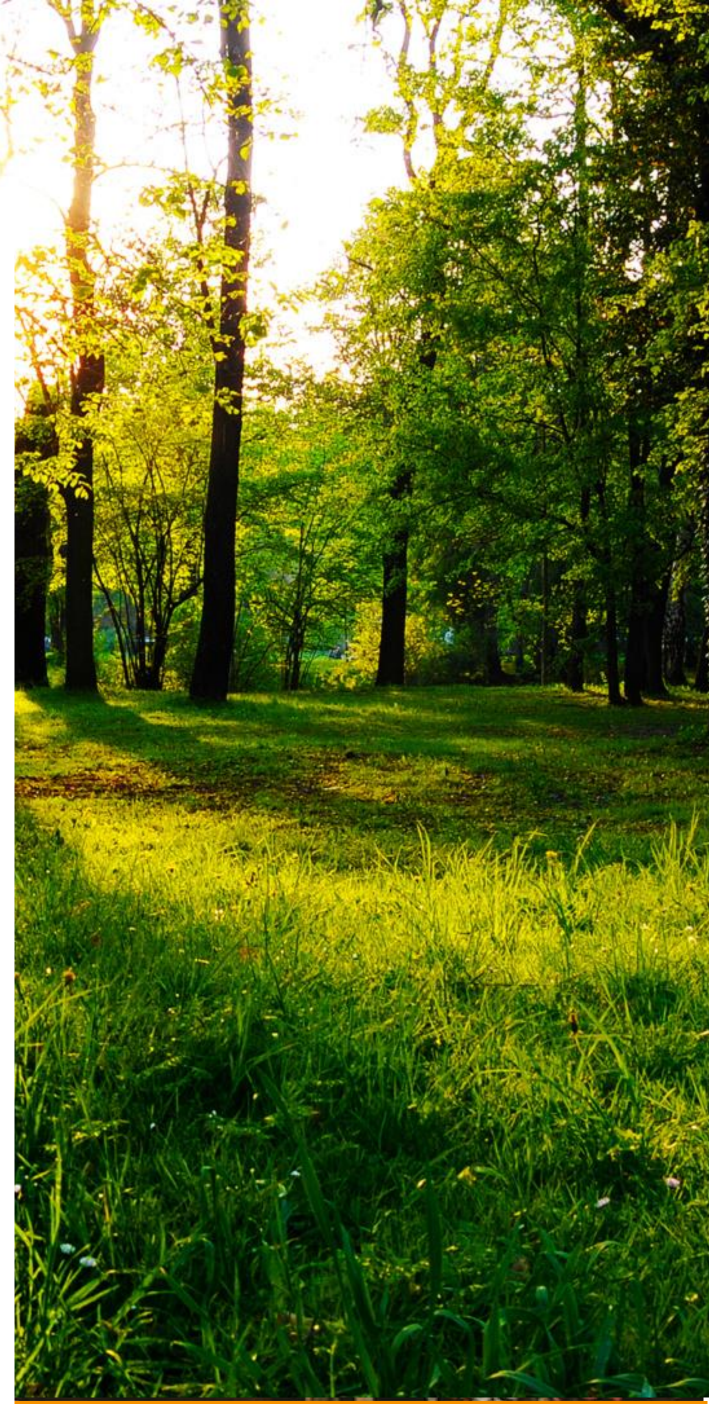

Corona -19 Pandemic Real Estate

Risk Management
JUNE UPDATE

2020 rv1.1

JUNE 16 **2020**

AMGhome +JV

Authored by: Michael Chan

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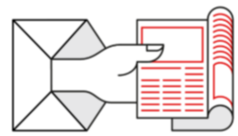
CRISIS PLAN



It is June 15, 2020. The reality has set in for society that it will not be negotiating a way out of this pandemic. The science of the virus is still being discovered. What we do know; it does not care about political narratives or economic models. Decisions need to made based on science and facts rather than convenience and expediency.

With the reopening in both Ontario and Quebec we are seeing signs of progress as number of new infections have not increased significantly. This data, linked with adherence of new social norms of distancing (60-40%) by the public has created this outcome to date. As we look to the summer and into the fall, there are still a multitude of questions in terms of real estate industry (open houses, construction, financing) and tenant/retail/commercial financial landscape.

While the shut down was necessary in containing COVID-19 and buying the province time; to produce equipment, medicines, therapies and an eventual vaccine. With Canada looking at 20% contraction in GDP for this year, the Canadian government is looking at a $150 billion dollars increase in bond issuances to Bank of Canada . These are the facts.

With these uncertain times, we present these series of whitepapers with our research to help protect our tenants, clients, and assets.

> “It is our goal to prevent, protect and preserve the communities where we live and invest.”

This is what we do. *Know, learn, communicate and execute.* Should you have any question in regards to our operations and analysis, do not hesitate to contact us.

Sincerely

Michael Chan B.Arch, PMP, MRAIC
Managing Partner
AMGhome +asset management

Three Principals Analysis

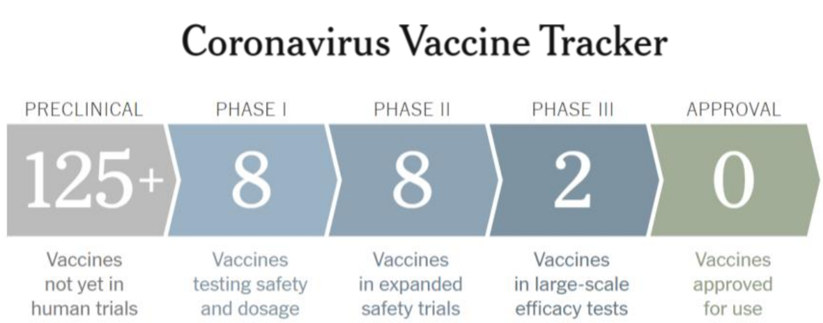
Where are we now?

