very powerful generator of jobs in Canada, and these are jobs that pay well.

These strands of thoughts have implications for current and future market performance in the condominium arena:

- The very low interest rates that have existed since the recession of 2008/09 have powerfully stimulated demand for (and construction of) new condominiums, from both owner-occupants who intend to live in the condominiums themselves, as well as by investors, who intend to rent the condominiums to tenants.

- While it may be tempting to believe that starts of new condominiums have increased by too much, my forecasting system suggests that the volumes of activity we have seen are almost exactly what we should expect, given the levels of interest rates and the amounts of job creation that have occurred.

- Growth of property values has also been important. We are probably now in a period of transition, in which slowing growth of condominium values will contribute to a weakening of demand.

Rapid Price Growth – By Itself – Doesn't Tell Us Much

Housing prices have increased very sharply during the past decade (and more). Various sets of data can be used to measure the rates of increase of prices. The different data sets yield different estimates of price growth, but they all point to a conclusion that in Canada (and in the three CMAs being studied), prices of low-rise homes and condominiums have grown at rates that exceed overall inflation, incomes, and rents.

This study uses data from Royal LePage's House Price Survey . That data yields the same findings.

The Royal LePage data also provides estimates of monthly rents and annual realty taxes for the same housing. This creates a possibility for some very interesting and useful analysis.

Investors who buy condominiums in order to rent them will (or should) do financial analysis, comparing the amounts of cash flow they can generate (rents minus expenses) with the prices paid. This analysis results in estimated rates of return. The rate of return can be compared to returns on other potential assets, including government bonds. The investor should only make that investment if buying the condo provides a better return than an alternative investment and it should also provide some additional yield to compensate for the fact that the condo investment has risk and uncertainty.

A condominium buyer who intends to live in the unit is not expected to do that kind of analysis. But, many of these buyers will compare the costs of living in them as owners versus the cost of living in similar accommodation as a renter. He or she will also think about the interest they could earn if they put their down-payment into savings or the interest that would be paid on a mortgage. Thus, while the thought process of the owner-occupant is different from the investor's it might lead to very similar conclusions about what the condominium is worth.

Therefore, the rent-price ratio is relevant for both investors and owner-occupants.

The Royal LePage data has been used to calculate "net-rent-to-price ratios" for two condominium types ("luxury" and "standard") for each of the three CMAs. The ratios are then compared to the yields on Government-of-Canada five-year bonds, over a period of about 30 years.

4 The Royal LePage House Price Survey is conducted quarterly. It provides opinions of market values for a variety of housing forms in a very large number of "submarket" areas across Canada. In this study, submarket data has been aggregated to generate estimates for two types of condominiums for each of the three CMAs.

5 The calculation is described in slightly more detail in the Toronto CMA section of this report.

For the three CMAs, the long-term data shows different relationships between the net-rent-to-price ratios versus yields on Government of Canada bonds: in Montreal, the ratio has not responded to changes in bond yields; in Toronto, the ratio has responded to bond yields for about the past decade; for Vancouver, a relationship has existed for about 15 years. At the end of the dataset, in each of the three CMAs the rent-to-price ratios are about two percentage points above the bond yields. A financial markets analyst would say that the two points of extra "yield" on condominiums is compensation for greater riskiness of condos compared to government bonds. What the risk premium should be could be debated endlessly. But, it is safe to conclude that at the end of our dataset, condominium values have been set

by the market at levels that take account of the rents for equivalent accommodations and interest rates, and also provide a non-trivial amount of margin-for-risk.

An alternative way to express this conclusion is that falling interest rates, which have been at exceptionally low levels for several years, have created "affordability space" in which prices were able to rise for condominiums (and virtually all other classes of real estate).

An economist's interpretation is that the falling interest rates contributed to higher levels of demand, which caused the affordability space to be filled via rising prices.

An analyst of mortgage markets would consider the extent to which borrowers have left themselves room to tolerate potential increases in interest rates. While this report has not attempted to address that question, the analysis of prices versus rents relative to interest rates provides a "proxy" that suggests there is room.

Conclusion

Combining the findings from the various approaches explored in this report (analysis of prices versus rents, relative to interest rates, along with the discussions about forecasting and demographics, and especially on the role of changing "choice rates") the key conclusion is that the high volumes of construction activity seen during the past decade can be explained as a reasonable outcome given the existing conditions.

That said, it is likely that activity will decelerate during the coming years, to something closer to the "demographic requirements". It is possible that the transition will have some bumps. We might be on the verge of a period in which new units become available for occupancy very rapidly, which results in downward pressure on prices – but I emphasize that there is uncertainty about the future pace of completions and this negative scenario is far from being guaranteed; it is quite possible that completions will continue to occur at sustainable rates, or that any acceleration of completions will be moderate and have only moderate impacts.

Another important consideration is the lending environment. In particular, changes made to the federal government's mortgage insurance policies have made it more difficult for many potential condominium buyers to qualify for mortgage financing. This is demonstrably reducing demand, at the same time as there are increasing numbers of units becoming available for immediate occupancy. The government explains it policies as being intended to reduce risk. To the contrary, by reducing demand relative to supply, at a critical time in the condominium housing market (when the supply of newly-completed units is expanding rapidly), the policy changes are raising risks in the housing market and by extension in the broader economy.

About Will Dunning and Will Dunning Inc.

Will Dunning Inc. is an economic research firm. Based in Toronto, the firm specializes in housing market analysis.

The firm is led by Will Dunning, who has been analyzing housing markets since 1982. This includes 16 years with the federal housing agency (Canada Mortgage and Housing Corporation). In September 2000, he established his own firm.

Will has completed several hundred consulting studies, including economic analysis and forecasting studies as well as feasibility studies for proposed residential developments. He is frequently quoted in the news media on the housing market.

More information can be obtained at www.wdunning.com.

Toronto CMA

Demographic Estimates

Patterns of future housing requirements depend on several key factors: the rate of growth of the population, the distribution of growth by age groups, and the housing choices that are made by the different age groups.

In developing these projections, I have assumed that during the coming two decades, the Toronto area will receive a reduced share of Canada's total population growth, because the strengthened economies in resource-producing areas of the country will mean that they attract more in-migrants: reduced migration into the Toronto area will result in slower population growth and reduced housing requirements. Recent data on population growth suggests that this trend is becoming established.

For 2011 to 2021, I project a requirement for about 32,700 new dwelling units per year; for 2021 to 2031, there would be a marginal drop, to about 31,700 units per year.

These total housing requirements are allocated to the different housing forms in two scenarios.

- In the first scenario in which housing choice rates are assumed to be unchanged, the requirement for condominiums is estimated at 12,800 units per year during 2011 to 2021 and 12,600 units per year during 2021 to 2031. For 2011 to 2031, condominiums would represent 40% of the total housing requirement in the Toronto CMA.
- In the second scenario, with a very gradual shift of housing choice rates towards condominiums, the requirement for condominiums is estimated at 15,300 units per year during 2011 to 2021 and 15,800 units per year during 2021 to 2031. During 2011 to 2031, condominiums would account for 48% of total housing requirements.

The table on the next page allocates the requirements for condominiums by age group.

Based on long-term evolving trends in the Toronto area (and in virtually all other areas of Canada) during the current decade a large share of housing requirements will be from the late working age and retirement groups (due to the large size of the “baby boom” generation); during the next decade, the baby boomers, and therefore the largest amount of demand, will increasingly be in the retirement ages.

There will also be strong demand during the current 10-year period from the “echo generation”, which is now in the early working ages (25 to 34 years); in the next decade, the echo generation will be in the 35 to 44 age group.

During the current decade:

- For young working age adults, the requirement will be divided between owned and rented condominiums.

- For late working age and retired adults, most of the condominium requirement will be for owner-occupied units, although some will choose to occupy as tenants.

These projections imply that large majorities of the new condominiums will be owner-occupied condominiums, but there will be some need for rentals (either purpose-built by corporations or investment funds, or purchased by investors in the condominium market). During the 20-year projection period, with the echo generation moving out of the renting ages and into home ownership ages, and with strong demand from the oldest age groups, we should foresee that the market need for condominiums will increasingly shift away from renting towards owner-occupancy.

Table 5
Annual Requirements for Condominiums, by Age Group, Toronto CMA

Age Group	1st Scenario – Stable Choice Rates		2nd Scenario – Gradual Shift to Condominiums	
	2011-2021	2021-2031	2011-2021	2021-2031
15 to 24	64	211	110	264
25 to 34	3,723	594	4,107	971
35 to 44	691	3,440	1,151	4,132
45 to 54	-423	600	48	1,130
55 to 64	3,119	-426	3,638	4
65 to 74	3,645	3,421	4,007	3,974
75 to 79	885	2,206	991	2,423
80 +	1,145	2,595	1,293	2,871
Total	12,849	12,641	15,345	15,767

Source: projections by Will Dunning Inc.

