Urban Containment Policy and Housing Affordability

Report for the
Greater Ottawa Home Builders Association

By Wendell Cox, Senior Fellow
Frontier Centre for Public Policy
April 20, 2020

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1: THE ISSUE

The city of Ottawa is updating its Official Plan. Under consideration are expanding the urban boundary (urban growth boundary) and strengthening of its intensification (densification) policy. These strategies are components of urban containment policy.

This report examines the relationship between urban containment policy and housing affordability from an international perspective. For the purposes of this report, urban containment policy includes growth management, compact city policy, intensification and any measures that can materially impact the cost of land or housing by rationing or prohibiting greenfield land development (such as urban growth boundaries and intensification mandates).

2: THE IMPORTANCE OF HOUSING AFFORDABILITY

Housing is the largest expenditure item for Canadian households, according to the latest data from Statistics Canada (2017). Further, as a share of household consumption, expenditures on principal residences have risen 5.0% compared to 2010. By comparison, expenditures on transportation have declined as a share of consumption expenditures by 3.5%. The share of food dropped 7.9% and clothing dropped 16.1%.[1]

As a matter of information, in the United States, 87% of the difference in the cost of living between the most expensive metropolitan areas and the overall average consists of the higher costs of housing. Other goods and services account for only 6% and 7% respectively. As Richard Florida of the University of Toronto has noted "differences in living costs are basically all about housing."

3: CANADA'S HOUSING AFFORDABILITY CRISIS

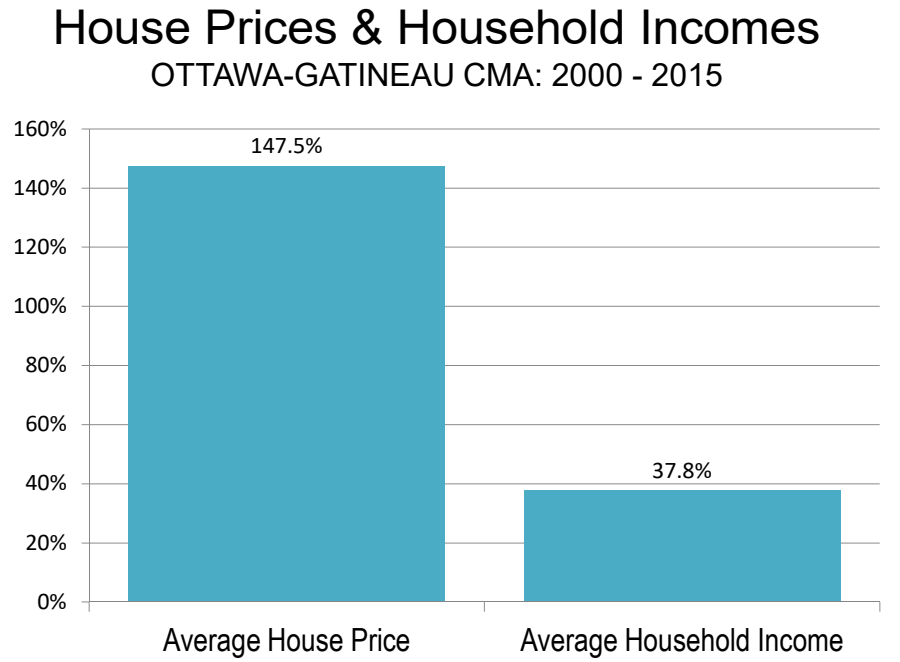
There has been considerable attention to the deterioration in housing affordability across Canada in the last two decades. The Frontier Centre for Public Policy (FCPP) study, *Canada's Middle-Income Housing Affordability Crisis* found that average house prices had risen three times that of before tax average household incomes from 2000 to 2015.[2] Other nations have faced similar housing affordability challenges (Section 7).

The seriousness of the problem is illustrated by the *RBC Housing Affordability Measure* for the Vancouver and Toronto area markets. By 2018, 117% in Vancouver and 90% in Toronto of the median pre-tax household income was required to pay the monthly costs of an average priced single-family

[1] Calculated from data in Statistics Canada, *Survey of Household Expenditure,* https://www150.statcan.gc.ca/n1/pub/11-627-m/11-627-m2018053-eng.htm.
[2] Wendell Cox and Ailin He, *Canada's Middle-Income Housing Affordability Crisis*. Frontier Centre for Public Policy. June 2016. https://fcpp.org/wp-content/uploads/2016/06/Cox-He-Middle-Income-Housing-Crisis.pdf. This report used average multiples to assess housing affordability (average house prices divided by average household incomes) because the preferred median multiple data used in the *Demographia International Housing Affordability Survey* was not readily available for the first year of analysis (2000).

detached house. Even in the least expensive housing category, the apartment condominium, 52% of median income in Vancouver would have been required and 47% in Toronto. This is more than one-half in excess of the 30% affordability threshold for core housing need.[3]

Canada's Middle-Income Housing Affordability Crisis found that between 2000 and 2015, average house prices in the Ottawa-Gatineau census metropolitan area (CMA), were estimated to have risen at 3.9 times pre-tax average household incomes. (Figure 1)



