



Industry Focus. Powerful Results.™

.....

Reading the Tea Leaves

Thermal Insulation Association of Canada



What would it take for **you** to go **all in** on a strategy?

How would you **adapt** if you knew the economy is cooling off?

If it was expanding?

Questions to Frame Our Conversation

- What has been the single biggest external impact on your organization over the last 12 – 18 months?
- What have you done in the last 6 - 9 months to position your organization to succeed over the long haul?
- How will the organization look different in 2019 than it did in 2017?





What is the New Normal?



Yesterday's Battlefield

The Good Ole Days

- Past was a good indication of the future
- Data was scarce and hard to find
- Lines of communication were unreliable
- Execution starts at the top



Disruptors are Everywhere



Today's Trending Technologies

- Online Retail / Amazon Prime
- Multi-Family Homes / Rentals
- AUTON vehicles / Kangaride
- PayPal / Bitcoin / Elec Banking
- E-Learning / Professional Dev.
- Livehealthonline / Fitbit
- Hoteling / Telecommuting
- JUST EAT / Uber Eats
- Netflix / iTunes / Sling / Prime
- Ankle Bracelets & GPS
- Airbnb
- GoodFood/ Cook it / MIssFresh



Construction Projects

- Shopping Centers / Strip Malls
- Single-family Homes
- Dealerships & Roads
- Bank Branch Offices
- University Campuses
- Healthcare (Hospitals)
- Office Buildings
- Restaurants
- Cinemas / Theaters
- Prisons
- Hotels
- Grocery Chains



Conversations to Have

Determining the Impact on Your Business

What are the implications for....

- **Speed** of service levels?
- **Response** time of business?
- **Cost** of products and services?

Trends Shaping the E&C Industry



Availability of labour



Megaproject proliferation



Technology advances



Strategic risk management



Mergers and acquisitions



Low-cost natural gas



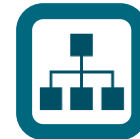
Succession & continuity



Commercial building



Business intelligence



Flat organizations

.....

Strategy & Vision

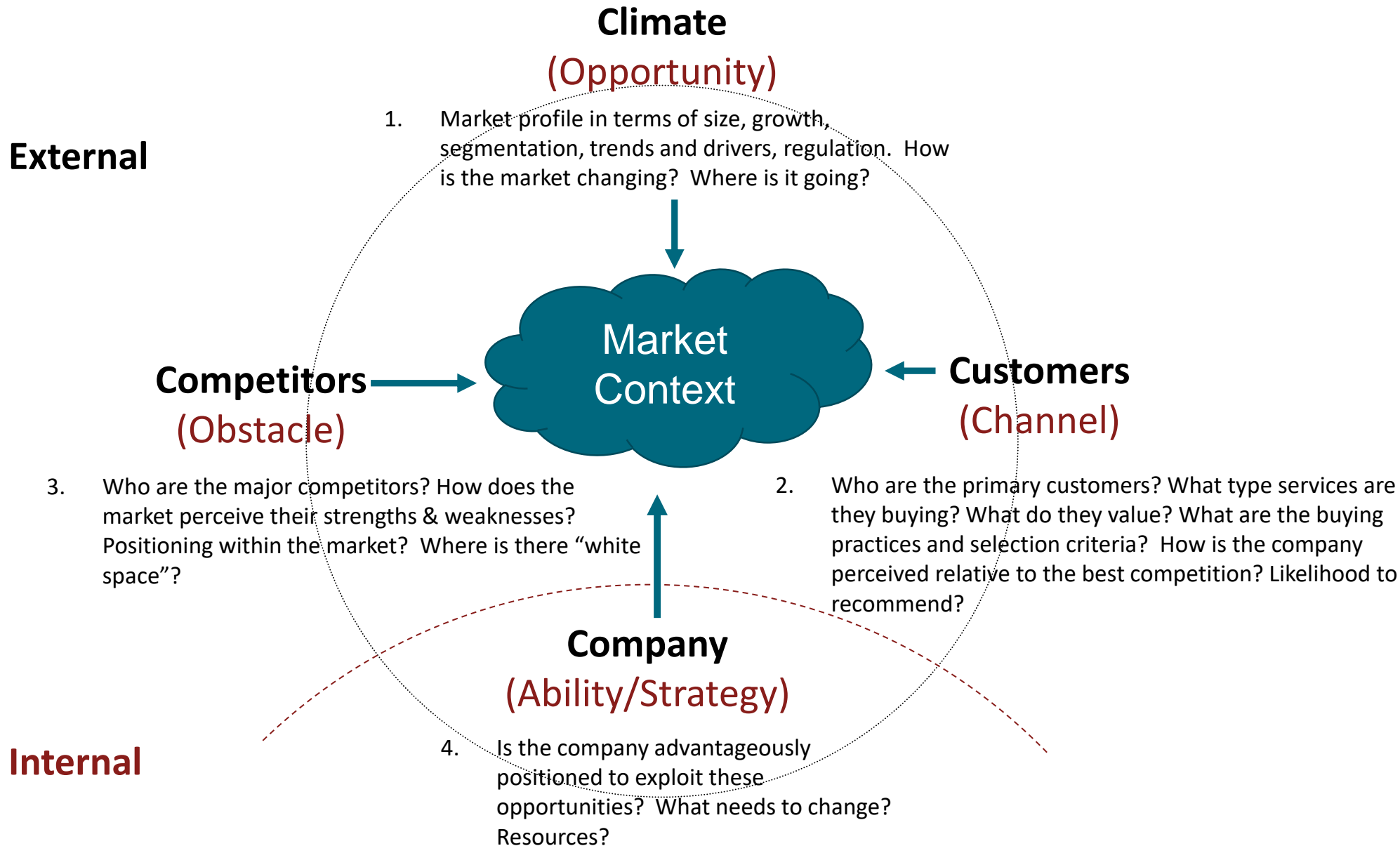
Only Two Questions



3

4 C Strategic Platform

Genesis of Market Context



.....

