



A Comparative Analysis of Return on Equity for Utilities in Canada and the U.S.

*Presented to
CAMPUT*

April 22, 2008

*Presented by
James M. Coyne
jcoyne@ceadvisors.com*

Introduction

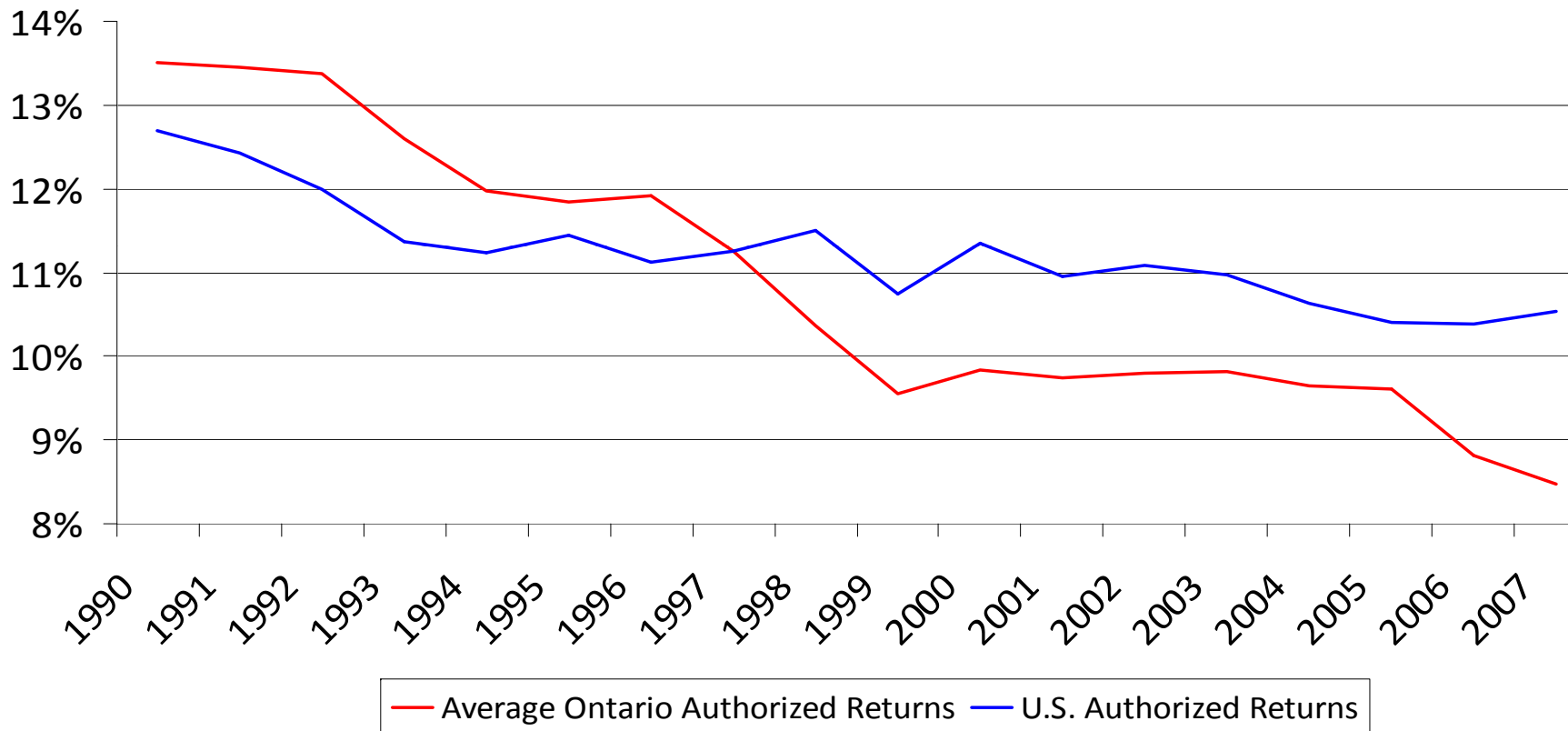
Concentric has recently completed two studies on ROE awards in Canada and the U.S.:

- A Comparative Analysis of Return on Equity of Natural Gas Utilities (prepared for the OEB, June 2007)
- A Comparative Analysis of Return on Equity for Electric Utilities (prepared for CLD and Hydro One Networks, March 2008)
- The first study has been made public, but the second has only recently been completed. My presentation will draw upon the principal findings from the first study, corroborated by the second study.



