

# Emerging Trends and the Future of Canada's Regions

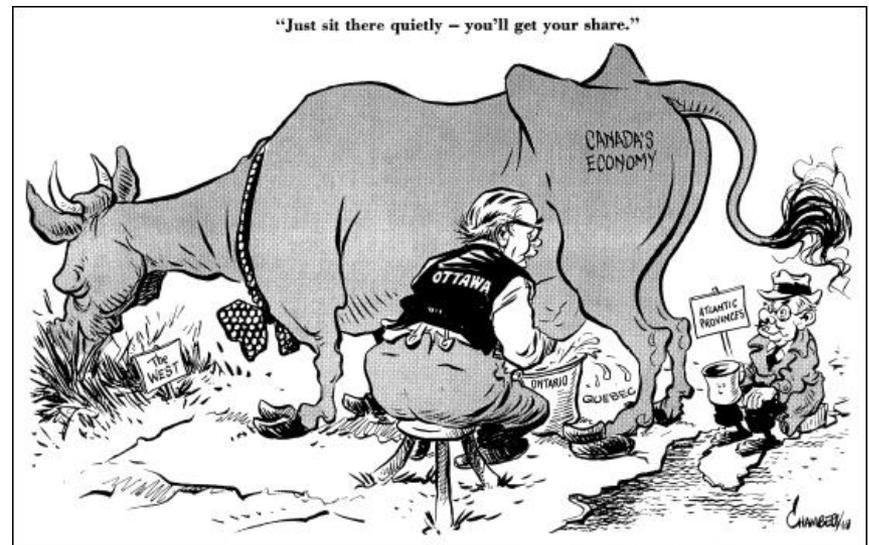
May 4, 2017 | Herb Emery, Vaughan Chair in Regional Economics

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# The Structure of the Canadian Economy

## Nationally diversified, Regionally specialized

- **Regions: resource exports create wealth**
- **Heartland: Tariffs, transportation policy, tax policy and industrialization capture the wealth**
  - Structures created to “share the wealth”



Bob Chambers, *The Halifax Herald*, 19 February 1968

# Lately, the “old cow” model of the Canadian economy out of fashion

- **“natural resource industries don’t contribute anymore”**
  - natural resource industries are “tired” “old industries” devoid of innovation, productivity growth and plagued by depletion
- **“natural resource exports harm the national economy”**
  - Dutch Disease – resource sector “crowds out” the “dynamic sector”, manufacturing
    - Alberta’s gain at Ontario’s expense by wage inflation and an appreciating dollar
  - National interests are served by limiting resource development
    - No pipelines, carbon tax on producers

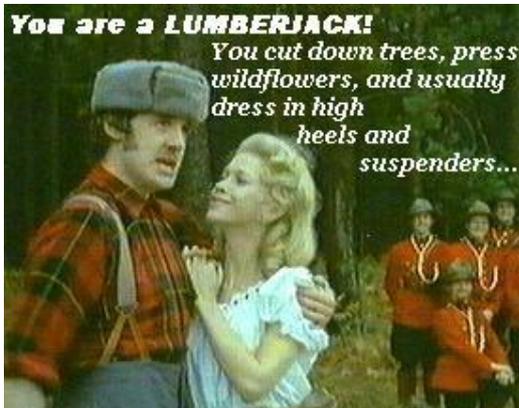
## Things that make you say hmmm...

in the world. Former industry minister, now vice-chairman of the CIBC Jim Prentice accurately sums it up: “There’s no shame hewing wood and drawing water as long as you are the best in the world at it.”

Ben Brunnen and Tom Kmiec, Policy Options March 2013, page 44

There is a prevailing view across the country that our energy is a harbinger of great calamity — we are a one-trick pony, we’re a “staple” economy, unstable, dependent, a single-resource producer. But this argument has been countered by influential thought leaders such as Bank of Canada Governor Mark Carney. In a September 2012 speech in Calgary, he stated that high commodity prices were unambiguously good for Canada and, rather than debate their utility, we should focus on minimizing the pain and maximizing the benefits of our resource economy.

## “Hewers of wood” aren’t sexy in Davos



We Canadians are finding it difficult to make the transition from a resource-based, behind-tariff-walls economy to a human capital based economy (i.e. from boards and mortar to mortar-boards)