Looking Beyond the Horizon

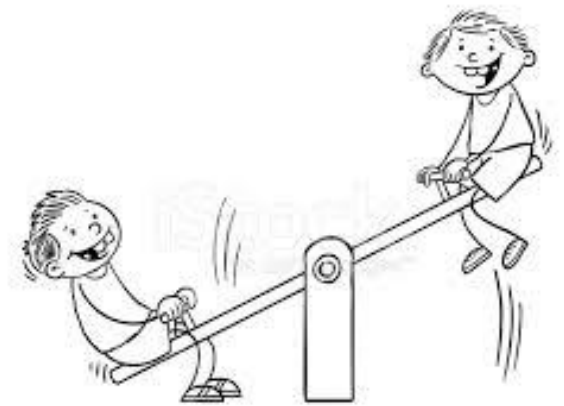
Market Place & Company



Energy Provides a Competitive Advantage

Energy Landscape 2016

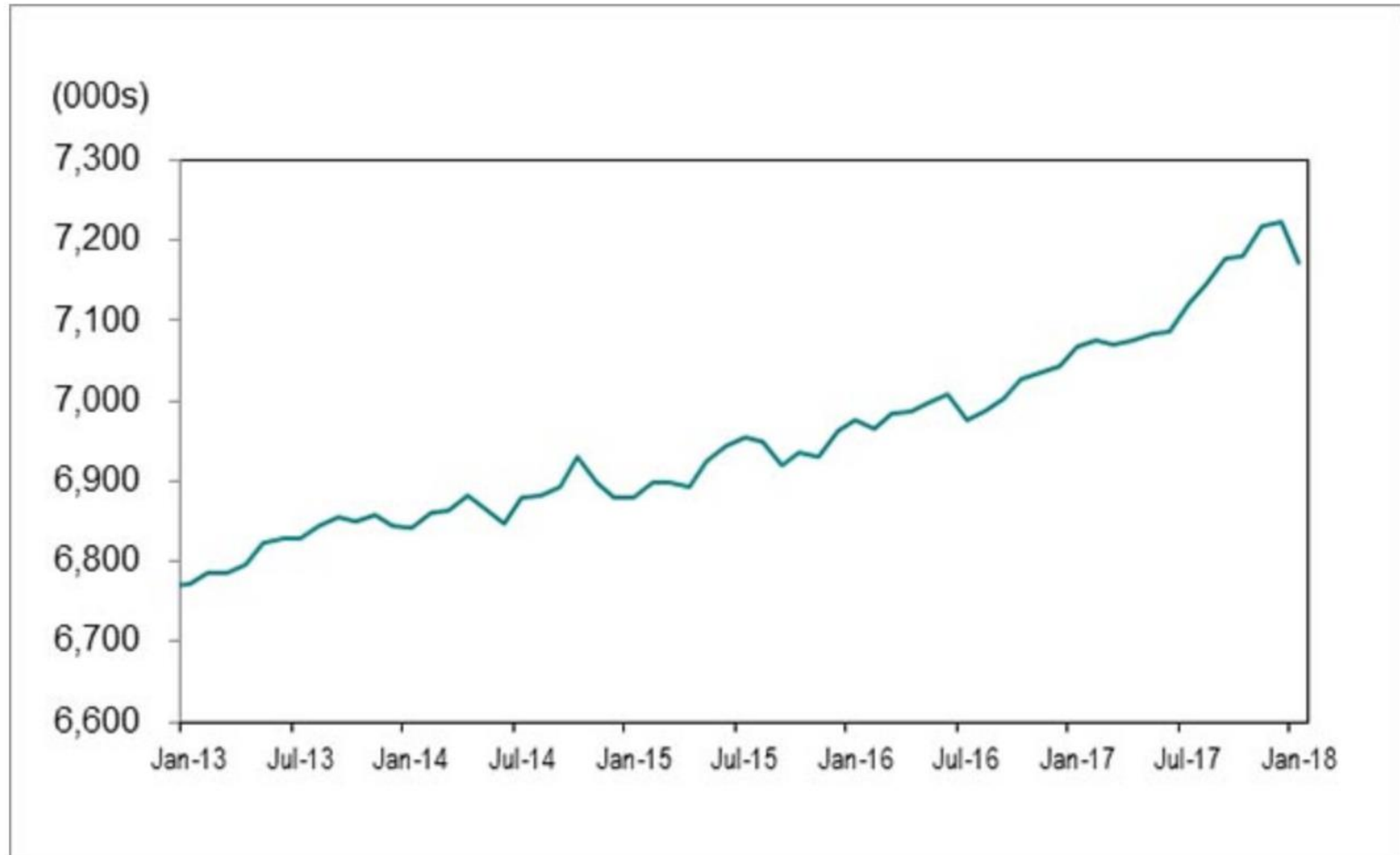
- Canada's energy sector
 - Directly employed more than 270,000 people
 - Indirectly supported over 600,000 jobs
 - Almost 7% of Gross Domestic Product (GDP)
- Energy sector composition
 - Natural gas 32.3%
 - Electricity 29.7%
 - Pulping liquor 9.6%
 - Wood 7.7%
- Prior to 2011, electricity was the largest source of energy consumed by the manufacturing industry. Afterward natural gas took the lead
- In 2016, the top consumers of energy were paper (25.1%), primary metal (22.5%), petroleum and coal products (14.0%) and chemical (14.0%) manufacturers, which combined accounted for 75.7% of the total energy consumed.