Source: *Canada's Middle-Income Housing Affordability Crisis*

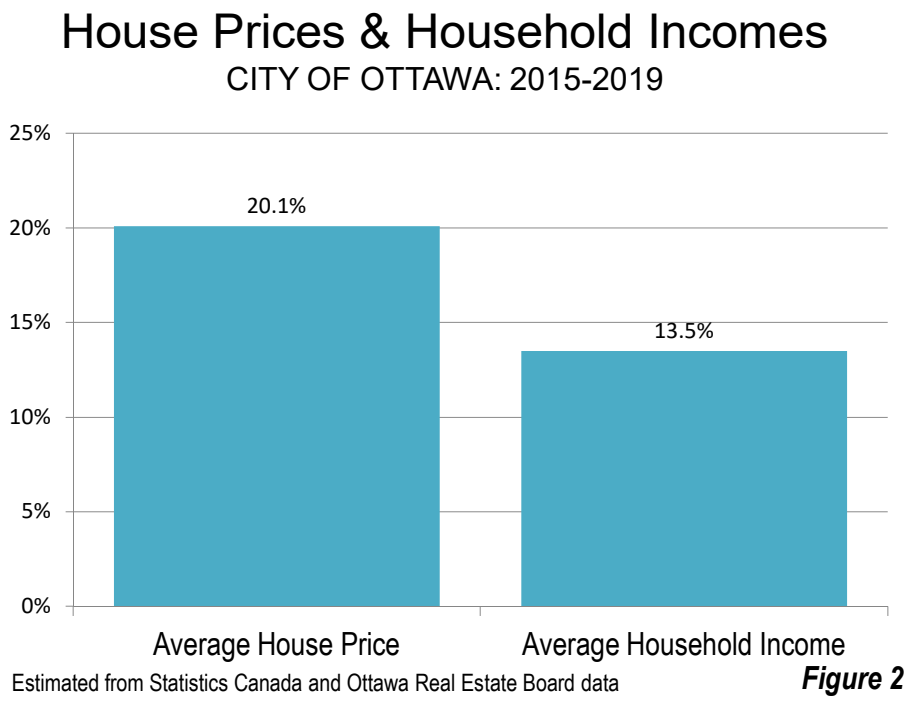
Figure 1

4: RECENT HOUSING AFFORDABILITY TREND IN THE CITY OF OTTAWA

At the request of the Greater Ottawa Home Builders Association (GOHBA) this report updates house price and income data since 2015 for the city of Ottawa. It is estimated that the average house price continued to rise above that of average household income. From 2015 to 2019, house prices rose 20.1%, nearly one-half more than the 13.5% rate of household incomes (Figure 2).[4]

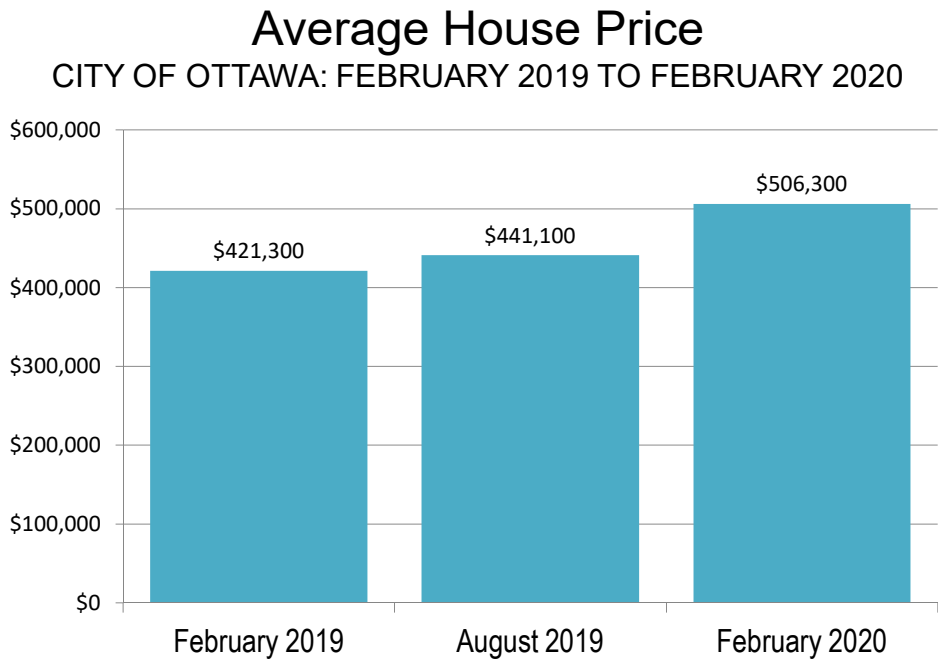
Further, the most recent Ottawa Real Estate Board data indicates an acceleration in house prices, with an annual average price increase to February 2020 of 21.5%. This is one-half greater than the 2018 to 2019 rate of 14.1% (Figure 3).[5] In the six months from February to August 2019, house prices increased at an annualized rate of 9.6%, more than double the 2015 to 2019 rate. In the more recent six months from August 2019 to February 2019, house prices increased at an annual rate of 31.8%, triple the already elevated rate of the previous six months (Figure 4).

[3] Statistics Canada, "Core Housing Need," https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/households-menage037-eng.cfm
[4] Calculated from Ottawa Real Estate Board data.
[5] Calculated from Ottawa Real Estate Board data.



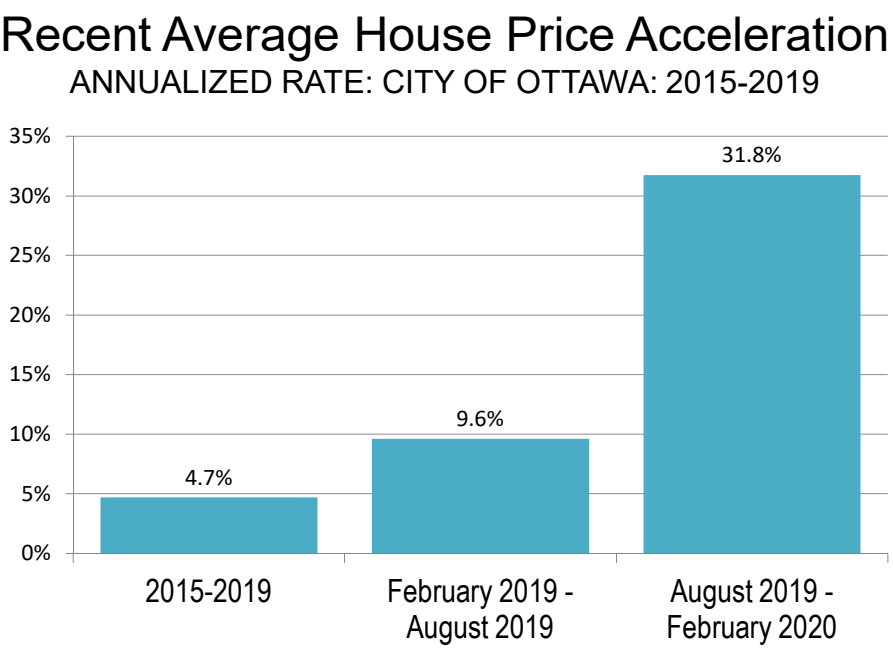
Estimated from Statistics Canada and Ottawa Real Estate Board data