The three main principals/policies that are being developed and enacted in Canada. Our guidance are based on these policies. This guidance has not changed.

1. ***Social Distancing + Mask (Mitigating Asymptomatic Virus Spread)***
   -Government is looking to retool. Work from home will be enacted across departments till December 2020.

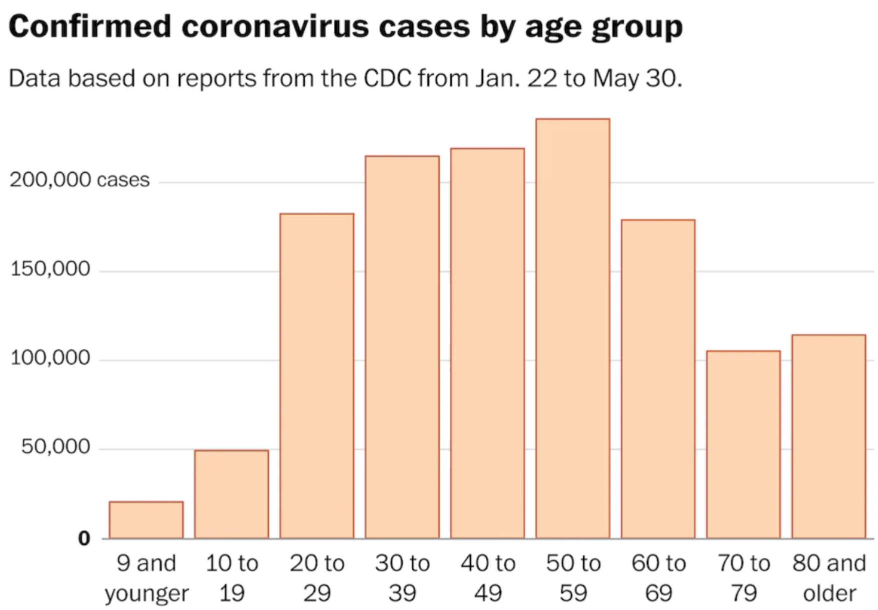
2. ***Surveillance and Isolation*** **(Containing Infection and Contact Tracing)**
   -Improving PPE stock and Testing will be Optimized

3. ***Therapy and Vaccines*** **(Managing better outcomes)**
   -Developing a roll out strategies starting with long term care homes, K-12 schools and post-secondary institutions.

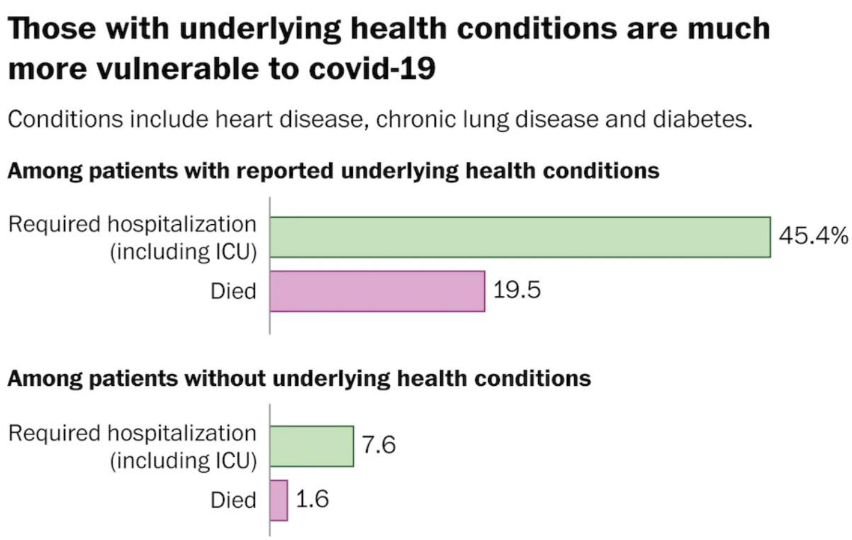


"Social distancing and working/education from home will be enacted into December of 2020."

New Data – CDC



Confirmed coronavirus cases by age group
Data based on reports from the CDC from Jan. 22 to May 30.
200,000 cases
150,000
100,000
50,000
0
9 and younger
10 to 19
20 to 29
30 to 39
40 to 49
50 to 59
60 to 69
70 to 79
80 and older