These estimated requirements for condominiums are much lower than recent levels of production (which are reviewed in the next section). However, as was discussed in the Introduction, in the section “Demographics Is Not Always Destiny”, the choice rates for condominiums have very likely increased during recent years, for a number of quite strong reasons. Even if there is some decay in the forcefulness of those factors during the coming years, we should expect that the estimates shown above represent the low end of potential demand for condominiums: we should not be surprised if future production of new condominiums exceeds these estimates.

In the Toronto area, less than 10% of new condominiums are constructed as purpose-built rentals. However, significant numbers of new condominium units are purchased by investors and are made available as rentals. In consequence, the actual distribution of new condominiums between owner-occupancy and renting is unknown[6]. For this analyst, it is expected that during the next two decades more than two-thirds of new condominiums will be owner-occupied condominiums. The remainder will be purpose-built rental projects and investor-owned rented condominiums.

Market Trends and Outlook

The 2011 National Household Survey provides numbers of occupied dwellings by periods of construction. As can be seen in the next table, in the Toronto CMA, during 1996 to 2006, only about one-quarter of new dwellings were condominiums, which was considerably lower than during other periods (for which the shares were close to 40%). This provides our first hint that production of condominiums was less than was required during that period.

Table 6
Occupied Dwelling Units by Estimated Period of Construction, Toronto CMA, as of 2011

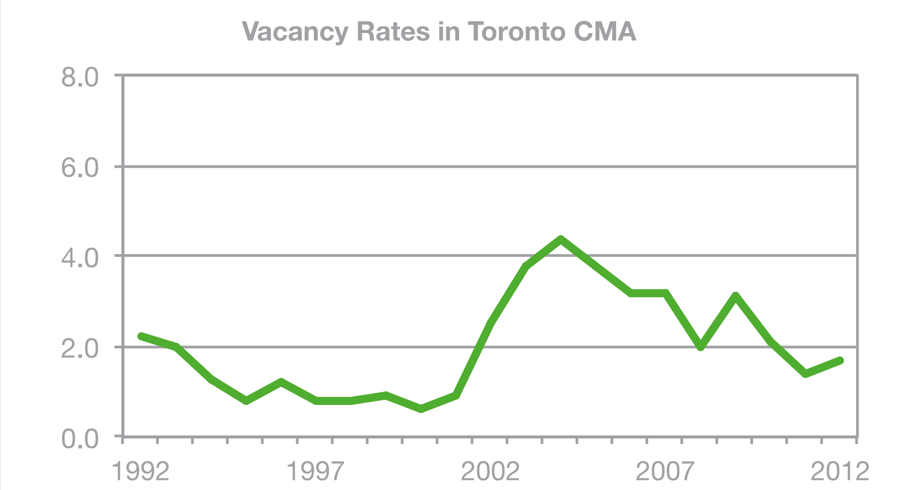
Period of Construction	Occupied Dwelling Units			Condominium Buildings as % of Total for Age Group
	Condominium Buildings	All Other	Total	
1920 or before	34,965	60,025	94,990	37%
1921 to 1945	34,390	71,165	105,555	33%
1946 to 1960	90,370	161,850	252,220	36%
1961 to 1970	128,780	130,690	259,470	50%
1971 to 1980	145,305	154,775	300,080	48%
1981 to 1990	120,205	209,105	329,310	37%
1991 to 1995	42,815	71,535	114,350	37%
1996 to 2000	35,245	110,365	145,610	24%
2001 to 2006	54,760	156,905	211,665	26%
2006 to 2011	67,110	109,335	176,445	38%
Total	753,950	1,235,745	1,989,695	38%

Source: Statistics Canada, 2011 National Household Survey

In addition, data from CMHC shows that vacancy rates in the Toronto area have been relatively low during most of the past 20 years (apart from a high vacancy period that began in 2002). During 1992 to 2012, the vacancy rate averaged just 2.0%.

There was a period of higher vacancy rates beginning in 2002. This can be related to very substantial construction of low-rise dwellings (plus a more modest increase for condominiums), which is illustrated in the next chart. This expansion of housing choice encouraged movement out of rentals and into home ownership. A slowdown of housing production after 2002 has resulted in a tightening of the rental market during the past decade.

6 CMHC provides data on construction of rental and condominiums. But, since large numbers of condominiums are or will be owned by investors and occupied by tenants, analysts have not been able to generate firm estimates of the actual tenures for new condominiums. CMHC also conducts surveys of existing condominiums to estimate occupancy patterns. CMHC estimates that about 23% of condominiums in the Toronto CMA are rentals. But, the CMHC estimates do not always correspond with other “expert opinions”. Newly published statistics from Statistics Canada’s National Household Survey (the partial replacement for the 2011 Census), analyzed by this author, indicate that 27% of condos are tenant-occupied in Toronto. In the newest buildings (constructed during 2006 to 2011) the rental share is 36%.



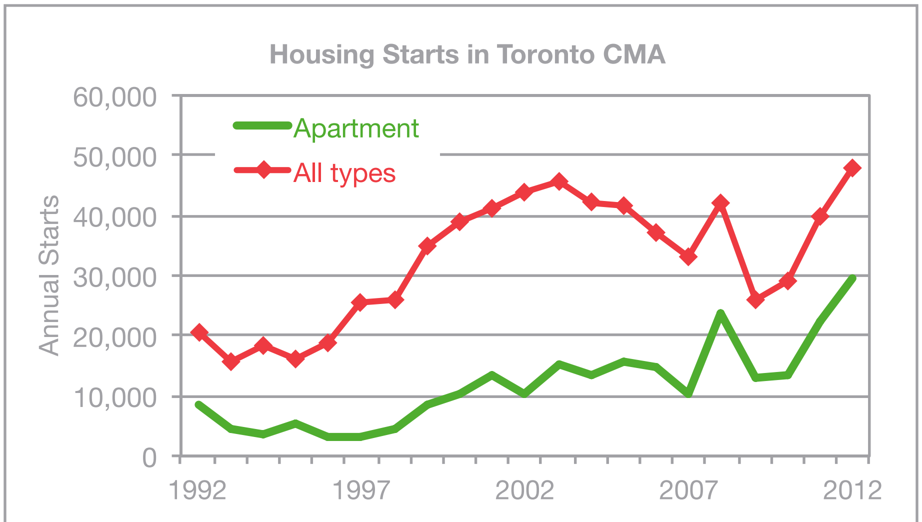
Source: Canada Mortgage and Housing Corporation

Two datasets (on periods of construction of condominiums and vacancy rates) suggest (but do not prove) that there has been some under-production of condominiums during the past two decades.

So, we can see an important underlying cause for the expansion of condominium construction during the past few years: the evolving vacancy rate data indicates that the Toronto area is experiencing a worsening housing shortage; a period of production in excess of the demographic requirements is needed in order to restore balance between the supply and demand of housing.

The chart above illustrates CMHC data on housing starts for condominiums and for all types of units. This chart shows that during the first half of the period, starts of condominiums were far below the level (about 15,000 units) that we now equate with the annual need. During 2003 to 2007, annual starts of condominiums were close to the requirement. It was only during 2008 to 2012 that the requirement was exceeded: during those five years, the average was about 20,400 condominium starts per year, about one-third above the so-called demographic need. During the 21 years shown in this chart, condominium starts in the Toronto CMA averaged just 11,800 units per year.

CMHC forecasts that the vacancy rate for Toronto CMA will be 1.5% in 2013 and 1.7% in 2014, similar to the rate of 1.7% for October 2012. I would argue that the expectation of continued tightness in the vacancy rate is a further indication that supplies of new condominiums are filling a shortage from the past, rather than creating a surplus. If too many new condominiums become available to be occupied, then increased numbers of tenants would be able to leave the conventional purpose-built rental market to live in the condominiums, and the vacancy rate would rise.



