

Sudbury Integrated Nickel Operations  
**REVISED GENERAL PENSION PLAN  
VALUATION RESULTS AS OF DECEMBER 31, 2012**  
18 DECEMBER 2013



# Objectives

- Review actuarial valuation process
- Outline significant events since the last funding valuation as of December 31, 2011
- Provide the updated financial position on a funding basis
- Provide background on the financial evolution of the plan over time

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  - Demographics of the plan, company contributions vs. transfer ratio, current solvency funded status and impact of variability
- Appendices
  - Asset allocation, membership statistics, membership reconciliation, assumptions, reconciliation of assets, historical valuation results

# Types of Actuarial Valuations

## Going-Concern Valuation

- Required by law
- Assumes plan will continue indefinitely
- Assumptions set by actuary (with Company input) and must be “best estimate”
- Margins can be included at direction of company

## Solvency Valuation

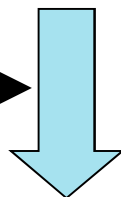
- Required by law
- Assumes plan is wound-up
- Prescribed assumptions – market basis
- Determines if funding needs to be accelerated

## *Accounting Valuation*

- Required for publically traded companies
- For Company financial statements
- Allocate pension costs in accordance with International Accounting Standards
- Management's “best estimate” assumptions

**Maximum and Minimum Cash Funding Contributions**

**Glencore Funding Policy**



**Actual Contributions**

**Pension Expense and Disclosure**

# Assumptions

- Benefit obligations are based on a set of economic and demographic assumptions
- A documented process is followed in the selection of both funding and accounting assumptions which is summarized in an Assumptions and Risk Manual containing:
  - Historical plan and financial market experience
  - Development of current demographic and economic assumptions
  - Rationale for the current assumptions
- The going-concern and accounting assumptions are consistent except for the discount rate:
  - going-concern is based on expected fund returns, adjusted by a margin for adverse deviations; and
  - accounting is based on AA corporate bond yields (as required by accounting standards)
- The Manual is updated periodically and reviewed annually
  - Prior to year-end to confirm assumptions to be used for year-end disclosures
  - In conjunction with funding valuation - since new membership data is considered
- Plan assumptions represent current best practice in Canada for actuarial assumptions
  - Maintaining the Assumptions Manual represents best practice for governance

# Significant Events Impacting Valuations

- Annualized fund return for 2012 was 8.7% (net of expenses)
  - But 6.9% (net of expenses) on the smoothed value of assets, versus 4.5% assumed for going-concern as of December 31, 2011
- Long-term bond yields continued to decline during 2012
  - Going-concern discount rate remained at 4.5% per annum (margin was adjusted)
  - Reduction in solvency discount rate by about 35 basis points
- Demographic experience study
  - In March 2013, the Company completed an experience study on the mortality, retirement and termination experience of the Plan using data from 2005-2011; going concern assumptions were adjusted as follows:

	<b>Current valuation</b>	<b>Previous valuation</b>
<b>Retirement rates:</b>	50% at EURD, 20% at EURD+1 year, 15% at EURD+2 years, 15% at EURD+3 years, 10% at EURD+4 years and thereafter, 100% at age 65	75% at first age of eligibility for an unreduced pension or current age if unreduced age is prior to or coincident with the valuation date; 100% at age 65
<b>Mortality rates:</b>	105% of the rates of the 1994 Uninsured Pensioner Mortality Table with generational projection using Scale AA	110% of the rates of the 1994 Uninsured Pensioner Mortality Table with generational projection using Scale AA

# Significant Events Impacting Valuations

- New collective agreement
  - A new collective agreement was signed effective February 1, 2013. Changes in the plan's provisions are reflected as part of this valuation and are as follows:
    - Service mending for members who retire during the agreement
    - The benefit rate will be increased to \$58 per month per year of service effective February 1, 2013 and \$59 effective February 1, 2015
    - The minimum income guarantee will be increased to \$3,550 per month effective February 1, 2013 and \$3,600 effective February 1, 2015
  - New employees hired after September 1, 2013 will have the option to join the Plan or a new defined contribution plan established by the Company.
- Funding valuations do not reflect the minimum income guarantee since it is not part of the registered pension plan
  - The top-up over current registered plan provisions paid directly from company revenue
  - The top-up portion is secured by a Letter of Credit through the Supplemental Employees Pension Plan
- Glencore acquisition
  - Effective May 2, 2013, Glencore International plc announced the completion of the purchase of Xstrata plc. The new Canadian entity, Glencore Canada Corporation (formerly Xstrata Canada Corporation) retains all obligations and fiduciary responsibility in respect of the Plan.