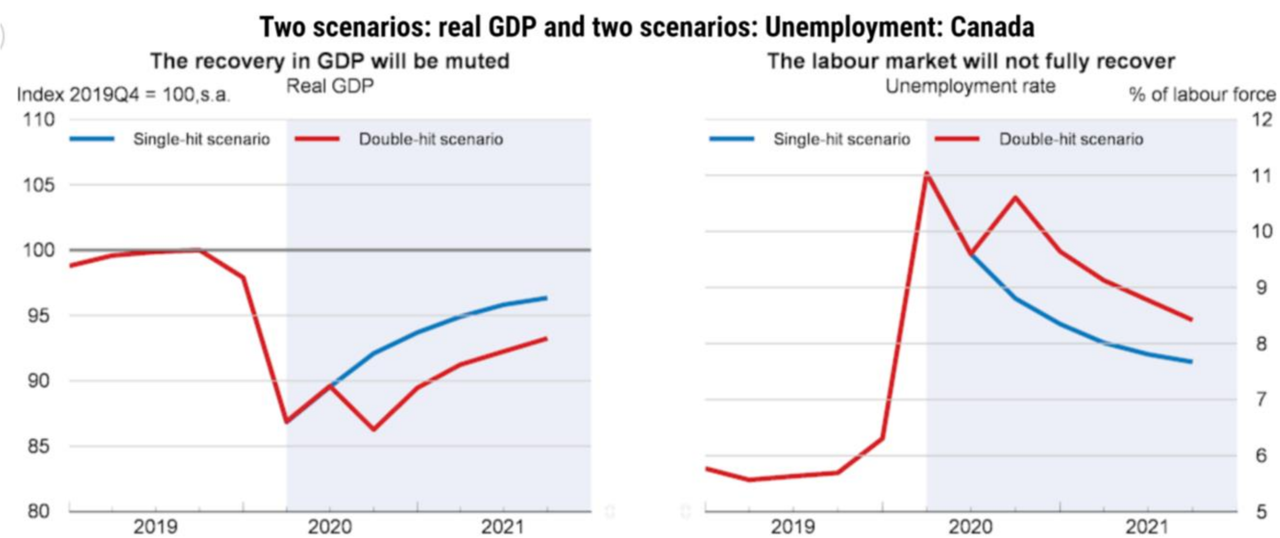
Those with underlying health conditions are much more vulnerable to covid-19
Conditions include heart disease, chronic lung disease and diabetes.
Among patients with reported underlying health conditions
Required hospitalization (including ICU)
45.4%
Died
19.5
Among patients without underlying health conditions
Required hospitalization (including ICU)
7.6
Died
1.6

Recovery in output and employment will take time (CANADA)

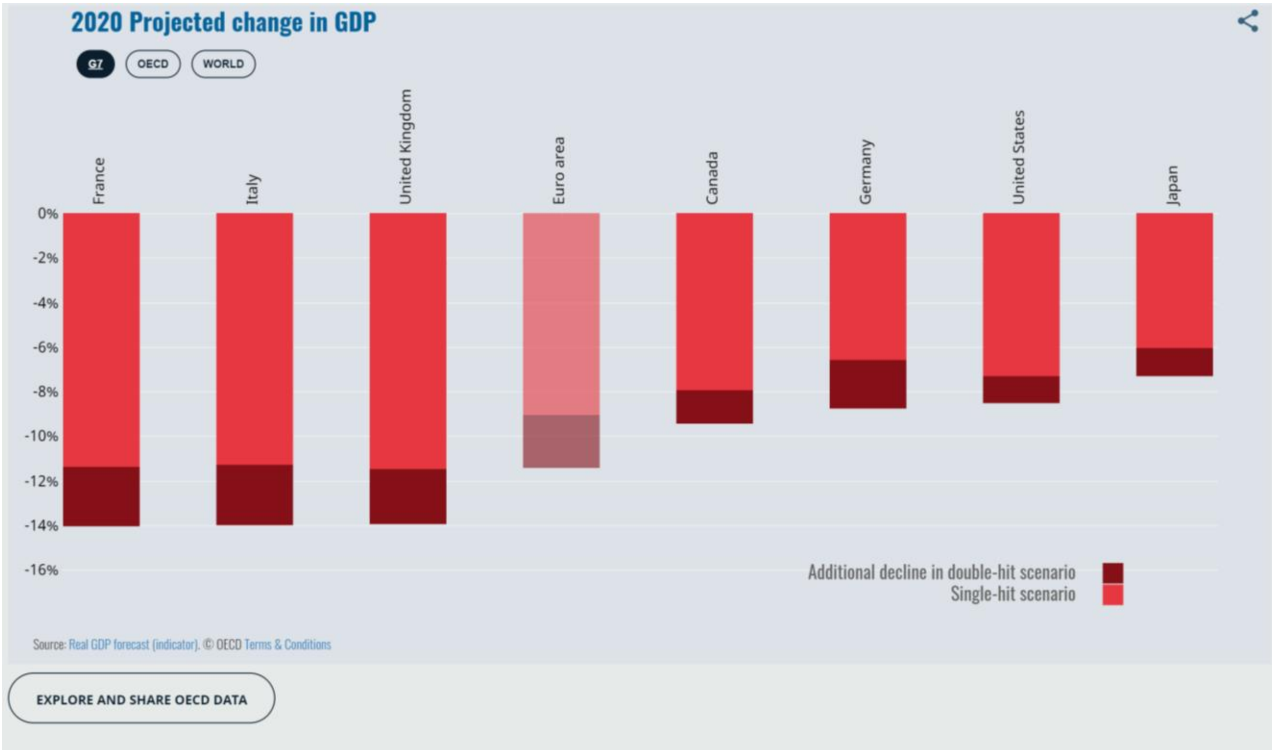
"For the projections, it is estimated that confinement measures, when they were fully operating**, shut down around 20% of economic activity**. Reduced activity in **service sectors, such as wholesale and retail trade and the food and accommodation sector**, accounted for most of the output reduction. Shutdown in the transport equipment sector of manufacturing also played a role, reflecting decisions by major automobile producers to halt production temporarily.

