Longevity of Condo Infrastructure

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CIA Insight Statement

Executive summary

Condominiums, also known as condos, are a popular housing option. They are usually cheaper to buy than a house, are a good first investment in real estate and can help densify an urban area. Condos are not a new concept and have been around for decades, but are the risks of owning one truly understood by current and future owners and other stakeholders?

This statement explores some of the risks associated with condos and why owners, buyers, governments, municipalities, condo managers, board members and other stakeholders should better understand those risks. Building on a 2022 CIA research paper on condos,[1] this statement reiterates the importance of taking care of Canada's condominium infrastructure. While all provinces have different legislation that regulate the condo industry, this statement aims to better outline current and emerging risks in condos in general and how to properly forecast and mitigate them. Governments can also play an important role by introducing legislation to protect current and future condo owners and other stakeholders.

1 Côté J-S and Juffs J. 2022. *Longevity of Infrastructure – Reserving and Risk Management in Condominium Maintenance in Canada*. Canadian Institute of Actuaries.

Introduction

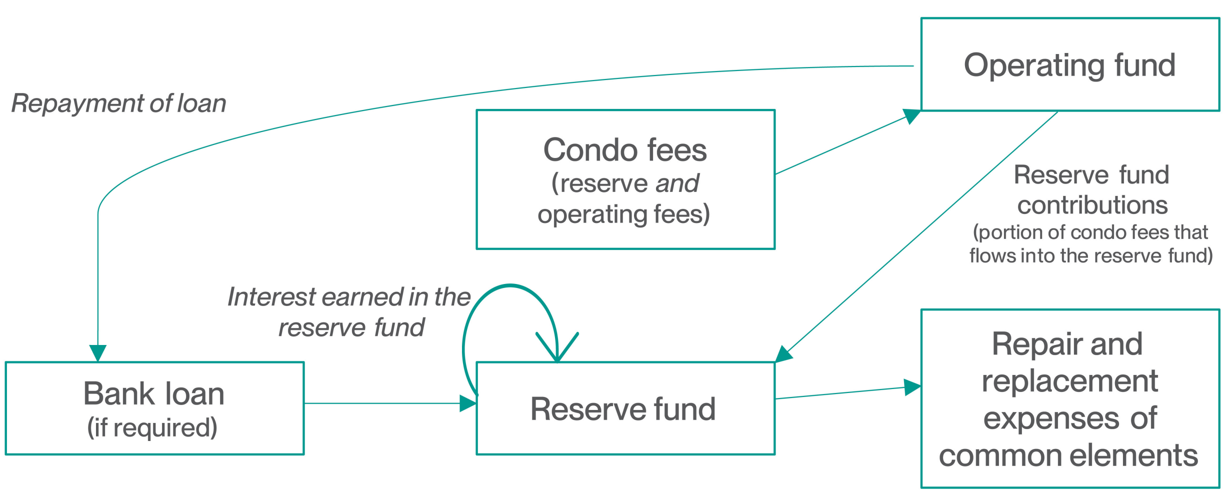
While condos are not new, their popularity has surged in the past two decades. Owning a condo represents many people's biggest life investment, yet they might not be well equipped to fully understand the value of this asset or its associated risks. These risks require appropriate oversight and management to ensure that condo residents can live in safe and well-maintained homes and that the value of their investment is protected over the long term.

As with any investment, it is the responsibility of the condo owner to understand the risks of ownership and to evaluate them based on their personal risk tolerance. Even if an owner performs their due diligence at the time of purchase, they cannot know if an unknown special assessment will be required in the years following the acquisition. Condo owners need to evaluate their tolerance to risk in the same way investors in the stock market must evaluate their threshold for risk exposure in the various investment decisions they make.

The mechanics of condo fees and reserve funds

Condo fees and reserve funds play critical roles in condo living. The mechanics of a reserve fund and its important purpose is examined at length in the CIA's condo research paper. Figure 1, a simplified version of the original from the paper, provides an illustration of the path condo fees take before ending up in a reserve fund, as well as how the fees are ultimately used.[2]

Figure 1: Mechanics of a reserve fund



2 Côté J-S and Juffs J. 2022. "Figure 1: Mechanics of a reserve fund." [Longevity of Infrastructure – Reserving and Risk Management in Condominium Maintenance in Canada](). Canadian Institute of Actuaries. p 12.