Figure 2



Estimated from Ottawa Real Estate Board data.

Figure 3



Estimated from Ottawa Real Estate Board data.

Figure 4

5: THE INTERNATIONAL CONTEXT

For years, the Frontier Centre for Public Policy has sponsored the *Demographia International Housing Affordability Survey* in Canada.[6] This year's 16th Annual edition of the *Demographia Survey* includes more than 90 major metropolitan housing markets (over 1,000,000 population) in eight nations.[7]

Housing affordability is the relationship between incomes and house prices, and can be estimated by various measures. The *Demographia Survey* uses the "median multiple," (the median house price divided by the pre-tax median household income) to rate housing affordability (Figure 5). Put another way, the median multiple indicates the years of household income required to pay the sales price of a house. Within the *Demographia Survey,* comparisons are made are between housing markets and historically within housing markets.

Demographia International Housing Affordability Survey Housing Affordability Ratings	
Housing Affordability Rating	Median Multiple
Affordable	3.0 & Under
Moderately Unaffordable	3.1 to 4.0
Seriously Unaffordable	4.1 to 5.0
Severely Unaffordable	5.1 & Over
Median multiple: Median house price divided by median household income	

Figure 5

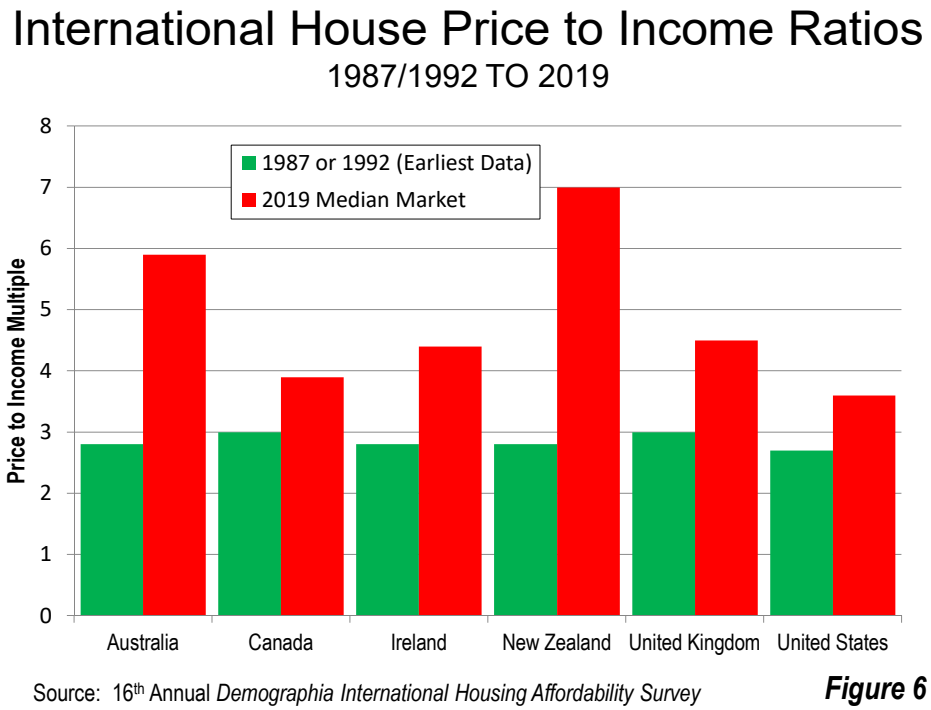
[6] Wendell Cox and Hugh Pavletich, *Demographia International Housing Affordability Survey,* http://www.demographia.com/dhi.pdf.
[7] Canada, Australia, China (Hong Kong), Ireland, New Zealand, Singapore, United Kingdom and the United States.

Historically, the median multiple was similar as recently as the late 1980s or early 1990s in nations that had not fully converted to urban containment. The price to income multiple was 3.0 or less until the late 1980s or 1990s, in nearly all metropolitan areas of Australia, Canada, Ireland, New Zealand, the United Kingdom and the United States.[8] The lowest price to income multiple at the national level was in the United States, at 2.7, while Canada, Ireland and the United Kingdom were the highest, at 3.0.

By 2019, the national price to income multiples for these six nations had increased to 3.6 in the United States and 3.9 in Canada to 5.9 in Australia and 7.0 in New Zealand (Figure 6).

All of the 31 severely unaffordable[9] major housing markets in the latest *Demographia Survey* have urban containment policy.

In the 16 years of the *Demographia Survey*, the housing affordability range among Canada's six major metropolitan areas has widened measurably. In 2004/5,[10] Edmonton had the most affordable market, with a median multiple of 2.8. Vancouver was the least affordable, at 5.3, while Toronto had a median multiple of 3.9. The disparity between the most and least affordable major markets expanded from 2.5 years of median household income to 8.1 years. Vancouver's median multiple was 11.9, while Edmonton was 3.8. Toronto had increased to 8.6 years (Figure 7).