# Financial Position

(\$CDN Millions)

	12/31/2012	12/31/2011
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## Going-Concern

▪ Smoothed value of assets	\$466	\$448
▪ Liabilities	<u>\$508</u>	<u>\$503</u>
▪ Funding excess (deficit)	\$(42)	\$(55)
▪ Funded ratio	92%	89%

## Solvency

▪ Market value of assets (net of expense provision)	\$464	\$438
▪ Liabilities*	<u>\$621</u>	<u>\$594</u>
▪ Solvency excess (deficit) on a market value basis	\$(157)	\$(156)
▪ Liability smoothing adjustment	\$58	\$63
▪ Asset smoothing adjustment	<u>\$1</u>	<u>\$8</u>
▪ Solvency deficiency to be funded	\$(98)	\$(85)
▪ Transfer ratio	75%	74%

\*Includes \$4 million in respect of newly signed collective agreement



# Reconciliation of Financial Position

(\$CDN Millions)

	<b>Going-Concern Solvency</b>	
<b>Surplus (deficit) as at December 31, 2011</b>	<b>\$(55)</b>	<b>\$(85)</b>
▪ Interest on surplus/(deficit)	\$(2)	\$(4)
▪ Employer's special payments, with interest	\$19	\$19
▪ Investment experience	\$11	\$14
▪ Other experience gains and losses	\$(8)	\$(8)
▪ Impact of changes in assumptions	\$(0)	\$(30)
▪ Impact of amendments	\$(5)	\$(4)
▪ Other	\$(2)	\$(0)
<b>Surplus (deficit) as at December 31, 2012</b>	<b>\$(42)</b>	<b>\$(98)</b>

# Funding Requirements

(\$CDN Millions)

## Minimum Funding Requirements

<b>Period Beginning</b>	<b>Minimum Annual Special Payments</b>	<b>Current Service Cost</b>	<b>Total Annual Contributions</b>
January 1, 2013	\$21	\$5	\$26
January 1, 2014	\$26	\$5	\$31

## Maximum Permissible Funding

Wind-up deficit	\$153
Current service cost	<u>\$5</u>
Total	\$158

# Indexing Reserve

- Introduced over 20 years ago
- Indexing of 75% of CPI provided if the Indexing Reserve is sufficient, up to an annual maximum of 5%. The Indexing Reserve is:
  - Credited with the ‘retiree portion’ of excess returns, if any;
  - Debited with the cost of indexing granted; and
  - Credited with interest.
- As at December 31, 2012 the Indexing Reserve is \$17 million reflected as a liability in the funding and accounting valuations.
  - Strong returns in 2012 created an excess return allocation of about \$9 million.
  - Following the September 2013 increase, we estimate the reserve will be approximately \$15 million.
  - No excess returns expected at the end of 2013
- If no additional “excess returns” then the Reserve is expected to be depleted sometime in 2016
  - During the term of the new CBA, if indexing reserve is not sufficient, then the Plan will be amended to allocate sufficient amounts to the reserve to provide indexing (capped at 2%) for the year

# Corporate Financial Reporting

- International Accounting Standards (IAS) dictate measurement of pension costs be reflected in the company's income statement and balance sheet
- Based on IAS19, the following is reflected in the income statement in respect of the Plan (2013 and estimated 2014 expense are under Amended IAS19)
- All figures in \$CAD millions

Year	2010	2011	2012	2013	2014
Expense	\$10	\$6	\$8	\$13	\$10

- Amount reflected in Other Comprehensive Income and Expense (OCI) is far more significant (represents unexpected swings in the balance sheet)

