June 2010 DRAFT

The University of Western Ontario Pension Plan for Members of the Administrative Staff

Report on the Actuarial Valuation for Funding Purposes as at December 31, 2009

MERCER

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Note to reader regarding actuarial valuations:

This valuation report may not be relied upon for any purpose other than those explicitly noted in the Introduction or by any party other than the parties noted in the Introduction. Mercer is not responsible for the consequences of any other use. A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict a pension plan's future financial condition or its ability to pay benefits in the future.

If maintained indefinitely, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, the amount of plan expenses, and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date.

To prepare this report, actuarial assumptions are used to model the results for a single scenario from a range of possibilities. The results of that single scenario are included in this report. However, the future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Actuarial assumptions may also be changed from one valuation to the next because of changes in regulatory and professional requirements, developments in case law, plan experience, changes in expectations about the future and other factors.

Furthermore, should the plan be wound up, the going-concern funded status and solvency financial position, if different from the wind-up financial position, become irrelevant. The hypothetical wind-up financial position estimates the financial position of the plan assuming it is wound-up on the valuation date. Emerging experience, including the growth of wind-up liabilities compared to the plan's assets (including future contributions and investment returns), will affect the wind-up funded position of the plan assuming it is wound-up in the future. In fact, even if the plan were wound-up on the valuation date, the financial position would continue to fluctuate until the benefits are fully settled.

Because actual plan experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit-related issues should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely on the basis of a valuation report or reports.

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Introduction

To The University of Western Ontario Administrative Staff Pension Board

At the request of the University of Western Ontario, we have conducted an actuarial valuation of The University of Western Ontario Pension Plan for Members of the Administrative Staff (the "Plan"), sponsored by The University of Western Ontario (the "Employer"), as at the valuation date, December 31, 2009. We are pleased to present the results of the valuation.

Purpose

The purpose of this valuation is to determine:

- the funded status of the Plan as at December 31, 2009 on going-concern, hypothetical wind-up and solvency bases,
- the minimum required funding contributions from 2010, in accordance with the *Pension Benefits Act (Ontario)* and the Employer's elections in regards to determining the solvency funding requirements; and
- the maximum permissible funding contributions from 2010, in accordance with the *Income Tax Act*.

As the Plan is primarily a defined contribution plan, the only Plan provisions requiring an actuarial valuation are the minimum pension provisions for the closed group of active Special Members and the lifetime pensions paid from the Plan for retired Special Members. These provisions are currently funded through a separate account ("General Account") which is earmarked to provide for the payment of these special benefits. As such, the primary purpose of this report is to outline the minimum funding requirements and the funded status of these provisions as they relate to the General Account.

The information contained in this report was prepared for the internal use of the Plan's pension board and for filing with the Financial Services Commission of Ontario and with the Canada Revenue Agency, in connection with our actuarial valuation of the Plan. This report will be filed with the Financial Services Commission of Ontario and with the Canada Revenue Agency. This report is not intended or suitable for any other purpose.

The next actuarial valuation of the Plan will be required as at a date not later than December 31, 2012, or as at the date of an earlier amendment to the Plan.

Events Since the Last Valuation

Pension Plan

There have been no special events since the last valuation date.

This valuation reflects the provisions of the Plan as at December 31, 2009. The Plan has been amended since the date of the previous valuation to clarify certain provisions. These amendments however had no material financial impact on the Plan. A summary of the Plan provisions is provided in Appendix F.

Assumptions

We have used the same going concern valuation assumptions and methods as were used for the previous valuation as of December 31, 2006, except for the following:

Assumption	Current valuation	Previous valuation
Discount rate:	2.65%	3.80%
Pensionable earnings increases:	4.20%	4.00%
DC investment return	6.25%	6.75%

The hypothetical wind-up and solvency assumptions have been updated to reflect market conditions at the valuation date.

A summary of the going concern, and hypothetical wind-up and solvency assumptions are provided in Appendices C and D, respectively.

Regulatory Environment and Actuarial Standards

There have been no changes to the Pension Benefits Act (Ontario) (the “Act”) and Regulations which impact the funding of the Plan

A new Canadian Institute of Actuaries Standard of Practice for determining pension commuted values (“CIA Standard”) became effective April 1, 2009. The new CIA Standard changed the assumptions to be used to value the solvency and wind-up liabilities for benefits assumed to be settled through a lump sum transfer and for other benefits for which this basis has been used as a proxy to the cost of purchasing annuities. The financial impact of the new CIA Standard has been reflected in this actuarial valuation.

