NP 2016/2017 General Rate Application
Information - #30
Filed: 2016-04-07 Board Secretary: CB

Newfoundland Power Fair Return and Capital Structure

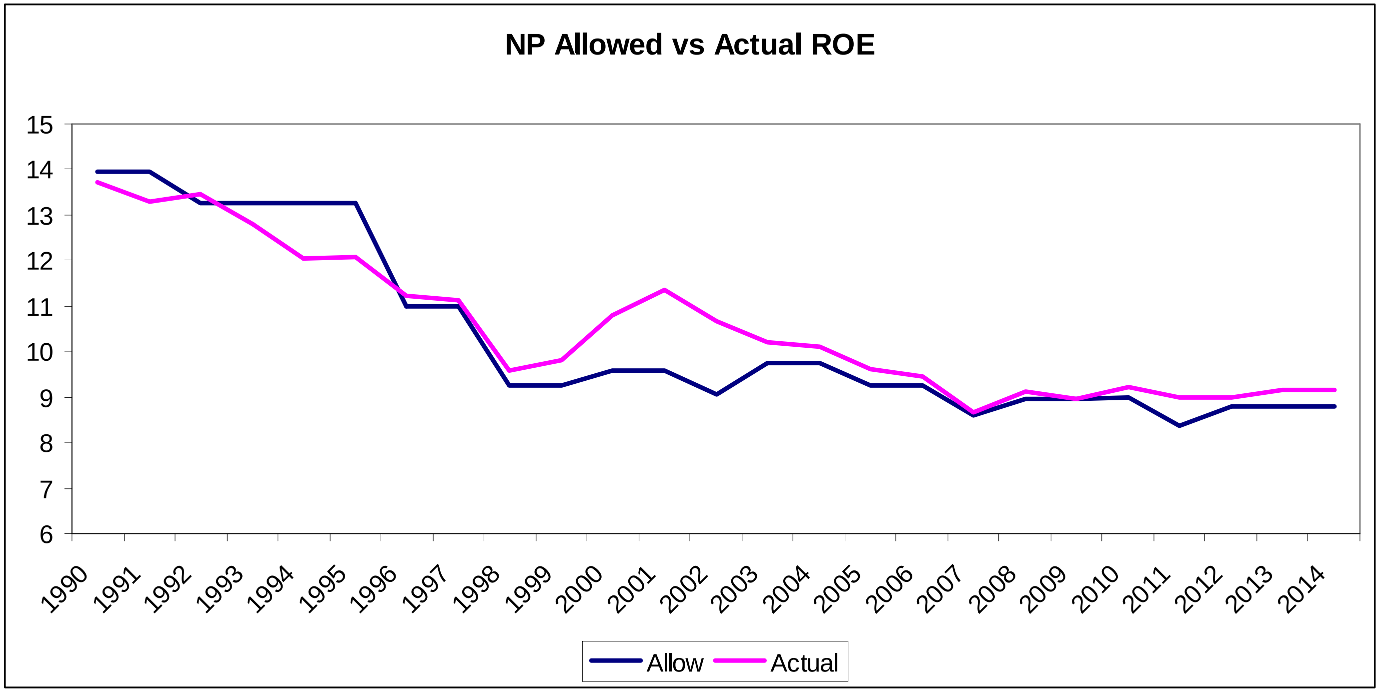
Professor Laurence Booth
CIT Chair in Structured Finance
Rotman School of Management

Key Issues before the Board

- **Is NP's capital structure efficient: does it reflect what we might expect from a competitive firm operating as efficiently as possible?**
  - **Business risk**
    - **Short run**
    - **Long run**
  - **Capital market conditions**

- **What is a fair and reasonable ROE for NP?**

NP Short Run Risk



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Short Run Risk

- **NP has consistently over-earned its allowed ROE;**
  - **Mid 1990s problems due to non-competitive factors: weather and CRA**
- **No trend in over-earning unlike PBR, where we might expect the "fat" to be trimmed over time.**
- **One would expect sooner or later for "risk" to materialise**
- **Indicates the supportive nature of the Board's regulation and the extensive use of deferral accounts**

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Long Run Risk

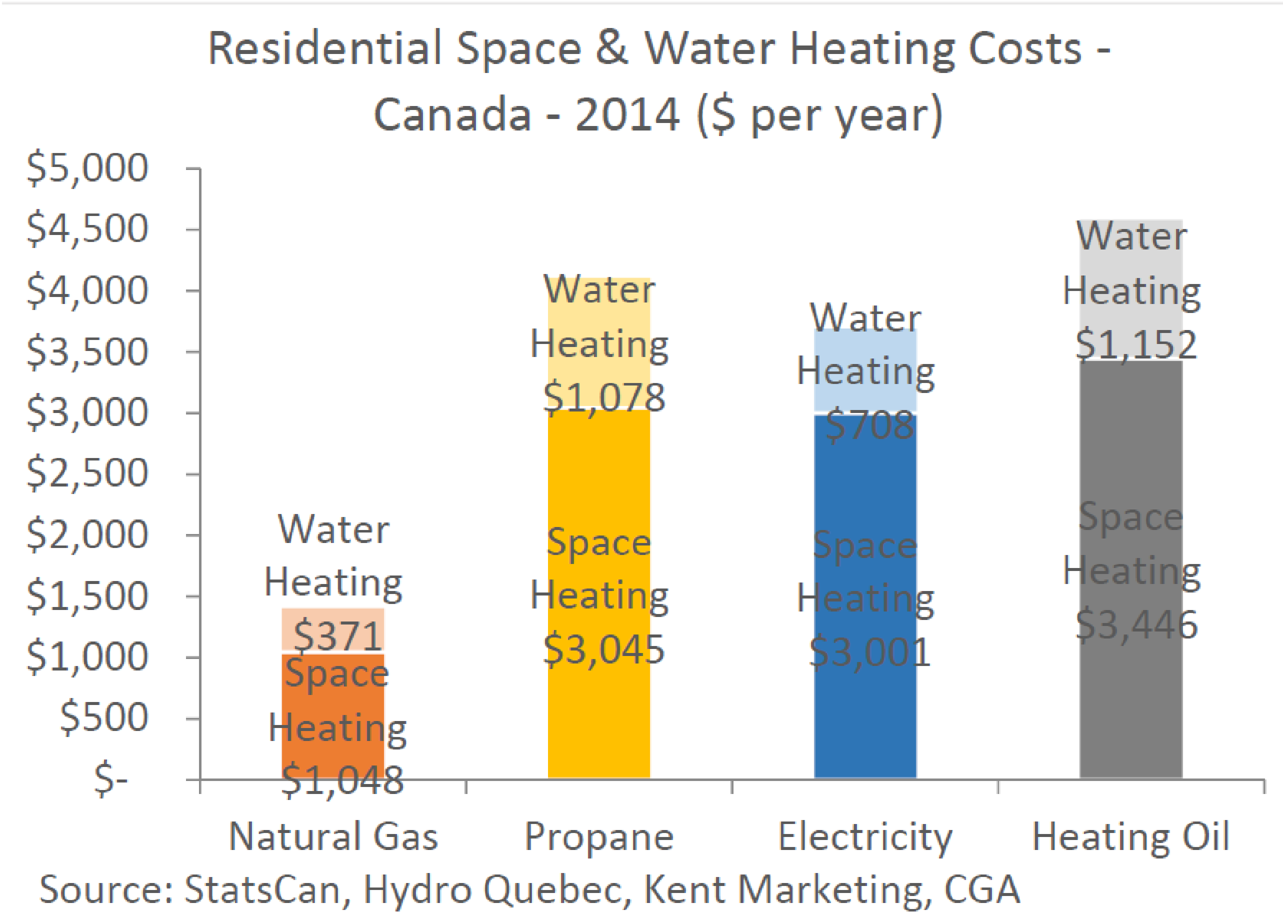
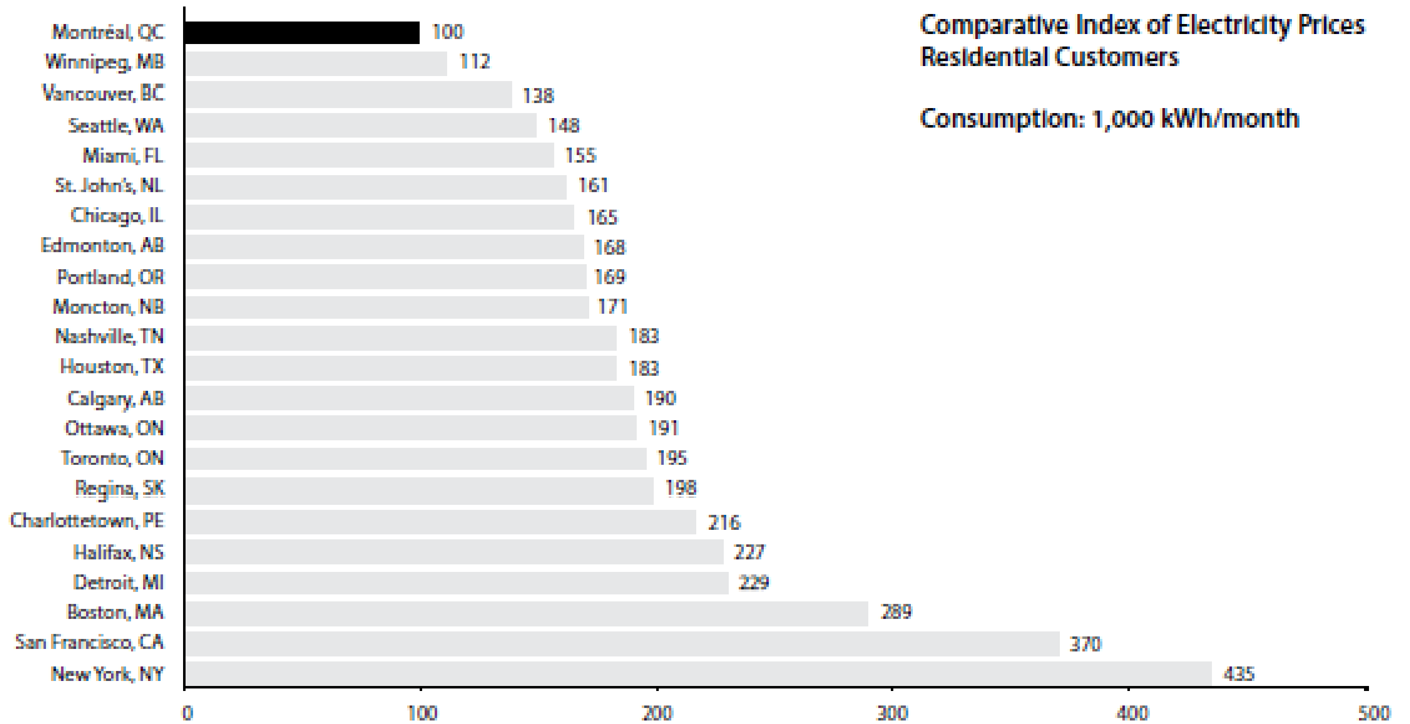


FIGURE 1



Hydro-Québec = 100

Monthly bill (excluding tax)

Rates in effect April 1, 2014

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Long Run

- **$10-25,000 to convert from electricity to oil or other heating**
- **In the 1990s oil was 40% cheaper than electricity, but only 3.7% of customers switched from electricity for space heating**
- **No impact on NP's ability to earn its allowed ROE**
- **What if (Booth RH-4-2004) ?**

"If problems occur, then firms bring these problems to the regulator and frequently "compromises" are worked out. This is part of the regulatory bargain and only regulated firms have this capability. For example if a competitive firm suffers a supply shock then the stockholders are directly affected, but in contrast a regulated firm can have losses put in a deferral account and allocated to future customers or apply to the regulator for other means of protecting the stockholders from loss. Consequently it is unreasonable to expect no action on the part of the regulator to the increased risk after year 11 in the above example."

Business Risk Summary

- **No significant change in business risk over the forecast test years**

- **NP remains a typical low risk Canadian utility**

  - **Primarily T&D**
  - **No significant generation**

- **Recent T&D Canadian Benchmarks**
  - **Alberta: 8.3% ROE on 36-38% Common equity**
  - **Quebec: 8.2% ROE on 30-35% Common equity**

Fortis Inc.
2014 AR

Capital Structure

The Corporation's principal businesses of regulated electric and gas distribution require ongoing access to capital to enable the utilities to fund maintenance and expansion of infrastructure. Fortis raises debt at the subsidiary level to ensure regulatory transparency, tax efficiency and financing flexibility. Fortis generally finances a significant portion of acquisitions at the corporate level with proceeds from common share, preference share and long-term debt offerings. To help ensure access to capital, the Corporation targets a consolidated long-term capital structure containing approximately 45% equity, including preference shares, and 55% debt, as well as investment-grade credit ratings. Each of the Corporation's regulated utilities maintains its own capital structure in line with the deemed capital structure reflected in each of the utility's customer rates.

The consolidated capital structure of Fortis is presented in the following table.

