Development Charges and Housing Affordability: A False Dichotomy?

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Presentation Outline

- Introduction and Popular Narrative
- Fiscal Challenge of Growth to Municipalities
- Economic Function of Development Charges
- What is Housing Affordability?
- Impact of Development Charges on Housing Affordability
- Summary and Conclusions
Introduction and Popular Narrative

- Municipalities in Ontario rely heavily on development charges to recover growth-related capital costs.

- Development charges are one-time fees levied on development facilitating growth and giving rise to the need to expand municipal service capacity.

- According to AMO and MFOA, development charges are essential to ensuring that “growth pays for growth.”
Introduction and Popular Narrative


- Popular narrative: Development charges increase housing prices by reducing housing supply and therefore housing affordability.

- Although popular, that narrative is invalid because it disregards the connection between development charges and municipal services, property taxes and user fees.
Municipal services are subject to capital indivisibilities for three reasons:

- **Engineering Reality**: Bridges, road lanes, traffic signals, ice arenas, snowploughs, etc. provide all-or-nothing capacity.

- **Legal Constraints**: Water and sewage systems, landfills, etc. are subject to regulations requiring advance expansion.

- **Cost Factors**: Cost efficiency requires highly infrequent expansion or replacement of major municipal assets such as water treatment plants and trunk sewers.
Fiscal Challenge of Growth

- By contrast, growth occurs **gradually** over time (i.e., growth is highly divisible relative to growth-related capital works).

- Therefore, to maintain municipal service levels cost-efficiently, extension of services to growth necessarily entails creation of excess capacity.

- Municipal capital costs relating to growth, years or decades into the future, are thus incurred **upfront**.
Fiscal Challenge of Growth

- As a necessary condition of full cost recovery, efficient property taxes and user fees are based on full utilization of capacity.

- However, growth occurs gradually and generates municipal revenue only upon materialization.

- Therefore, efficient property taxes and user fees fail to fully recover growth-related capital costs.

- This is an irrefutable mathematical result and is easily proven.
Fiscal Challenge of Growth

- If municipalities have recourse only to property taxes and user fees to recover growth-related capital costs, they would have to levy inefficiently high property taxes and user fees.

- Accordingly, growth-related capital costs are then invariably shifted to established ratepayers in the form of excessive property taxes and user fees.

- As a result, established ratepayers call for lower service levels and greater restrictions on development.

- This fiscal distortion is the “externality of excess capacity.”
Fiscal Challenge of Growth

Why do the excessive property taxes and user fees driving the externality of excess capacity arise?

1. Efficiency requires the **upfront** creation of excess capacity.

2. Indivisible capital costs are driven by capacity **rather than** population.

3. Population is always below capacity, meaning that costs divided by population **always** exceed costs divided by capacity.
Economic Function of Development Charges

- Properly formulated development charges recover from growth the portion of growth-related capital costs that is necessarily unrecoverable by efficient property taxes and user fees.

- Accordingly, development charges work in conjunction with, but are not replaceable by, property taxes and user fees.

- Ontario’s Development Charges Act is, however, inconsistent with the foregoing conception.
What is Housing Affordability?

- Opposition to development charges is fueled by the belief that such charges reduce housing supply and thereby increase housing prices.

- It is in this sense that development charges are thought to diminish housing affordability.

- The central problem with that approach is the invalid premise that housing affordability is measurable only by the price of housing.
What is Housing Affordability?

• Housing is affixed to land, and municipal services are tied to location.

• So housing in a municipality is necessarily consumed jointly with municipal services.

• In a municipal context, therefore, housing affordability refers to the affordability of housing-municipality packages.

• Accordingly, housing affordability cannot be captured by housing prices alone.
What is Housing Affordability?

- In a municipal context, housing affordability refers to the economic well-being of households derived from joint consumption of housing and municipal services.

- Economic well-being (i.e., welfare) is measured by consumer surplus, which is the difference between what households are willing to pay and what they actually pay for consumption.

- That means housing affordability depends not only on housing prices but also municipal services and levies.
Impact of Development Charges

- Housing affordability is, in a municipal context, affected by development charges through three channels:
  - housing production costs;
  - property taxes and user fees;
  - municipal service levels.

- The latter two constitute the municipal environment.

- By focusing only on the first channel, critics invalidly conclude that development charges reduce housing affordability.
Impact of Development Charges

Consider a stock-flow model of a municipality’s housing market:

- Existing stock of housing is fixed due to its durability and immobility.
- Price is determined by intersection of the existing stock of housing with households’ demand (i.e., willingness to pay) for housing.
- Flow of new housing (i.e., housing production) is determined by intersection of price with developers’ supply of housing.
Impact of Development Charges

Figure A1: Impact of Development Charges in a Hypothetical Municipality’s Housing Market

Panel A: Existing Community

Panel B: Anticipated Growth

- $P^*$
- $P_a^*$
- $P_b^*$
- $P_c^*$

- $D(P)$
- $D_c(P)$
- $D_b(P)$
- $D_a(P)$

- $S(P)$
- $S_c(P)$
- $S_b(P)$
- $S_a(P)$

$h$, $h^*$, $h_a^*$, $h_c^*$
Impact of Development Charges

Stage 1 of adjustment (demand side):

- Development charges raise municipal service levels and reduce property taxes and user fees.

- Housing demand shifts up, and price increases by, the value of the improvement to the municipal environment.

- Welfare of established households increases by the above value as they already have homes in the municipality; welfare of incoming households remains unchanged as the above value is equal to the price increase.
Impact of Development Charges

Stage 2 of adjustment (supply side):

- Marginal cost of housing production increases by the rate of development charges, shifting housing supply up.

- Housing production changes depending on how the rate of development charges compares to the price increase.
Impact of Development Charges

Three possible cases regarding the shifting of development charges into housing prices:

- **Under-shifting**: Rate of development charges exceeds price increase, reducing housing production.

- **Exact-shifting**: Rate of development charges equals price increase, maintaining housing production.

- **Over-shifting**: Rate of development charges is exceeded by price increase, increasing housing production.
Impact of Development Charges

- Recall incoming households are indifferent about development charges before developers respond.

- Therefore, the change in incoming households’ welfare depends only on the change in housing production.

- Accordingly, incoming households’ welfare is affected only by the change in the timing of their joining the municipality.
Impact of Development Charges

- Regardless of which case arises, however, welfare of households taken collectively is improved by development charges.

- That is because development charges resolve an externality and hence restore (or maintain) economic efficiency in municipal services and the housing market, all else equal.

- Empirical evidence favours the over-shifting case, suggesting development charges improve welfare of even incoming households.
Two critical (and potentially counterintuitive) implications of these results:

1. Development charges raise housing prices, with housing production adjusting to its efficient level, precisely because they make housing more affordable.

2. Development charges improve welfare and thus housing affordability the more they are shifted into housing prices, all else being equal.
Impact of Development Charges

These implications run counter to the popular narrative that development charges:

1. Necessarily reduce housing production.

2. Harm households to the extent that they are incorporated into housing prices.

This outcome reveals the invalid premises underlying the popular narrative.
Summary and Conclusions

- Municipal services are subject to **capital indivisibilities**.

- If municipalities have recourse only to property taxes and user fees to recover growth-related capital costs, then **excessive** levies will result.

- Housing in a municipality is necessarily consumed **jointly** with municipal services.

- Introduction of properly formulated development charges **improves** the welfare of households collectively and thus housing affordability.