C-3-20 ACIG

Gaz Metro 2008

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Central Issue

- Long Canada bond yields have fallen since last year and under the Regie's formula ROE, Gaz Metro's Allowed ROE will probably fall

- Gaz Metros' bond yield however has increased and Gaz Metro claims that this indicates that its risk has increased

- Gaz Metro would like to continue to have the allowed ROE for 2008 of 9.05%, instead of a probable decrease, *plus* 0.20% extra to reflect the higher issue costs of 0.50% that I recommended last year relative to the 0.30% the Regie allowed

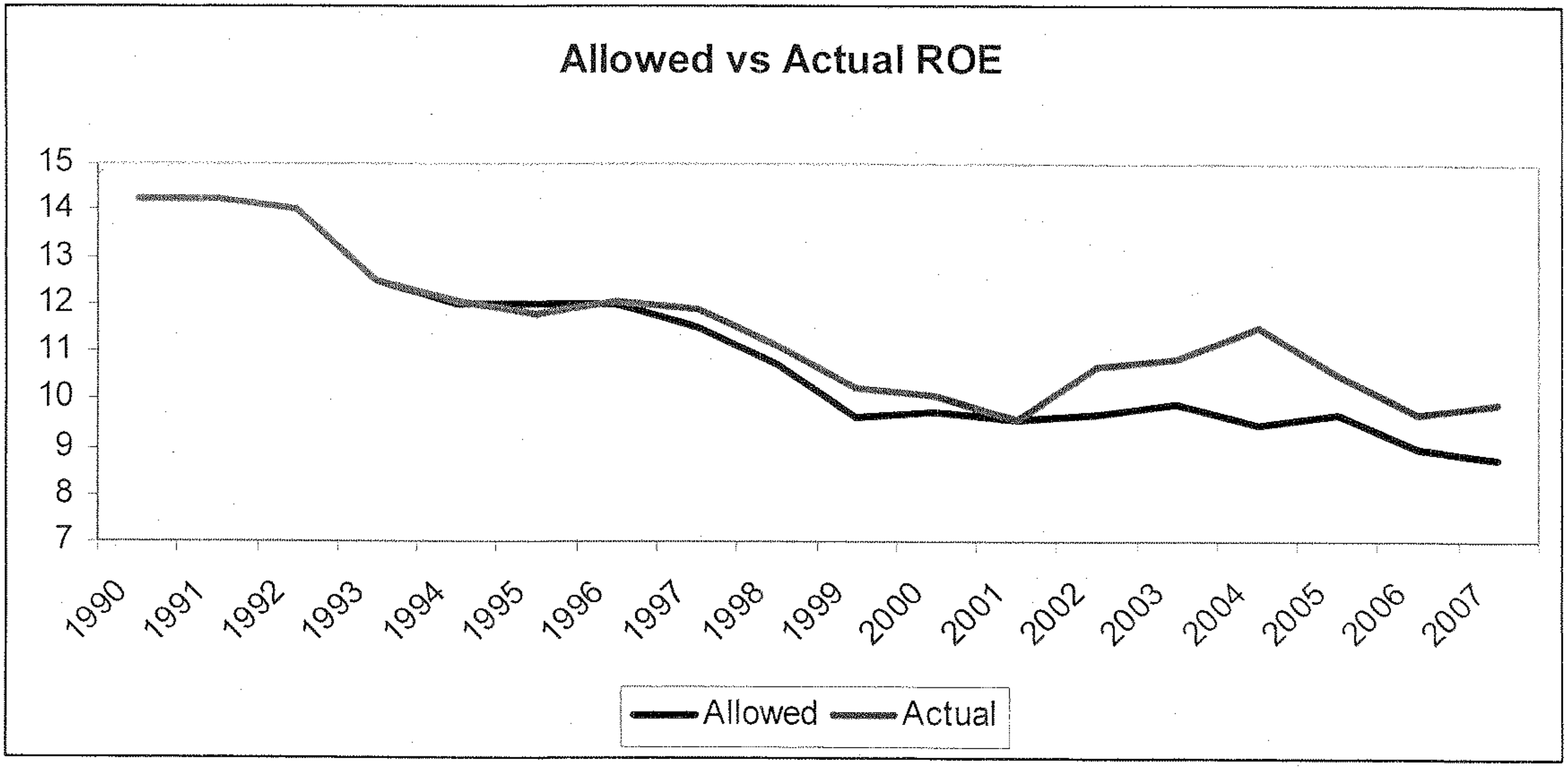
Fair and Reasonable ROE

- Allowed ROEs should be set based on whether they are fair and reasonable
- Overall Gaz Metro is allowed *9.05%* for 2008