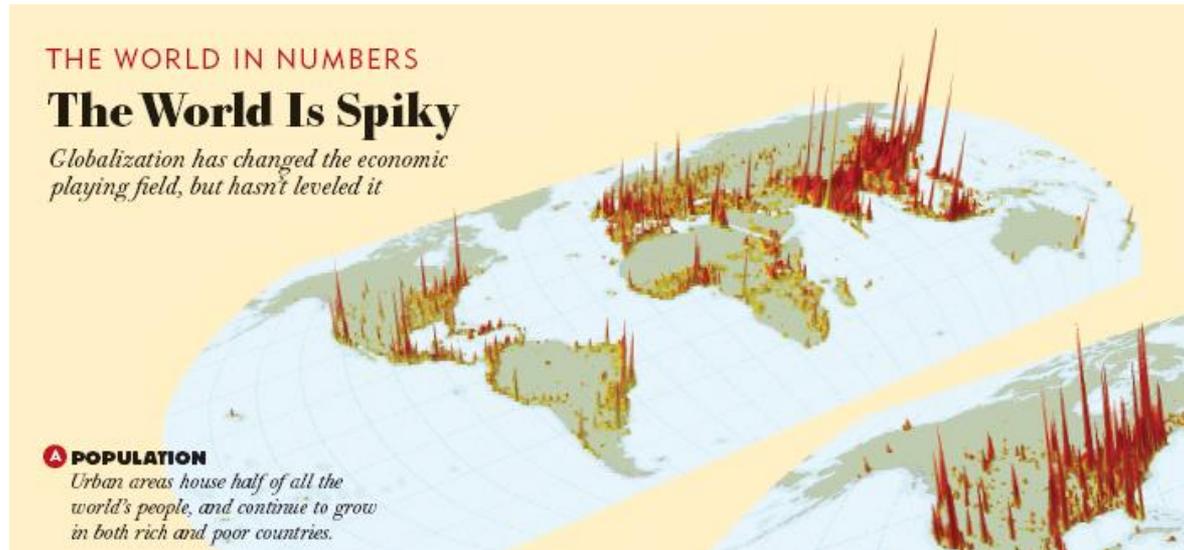
Tom Courchene, Policy Options, Jan-Feb 2000, page 102

- **Important economies are not natural resource exporters**
- So time to do something else like:
  - Autos and more autos
  - Bombardier
  - SuperClusters like AI
  - Warehouse for Amazon
  - Infrastructure other than pipelines

How did we get to this point?  
Some trends...

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# Population is concentrating globally



# Canadian growth over the past 30 years has been urban growth in the biggest cities

2001



2014



<http://news.nationalpost.com/toronto/toronto-skylines-absolute-transformation-captured-by-two-photos-taken-13-years-apart>

# “More New Brunswick raccoons prefer urban life to woods, study suggests”

Preliminary results are in from the first-ever New Brunswick raccoon population study

By Shane Fowler, CBC News Posted: Sep 29, 2017



# Capital is concentrating



# Capital flows uphill

Doesn't move to lowest cost locations

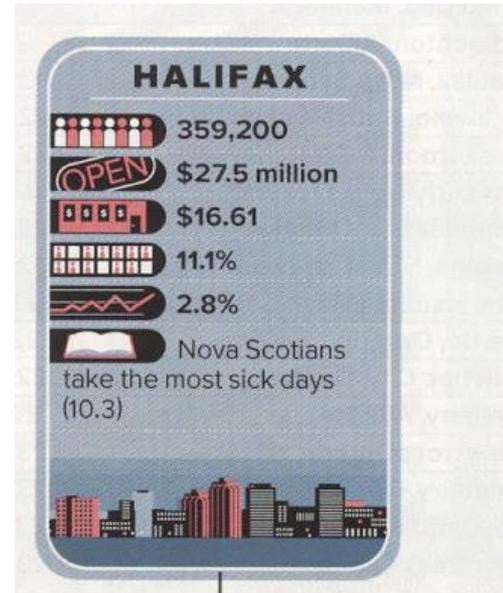
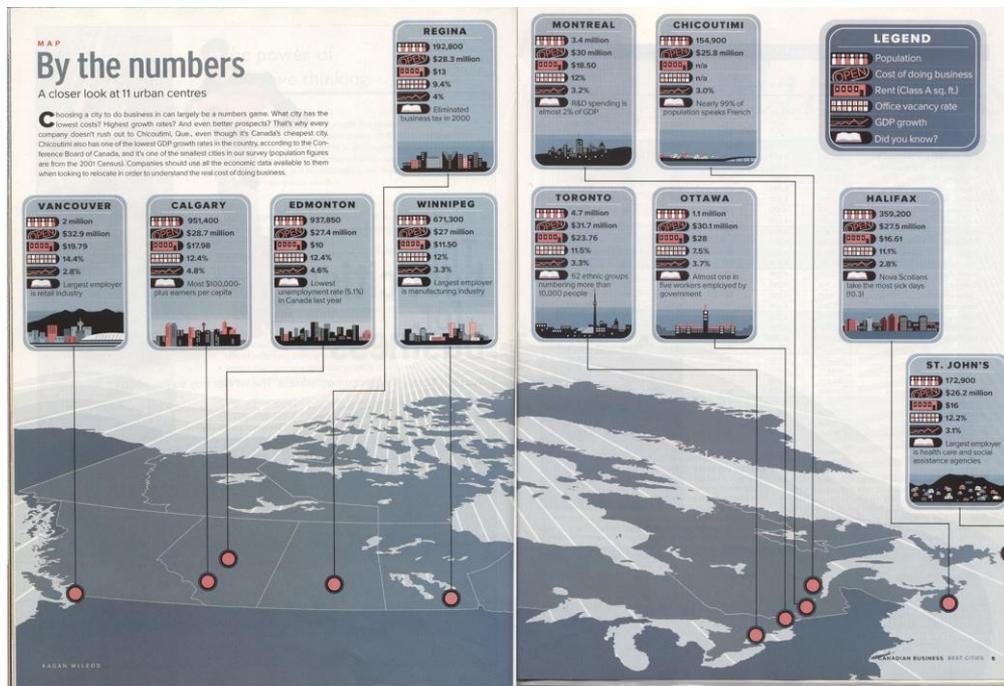
**RANKINGS**