Capital Structure

	2014		2013	
As at December 31	*($ millions)*	*(%)*	*($ millions)*	*(%)*
Total debt and capital lease and finance obligations (net of cash) [(1)]	**11,304**	**56.5**	7,716	56.2
Preference shares	**1,820**	**9.1**	1,229	9.0
Common shareholders' equity	**6,871**	**34.4**	4,772	34.8
Total [(2)]	**19,995**	**100.0**	13,717	100.0

[(1)] Includes long-term debt and capital lease and finance obligations, including current portions, and short-term borrowings, net of cash

[(2)] Excludes amounts related to non-controlling interests

Fortis Inc.
2014 AR

Management Discussion and Analysis

SUMMARY FINANCIAL HIGHLIGHTS

For the Years Ended December 31	**2014**	2013	Variance
Net Earnings Attributable to Common Equity Shareholders *($ millions)*	**317**	353	(36)
Basic Earnings per Common Share *($)*	**1.41**	1.74	(0.33)
Diluted Earnings per Common Share *($)*	**1.40**	1.73	(0.33)
Weighted Average Number of Common Shares Outstanding *(millions)*	**225.6**	202.5	23.1
Cash Flow from Operating Activities *($ millions)*	**982**	899	83
Dividends Paid per Common Share *($)*	**1.28**	1.24	0.04
Dividend Payout Ratio *(%)*	**90.8**	71.3	19.5
Return on Average Book Common Shareholders' Equity *(%)* (1)	**5.4**	8.1	(2.7)
Total Assets *($ billions)*	**26.6**	17.9	8.7
Gross Capital Expenditures *($ millions)*	**1,725**	1,175	550
Public Common Share Offering *($ millions)*	**–**	601	(601)
Public Preference Share Offerings *($ millions)*	**600**	250	350
Convertible Debenture Offering *($ millions)*	**1,800**	–	1,800
Long-Term Debt Offerings *($ millions)*	**1,200**	657	543

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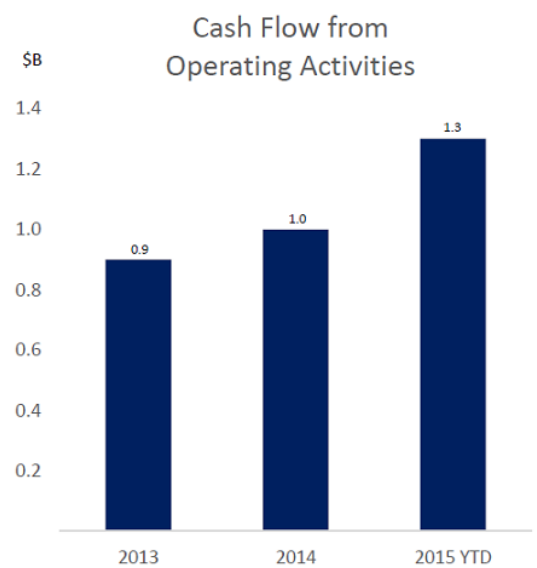
Fortis 2015Q3

Ample Liquidity and Strong Credit Ratings

Strong Credit Ratings

Fortis Inc.	
S&P	A-
DBRS	A(low)

Outlook: Stable



FORTIS

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Regulatory Overview

Company	Jurisdiction	Rate Methodology	Test Year	Equity in Capital (%)	Allowed 2015 ROE (%)	Comments
UNS Energy	Arizona	COS	Historic	43.5-52.6	9.50-10.0	No earnings cap, Jurisdiction supports 50% equity thickness
Central Hudson	New York	COS (3-yr Rate Order)	Future	48	9.00	Earnings sharing above 9.50%
FortisBC	British Columbia	COS (PBR 2014-2019)	Future	38.5-40	8.75-9.15	2015-2019 revenue requirement set by formula with earnings sharing above allowed ROE
FortisAlberta	Alberta	COS (PBR 2013-2017)	Future	40	8.30	No earnings cap, revenue requirement set by formula with adjustments for capex
Newfoundland Power	Newfoundland	COS	Future	45	8.80	Earnings capped at 9.30%

Utility Credit Ratings

Company	S&P	DBRS	Moody's
Tucson Electric Power (1)	BBB+	n/a	A3
Central Hudson	A	n/a	A2
FortisBC (Gas)	n/a	A	A3
FortisAlberta	A-	A (low)	n/a
FortisBC (Electric)	n/a	A (low)	Baa1
Newfoundland Power	n/a	A	A2

NP

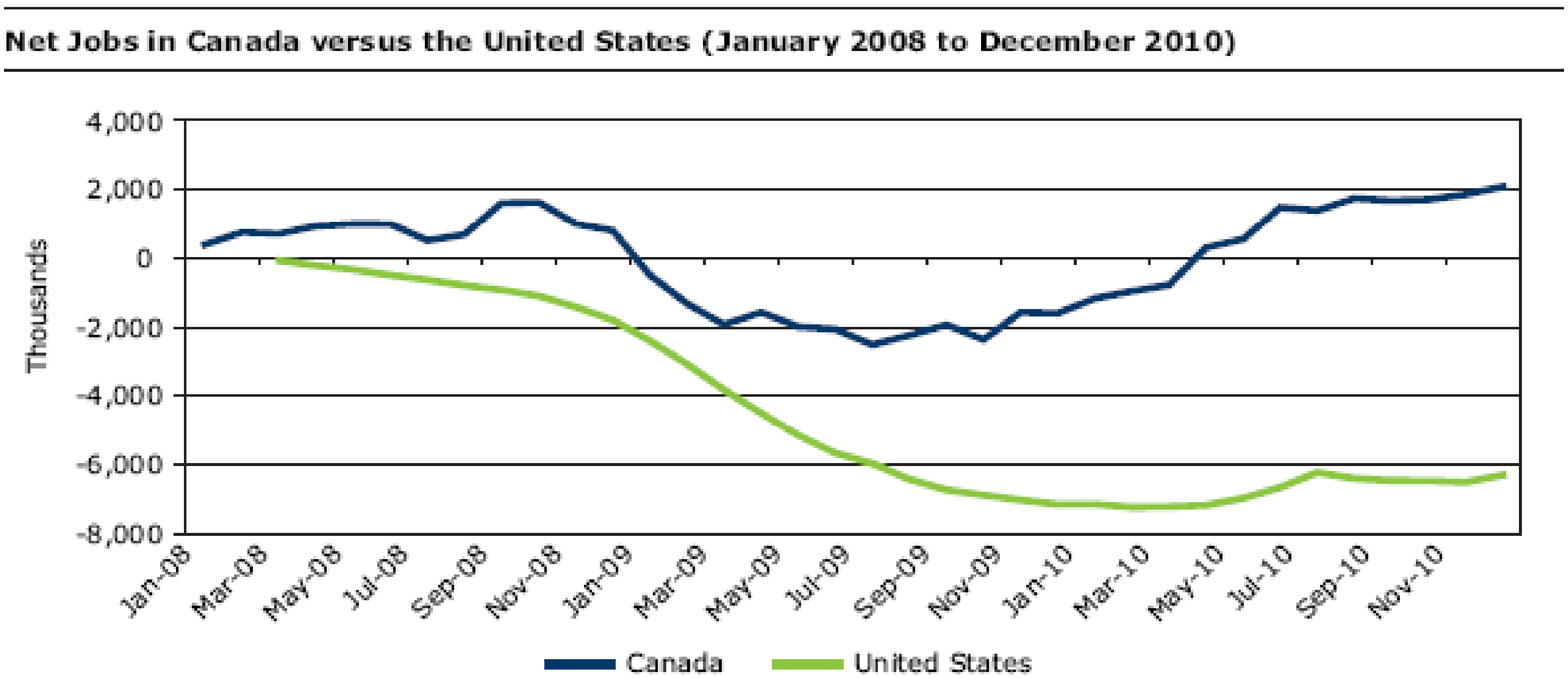
- **Low Business risk**
- **Comparators**
  - **Alberta & Quebec**
  - **Fortis Inc.**
  - **Other Fortis Companies**

- **NP 45% common equity ratio is generous**

- **Recommendation:**
  - ***Deem 5% preferred shares at Fortis average December 2015 preferred yield until next hearing when concerns over electricity prices are clearer (Similar to Regie and Gaz Metro)***

LB1

Situation in 2012



Booth Evidence 2012, page 15

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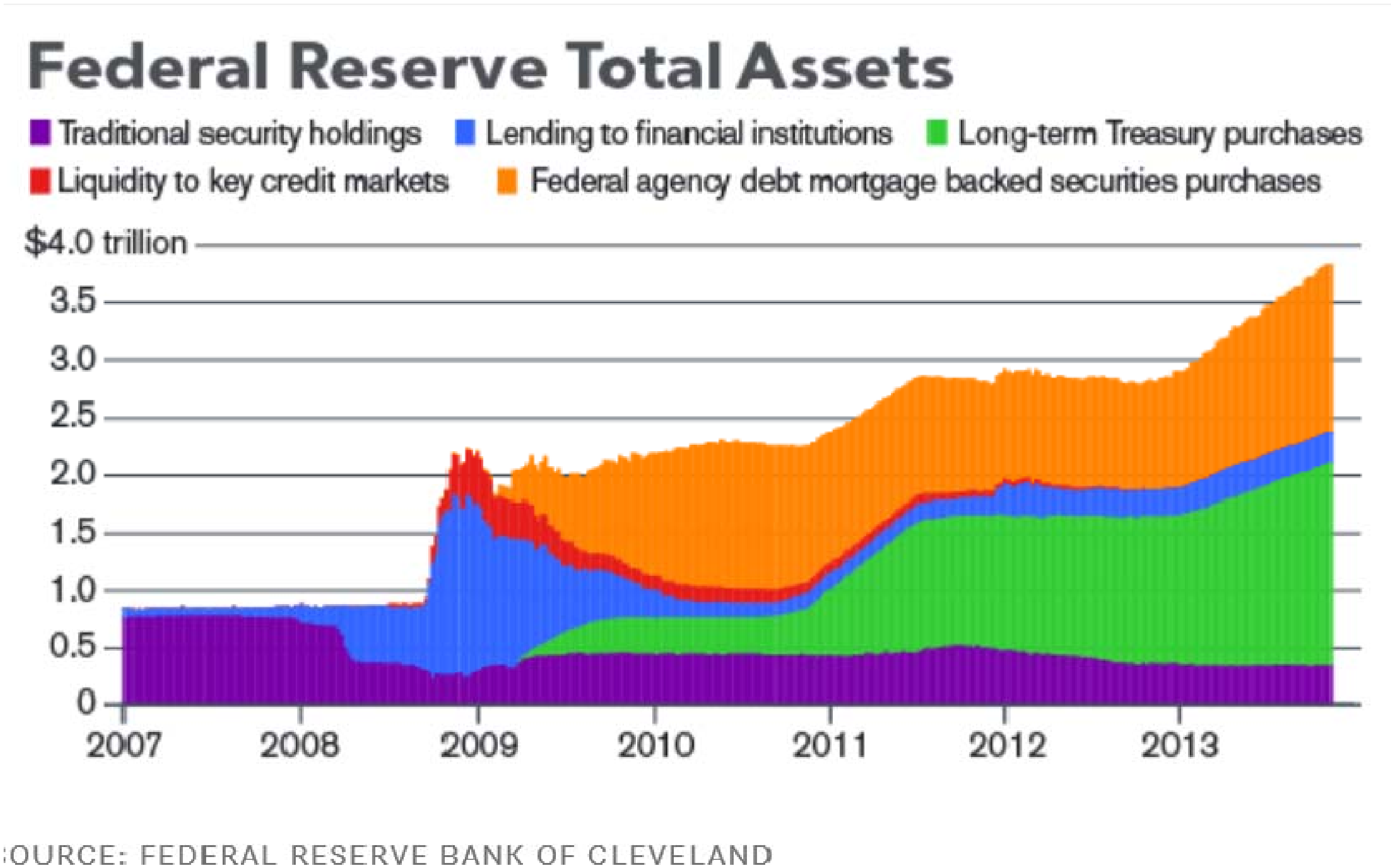
US Fed Bond Buying



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Capital Markets

Booth Executive Summary 2012

"The actions of the US Federal Reserve in implementing Operation Twist and its commitment to keeping the Federal Funds rate at 0-0.25% until the end of 2014 have brought down global interest rates. This has led to a precipitous drop in long Canada bond yields so corporate spreads over government bond yields remain high at 180 bps. This is mainly due to unusually low government bond yields, since all the standard stress indicators show normal capital market conditions. Furthermore Canadian utilities have started to issue 40 and in some cases 50 year bonds at extremely low interest rates."

