



Topics:

Goals and Parameters of an IR Plan

Inflation Factor

Board staff

All Stakeholder Meeting

November 2 – 3, 2006

Presentation Outline

- Goals and Parameters
- Inflation Factor



Goals and Parameters

Goals

- To ensure ratepayers are better off, or at least no worse off, than under CoS regulation
- Rates should be just and reasonable
- Rates should be predicable and stable
- Fairness - appropriate balance of risks and rewards

Goals

- Efficiency gains must be sustainable and shared with ratepayers
- Improve regulatory efficiency
- Price adjustment mechanism needs to be transparent, simple and justifiable

Parameters

- Need to establish operating limits or policies on outsourcing, restructuring for Income Trust
- Utilities must continue to have a strong financial incentive to make all the new customer attachments that are in the public interest



Inflation Factor

Inflation Factor: Macroeconomic Options Outline

- Objectives
- Macroeconomic Measures Options
 - **GDP IPI**: Gross Domestic Product Implicit Price Index
 - **GDP IPI FDD**: Gross Domestic Product Implicit Price Index Final Domestic Demand
 - **CPI**: Consumer Price Index
 - **IPPI**: Industrial product Price Index
- Advantages and Disadvantages
- Actual vs Forecasts

Objectives

- To select the index that most accurately captures the likely rate of increase of the utilities' cost during the term of the plan
- Simplicity
- Credibility
- Availability

Macroeconomic Measures

- Track growth in the prices of a wide range of goods and services
- Published by Stats Canada (actual values only)
- Do not reflect company or industry specific input inflation, thus require a further adjustment (Input Price Differential)
- Used in most PBR plans around the world

Macro-Economic Measures: GDP IPI

- GDP IPI :
 - The implicit price index of the GDP
 - Measures price changes of goods and services purchased by households and government (the expenditure side of the GDP), plus capital equipment
- GDP IPI Final Domestic Demand (GDP IPI FDD): excludes net exports of goods and services (exports- imports), which are resource intensive in Canada

Macro-Economic Measures: GDP IPI

- Stats Canada publishes actual values of GDP IPI (overall or FDD) as follows:
 - Annual and quarterly estimations GDP IPI Canada. Last quarter of previous year and annual value of previous year are issued by the end of February
 - Annual value of GDP IPI Ontario is issued in April

Macro-Economic Measures: GDP IPI

- Stats Canada performs periodic revisions to the National Income and Expenditure Accounts (IEA) that could result in changes to initial estimations of GDP or its deflator
- Most common in North American PBR plans
- Recommended by Staff in 2nd Generation PBR plan for electricity utilities

Macro-Economic Measures: CPI

- Tracks changes in consumer prices
- Calculated by comparing through time the cost of a basket of goods and services purchased by Canadian households
- Used in British and Australian PBR plans

Macro-Economic Measures: CPI

- Products and services included in the calculation are:
 - Food
 - Shelter
 - Household operations and furnishings
 - Clothing and footwear
 - Transportation
 - Health and personal care
 - Recreation, education and reading
 - Alcoholic beverages and tobacco products

Macro-Economic Measures: CPI

- Stats Canada publishes actual CPI on a monthly basis. For a given month, CPI is published in the third week of the following month
- Stats Canada does not revise the index, once it has been published
- However Stats Canada Stats has recently found “errors” in the CPI calculation, that led to a minor underestimation of the index (about 0.1 percentage points per year) for more than five years

Macro-Economic Measures: IPPI

- Measures price changes for goods sold by manufacturers in Canada. The prices covered do not refer to what a purchaser pays but to what the producer receives
- Most useful in measuring the trend in the prices of *materials and equipment* used by LDCs
- Less useful in tracking trends in labour services (including *construction* labour), or outsourced services