Subsequent Events

After checking with representatives of the Employer, to the best of our knowledge there have been no events subsequent to the valuation date which, in our opinion, would have a material impact on the results of the valuation.

Impact of Case Law

This report has been prepared on the assumption that all of the assets in the pension fund are available to meet all of the claims on the pension Plan. We are not in a position to assess the impact that the Ontario Court of Appeal's decision in *Aegon Canada Inc. and Transamerica Life Canada versus ING Canada Inc.* or similar decisions in other jurisdictions might have on the validity of this assumption.

We have assumed that all plan assets are available to cover the plan liabilities presented in this report.

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Defined Contribution Component of the Plan

The Plan is made up of defined contribution ("DC") and defined benefit ("DB") components, although the Plan is now primarily a DC plan. The DC component is considered in this Section while Sections 3 to 5 and 7 relate only to the DB component of the Plan, except where required by law.

Based on the audited financial statements prepared for the Plan, the market value of the Plan's assets in respect of the DC component of the Plan amount to $341,806,000 as at December 31, 2009.

Current Service Cost

The estimated members' DC required contributions and employer DC current service cost for the 2010 year are as follows:

	UWO	Brescia University College	Huron University College	Total
Total current service cost	$15,927,400	$327,000	$310,400	$16,564,800
Estimated members' required contributions	($3,755,400)	($142,400)	($155,200)	($4,053,000)
Estimated employer's current service cost	$12,172,000	$184,600	$155,200	$12,511,800

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Employer Current Service Cost as a Percentage of Members' Pensionable Earnings

University of Western Ontario
For current service:
Members with less than 10 years of service: 7.5% of pensionable earnings
Members with 10 to 19 years of service: 8.0% of pensionable earnings
Members with more than 20 years of service: 8.5% of pensionable earnings
Brescia University College
For current service:
6.0% of pensionable earnings
Huron University College
For current service:
7.0% of pensionable earnings

For reference, the Plan terms are summarised in Appendix F.

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Valuation Results – Going Concern

Financial Status

A going concern valuation compares the relationship between the value of Plan assets and the present value of expected future benefit cash flows in respect of accrued service, assuming the Plan will be maintained indefinitely.

The results of the current valuation, compared with those from the previous valuation, are summarized as follows (in $1000's):

	31.12.09	31.12.06
Assets		
Market value of assets	$343,807	$392,000
Funding target		
▪ active members	$101	$0
▪ pensioners and survivors	$2,093	$2,623
Member contribution accounts	$341,806	$389,565
Total	$344,000	$392,188
Funding excess (shortfall)	($193)	($188)

Reconciliation of Financial Status (in $1,000's)

Funding excess (shortfall) as at previous valuation		($188)
Interest on funding excess (funding shortfall) at 5.75% per year		($22)
Employer's special payments, with interest		$173
Employer's contributions drawn from previous funding excess with interest		$0
Expected funding excess (funding shortfall)		($37)
Net experience gains (losses)		
▪ Net investment return	$96	
▪ Impact of decline in DC accounts	($48)	
▪ Mortality	($26)	
Total experience gains (losses)		$22
Impact of changes in assumptions and methods		($178)
Cost of Living Adjustment		$0
Net impact of other elements of gains and losses		$0
Funding excess (shortfall) as at current valuation		($193)

Current Service Cost

The current service cost is an estimate of the present value of the additional expected future benefit cash flows in respect of pensionable service that will accrue after the valuation date, assuming the Plan will be maintained indefinitely.

The current service cost related to the DB component of the Plan that the University of Western Ontario must make during the year following the valuation date compared with the corresponding value determined in the previous valuation, is as follows:

	2010	2007
Total current service cost	$3,697	$0
Estimated members' required contributions	$0	$0
Estimated employer's current service cost	$3,697	$0

The above employer current service cost is in respect of two active special members whose minimum DB pension at the assumed retirement age is estimated to be greater than the pension provided by the members' DC accounts. The current service cost for the years until the next valuation date are estimated to be as follows:

Year	Estimated Employer's Current Service Cost
2010	$3,697
2011	$3,852
2012	$4,014

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Valuation Results - Hypothetical Wind-up

Financial Position

When conducting a wind-up valuation, we determine the relationship between the respective values of the Plan's assets and its liabilities assuming the Plan is wound up and settled on the valuation date, assuming benefits are settled in accordance with the Act and under circumstances producing the maximum wind-up liabilities on the valuation date.

