RESEARCH NOTE

#PARG 2022-13RN

The Likely Impacts of the Regional Opportunities Investments Tax Credit (ROITC)

Context and Theories of Regional Economics Divergence

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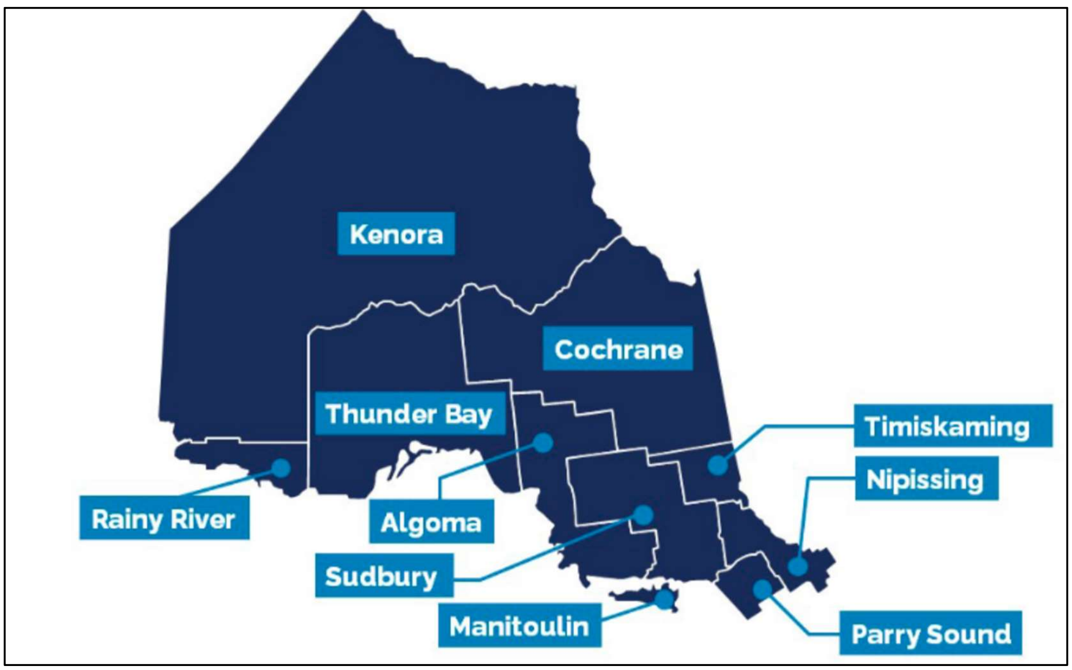
In its 2020 budget, the Ontario government introduced the Regional Opportunities Investment Tax Credit (ROITC). The ROITC is a corporate income tax credit for investments in commercial and industrial buildings in regions that experienced below average employment growth between 2009 and 2019. Essentially, the ROITC reduces the provincial tax liability for corporations that make qualifying investments in Northern, Eastern, and Southwestern Ontario. The ROITC was announced several months after the government pledged to explore "ways to encourage investment into rural and undercapitalized areas of the province" through means such as "potential changes to the tax system (Ontario 2019, 50). Place-based tax incentives are widely used by governments seeking to encourage economic activity in less prosperous regions; however, the effectiveness of these incentives is questionable.

This study analyzes the likely impacts of the ROITC. It explores, first, whether place-based investment tax incentives like the ROITC are generally effective at promoting economic development in targeted regions and, second, how the impacts of the ROITC are likely to vary between Northern, Eastern, and Southwestern Ontario. This note is part of a sequence of three research notes. This note sets the context for the series by discussing how the ROITC works, the extent of regional economic disparities in Ontario, and theories of regional economic divergence. The second note uses literature and data regarding previous place-based investment tax incentives to determine the usual impacts of such policies. The final note draws on the first two notes to explain how the impacts of the ROITC are likely to vary between Northern, Eastern, and Southwestern Ontario.