Terasen Gas	8.62%
Enbridge Gas Distribution	8.39%
Union Gas	8.54%
Atco Gas	8.75%
TQ&M	8.78%

- **Risk is mainly adjusted through common equity ratio differences: Gaz Metro has the highest common equity ratio of any of these utilities**
- **Overall the Regie's 2007 decision was generous relative to other Canadian gas LDCs**

Gaz Metro Allowed vs Actual ROE



2007 was a good year: no sign of inability to earn allowed ROE

Issue Costs

- I recommended 0.50% and Regie allowed 0.30%
- Only one part of the ROE,
  - I recommended a fair ROE of 8.0% not 9.05%
  - 9.05% is 105 bp more than my recommendation is generous,
- Issue costs cover costs not recovered through the revenue requirement on an after tax basis
- The major objective is to get the stock price sufficiently above book value so that any sales of equity do not dilute the stock price and cause equity to be sold below book value
  - Target is generally for the stock price to be 105-115% of book value
  - Gaz Metro is selling for (IGUA #9.3) 210-270% of book value
- Conceptually there is no need for an issue cost adjustment as the allowed ROE is more than generous

Economy

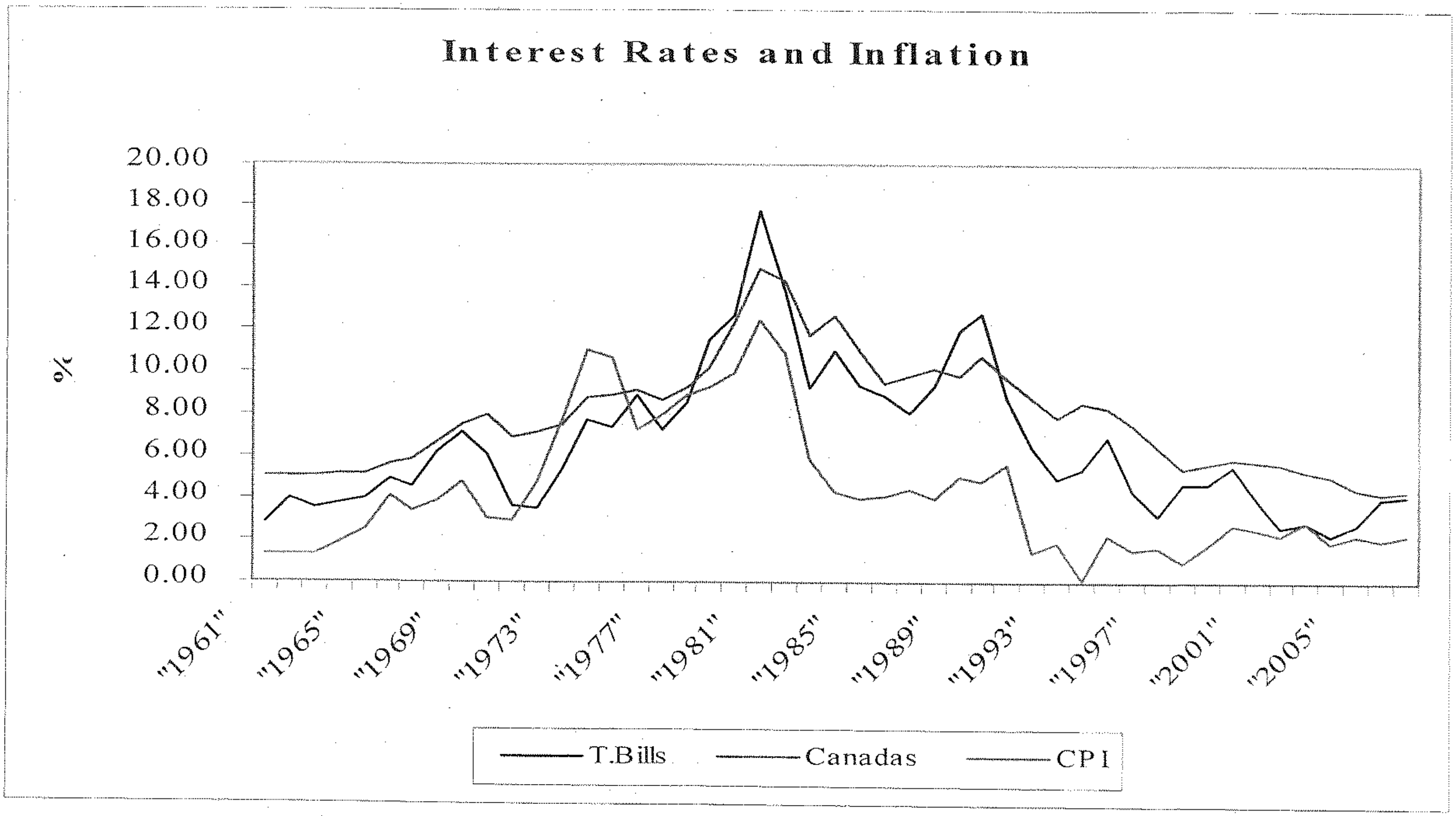
- July 2007 was the top of the market
- August 14, 2007 a liquidity crisis struck Canada as a spill-over from US sub-prime mortgage problems
- Since then:
  - About $400 billion of write-downs have occurred among financial institutions
  - Bear Sterns (A major US Investment bank) has gone bankrupt
  - The US has probably entered a recession
  - Canada has started a slow down but has been partially insulated by record high oil prices
- Bond markets have been impacted by
  - Yield curve
  - Yield (Credit) spreads