Allowed ROE's in Ontario, Canada and the U.S. (Gas)

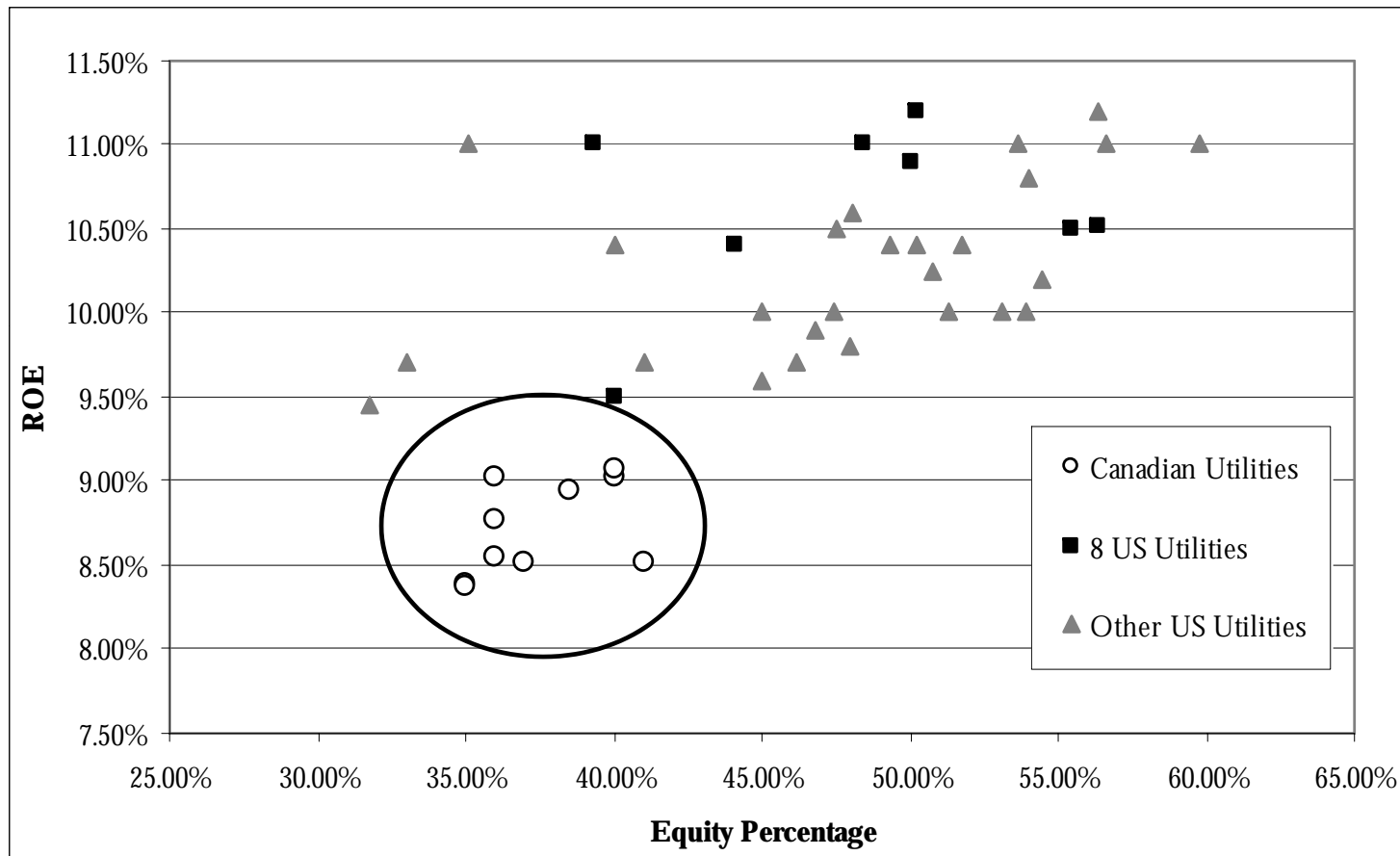
Authorized Returns vs. Ontario Authorized Returns – Gas Distribution Utilities 1990 - 2007



Sources: Concentric research, company data, SNL database.