Electricity to Natural Gas

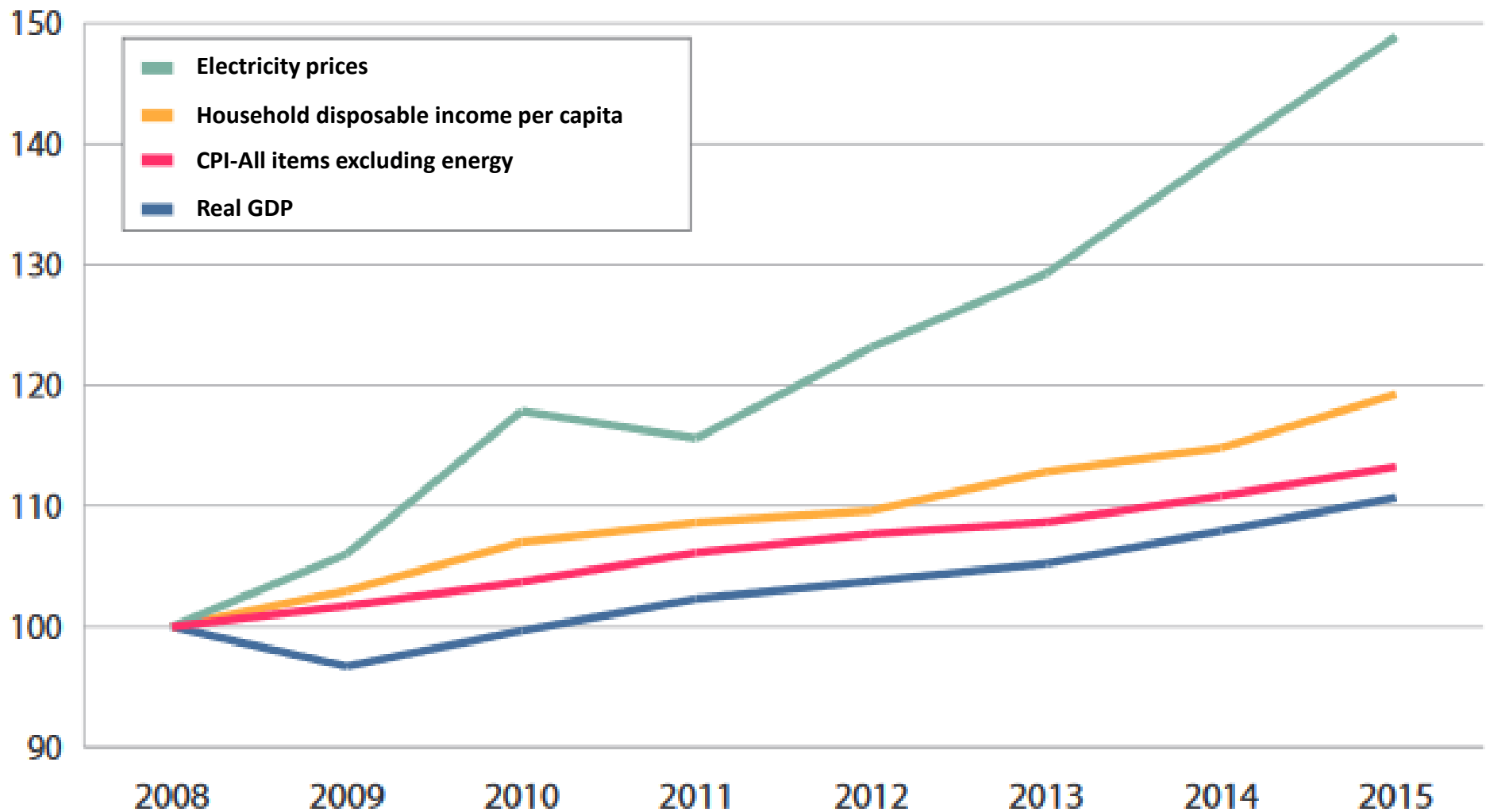
Canadian Employment

Dip Experienced in January 2018



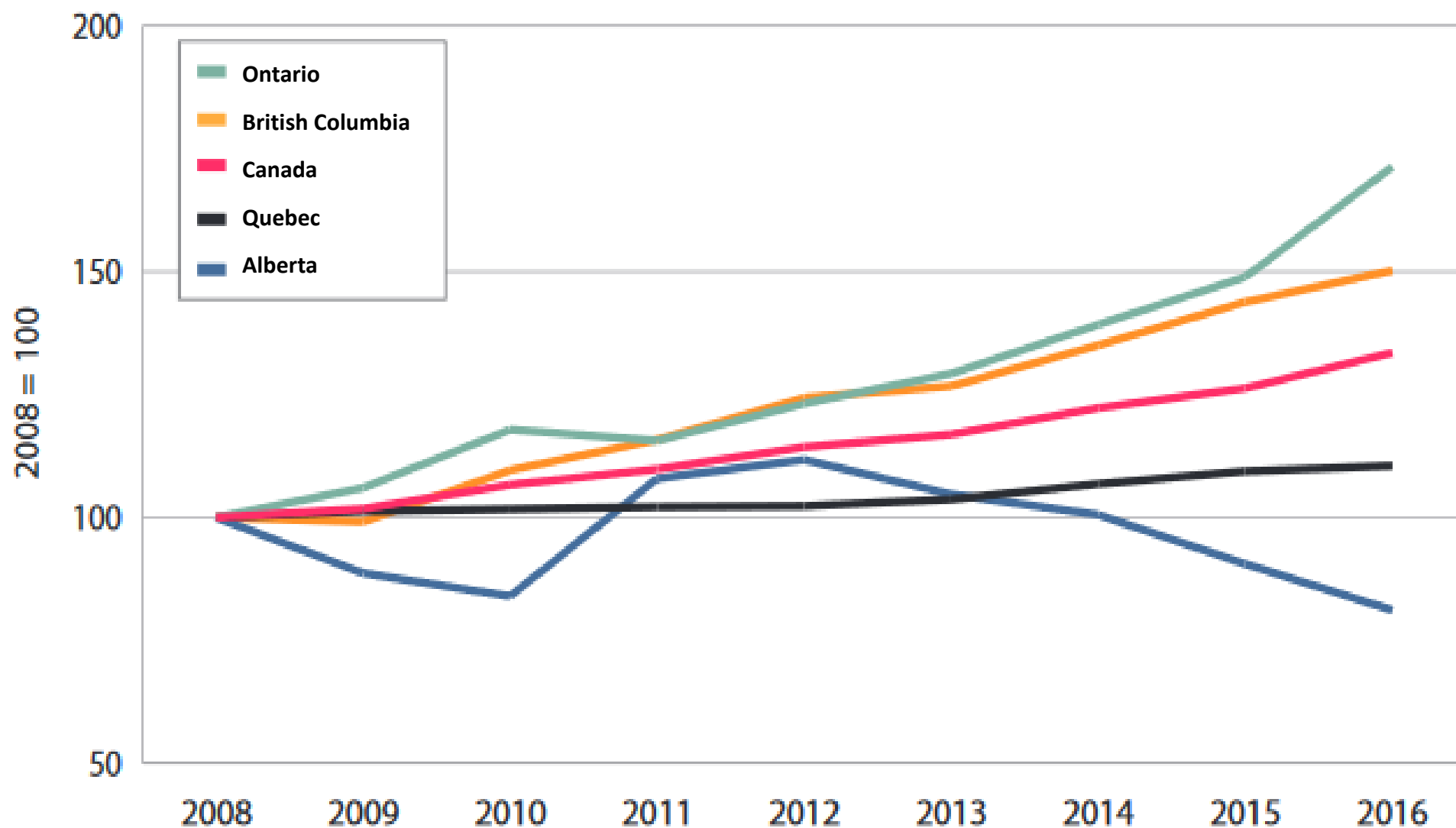
Source: Statistics Canada, Labour Force Survey
January 2018 Labour Market Report:

Comparative growth in electricity prices, inflation, the economy, and income, Ontario, 2008 to 2015 (2008=100)



Sources: Statistics Canada, CANSIM Tables 326-0021, 384-0040; calculations by authors.

Comparative growth in electricity prices across provinces, 2008 to 2016



Sources: Statistics Canada, CANSIM Table 326-0021; calculations by authors.

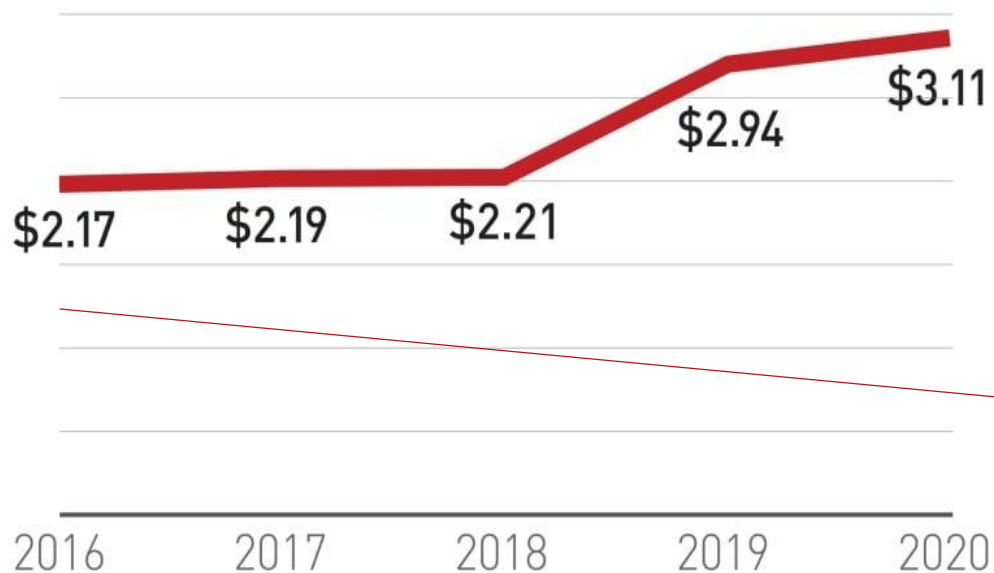
Producers & Consumers

Ingredients of Growth

Total Consumption

• Primary Metals	38.0%
• Paper	22.1%
• Chemical	12.4%
• <u>Wood Products</u>	<u>3.9%</u>
	76.4 %

