



Rate of Return:

**WHERE THE REGULATORY
RUBBER MEETS THE ROAD**

Presented by:

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PRESENTATION TOPICS

- Legal Frameworks
- Trends in North American Cost of Capital
- Models Employed by Jurisdiction
- Practical Issues
- Best Practices

Comparable:

LEGAL FRAMEWORKS

Canada

By a fair return is meant that the company will be allowed as large a return on the capital invested in its enterprise (which will be net to the company) as it would receive if it were investing the same amount in other securities possessing an attractiveness, stability and certainty equal to that of the company's enterprise.

Northwestern Utilities v. City of Edmonton (1929)

U.S.

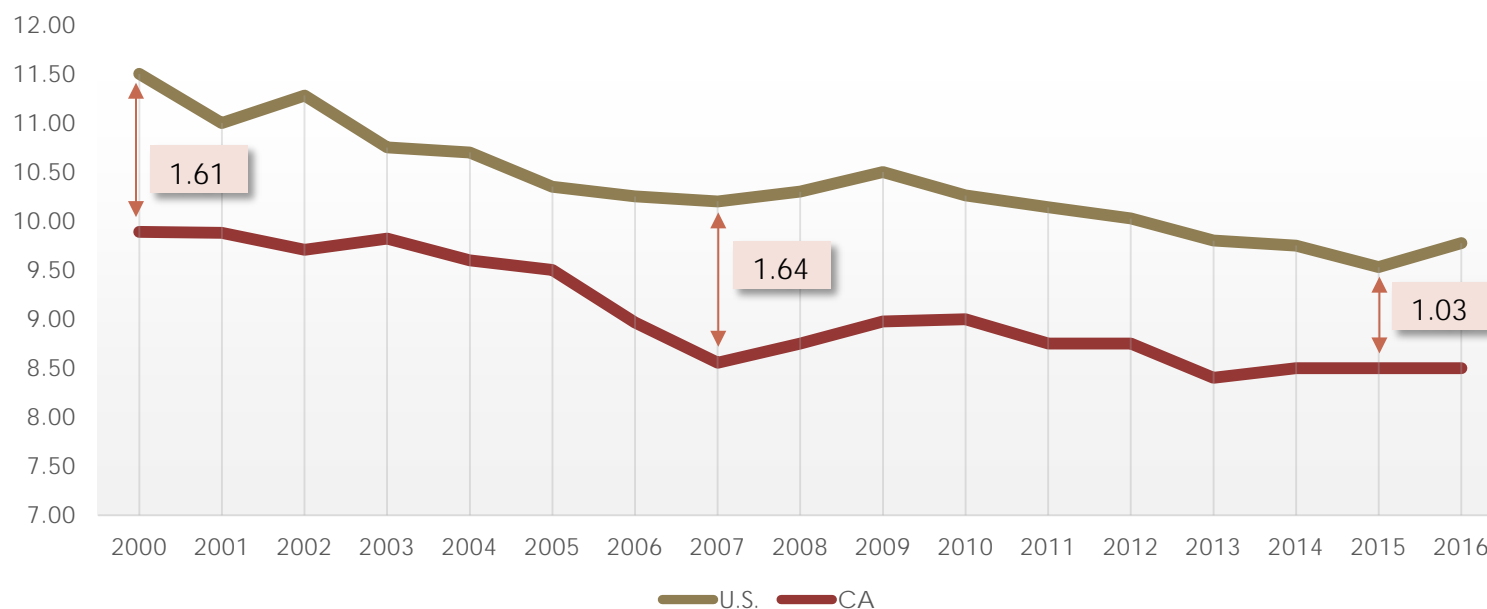
[T]he return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

Federal Power Commission v. Hope Natural Gas Company (320 U.S. 591, 603 (1944))

Trends in North American Allowed Returns on Equity:

CANADA AND THE U.S.