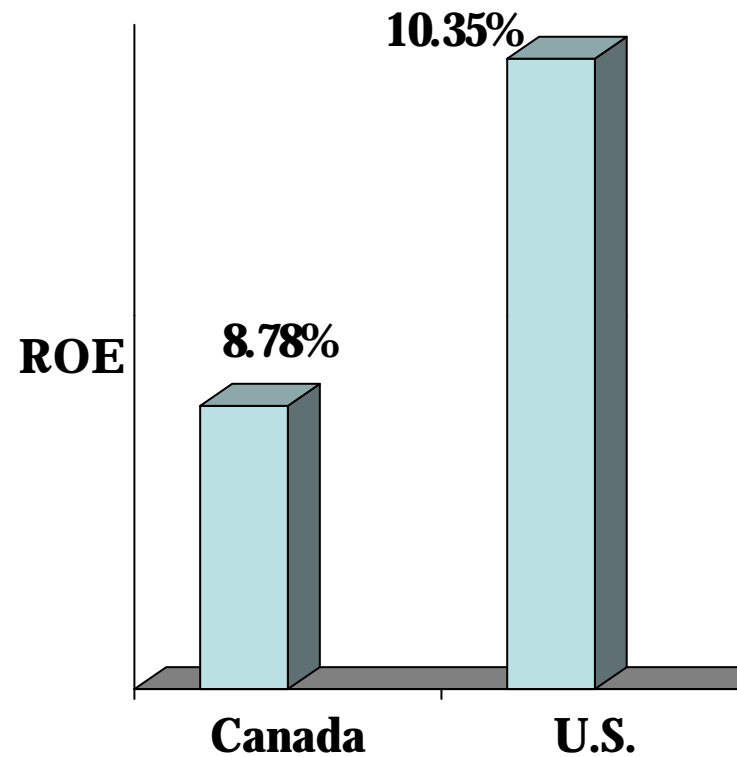
Allowed ROEs vs. Allowed Equity Ratios for 2007 (Gas)



Sources: Concentric research, company data, SNL database.



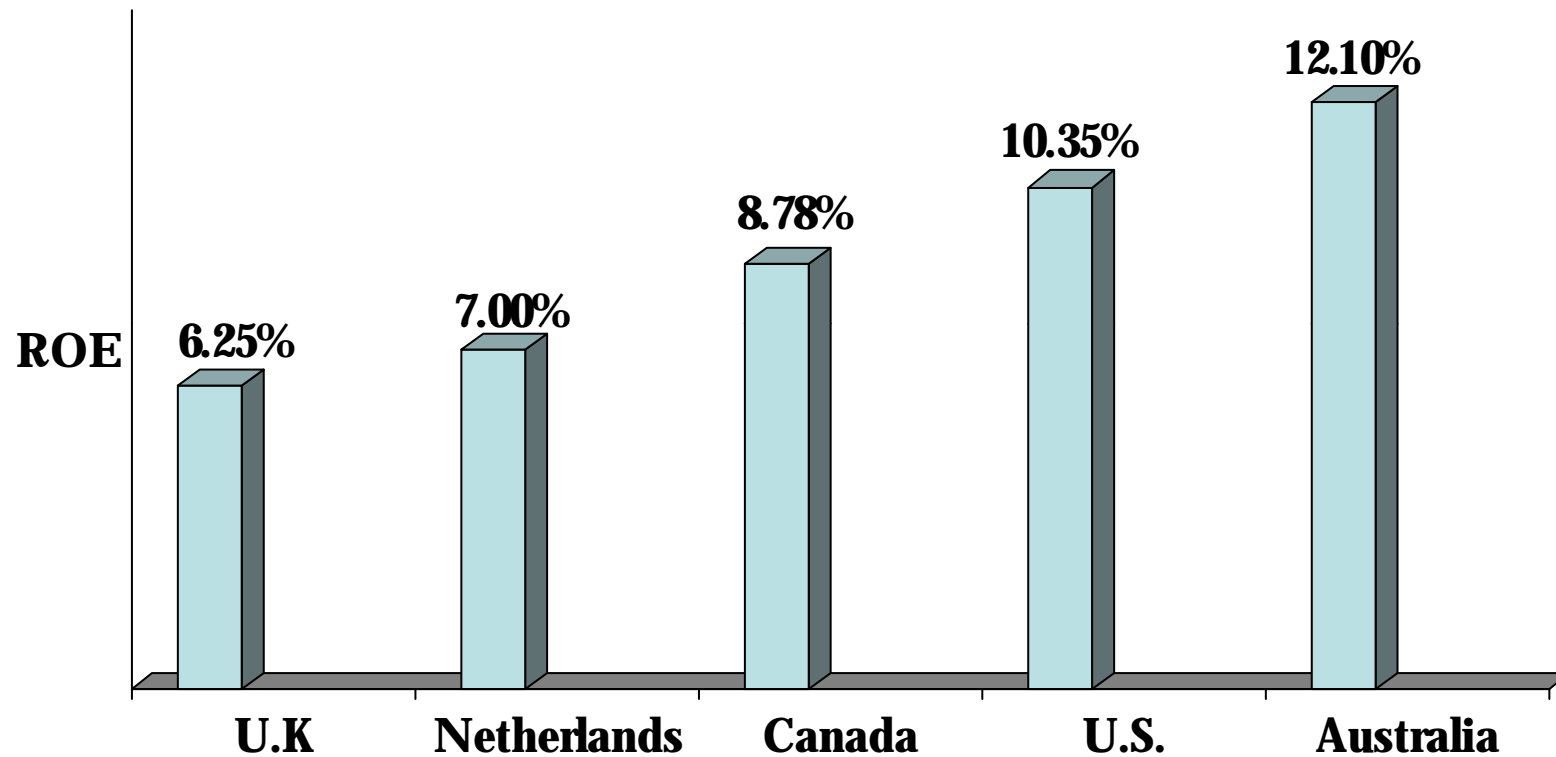
International Comparisons of ROE's for Gas Utilities 2006-2007