Forecast LTC Yield at that time 3.0%

Impact on Canada?
(2012 Evidence page 23)

"Reuters reported Governor Mark Carney as saying

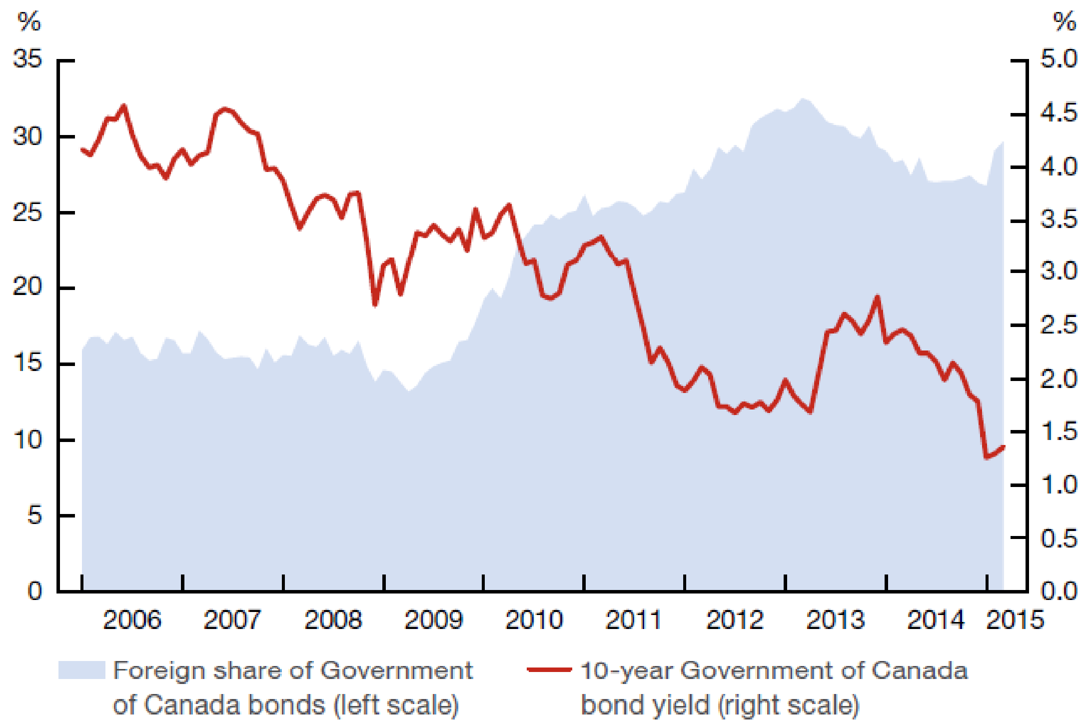
> *"We're in a very different place than the major crisis economies, such as the U.K.,"*
>
> *"Our economy's almost back at full capacity, the labor market's been growing, we're growing above – we had been growing above trend, and the extent to which we continue to grow above trend, we may withdraw some of that monetary policy stimulus."*
>
> *"But we have a financial system that's firing on all cylinders and so we will have to adjust – we will adjust if it's appropriate,"*

Reuters went on to report Governor Carney as saying that the country's relatively strong economic fundamentals had helped push the Canadian dollar to parity with the U.S. dollar on Friday for the first time since May and that the currency's value reflected a "safe-haven premium". As Governor Carney said

> *"There are relatively few places in the advanced world that investors can put their money with a degree of certainty that something catastrophic is not going to happen,"*

It goes without saying that a financial system "firing on all cylinders," while it describes Canada, it is not an accurate statement of conditions in the US."

Chart 16: The share of Canadian federal government bonds held by foreigners has increased since the financial crisis

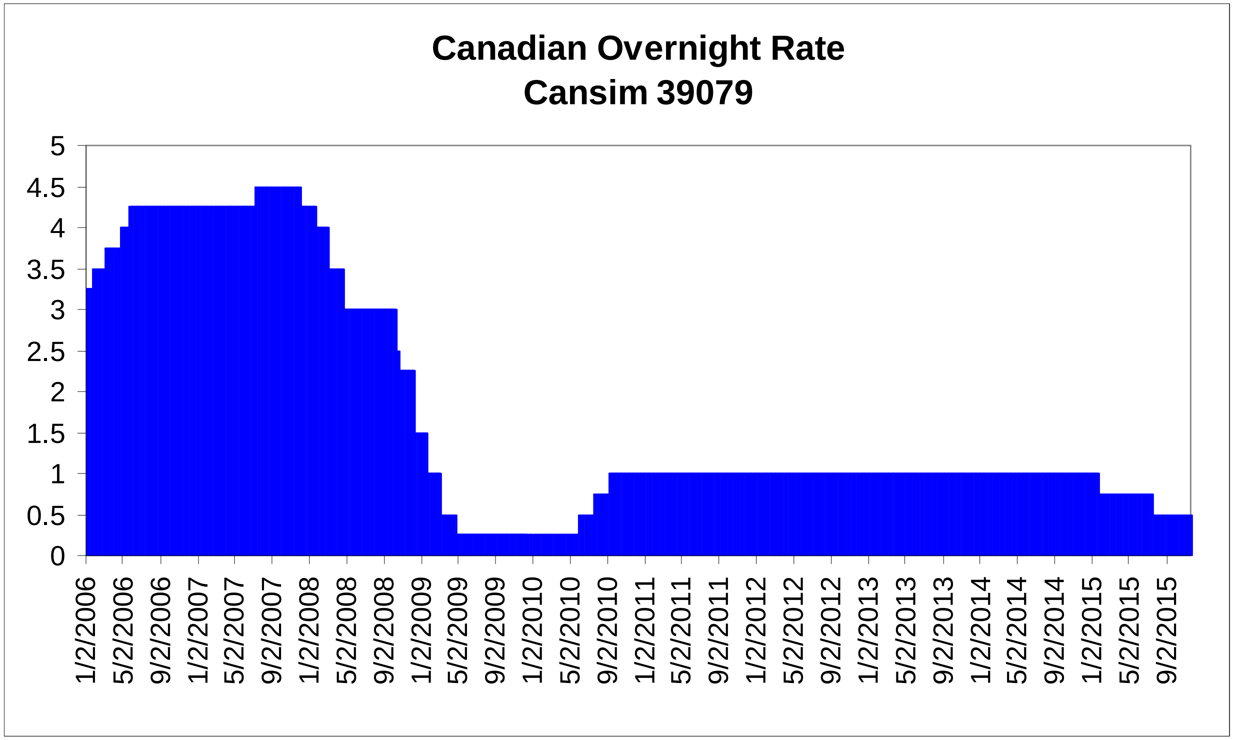


Sources: Bloomberg and Statistics Canada

Last observation: March 2015

Changes Since 2012

- **Overnight rate has dropped since 2012:**
  - **Slowdown in China**
  - **Weak commodity prices**



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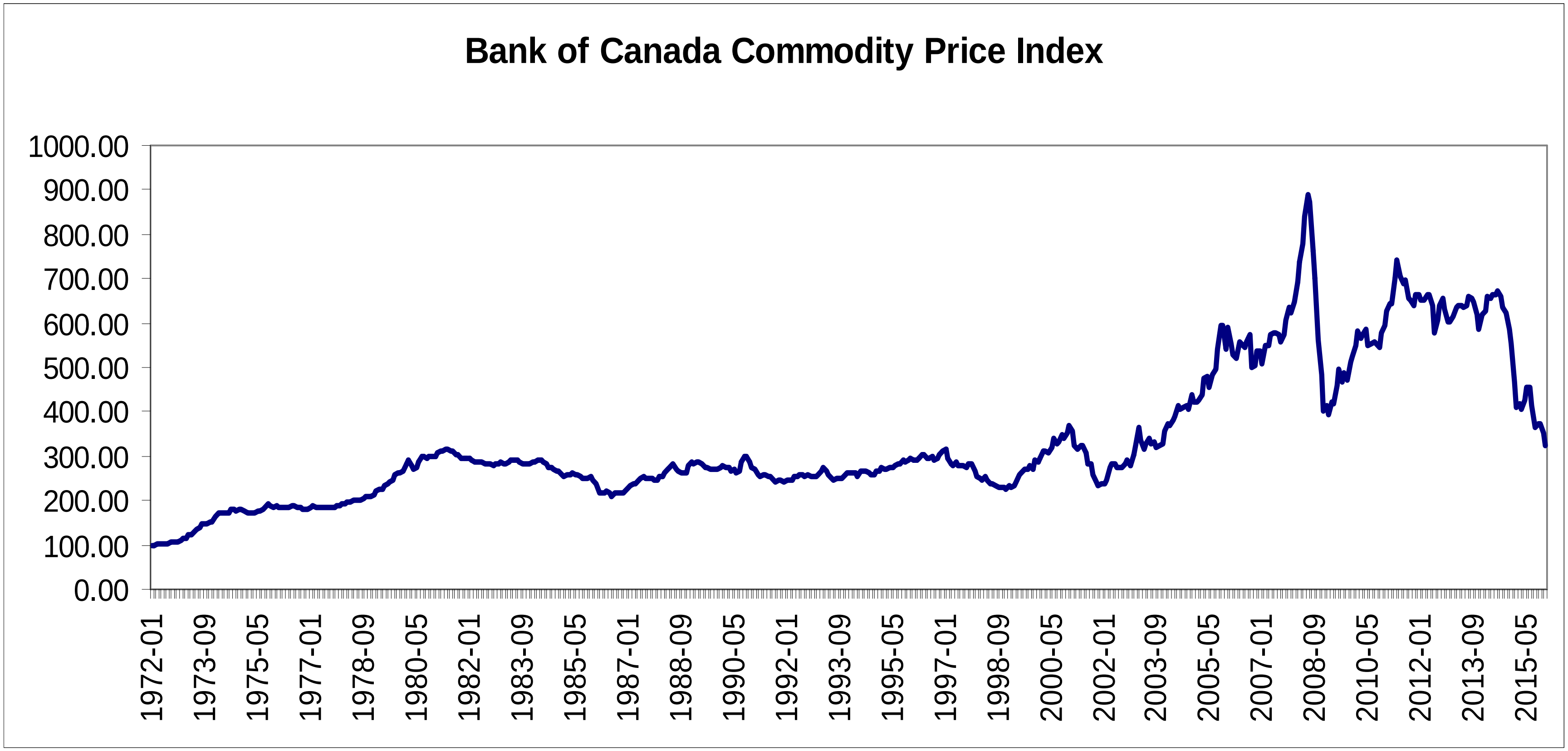

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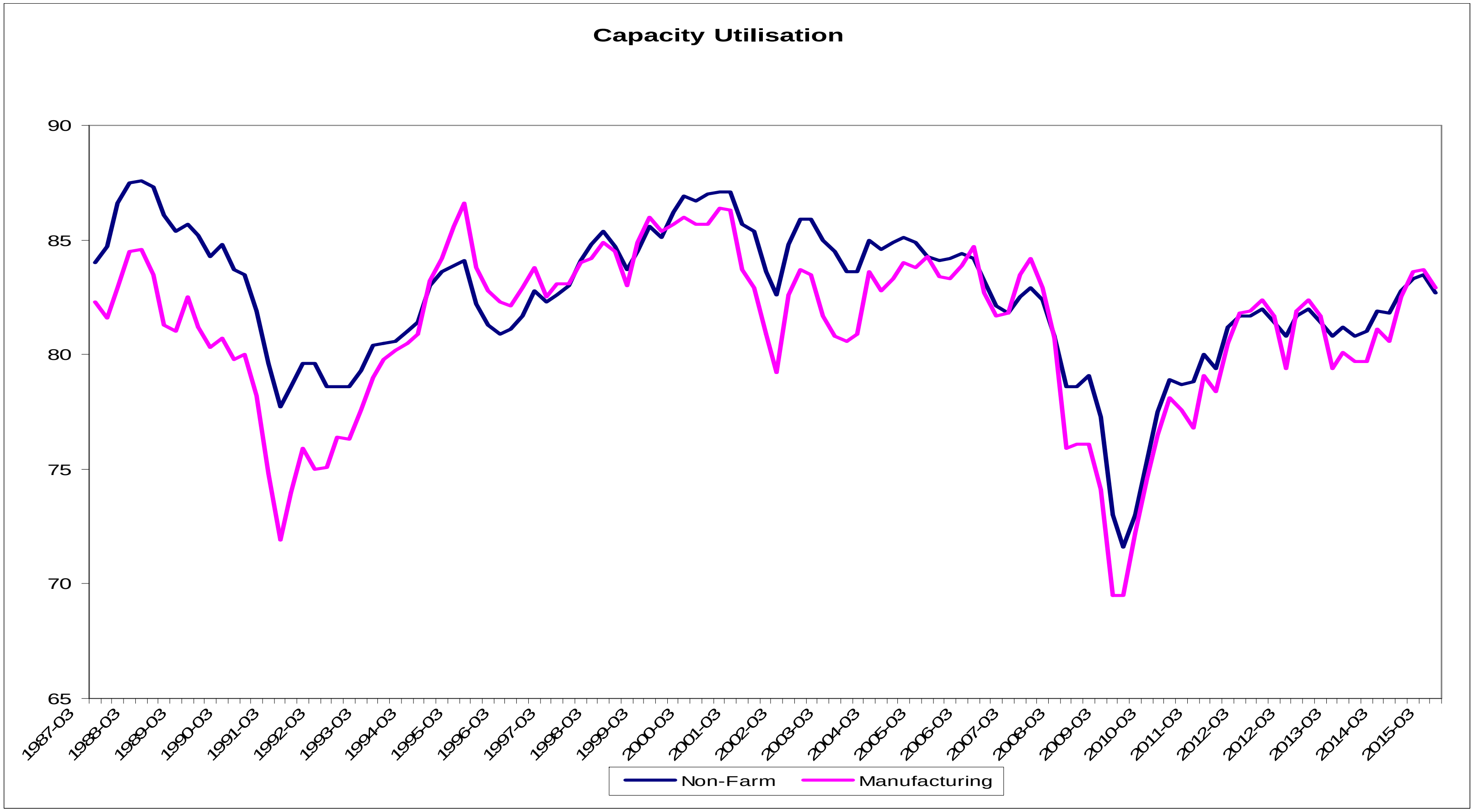