Natural Gas Price Forecast

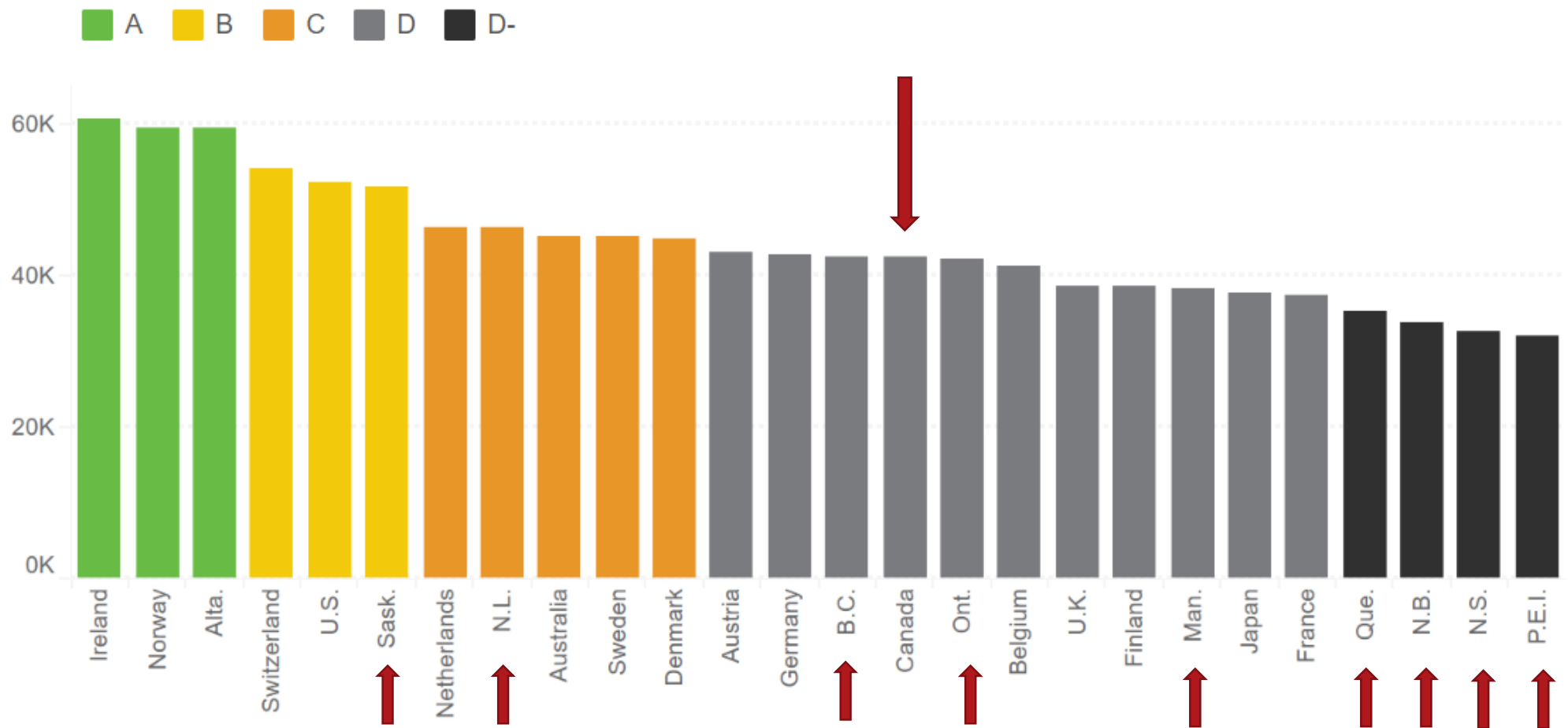


*GMP FirstEnergy, AECO Cdn \$/mcf

43%
Change

Per Capita Income

Income Per Capita, Provinces and International Peers, 2016
(US\$ at purchasing power parity, constant prices)



Sources: The Conference Board of Canada; Statistics Canada; OECD.

Demographic Trends

Canada's Population is Expanding and Changing Rapidly

- Canada's population has grown approximately 1% per year between 2011 and 2016
 - Fastest growth among the G7 nations
 - 1.7 million more people than 5 years ago
 - Immigration contributed two-thirds of that increase
 - Alberta fastest growing at 23%
- Median age changing dramatically
 - 27 years old in 1956
 - 40 years old in 2017
 - Estimated at 47 years old in 2056

SOURCE(S): STATISTICS CANADA

Labour Trends

Looking to the Future



**HELP
WANTED**

- In the next decade, Canada will see more than **one-fifth of the construction labour force** retire from the jobsite.
- In 1996, Canada's construction sector employed 712,000 people. Today, that number has grown to 1.4 million. By 2027, however, about 21 per cent of the labour force will be older than 65 years old.
- Fueling the labour gap is less youth entering the construction field.
 - In 2007, about 13 per cent of the labour force was retirement age, with youth entering the field accounting for about 14 percent of construction employment.
 - By 2027, 21 percent being retirement age with youth entering the workforce will fall to about 10 per cent of construction jobs

Looking at the Population

The Looming Talent Crunch

Generation	Age	Population	
		Number	Percentage
1918 and before	93 years and over	91,195	0.3
Parents of baby boomers (1919 to 1940)	71 to 92 years	3,074,045	9.2
World War II generation (1941 to 1945)	66 to 70 years	1,444,035	4.3
Baby boomers (1946 to 1965)	46 to 65 years	9,564,210	28.6
Baby busters (1966 to 1971)	40 to 45 years	2,823,840	8.4
Children of baby boomers (1972 to 1992)	19 to 39 years	9,142,005	27.3
Generation Z (1993 to 2011)	18 years and less	7,337,350	21.9

Source: Statistics Canada, Census of Population, 2011



Macro Trends Impacting the Industry

Winds are Changing

- Worker shortages and skilled labour challenges - The biggest challenge facing Canada's construction industry is offsetting a rapidly aging workforce.
- Low oil prices also prompted a decline in engineering, institutional, and industrial construction that is set to hold steady through to 2019.
- Demand for new housing slowing down, despite slight growth in renovation work.
- Canadian construction sector's productivity growth is highly cyclical and often locked into a "vicious productivity cycle."

