

Infrastructure – Accessibility or Connectivity?

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Overview

- Introduction
- The Canadian context with respect to transport infrastructure
- Conclusion

Introduction

- Comments from a Canadian context
- Some results from a study by Apparicio, Dussault, Polèse and Shearmur (2007)
- In our conclusion, we will try to answer some of the questions raised

The Canadian context with respect to transport infrastructure

- Objective: measure the impact of transport infrastructure on local employment growth in Canada (1971-2001)
- Canada divided in 145 urban and 214 rural places (northern Canada is not included in study)
- Three decades separately (71-81; 81-91; 91-01)

The Canadian context with respect to transport infrastructure

- Application of GIS (Geographical Information Systems) techniques combined with econometric modelling
- Integration of continental accessibility variables associated with four transport modes → using modal mixes (harbour-roads; rail; roads-air; air)

The Canadian context with respect to transport infrastructure

- Findings:
- Transportation modes do not act in isolation → necessary, but not sufficient condition for growth
- Different transport modes are associated with different industries.
 - Financial services and producer services → Road-air
 - Manufacturing → harbour-roads; rail
 - Wholesale → all

The Canadian context with respect to transport infrastructure

- The study finds a significant positive relationship between transport infrastructures – via the access they provide to continental markets – and local employment growth
- The combined positive impact of the four modal mixes on growth in manufacturing employment rises significantly over time
 - Growth in mfg employment in Canada is increasingly linked to considerations of transportation access to continental markets

The Canadian context with respect to transport infrastructure

- For manufacturing employment, the strongest – and growing – relationship is with the modal mix of harbours and roads

The Canadian context with respect to transport infrastructure

- Three conclusions
 - First, the gap between communities that are “well-connected” and those that are not is likely to widen in the future. This is good news for communities – small cities as well as large – in Southern Ontario, in southwestern Quebec, and in parts of the Maritimes and in B.C. Lower Mainland, but bad news for communities in Canada’s peripheral regions, less well-connected to continental markets
 - i.e. Infrastructure is not an “antidote” to remoteness

The Canadian context with respect to transport infrastructure

- Second, growth, most noticeably in manufacturing employment and in related industries, will tend to coalesce along trade and transport corridors. The prime example in Canada has always been, and remains, the Windsor-Québec City corridor. Other examples are the Edmonton-Calgary-Lethbridge corridor in Alberta and the Halifax-Moncton-Fredericton corridor, around which growth in the Maritimes is increasingly coalescing.

The Canadian context with respect to transport infrastructure

- Third, investments in transport infrastructure that *significantly* improve the combined road, water, rail, and air accessibility of communities to continental markets should stimulate local employment growth, notably in manufacturing.

Conclusion

- We could make a parallel between new/improved infrastructure and tariff
- As for the elimination of a tariff, new/improved infrastructure will reduce the cost of trade (transport and communication costs) with other regions, both out of the region, but also in the region...

Conclusion

- One difference with trade liberalisation
 - tariff → national economy
 - Infrastructure → regional/local economy
 - Is market size sufficient to think that – in isolation – economies of scale could be achieved?

Conclusion

- As with trade liberalization, the presence of market failures should be addressed
 - Labour and business dimensions...
- Accessibility and connectivity are not substitutes, but rather complementary...
 - Even in service trade, the need for face-to-face meetings is increasing... as witnessed in Canada by the concentration of such employment in larger urban centers, although do not need “all modes” in such context

Conclusion

- The choice in the approach and focus with respect to infrastructure development should be based on the region's characteristics and its comparative advantage

Conclusion

New / Improved
Infrastructure

Case 1: Firms serving
local market are
“protected” from
external competition
by deficient
Infrastructure
→ LOSS

Case 2: Firms serving
local market are
competitive on external
markets but restricted
by deficient
infrastructure
→ GAIN

Case 3: Existing (new)
exporters who could be
more (become) efficient
with better
infrastructure
→ GAIN



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