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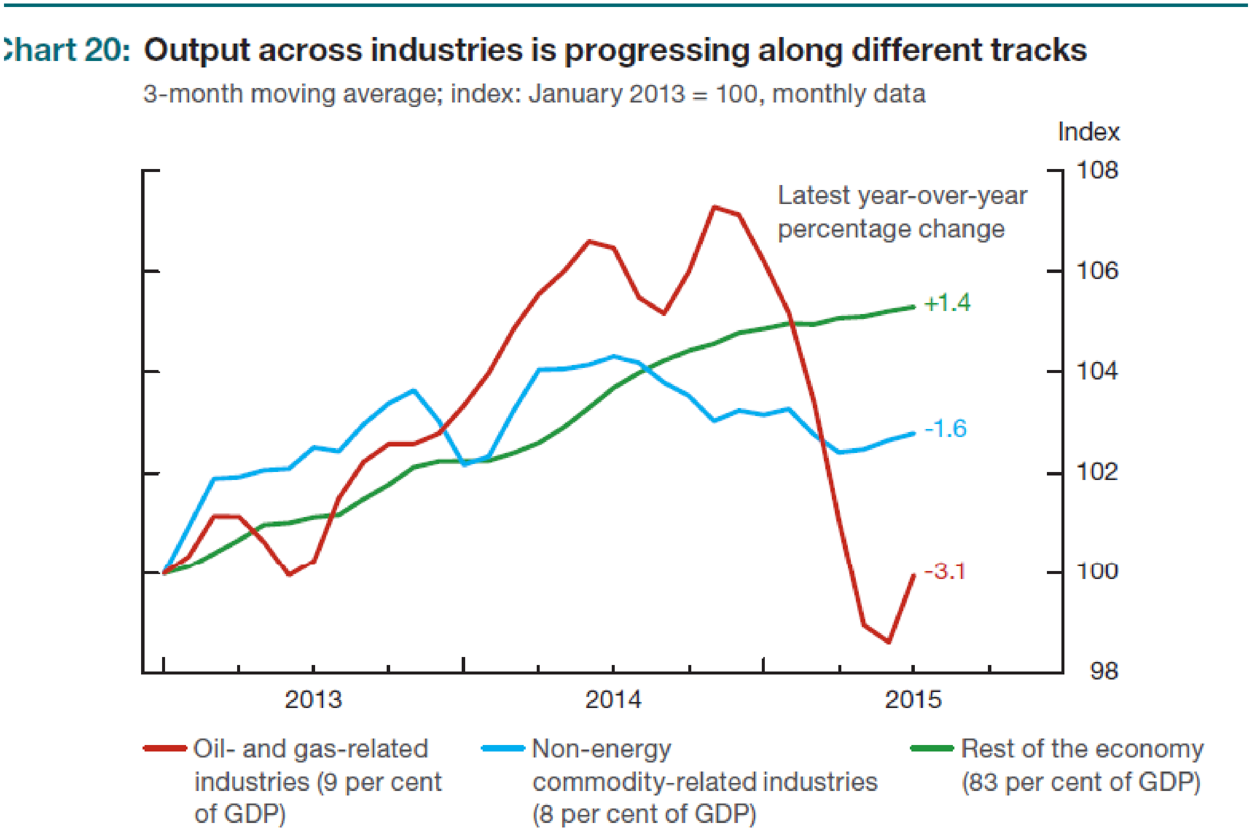
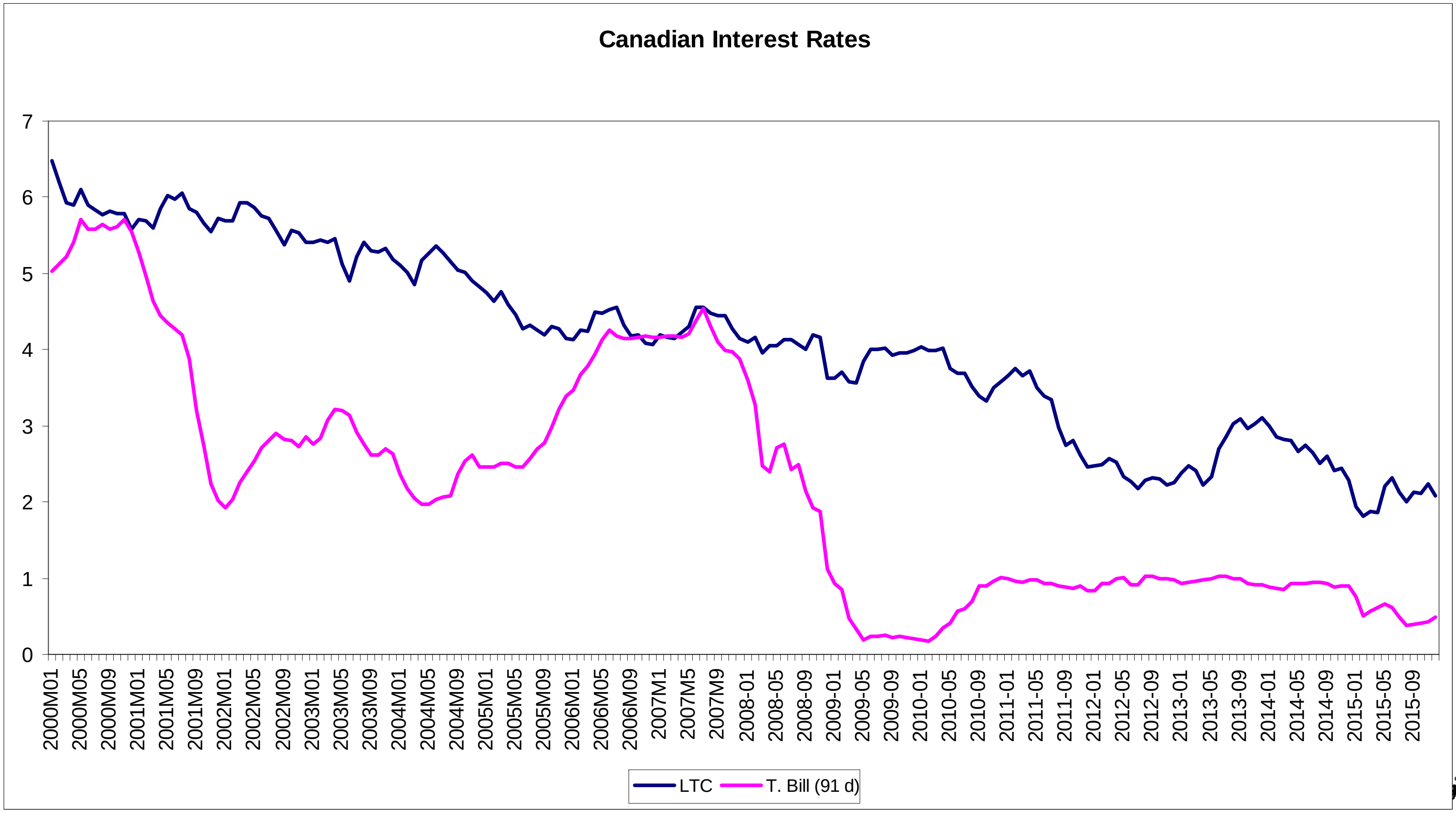
Economy

- **Two speed economy: weak in resource sectors strong elsewhere: reversal of last few years**



Interest Rates



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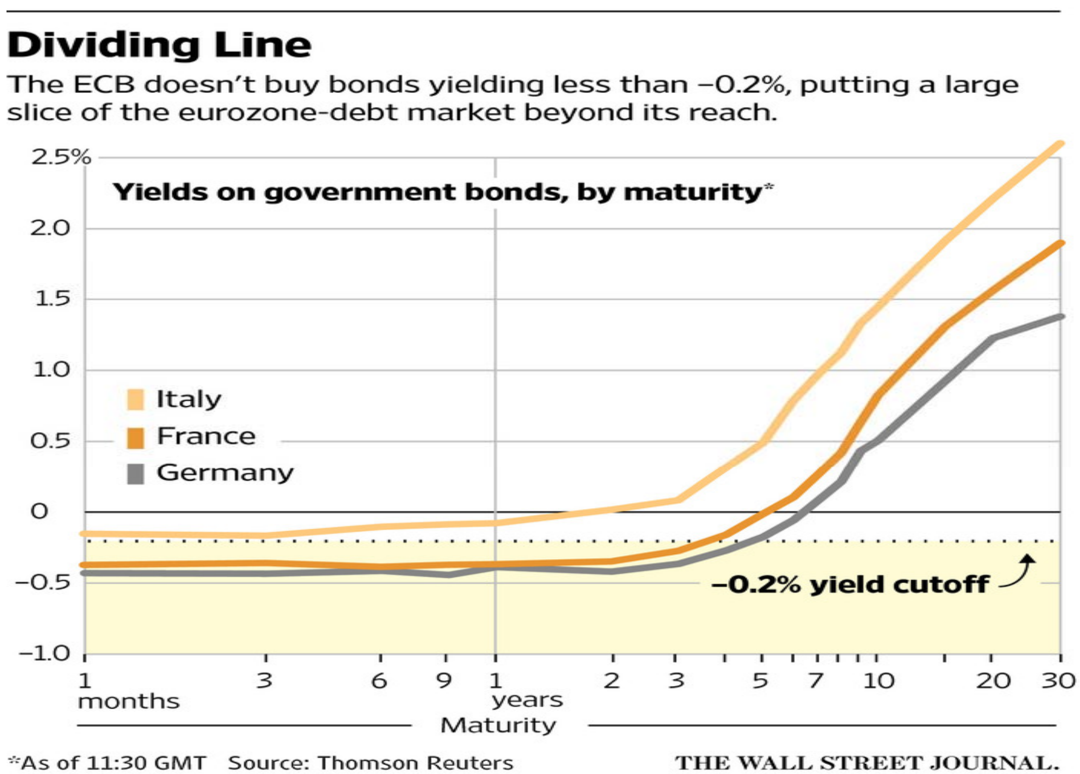
Other Bond Buying

- **Bank of Japan initiated bond buying $55 billion a month, by 2017 will own 50% of the Japanese bond market**
- **European Central Bank Jan 2015 $80 billion a month**



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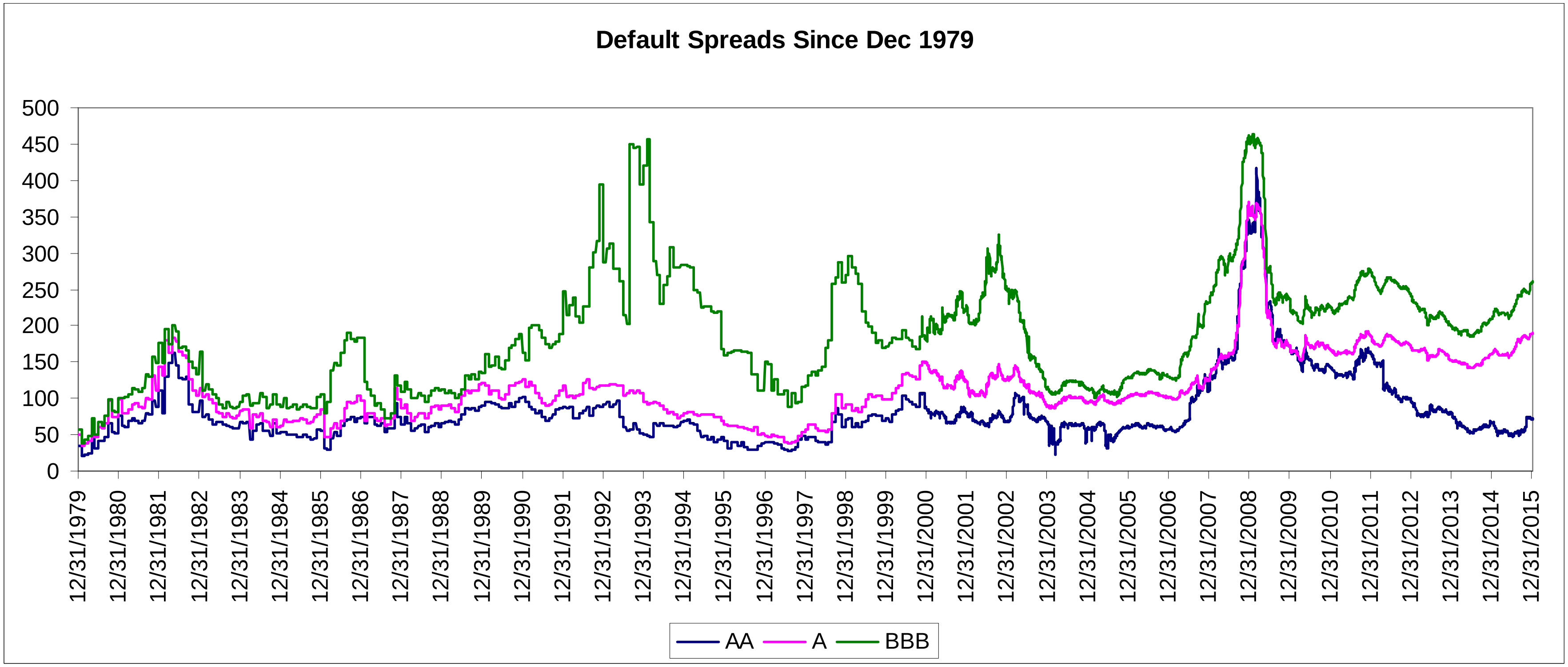
Interest Rate Forecast