Source: 16th Annual *Demographia International Housing Affordability Survey*

Figure 6

[8] See: Anthony Richards, *Some Observations on the Cost of Housing in Australia,* Address to the Melbourne Institute, 2008 Economic and Social Outlook Conference, Reserve Bank of Australia, 27 March 2008 http://www.rba.gov.au/speeches/2008/sp-so-270308.html. This research included all nations covered in the *Demographia International Housing Affordability Survey* except for Hong Kong and Singapore.

[9] Median multiple of 5.1 or higher.

[10] Edmonton was added to the *Demographia Survey* in 2005.

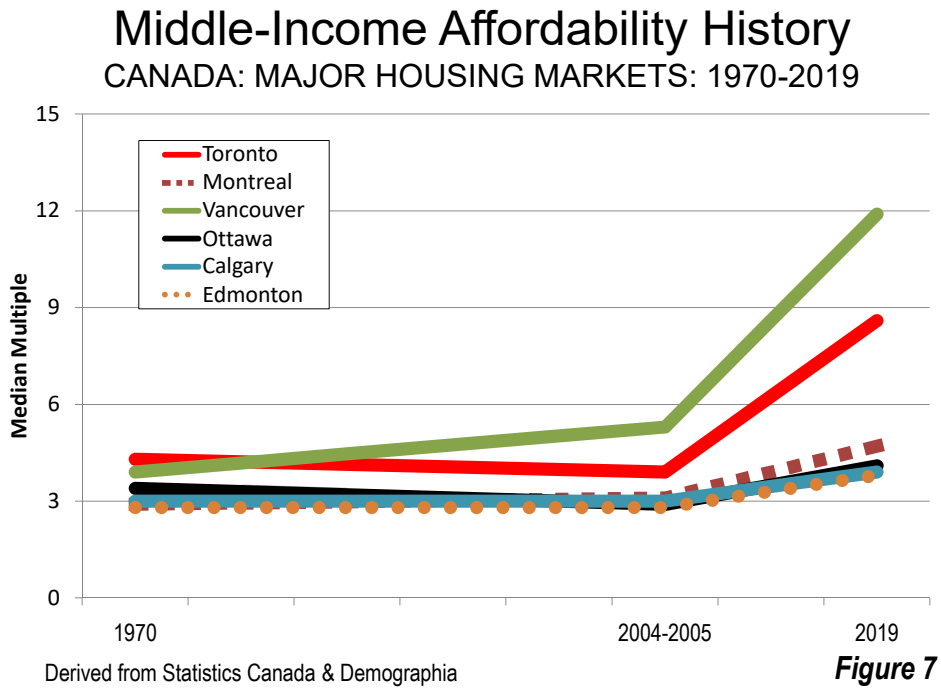


Figure 7

Housing affordability in Ottawa-Gatineau has deteriorated markedly. From 2005 to 2019, the median multiple rose from an "affordable" 2.9 to a "seriously unaffordable" 4.1 (41%), this is the equivalent of 1.2 years in median household income. However, housing affordability has not deteriorated nearly to the extent that has been experienced in Vancouver or Toronto.

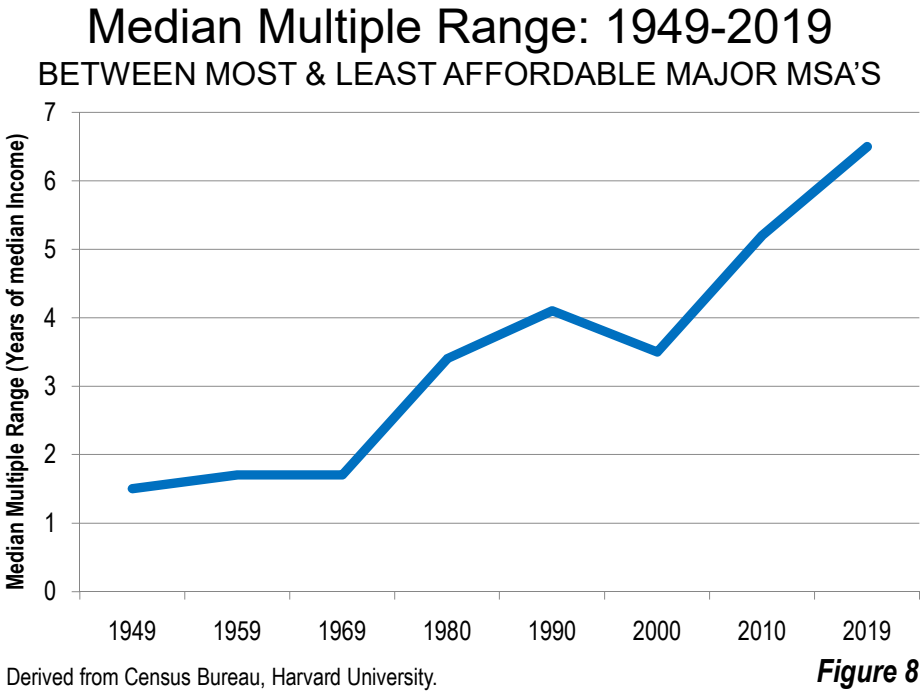
Longer term market data is available in the United States starting in 1949 which shows little variation in affordability among the more than 50 major metropolitan areas (1,000,000 population or above) before the 1970s. In those years,[11] the maximum median multiple gap between the major markets was 1.7 years (additional years of income required to buy the median house). By 2019, the gap had widened to 6.9 years (Figure 8). This divergence in major housing market affordability has been associated with the stronger land use policy, especially implementation of urban containment policy.