The hypothetical wind-up financial position as of the valuation date, compared with that at the previous valuation, is as follows (in $1,000's):

	31.12.09	31.12.06
Assets		
Market value of assets	$343,807	$392,000
Termination expense provision	($45)	($55)
Wind-up assets	$343,762	$391,945
Present value of accrued benefits for:		
▪ active members	$97	$0
▪ pensioners and survivors	$1,922	$2,579
Member contribution accounts	$341,806	$389,565
Total wind-up liability	$343,825	$392,144
Wind-up excess (shortfall)	($63)	($199)

Impact of Plan Wind-up

In our opinion, the value of the Plan's assets would be less than its actuarial liabilities if the Plan were to be wound up on the valuation date.

Valuation Results – Solvency

Overview

The Act also requires the financial position of the Plan to be determined on a solvency basis. The financial position on this basis is determined in a similar manner to the Hypothetical Wind-up Basis, except for the following:

Exceptions	Reflected in valuation based on the Employer's directions
The circumstance under which the Plan is assumed to be wound-up could differ for the solvency and hypothetical wind-up valuations.	Same circumstances were assumed for the solvency valuation as were assumed for the hypothetical wind-up.
Certain benefits can be excluded from the solvency financial position. These include: (a) any escalated adjustment (e.g. indexing), (b) certain plant closure benefits, (c) certain permanent layoff benefits, (d) special allowances other than funded special allowances, (e) consent benefits other than funded consent benefits, (f) prospective benefit increases, (g) potential early retirement window benefit values, and (h) pension benefits and ancillary benefits payable under a qualifying annuity contract.	No benefits were excluded from the solvency liabilities shown in this valuation.
The financial position on the solvency basis needs to be adjusted for any Prior Year Credit Balance.	Not applicable.
The solvency financial position can be determined by smoothing assets and the solvency discount rate over a period of up to 5 years.	Smoothing was not used.
The benefit rate increases coming into effect after the valuation date can be reflected in the solvency valuation.	Not applicable.
The termination expense provision could differ between the solvency and wind up valuation.	The termination expense provision is $45,000, which is the same as the assumption used for hypothetical wind-up.

Financial Position

The financial position on a solvency basis, compared with the corresponding figures from the previous valuation, is as follows (in $1,000's):

	31.12.09	31.12.06
Assets		
Market value of assets	$343,807	$392,000
Termination expense provision	($45)	($50)
Net assets	$343,762	$391,950
Total hypothetical wind-up liabilities	$343,825	$392,144
Difference in circumstances of assumed wind-up	$0	$0
Value of excluded benefits	($0)	($0)
Liabilities on a solvency basis	$343,825	$392,144
Present value of special payments for the next five years	$85	$169
Surplus (shortfall) on a market value basis	$22	($25)
Transfer ratio	96.9%	94.4%

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Minimum Funding Requirements

The Act prescribes the minimum contributions that the University of Western Ontario must make to the Plan. The minimum contributions in respect of a defined benefit component of a pension plan are comprised of going-concern current service cost and special payments to fund any going-concern or solvency shortfalls. The minimum contributions in respect of a defined contribution provision of a pension plan are comprised of the current service cost determined according to the plan's rules.

On the basis of the assumptions and methods described in this report, an estimate of the employer contributions, from the valuation date until the next required valuation are as follows:

University of Western Ontario

Year Ending	DC Current Service Cost	DB Current Service Cost	Minimum Special Payments	Minimum Employer's Contribution
Dec. 31, 2010	$12,172,000	$3,700	$19,100	$12,194,800
Dec. 31, 2011	$12,683,200	$3,900	$19,100	$12,706,200
Dec. 31, 2012	$13,215,900	$4,000	$19,100	$13,239,000

Brescia University College

Year Ending	DC Current Service Cost	Minimum Special Payments	Minimum Employer's Contribution
Dec. 31, 2010	$184,600	$0	$184,600
Dec. 31, 2011	$192,400	$0	$192,400
Dec. 31, 2012	$200,500	$0	$200,500

Huron University College

Year Ending	DC Current Service Cost	Minimum Special Payments	Minimum Employer's Contribution
Dec. 31, 2010	$155,200	$0	$155,200
Dec. 31, 2011	$161,700	$0	$161,700
Dec. 31, 2012	$168,500	$0	$168,500

The estimated contribution amounts above are based on projected members' pensionable earnings. Therefore the actual employer's current service cost will be different from the above estimates and, as such, the contribution requirements should be monitored closely to ensure contributions are made in accordance with the Act.