The Regional Opportunities Investment Tax Credit

The ROITC reduces the provincial corporate income tax liability of corporations that make qualifying investments in designated regions. Through the ROITC, corporations receive a 10 percent refundable tax credit on investment expenditures exceeding $50,000, up to a maximum of $500,000 (Ontario 2021). In response to the economic impacts of the COVID-19 pandemic, the province has temporarily doubled the credit amount to 20 percent for investments made between March 24th, 2021, and December 31st, 2022. Only Canadian-controlled private corporations that have a permanent establishment in Ontario at the time a qualifying investment is made are eligible for the ROITC. Qualifying investments are those used to acquire, construct, or renovate an eligible property. An eligible property is a commercial or industrial building; specifically, those included in capital cost allowance classes 1 or 6 for income tax purposes. To qualify for the ROITC, investments must also be made in a designated region (see figures 1 and 2). Census divisions are designated as eligible for the ROITC if they are located in economic regions[1] that experienced below average employment growth between 2009 and 2019.

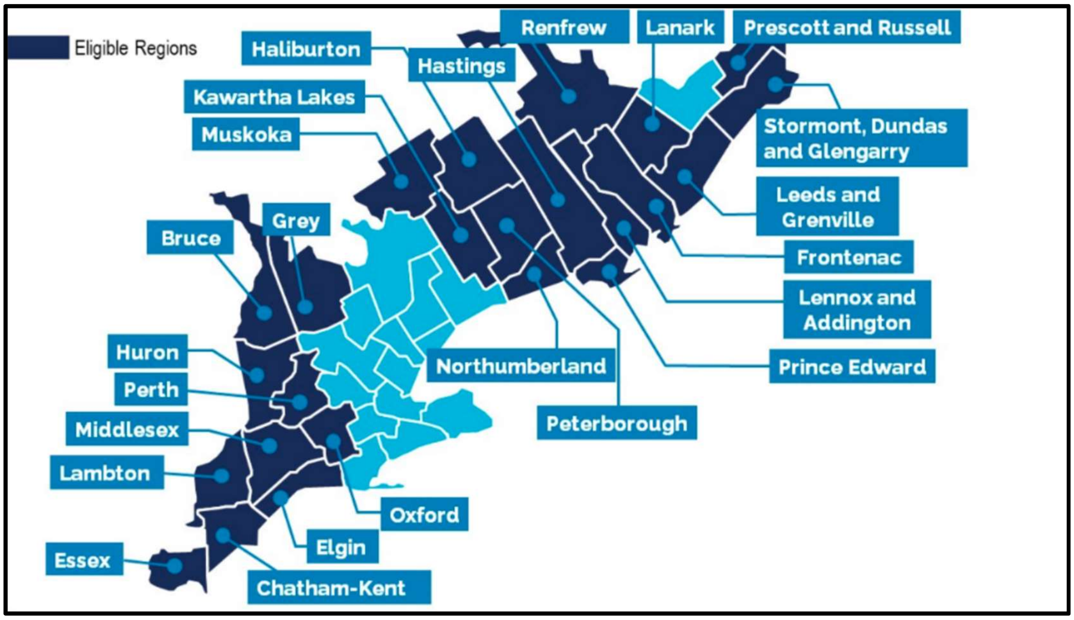
Figure 1: Census Divisions eligible for the ROITC in Northern Ontario (all are eligible)



Source: Ontario. 2021. Regional Opportunities Investment Tax Credit.

[1] Census divisions and economic regions are intermediate geographic areas between the provincial and municipal level that are used by Statistics Canada for presentation and analysis. Ontario's census divisions generally correspond to first-level administrative divisions: counties, districts, regional municipalities, and single-tier municipalities. Economic regions are groupings of census divisions. For example, the census divisions of Rainy River, Kenora, and Thunder Bay form the "Northwest" economic region of Ontario.

Figure 2: Census Divisions Eligible for the ROITC in Southern Ontario



Source: Ontario. 2021. Regional Opportunities Investment Tax Credit.