**VALUE VILLAGES: VARIABLE OPERATING COSTS (\$000S)**

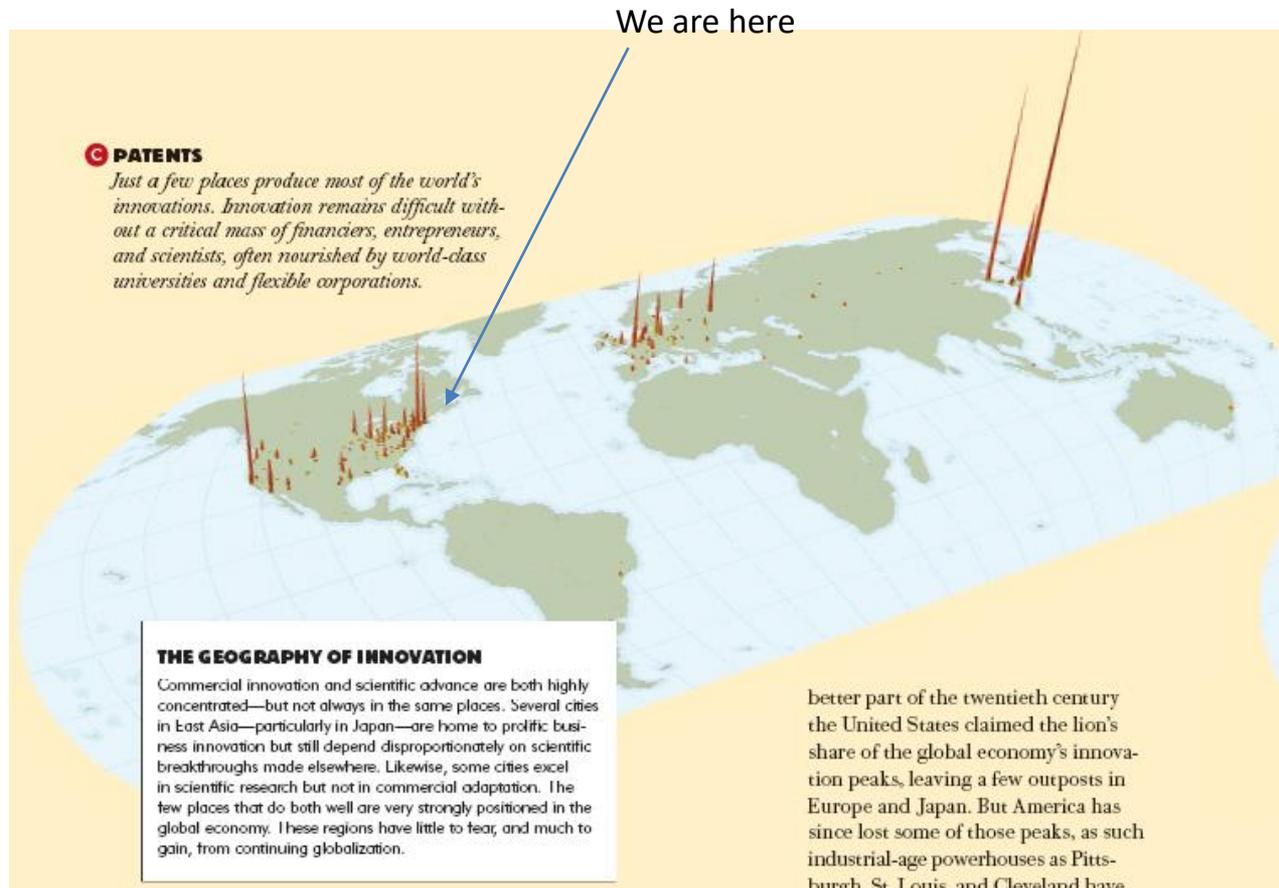
City	Payroll	Benefits	Amortization	Utilities & Taxes	Travel	Total Variable Operating Costs
Chicoutimi, Quebec	20,479	4,096	488	514	199	25,777
Sherbrooke, Quebec	20,756	4,151	489	545	209	26,149
St. John's, Newfoundland	20,856	4,171	456	430	267	26,180
Charlottetown, PEI	20,856	4,171	439	633	256	26,355
Moncton, New Brunswick	21,082	4,216	441	580	248	26,567
Fredericton, New Brunswick	21,233	4,247	454	562	228	26,724
Saint John, New Brunswick	21,309	4,262	458	585	206	26,819
Winnipeg, Manitoba	21,635	4,327	470	378	232	27,042
Edmonton, Alberta	21,711	4,342	507	612	205	27,377
Halifax, Nova Scotia	21,861	4,372	464	587	241	27,526
Kelowna, British Columbia	22,364	4,473	507	354	212	27,910
Saskatoon, Saskatchewan	22,288	4,458	443	646	210	28,045
Trois-Rivières, Quebec	22,414	4,483	494	553	259	28,202
Thunder Bay, Ontario	22,640	4,528	499	394	213	28,275
Regina, Saskatchewan	22,490	4,498	446	665	209	28,307
Abbotsford, British Columbia	22,791	4,558	503	341	216	28,409
Barrie, Ontario	22,841	4,568	512	465	216	28,603
Quebec City, Quebec	22,766	4,553	496	546	261	28,622
Calgary, Alberta	22,791	4,558	505	587	267	28,708
Kingston, Ontario	23,389	4,678	517	395	224	29,202
Sudbury, Ontario	23,645	4,729	495	385	215	29,470
St. Catharines, Ontario	23,997	4,799	496	405	207	29,904
Montreal, Quebec	23,846	4,769	492	555	319	29,982
Ottawa, Ontario	24,123	4,825	513	393	284	30,138
London, Ontario	24,399	4,880	518	376	212	30,385
Hamilton, Ontario	24,449	4,890	519	336	214	30,408
Kitchener, Ontario	24,625	4,925	500	386	211	30,648
Victoria, British Columbia	24,676	4,935	509	340	361	30,821
Oshawa, Ontario	24,952	4,990	518	398	213	31,072
Windsor Ontario	25,002	5,000	503	407	215	31,127
Toronto, Ontario	25,128	5,026	531	617	349	31,650
Vancouver, British Columbia	26,435	5,287	518	307	309	32,855