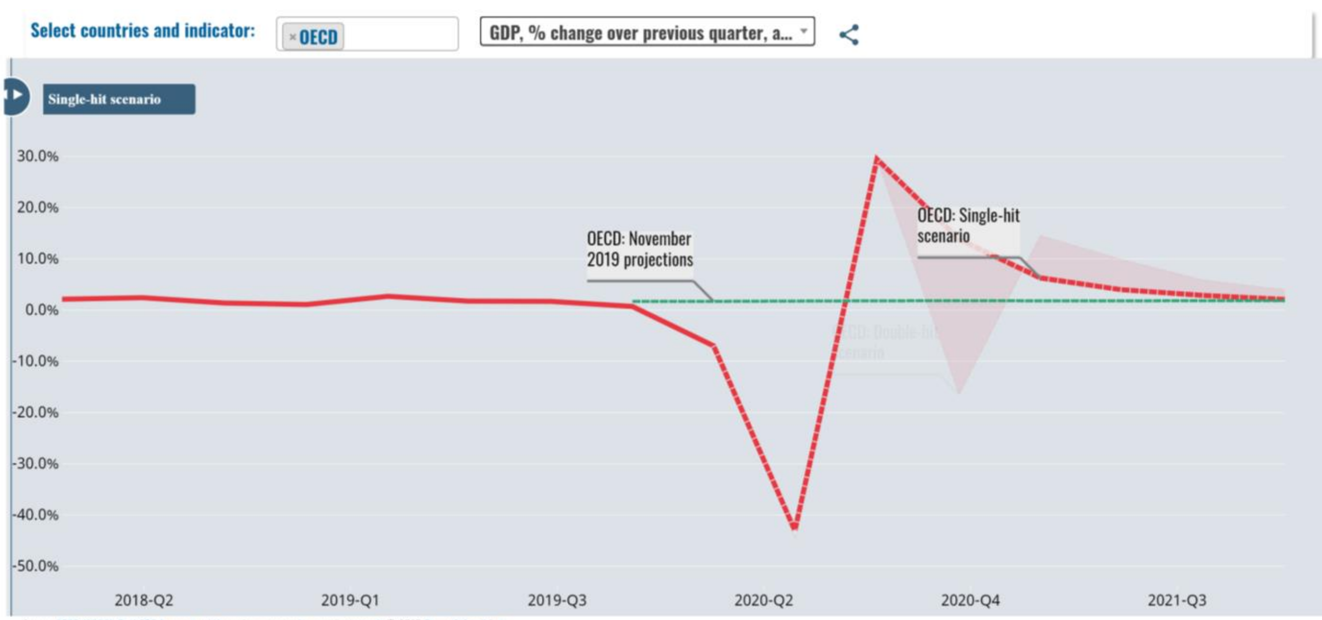
Increased transfers to households and businesses and reduced tax bills, along with monetary and liquidity support, will limit the depth of economic downturn. Nevertheless, the initial recession is deep; sharp falls in household consumption spending, business investment and external demand have taken place. The wage subsidy scheme will help limit employment losses, but unemployment will increase substantially. **Consumer-price inflation is expected to be dented by the downturn. Recovery from the recession will be sluggish**, especially if there are further outbreaks of the virus and related shutdowns. Neither output nor employment levels will have returned to pre-crisis levels by the end of the projection period, especially in the double-hit scenario. The fiscal balance will weaken substantially in 2020, especially in the case of a second shutdown. **Around 40% of the deficit increase** will be due to revenue losses. Balances will partially recover in 2021 due to rebound in tax revenues and the termination of temporary support measures."

\- *OECD 2020 Volume 1*



Source: OECD Economic Outlook 107 database.





Source: OECD (2020), Real GDP forecast and Unemployment rate forecast (indicators). © OECD Terms & Conditions
Divergences for 2019-Q4 are due to data revisions and changes in the base years in country national accounts.

Portfolio Risk Management

1. More Communication
2. Being proactive
3. Learning to be patient

No quick decisions are made in real estate. The result of any actions are measured in weeks and months. We are still gathering information, so we can be proactive. **Learning what information to monitor in this evolving situation is critical.**

Asset Protection - Action

Review of systems

Currently we have resumed maintenance, repairs and operations (MRO). All work is being completed in duel staff isolation. All site work with tenants are scheduled with site work on a vacant 'quarantine' site for five consecutive days thereafter. All protective gear and equipment usage are being enforced.

We see an acceleration within the Ottawa market for recovery. We will be researching and monitoring options, programs, policies as they present themselves in this new economic environment for the next 48 months or longer.

Review of revenue streams

Current Fixed Stream:		Variable Stream:	
Rental Income(s)	*Monitored*	Tenant Service(s)	*Increased*
Insurance	*Monitored*	Employee(s)	*Reduced*
Property Tax		Capital Investment(s)	*Partial*
Utilities	*Monitored*	Lines of Credit(s)	*Increased*

Mortgage and Financial Commitments

Financial Institutions / Mortgage Brokers / Government of Canada

CMHC foresees a 9% to 18% decrease in house prices over the next 12 months.* In order to protect future home buyers and reduce risk, CMHC is changing its underwriting policies for insured mortgages.

Effective July 1, the following changes will apply for new applications for homeowner transactional and portfolio mortgage insurance:

- Limiting the Gross/Total Debt Servicing (GDS/TDS) ratios to our standard requirements of 35/42;
- Establish minimum credit score of 680 for at least one borrower; and
- Non-traditional sources of down payment that increase indebtedness will no longer be treated as equity for insurance purposes.

To further manage the risk to our insurance business, and ultimately taxpayers, during this uncertain time, we have also suspended refinancing for multi-unit mortgage insurance except when the funds are used for repairs or reinvestment in housing. **Consultations have begun on the repositioning of our multi-unit mortgage insurance products**.

***This is a national guideline and do not reflect Ottawa real estate market.**

Interest rates continue to fall as the Bank of Canada has introduced quantitative easing in April (5 billion dollar bond purchase per week until economic recovery). Also the Bank of Canada will not move rate up due to recessionary economic conditions.