The regions of Ontario

For the purposes of this study, Ontario is considered to have 5 major regions: Northern Ontario, Eastern Ontario, Southwestern Ontario, the Ottawa/National Capital region, and the Greater Golden Horseshoe region. "Northern Ontario" refers to all the census divisions shown in Figure 1, "Eastern Ontario" is the northern swath of ROITC-eligible census divisions in Figure 2 that stretches from Muskoka to Prescott and Russell, and "Southwestern Ontario" is the southern swath of ROITC-eligible census division in Figure 2 that stretches from Essex to Grey. The Ottawa/National Capital region and the Greater Golden Horseshoe region cover the census divisions in which investments are not eligible for the ROITC.

There are large economic disparities between these regions. These disparities are best illustrated by the gap in household incomes across Ontario. In the Halton and York census divisions in the Greater Golden Horseshoe region, median household after-tax incomes exceeded $80,000 in 2015 (Statistics Canada 2017). The provincial average, meanwhile, was $65,285. In Manitoulin, a rural census division in Northeastern Ontario, the median household after-tax income was only $47,293. These regional disparities do not appear to be shrinking. Ontario added 865,000 jobs between January 2008 and August 2019, but nearly 90 percent of these jobs were created in Toronto and Ottawa, and non-metropolitan areas across Ontario lost approximately 75,000 jobs (Ahmed 2019).

Theories of regional economic divergence

This study employs three complimentary theories of regional economic divergence: cumulative causation, New Economic Geography, and cluster theory. Each theory seeks to explain why economic activities take place where they do, and more specifically why some economic activities concentrate in certain regions. These theories can help explain why different regions of Ontario are more prosperous than others, and indicate how the less prosperous regions can improve.

Cumulative causation

The theory of cumulative causation suggests that positive feedback loops cause developed regions to remain developed and underdeveloped ones to remain underdeveloped (Dawkins 2003, 139). This theory is informed by the well-established concept of *agglomeration economies*, the tendency for firms and workers to become more productive as they locate near each other. In short, according to cumulative causation, labour and capital tend to move from underdeveloped regions to developed regions where, due to agglomeration economies, they can both usually obtain higher returns. Labour obtains higher returns – i.e., wages – through being more productive in the developed regions where firms are concentrated. Workers are better able to find the job that best matches their skills, and they can produce greater output when employed by a more efficient firm. Kaldor (1970, 486-488) uses the concept of efficiency wages to explain how capital invested in developed regions can obtains higher returns even as labour does too. While labour's returns are determined by real wages, the return on capital is affected by efficiency wages – real wages divided by workers' productivity. Because agglomeration economies increase firms' productivity, efficiency wages can fall even as real wages remain stable or rise.

The effects of this trend towards geographic concentration of industry accumulate as underdeveloped regional economies weaken further through losing capital and labour, prompting even more investment and workers to relocate. Typically, the developed regions are those that were the first to industrialize. Early industrializers gain an initial efficiency advantage from having established industries, and through the process described, they tend to maintain this advantage.

New Economic Geography

Paul Krugman's New Economic Geography (NEG) builds upon the theory of cumulative causation to explain why manufacturing often becomes concentrated in certain areas, while other regions remain less developed. NEG suggests that in economies with low transportation costs, relatively small primary industries as a share of GDP, and strong economies of scale, industries characterized by increasing returns to scale and modest use of land – such as manufacturing, as well as most services – will concentrate in particular areas (Krugman 1991, 497). In areas that do not experience this concentration of advanced industry, local economies rely more on industries characterized by constant returns to scale and heavy use of land, such as agriculture and natural resource extraction.

Ontario's regional economies largely follow the pattern described by NEG: a couple highly developed core regions (the Greater Golden Horseshoe and the Ottawa/National capital region) have strong secondary and tertiary industries, while agriculture and natural resource extraction are concentrated in less prosperous peripheral regions (Northern, Eastern, and Southwestern Ontario). Significantly, the divide between core and peripheral regions is reflected in ROITC eligibility; Northern, Eastern, and Southwestern Ontario are the three broad regions in which investments are eligible for the tax credit. Consequently, the explanations for regional economic divergence offered by NEG and cumulative causation seem apt for the regions under study.