# Then again there might be a problem with the media

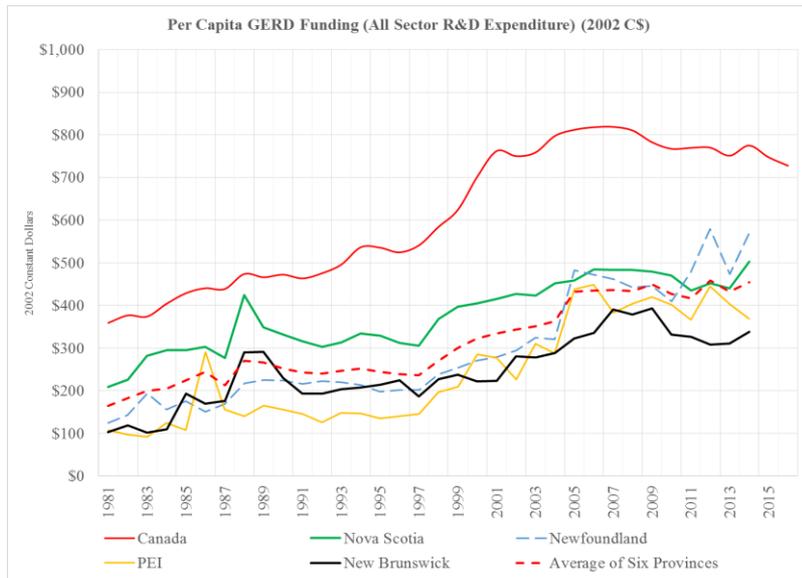


# Innovation is happening in big population centres

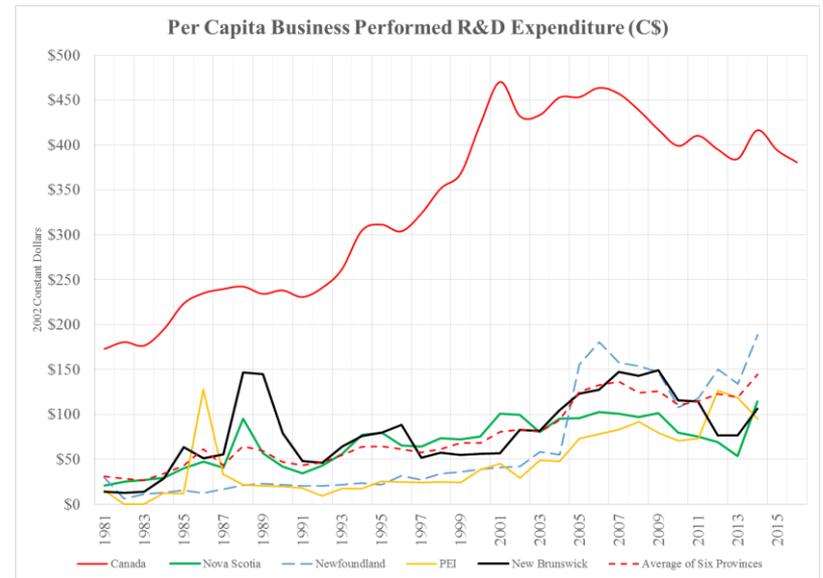


# What RandD Canada does is happening in the 4 large provinces

## GERD



## BERD



What explains these  
concentration trends?