6: DYNAMICS OF URBAN CONTAINMENT

Much of the justification for urban containment is to curb the physical expansion of urban areas (conversion of rural land to urban land), that is, to curb "urban sprawl," which is often equated with the suburban urban form that has continued to dominate population growth in Canada (See: *Suburban Nation? Population Growth in Canadian Suburbs: 2006-2011*).[12]

In commenting on the association between London's urban growth boundary (greenbelt), and the loss of housing affordability, *The Economist* said: "Suburbs rarely cease growing of their own accord. The only reliable way to stop them, it turns out, is to stop them forcefully. But the consequences of doing that are severe" (Sections 7 and 8).[13]

[11] 1949, 1959 and 1969, US decennial Census data.
[12] David L. A. Gordon and Isaac Shirakoff, School of Urban and Regional Planning, Queen's University, July 2014. http://www.canadianurbanism.ca/wp-content/uploads/2014/07/CanU%20WP1%20Suburban%20Nation%202006-2011%20Text%20and%20Atlas%20comp.pdf.
[13] https://www.economist.com/essay/2014/12/06/places-apart (December 6, 2014). http://www.newgeography.com/content/004794-cities-better-great-suburbanization



Derived from Census Bureau, Harvard University.

Figure 8

As noted above, urban containment policy includes growth management, compact city policy, intensification and any measures that can materially impact the cost of land or housing by rationing or prohibiting greenfield land development (Section 1).

Planners have indicated that urban containment is characterized by "policies that are explicitly designed to limit the development of land outside a defined urban area..."[14] Further, "urban development is steered to the area inside the line and discouraged (if not prevented) outside it."[15]

Moreover, urban containment advocates expected that that land within the containment area would become more intensely developed, lowering land costs per housing unit, which was expected neutralize any house price increasing effect.[16] This has generally not occurred and urban containment has been associated with higher house prices relative to incomes.

New Zealand's Productivity Commission summarized the impact of urban containment: "Constraints on the release of land and development capacity (within and on the edge of cities) create scarcity, limit housing choice, and increase housing prices. These impacts are disproportionately felt by people on lower incomes" (Section 8).[17]

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[14] Arthur C. Nelson, "Urban Containment American Style: A Preliminary Assessment," in Chang-Hee Christine Bae & Harry W. Richardson, *Urban Sprawl in Western Europe and the United States (Urban Planning and Environment)*, Routledge, 2004.
[15] Arthur C. Nelson and Casey J. Dawkins, *Urban Containment in the United States: History, Models and Techniques for Regional and Metropolitan Growth Management*, American Planning Association Planning Advisory Service, (2004).
[16] Wendell Cox, *A Question of Values: Middle-Income Housing Affordability and Urban Containment Policy*. Frontier Centre for Public Policy. October 2015. https://www.fcpp.org/a_question_of_values
[17] New Zealand Productivity Commission. "Using Land for Housing." September 2015. https://www.productivity.govt.nz/assets/Documents/6a110935ad/using-land-for-housing-final-report-v2.pdf

Toronto's house prices have nearly doubled relative to household incomes since 2005, the year before its urban containment planning system took effect. In that year, the 2nd annual *Demographia Survey*, noted that as a result of its the new planning restrictions, Toronto "seems likely to experience severe housing affordability deterioration in the years to come." That has occurred, with the median multiple in the Toronto metropolitan market rising from 4.4 in 2005 to 8.6 in 2019, an increase of 95%. This is the greatest median multiple increase from 2005 to 2019 among the major markets that are now severely unaffordable.[18]

Toronto rates as the sixth least affordable major market with its median multiple of 8.6 and is less affordable that the San Francisco Bay area (San Francisco and San Jose markets) and London (the Greater London Authority).

For some years, Ryerson University's Centre for Urban Research and Land Development has published research on housing in Toronto.[19] They have found a strong association between Toronto's rapidly rising housing costs and its urban containment land use policy, and have concludes that there is a shortage of land for "short term housing production." Such a shortage can prevent the market flexibility required to retain housing affordability.

In citing international economic research, Ryerson notes that its Toronto findings "are not new, but they have been identified and accepted by economists and planners for some time."[20]

Urban Containment and Land Markets: Harvard University's William Alonso showed that urban land tends to rise in value (such as per acre) from the low agricultural values outside the built up urban area toward the center (or centers).[21] This is the "land value gradient."[22] Under normal circumstances (without urban containment), land values tend to rise gradually, toward the center. The "floor" value of developable land in a housing market is typically on the urban fringe. The floor land value of urban land is driven up significantly as a result of an urban growth boundary.

Portland State University professor Gerard Mildner summarized the land-value gradient, characterizing it as "Economics 101:"[23]

> "Land prices tend to decline from a peak at the center of a metropolitan area, until they meet the underlying value of agricultural land. At the margin, urban and agricultural land prices will equalize as farmers and developers compete for land."

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[18] 2005 was reviewed because the 1st Annual *Demographia Survey* did not include the United Kingdom and Ireland. The 2nd Annual *Demographia Survey* included all of the present nations, except for Singapore and China (Hong Kong).

[19] Ryerson University, Center for Urban Research and Land Development analyses are accessible at https://www.ryerson.ca/cur/publications/policyreports/

[20] David Amborski and Frank Clayton, "Submission to the Ontario Growth Secretariat, Ministry of Municipal Affairs and Housing, in Response to the Proposed Growth Plan for the Greater Golden Horseshoe, 2016", Ryerson University, Center for Urban Research and Land Development, November 2016, https://www.ryerson.ca/content/dam/cur/pdfs/policycommentaries/CUR%20Policy%20Report_Affordable%20Housing%20and%20Land%20Supply%20Issues%20in%20the%20GTA_2016.11.04.pdf

[21] This is called the "bid rent" theory. This is an idealized conception that assumes a monocentric metropolitan area with a single dominating central business district. In recent decades, metropolitan areas around the world have become more polycentric, with peaks in land prices at the location of secondary centres but generally below the values achieved in the central business district. See William Alonso, "Location and Land Use: Toward a General Theory of Land Rent," Cambridge, Massachusetts, Harvard University Press, 1964, and Richard F. Muth, *Cities and Housing: The Spatial Pattern of Urban Residential Land Use*, Chicago, IL: University of Chicago Press, 1969.