Sources: Concentric research, company data, SNL database.



International Comparisons of ROE's for Gas Utilities 2006-2007, Continued



Sources: Concentric research, company data, SNL database.



Determinants of ROE

- Regulatory Policy
- Capital Market Factors
- Utility Operating and Financial Characteristics
- Tax Law



ROE Methodologies

Risk Premium ROE = Bond Yield + Risk Premium

CAPM ROE = Risk Free Rate + Beta x (Market Return – Risk Free Rate)

DCF ROE = $\frac{\text{Stock Dividend}}{\text{Stock Price}} + \text{Growth Rate of Dividends}$

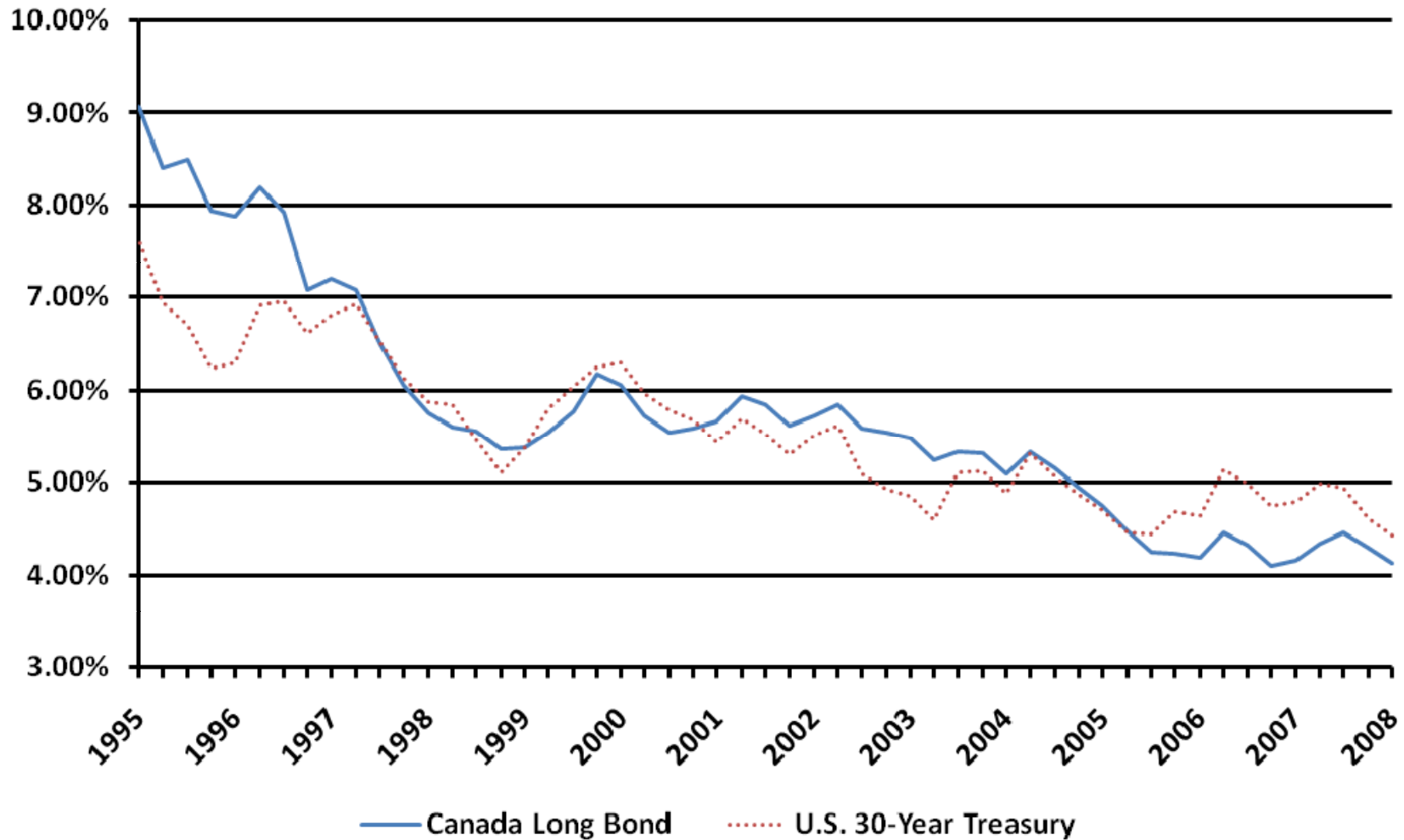


Formula Approach to ROE

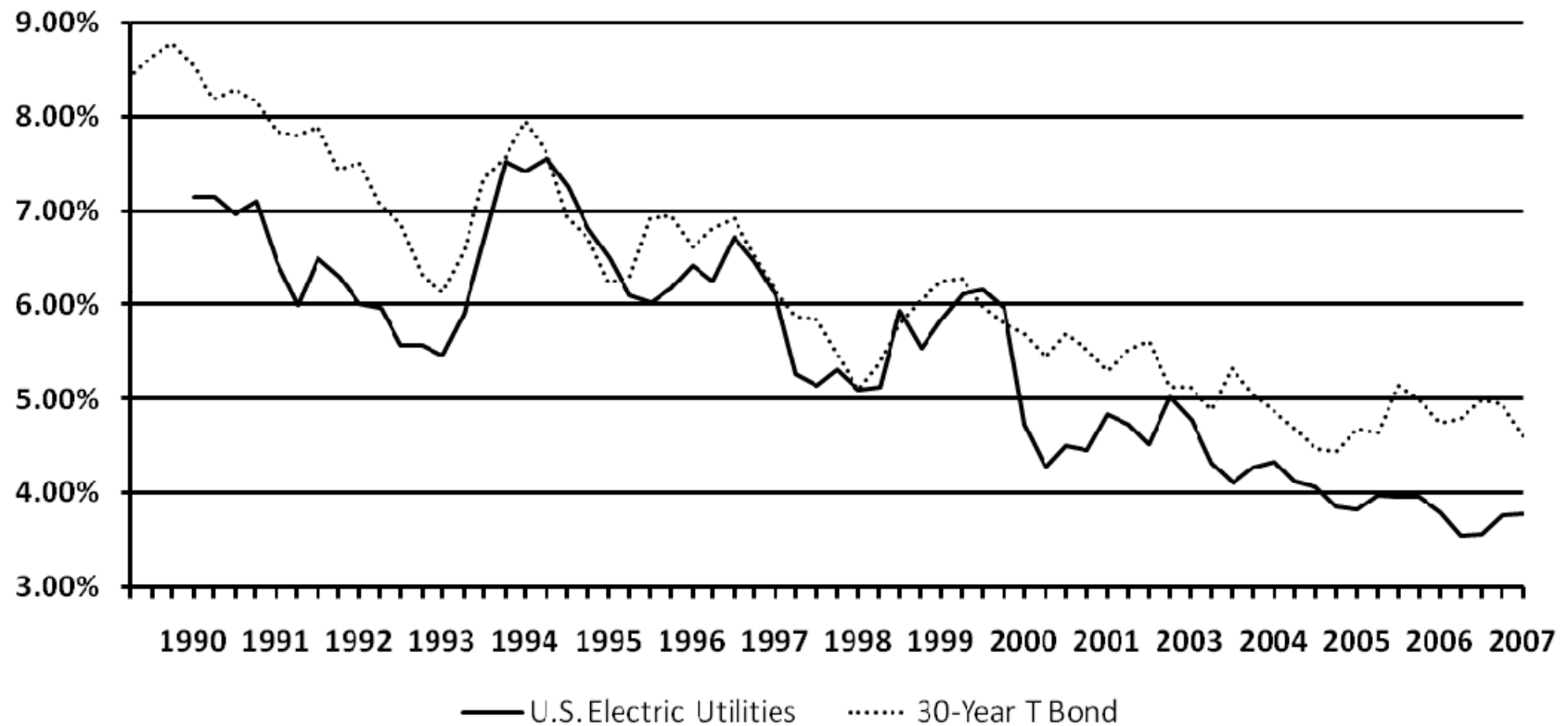
	OEB Adjustment Mechanism
Allowed ROE for test year 1	9.78%
Test Year 2 Long Canada forecast (30-year)	4.00%
Test Year 1 Long Canada forecast (30-year)	5.00%
Change in Interest Rates	-1.00%
Adjustment Factor/Slope Coefficient	0.75
Adjustment to ROE	-0.75%
ROE for Test Year 2	9.03%