Source: Canada Mortgage and Housing Corporation

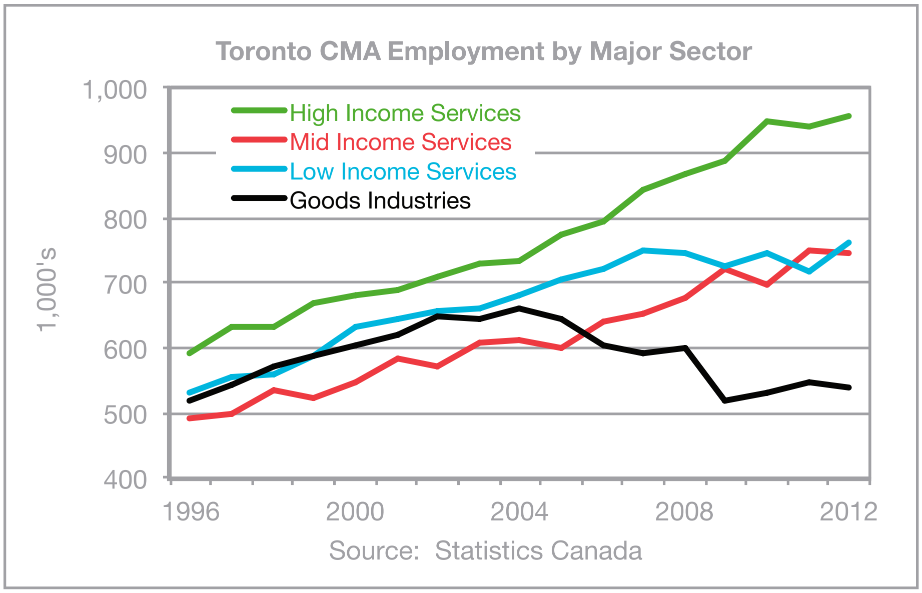
Factors that are influencing condominium starts in the Toronto CMA include:

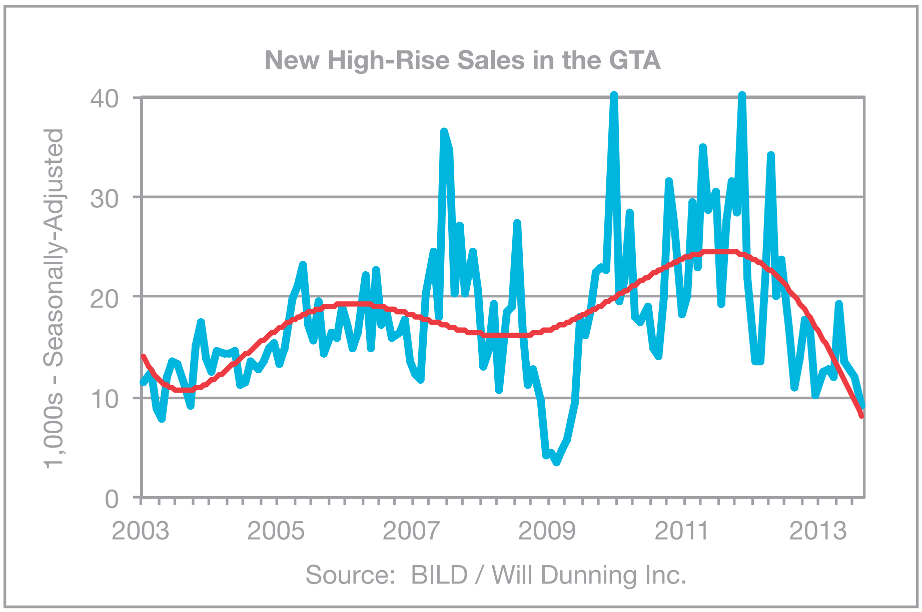
- Job creation is always a critical factor. I confess that I am not confident about the accuracy of the recent data: during the past two years, the data shows some unusually large rises. The data is generated by a sample survey and like all sample surveys (such as political opinion polls) it has a "margin-of-error"; there are also some periods in the recent data for which reductions are shown, and those also seem unlikely. Considering this data along with other economic indicators, I believe that during the past two or three years jobs have been created at about the same rate as the population has grown, which would support a mid-range level of activity close to the demographic requirement.

- Exceptionally low interest rates (as was illustrated in a chart in the Introduction) have encouraged additional buying by tenants who can now afford to be owners, and by investors. While mortgage interest rates rose during the past summer, they remain exceptionally low in historic terms. However, affordability has been diminished and it should be expected that there will be some reduction of activity.

Source: Statistics Canada

- Adding the neutral influence of moderate job creation plus the very powerful effect of exceptionally low interest rates, along with housing shortages, it makes sense that activity in the condominium market has exceeded the estimated demographic requirement.





- A further consideration is the types and locations of jobs that are created. The chart to the right illustrates quite clearly that in the recent past the strongest job creation has been within "high income service industries". These jobs are frequently located in the central core and therefore this job creation is highly supportive of the condominium market.

Looking forward, we can expect that condominium activity will slow. In part, this will be due to the rise in mortgage interest rates that occurred during the late spring. Condominium activity will also be influenced by the policy change that was made by the federal government, during the summer of 2012, which eliminated mortgage insurance for mortgages that have amortization periods longer than 25 years.

In the Toronto area we are fortunate to have data on new home sales (which is collected by a private company – RealNet Inc. – and published by the Building Industry and Land Development Association, or "BILD"). This data shows that in the wake of the changed mortgage insurance policies, sales of new condominiums have fallen sharply from the peak level seen during 2010 to mid-2012.

This sharp drop for sales has set the stage for an eventual drop in housing starts of a corresponding magnitude. Unless the recent sales trend is soon reversed, we should expect that by about the middle of 2014, the starts rate for condominiums will have fallen to less than 15,000 units – in other words, at or below the demographic requirement.

A further consideration is that the pending drop in construction is setting the stage for lower vacancy rates for 2016 and beyond.

Price Trends

Several sets of data exist on house price trends, including:

- Average prices as published by the Canadian Real Estate Association and local real estate boards.
- More detailed data on resale markets, such as median prices by house type (published by the Toronto Real Estate Board).

- House price indexes (which aim to measure changes in prices for “constant quality homes”). These include Statistics Canada’s New House Price Index, a House Price Index published by Teranet, as well as two newer HPI projects that are published by the Canadian Real Estate Association and Brookfield RPS.

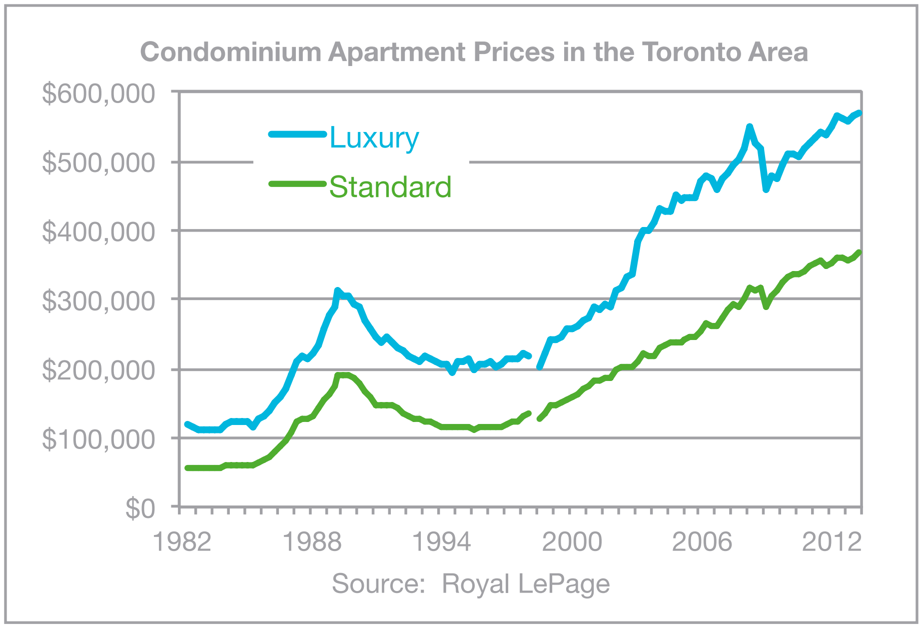
All of these sources of price data have strengths and weaknesses.

For this exercise, I am relying on the Royal LePage House Price Survey – and not just because Royal LePage has sponsored this research project. This data set has several advantages for this project:

- The dataset has existed for a long period, supporting analysis that starts as of 1982.

- It truly seeks to measure prices for constant quality homes (other indexes that seek to use constant quality concepts have potential problems dealing with the impact of renovations); data sources that rely on average prices (or median prices) have a problem that the quality of the housing inventory is improving over time, and therefore increases are partly due to real price growth but also partly due to changes in quality. The Royal LePage survey is more likely than other datasets to provide estimates of real changes.