Schedule 1

CANADA BOND YIELDS

		2008	2007
Overnight money market rates		3.00	4.25
Benchmark bonds			
Canada	91 day Treasury Bill yield	2.75	4.36
Canada	Six month Treasury Bills	3.04	4.54
Canada	One year Treasury Bills	3.27	4.74
Canada	Two year	3.28	4.68
Canada	Three year	3.37	4.70
Canada	Five year	3.49	4.66
Canada	Seven year	3.63	4.66
Canada	Ten year	3.80	4.64
Canada	Long term (30 year)	4.16	4.55
Canada	Real return bonds	1.66	2.15
Marketable Bond Average yields			
Canada	1-3 year	3.31	4.69
Canada	3-5 year	3.45	4.68
Canada	5-10	3.71	4.65
Canada	Over tens	4.17	4.50
Other			
US	Five year Treasuries	3.26	4.94
US	Long term (30 year)	3.98	4.97

Yield Curve

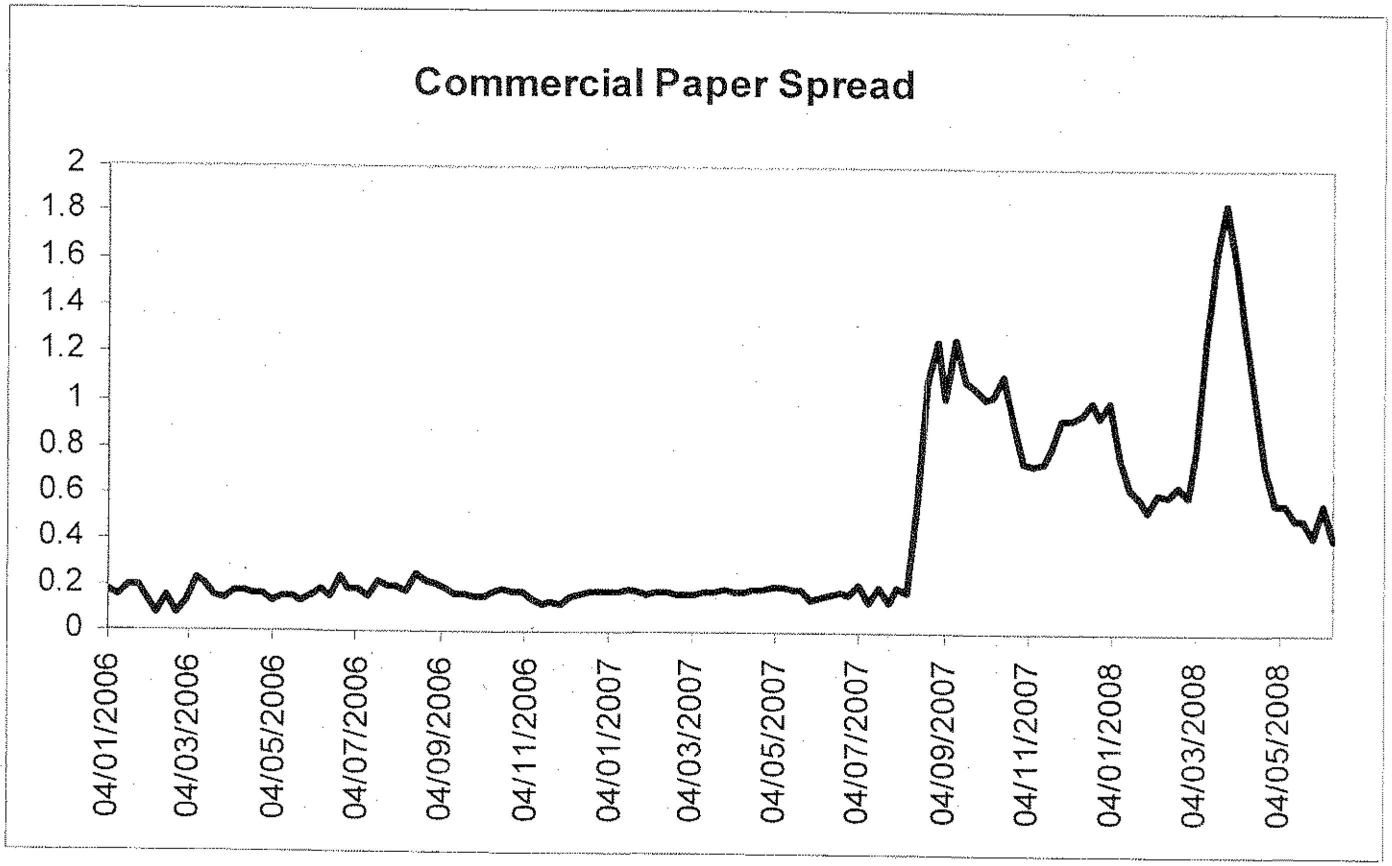


Interest Rates and Inflation
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
%
"1961"
"1965"
"1969"
"1973"
"1977"
"1981"
"1985"
"1989"
"1993"
"1997"
"2001"
"2005"
T.Bills
Canadas
CPI