The bond purchases are unprecedented -- the central bank didn’t roll out this sort of program even during the financial crisis -- highlighting the severe impact collapsing oil prices and mandated business closures are having on Canada’s economy. The operations will also keep credit flowing at a

time when the government is expected to move ahead with record borrowing in coming months to finance its own stimulus package.

"We are looking a repaying all deferred interest payments at the end of this deferred period."

Tenants

We have maintained contacted all tenants. Spring maintenance that has been deferred is now being scheduled and completed.

We maintain three programs to help them out.

1. Full Rental Deferral (2 months deferral and 12 month payback)

2. Lowered Rent Payments with Partial Deferred Rental Payment Program (6 months deferral + 8 months payback).

3. Tenants on CERB are currently paying reduced rents.

The current rental income loss rate is 13.1%. We have adjusted our projection to: 23% exposure to rental default due to prolonged layoffs and job losses within the tenant base

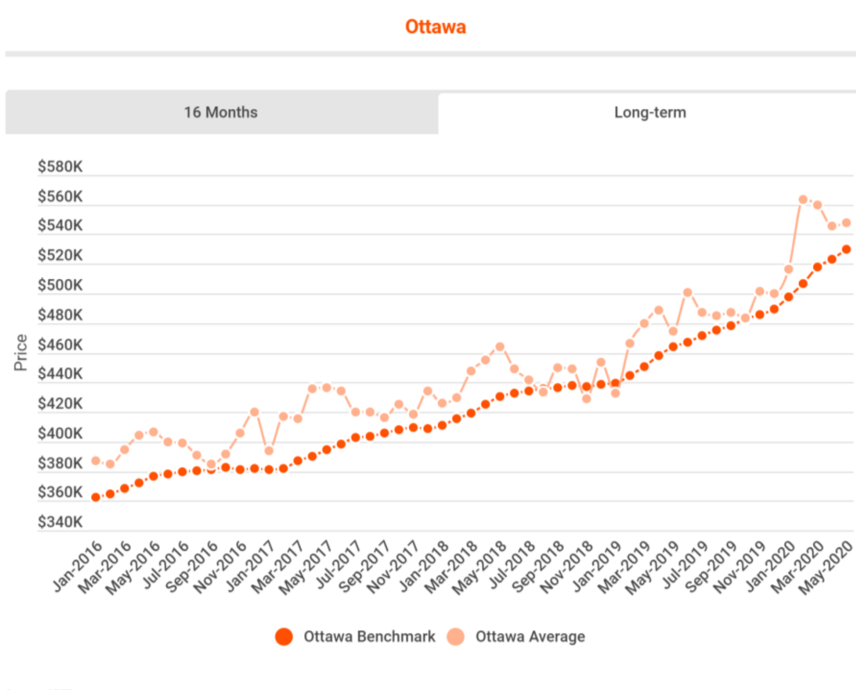
Review of Housing Market May 2020

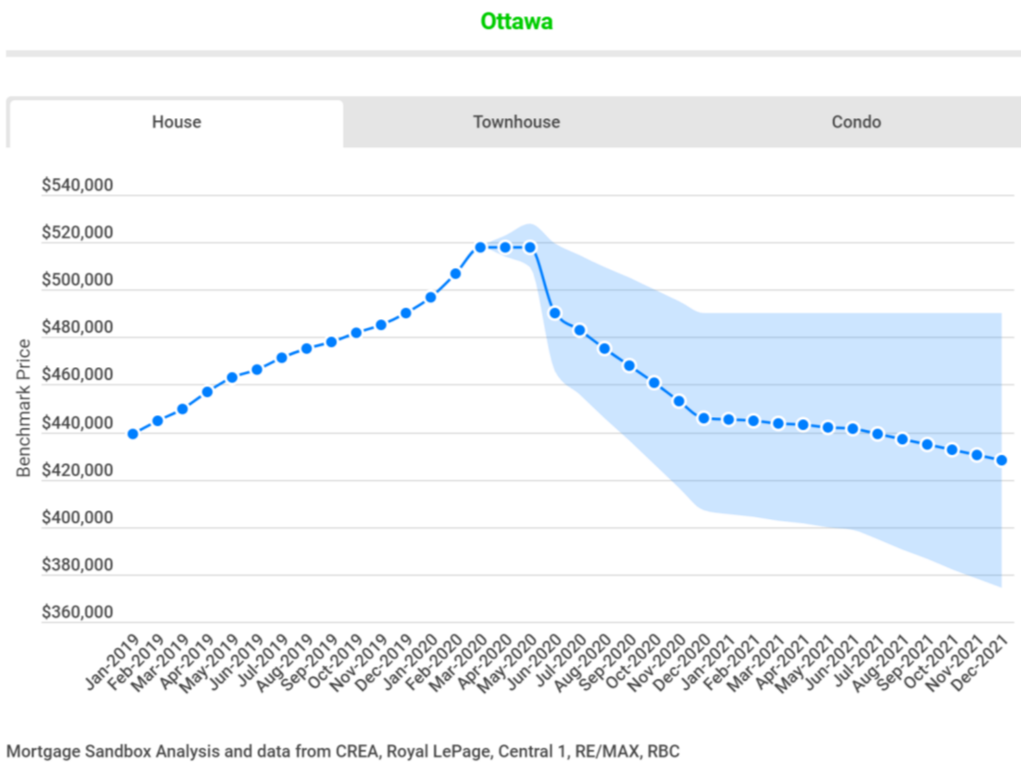
CMHC Ottawa Housing Market

While the national vacancy rent for rental apartment units shrank for the third year in a row to 2.2 per cent, the same vacancy rate in Ottawa rose slightly, from 1.6 per cent in 2018 to 1.8 per cent in 2019. It's the first year since 2015 that the vacancy rate in the capital has eased rather than tightened.