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# Internal economies of scale

Cost advantages from producing on larger scale (bigger factories)

**Increasing returns to scale = producing more in one place reduces costs**

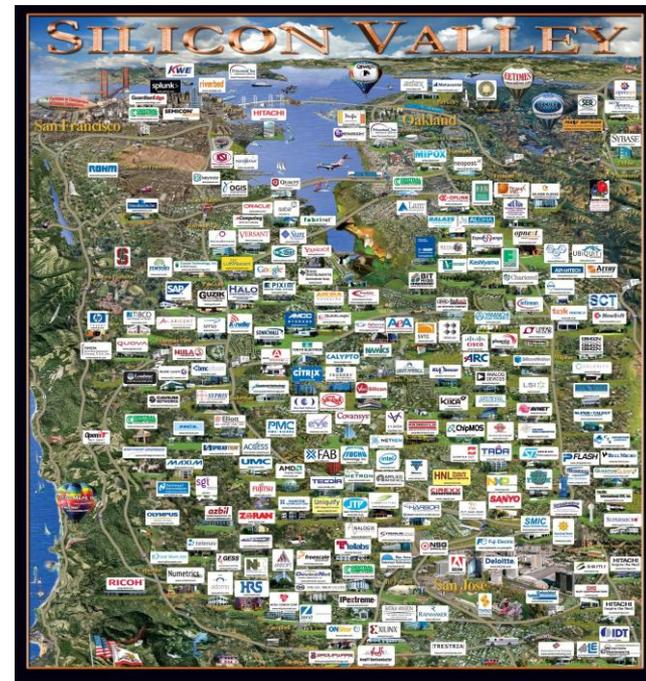
- **Trade-off of transportation costs and scale economies**
  - Usurping/concentrating economic activity from the hinterland
    - Rural decline is the natural order
- **Vertical integration**
  - This is the story of Irving, McCain Food story, most resource based economies



# External Economies of Scale

cost advantages of a larger industry in a location

- **Agglomeration effects**
  - Regional concentration of an industry
    - Larger number of co-located firms in an industry lower costs
  - no particular incentive for individual firms to grow large themselves
  - an economy of a large number of small firms
- **External economies result in lower costs of production (or higher labour productivity)**
  - Knowledge spillovers
  - thick labour markets
  - thick market of input suppliers and venture capital
  - social networks and relationships



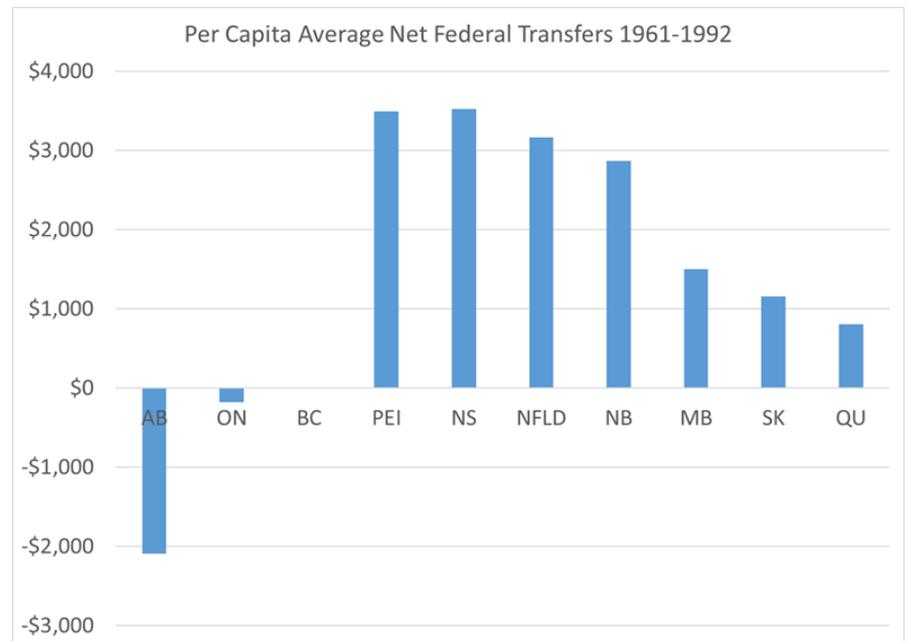
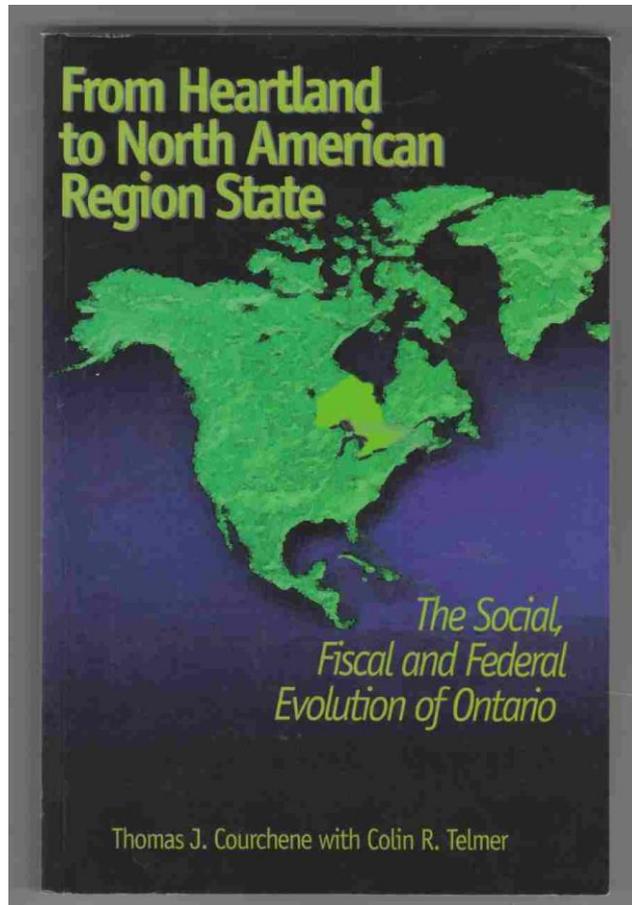
# Implications for economic development