Bond Yields



Comparison of U.S. Electric Utility Dividend Yields and U.S. 30-Year Bond Yields for the Period 1990 – 2007



Source: Bloomberg



ROE Methodologies

Risk Premium ROE = Risk Free Rate (Bond Yield) + Risk Premium

CAPM ROE = Risk Free Rate + beta (Market Return – Risk Free Rate)

DCF ROE = $\frac{\text{Stock Dividend}}{\text{Stock Price}}$ + Growth Rate of Dividends



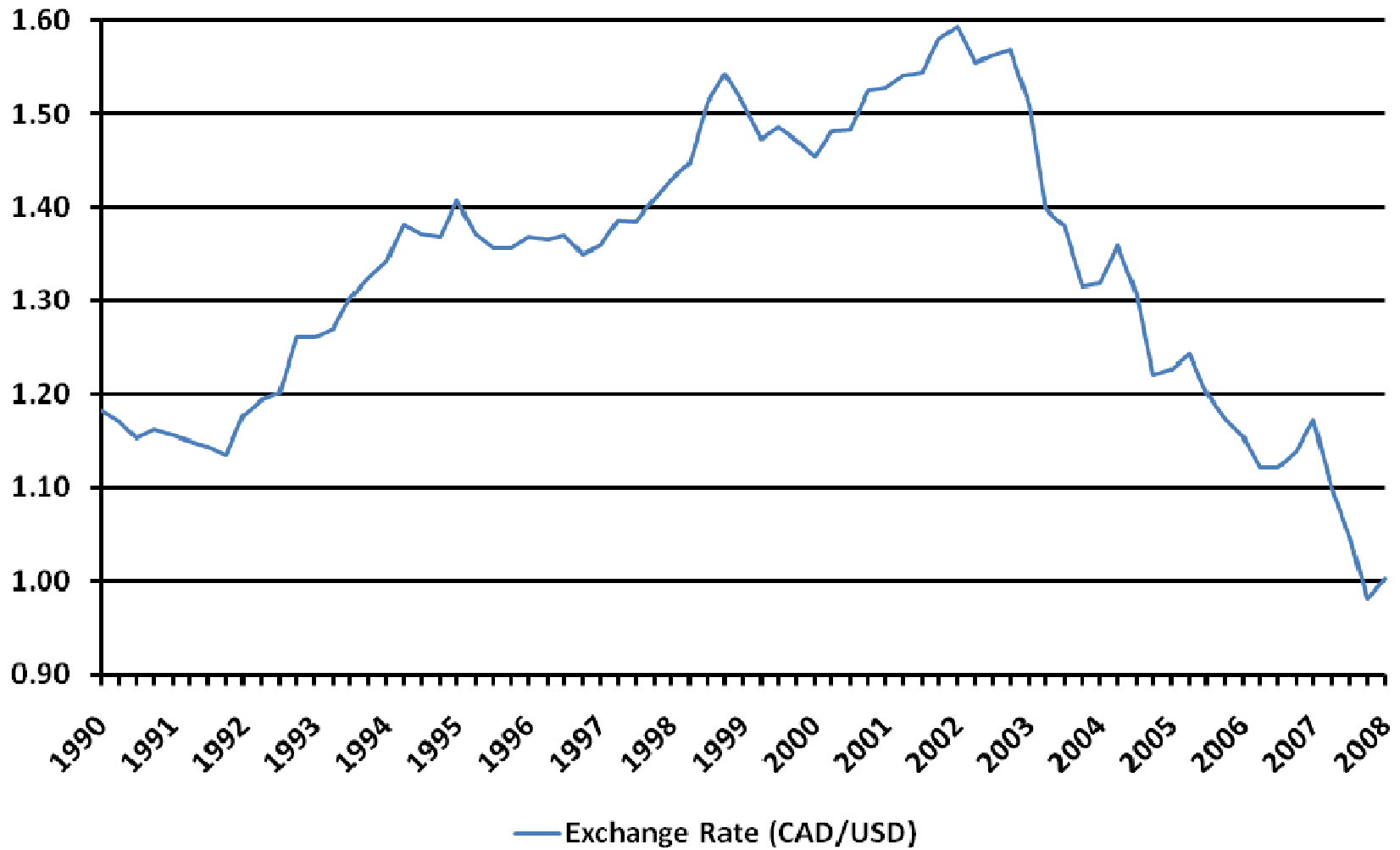
Utility Business Risk Factors

DBRS	S&P
<ul style="list-style-type: none"> • Regulatory factors • Competitive environment • Supply/demand considerations • Regulated vs. non-regulated activities • Domestic vs. foreign operations • Capital spending program • Coverage ratios • Qualitative factors such as customer mix, economic strength in the service territory, and management expertise 	<ul style="list-style-type: none"> • Regulation • Weather protection • Earnings sharing • Allowed ROE • Other regulatory factors • Financial protection from affiliates • Markets and competition (including service territory growth, saturation, customer mix, protection against bypass, and economic strength) • Factors related to supply, storage, system condition, and hedging • Management

Sources: *Dominion Bond Rating Service, Standard and Poor's.*



Exchange Rate



Source: U.S. Federal Reserve Bank of New York.



International Cost of Capital

Morningstar Methodology	U.S. Return	Canadian Return	Difference
International CAPM	12.41%	11.73%	0.68%
Country Specific Risk Premia	9.59%	8.02%	1.57%
Country Risk Rating Model	10.60%	10.76%	-0.16%
Country-Spread Model	11.97%	11.44%	0.53%
Relative Standard Deviation Model	11.97%	13.22%	-1.25%
Average	11.30%	11.03%	0.27%

Source: Concentric research, Morningstar.



Broader Market Comparisons

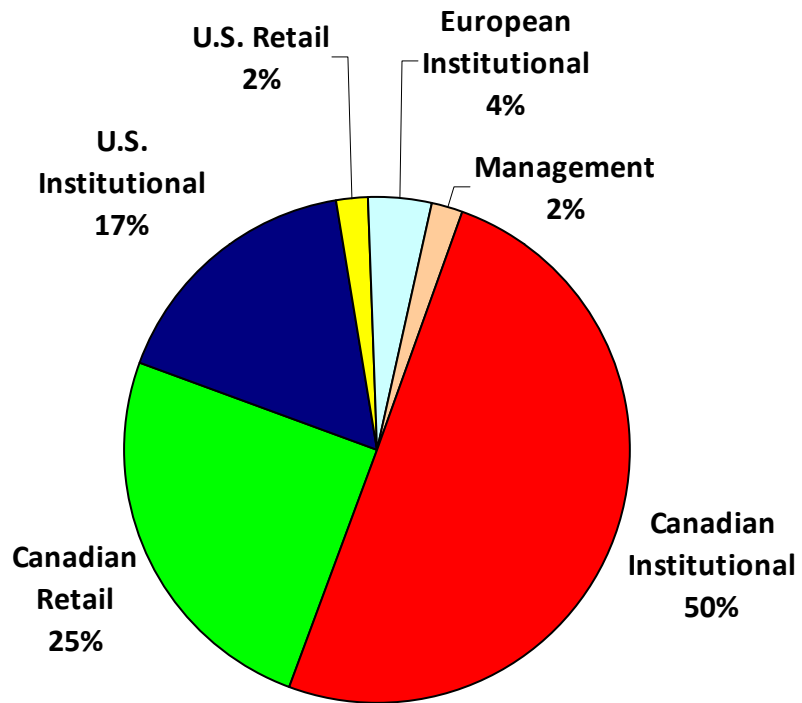
	GDP Growth		Return On		CPI	
	Canada	U.S.	S&P/TSX (TSE 300)	S&P 500	Canada	U.S.
25-Year Average	2.95	3.27	8.72	10.73	2.74	3.12
10-Year Average	3.05	2.89	8.58	5.76	2.15	2.70
5-Year Average	2.69	2.86	15.46	11.12	2.06	3.08