	Actuals				Forecast							
	15Q1	15Q2	15Q3	15Q4	16Q1	16Q2	16Q3	16Q4	17Q1	17Q2	17Q3	17Q4
Canada												
Overnight	0.75	0.75	0.50	0.50	0.50	0.50	0.50	0.50	0.75	1.00	1.25	1.75
Three-month	0.55	0.58	0.43	0.51	0.50	0.55	0.60	0.60	0.85	1.10	1.35	1.80
Two-year	0.50	0.48	0.52	0.48	0.55	0.80	1.00	1.10	1.35	1.60	1.95	2.45
Five-year	0.77	0.82	0.80	0.73	0.85	1.25	1.50	1.70	1.90	2.10	2.40	2.80
10-year	1.36	1.69	1.43	1.40	1.60	1.90	2.20	2.30	2.45	2.60	2.75	3.15
30-year	1.98	2.31	2.20	2.16	2.25	2.60	2.75	2.85	2.95	3.05	3.20	3.65
United States												
Fed funds**	0.25	0.25	0.25	0.50	0.75	1.00	1.25	1.50	2.00	2.50	3.00	3.50
Three-month	0.04	0.03	0.00	0.17	0.45	0.65	0.70	0.95	1.50	2.05	2.65	3.20
Two-year	0.56	0.64	0.64	1.05	1.30	1.50	1.70	2.00	2.55	3.05	3.45	3.80
Five-year	1.37	1.64	1.37	1.76	2.05	2.15	2.30	2.55	3.00	3.35	3.75	4.00
10-year	1.93	2.35	2.04	2.27	2.60	2.70	2.85	3.05	3.40	3.65	3.95	4.15
30-year	2.54	3.12	2.86	3.02	3.30	3.35	3.45	3.55	3.70	3.85	4.15	4.25

- **Consensus forecast 2016 LTC yield: 2.81%**
- **RBC (March 2016) average at 2.30%**
- **US Treasury yields much higher than LTC yields" 1.05% 2016Q1 dropping to 0.60% 2017Q4**

Long Term Credit Spreads



A Spreads slightly higher than in 2012 with minor uptick during the recent "walk to quality"

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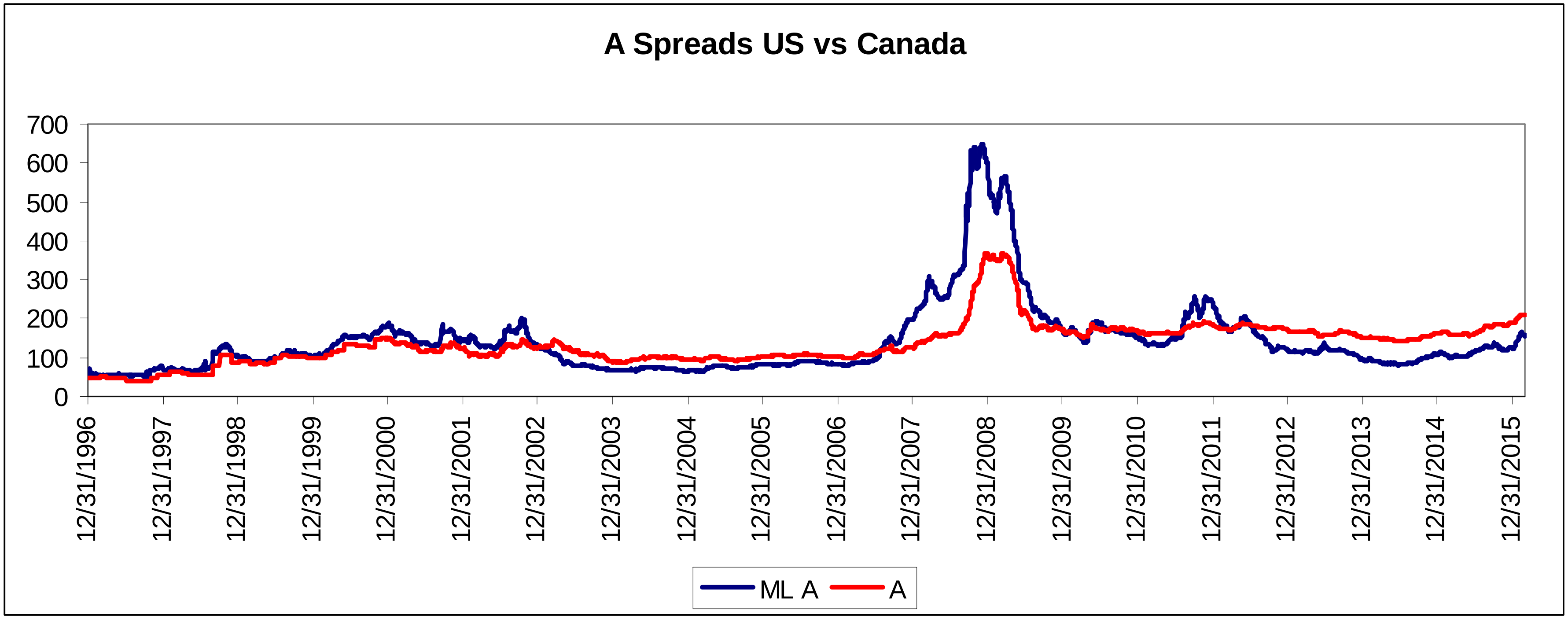
A Spreads US vs Canada



- **A spreads have been higher in Canada (by about 0.50%) since 2010 as LTC yields have come down: indicates unreasonably low LTC yields not credit concerns**

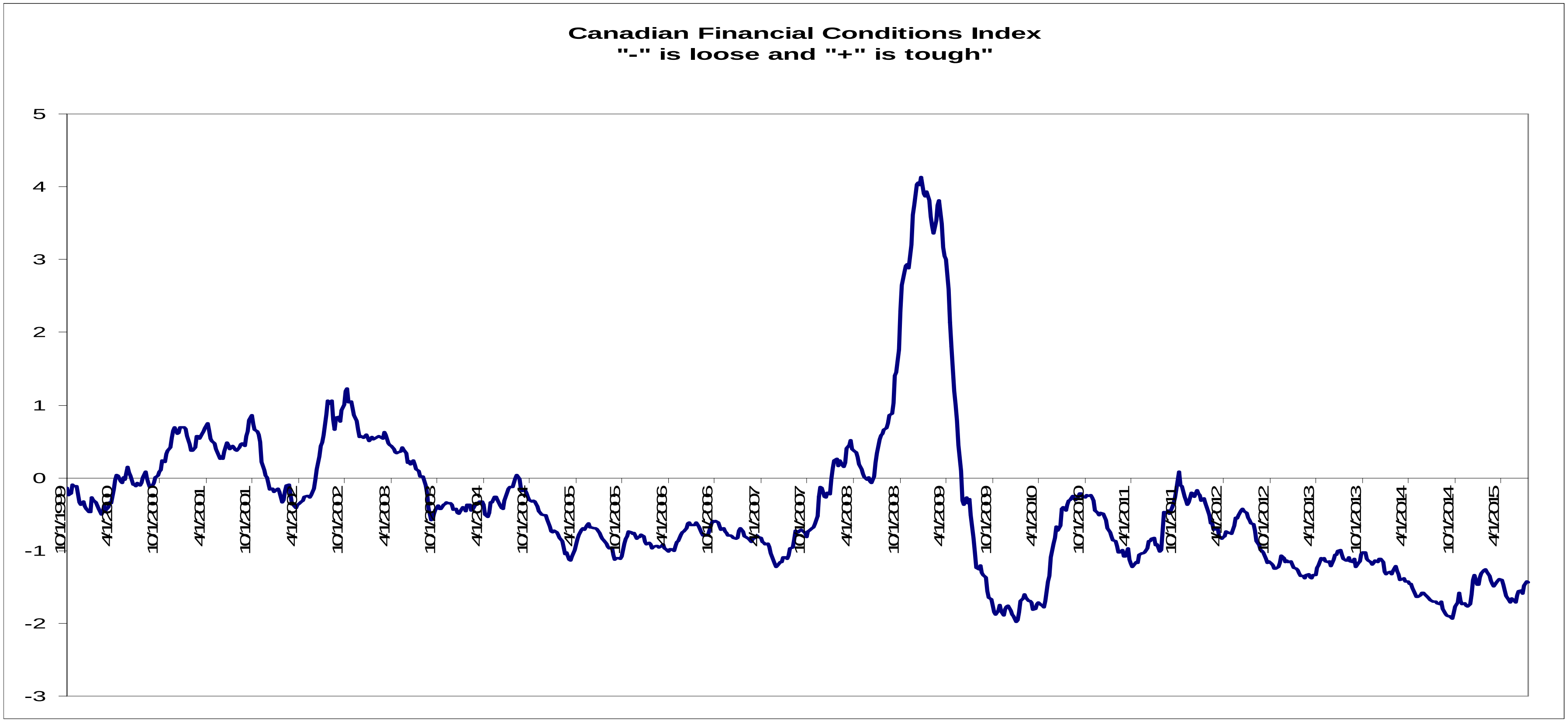


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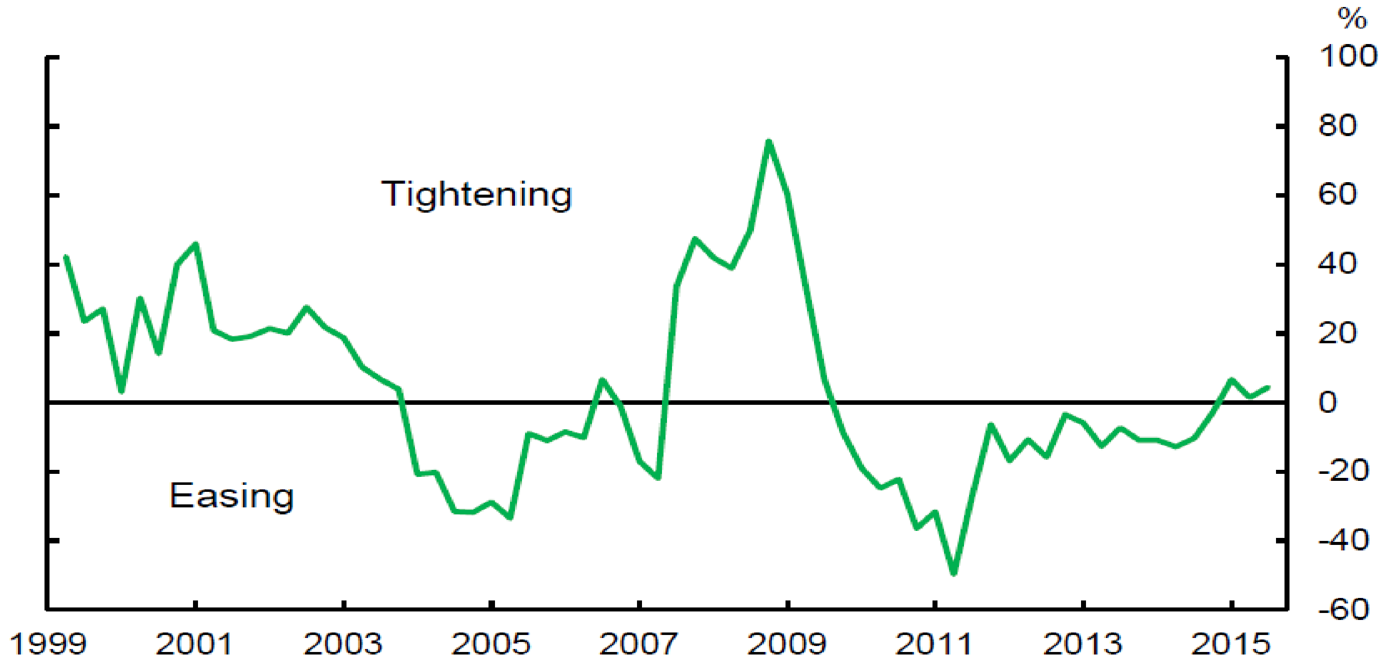
Chart 1: Senior loan officers reported that business-lending conditions for Canadian non-financial firms were mostly unchanged...