- **Regions/hinterlands are irrelevant beyond the population feedstock**
  - And immigration is a perfect substitute
- **Focus on large cities with scale economies**
  - Not provinces, not regions and not small places



# Political fragmentation:

Regional hinterlands are expensive pets/colonies for the core to maintain...

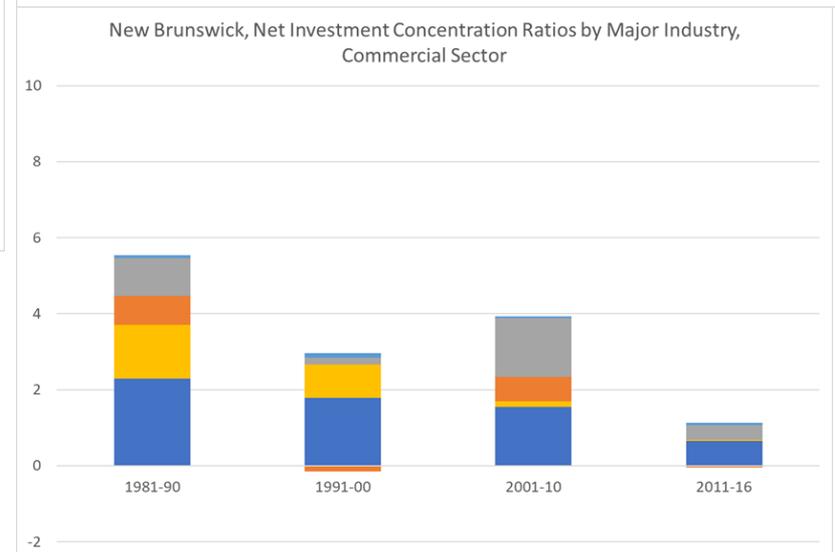
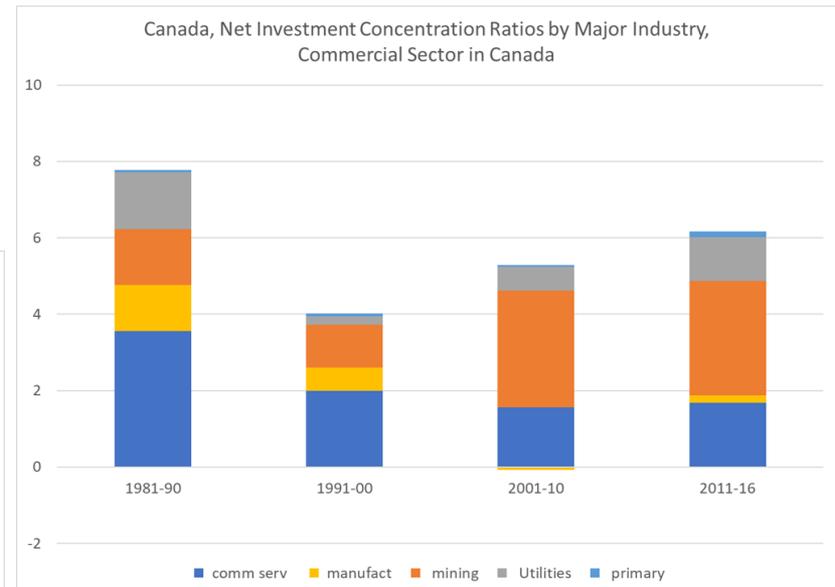
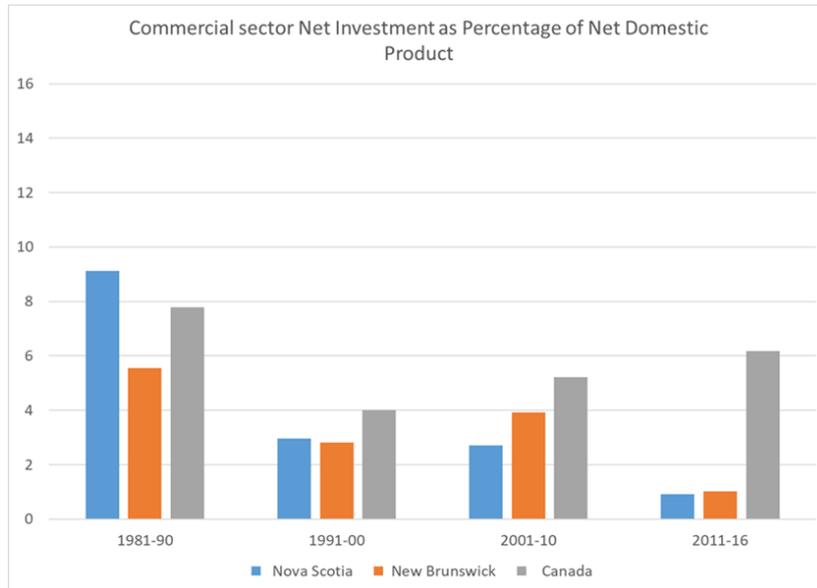