Condo fees: These fees are for both the operating fund and the reserve fund. The adequacy of condo fees depends on the accuracy of the annual budget for the operating fund and the recommendation of the reserve fund study for the reserve fund contribution.

Operating fund: Any condo building requires minimal annual maintenance or expenses for the common areas such as electricity, cleaning services, condo managers services, etc. This annual cost will be paid through the operating fund, with part of the condo fees dedicated for that purpose.

Reserve fund: A reserve fund is meant to account for major building maintenance and repair expenses in the future. The adequacy of the contribution towards the reserve fund is dependent on a proper reserve fund study carried out by qualified, authorized professionals, together with the effectiveness of the condo board in keeping the fund at the appropriate level and replenishing it when necessary.

Repair and replacement expenses of common elements: Ultimately, the reserve fund is to be used to repair and maintain common elements, which include mostly all parts outside a private condo unit, such as the pool, the indoor garage, the inside carpets, repainting the corridor walls, etc. These repair and replacement expenses are planned according to a reserve fund study; therefore, they are not in a yearly budget but rather planned and funded over a longer period through the reserve fund.

Special assessments: Unexpected damage to properties does happen, and special assessments are sometimes used to pay for these urgent and unforeseen repairs. Special assessments can also be used to replenish or top up a condo's reserve fund if it has been depleted by early withdrawals or more expensive repairs, or shown to be inadequate by a revised reserve fund study.

The risks of condo ownership can mount as the building ages, especially if preventative maintenance is neglected and known vulnerabilities go unaddressed. While freehold homeowners face these risks on an individual level, condo buyers become part of a wider community of owners who together make up the condo corporation. By focusing too narrowly on their own units, condo owners can miss the bigger risk picture that includes their stake in the financial health of the corporation and overall condition of the property. This, in turn, can lead them to inaccurately assess the investment potential of their purchase. Real estate is often considered an inherently safe financial bet, but any property that ages without proper maintenance and appropriate contribution toward the reserve fund can lose its value over time.

With more properties being built and more units placed on the market, many more people will be acquiring condos. If these properties' reserve funds are not properly managed, owners may face hardship in the future as they are required to pay special assessment fees to cover the cost of unforeseen repairs to common elements. Private homeowners face risks on an individual level, but condo owners live as a community and must share all common expenses.

Aging condo infrastructure

The popularity of condos has grown significantly in the past couple of decades. In Toronto alone, 186,100 condo units have been registered between 2002 and 2018.[3]

As these condos age, their infrastructure will deteriorate and require repairs and maintenance. This is a normal, expected part of any form of property ownership. The issue arises when we consider the recent boom in the construction of condos. These condos will likely experience very similar issues concurrently since they were built at roughly the same time. If they all experience unexpected issues in parallel, the cost of maintenance will rise across the industry, potentially causing a rift in the condo market. Additionally, the materials and labour required to repair and replace the infrastructure will be required at around the same time, increasing prices as demand surges. The solution to this is proper planning and the use of experts.

Condo board members should be encouraged to consult experts in the maintenance of a building to help them make decisions. Experts can help prevent unexpected, reactive maintenance costs by recommending adequate preventative maintenance measures.

Preventative maintenance comes at a cost in the short term but saves money in the long term. Proper planning must also ensure there is enough money set aside to cover these costs, as well as any unforeseen, reactive maintenance costs. These are issues that can be addressed by risk management experts, including actuaries, who routinely deal with these types of problems in estimating future costs for insurance companies and pension funds.

Insurance market for condos

Unforeseen events covered by insurance can be another part of the risk of living in a condo building. The availability and price of condo insurance coverage may not be risk factors that condo buyers consider before buying a condominium. Adverse effects of improper management of condo reserve

3 City of Toronto, Planning Research and Analytics, City Planning Division. May 2020. *Condominiums: Two Decades of New Housing*. Figure 2. Accessed March 2023.

funds can negatively affect insurance availability and the cost of the premium the condo corporation is required to pay, which in turn could lead to unexpected special assessments for condo owners.