Overall business-lending conditions: Balance of opinion[a]



a. The balance of opinion is calculated as the weighted percentage of surveyed financial institutions reporting tightened credit conditions minus the weighted percentage reporting eased credit conditions. Thus, a positive balance of opinion implies a net tightening. The chart shows the average of the balances of opinion for the price and non-price dimensions of lending conditions.

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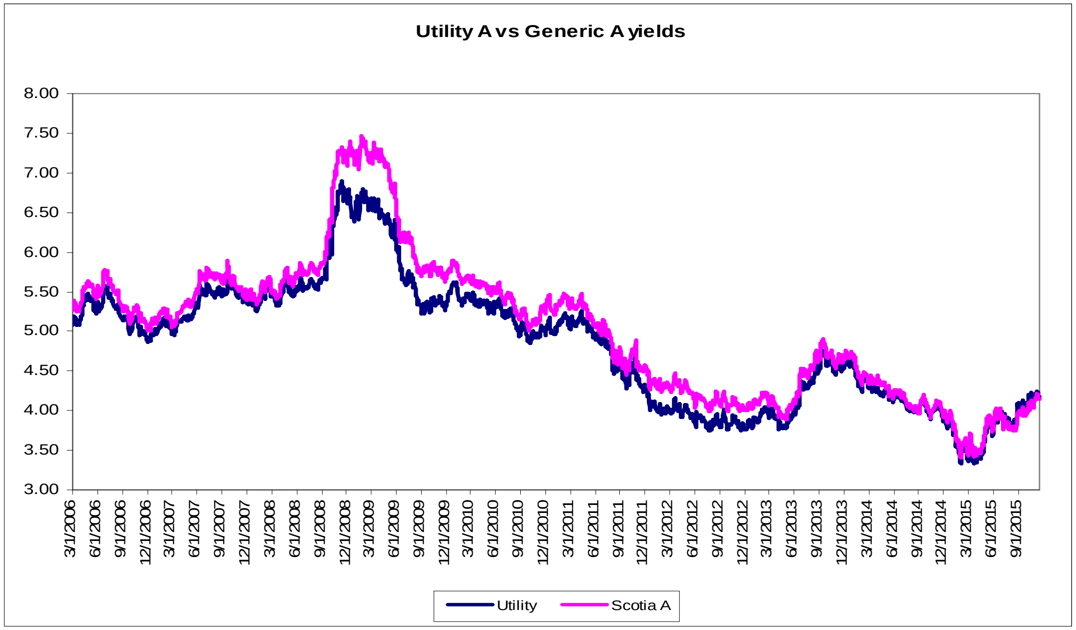
Summary

- **Unreasonably low LTC yields**
- **No sign of unusual stress in the financial system**
  - **Slight pick up in credit spreads (+15 bps)**
  - **Loan conditions about normal**
  - **Absolute level of interest rates very low: Utility A's similar to non-utility A's**



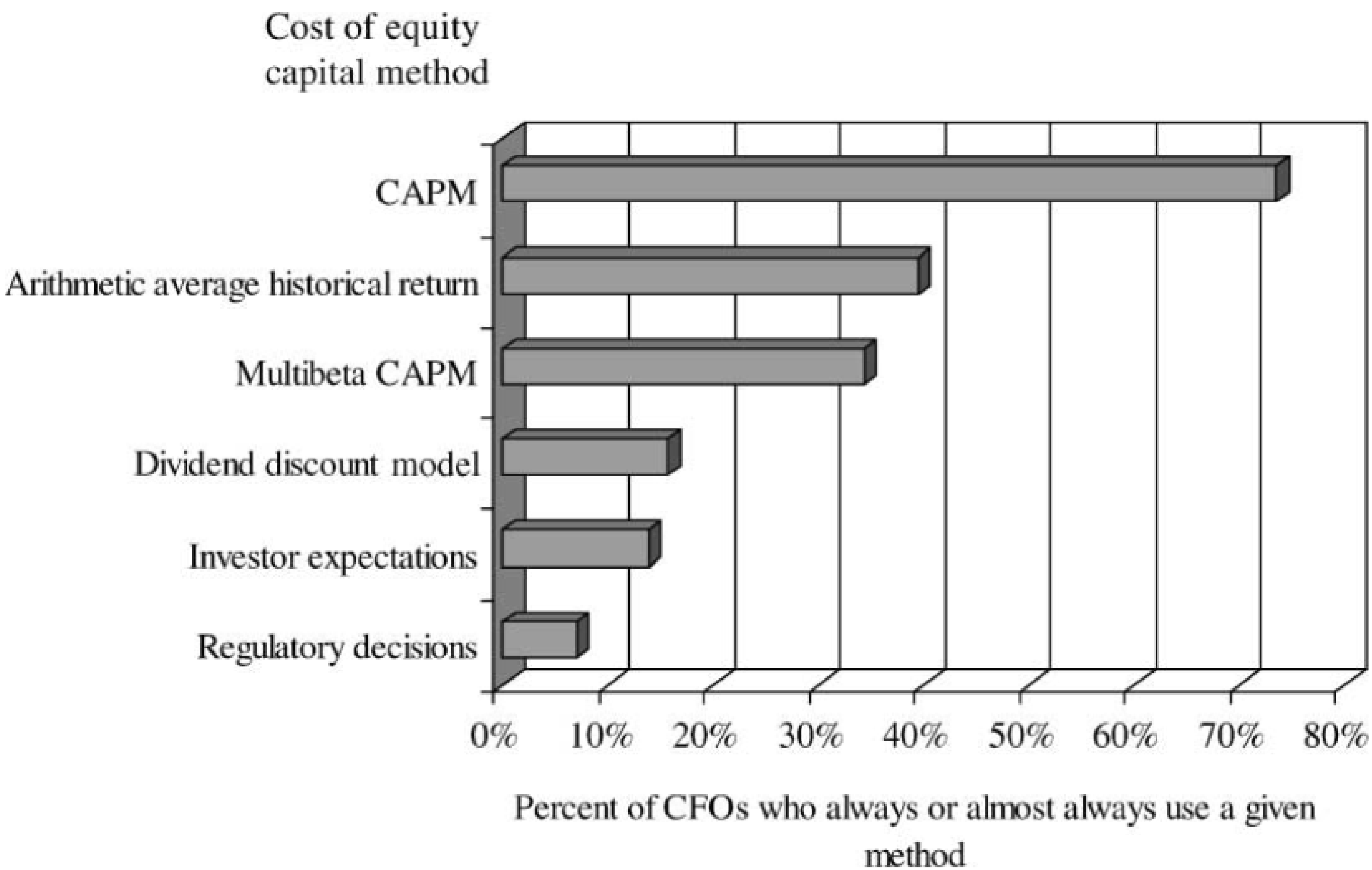
Risk Premium Models

- **Explicit Risk premium model**
  - **CAPM**

$$K = R_F + MRP * \beta$$

Time Value of Money

Market Risk Premium * “beta”



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Market Risk Premium

- **My own historic estimates 5:00-6:00%**
- **Fernandez Survey (November 2015)**

Pablo Fernandez, Alberto Ortiz and Isabel F. Acin
IESE Business School

Market Risk Premium and Risk-Free Rate used for 41 countries in 2015

Table 2. Market Risk Premium (MRP) used for 41 countries in 2015

MRP	Number of answers	average	Median	St. Dev.	max	min	Av-Median
USA	1983	5,5%	5,3%	1,4%	15,0%	2,0%	0,2%
Spain	443	5,9%	5,5%	1,6%	12,0%	3,0%	0,4%
Germany	252	5,3%	5,1%	1,5%	11,3%	2,0%	0,2%
France	122	5,6%	5,5%	1,4%	10,0%	2,0%	0,1%
United Kingdom	101	5,2%	5,0%	1,7%	10,5%	1,3%	0,2%
Italy	83	5,4%	5,2%	1,5%	10,0%	2,0%	0,2%
Canada	81	5,9%	6,0%	1,3%	12,0%	4,0%	-0,1%
Portugal	72	5,7%	5,5%	1,5%	10,0%	3,0%	0,2%
Switzerland	71	5,4%	5,0%	1,2%	10,0%	3,0%	0,4%
Belgium	70	5,5%	5,4%	1,3%	10,0%	1,0%	0,1%
Sweden	68	5,4%	5,1%	1,3%	10,0%	3,0%	0,3%
Denmark	65	5,5%	5,5%	1,2%	10,0%	3,0%	0,0%
Finland	64	5,7%	5,8%	1,1%	10,0%	3,0%	0,0%
Japan	61	5,8%	6,0%	2,0%	15,0%	2,0%	-0,2%

Fernandez Survey November 2015

Pablo Fernandez, Alberto Ortiz and Isabel F. Acin
IESE Business School

Market Risk Premium and Risk-Free Rate used for 41 countries in 2015

Table 4. Km [Required return to equity (market): RF + MRP)] used for 41 countries in 2015

Km	Number of answers	**average**	Median	**St. Dev.**	max	min	Av-Median
USA	1983	**7,9%**	8,0%	**1,7%**	22,0%	2,5%	-0,1%
Spain	443	**8,1%**	7,8%	**2,0%**	15,7%	4,1%	0,3%
Germany	252	**6,6%**	6,4%	**1,7%**	14,2%	2,8%	0,1%
France	122	**7,2%**	7,0%	**1,6%**	14,0%	4,0%	0,2%
United Kingdom	101	**7,2%**	7,1%	**1,9%**	13,0%	3,0%	0,2%
Italy	83	**7,0%**	6,7%	**2,1%**	14,0%	3,0%	0,3%
Canada	81	**8,3%**	8,0%	**1,4%**	13,0%	5,5%	0,3%
Portugal	72	**7,3%**	7,0%	**1,9%**	14,0%	4,0%	0,3%
Switzerland	71	**6,5%**	6,2%	**1,6%**	14,0%	3,7%	0,2%
Belgium	70	**6,7%**	6,9%	**1,8%**	14,0%	1,2%	-0,1%
Sweden	68	**6,5%**	6,4%	**1,7%**	14,0%	3,7%	0,1%
Denmark	65	**6,8%**	6,6%	**1,8%**	14,0%	4,0%	0,2%
Finland	64	**6,9%**	7,0%	**1,6%**	14,0%	4,0%	0,0%
Japan	61	**6,6%**	6,5%	**2,4%**	15,1%	2,3%	0,1%
Norway	61	**6,8%**	6,7%	**1,9%**	14,0%	3,6%	0,2%

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TD Economics (October 2012)

FINANCIAL PROJECTIONS OVER THE NEXT DECADE	
Financial Instrument	**Average Annual % Return**
Cash (3-Month T-bills)	2.00%
Bonds (DEX Universe Bond Index)	3.00%
Equities	
Canada (S&P/TSX Composite)	7.00%
U.S. (S&P 500)	7.00%
International (MSCI EAFE)	7.00%

Source: TD Economics

Aon Hewitt

Asset Class	10-yr Average Annual Return	10-yr Compound Return	Average Annual Standard Deviation	Average Annual CTE 95%
Canadian Equities	8.3%	7.1%	17.0%	-26.4%
Canadian Equities, Small Cap	9.3%	7.6%	20.3%	-32.3%
Canadian Equities, Low Vol	7.1%	6.3%	14.0%	-20.1%
U.S. Equities	7.6%	6.5%	15.9%	-24.0%
U.S. Equities, hedged	8.0%	6.6%	18.0%	-28.0%
U.S. Equities, Small/Mid Cap	8.4%	6.8%	20.1%	-29.0%
U.S. Equities, Small Cap	8.9%	7.0%	21.6%	-31.1%
U.S. Equities, Low Vol	6.7%	5.9%	13.4%	-18.8%
Int'l Equities	7.9%	6.9%	15.8%	-25.9%
Int'l Equities, hedged	8.0%	6.6%	18.0%	-31.0%
Int'l Equities, Small Cap	8.8%	7.4%	18.6%	-28.4%
Int'l Equities, Low Vol	5.9%	5.4%	10.4%	-16.5%
Global Equities	7.8%	6.9%	14.7%	-23.1%
Global Equities, hedged	8.0%	6.7%	17.3%	-28.3%
Global Equities, Small Cap	8.9%	7.6%	17.7%	-26.2%
Global Equities, Small Cap, hedged	9.2%	7.4%	20.9%	-31.9%
Global Equities, Low Vol	6.3%	5.8%	10.5%	-15.0%
All Country Index (ACWI)	8.2%	7.2%	15.0%	-23.2%
All Country Index (ACWI), partially hedged	8.3%	7.0%	17.5%	-28.2%
Emerging Markets	11.0%	8.3%	25.9%	-35.1%
Emerging Markets, Low Vol	7.9%	6.9%	15.7%	-22.9%

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Duff and Phelps

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Duff & Phelps Increases Recommended U.S. Equity Risk Premium from 5.0% to 5.5%

Duff & Phelps regularly reviews fluctuations in global economic and financial market conditions that warrant periodic reassessments of the recommended Equity Risk Premium (ERP). Based upon current market conditions, Duff & Phelps recommends an increase in the U.S. ERP to 5.5% when developing discount rates as of **January 31, 2016** and thereafter (until further guidance is issued). The prior Duff & Phelps recommended U.S. ERP was 5.0%, established as of February 28, 2013. Both of these ERP estimates were measured relative to a normalized yield of 4.0% on 20-year U.S. Treasury bonds.