*But what if we are wrong?*

What if that story is  
wrong?

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# What if: natural resource exports are still the driver of investment?



# What if: urban growth a product of linkage capture from resource producing hinterland

(This is not a “product placement”)



- **Technical progress in production and transportation**

- Less reason for labour and capital to reside at site of primary production
- Less need to locate forward processing
- Mechanization in production
- Scale economies in service sector

# What if: Innovation and technical progress in resource industries exceeds that of most sectors?

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Keay

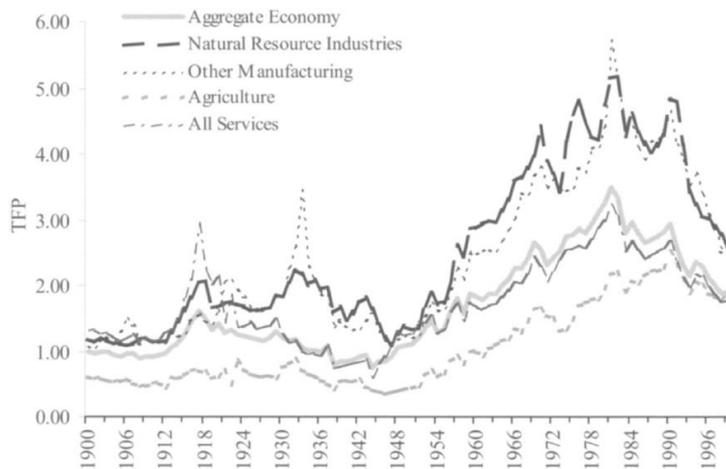
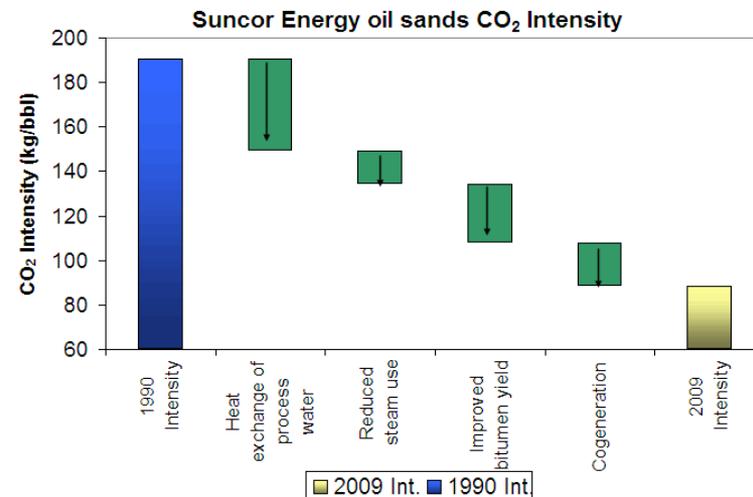