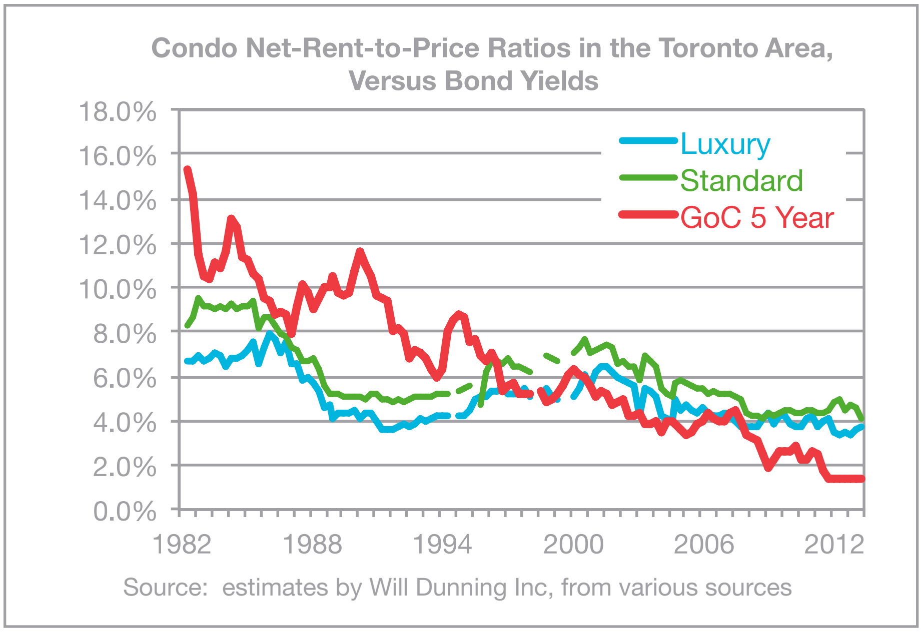
- The Royal LePage survey provides estimated rents for the same types of housing. In some recent discussions, house price trends have been compared to rents. But, these comparisons use two different housing forms: average prices from resale markets versus average rents for “purpose-built” condominiums. This is an apples-to-oranges comparison that has potential to be misleading. Moreover, a comparison of house prices versus condominium rents is bedeviled by rising quality of homes whereas the data on rents reflects a largely unchanged (and perhaps even deteriorating) quality for condominiums. If we want to analyze prices in relation to rents, the Royal LePage survey provides apples-to-apples data.



Over the three-decade period illustrated in the chart to the right, the value of luxury condominiums in the Toronto area has increased at an average rate of 5.2% per year; for standard condominiums, the average rate of increase has been 6.1% per year. The rates of increase have slowed: over the past five years, the average annual rates are 1.7% for luxury condominiums and 3.7% for standard condominiums[7]. These estimated growth rates are slower than the growth rate for the median prices of condominiums (as reported by the Toronto Real Estate Board): the median price data shows a more rapid rise of 4.9% per year for the same period. I suggest that the more rapid rises in the TREB data are due to increases in the quality of the housing inventory. The conclusion is that on a true “constant quality basis”, price growth in the Toronto condominium market has been moderate during the past half-decade.

Data from the Royal LePage survey can be used to calculate a ratio of rents to prices. In the chart to the right, estimated realty tax costs

7 Because of volatility in the data for 2008, calculations of changes over the past five years have been smoothed using moving averages, for all three of the CMAs.



have been deducted from the rents; in addition, as a rough estimation of condominium fees, a further deduction has been made, which is twice as large as the estimated taxes. The calculations provide rough approximations of "net rents", which can then be compared to the property values.

The chart shows the ratios of "net rents" to values, for the two property types. These ratios are akin to the "capitalization rates" (or "cap rates") that are used in real estate investment analysis. In addition, bond yields are shown (for 5-year Government of Canada bonds). For the first half of the period, there is not

an obvious relationship between bond yields and these cap rates. But, in the second half of the period, it appears that the cap rates have tended to follow the bond yields. Moreover, there is a gap between the cap rates and bond yields, of about two percentage points for much of the past decade. This is what I would expect to see in a well-functioning market!

Finally, in the last year of the data, the cap rates did not follow a further drop of bond yields – in other words, for much of the past decade, prices have been highly influenced by movements in interest rates, but in the last year, prices did not follow. In consequence, the gap between bond yields and the cap rate has gotten wider. This means that the current level of condominium prices in the Toronto area has room to accommodate the recent and potential future rises in interest rates.

This analysis of cap rates does not apply just for investors and investments in the condominium market. The people who are owner-occupants of condominiums have made choices between owning and renting. This data indicates that in making the choice to own they have paid prices at which there is a financial advantage to own rather than to rent.

To sum up this discussion:

- Falling interest rates have created “affordability space”, or room for condominium prices to increase.
- In a competitive marketplace, prices have increased to an extent that has largely consumed this affordability space.
- Prices are now at a level at which it is still advantageous to own rather than to rent (for those whose situations enable them to qualify for mortgage financing).
- Moreover, at current price levels, there is room to accommodate some increases in mortgage rates and still sustain an advantage for owning over renting.

The Royal LePage price data (as analyzed by this author, and shown in the next table) indicates that condominium prices have increased at rates similar to those for single-family homes, whether looked at for periods of the past 5, 10, 20, or 30 years, and even the past year.

Table 7
Price Trends for Single-Family Homes Versus Condominiums, Annual Rates of Increase, Toronto Area

Time Period	Occupied Dwelling Units	
	Single-Family Homes (1)	Condominiums (2)
Past Year	0.8%	0.7%
Past 5 Years	3.6%	2.4%
Past 10 Years	4.9%	4.0%
Past 20 Years	5.9%	5.1%
Past 30 Years	5.9%	5.7%

Source: Will Dunning Inc, using data from Royal LePage House Price Survey
Notes: (1) single-family homes includes “Executive Detached Two-Storey” and “Standard Two-Storey”
(2) condominiums includes “Luxury Condominium” and “Standard Condominium”

Montreal CMA

Demographic Estimates

Similar to the projections for Toronto CMA, the Montreal projections assume that during the coming two decades, the share of Canada's total population growth will be reduced, because resource-producing areas of the country will receive higher shares of in-migration.

For 2011 to 2021, the requirement is estimated at about 14,400 new dwelling units per year; for 2021 to 2031, there would be a drop, to about 11,750 units per year.

These total housing requirements are allocated to the different housing forms in two scenarios.

- In the first scenario in which housing choice rates are assumed to be unchanged, the requirement for condominiums is estimated at 8,200 units per year during 2011 to 2021 and 6,400 units per year during 2021 to 2031. For 2011 to 2031, condominiums would represent 56% of the total housing requirement in the Montreal CMA.
- In the second scenario, with a very gradual shift of housing choice rates towards condominiums, the requirement for condominiums is estimated at 10,000 units per year during 2011 to 2021 and 8,400 units per year during 2021 to 2031. During 2011 to 2031, condominium would account for 71% of total housing requirements.

The table on the next page allocates the requirements for condominiums by age group.

As was seen for the Toronto area, during the current decade a large share of housing requirements is for the late working age and retirement groups (due to the large size of the baby boom generation); during the next decade, the baby boom generation, and therefore the largest amount of demand, will increasingly be in the retirement age groups. There will also be strong demand during the current 10-year period from the "echo generation", which is now in the early working ages (25 to 34 years); in the next decade, the echo generation will be in the 35 to 44 age group.

During the current decade:

- For young working age adults, the requirement will be divided between owned and rented condominiums.
- For late working age and retired adults, it should be expected that an increasing share of the condominium requirement will be for owner-occupied units.

In the Montreal area, an increasing share of new apartments are being built as condominiums (during 2010 to 2012, the average was 79% condominium, along with 16% for purpose-built rentals, and a handful as co-operatives). This recent trend, along with the demographic (age) structure in the projections, implies that in the coming years large majorities of the new apartments will be owner-occupied condominiums. There will be some need for rentals (either purpose-built by corporations or investment funds, or purchased by investors in the condominium market).

Table 8
Annual Requirements for Condominiums, by Age Group, Montreal CMA

Age Group	1st Scenario – Stable Choice Rates		2nd Scenario – Gradual Shift to Condominiums	
	2011-2021	2021-2031	2011-2021	2021-2031
15 to 24	-355	566	-299	641
25 to 34	3,044	-713	3,372	-437
35 to 44	746	2,508	1,077	2,973
45 to 54	-2,079	653	-1,801	997
55 to 64	1,801	-2,268	2,148	-2,070
65 to 74	2,883	1,942	3,159	2,287
75 to 79	1,043	1,344	1,136	1,484
80 +	1,111	2,350	1,234	2,561
Total	8,193	6,381	10,026	8,436

Source: projections by Will Dunning Inc.

Recent levels of production (which are reviewed in the next section) have been much greater than these estimated requirements. However, as was discussed in the Introduction, in the section “Demographics Is Not Always Destiny”, the “choice rates” for condominiums have very likely increased during recent years.

As was concluded for Toronto, even if there is some decay in the forcefulness of those factors during the coming years, we should expect that the estimates shown above represent the low end of potential demand for condominiums: we should not be surprised if future production of new condominiums exceeds these estimates.

Market Trends and Outlook

Data from the 2011 National Household Survey illustrates estimated periods of housing construction for the Montreal CMA. As can be seen in the next table, during 1991 to 2006, the share of condominiums was about 40%, considerably lower than the long-term average of 50%.