As the appetite for rentals accommodations remains strong, don't expect bargain basement rents. In 2019 the average rents in Ottawa for bachelor and one-bedroom apartments were $933 and $1,178, respectively, and rose 6.8 and 8.1 per cent between 2018 and 2019.

"Economic losses should not be proportional to Market losses."





Housing Micro Economics

Ottawa GDP by sector

Industry sector	**% of total GDP**
High tech	18.90%
Federal government	18.20%
Tourism	**2.10%**
Health and education	7.50%
Finance, insurance, real estate	**10.40%**
Trade	9.40%
Construction	**4.00%**
Primary (mainly rural output)	0.90%
Others	**28.60%**
Total **Risk Total**	**100.00%** **45.1**

Source: City of Ottawa

a. The sectors at immediate risk: restaurants, retail and hospitality. The sectors which will also experience a minor contraction: banking and construction. The City of Ottawa total exposure to these risks are 35.3%. The total exposure in our portfolio is 21.4%

b. We expect the **capital markets to recover from its decline into 40% loss territory** while **real estate values drop by 10%.** In periods of transition and change, more investors will change mindsets and economic views. The result of this action will have some investors converting asset classes. Based on this volatility there will be financial opportunities for investors enter/exit those different asset classes.

1. *Residential values are going to depress. Depending on the severity of the economic downturn we are expecting a 5-8% equity loss for the next 18 months. The recovery is expected to take 48 months. (March 25, 2020**) This outlook is unchanged.***

2. **. CERB will also be winding down two months from now, announced by government on June 15, 2020. The core unemployment loss will only be realized there after. This should increase the demand for rental units in the near future.**

The national average of rental default for the month of May was 13%. We have revised the projection at a 10% vacancy loss rate, however this will be covered by the tight vacancy rate of 1.8% May in Ottawa.

"With new blocks rental units coming to market, rental income increases have trended upward even in current market conditions."

Housing Macro Economics

RBC Economics June 15, 2020 (appended)
Housing Economics

Percentage changes impressive but overstate May's rebound

The jump in home resales last month wasn't a surprise given the earlier plummet—to a 36-year low in April—had much to do with the unprecedented lockdowns and social distancing orders imposed since mid-March. It was clear the lifting of some of these measures in May would kick the market into gear.

- **Home resales reversed one-third of the March-April drop:** The gradual reopening of the economy across Canada set the stage for activity to rise 57% from a generational low in April.
- **Prices cresting:** The level of Canadian Real Estate Association's Home Price Index was effectively flat compared to April. The annual rate of increase in the index inched down to 5.4% in May from 5.6% in April. We expect further broad-based weakening in the period ahead.
- Number of transactions will recover only gradually and unevenly: **The severe economic shock of COVID-19 will upset many Canadians' plan to own a home for some time to come.**

The story to watch going forward: supply

There are early signs demand and supply are decoupling. New listings rose more modestly in most Ontario markets last month, further tightening demand-supply conditions in the province.

We expect further decoupling in the period ahead. Economic hardship is no doubt taking a toll on a number of current homeowners—including investors. Some of them could be running out of options once government support programs and mortgage payment deferrals end, and may be compelled to sell their property.

Market balance to erode

Despite easing in May, demand-supply conditions generally remained balanced across Canada **or still favoured sellers**. That's likely to change. We expect the increase in supply to tip the scale in favour of buyers in many markets across Canada,, could see buyers calling the shots as early as this summer. It could take a little longer in Ontario, Quebec and parts of the Atlantic Provinces.

Downward price pressure to build

Canada's HPI has likely crested. We believe downward price pressure will build in most markets in the coming months. Strong starting points in Ottawa, Montreal, Toronto and Halifax will provide these markets with a temporary buffer. Prices are already declining in Alberta, and Newfoundland and Labrador. Nationwide, we expect **benchmark prices to fall 7% by the middle of 2021 though believe a widespread collapse in property values is unlikely.**

"We are now using economic models from the Great Depression (1923-1935) as way forward and recovery. "