[22] https://www.lincolninst.edu/sites/default/files/pubfiles/2532_1872_Hodges%20WP15TH1.pdf

[23] Gerard Mildner, "Public Policy & Portland's Real Estate Market," *Quarterly and Urban Development Journal,* 4th Quarter 2009. Available online at http://www.pdx.edu/sites/www.pdx.edu.realestate/files/1Q10-4A-Mildner-UGB-1-31-10.pdf.

This is indicated in Figure 9,[24] which depicts increased land values after implementation of a binding urban growth boundary, and a continuous gradual upward curve where there is no urban growth boundary. By contrast, in a market without urban containment, land values tend to rise gradually from underlying agricultural or other rural values.

For example:

- The Productivity Commission of New Zealand associated the Auckland urban containment boundary with a substantial increase in land prices. "After controlling for a range of other influences, the gradient in land prices (per hectare) from Auckland's CBD to the rural land adjacent to the city undergoes a step change at the point of the MUL" (urban growth boundary)." The differential was identified at approximately 10 times and the Commission noted that it has increased "as housing demand pressures have intensified."[25]

- A Reserve Bank of Australia report cites data showing the value of land inside Melbourne's urban growth boundary to be from 12 to 20 times that to the outside (per hectare). [26]

- In Portland, Mildner[27] identified a land-value gap of approximately 10 times at the urban containment boundary.

- Paul Cheshire found that agricultural land could increase in value 700 times (70,000 per cent) when rezoned for residential development in Southeast England.[28]

- Within the San Francisco Bay Area, Glaeser and Gyourko found land costs to be 10 times the share of median house value (Figure 10) that would be expected in a relatively free market with few restrictions on building (20% of the combined house and land value).[29] The San Francisco area market has some of the most severe urban containment policy in the United States, which prohibits building on considerable amounts of developable land.[30]

- These findings are consistent with the law of supply and demand. Economists Richard Green of the University of Southern California and Stephen Malpezzi of the University of Wisconsin noted: "When the supply of any commodity is restricted, the commodity's price rises. To the extent that land-use, building codes, housing finance, or any other type of regulation is binding, it will worsen housing affordability."[31]

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[24] The Figure is adapted from other works theoretical dealing with the impact of an urban containment boundary in an urban area. Under traditional land use regulation, where there is no urban containment boundary, "Traditional Regulation"), the land price gradient would be smooth (the green line labeled "Before Urban Growth Boundary"). On the other hand, an abrupt increase occurs at the urban boundary in an environment with an urban containment boundary (the red line labeled "After Urban Growth Boundary").

[25] New Zealand Productivity Commission, "Housing Affordability Inquiry," March 2012.

[26] Calculated from data in Mariano Kulish, Anthony Richards and Christian Gillitzer, "Urban Structure and Housing Prices: Some Evidence from Australian Cities," Research Discussion Paper, Reserve Bank of Australia, September 2011. Available online at http://www.rba.gov.au/publications/rdp/2011/pdf/rdp2011-03.pdf.

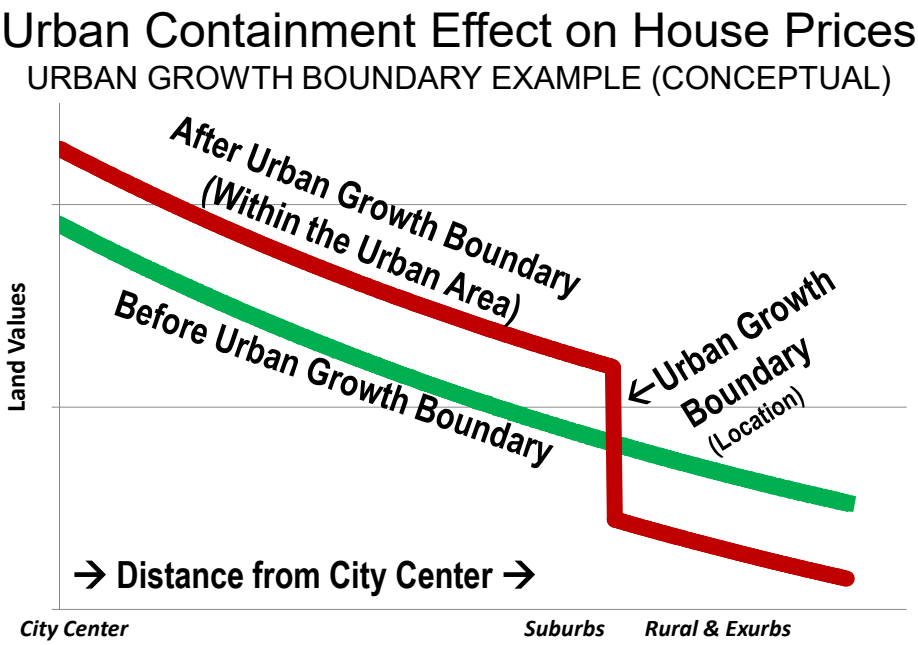
[27] Mildner, "Public Policy & Portland's Real Estate Market."

[28] Cheshire, "Urban Land Markets and Policy Failures."

[29] Edward Glaeser and Joseph Gyourko. 2018. "The Economic Implications of Housing Supply." *Journal of Economic Perspectives*, https://pubs.aeaweb.org/doi/pdf/10.1257/jep.32.1.3.