Table 9
Occupied Dwelling Units by Estimated Period of Construction, Montreal CMA, as of 2011

Period of Construction	Occupied Dwelling Units			Condominium Buildings as % of Total for Age Group
	Condominium Buildings	All Other	Total	
1920 or before	46,415	32,295	78,710	59%
1921 to 1945	60,260	41,740	102,000	59%
1946 to 1960	136,230	142,350	278,580	49%
1961 to 1970	162,990	122,015	285,005	57%
1971 to 1980	118,415	135,385	253,800	47%
1981 to 1990	118,815	129,250	248,065	48%
1991 to 1995	35,365	55,405	90,770	39%
1996 to 2000	23,945	41,730	65,675	36%
2001 to 2006	42,760	59,330	102,090	42%
2006 to 2011	54,970	53,620	108,590	51%
Total	800,175	813,115	1,613,290	50%

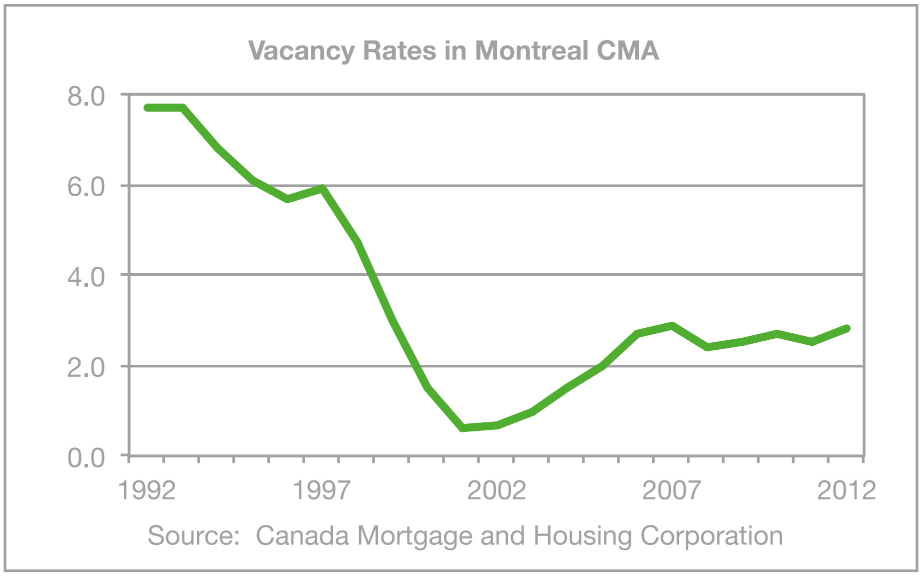
Source: Statistics Canada, 2011 National Household Survey

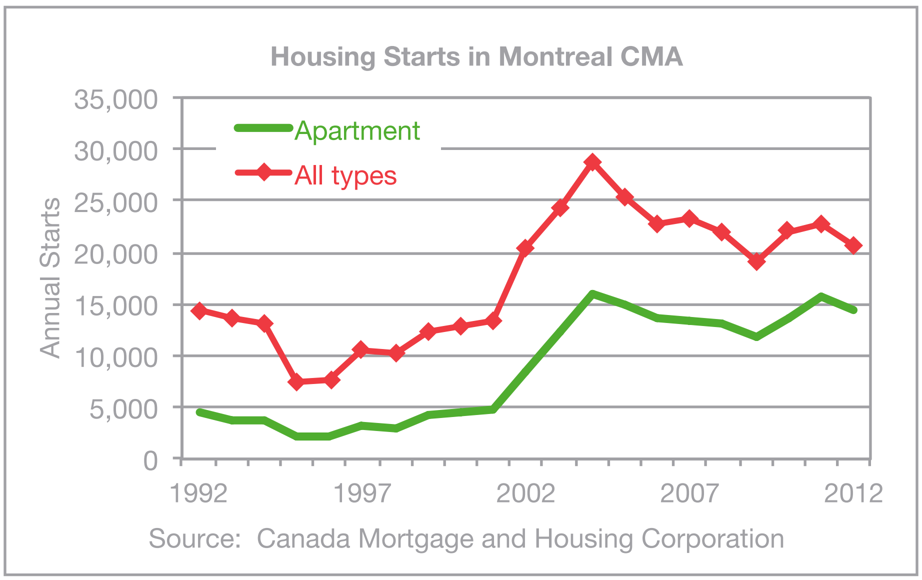
Data from CMHC shows that vacancy rates in the Montreal area were very high during the 1990s, indicating that there was most likely a long period of excess production of condominiums (which appears to be confirmed by the data in the table above). Production was reduced during the 1990s, which then allowed vacancy rates to fall quite substantially. Vacancy rates eventually reached critically low levels. During the 2000s there was some increase in condominium production, which has allowed vacancy rates to approach healthy levels.

The next chart uses CMHC data on housing starts for condominiums and for all types of units. This data confirms that during the first half of the period, starts of condominiums were quite low, and far below the level (perhaps 8,000 to 10,000 units per year) that we now equate with the annual need. During 2003 to 2012, annual starts of condominiums have been higher than the "demographic requirement" most of the time, but as was implied in the vacancy rate data, the production has not exceeded the real level of demand. The Montreal data confirms that there has been an evolving shift of consumer preferences towards condominiums.

CMHC forecasts that the vacancy rate for Montreal CMA will fall marginally, from 2.8% in 2012 to 2.7% in 2013 and 2.5% in 2014. I would argue that the CMHC forecasts provide a further indication that supplies of new condominiums are in line with the needs of the population.

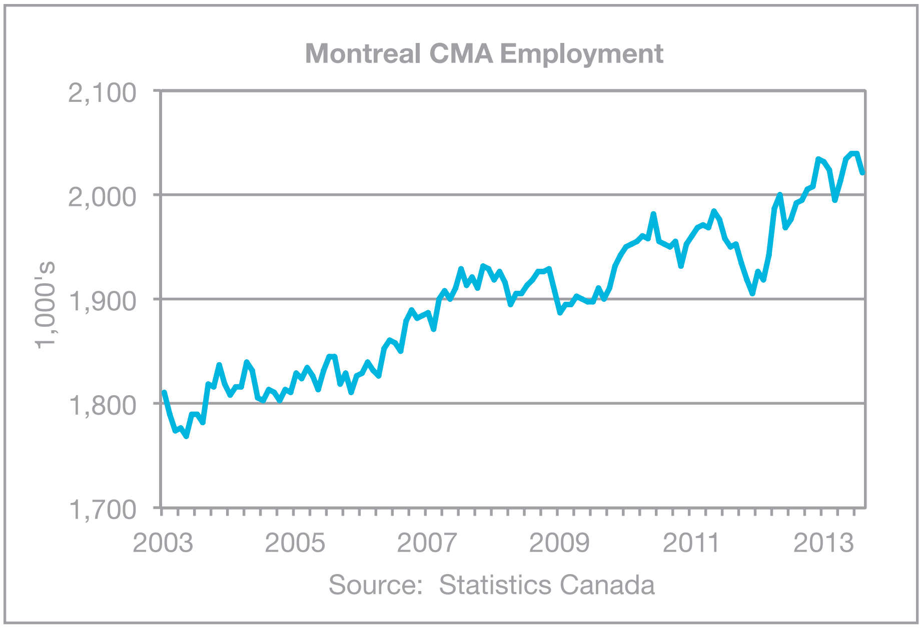
Factors that are influencing condominium starts in the Montreal CMA include:





- The data on employment is highly erratic and clearly suffers from "sampling errors" that make this data very difficult to use. Most of the gyrations in the reported data show characteristics that I associate with "data artifacts" (erroneous estimates). This includes the large drop seen in late 2011 and the subsequent rebound. The most recent data is ambiguous, due to the wide month-to-month variations. There may have been a moderate rate of job creation during the past year (perhaps 1.5%).

- Resale market data hints at a slowing economy: during the past year, sales in the Montreal area were 11% lower than a year earlier. This is partly due to the change in mortgage insurance



policies, but the drop in Montreal is larger than for Canada as a whole (7%), suggesting that consumer confidence has weakened.

- The exceptionally low interest rates have encouraged movement from renting into ownership, as well as investment buying. The recent rise in interest rates should be expected to dampen activity.

- In Montreal, job creation has been similar for the three subsectors of services; employment has fallen for the goods-producing sector. This

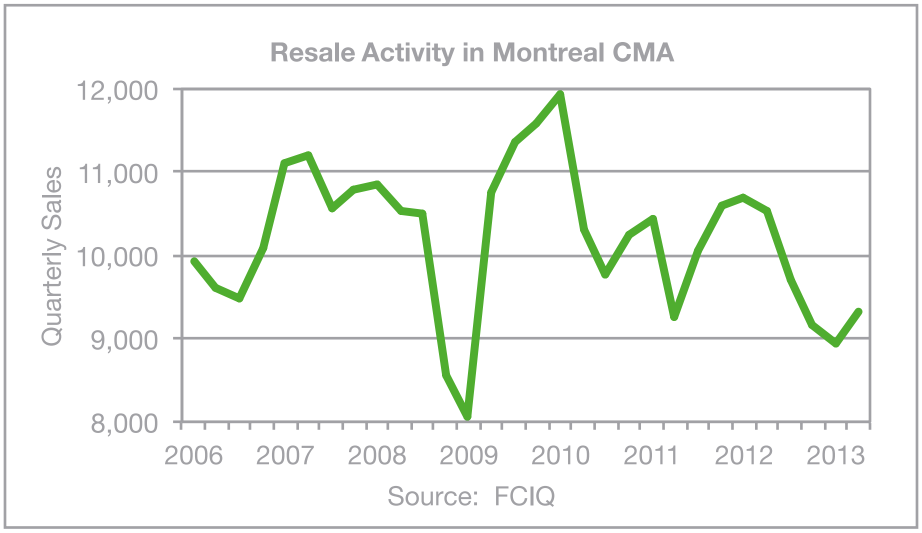
pattern is a neutral factor for the condominium market.