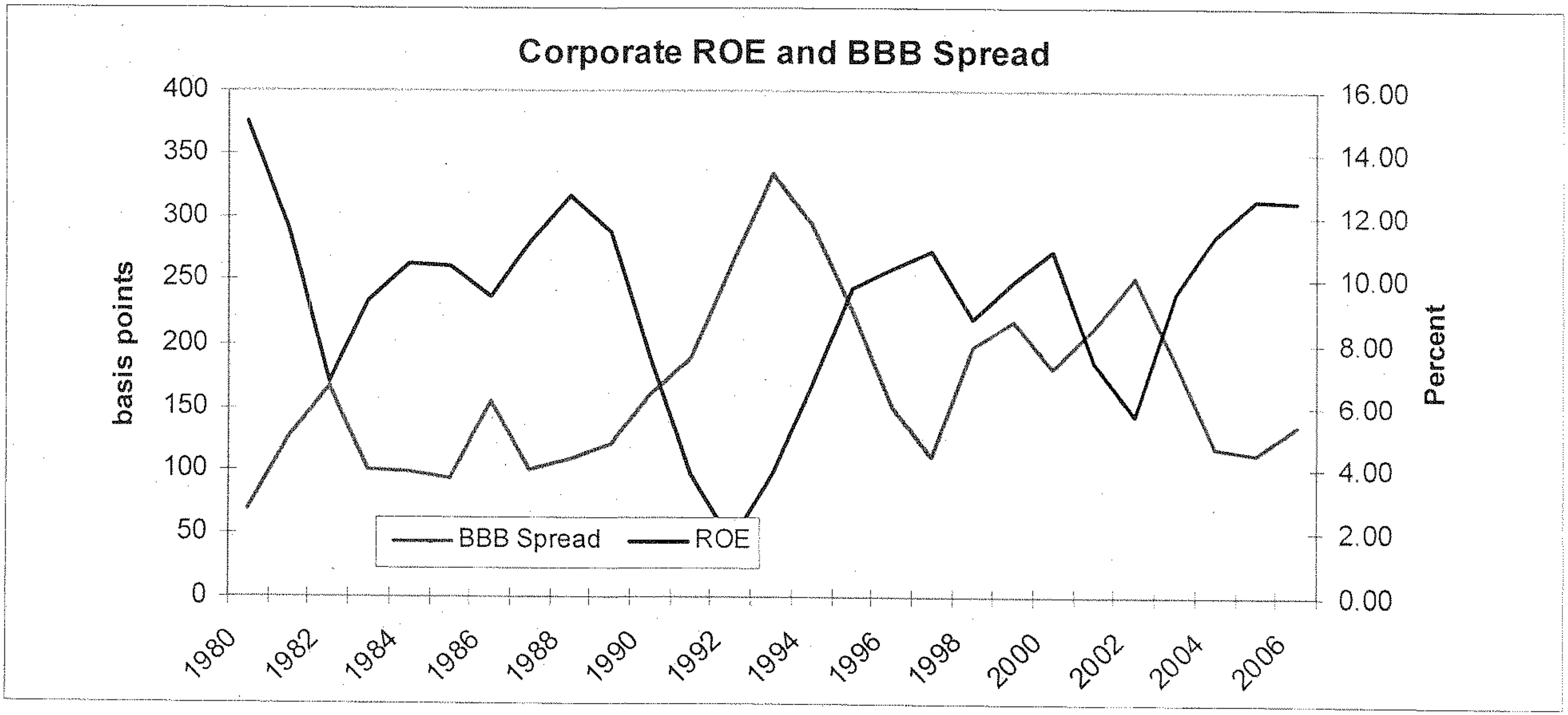
Financial Markets

- The Bank of Canada has lowered the over night rate to stimulate the economy
  - Last year it was 4.25% and today 3.0%
  - US Fed even more dramatic reductions
- Unprecedented injection of liquidity into the financial markets
  - Fed has extended its repurchase program to a wider array of financial institutions
  - It may have acted illegally in guaranteeing Bear Sterns debt on JP Morgan's takeover of Bear
- In Canada $32 billion of asset backed commercial paper issued by non-bank originators was frozen, since there were no buyers at any price: huge liquidity problems a "flight to quality"