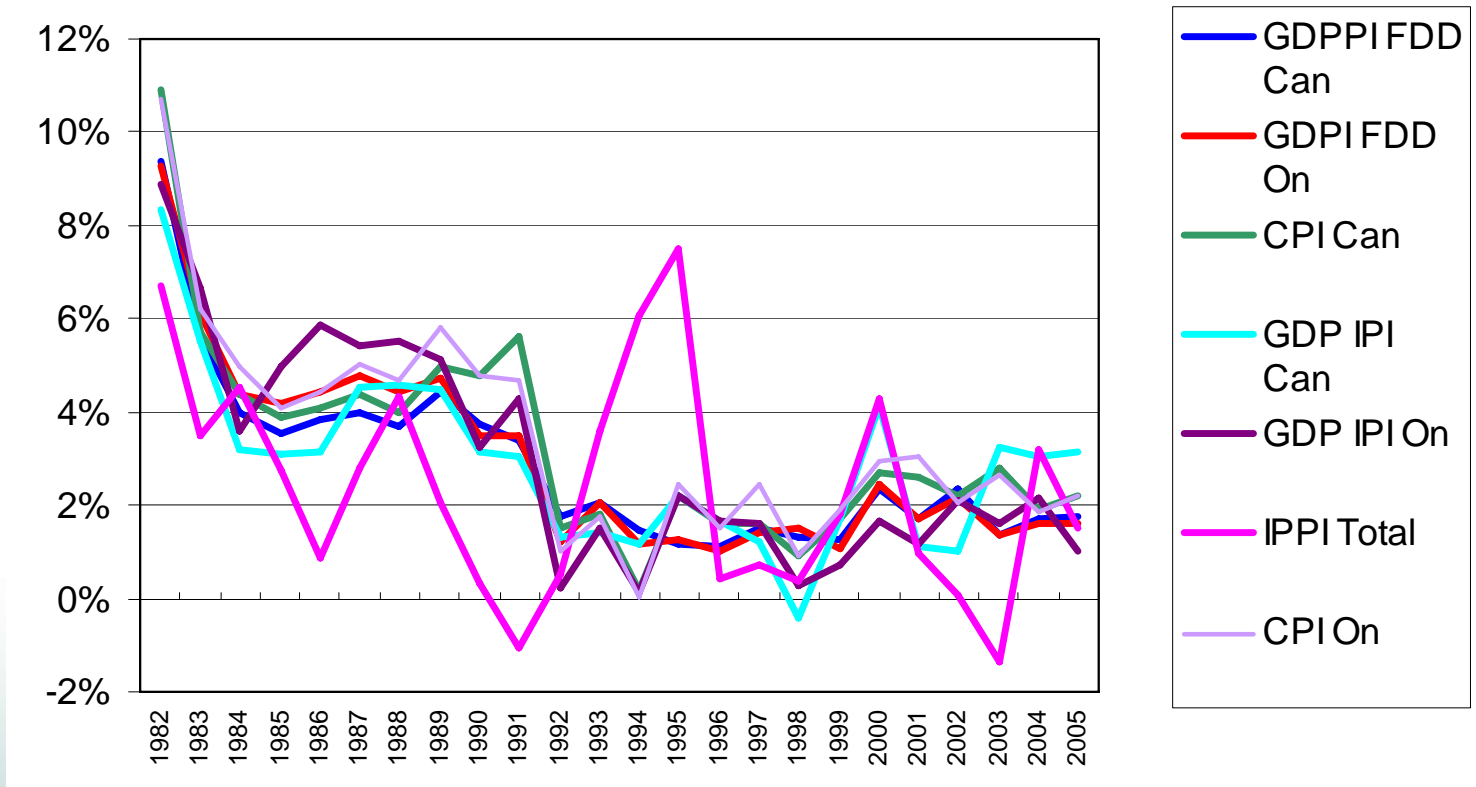
Macro-Economic Measures : IPPI

- Stats Canada publishes IPPI in a monthly basis in the fourth week of the following month
- Each release of index numbers is subject to revision for six months, (e.g., when the July index is released, the index for January becomes final). Exceptions to this rule are announced. However, revisions of the IPPI are for the most part, very small (the average revision being plus or minus 0.2%)

Macro-Economic Measures : IPPI

- Precedents:
 - Was used as the “materials” price sub index in the industry-specific Input Price Index (“IPI”) approved by the Board for use in the regulation of power distributors in IRM1
 - In the US, it has been used as the (only) inflation measure in a price cap index approved by FERC for U.S. oil pipelines

Index Comparison



Macro Measures Pros & Cons

GDP IPI FDD

- ✓ Broad coverage of goods relevant to the gas industry (capital, labour, materials)
- ✓ Less volatile than GDP IPI or CPI due to lower weight on petroleum products and gas
- ✓ Facilitates calculation of input price and productivity differentials used in X factor calibration since the TFP trend of the economy corresponds to GDPPI.
- ✗ Subject to future revisions
- ✗ Lower customer familiarity than CPI