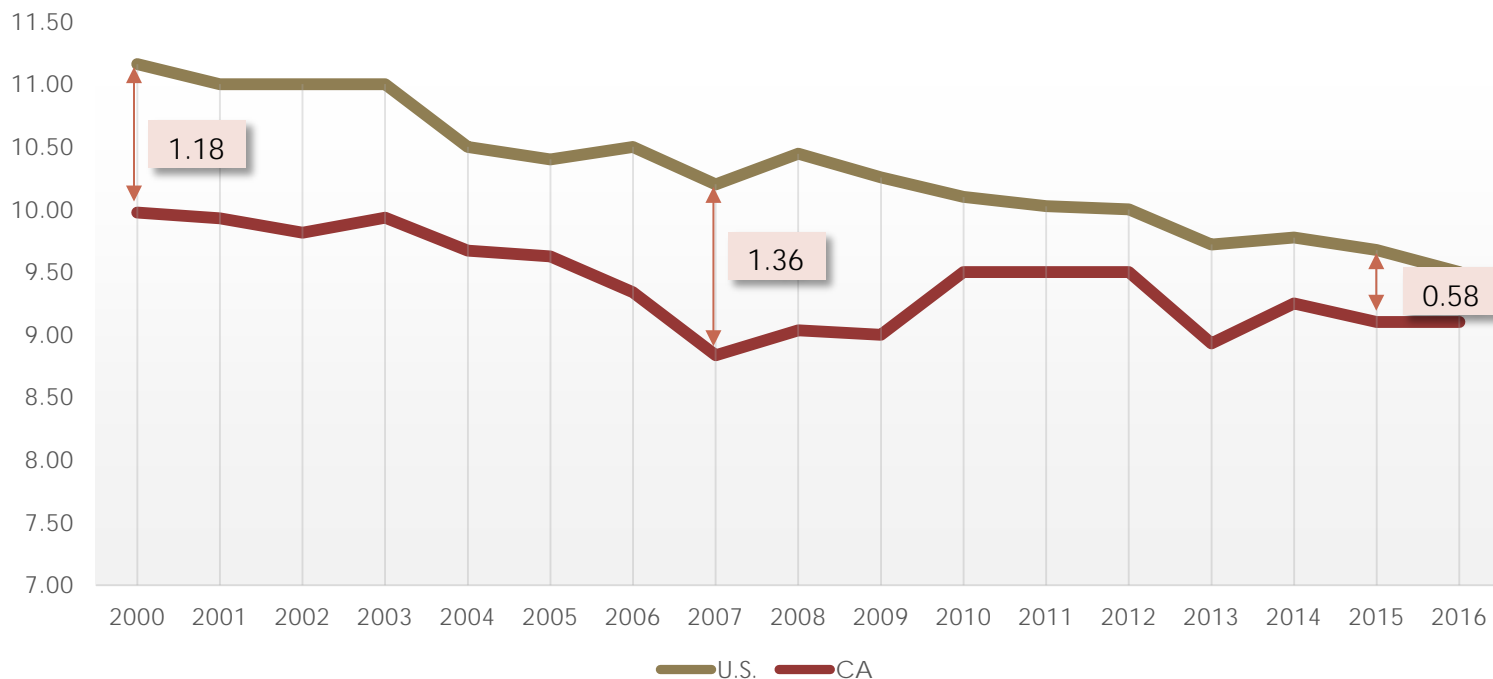
Electric Utility – Median Rate of Return on Common Equity



Trends in North American Allowed Returns on Equity:

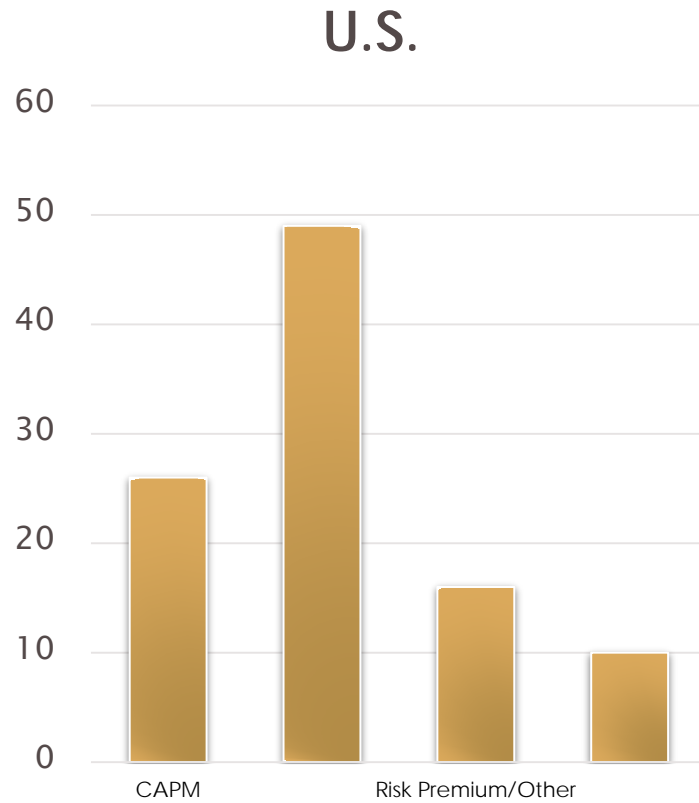
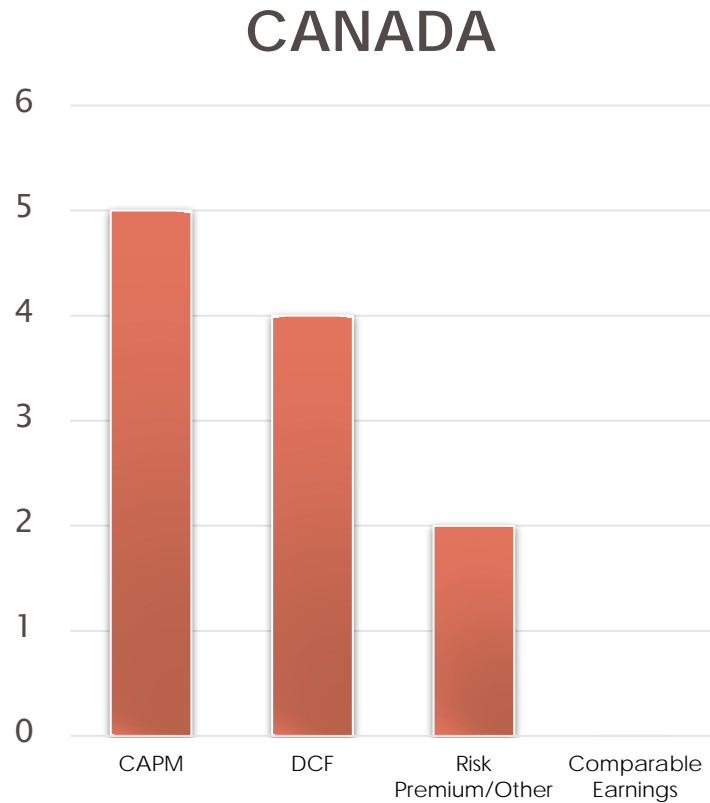
CANADA AND THE U.S.