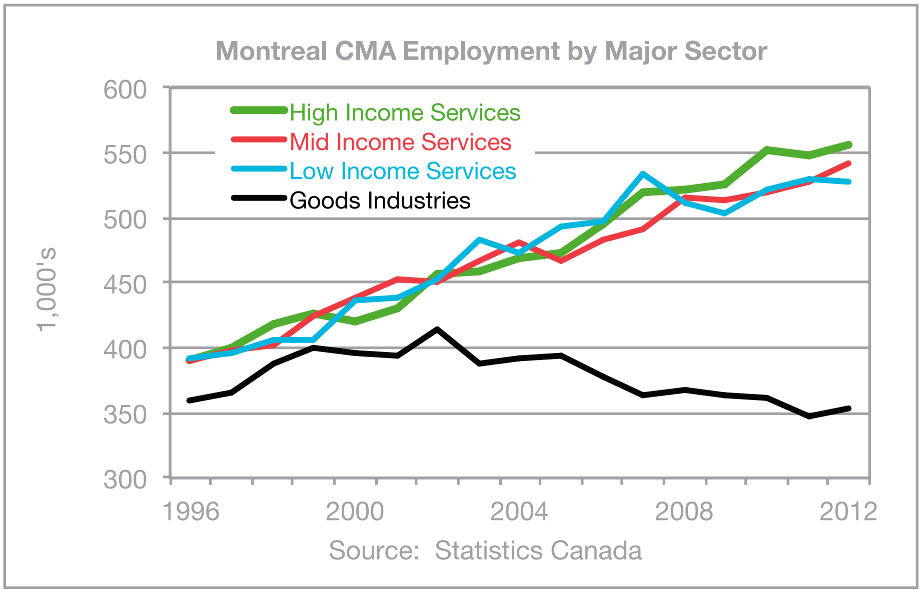
- We do not have data on new home sales for the Montreal area. Based on the Toronto experience, it is likely that the federal policy change that took effect last summer will reduce housing starts, although we can have no certainty about the extent of the slowdown.

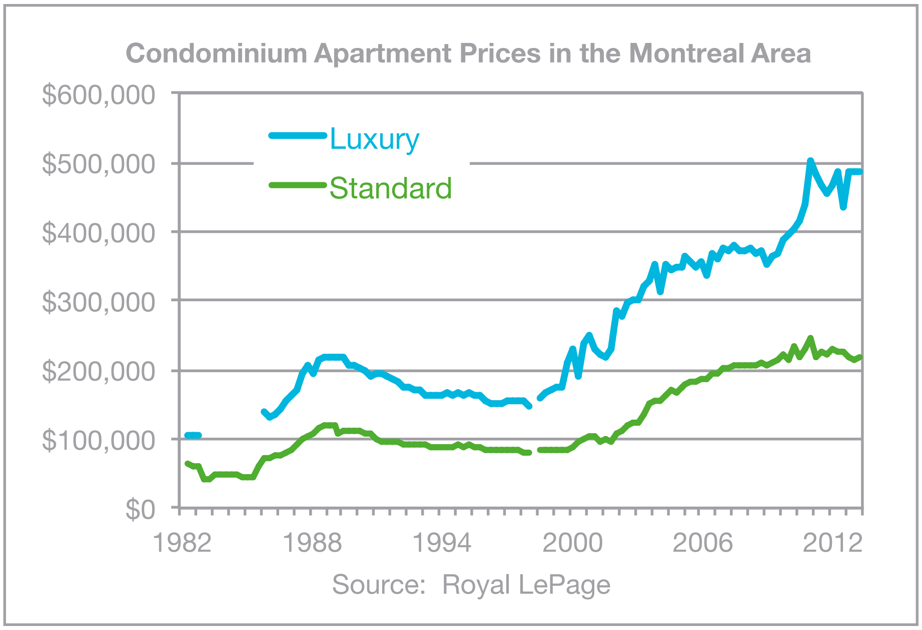
In combination, these factors are mildly discouraging for the housing market outlook in the Montreal area. We should expect that construction of condominiums will slow, by as much as a third compared to the rates seen during 2008 to 2012. For the second half of 2014 and into 2015, condominium starts might be at an annual rate of about 9,000 to 9,500, which would be similar to the demographic requirement.

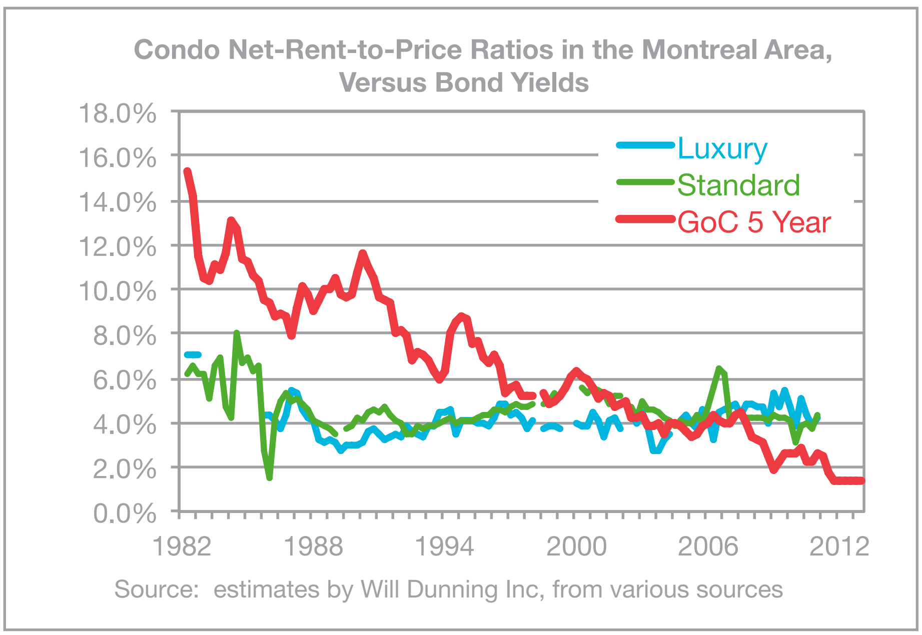
Price Trends

Over the three-decade period illustrated in the chart to the right, the value of luxury condominiums in the Montreal area has increased at an average rate of 5.1% per year; for standard condominiums, the average









rate of increase has been 4.0% per year.

Over the past five years, the average annual rates are 4.8% for luxury condominiums but just 1.3% for standard condominiums. The most recent data suggests that price growth has essentially ceased in the Montreal condominium market.

Estimates of rent-to-price ratios cannot be calculated for the entire period, because the real estate professionals who develop the estimates are not always able to estimate rents in the relatively small and fluid investment market[8]. For the periods for which the ratios are available, the net-rent-to-price ratio has been roughly flat and unaffected by falling interest rates: in other words, rents are changing more-or-less in parallel with prices. The available data suggests that there is currently a large gap between the rent ratio and interest rates, which leaves a substantial amount of space for any interest rate increases to be accommodated.

The Royal LePage price data (as analyzed by this author) indicates that condominium prices have increased at rates quite similar to the rates for single-family homes, whether looked at for periods of 5, 10, 20, or 30 years. There is, however, a divergence during the most recent year, as condominium prices have fallen slightly while prices have increased slightly for single family homes.

8 CMHC estimates that about 11% of condominiums in Montreal CMA are rentals, which is about one-half of the CMHC estimates of shares seen in the Toronto CMA (about 23%) and Vancouver CMA (about 26%). However, the data from the 2011 National Household Survey, analyzed by this author, indicates that in Montreal CMA 31% of condominiums are tenant-occupied. Among the newest buildings (constructed during 2006 to 2011), the tenant share is estimated at 21%, far below the shares for new buildings in Toronto (36%) and Vancouver (40%).