The mechanics of condo insurance policies

There are two types of insurance policies related to condominium properties: the condo corporation's policy and the condo owner's policy. A condo corporation's policy generally covers the main building structure and common areas, while an owner's policy covers private unit improvements, loss assessments, belongings and other personal property and liabilities. The payee of the condo corporation's policy is the condo corporation, which is funded by condo fees as part of the operating fund. The payee of the condo owner's policy is the individual unit owner. In the case of the condo corporation's policy, any increases in policy premium need to be absorbed by the condo fees directed toward the operating fund. This rise in expenses may lead to or exacerbate shortfalls in the operating budget, delaying important repairs and thus increasing the likelihood of a special assessment.

Condo insurance premiums

Condo insurance premium calculations can be complex. Generally, insurance claim experience has an effect on both the specific insured building and the condo industry as a whole. The higher the claim frequency and severity the condo industry suffers, the higher the premium insurers will demand to meet their internal target rate of return. The market cycle that started in Canada around 2019 has pushed policy premiums higher as well as lowered coverage by means of higher deductibles.

Market hardening in 2019, as demonstrated by renewal rates, went up across the board in commercial property and casualty insurance, and real estate properties experienced higher than average rate increases. According to the Insurance Bureau of Canada, the average renewal rate changes for real estate property was 10.7% in 2019, 11.4% in 2020 and 10.2% in 2021, higher than other selected sectors, including construction, hospitality and retail.[4]

4 Laiken S and Bastaldo D. 2022. *State of the Canadian Commercial Property and Casualty Insurance Market*. Deloitte, commissioned by the Insurance Bureau of Canada.

There are many drivers that lead to higher insurance claim experience in a condo property, some of which can be linked to the ineffectiveness of reserve fund management. Common examples include the following:

- Inadequate maintenance and repairs due to inadequate condo reserve fund planning reduces the effectiveness of protective features. This leads to more frequent or severe claims related to water and fire damage.
- Inflation, supply chain issues and delay in repairs contribute to higher premium as repairs reflect these higher costs than anticipate cost.
- Climate change leads to increases in weather-related insurable claims. According to the Insurance Bureau of Canada, in the last ten years, "Canada has experienced its most costly wildfire, flood, and hailstorm events. Canada had routinely paid out over $1 billion a year in losses relating to extreme weather events, with the record annual natural catastrophe loss in 2016, at the cost of $5.4 billion."[5]

While not all catastrophic claim events impact condos the same way, the increase in extreme weather events can lead to more frequent and severe property damage. Condo properties that are behind in their upkeep are less prepared to manage increased maintenance requirements and may therefore suffer worse property damage than the average newer or better maintained property. Moreover, being behind in upkeep could also lead to higher premiums or deductibles or make insurance more difficult to get even before the worse claims experience arise. Condos with worse than average insurance claim experience will see their insurance premiums impacted negatively.

In some jurisdictions with fewer mandatory regulatory requirements for condo reserve funds and maintenance – such as British Columbia – condo corporations sometimes turn to their insurance policies to cover repairs, as opposed to properly planning for regular and preventive maintenance.[6] In turn, this increased claim frequency leads to higher premiums as well as to less coverage in the form of higher deductibles.

The cumulative effect of these factors experienced in recent years could lead to substantial increases in condo corporations' insurance premiums for years to come. This increase will need to be fully accounted for in the overall condo fees, which may not always be feasible as condo boards are forced to accommodate other factors driving higher fees (e.g., increased costs from routine maintenance and operations, etc.). If future increases in insurance premiums are not fully accounted for in condo fees, they will become an unexpected expense. This may deprive the reserve fund of additional contributions as a greater portion of the overall fees must be allocated to operating expenses or condo owners will be forced to accept the overall increase regardless of their financial capacity.