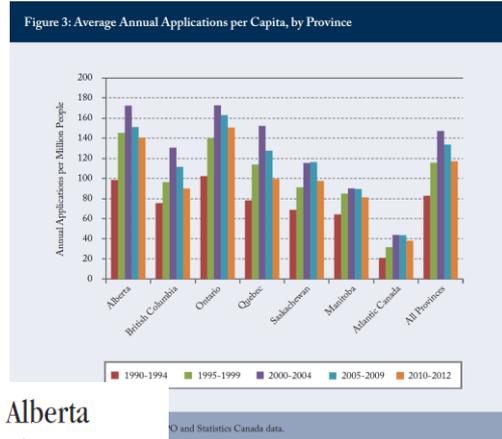
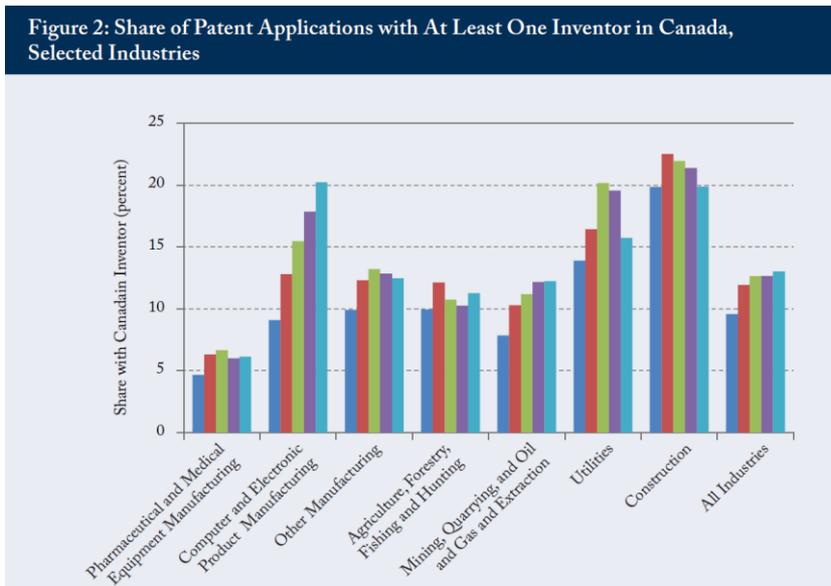
FIGURE 5  
TFP INDICES BY SECTOR  
(aggregate economy 1900 = 1.00)

TFP=Total Factor Productivity – GDP growth not explained by increases in inputs (e.g. K and L); more output per unit of input



# What if: High level of innovation in resource industries, including agriculture evident in terms of patenting, outside of Atlantic Canada...

Figure 2: Share of Patent Applications with At Least One Inventor in Canada, Selected Industries



The above results put a new perspective on the value-added debate and show that researchers in Alberta and in the utilities and construction sector – areas that are often seen as producing little “value added” – are outperforming researchers in many other parts of the economy in applying their work to the Canadian market.

# Innovation a fountain of youth for the resource sector

- **Innovation creates abundance**
  - Innovation converts a resource into a larger reserve
- **resource**
  - total amount of a material that exists.
    - discovered and undiscovered, economically recoverable or not economically recoverable
- **Reserves**
  - Economically recoverable portion of the resource given existing technologies and prevailing prices.
- **Transportation**
  - Overcome distance
- **Production extraction**
  - Lower costs increase profits at any given price
  - Lower quality resource, harder to access resource
- **Forward processing**
  - Increase value-added, higher profit per unit of extraction
  - New products
- **Business innovation/logistics/supply chain/new markets**
- **Eco-environmental innovation**
  - Lower environmental and social cost
- **Regulation, legal, property rights, policy**
  - “social license” addressed

# So why does the resource sector get no respect?

## The “Verizon Math” Problem:



- **Small rates applied to large volumes confuse and overwhelm people**
  - Prefer a one in 1000 shot at a 40:1 ROI on \$1 million
    - Expected Profit: \$39,000
  - to a relatively certain 1.001:1 ROI on \$10 billion
    - Expected Profit: \$10 million

[verizonmath.blogspot.com](http://verizonmath.blogspot.com)

**$\$.002 \neq .002\text{¢}$**

**$\$.002 = .2\text{¢}$**

**$\$.0002 = .02\text{¢}$**

**$\$.00002 = .002\text{¢}$**

**Can you hear me now?**

**$.002\text{¢}/\text{kb} \times 35,893 \text{ kb}$**

**$= 71.786\text{¢} = \$0.72$**

So what is the path forward for  
Canadian growth?

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# We need to answer the question as to why the resource producing regions are not the engine they once were...

## **Option 1: Resources are depleted, we are high cost producers**

- **Focus policy on**
  - Things in which we have no obvious comparative advantage
  - Growing cities, big cities
  - Encourage investment in cities
    - Subways, not pipelines and wires
  - Encourage labour mobility from periphery to core
  - Encourage innovation in emerging industries (not resource)
  - Allow unresolved social license to limit resource development

## **Option 2: Resources abundant, in global demand we are just lousy at making the most of them**

- **Focus policy on**
  - Our natural comparative advantage
  - Develop new markets, or bigger share of markets
  - Invest in infrastructure needed to get resources to market
    - Pipelines, wires, not subways
  - Investment in R&D in resource sector
  - Ignore the cities, they will grow as a by-product
  - Resolve social license issues

# Why don't we know the answer?

## Final Trend: We stopped asking questions

- **Evidence based policy making has given way to policy based evidence making**
  - We used to be a population that had questions
    - Now we have policy makers who believe they know answers
- **Lousy investment in data that would let us answer these questions**
  - Case study has replaced quantitative analysis
- **Academic economists have little interest in Canadian or regional economies**
  - Interested in publishing – so focus on advancing the science of the discipline and/or contribute to questions of “global importance”

Thanks for listening

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