Table 10 Price Trends for Single-Family Homes Versus Condominiums, Annual Rates of Increase, Montreal Area		
Time Period	Occupied Dwelling Units	
	Single-Family Homes (1)	Condominiums (2)
Past Year	1.4%	-1.7%
Past 5 Years	3.5%	3.7%
Past 10 Years	5.5%	5.4%
Past 20 Years	5.1%	5.5%
Past 30 Years	5.0%	5.3%

Source: Will Dunning Inc, using data from Royal LePage House Price Survey
Notes: (1) single-family homes includes “Executive Detached Two-Storey” and “Standard Two-Storey”
(2) condominiums includes “Luxury Condominium” and “Standard Condominium”

Vancouver CMA

Demographic Estimates

As in Toronto and Montreal, the Vancouver projections assume that during the coming two decades, the share of Canada's total population growth will be reduced, because resource-producing areas of the country will receive higher shares of in-migration.

For 2011 to 2021, the requirement is estimated at about 15,000 new dwelling units per year; for 2021 to 2031, there would be a small reduction, to about 14,800 units per year. These total housing requirements are allocated to the different housing forms in two scenarios.

- In the first scenario in which housing choice rates are assumed to be stable, the requirement for condominiums is estimated at 5,800 units per year during 2011 to 2021, rising to 6,000 units per year during 2021 to 2031. For 2011 to 2031, condominiums would represent 40% of the total housing requirement in the Vancouver CMA.

- In the second scenario, with a very gradual shift of housing choice rates towards condominiums, the requirement for condominiums is estimated at 7,000 units per year during 2011 to 2021 and 7,400 units per year during 2021 to 2031. During 2011 to 2031, condominiums would account for 48% of total housing requirements.

The table below allocates the requirements for condominiums by age group. As has been seen elsewhere, the housing requirements are dominated by the baby boom generation: the largest amount of demand will increasingly be in the retirement ages. During the current 10-year period there is also a large share of potential demand within the 25 to 44 age groups, which shifts into the 35 to 54 group during the subsequent decade.

In the Vancouver area, only about 10% of new condominiums are constructed as purpose-built rentals. However, substantial numbers of

9 The data from the 2011 National Household Survey indicates that 31% of condominiums are tenant-occupied. Among the newest buildings (constructed during 2006 to 2011, the tenant share is estimated at 40%.

condominiums are purchased by investors and made available as rentals. CMHC estimates that about one-quarter of the entire condominium inventory is occupied on a rental basis.[9]

Table 11
Annual Requirements for Condominiums, by Age Group, Vancouver CMA

Age Group	1st Scenario – Stable Choice Rates		2nd Scenario – Gradual Shift to Condominiums	
	2011-2021	2021-2031	2011-2021	2021-2031
15 to 24	11	400	40	443
25 to 34	990	196	1,153	359
35 to 44	1,181	918	1,407	1,190
45 to 54	-188	1,045	13	1,334
55 to 64	1,148	-207	1,367	-22
65 to 74	1,818	1,166	1,987	1,392
75 to 79	463	1,147	512	1,253
80 +	425	1,347	489	1,479
Total	5,848	6,013	6,969	7,427

Source: projections by Will Dunning Inc.

These estimated requirements for condominiums are lower than recent levels of production (which are reviewed in the next section). However, as was discussed at length in the Introduction, in the section "Demographics Is Not Always Destiny", the "choice rates" for condominiums have very likely increased during recent years.

As has been concluded for Toronto and Montreal, even if there is some decay in the forcefulness of those factors during the coming years, we should expect that the estimates shown above represent the low end of potential demand for condominiums: we should not be surprised if future production of new condominiums exceeds these estimates.

Market Trends and Outlook

Data from the 2011 national Household Survey shows strong levels of condominium production for the Vancouver CMA. During the 15 years up to 2011, 46% of new dwellings were condominiums exceeding the long-term average of 40%.

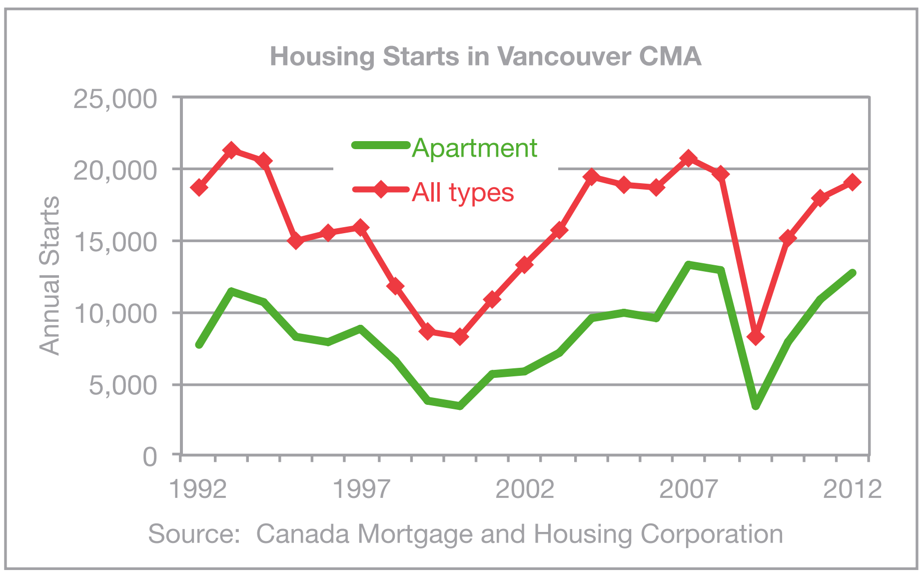
Table 12
Occupied Dwelling Units by Estimated Period of Construction, Vancouver CMA, as of 2011

Period of Construction	Occupied Dwelling Units			Condominium Buildings as % of Total for Age Group
	Condominium Buildings	All Other	Total	
1920 or before	9,480	14,130	23,610	40%
1921 to 1945	8,550	28,615	37,165	23%
1946 to 1960	23,790	57,650	81,440	29%
1961 to 1970	42,020	57,710	99,730	42%
1971 to 1980	60,665	91,410	152,075	40%
1981 to 1990	61,065	101,560	162,625	38%
1991 to 1995	39,350	52,990	92,340	43%
1996 to 2000	37,575	41,715	79,290	47%
2001 to 2006	29,920	44,625	74,545	40%
2006 to 2011	44,800	43,700	88,500	51%
Total	357,220	534,085	891,305	40%

Source: Statistics Canada, 2011 National Household Survey

CMHC data shows that vacancy rates have historically been low in Vancouver, at less than 2% most of the time during the past two decades. While condominium production has been strong, vacancy data indicates that there has not been excess supply. In addition, starts of low-rise dwellings have been low (about 6,400 units per year during the past five years, well below the demographic requirement of 8,000 units per year). The shortfall of low-rise activity is due to constraints on land supply. The consequence is that in total there is a shortfall of housing production. This has resulted in low vacancy rates and rapid escalation of prices.

In Toronto and Montreal, starts of condominiums have been much stronger in recent times than previously. Vancouver, on the other hand, has a long history of strong condominium activity. A high share of this activity has been condominiums (for the time period shown in this chart, 83% of condominium starts were condominiums). The long-lasting shift towards condominiums is due, to some extent, to shortages of low-rise housing: in that case, it is not clear that the shift to condominiums is totally voluntary on the part of consumers.



CMHC forecasts that the vacancy rate for Vancouver CMA will fall from 1.8% in 2012 to 1.5% in 2013 and 1.2% in 2014. I would argue that the expectation of a further tightening of the rental market is evidence of, firstly, a continuation of a severe housing shortage in the area and, secondly, that supplies of new condominiums are not exceeding the needs of the population.

Factors that are influencing condominium starts in the Vancouver CMA include:

- As has been seen elsewhere, the data on employment is erratic from month-to-month, making it very difficult to draw any conclusions about the state of the local economy. That said, the published data shows a long period (about a year and a half) during which there has been little or no job creation, and this hints strongly that there is a weakened economic backdrop that will impair the housing market.
- Resale market activity is consistent with an economic slowdown. Sales began to fall early in 2012, a half year before the mortgage insurance policy change that took effect during

the summer. As can be seen in the chart, sales have fallen far below prior levels. There has been a strong rebound in sales during the past four months (up to August) but it strikes this analyst as too soon to draw conclusions about trends and outlook for the housing market, or about local economic trends or movements in consumer confidence.

- Interpretation of housing market trends and of the implications for the broader economy is further clouded by data on house prices. Data on average prices indicates that prices fell sharply beginning about two years ago but have largely recovered during the past year. Other data sources (such as the Teranet House Price Index) suggest that Vancouver house prices have been roughly flat during the past two years (especially if the data is adjusted for normal seasonal variations).

- All of this having been said, and uncertainty having been acknowledged, the Vancouver housing market is clearly in a state of transition, from an environment of very rapid growth of house prices to a period in which price growth will provide much less impetus to housing demand (the "investment motive" to buy homes is being diminished) and to job creation (the "wealth effect" that boosts consumer confidence and encourages spending is rapidly fading, which may be a partial explanation for the lack of job growth in recent times).