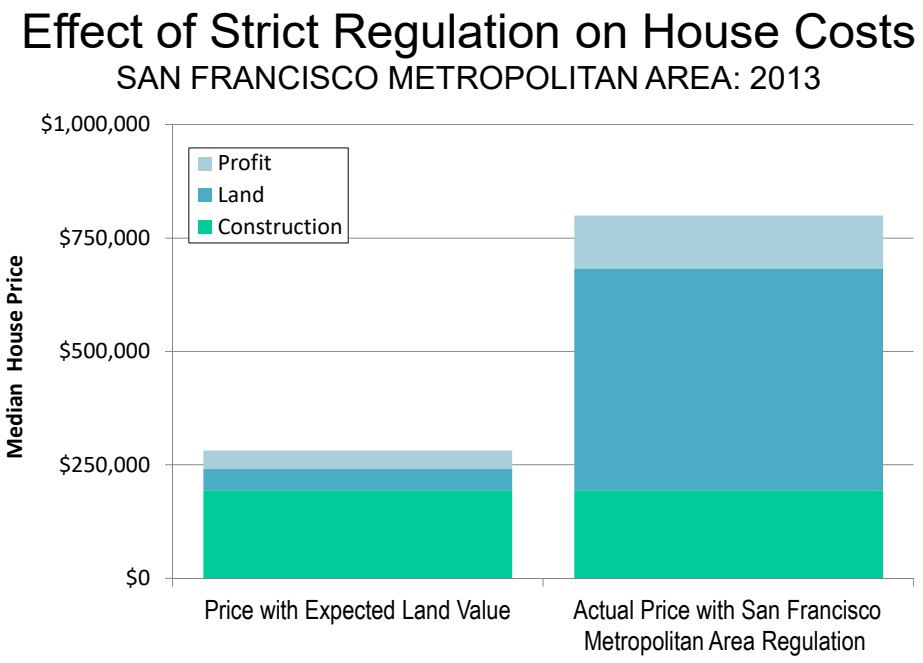
[30] The San Francisco metropolitan area is sometimes wrongly perceived as having topographic barriers that prevent further development. The continuous urbanization in the metropolitan area stretches into four suburban counties from the city of San Francisco. Urban containment policy prevents urban expansion into plentiful land area that is readily developable.

[31] Richard K. Green and Stephen Malpezzi, *A Primer on U.S. Housing Markets and Housing Policy*, Urban Institute Press, 2003, p. 146.



See Figure Note in Text.

Figure 9



Derived from Glaeser & Gyourko, 2018

Figure 10

Economist Anthony Downs of the Brookings Institution stressed the "principle of competitive land supply." This principle is that “for land use regulation to avoid significantly increasing the final price of

developed property, the total supply of land available for development in any given period must be a multiple of the amount likely to be absorbed during that period."[32]

Around the world, differences is land values between metropolitan areas account for much of the difference in house prices.[33]

As the amount of permitted developable land continues to diminish in urban containment markets, housing affordability is likely to worsen, along with the standard of living (Section 7).

International literature on urban containment regulation is summarized in the Frontier Centre for Public Policy report, *A Question of Values: Middle Income Housing Affordability and Urban Containment*.[34]

7: THE MIDDLE-INCOME STANDARD OF LIVING CRISIS

As the *Demographia International Housing Affordability Survey* indicates, there has been a significant deterioration in housing affordability in a number of nations. As is noted above (Section 2), housing costs play the dominant role in determining the cost of living.

Recent research by the Organization for Economic Cooperation and Development (OECD) documents an existential threat to the middle-class. The OECD examines the high-income world, including Canada.[35] In a report entitled *Under Pressure: The Middle-Class Squeeze*, the OECD noted:

> The middle class used to be an aspiration. For many generations it meant the assurance of living in a comfortable house and affording a rewarding lifestyle, thanks to a stable job with career opportunities. It was also a basis from which families aspired to an even better future for their children. At the macro level, the presence of a strong and prosperous middle class supports healthy economies and societies. Through their consumption, investment in education, health, and housing, their support for good quality public services, their intolerance of corruption, and their trust in others and in democratic institutions they are the very foundations of inclusive growth. However, there are now signs that this bedrock of our democracies and economic growth is not as stable as in the past.[36]

OECD emphasizes that the threats to the middle-class crisis are in large measure the result of costs of living that have risen at rates far greater than incomes. As a result, the *middle-class lifestyle* is under threat. OECD places much of the blame on house prices that have been growing much faster than household median income in the last 20 years: "Besides being the largest spending category, housing has been the main driver of rising middle-class expenditure in recent decades." Further, OECD found that "owned homes contributed the most to the rise in housing spending." Rents increased as well, less significantly than owned homes.

The OECD concluded that: "...the current generation is one of the most educated, and yet has lower chances of achieving the same standard of living as its parents.[37]

8: INDIRECT CONSEQUENCES ASSOCIATED WITH URBAN CONTAINMENT

[32] Anthony Downs. *New Visions for Metropolitan America*. Brookings Institution Press, 1994, p. 38
[33] Cox, "A Question of Values."
[34] Cox, "A Question of Values."
[35] Organisation for Economic Cooperation and Development (OECD), *Under Pressure: The Squeezed Middle-Class*, May 1, 2019, https://www.oecd.org/social/under-pressure-the-squeezed-middle-class-689afed1-en.htm.
[36] OECD.
[37] OECD.

Beyond the direct effect of much more challenging housing affordability for middle-income households, there are also important indirect effects. These disproportionately disadvantage lower-income households.