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Data Dashboards

Provincial Infection Timeline Graph

https://scivero.com/en/visualizations/coronavirus

Global Country Dashboards

https://dash-coronavirus-2020.herokuapp.com/

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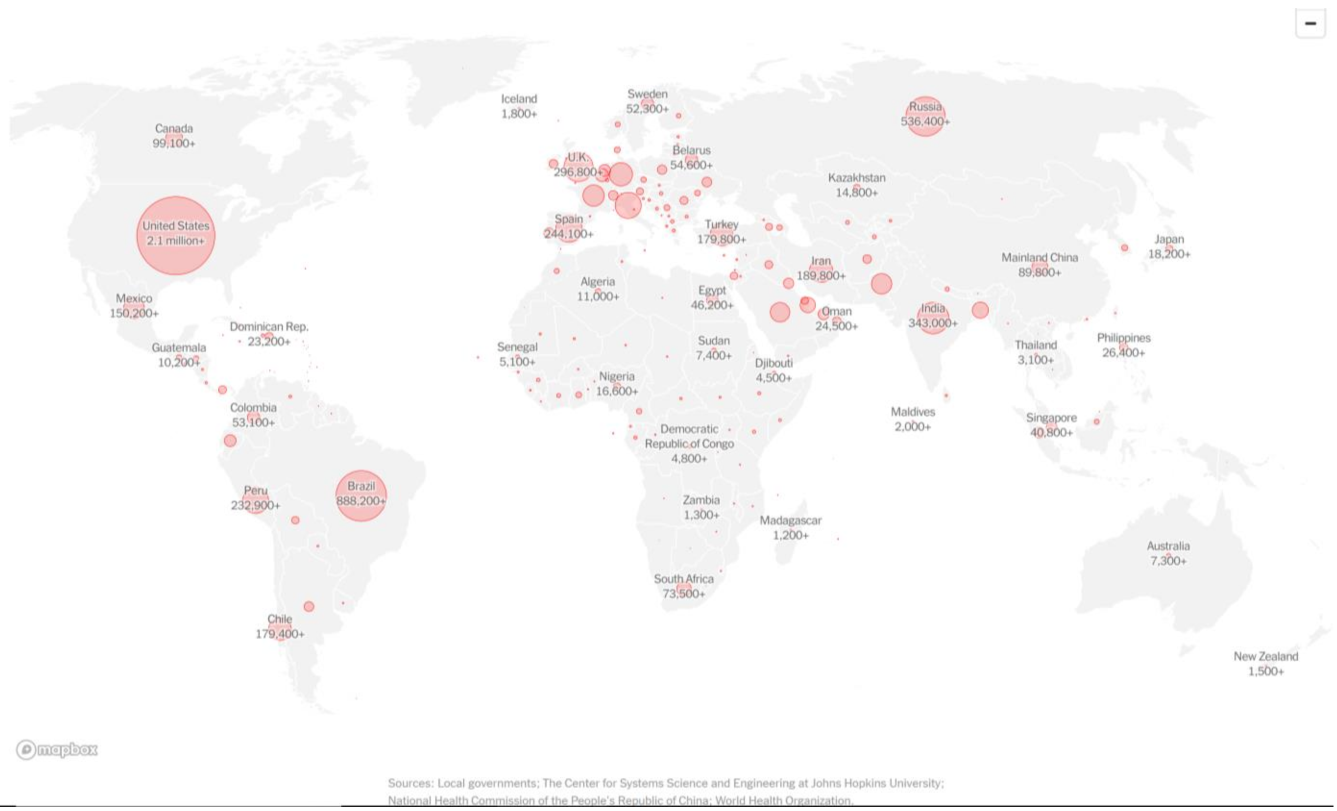
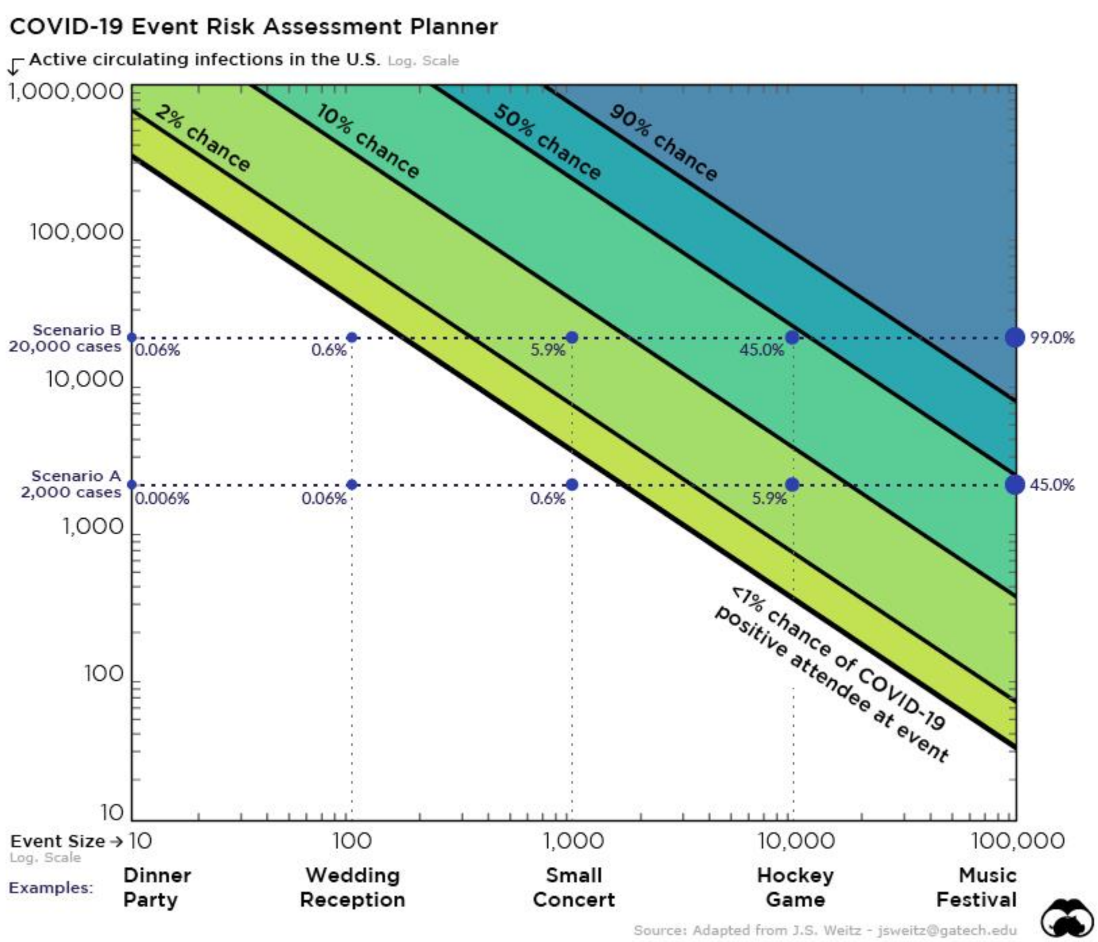
Infomatics and Research – Appendix