- As has occurred elsewhere, exceptionally low interest rates have been a strongly positive factor for the condominium market, encouraging buying by tenants and investors. The rise in interest rates that occurred earlier this summer, added to the changes that have just been discussed, can be expected to dampen housing activity.

- Looking at the employment data by major sector, patterns are different in Vancouver than in Toronto: for much of the time shown in this chart, growth rates have been roughly equal across the four sectors. In itself this is neutral for the condominium market. However, the most recent data suggests that - if the slowdown of job creation is a reality - then there may have

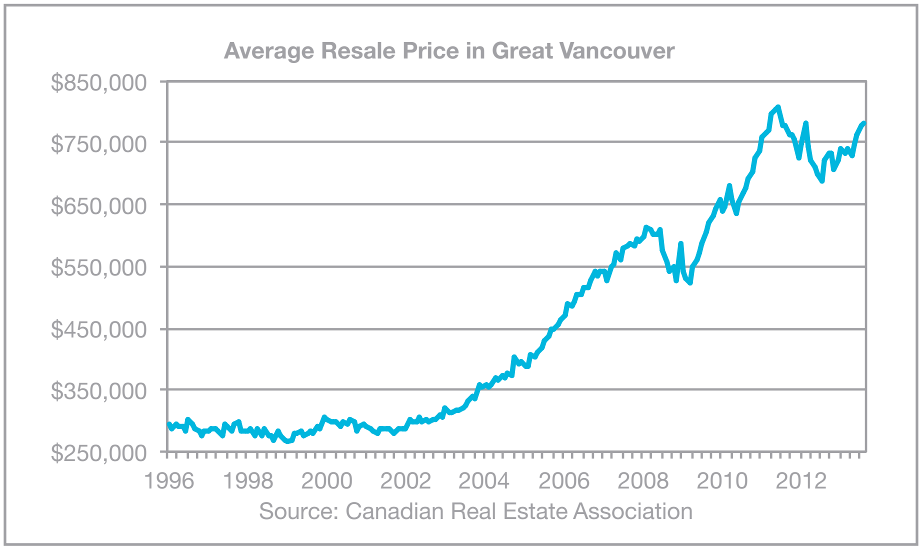
been weakening in high income services. If this is correct and if it is sustained, there would be negative implications for the condominium market.

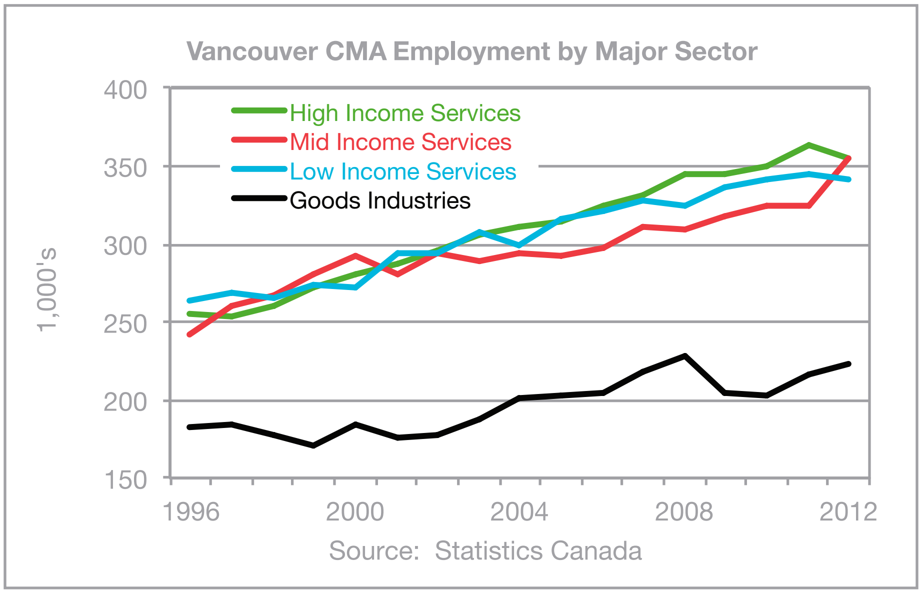
- We do not have data on new home sales for the Vancouver area. Based on the Toronto experience, it appears likely that the federal policy change that took effect last summer will have adverse consequences for future condominium housing starts.

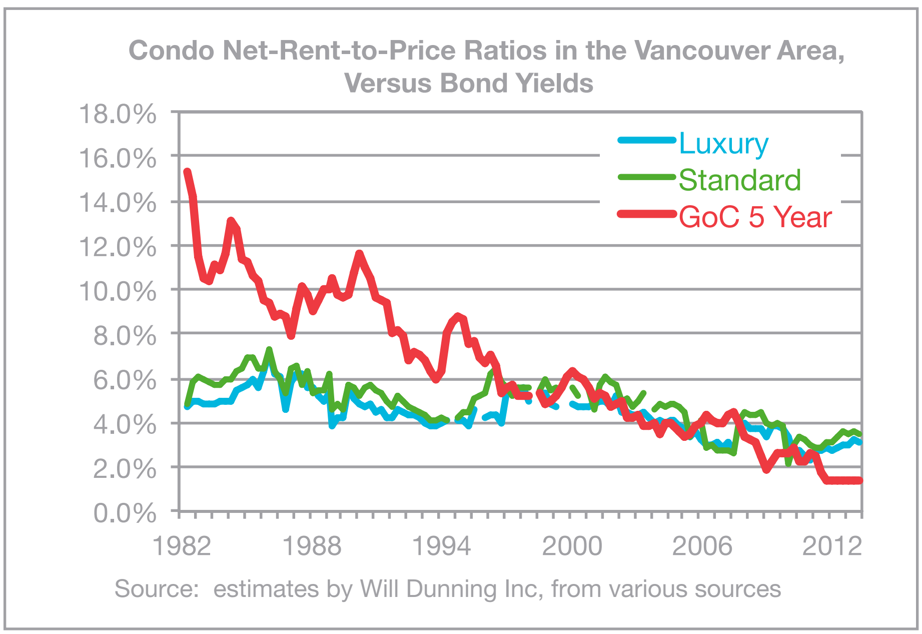
In combination, these factors amount to a substantial negative change for the housing market outlook in the Vancouver area. We should expect that construction of condominiums will slow during the coming year, easily by one-third compared to the rates seen during 2008 to 2012, and possibly by as much as one-half. For the second half of 2014 and into 2015, condominium starts might be at an annual rate of about 5,000 to 6,000, which would be lower than the estimated demographic requirement (about 6,000 to 7,000 units per year).

Price Trends

Over the three-decade period illustrated in the chart to the right, the value of luxury condominiums in







the Vancouver area has increased at an average rate of 3.9% per year; for standard condominiums, the average rate of increase has been 4.5% per year.

Prices grew extremely quickly during 2002 until about the middle of 2006, but since then price changes have been more gradual. Over the past five years, the average annual rates are 0.6% for luxury condominiums and 0.5% for standard condominiums.

The ratio of net condo rents to prices was roughly flat during the first half of the period shown, even though bond yields were falling. During the second half, the ratios did follow bond yields downwards and for much of that time, the ratios were roughly equal to the bond yields. A financial markets analyst might conclude that buyers of condominiums were assessing them as “zero risk” or else that they were counting on growth in the property values to provide rates of return that exceeded bond yields.

The past year has provided a reminder that property is not a zero-risk investment, as values have stopped rising and data for the first half of 2013 suggests some slippage. Meanwhile, rents have continued to rise. Thus, while interest rates have fallen during the past year, the net rent ratios have increased. This has opened substantial gaps (about two percentage points) between the rent ratios and bond yields. The implication of this is that towards the end of the period, condominium values were at realistic levels, relative to the rents for equivalent accommodations and giving consideration to interest rates. There is now some room to accommodate rises in interest rates.

The Royal LePage price data (as analyzed by this author) indicates that rates of price increase for condominiums have tended to be less rapid than in the single-family sector. This may be the result of the on-going supply constraints in the low-rise housing sector, whereas the condominium market is better-supplied and therefore that market is more competitive.

Table 13 Price Trends for Single-Family Homes Versus Condominiums, Annual Rates of Increase, Vancouver Area		
Time Period	Occupied Dwelling Units	
	Single-Family Homes (1)	Condominiums (2)
Past Year	-3.0%	-4.8%
Past 5 Years	3.2%	0.9%
Past 10 Years	8.0%	7.5%
Past 20 Years	5.7%	4.5%
Past 30 Years	6.0%	4.4%

Source: Will Dunning Inc, using data from Royal LePage House Price Survey
Notes: (1) single-family homes includes “Executive Detached Two-Storey” and “Standard Two-Storey”
(2) condominiums includes “Luxury Condominium” and “Standard Condominium”