Natural Gas Utility – Median Rate of Return on Common Equity



Models Employed by Jurisdiction:

PRIMARY METHODOLOGY FOR DETERMINATION OF ROE



Practical Issues:

INPUTS TO THE MODELS

- **Bold** – market based, observable
- *Italics* – requires an estimate

DCF
<ul style="list-style-type: none">• Stock Price• Dividend• <i>Dividend Growth Rate</i>

CAPM
<ul style="list-style-type: none">• <i>Risk Free Rate</i>• <i>Market Equity Risk Premium</i>• <i>Beta</i>

Model Challenges

- Market volatility
- Sources of long-term growth rates
- Determining a 'normalized' risk free rate
- Wide range of equity risk premium estimates
- Differing beta estimation procedures

Practical Issues:

UTILIZATION OF U.S. PROXY GROUPS IN CANADA

Publicly Traded Utility Companies

Canada	Canadian Utilities Limited Emera Inc.	Enbridge Inc. Fortis Inc. Valener Inc.
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Most Canadian regulators now place weight on U.S. proxy group companies for purposes of ROE determinations.

U.S. Gas Distribution	AGL Resources Inc. Atmos Energy Spire, Inc. New Jersey Resources	NiSource Inc. Northwest Natural Gas Piedmont Natural Gas South Jersey Industries	Southwest Gas UGI Corporation WGL Holdings, Inc.
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U.S. Electric Utilities	ALLETE, Inc. Alliant Energy Ameren Corporation American Electric Power Company, Inc. Avista Corporation Black Hills Corporation CenterPoint Energy Cleco Corporation CMS Energy Consolidated Edison Dominion Resources DTE Energy Company	Duke Energy Edison International El Paso Electric Empire District Electric Energy Corporation Eversource Energy Exelon Corporation FirstEnergy Corporation Great Plans Energy Inc. Hawaiian Electric Industries, Inc. IDACORP, Inc. ITC Holdings	MGE Energy, Inc. NextEra Energy, Inc. NorthWestern Corporation OGE Energy Otter Tail Corporation Pepco Holdings, Inc. PG&E Corporation Pinnacle West Capital PNM Resources, Inc. Portland General Electric Company PPL Corporation	Public Service Enterprise Group Inc. SCANA Corporation Sempra Energy Southern Company TECO Energy, Inc. UIL Holdings Vectren Corporation Westar Energy, Inc. Wisconsin Energy Xcel Energy Inc.
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Practical Issues:

REGULATORY FRAMEWORKS

Regulation in Canada and the U.S. varies by jurisdiction, but the regulatory frameworks are comparable.