The development of the minimum special payments is summarized in Appendix A.

Other Considerations

Differences Between Valuation Basis

There is no provision in the minimum funding requirements to fund the difference between the wind-up and solvency shortfalls, if any.

In addition, although minimum funding requirements do include a requirement to fund the going-concern current service cost, there is no requirement to fund the expected growth in the wind-up or solvency liability after the valuation date, which could be greater than the going concern current service cost.

Timing of Contributions

Funding contributions are due on monthly basis. Contributions for current service cost must be made within 30 days following the month to which they apply. Special payment contributions must be made in the month to which they apply.

Retroactive Contributions

The Employer must contribute the excess, if any, of the minimum contribution recommended in this report over contributions actually made in respect of the period following the valuation date. This contribution, along with an allowance for interest, is due no later than 60 days following the date this report is filed.

Payment of Benefits

The Act imposes certain restrictions on the payment of lump sums from the Plan when the transfer ratio revealed in an actuarial valuation is less than one. If the transfer ratio shown in this report is less than one, the plan administrator should ensure that the monthly special payments are sufficient to meet the requirements of the Act to allow for the full payment of benefits, and otherwise should take the prescribed actions.

Additional restrictions are imposed when:

- The transfer ratio revealed in the most recently filed actuarial valuation is less than one and the administrator knows or ‘ought to know’ that the transfer ratio of the Plan has declined by 10% or more since the date the last valuation was filed.

- The transfer ratio revealed in the most recently filed actuarial valuation is greater than or equal to one and the administrator knows or ‘ought to know’ that the transfer ratio of the Plan has declined to less than 0.9 since the date the last valuation was filed.

As such, the administrator should monitor the transfer ratio of the Plan and, if necessary, take the prescribed actions.

Contributions to the DC component

In addition to any contribution requirements in respect of the DB component of the Plan, and notwithstanding any prohibition to fund the DB component of the Plan, contributions to the individual member DC accounts should be made in accordance with the Plan terms.

If the DB component of the Plan is fully funded on both going-concern and solvency bases then, subject to the Act, the Plan terms and any collective or employment agreement, it may be possible for the Employer to apply DB assets in satisfaction of its contribution requirements for the DC component of the Plan.

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Maximum Eligible Contributions

The *Income Tax Act* (the "ITA") limits the amount of employer contributions that can be remitted to the defined benefit component of a registered pension plan.

In accordance with Section 147.2 of the ITA and *Income Tax Regulation* 8516, for a plan which is underfunded on either a going-concern or on a wind-up basis the maximum permitted contributions are equal to the employer's current service cost, including the explicit expense allowance if applicable, plus the greater of the going concern funding shortfall and wind-up shortfall.

For a plan which is fully funded on both going-concern and wind-up bases, the employer can remit a contribution equal to the employer's DB current service cost, including the explicit expense allowance if applicable, as long as the surplus in the plan does not exceed a prescribed threshold. Specifically, in accordance with Section 147.2 of the ITA, for a plan which is fully funded on both going-concern and wind-up bases, the plan may not retain its registered status if the employer makes a DB contribution while the going-concern funding excess exceeds 25% of the going-concern funding target (i.e. 25% of $2,194,000, or $548,500).

Schedule of Maximum Contributions

The Employer is permitted to fully fund the greater of the going-concern and wind-up shortfalls; $193,000, as well as make current service cost contributions. The portion of this contribution representing the payment of the going-concern funding shortfall can be increased with interest at 2.65% per year from the valuation date to the date the payment is made, and must be reduced by the amount of any deficit funding made from the valuation date to the date the payment is made.

We have estimated the maximum eligible annual contributions in 2010 related specifically to the DB component of the Plan are $196,700 as at December 31, 2009.

The employer's current service cost related to the DC component was estimated based on projected members' pensionable earnings. The actual employer's current service cost will be different from these estimates and, as such, the contribution requirements should be monitored closely to ensure compliance with the ITA.

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Actuarial Opinion

In our opinion, for the purposes of this valuation,

- the data on which the valuation is based are sufficient and reliable,
- all assumptions were independently reasonable at the time the valuation was prepared and are, in aggregate, appropriate, and
- the methods employed in the valuation are appropriate.