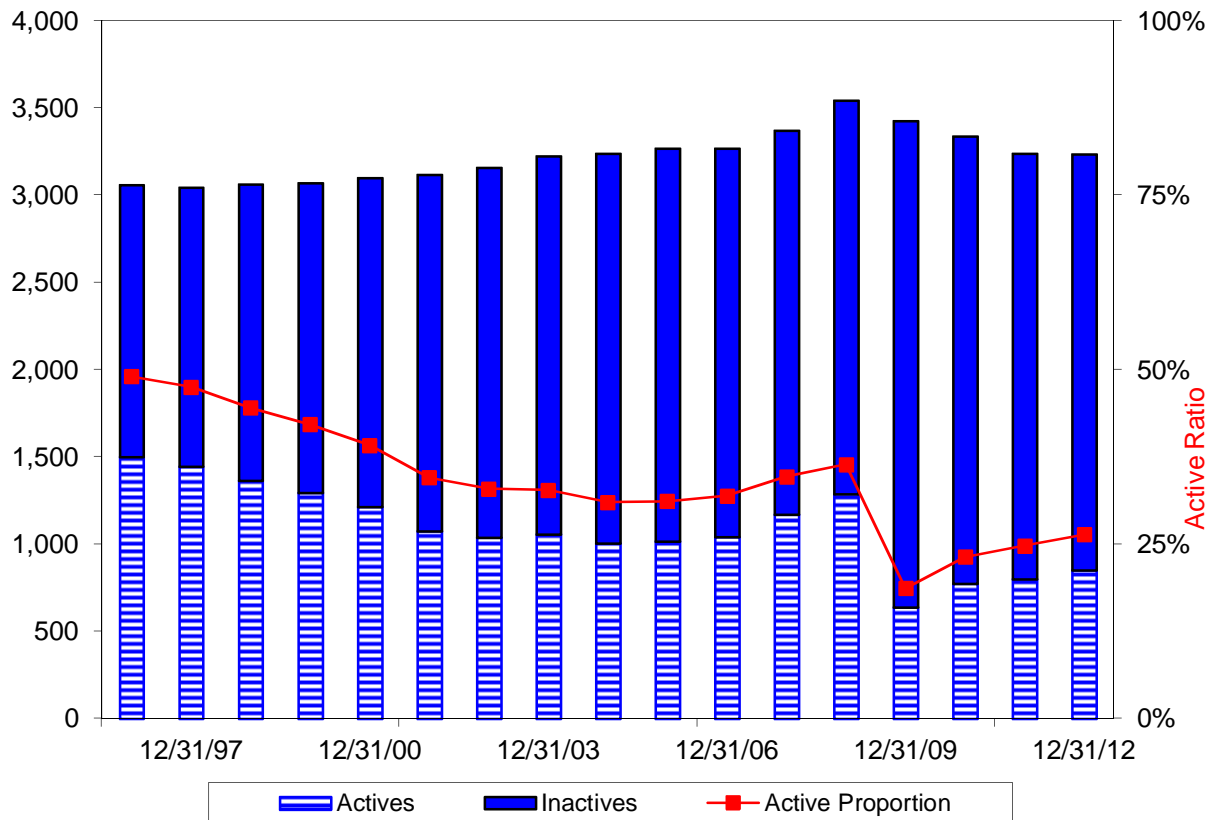
Year-End	2010	2011	2012	2013	2014
OCI impact	\$66	\$19	\$9	(\$43*)	TBD

\* As at September 30, 2013. Will be revised at year end.