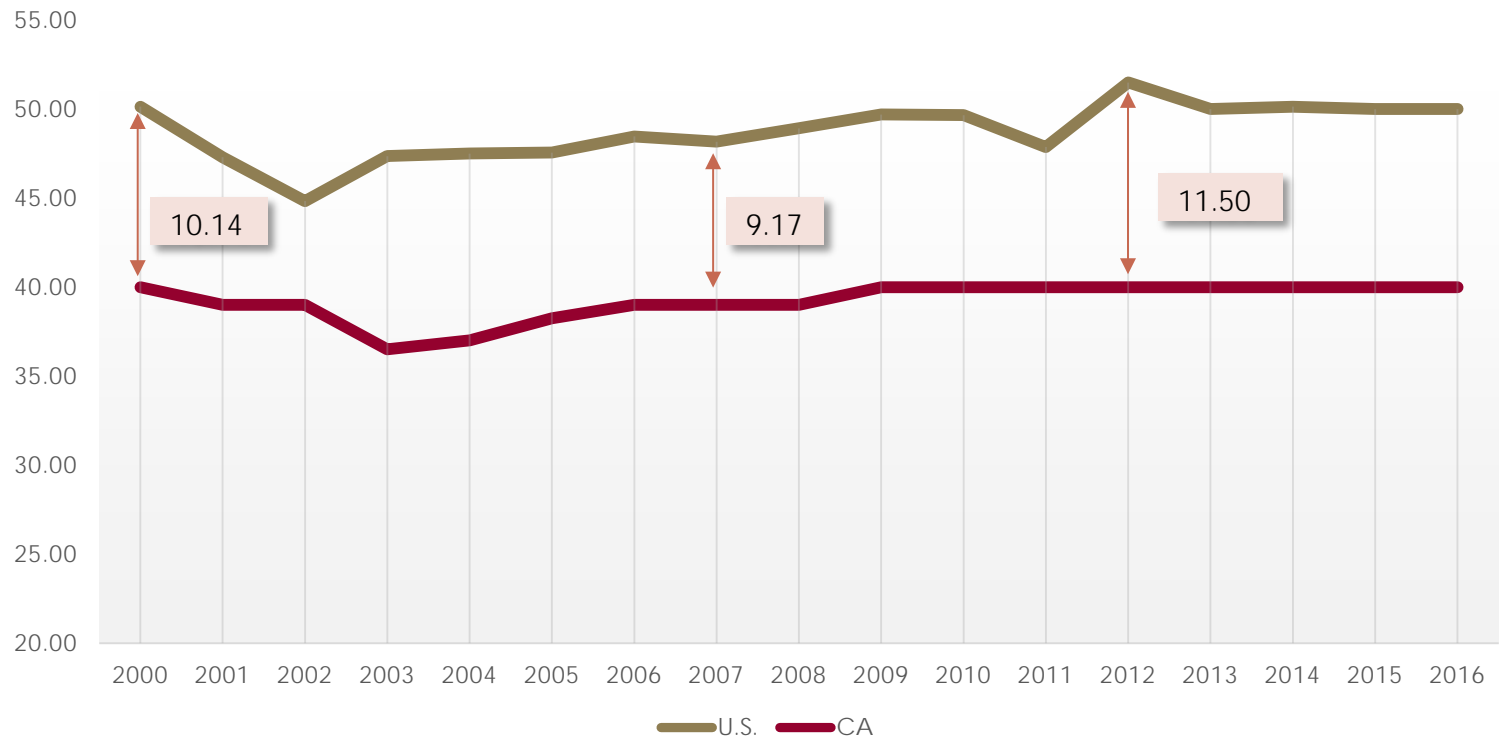
	Canada	U.S.
Forecast Test Year(s)	✓	Fully - 15 States Partial/Varying – 17 States Historic – 20 States
CWIP in Rate Base		18 States
Deferral/Variance Accts	✓	✓
Multi-Year Alt Reg Plans	More common	Less common
Revenue Decoupling	3 Provinces	27 States

Sources: Edison Electric Institute, Pacific Economics; Brattle Group; Concentric research.

Trends in North American Common Equity Ratios:

CANADA AND THE U.S.