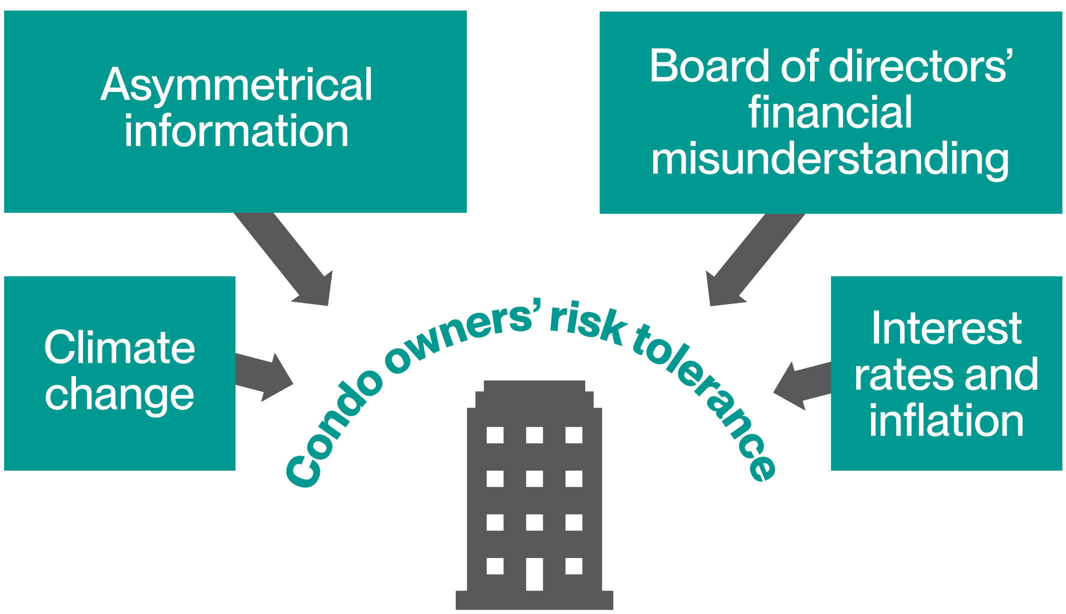
5 Laiken S and Bastaldo D. 2022. *State of the Canadian Commercial Property and Casualty Insurance Market*. Deloitte, commissioned by the Insurance Bureau of Canada.

6 Insurance Bureau of Canada. 2020. *National Commercial Insurance Task Force's Midterm Report*.

Risks to condo owners

Given the serious risks faced by condo owners, it is not surprising that the condo industry is currently under scrutiny by governments working toward better regulation of condo associations and other protections for condo owners. As condo properties become increasingly complex to run, multiple risks will emerge, some of which have already been identified. These risks can arise at the individual as well as the community level. Some are explored in the CIA's condo research paper, which documents cases in which, for example, the actions of boards of directors worsened the financial situation of the condo association, leading to large and unexpected cash outflow from the reserve fund.[7]

In addition to the risks highlighted in the research paper, condo owners in Canada face issues such as climate change-related impacts on properties leading to more frequent repairs and corresponding increases to insurance premiums; financial mismanagement and inappropriate choices by condo boards; asymmetrical information faced by the market; and interest rates and inflation putting pressure on the cost of owning a condo.



Climate change

Climate change has a real impact on condo properties, and one that will become increasingly severe and apparent over time. The effects of climate change – including extreme temperatures and temperature fluctuations, increased flooding, extreme weather events and other climate hazards – are already causing condos to incur damages that have yet to be quantified. Many condo properties

7 Côté J-S and Juffs J. 2022. *Longevity of Infrastructure – Reserving and Risk Management in Condominium Maintenance in Canada*. Canadian Institute of Actuaries.

were not built to withstand certain extreme conditions, which may also accelerate the aging of the infrastructure.

The cost of repairs to common elements has been shown to be increasing faster than both inflation and the average salary. Setting maintenance budgets based on the current state of the climate, and without any margin for adverse deviation, the condo property could suffer even higher costs should common elements start degrading faster than anticipated due to the effects of climate change. This will probably result first in special assessments and then in higher condo fees to compensate for any underfunding patterns based on inaccurate projections of climate-based deterioration.

Climate change will also affect the landscape where we live. As ocean levels rise, condos located near shores are at greater risk of flooding and water damage. This can cause problems for condo owners looking to insure their unit and for the building, as insurance may become unaffordable or unavailable. Cost and availability of condo insurance on the building may have a significant impact on the condo unit owner. Real estate is often, if not always, the biggest investment a person will make over the course of their life. If the value of a condo turns out to be severely impaired and irrecuperable, this cost will be borne by the owner.

Over the past decade, insurers have absorbed seven out of 10 of the worst catastrophic claims in history.[8] What were once catastrophic events are now starting to look more like normal occurrences and standard claims. With higher and more frequent claims, insurers have no choice but to increase premiums or make adjustments such as increasing deductibles to compensate for the increase in the frequency and severity of the claims. In addition to higher condo fees, increased insurance premiums add to the financial burden of owning a condo.