Read more about the new recommendation

Contacts

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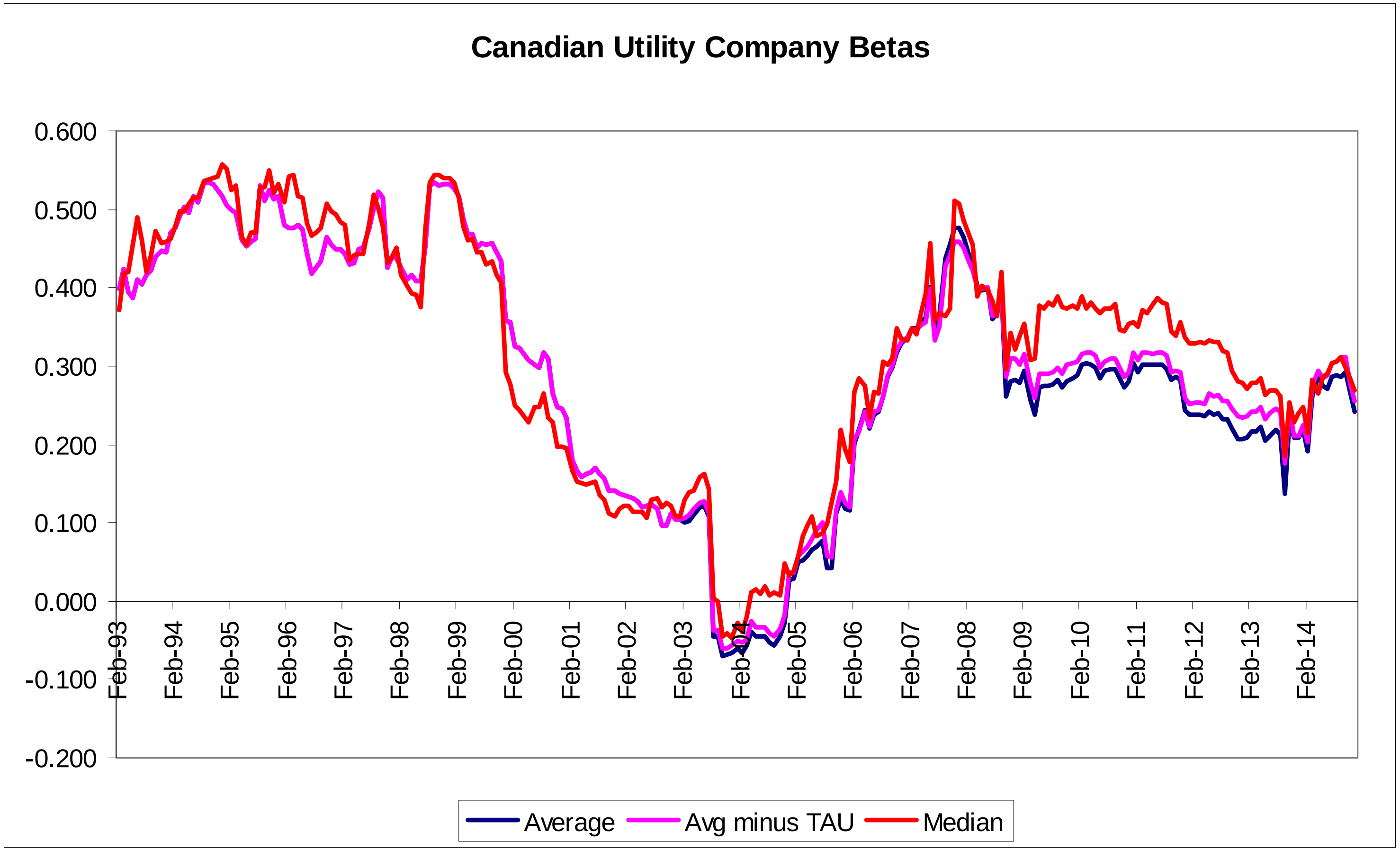
Betas

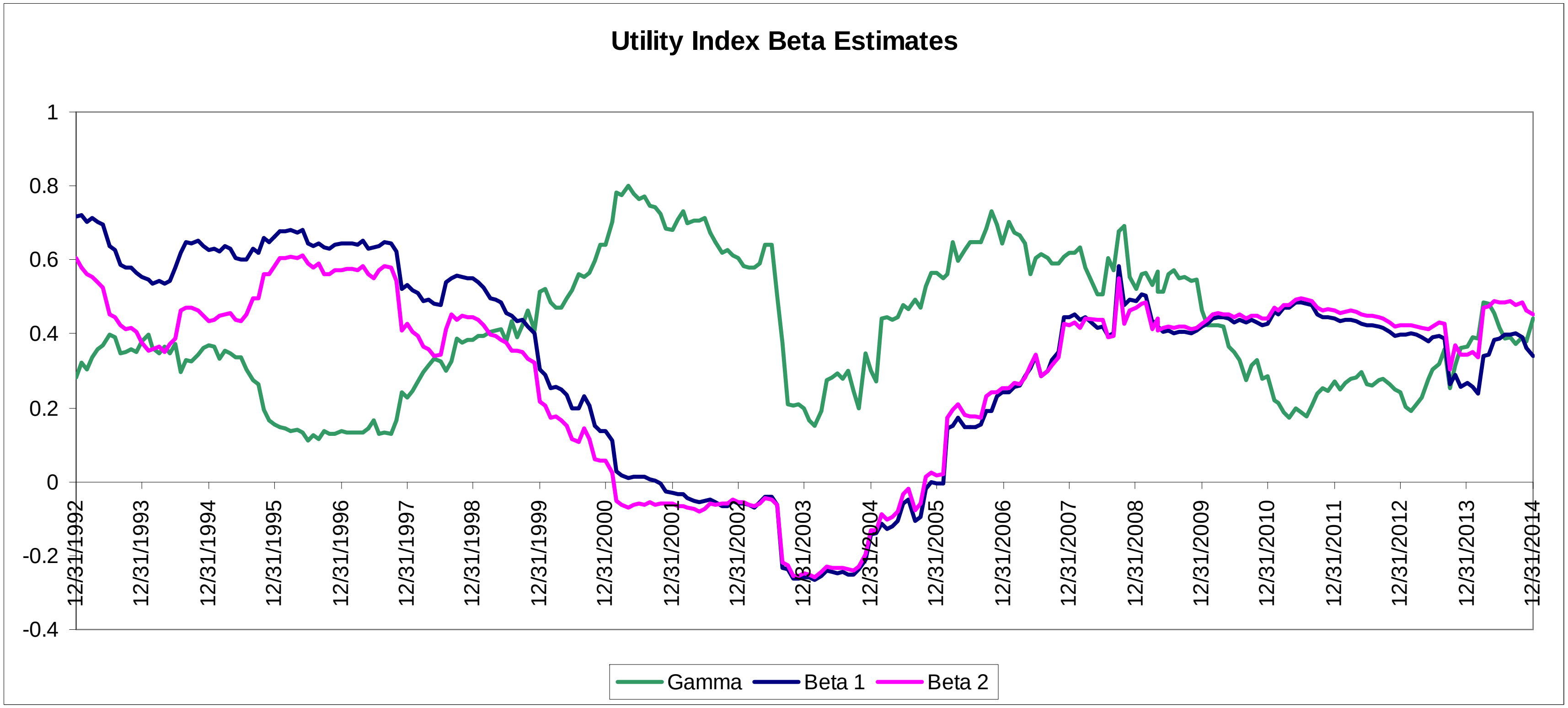
- **Adjustment to 1.0 AUC (GCOC 2009-216, paragraph 251)**

"The Commission is persuaded by the empirical analysis of Drs. Kryzanowski and Roberts that there is insufficient evidence to support the use of adjusted betas for Canadian utilities if the purpose of the adjustment is to adjust the beta towards one and therefore, beta should not be adjusted towards one. Therefore, the Commission rejects Mr. Coyne's beta results as unreasonably high, because he adjusted his beta estimates on the assumption that they would revert to 1.00. In other words, his analysis assumes that, in time, utilities would be as risky as the market as a whole."

- **Betas are statistical estimates, their interpretation needs judgment to use as a forecast**

Relative Risk (BETA)





“like convertible bonds. When interest rates are low, as they currently are, the companies trade on their bond value and are supported by tax-efficient dividend yields. When the 10-year GOC yield rises above 6%-6.5%, the Canadian companies trade on the basis of their underlying earnings and P/E.”

Maureen Howe, former utility analyst at RBC

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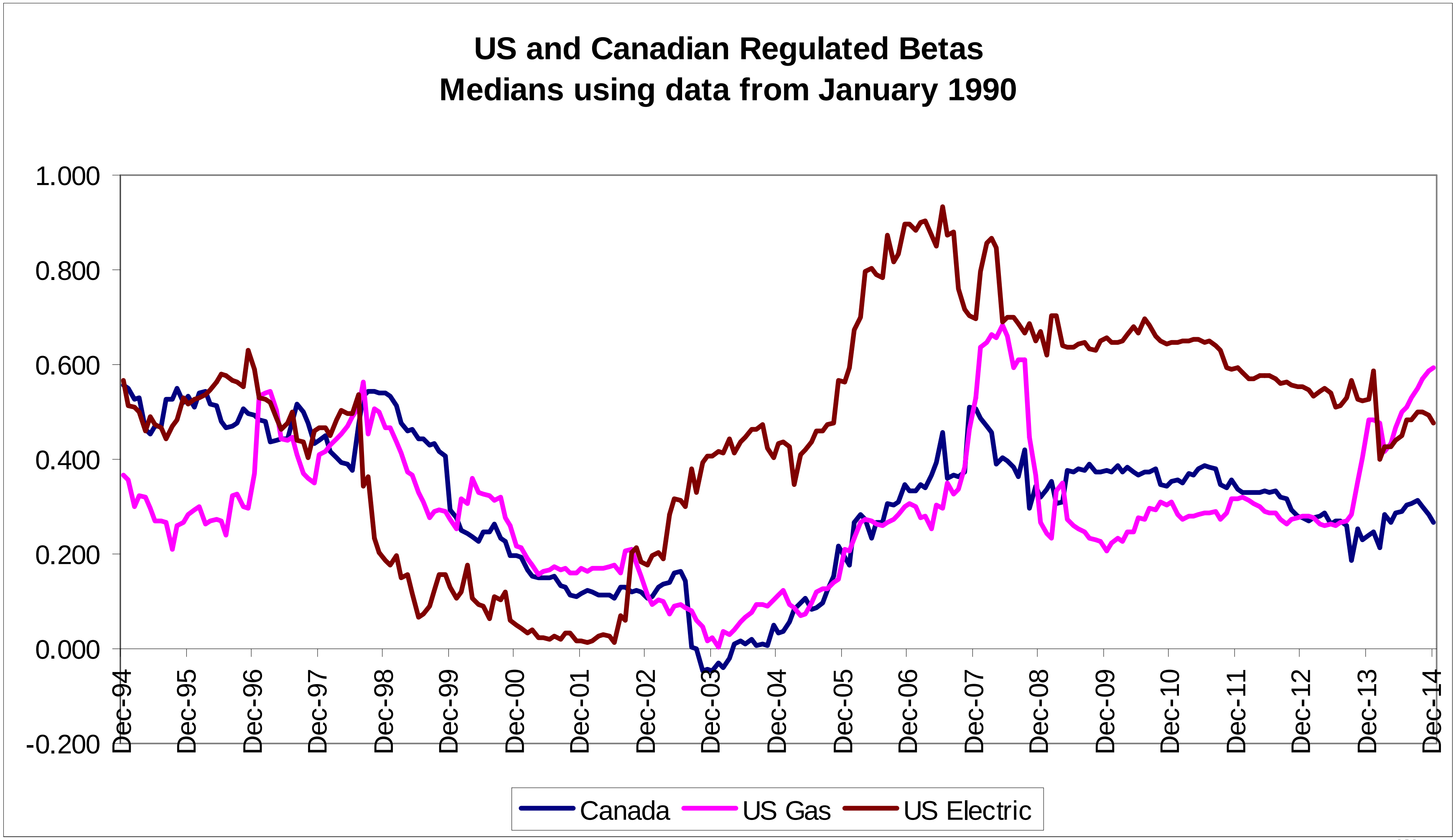