# Evolution of the Plan Over Time

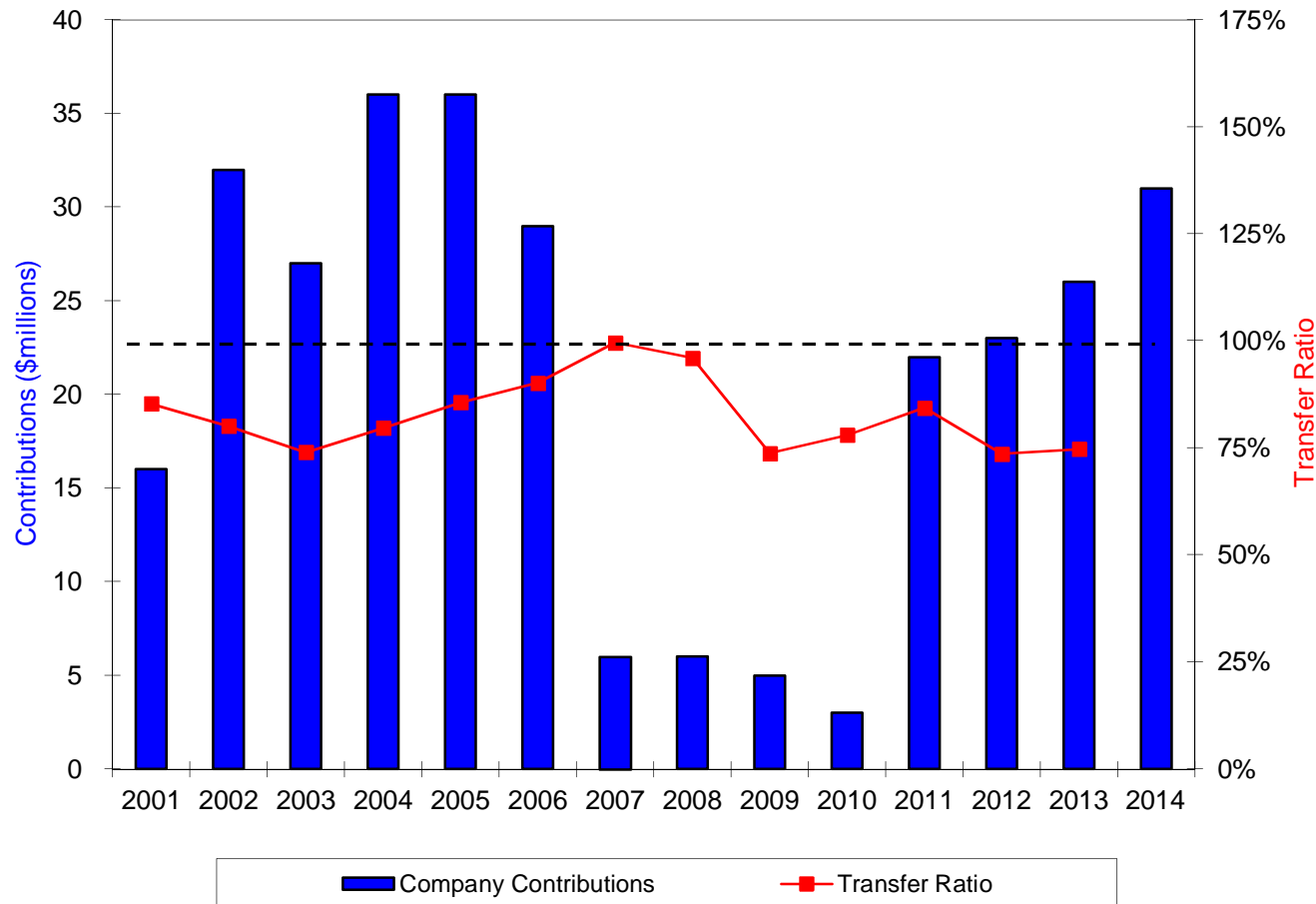


# Demographics of the Plan



The plan is maturing - many more inactive members than active members; ratio of active members to total members declined from 50% in 1993 to 26% in 2012 (inactives represent roughly 83% of solvency liabilities at December 31, 2012)