While regional economic concentration is the norm across the developed world, the extent of regional concentration varies by country and by subnational jurisdiction. Krugman (1998, 8-9) explains that the core-periphery pattern described in NEG emerges through "a tug of war between forces that tend to promote geographical concentration and those that tend to oppose it". Centripetal forces promote concentration. Krugman identifies three. Firms located in large markets have greater access to consumers, "thick" labour markets help workers and firms find each other, and there are greater opportunities for productivity-enhancing information spillovers to occur.

Krugman also identifies three centrifugal forces that oppose concentration. Centrifugal forces are significant for the analysis in this study because it is through strengthening these forces that regional development policies like the ROITC can be effective. First, immobile factors such as land and natural resources – and to a certain extent, people – promote the dispersion of economic activity because production must take place where factors of production are located. Additionally, when production in certain industries must be located in peripheral regions where immobile factors are present, some production in other industries might follow to have access to the market in said region. The two other centrifugal forces are, first, the increased cost of land in core regions as concentrated economic activity increases demand and, second, negative externalities such as congestion that arise from the concentration of economic activity.

Knowing these three centrifugal forces, one can deduce avenues for improving economic outcomes in Northern, Eastern, and Southwestern Ontario. First, if local agricultural and natural resource industries can grow and attract more workers, some footloose industry based in the Greater Golden Horseshoe, Ottawa, and outside the province should follow demand and move to peripheral regions. Second, if these regions can develop and retain a strong labour force through education and training or migrant attraction, some firms should relocate in response. Third, peripheral regions could entice firms and workers to relocate from the core through furthering and exploiting their cost advantage. Peripheral regions gain this cost advantage through not having the high land prices and negative externalities present in core regions.

Cluster theory

Cluster theory is presented in Michael Porter's 1998 article *Clusters and the New Economics of Competition*. Cluster theory draws upon many of the same concepts as cumulative causation and NEG. Similar to cumulative causation and NEG, Porter (1998, 78) observes that economic growth and innovation tend to be geographically concentrated, and that these geographic concentrations tend to persist. Relative to the other theories, cluster theory's distinguishing feature is its emphasis on "networks" as the most significant source of economic growth in modern globalized economies. Industry-specific clusters emerge through local networks that encompass firms as well as universities, training providers, trade associations, and other supportive institutions. Clusters gain a comparative advantage by engendering relationships, knowledge, and motivation that maximize the productivity of inputs (Porter 1998, 78).

At the geographic level of Ontario's five major regions, cluster theory's ability to explain divergent economic fortunes is limited relative to cumulative causation and NEG. Cluster theory focuses on a narrower form of geographic concentration of economic activity than cumulative causation and NEG. Consequently, the theory's ability to explain divergent economic fortunes at the geographic level of Ontario's five major regions is limited. Porter (1998, 79-82) uses cluster theory to explain why specific industries concentrate in certain cities, such as aircraft equipment and design in Seattle, telemarketing in Omaha, and medical devices in Boston/Cambridge. Cumulative causation and NEG, in contrast, explain why secondary and tertiary industries writ large concentrate in wider regions like the Greater Golden Horseshoe. Cluster theory can, nevertheless, make a modest contribution to this paper's theoretical framework. By explaining the heightened importance of thick labour markets and information spillovers in modern globalized economies, cluster theory indicates that centripetal forces have likely strengthened in Ontario in recent decades.

Conclusion - Synthesizing the three theories

Together, these three theories of regional economic divergence provide four facts that can help us understand the ROITC's effectiveness as a regional development instrument. First, within a country, or a large sub-national unit like Ontario, secondary and tertiary industries tend to concentrate in particular "core" regions. Second, the extent to which these industries concentrate in core regions is determined by the strength of centripetal forces (access to consumers, thick labour markets, information spillovers) relative to the strength of centrifugal forces (immobility of factors of production, cost of land, negative externalities of concentrated economic activity). Third, to attract significant new economic activity, peripheral regions must strengthen centrifugal forces relative to centripetal forces. Fourth, in today's globalized economy, thick labour markets and information spillovers can be especially valuable, likely strengthening centripetal forces.

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