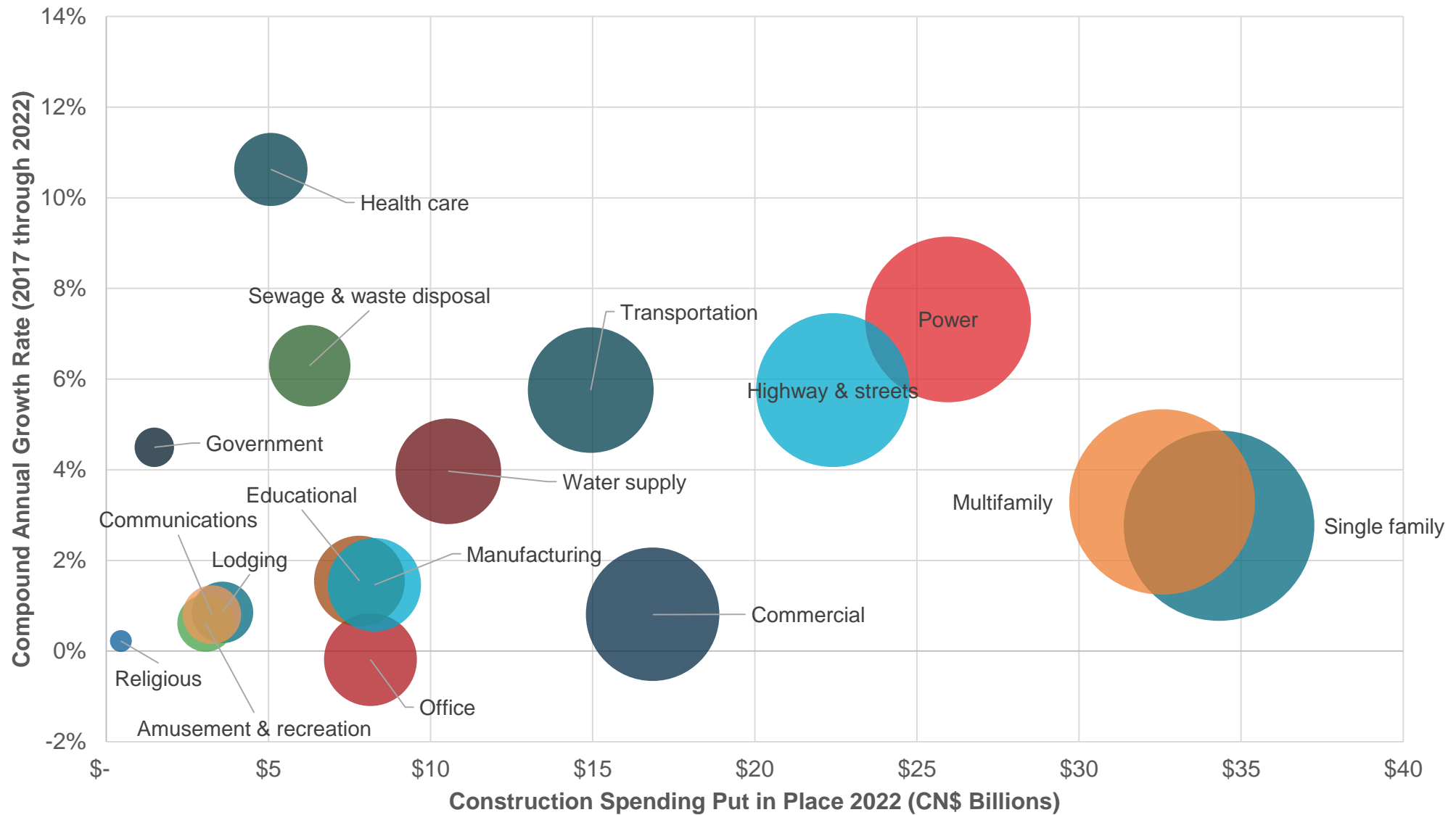
Underlying Economic Shift

Housing & Consumer Impacts



Construction Spending and Forecasted Growth

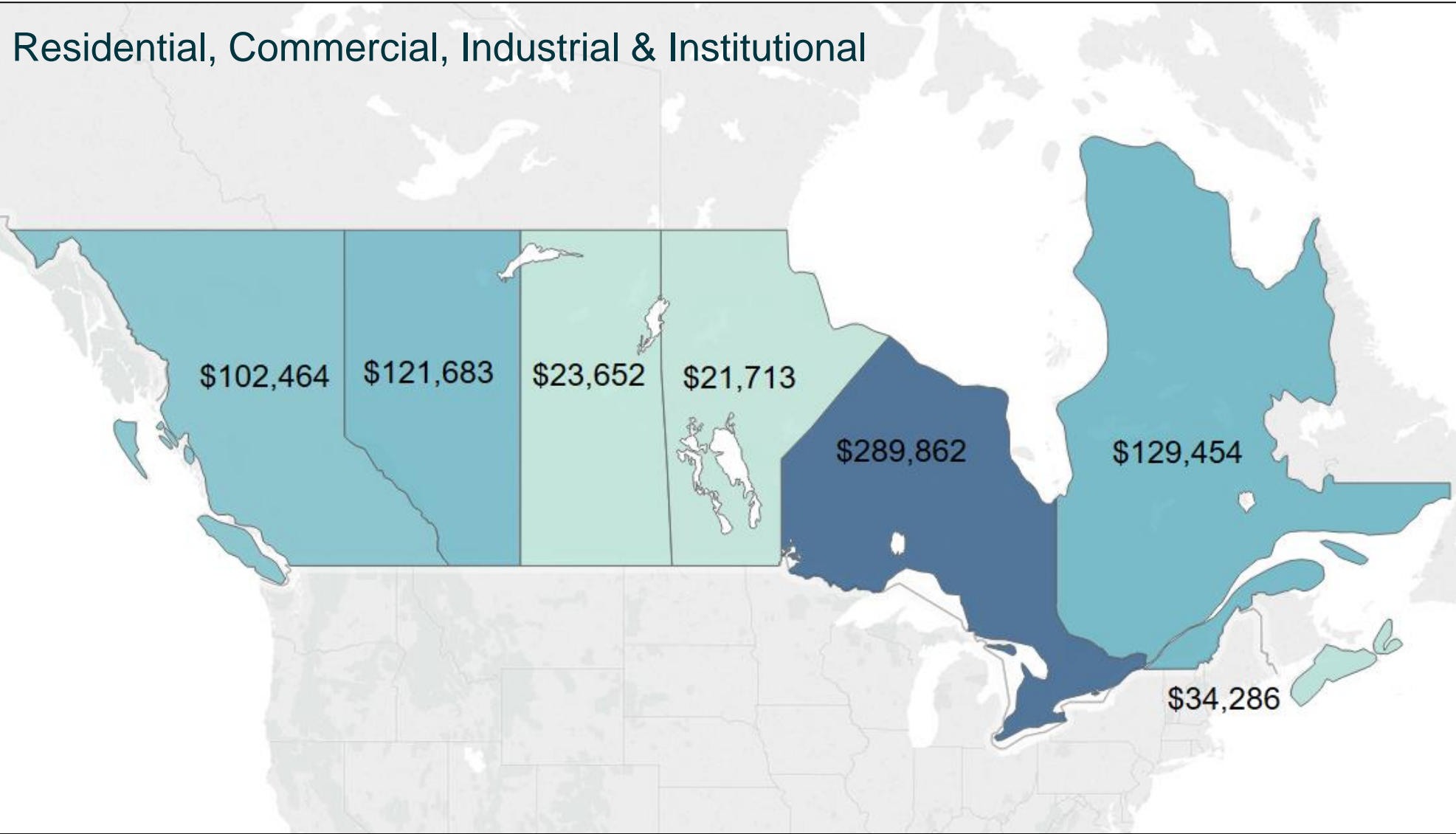
Forecast 2018 - 2022



.....

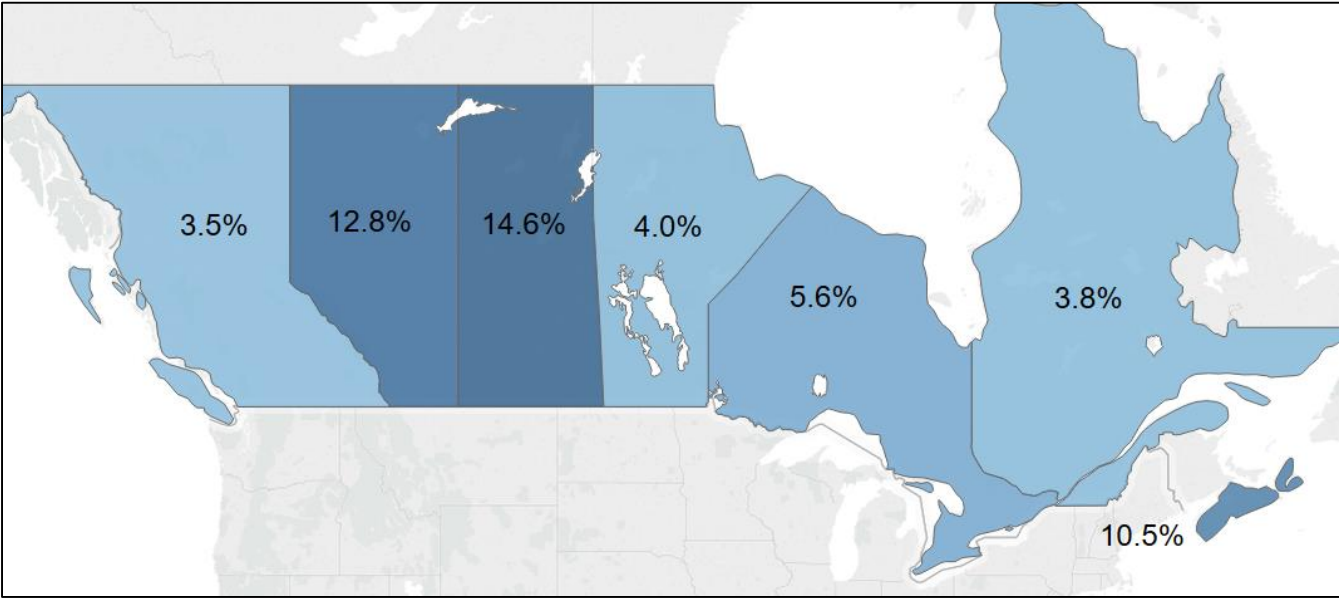
Construction Spending Forecast (\$M)