This report has been prepared, and our opinions given, in accordance with accepted actuarial practice in Canada. It has also been prepared in accordance with the funding and solvency standards set by the Pension Benefits Act (Ontario).

Michael Labute FSA, FCIA	Emelie Rahilly FSA, FCIA
Date	Date

Appendix A

Prescribed Disclosure

Definitions

The Act defines a number of terms as follows (in $1,000's):

Defined Term	Description	Result
Transfer Ratio	The ratio of solvency assets to the sum of the solvency liabilities and liabilities for benefits, other than benefits payable under qualifying annuity contracts that were excluded in calculating the solvency liabilities.	0.969
Prior Year Credit Balance	Accumulated excess of contributions made to the pension plan in excess of the minimum required contributions (note: only applies if the Employer chooses to treat the excess contributions as a Prior Year Credit Balance).	N/A
Solvency Assets	Market value of assets including accrued or receivable income and excluding the value of any qualifying annuity contracts.	$343,762*
Solvency Asset Adjustment	The sum of:	
	(a) the difference between smoothed value of assets and the market value of assets;	$0
	(b) the present value of any going concern special payments (including those identified in this report) within 5 years following the valuation date;	$85
	(c) the present value of any previously scheduled solvency special payments (excluding those identified in this report)	$0
		$85
	*inclusive of termination expenses.	

Defined Term	Description	Result
Solvency Deficiency	The amount by which the sum of:	
	(a) the solvency liabilities	$343,825
	(b) the solvency liability adjustment	$0
	(c) the prior year credit balance	$0
		$343,825
	Exceed the sum of	
	(d) the solvency assets	$343,762
	(e) the solvency asset adjustment	$85
		$343,847
		($22)
Solvency Liabilities	Liabilities determined as if the Plan had been wound up on the valuation date, including liabilities for plant closure benefits or permanent layoff benefits that would be immediately payable if the employer's business were discontinued on the valuation date of the report, but excluding liabilities for, (a) any escalated adjustment, (b) excluded plant closure benefits, (c) excluded permanent layoff benefits, (d) special allowances other than funded special allowances, (e) consent benefits other than funded consent benefits, (f) prospective benefit increases, (g) potential early retirement window benefit values, and (h) pension benefits and ancillary benefits payable under a qualifying annuity contract.	$343,825
Solvency Liability Adjustment	The amount by which solvency liabilities are adjusted as a result of using a solvency valuation interest rate that is the average of market interest rates calculated over the period of time used in the determination of the smoothed value of assets.	$0

Timing of Next Required Valuation

In accordance with the *Act* the next valuation of the Plan would be required at an effective date within one year of the current valuation date if:

- The ratio of solvency assets to solvency liabilities is less than 80%; or
- The ratio of solvency assets to solvency liabilities is less than 90% and solvency liabilities exceed solvency assets by $5 million or more.

Otherwise, the next valuation of the Plan would be required at an effective date no later than three years after the current valuation date.

Accordingly, the next valuation of the Plan will be required as of December 31, 2012.

Special Payments

Based on the results of this valuation, the Plan is not fully funded. In accordance with the Act, any going-concern deficits must be amortized over a period not exceeding 15 years and any solvency deficits must be amortized over a period not exceeding 5 years.

As such, special payments must be made as follows:

				Present Value	
Type of payment	Start date	End date	Monthly Special Payment	Going Concern Basis[1]	Solvency Basis[2]
Going-concern	12.31.2003	12.31.2018	$276	$26,500	$14,800
Going-concern	12.31.2006	12.31.2021	$1,133	$139,900	$61,000
Going-concern	12.31.2009	12.31.2024	$179	$26,600	$9,600
Total			$1,588	$193,000	$85,400

[1] Calculation only considers going concern special payments and is based on a going-concern discount rate.

[2] Calculation considers both solvency and going concern special payments (five years only) and is based on the average solvency discount rate.