	▼CASES	PER 100,000	DEATHS	PER 100,000	FALLING FLAT RISING
United States MAP »	2,124,082	649	116,207	36	Jan. 22 June 14
Brazil MAP »	888,271	424	43,959	21	
Russia	536,484	371	7,081	5	
India MAP »	343,091	25	9,900	<1	
U.K. MAP »	296,857	446	41,736	63	
Spain MAP »	244,109	522	27,136	58	
Italy MAP »	237,290	393	34,371	57	
Peru	232,992	728	6,860	21	
Iran	189,876	232	8,950	11	
Germany MAP »	186,839	225	8,800	11	
Turkey	179,831	218	4,825	6	
Chile	179,436	958	3,362	18	
France MAP »	157,372	235	29,436	44	
Mexico MAP »	150,264	119	17,580	14	
Pakistan	144,478	68	2,729	1	
Saudi Arabia	132,048	392	1,011	3	
Canada MAP »	99,147	268	8,175	22	
Bangladesh	90,619	56	1,209	<1	
Mainland China	89,897	6	4,634	<1	
Qatar	80,876	2,907	76	3	
South Africa	73,533	127	1,568	3	
Belgium	60,100	526	9,661	85	



Iceland 1,800+
Sweden 52,300+
Russia 536,400+
Canada 99,100+
U.K. 296,800+
Belarus 54,600+
Kazakhstan 14,800+
United States 2.1 million+
Spain 244,100+
Turkey 179,800+
Japan 18,200+
Mainland China 89,800+
Iran 189,800+
Algeria 11,000+
Egypt 46,200+
Mexico 150,200+
Oman 24,500+
India 343,000+
Dominican Rep. 23,200+
Guatemala 10,200+
Senegal 5,100+
Sudan 7,400+
Thailand 3,100+
Philippines 26,400+
Djibouti 4,500+
Nigeria 16,600+
Colombia 53,100+
Maldives 2,000+
Singapore 40,800+
Democratic Republic of Congo 4,800+
Brazil 888,200+
Peru 232,900+
Zambia 1,300+
Madagascar 1,200+
Australia 7,300+
South Africa 73,500+
Chile 179,400+
New Zealand 1,500+
mapbox
Sources: Local governments; The Center for Systems Science and Engineering at Johns Hopkins University; National Health Commission of the People's Republic of China; World Health Organization.



COVID-19 Event Risk Assessment Planner
Active circulating infections in the U.S. Log. Scale
1,000,000
100,000
10,000
1,000
100
10
2% chance
10% chance
50% chance
90% chance
Scenario B 20,000 cases
0.06%
0.6%
5.9%
45.0%
99.0%
Scenario A 2,000 cases
0.006%
0.06%
0.6%
5.9%
45.0%
<1% chance of COVID-19 positive attendee at event
Event Size → 10 100 1,000 10,000 100,000
Log. Scale
Examples: Dinner Party, Wedding Reception, Small Concert, Hockey Game, Music Festival
Source: Adapted from J.S. Weitz - jsweitz@gatech.edu

How the Roles of EDOs are Impacted by Disaster

	Normal Roles	Roles in a Disaster (Above Normal Roles)
Analyst/ Educator	Understands strengths, weaknesses, and comparative advantages of local economy and local business climate. Provides quantitative and qualitative information to decision-makers.	**Before a Disaster** Seeks to understand vulnerabilities and risks to critical industries and businesses within the community.
	Develops programs to support business retention and new investment. Tracks the business community's health and vitality. Keeps public officials and the general public adequately informed on costs and benefits of economic development initiatives.	**After a Disaster** Develops and distributes a disaster business recovery guide and assesses physical damage and business interruption impacts to industries and businesses. Facilitates the communication of accurate response and recovery information between local businesses and local government and communicates dual messages: "We are open for business" and "We need help and resources" to appropriate audiences.
Visionary/ Catalyst	Visionary leader who peers over the economic horizon to see what partnerships (both public and private) can be formed to stimulate working relationships in the future.	**Before a Disaster** Establishes an Economic Recovery Group to identify immediate and long-term recovery resources and strategies.
	Engages key stakeholders in visioning process to identify goals, strategies, and resources for economic development.	**After a Disaster** Envisions how the community can build back to be stronger and more resilient.
	Provides incentives to leverage the investment or involvement of different public and private sectors.	**After a Disaster** Creates a strategic plan for economic recovery embraced by community.
	A catalyst and connector who invokes enthusiasm and excitement for projects that can bring positive change to a community's future.	**After a Disaster** Connects public/private resources for building back better.
Gap Filler	Provides assistance where the private sector cannot or will not meet community and business needs.	**After a Disaster** Conducts concerted BRE outreach to reconnect with businesses and identify at-risk companies.
	Leverages financing to facilitate enterprise development; assists existing businesses with expansion and works to attract new businesses.	**After a Disaster** Assists with short- and long-term financing and business counseling, particularly for small and at-risk businesses and develops programs to support long-term recovery
Connector/ Advocate	Serves as key liaison between public, private sectors and the community on economic development initiatives and works with chamber of commerce representatives to create a concise message.	**Before a Disaster** Seeks funding opportunities and garners input and support for recovery initiatives. **After a Disaster** Addresses impacts/shortcomings of community's emergency management plan from a business perspective.
	Speaks out for the well-being of the community while protecting the interests of business.	**Before a Disaster** Advocates mitigation and preparedness efforts among businesses for the possible next disaster.
	Coordinates activities, communication, and resources between different stakeholders to facilitate business partnerships.	**After a Disaster** Communicates local economic priorities and needs for policy changes to local, provincial and federal governments.