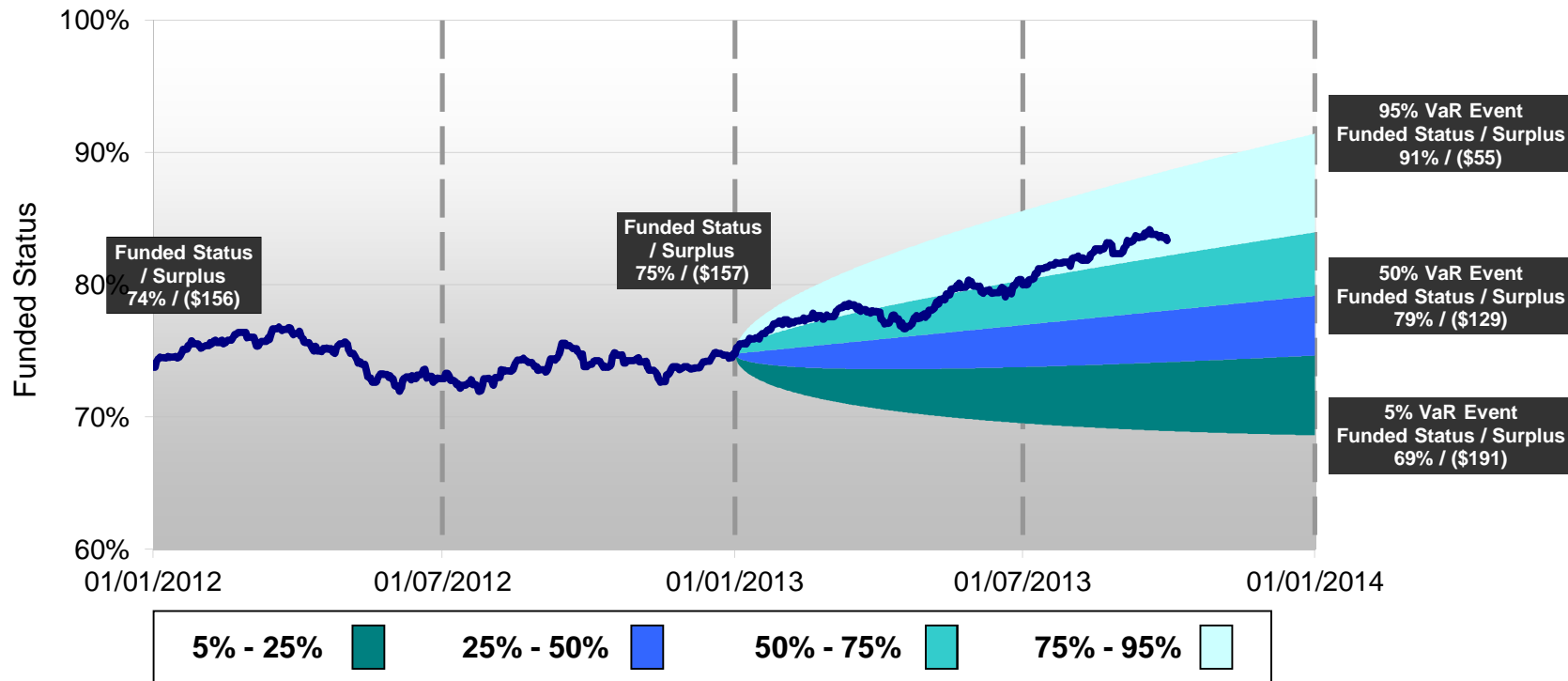
# Company Contributions vs. Transfer Ratio



## Notes:

The estimated 2014 contributions are based on the December 31, 2012 valuation report. Actual 2014 contributions will be based on the December 31, 2013 valuation report.

# Current Solvency Funded Status and Impact of Variability



Line on graph illustrates volatility in funded position on a solvency basis since last fiscal year-end.

Difference between end-point of the line and starting point of funnel represents one-time impact of application of new CIA Standards on Commuted Values and new annuity proxy basis at measurement date.

Projection is based on expected contributions and on a distribution of asset and liability growth rates, along with historical asset class correlation relationships. Volatility and correlation assumptions are based on 10-year historical data, adjusted for consistency, as well as long term forward looking expectations. Volatilities and correlations can change over time. While they tend to change gradually, when there are major market shocks, most asset classes tend to move together (high correlation). In consequence, such model understates the frequency of extreme events (i.e., tail distributions).



# Appendices



# Asset Allocation

	Investment Policy			Actual Asset Mix as at
	Minimum	Target	Maximum	December 31, 2012
<b>Equities</b>				
- Canadian equities				8%
- US equities				14%
- Non-US equities				<u>18%</u>
Total equities	35%	40%	45%	40%
Fixed Income	55%	60%	65%	61%
Certain alternatives	0%	0%	10%	0%
Cash and cash equivalents	0%	<u>0%</u>	20%	<u>(1%)</u>
		100%		100%

# Membership Statistics

	12/31/2012	12/31/2011
<b>Active Members</b>	853	802
Average age	46	46
Average years of pensionable service	12 years	13 years
<b>Disabled and Suspended Members</b>	132	156
Average age	48	44
Average years of pensionable service	10 years	7 years
<b>Pensioners and Survivors</b>	2,055	2,078
Average age	72	71
Average annual lifetime pension	\$14,613	\$14,306
Number of members receiving bridge payment	497	561
Average annual bridge payment	\$8,396	\$8,352
<b>Deferred Pensioners</b>	195	203
Average age	50	49
Average annual lifetime pension	\$2,169	\$2,271