2017-2021 USD Forecast

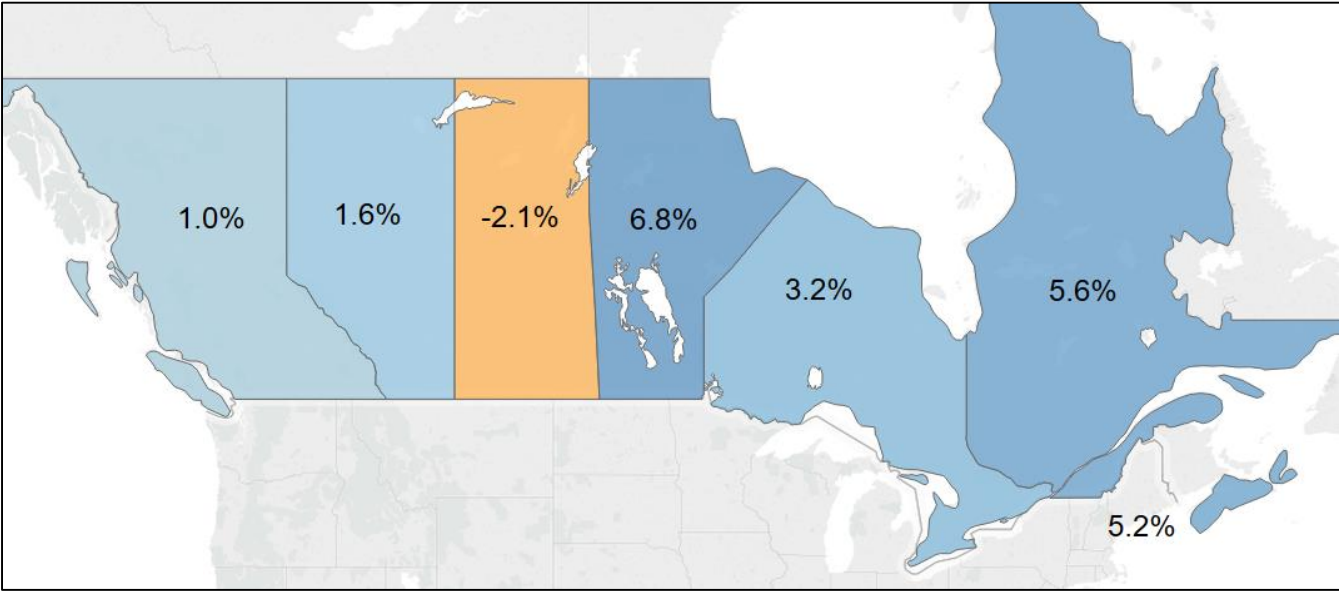


NOTE: NOVA SCOTIA REPRESENTS SPENDING FOR THE COMBINED ATLANTIC PROVINCES (NS, NB, PE, NL). ALL AMOUNTS IN MILLIONS OF NOMINAL USD(\$)
SOURCE(S): GLOBAL INSIGHT, FMI

Construction Spending Growth Rates



Residential Construction
2017-2021



Industrial Construction
2017-2021



NOTE: NOVA SCOTIA REPRESENTS SPENDING FOR THE COMBINED ATLANTIC PROVINCES.
SOURCE(S): GLOBAL INSIGHT, FMI

Two Fundamental Economic Drivers Impacting Jobs

- Human Genius & Creativity
 - The O-Ring Principle
- Human Insatiability
 - We can never get enough