Higher Poverty Rates: As the costs of housing increase relative to other costs, households necessarily have less discretionary income remaining after paying for essentials. The result is higher rates of poverty. This is illustrated by the state of California, which has the highest housing cost adjusted poverty rate among the 50 states. This is despite California's having the 12th highest median household income of the 50 states, and the two highest income metropolitan areas out of the 53 with more than 1,000,000 population.[38]

Increased Need for Less Low Income Affordable Housing: Eligibility for public housing assistance is largely determined by housing costs that reach the 30% core housing need threshold of household income. As the market price of housing increases, more households are unable to afford market rate housing. These newly eligible recipients and the rising market costs of existing housing produce greater financial demands on governments. Yet many governments are unable to budget sufficient housing assistance to serve eligible households. Long waiting lists are typical, as is the case in the city of Ottawa, according to its website:

- The demand for social housing is much greater than the supply
- There are approximately 10,000 households on the centralized waiting list for social housing
- Wait times for social housing in Ottawa can be up to five years or more

Increased Income and Wealth Inequality: Ryerson University research finds that "planning-caused house price increases exacerbates the unequal distribution of income within the region" and notes its effect in the Greater Toronto Area.[39] Ryerson cites "sizeable wealth transfer to existing owners of ground-related homes." Bank for International Settlements economist Giani La Cava associated rising inequality in part with to "constraints on the supply of new housing in some large US cities."[40]

Stunted Economic Growth: Paul Cheshire of the London School of Economics and Wouter Vermeulen of VU University in Amsterdam described the importance of housing affordability:[41] "... housing being the dominant asset in most households' portfolios, there are also repercussions on saving, investment and consumption choices." Where housing is more affordable, households will have additional income available for purchasing goods and services or saving (which generates investment), both of which can contribute to a job creation and a stronger economy. Excessive land use regulation leads to diminished economic growth at the national level,"[42] as has been indicated in US research.[43] This is detrimental to the entire economy, including middle-income households and especially low-income households.

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[38] Derived from latest US Census Bureau data (2018).
[39] Amborski and Clayton, 2016.
[40] Giani La Cava (2016), "Housing Prices, Mortgage Interest Rates and the Rising hare of Capital Income in the United States," BIS Working Papers No 572, Berne, Switzerland: Bank for International Settlements, http://www.bis.org/publ/work572.pdf.
[41] Paul Cheshire, and Vermeulen, W., *Land markets and their regulation: the welfare economics of planning.* In: Geyer, H. S., (ed.) International Handbook of Urban Policy, Vol. Ii: Issues in the Developed World. Elgar original reference. Edward Elgar Publishing, Cheltenham, UK. 2009. http://eprints.lse.ac.uk/30787/..
[42] *Economic Report of the President and Annual Report of the Council of Economic Advisors* (CEA), 2020, https://www.whitehouse.gov/wp-content/uploads/2020/02/2020-Economic-Report-of-the-President-WHCEA.pdf
[43] See K. F. Herkenhoff, Lee E. Ohanian, and Edward C. Prescott. 2018. "Tarnishing the Golden and Empire States: Land-Use Restrictions and the U.S. Economic Slowdown." *Journal of Monetary Economics*, C. Hsieh, and E. Moretti. 2019. "Housing Constraints and Spatial Misallocation."*American Economic Journal: Macroeconomics.*and Edward Glaeser, and Joseph Gyourko (Winter 2008), "The Economic Implications of Housing Supply." *Journal of Economic Perspectives*.

9: CONSIDERATIONS FOR THE CITY OF OTTAWA

The city of Ottawa has a disproportionate effect on housing affordability in the CMA, due to its overwhelming share of the population.

Underlying land values could increase if there is insufficient urban boundary expansion to accommodate the demand or with increased intensification requirements. This could lead to substantially worsened housing affordability, as has occurred in markets around the world that have failed to retain a competitive land markets.

- Between 2000 and 2015, average house prices in the Ottawa-Gatineau census metropolitan area (CMA), were estimated to have risen at 3.9 times pre-tax average household incomes.

- From 2015 to 2019, house prices rose 26.5%, nearly twice the 13.5% rate of household incomes.

- The most recent Ottawa Real Estate Board data indicates a acceleration in house prices, with an annual average price increase to February 2020 of 21.5%. This is one-half greater than the 2018 to 2019 rate of 14.1%.

- Housing affordability is the relationship between incomes and house prices, and can be estimated using the "median multiple," (the median house price divided by the pre-tax median household income) to rate housing affordability.

- In Ottawa, From 2005 to 2019, the median multiple rose from an "affordable" 2.9 to a "seriously unaffordable" 4.1 (41%), this is the equivalent of 1.2 years in median household income.

- In 2005 the 2nd annual Demographia Survey noted that as a result of its the new planning restrictions, Toronto "seems likely to experience severe housing affordability deterioration in the years to come." That has occurred, with the median multiple in the Toronto metropolitan market rising from 4.4 in 2005 to 8.6 in 2019, an increase of 95%.

- Ryerson University's Centre for Urban Research and Land Development has found a strong association between Toronto's rapidly rising housing costs and its urban containment land use policy, and have concludes that there is a shortage of land for "short term housing production." Such a shortage can prevent the market flexibility required to retain housing affordability

- Underlying land values could increase if there is insufficient urban boundary expansion to accommodate the demand or with increased intensification requirements.

- Urban containment has been associated with higher house prices relative to incomes.

- Urban Containment could lead to substantially worsened housing affordability, as has occurred in markets around the world that have failed to retain a competitive land markets.

- As the amount of permitted developable land continues to diminish in urban containment markets, housing affordability is likely to worsen, along with the standard of living. There are a

number of indirect consequences associated with urban containment, including Higher Poverty Rates, Increased Need for Low Income Affordable Housing, Increased Income and Wealth Inequality and stunted Economic Growth

AUTHOR

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