# Membership Reconciliation

	Actives	Disabled and Suspended Members	Deferred Pensioners	Pensioners and Beneficiaries	Total
<b>Total at December 31, 2011</b>	802	156	203	2,078	3,239
New entrants	60				60
Rehires	6				6
Terminations:					
Refunds	(1)	(8)	(16)		(25)
Deferred pensions	(5)	(7)	12		0
Deaths	(1)			(76)	(77)
New beneficiaries				33	33
Retirements	(15)	(1)	(5)	21	0
Transfer to another plan	(22)	22			0
Suspended returning to GPP	36	(36)			0
Members Returning from Layoff		1			1
Disabled	(7)	7			0
Data corrections		(2)	1	(1)	(2)
<b>Total at December 31, 2012</b>	853	132	195	2,055	3,235

# Actuarial Assumptions as of December 31, 2012

## Going-Concern

## Solvency

	Going-Concern	Solvency
<b>Asset valuation method:</b>	Equities returns smoothed over 4 years	Equities returns smoothed over 4 years
<b>Discount rate:</b>	4.50% per year	Lump sum: 3.10% per year for 10 years, 4.53% per year thereafter on smoothed basis. 2.40% per year for 10 years and 3.60% per year thereafter on unsmoothed basis.  Annuity purchase: 3.83% per year on smoothed basis and 2.96% per year on unsmoothed basis.  60% of active and deferred members under age 55 and 20% of active and deferred members over age 55 are assumed to elect lump sum. All other members are assumed to elect deferred or immediate pension.
<b>Mortality:</b>	UP94 Generational (with 5% loading)	UP94 Generational
<b>Retirement:</b>	50% at EURD 20% at EURD + 1 year 15% at EURD + 2 years or 3 years 10% at EURD + 4 years and thereafter 100% at age 65	Age which maximizes value
<b>Termination:</b>	Age related table	N/A
<b>Expenses:</b>	Implicit adjustment of 20 bps to discount rate	\$500,000

# Reconciliation of Market Value of Assets

<i>(in millions)</i>	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
January 1	\$324	\$365	\$407	\$463	\$517	\$504	\$394	\$422	\$433	\$439
Company's Contributions	\$27	\$36	\$36	\$29	\$6	\$6	\$5	\$3	\$22	\$23
Investment Income (Net of Expense)	\$42	\$35	\$52	\$57	\$10	(\$86)	\$56	\$42	\$19	\$40
Benefit Payments (including transfer in/out)	(\$28)	(\$30)	(\$31)	(\$31)	(\$29)	(\$30)	(\$33)	(\$34)	\$(35)	\$(37)
December 31	\$365	\$407	\$463	\$517	\$504	\$394	\$422	\$433	\$439	\$465
Rate of Return (net of expenses)	12.9%	9.6%	12.6%	12.3%	1.9%	(17.5%)	14.9%	10.3%	4.3%	8.7%

# Historical Valuation Results

	31-Dec-01	31-Dec-02	31-Dec-03	31-Dec-04	31-Dec-05	31-Dec-06	31-Dec-09	31-Dec-10	31-Dec-11	31-Dec-12
<b>Going-Concern</b>										
Actuarial Value of Assets	\$378	\$398	\$391	\$413	\$452	\$494	\$455	\$444	\$448	\$466
Liabilities	\$390	\$391	\$401	\$414	\$434	\$443	\$470	\$488	\$503	\$508
Deficit	(\$12)	\$7	(\$9)	(\$1)	\$18	\$51	(\$15)	(\$44)	(\$55)	(\$42)
Funded Ratio	97%	102%	98%	100%	104%	112%	97%	91%	88%	92%
<b>Wind-up</b>										
Market Value of Assets	\$342	\$321	\$362	\$404	\$460	\$514	\$421	\$433	\$438	\$464
Liabilities	\$427	\$434	\$455	\$471	\$510	\$516	\$539	\$536	\$595	\$621
Deficit	(\$85)	(\$113)	(\$92)	(\$68)	(\$50)	(\$2)	(\$118)	(\$103)	(\$156)	(\$157)
Funded Ratio	80%	74%	80%	86%	90%	100%	78%	81%	74%	75%