It is difficult to predict how much climate change will impact the cost of condo ownership. Frequent inspections and analysis of wear and tear, studies on the use of sustainable materials and other proactive measures will help improve our understanding of climate-related impacts. Knowing with more accuracy how quickly elements of the property degrade could create a failure model aimed at helping professionals prepare more accurate reserve fund studies to support condo boards in their decision making.

Asymmetrical information

Condo prices are generally driven by market supply and demand. The valuation of a condo can be quite complicated. Aside from the usual factors like location, the age of the building and its upkeep/maintenance, the size of the unit and amenity features, the adequacy of the reserve fund should also be taken into account. Until recently, few potential buyers would include the adequacy of reserve fund

8 Insurance Bureau of Canada, "Severe Weather in 2021 Caused $2.1 Billion in Insured Damage," January 18, 2022. Accessed March 2023.

into the price of the condo. This has started to change due to a few special assessment incidences that made the news with surprise fees ranging from $20,000 to $50,000 or more per condo owner.[9] These headlines demonstrate the importance of maintaining an adequate reserve fund. A building with an underfunded reserve fund should be considered as generating negative equity on the reserve fund component as it fails to account for future liabilities related to the failure to keep the condo property operating safely, effectively and efficiently. Therefore, the valuation of a condo should include an assessment of reserve fund management.

Potential condo buyers do not possess the same level of information that existing owners often have. This creates an unequal playing field between sellers and buyers. Sellers can take advantage of this information and sell the condo at higher price than it is worth. Effectively, late-entry buyers are at risk of carrying the negative equity caused by inadequate management of the reserve fund and the failure to understand its purpose. Over time the market will overcompensate, and buyers will put a big discount on their offering price for condos without an adequate reserve.

So how can one evaluate the adequacy of a reserve fund? This is an extremely complex process even for professionals with financial and actuarial backgrounds. Without a proper benchmark to evaluate the adequacy of a condo's reserve fund, potential buyers are likely to remain at a disadvantage, especially in an aging condo market.

Board of directors' financial misunderstanding

When we think of condos, the risks that first come to mind tend to be water damage, structural deficiency and other issues having to do with the physical condition of the property. One risk that is often overlooked is the financial literacy and skills of the condo board – in other words, their ability to understand the tangible assets they must manage. An inefficient or incompetent board of directors can cause value destruction through inaction or poorly considered action.

9 CTV News Toronto, "Ontario condo owners furious after being hit with $20,000 special assessment," August 11, 2022. Accessed March 2023.

A condo property is a small democracy in which directors are elected during a general assembly. Anyone can present their candidacy and express their view on how they want to lead the operation of the property and how they intend to fulfil their obligations as a director of the condo corporation. Many condo owners do not want to serve on a board of directors, either because they do not want the stress of managing a large budget and property or simply because they lack interest in what happens outside their own private unit. It is not uncommon to see buildings of hundreds of units that are valued at $40 million and up, and each of these requires capable condo owners who are willing to take on the responsibility of effectively managing the whole condo property that comprises their private unit as well.

What exactly should be expected from a director sitting on a board?

1. A director should know enough about accounting that they can understand the financial statement produced each year for the condo corporation and how the budget is managed.
2. A director must avoid conflicts of interest and the appearance of such conflicts.
3. A director should act prudently and use experts in appropriately maintaining the condo property.
4. A director should not prioritize their own interests but rather make decisions that will benefit the largest number of condo owners possible.

From a condo owner's perspective, these are basic requirements to expect from a director. In reality, some condo owners see directors using reserve funds inappropriately, planning on an overly short-term horizon and making uninformed decisions.

As condos are complex entities compared to a freehold homeowner, boards do not always have all the skills and answers to carry out their duties, and they are encouraged to turn to experts from different fields to complement those needs.

At the end of the day, condo owners must:

- Think critically about what makes a director efficient and competent at their job.
- Think about what increases the value of a condo property and what can destroy value.
- Assess how all condo owners' interests can be appropriately represented by the board.

The risk of a deficient board and governance structure can cause the value of a condo property to decrease and potentially even collapse. The board should maintain, if not increase, the value of the property, by providing an adequate governance structure to manage complex current and future operational needs.

Actuaries play an active role in measuring and monitoring risks and often prepare risk dashboards and keep track of key performance indicators to assist clients or company management in deciding on appropriate corrective measures to take when necessary. Risk dashboards and key performance indicators can also be created for the condominium industry as a tool to help boards more effectively manage their risks.