Employment Growth

Share of US Workers

1979

Low Skill
13.7%

Medium Skill
61.1%

High Skill
25.2%

2016

Low Skill
18.2%

Medium Skill
43.2%

High Skill
38.6%

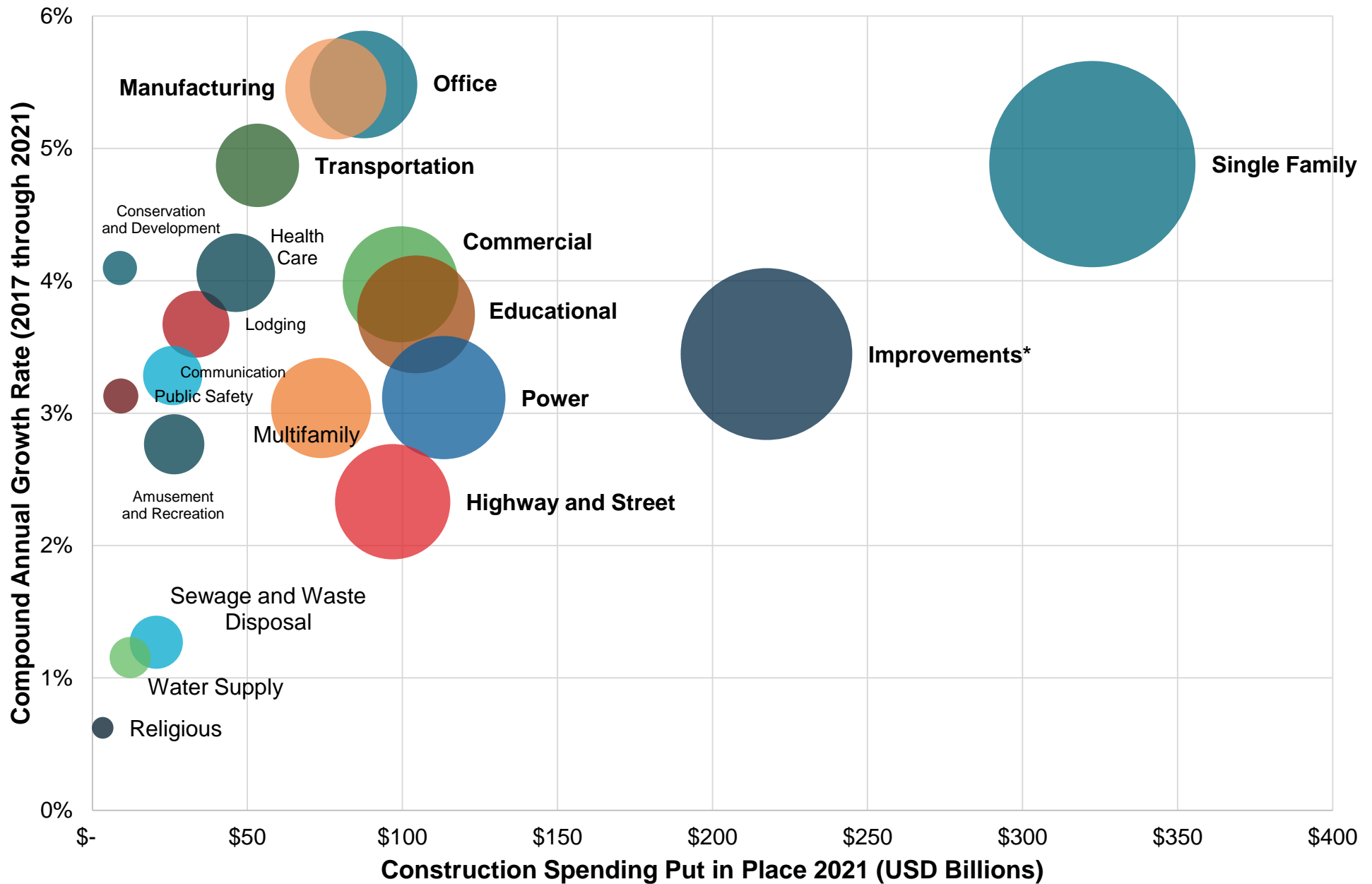


.....

U.S. Forecast

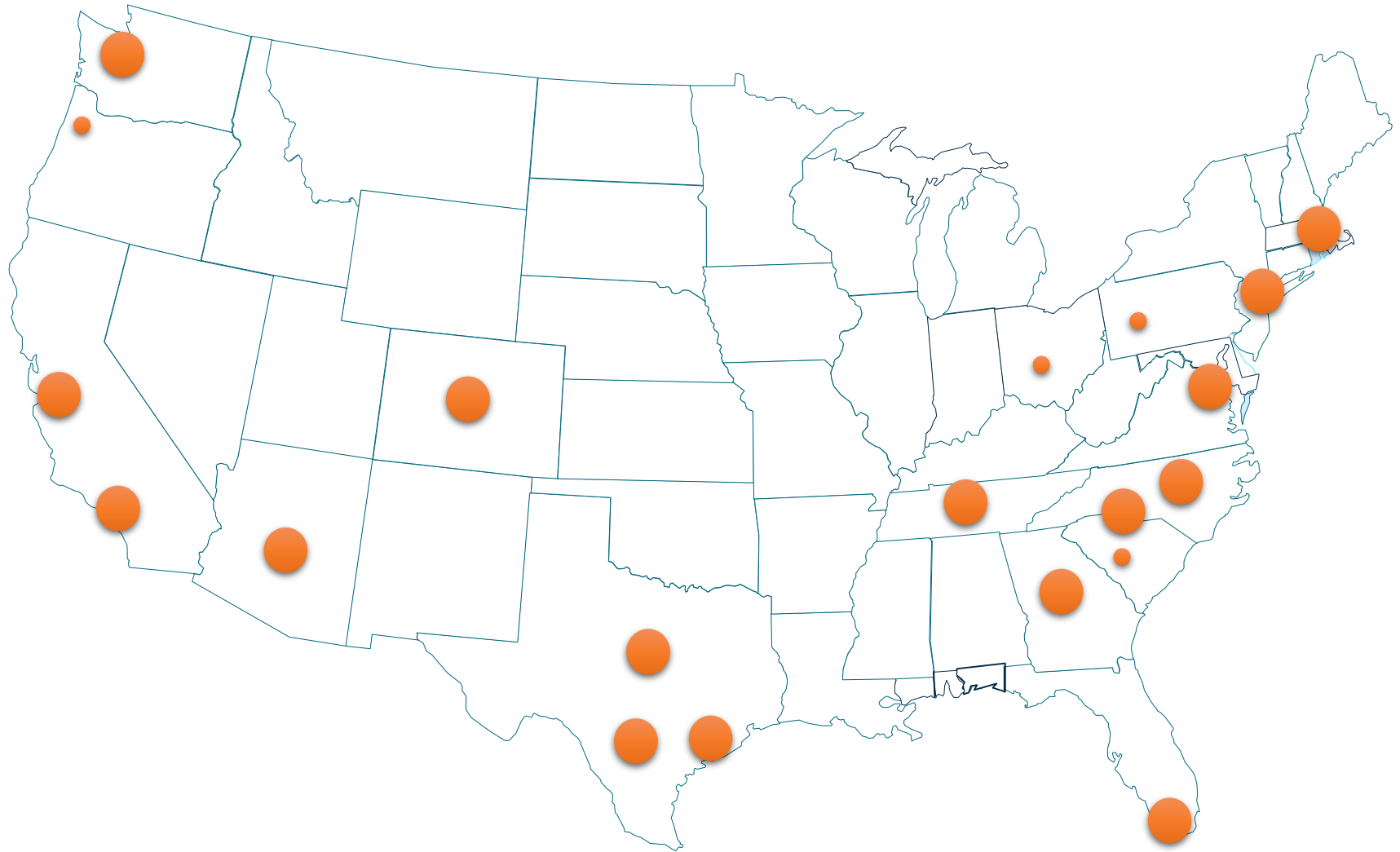


Q4 2017 U.S. Markets Construction Overview



*Improvements include additions, alterations and major replacements. It does not include maintenance and repairs.

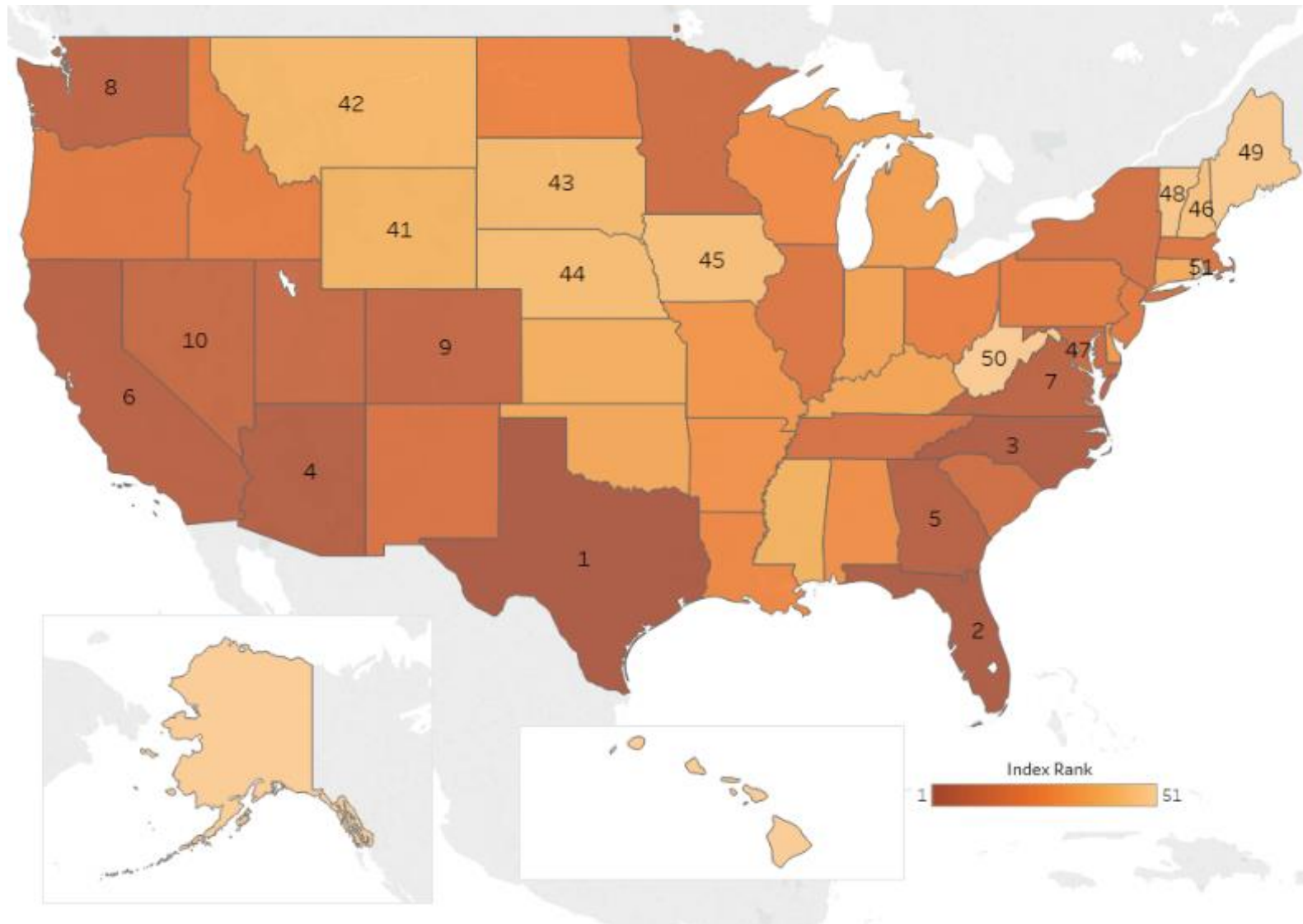
Recovery Concentrated in Select Metro Areas