Sources: Canada GDP growth, Return on S&P/TSX (TSE 300) - Bloomberg; U.S. GDP growth - U.S. Bureau of Economic Analysis; Return on S&P 500 - Bloomberg; U.S. CPI - U.S. Bureau of Labor Statistics

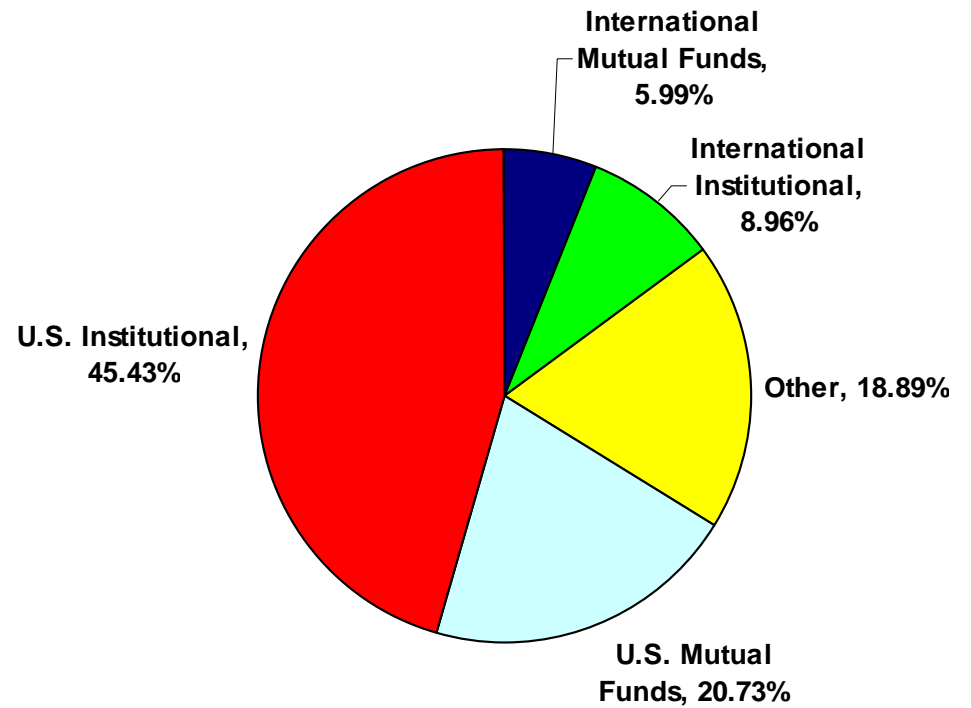


Competition for Capital

Enbridge, Inc.



Consolidated Edison, Inc.



Conclusions

- Average authorized ROEs for Canadian utilities are approximately 150 to 200 basis points lower than those in the U.S.
- This is a relatively recent development over the past 10 years.
- Capital market and traditional risk characteristics do not explain these differences.
- There are no evident fundamental differences in the business and operating risks facing Canadian and U.S. companies.
- Market related distinctions and resulting financial risk differences between Canada and the U.S. are determined to be negligible.



Conclusions, Continued

- Canadian utilities compete for capital on essentially the same basis as utilities in the U.S., although the legacy of public ownership in Canada remains strong.
- The gap in ROE has evolved primarily as a consequence of:
 - Widespread adoption of ROE formulas in Canada linked to government bond yields vs. case specific methods reliant on a combination of stock and bond rates in the U.S.
 - Steady decline of government bond yields.



Impacts to Consider

- Formulaic ROE adjustment mechanisms are reciprocal; as interest rates recover, ROEs will rise at a faster rate in Canada than in the U.S.
- In an extreme low (or high) interest rate environment, prevailing returns may diverge from over-arching regulatory policy goals.
- Lower ROEs provide at least a temporary benefit for ratepayers.
- Inappropriately low ROEs impinge on a utility's ability to raise equity capital, reduce cash flow available for system improvements, and may impact credit ratings.



Impacts to Consider, Continued

- Publicly owned utilities may be better able to withstand below-market ROEs, although unintended wealth transfer between taxpayers and ratepayers may result and efforts to privatize will likely be slowed (or utility values reduced).
- Publicly owned utilities reliant on private debt markets will be impacted.