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Can vs US

		Value	RBC	Yahoo	Google	Booth 2014
TransCanada	TRP	34.5	0.33	0.72	0.17	0.28
Enbridge	ENB	42.2	0.2	0.66	0.18	0.11
Canadian Utilities	CU	9.6	0	0.44	-0.03	0.2
Emera	EMA	6.5	0.01	0.02	0.12	0.32
Fortis	FTS	11.5	-0.01	0.02	0.04	0.26
Valener	VNR	0.7	0.28	-0.02	0.17	0.27
Veresen	VSN	2.4	0.94	1.9	0.7	0.34
Average		15.34	0.25	0.53	0.19	0.25
Median		9.60	0.2	0.44	0.17	0.27

		Value	RBC	Yahoo	Google	Booth 2014
Duke Energy	DUK	51.8	0.01	0.29	0.05	0.19
Allete Inc.,	ALE	2.6	0.57	0.62	0.61	0.71
Eversource	ES	17.1	0.3	0.41	0.34	0.48
Great Plains	GXP	4.3	0.41	0.51	0.62	0.61
OGE Energy	OGE	5.2	0.56	0.86	0.43	0.68
Pinnacle West	PNW	7.4	0.27	0.44	0.33	0.42
Westar Energy	WR	6.2	0.25	0.4	0.25	0.46
		13.51	0.34	0.50	0.38	0.51
		6.20	0.30	0.44	0.34	0.48

Fair ROE

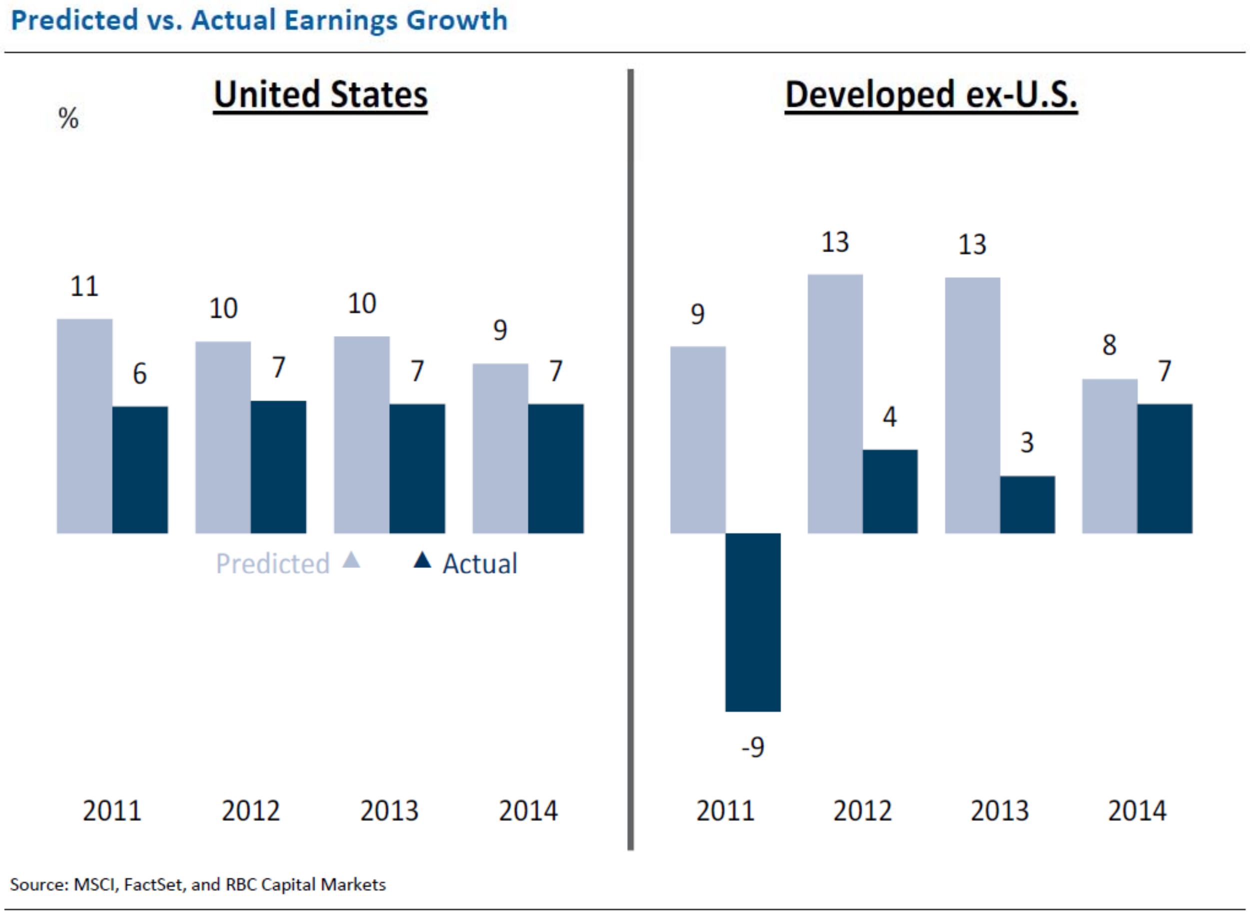
◆ **LTC Yield:**	**2.81%**
◆ **Market Risk Premium:**	**5.0-6.0%**
◆ **Beta:**	**0.45-0.55**
◆ **Issue costs:**	**0.50%**
◆ **Credit spreads:**	**0.45**
◆ ***Conditional CAPM:***	***6.01-7.06%***

- ***Need to adjust for low LTC Yields?***
- ***In 2012 I recommended an ROE of 7.50% an AAM and LTC floor of 3.80%***

DCF for US Utilities

	5 year Growth Past	Future	# Analysts	Yield	K (Est g)	ROE	Retention	SUST G	K	MB
Vectren	10.44	5	6	3.82	***9.01***	11.68	0.30	3.48	***7.44***	2.14
WGL	-17.1	8	4	2.77	***10.99***	10.31	0.29	3.03	***5.88***	2.67
Piedmont	3.37	5	4	2.23	***7.34***	10.02	0.24	2.37	***4.66***	3.36
Northwest	-18.3	4	3	3.6	***7.74***	6.94	0.03	0.18	***3.79***	1.87
New Jersey Resources	7.14	6.5	4	2.73	***9.41***	17.46	0.54	9.48	***12.47***	2.72
Laclede	-5.69	4.5	5	3.07	***7.71***	8.88	0.38	3.37	***6.55***	1.76
ATMOS	14.62	7	7	2.43	***9.60***	10.03	0.46	4.58	***7.12***	2.18
South West Gas	-13.7	4	5	2.75	***6.86***	8.74	0.42	3.65	***6.50***	1.79
Average	-2.40	5.5	4.75	2.93	***8.58***	10.51	0.33	3.77	***6.80***	2.31
Median	-1.16	5	4.5	2.76	***8.38***	10.025	0.34	3.43	***6.52***	2.16

		5 year Growth									
		Past	Future	# Analysts	Yield	K (Est g)	ROE	Retention	SUST G	K	MB
Duke Energy		2.51	3.2	18	4.38	***7.72***	5.95	0.05	0.29	***4.68***	1.33
Allete Inc.,		10.35	5	4	3.93	***9.13***	9.3	0.37	3.42	***7.48***	1.42
Eversource		4.6	6.57	14	3.1	***9.87***	9.03	0.42	3.79	***7.01***	1.66
Great Plains		23.23	5.07	8	3.77	***9.03***	5.7	0.22	1.27	***5.08***	1.17
OGE Energy		6.84	2.17	1	4.19	***6.45***	9.11	0.27	2.43	***6.72***	1.56
Pinnacle West		-0.04	4.95	12	3.77	***8.90***	8.9	0.31	2.72	***6.59***	1.58
Westar Energy		17.44	3.5	8	3.31	***6.93***	8.79	0.33	2.88	***6.28***	1.68
	Average	9.28	4.35	9.29	3.78	***8.29***	8.11	0.28	2.40	***6.27***	1.49
	Median	6.84	4.95	8.00	3.77	***8.90***	8.90	0.31	2.72	***6.59***	1.56



Source: RBC Investment Strategy Playbook, February 2016

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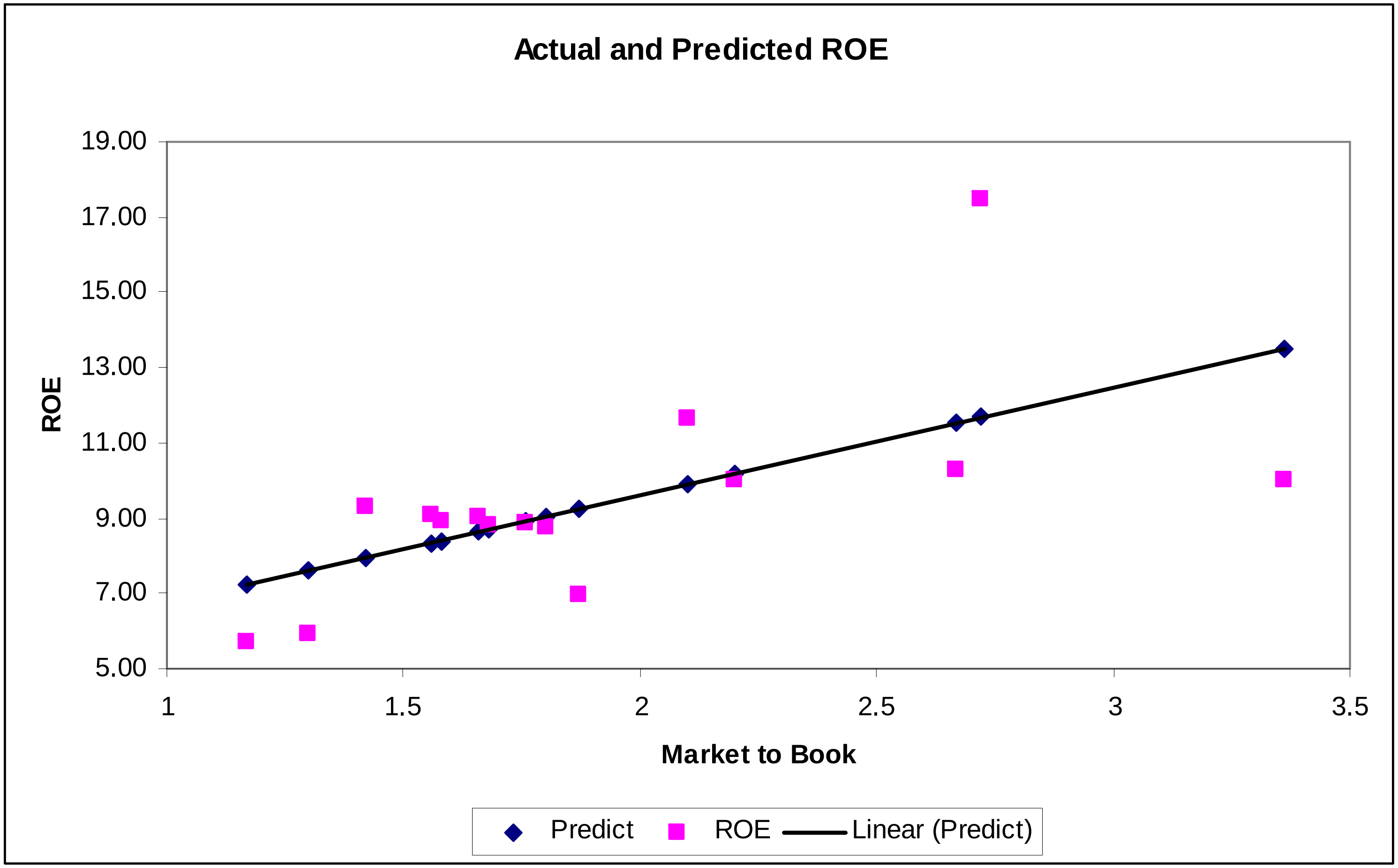

ROE at a market to book of 1.15 is 7.15%

Risk Premium

Base LTC forecast:	2.81%
Normal utility risk premium:	2.25%-3.30%
Issue costs:	0.50%
Normal Fair ROE	6.09%
Credit Spread Adjustment	0.45%
Operation Twist Adjustment	1.30%
Fair ROE:	**7.84%**

DCF:

Overall equity market return:	8.50-10.00%
Median Corporate Canada ROEs:	9.90%
US SP500 Electric:	6.80%
US utility sample average:	6.80-7.30%
Market to book model for US utilities:	7.15%

However, since the long Canada yield has yet to hit the 3.80% trigger I regard as a minimum “normal” LTC yield, I would keep my recommended ROE at 7.50% the same as in 2012.