Key Indicators Suggest High Growth Potential in the South and the West

Demographic Forecast Growth

Source(s): Woods and Poole



.....

Looking at Mexico





Advent of Mexico Infrastructure Improvement

Source: Tacna Services

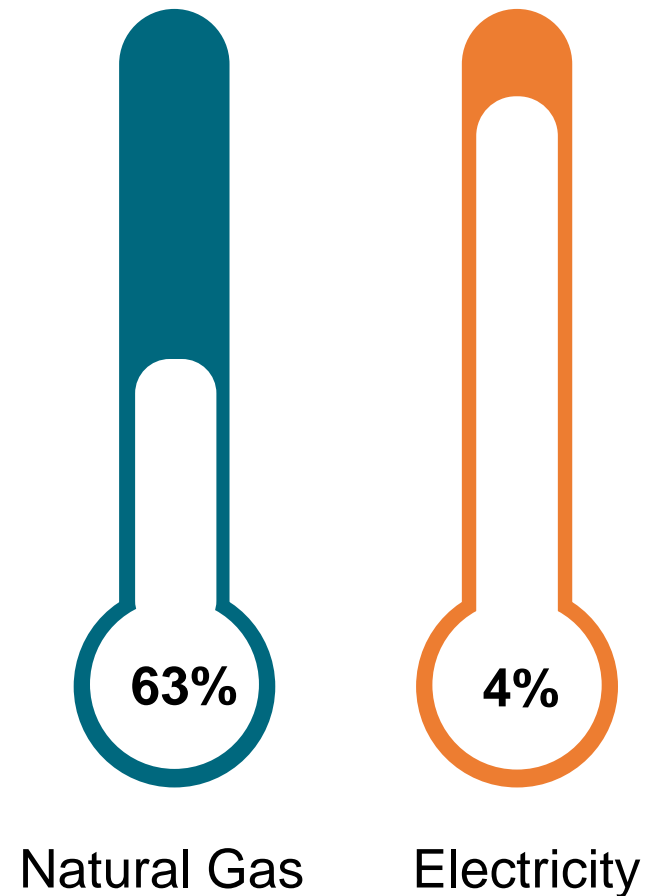
President Enrique Pena's National Infrastructure Program

- Commissioned in 2014 to modernize infrastructure
- \$600 billion USD – about 8% of GDP
- Targeting 750 specific projects
- Current priority is overhauling the energy and transportation sectors
 - New ports
 - Expanding existing ports
 - Paving more roads
 - Extending railways
 - Expanding electricity generation capacity

Appliance Manufacturing in Mexico

Source: The Offshore Group

- Manufacturing cost advantage over China
- Leading appliance supplier to U.S., Canada and South America
- Large network of qualified suppliers
 - Plastic materials production
 - Thermodynamic processes
 - Metal stamping
 - Etc.



.....

Conversations to Have





Five Key Questions

- What is your point of view of where the **economy is headed**?
- What do you need to do to get ready for the **looming talent shortage**?
- What does the '**New Normal**' mean for your and your team?
- What will it take to continue to be **relevant** in the future (i.e. internally & externally)?
- What do/can customers get from you and the company they **cannot get** from someone else?

4 C Strategic Platform

Questions to Ponder

Climate

- a. What are the economic trends and implications we are facing?
- b. What are the macro market drivers and the potential impact on us and our customers?
- c. How are governmental regulations changing?
- d. How will changing demographics impact the climate in which we operate?
- e. How is technology changing in the greater economy and what is its impact (e.g., autonomous vehicles, telecommuting, etc.)?

Competitors

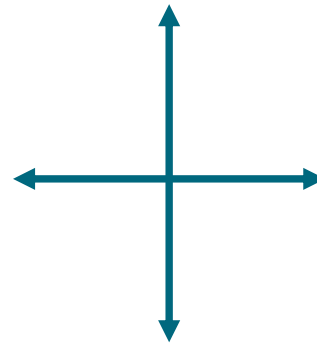
- a. What key initiatives are they pursuing that might give us a competitive disadvantage?
- b. Who are their key market influencers, and will that give them a leg up when it comes to winning work?
- c. What is their backlog like and does that signal they will be more or less aggressive in the market?
- d. Are we at risk from non-traditional competition (e.g., a fabricator coming into the market impacting what and how customers buy)?
- e. What are their differentiators and how do they compare to ours?

Customers

- a. What is their preferred buying process?
- b. How do they evaluate our performance and that of our competitors—who is the preferred provider?
- c. What are their emerging or unmet needs?
- d. What trends are impacting their businesses that might change how they approach their construction projects?
- e. How is their buying process changing—who is involved, what is important, etc.?

Company

- a. Which are our best customers and projects—and what do we provide them that sets us apart from the competition?
- b. What is our bench depth and how will that impact our ability to perform on projects and be profitable?
- c. What is our go-to-market strategy and are we getting the full return on our invested efforts?
- d. How do we get positioned to win earlier in the process and therefore drive up our win rates?
- e. How can we leverage technology to increase customer loyalty and improve profit performance?





Cynthia Paul
Managing Director

FMI Corporation
210 University Boulevard
Suite 800
Denver, CO 80222

Tel: 303.398.7206

Email: *cpaul@fminet.com*

www.fminet.com

About FMI

For over 60 years, FMI has been the leading **management consulting and investment banking** firm dedicated exclusively to **engineering and construction, infrastructure and the built environment**.

FMI serves all sectors of the industry as a trusted advisor. More than six decades of context, connections and insights lead to transformational outcomes for our clients and the industry.

Sector Expertise

- A/E and Environmental
- General Contractors/CM
- Heavy Civil
- Industrial
- Specialty Trades
- Utility T&D
- Cleantech and Energy Services
- Construction Materials
- Building Products
- Oil and Gas
- Private Equity
- Owners