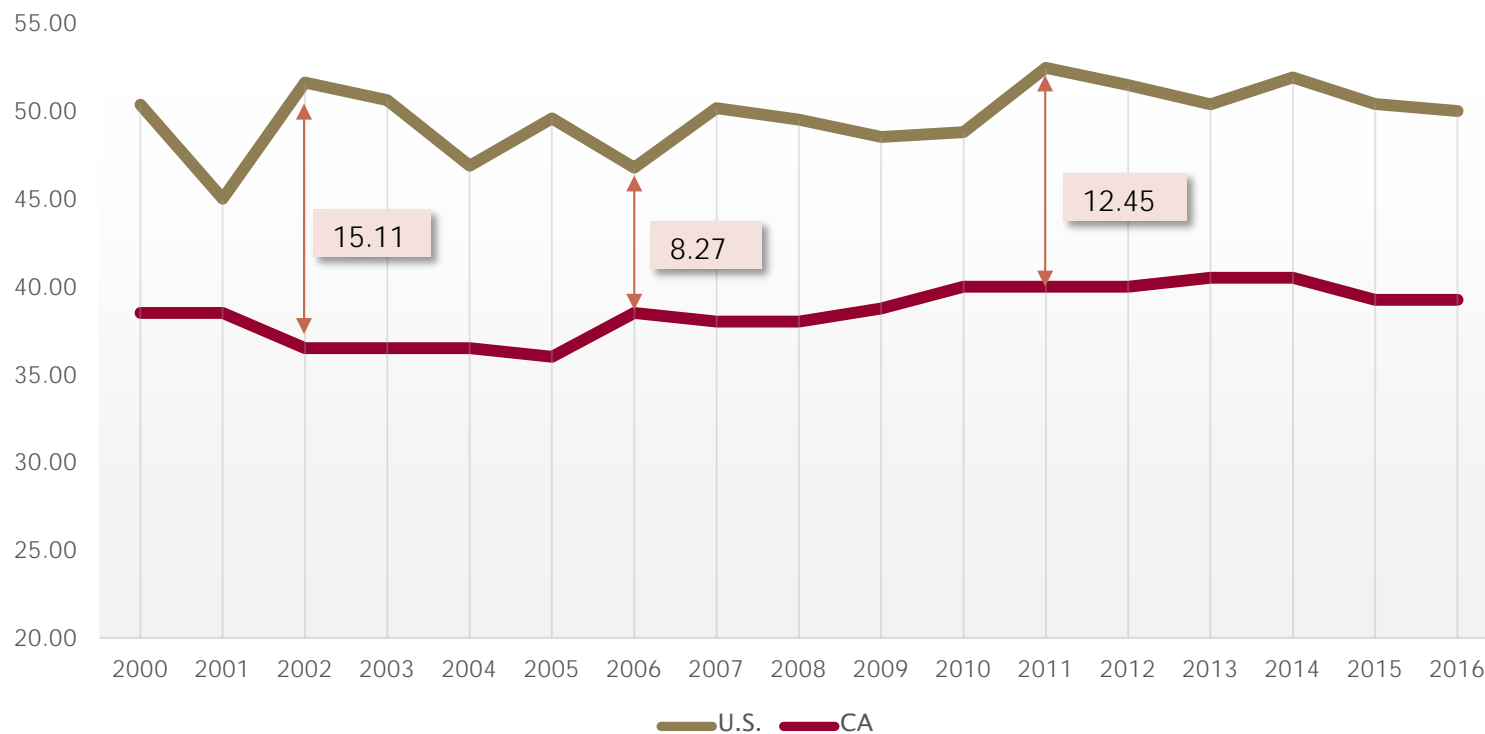
Electric Utility – Median Common Equity Ratio



Trends in North American Common Equity Ratios:

CANADA AND THE U.S.

Natural Gas Utility – Median Common Equity Ratio



Practical Issues:

CAPITAL STRUCTURES

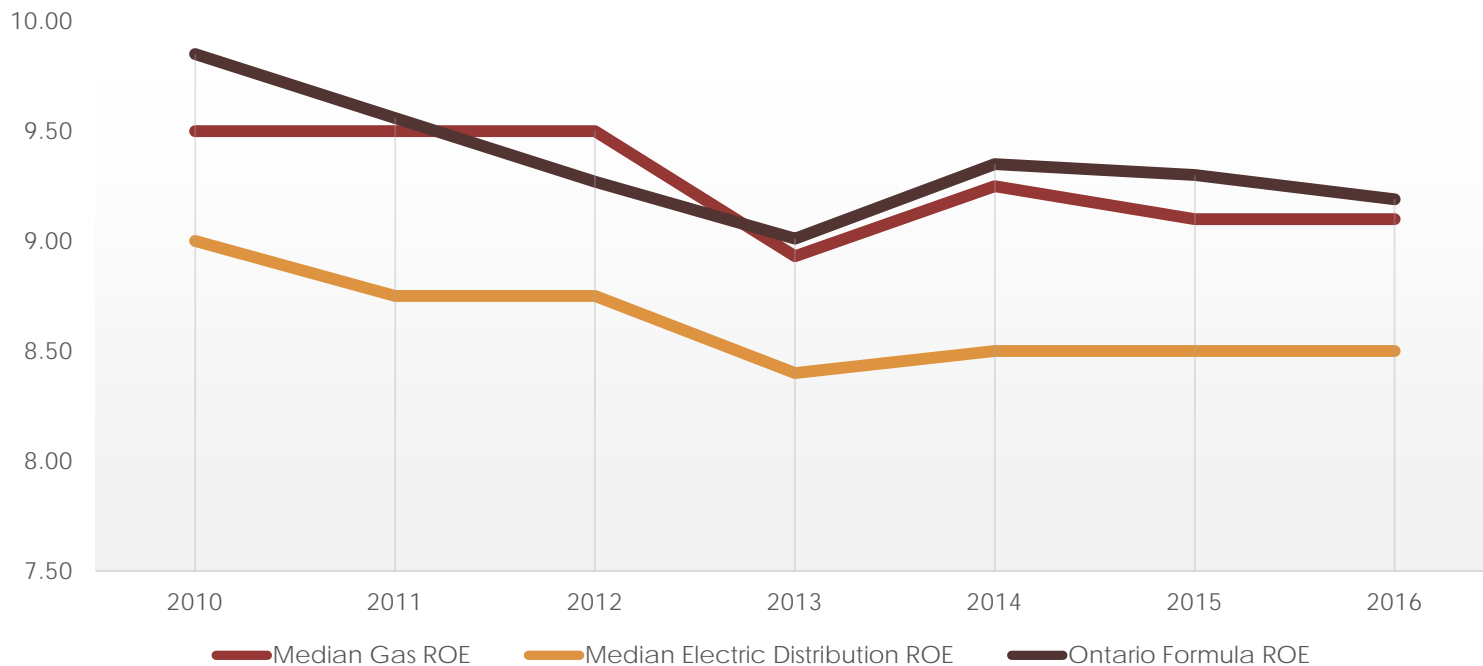
There are common elements, but in practice, the typical approach to allowed capital structure varies between Canada and the U.S.

Focus	Canada	U.S.
Maintenance of investment grade credit rating and access to capital on reasonable terms	✓	✓
Peer company comparisons	✓	✓
Detailed short and long-term risk analysis	✓	
Generic or benchmark equity ratios	✓	
Weight placed on actual capital structure		✓
Deemed capital structure	✓	

Practical Issues:

AUTOMATIC ADJUSTMENT MECHANISMS FOR ROE

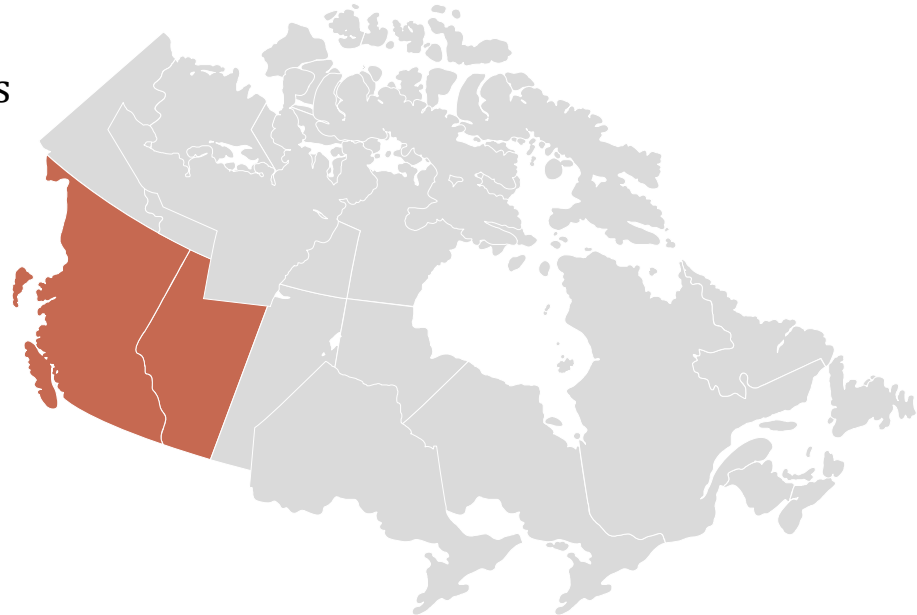
- Most Canadian jurisdictions have suspended use of an AAM for ROE
- A few U.S. jurisdictions rely on AAM's between litigated rate cases
- Ontario's revised formula has worked reasonably well



Cross Border Investment:

U.S. BASED COMPANIES HAVE INVESTED IN CANADIAN UTILITIES...