CPI

- ✓ Customer familiarity
- ✓ Fewer revisions
- ✗ More volatile than GDPPI
- ✗ Limited coverage of commodities relevant to the gas industry

IPPI

- ✗ Partial coverage of inputs used by gas utilities
- ✗ Most volatile
- ✗ Subject to future revisions
- ✗ Lower customer familiarity than CPI
- ✗ Doesn't facilitate calculation of X factor differentials

Forecasts

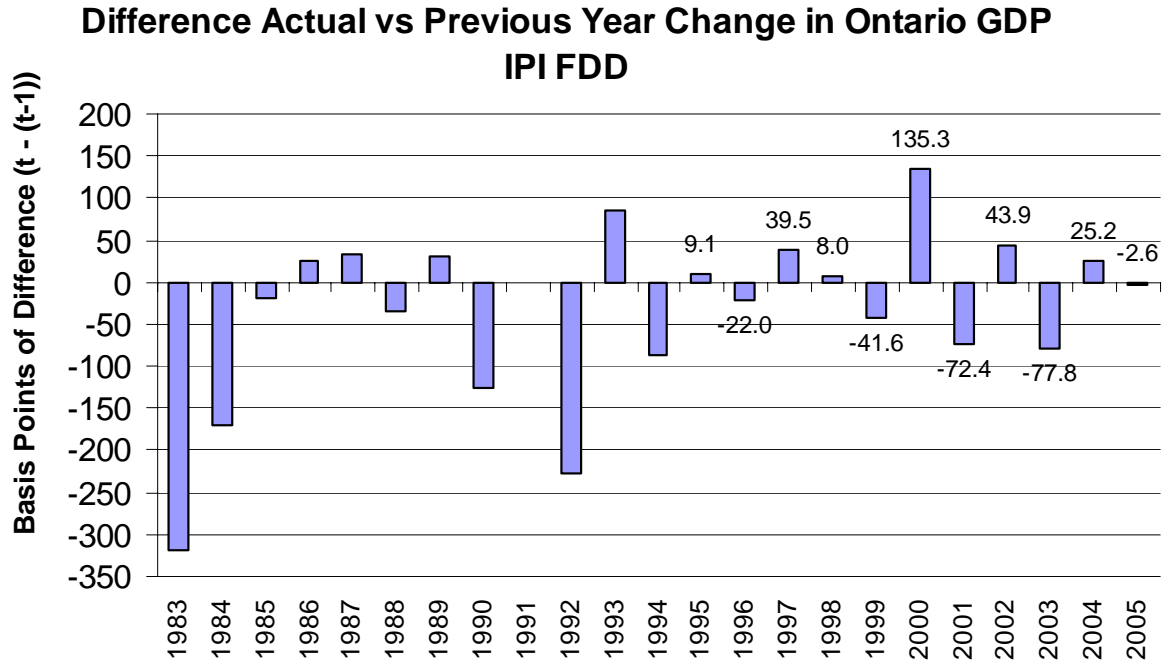
- GDP IPI forecasts are available from:
 - CIBC World Markets
 - TD Bank financial group
 - BMO Capital Market Economics
 - The Conference Board of Canada
 - Global Insight
- Other sources like Consensus Economics, or other banks forecast Canadian or Ontario GDP but do not publish GDP deflator
- CPI forecasts are published by 16 different sources. Consensus Economics publishes all the forecasts and calculates the average.

Forecasts Performance

- Conclusions of the Campbell and Murphy (2006)⁽¹⁾ statistical evaluation of the recent forecast performance of Canadian financial institutions and forecasting firms were:
 - A poor performance of GDP forecasts, that could also impact the forecasts of GDP related measurements like GDP IPI
 - TD Bank, Consensus Forecast and the Bank of Nova Scotia have been the top Forecasters over the last 20 years, however
 - TD Bank forecast does not publish GDP IPI FDD
 - Consensus does not forecast GDP IPI, nor GDP IPI FDD

1) B. Campbell and S. Murphy, " The recent performance of the Canadian Forecasting Industry" Canadian Public Policy Vol XXXII No 1, 2006

Performance of Actual values as estimators of Future Inflation



- For the last ten years the difference between actual and last year value of GDP IPI FDD Ontario (absolute value) has been below 100 basis points (except for the year 2000) and the average of differences has been 4 basis points