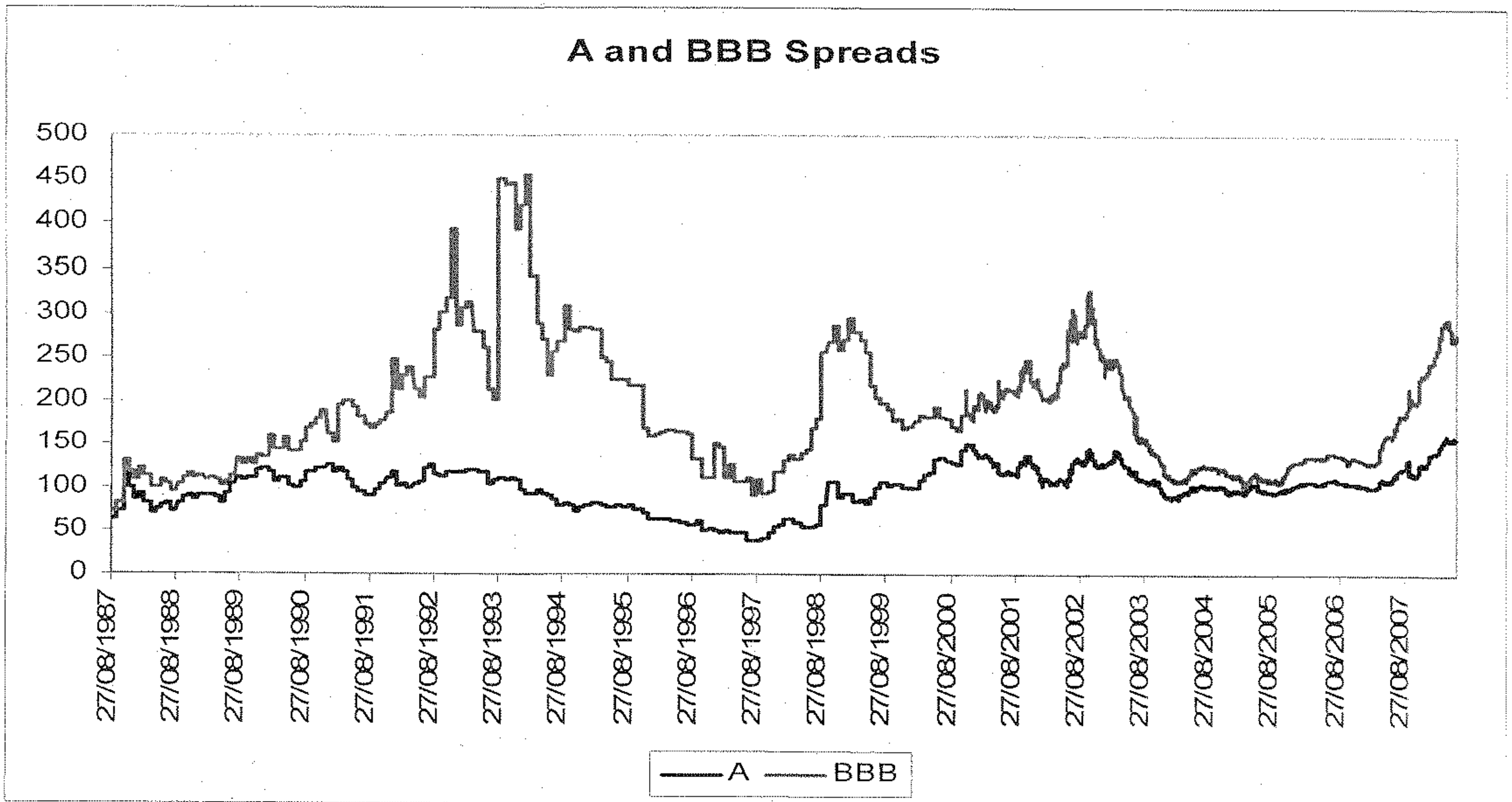
Credit-Yield Spreads: CP market



Credit-Yield Spreads: Bonds



Credit-Yield Spreads: Bonds



Evaluation

- Economy is moving through the business cycle
  - Last year at the peak
  - Now recession/slowdown
- Predictable things happen
  - Yield curve reverts to normal as bank stimulates economy
  - Flight to quality: Credit-yield spreads increase
- Bond markets are driven by institutional investors, whereas Gaz Metro is largely a retail oriented *limited partnership*: different investor base
- What is the relationship between credit-yield spreads and the allowed ROE?

Credit-Yield Spreads

$$R - r = \pi(1 + R - \beta) + \gamma + S\pi(1 - \pi)(1 + R - \beta)^2 \phi^{-1}$$

Loss on default or rescheduling

Liquidity premium

Systematic risk premium

There is no consensus that risk premiums exist in corporate bonds

- **If they do exist they are time varying**
- **Historically they have been tied up with interest rate risk due to government financing problems**

Liquidity

TABLE 1
Turnover in the bond market

Year	Canadas	Corporates	Provincials*
1995	0.244	0.012	0.020
1996	0.303	0.010	0.022
1997	0.317	0.012	0.018
1998	0.270	0.014	0.024
1999	0.202	0.013	0.027
2000	0.195	0.014	0.022
2001	0.236	0.014	0.024
2002	0.236	0.017	0.024
2003	0.263	0.016	0.023

NOTE: Turnover is defined as the annual average based on weekly trading volume divided by the outstanding stock of bonds.
*Provincials include municipal bonds.
SOURCE: Chouinard and Lalani (2002) updated for 2002 and 2003.

We know:

1)There are liquidity spreads even in government bonds

2)There has been a huge increase in liquidity problems over the last year

3)Bear Sterns was brought down by liquidity problems

Recommendation

- Allowed ROE is already at the top end of the range of allowed ROEs for Gas LDCs
- Unfair to pick and chose pieces of the Regie's award in 2007, the question is, is the allowed ROE fair?
- Conditions in the bond market reflect the stage of the economy
  - Nothing unusual in the yield curve
  - Credit-yield spreads exacerbated by liquidity problems
  - These cyclical events have happened before while firms were on ROE adjustment mechanisms and has not caused any problems (NEB 1994 ROE mechanism)