- Kinder Morgan acquires Terasen Inc. (2005)
- Berkshire Hathaway acquires AltaLink (2014)

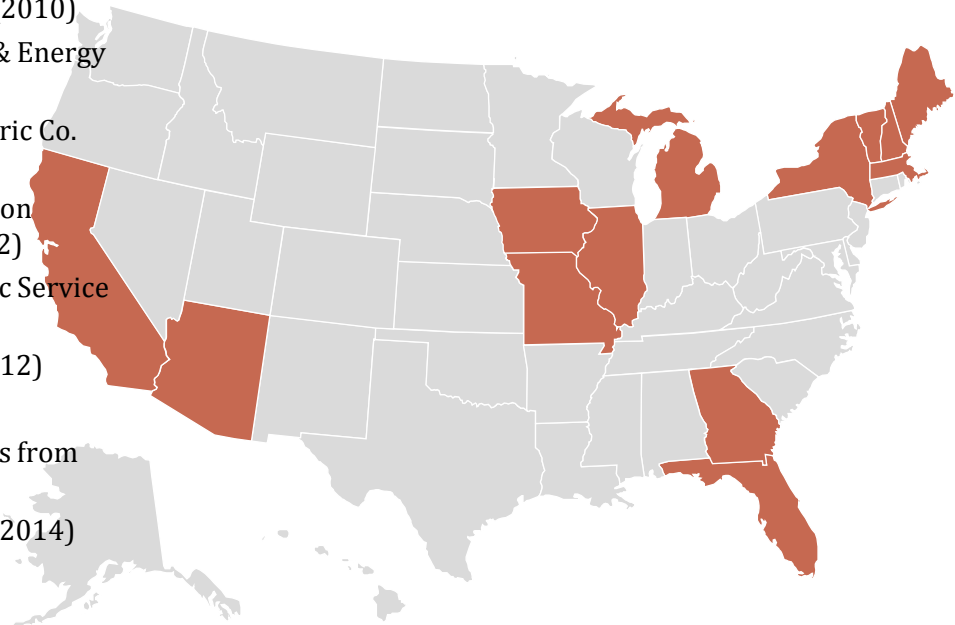


Cross Border Investment:

BUT THE CAPITAL FLOWS TO THE U.S. HAVE BEEN FAR GREATER

- TransCanada acquires Iroquois Gas Trans. (2005)
- Gaz Métro acquires Green Mountain Power (2007)
- Emera acquires Maine & Maritimes Corp. (2010)
- Algonquin acquires Granite State Electric & Energy North (2012)
- Algonquin acquires California Pacific Electric Co. (2013)
- Algonquin acquires Midwest gas distribution operations from Atmos Energy Corp. (2012)
- Gaz Métro acquires Central Vermont Public Service (2012)
- AltaGas acquires SEMCO Holding Corp (2012)
- Fortis acquires CH Energy Group (2013)
- Algonquin acquires distribution operations from Atmos Energy (2013)
- Algonquin acquires New England Gas Co. (2014)
- Fortis acquires UNS Energy (2014)
- Emera acquires TECO Energy (2016*)
- Algonquin acquires Empire District Electric Co. (2017*)

* Estimated completion date



BEST PRACTICES

- Reliance on multiple methods
- Inputs from objective sources
- Periodic re-basing
- North American perspective