Interest rates and inflation

The Condominium Authority of Ontario recommends funding plans span a period of at least 30 years.[10] Plans that are meant to be managed over such a long period of time are very sensitive to both interest rates and cost inflation.

A condo board can reduce maintenance fees if the reserve fund is invested and earns interest before it needs to be spent. Income earned from investing the reserve fund can be used to reduce regular payments from condo owners.

Interest rates can be volatile in the long run because they are influenced by economic conditions and monetary policy. Rising interest rates can be good news for reserve funds as more income can be earned, but condo boards need to pay close attention to decreasing interest rates. Low interest rates will cause a decrease in the reserve fund's investment income, which can lead to rising fees for condo owners.

A high-inflation environment can also be detrimental to a reserve fund. Unexpected high inflation can cause a board's original projections to become invalid and may require changes to condo fees. Additionally, reserve fund projections will need to be redone to reflect the new high-cost environment. Condo boards should consider doing some stress testing on their reserve fund study such that they can see the impact of how much more contribution they would need under an inflation 1% higher or investment income being 1% lesser than expected for example.

Ultimately, the question is whether income earned from rising interest rates will offset the increase in inflation. The answer is yes. Although interest rates and inflation can be correlational, they do not always match. This became more apparent in 2021 and 2022 as interest rates lagged behind inflation.

We recommend the use of experts to advise condo boards on how to manage the impact of interest rates and inflation on the condo reserve fund. Experts can ensure a steady income from interest rates with a managed level of risk. They can additionally use financial instruments to predict the future cost of goods required for maintenance and repair. Experts can interpret economic forecasts and translate them to specific actions to maintain stability in the reserve fund and maintenance fees.

10 Condominium Authority of Ontario. *CAO Best Practices Guide: Ensuring Healthy Reserve Funds*. 2022. Accessed March 2023.

Risks summary

It is often hard or impossible to eliminate risks, but they can be reduced and mitigated. The table below summarizes some solutions and actions that can be taken to mitigate some of the risks facing condo owners.

Risks	Possible solutions to mitigate these risks
Climate change	▪ Greater awareness of climate change impacts on real estate ▪ Assessment of common elements' life expectancy by gathering data on wear and tear of material ▪ More investment in protection against increasing extreme weather events
Asymmetrical information	▪ Greater board accountability to ensure directors act diligently and make the right decision for all stakeholders, which include current and future owners among others ▪ Greater reliance on experts to ensure proper funding of the condo reserve and regular maintenance of the condo infrastructure with the available resources to minimize special assessments
Board of directors' financial misunderstanding	▪ Use of experts when in need of a financial opinion ▪ Use of governance experts to provide training to the board ▪ Use of experts for preventive maintenance ▪ Greater reliance on experts in reserve fund planning
Interest rates and inflation	▪ Use of experts to take advantage of interest rates and manage inflation

Conclusion

This statement should not encourage the conclusion that condos are a bad investment, but that due diligence is important when buying a condo. The current environment can be challenging given the rise in interest rates, the higher-than-ever inflation and other economic uncertainty. Current and potential condo owners should understand that this type of investment will bring some risk sharing, and that they need to maintain a broad view of the risks they face beyond their own unit to ensure they are secure in their investment. Condo owners should expect to spend time understanding the financial health of the condo association, getting to know their condo community and engaging with their board.

The risks mentioned in this statement are not exhaustive but represent some key issues that can be mitigated right now. Government, actuaries and other experts together with condo owners can all make a difference to the health and longevity of the condo industry.

For each of these risks, possible solutions exist and should be considered to keep our condo infrastructure across Canada healthy. We encourage a broader education system for boards and condo owners to keep them up to date on requirements related to insurance, legislation, finance and other relevant issues. We also recommend stronger government intervention that recognizes the need for this industry to have more oversight to avoid underestimating the future realistic cost of maintaining and repairing these infrastructure as they will inevitably age.

The condo industry has many experts from different backgrounds with real-life accumulated experience and expertise, who have witnessed the difficulties that can result from mismanaged risks, who could be used to develop proper regulations and oversight. These experts should be the source for the creation of new pieces of legislation that could strengthen the condo infrastructure across Canada for the coming century.

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