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Pension Benefit Guarantee Fund (PBGF) Assessment

The PBGF assessment base and liabilities are derived as follows:

PBGF liabilities	$2,019,000	(a)
Total solvency liabilities	$2,019,000	(b)
Ontario asset ratio	100%	(c) = (a) ÷ (b)
Market value of assets	$2,001,000	(d)
Ontario portion of the fund	$2,001,000	(e) = (c) x (d)
PBGF assessment base	$18,000	(f) = (a) - (e)

The PBGF assessment is calculated as follows:

$1 for each Ontario member	$111
PLUS	
0.5% of PBGF assessment base up to 10% of PBGF liabilities	$90
PLUS	
1.0% of PBGF assessment base between 10% and 20% of PBGF liabilities	$0
PLUS	
1.5% of PBGF assessment base over 20% of PBGF liabilities	$0
PLUS	
2.0% of special PBGF assessment base	$0
PBGF assessment (before taking into account the maximum)	$201
Maximum PBGF assessment ($100 for each Ontario member)	$11,100
PBGF assessment (after taking into the maximum)	$201

Appendix B

Plan Assets

The pension fund in respect of the DB component of the Plan is referred to as the General Account and is held in trust by Northern Trust Company. In preparing this report, we have relied upon the auditors' reports signed by KPMG LLP. We have also relied on internal statements prepared by the University of Western Ontario with respect to activities under the General Account.

Reconciliation of Market Value of Plan Assets

The pension fund transactions of the General Account since the last valuation are summarized in the following table (in $1,000s):

	2007	2008	2009
January 1	$2,435	$2,193	$2,201
PLUS			
University contributions	$0	$142	$22
Investment income	$92	$177	$68
	$92	$319	$90
LESS			
Pensions paid	$334	$311	$290
	$334	$311	$290
December 31	$2,193	$2,201	$2,001
Rate of return	4.06%	8.39%	3.29%

We have tested the pensions paid for consistency with the membership data for the Plan members who have received benefits. The results of these tests were satisfactory.

Investment Policy

The plan administrator adopted a statement of investment policy and procedures. This policy is intended to provide guidelines for the manager(s) as to the level of risk which is commensurate with the Plan's investment objectives. A significant component of this investment policy is the asset mix.

The constraints on the asset mix and the actual asset mix at the valuation date are provided for information purposes:

	Investment Policy	Actual Asset Mix as at December 31, 2009
	Target	
Equities	0%	0%
Fixed Income	100%	100%
	100%	100%

Appendix C

Methods and Assumptions – Going-concern

Valuation of Assets

For this valuation, we have used the market value of assets.

Valuation of Funding Target

Over time, the real cost to the employer of a pension plan is the excess of benefits and expenses over member contributions and investment earnings. The actuarial cost method allocates this cost to annual time periods.

For purposes of the going-concern valuation, we have continued to use the projected unit credit actuarial cost method. Under this method, we determine the present value of benefit cash flows expected to be paid in respect of service accrued prior to the valuation date based on projected final average earnings. This is referred to as the funding target.

The funding excess or funding shortfall, as the case may be, is the difference between the market or smoothed value of assets and the funding target. A funding excess on a market value basis indicates that the current market value of assets and expected investment earnings are expected to be sufficient to meet the cash flows in respect of benefits accrued to the valuation date as well as expected expenses – assuming the plan is maintained indefinitely. A funding shortfall on a market value basis indicates the opposite – that the current market value of the assets is not expected to meet the plan's cash flow requirements.

As required under the Act, a funding shortfall will be amortized over no more than 15 years through special payments. A funding excess may, from an actuarial standpoint, be applied immediately to reduce required employer current service contributions unless precluded by the terms of the plan or by legislation.

The actuarial funding method used for the purposes of this valuation produces a reasonable matching of contributions with accruing benefits. Because benefits are recognized as they accrue, the actuarial funding method provides an effective funding target for a plan that is maintained indefinitely.

Current Service Cost

The current service cost is the present value of projected benefits to be paid under the plan with respect to service expected to accrue during the period until the next valuation.

The employer’s current service cost is the total current service cost reduced by the members’ required contributions.

Under the projected unit credit actuarial cost method, the current service cost for an individual member will increase each year as the member approaches retirement. However, the current service cost of the entire group, expressed as a percentage of the members’ pensionable earnings, can be expected to remain stable as long as the average age of the group remains constant.

Actuarial Assumptions – Going-concern Basis

The present value of future benefit payment cash flows is based on economic and demographic assumptions. At each valuation we determine whether, in our opinion, the actuarial assumptions are still appropriate for the purposes of the valuation, and we revise them, if necessary. Emerging experience will result in gains or losses that will be revealed and considered in future actuarial valuations.

The table below shows the various assumptions used in the current valuation in comparison with those used in the previous valuation.

Assumption	Current valuation	Previous valuation
Discount rate:	2.65%	3.80%
Inflation:	2.70%	2.40%
YMPE increases:	3.70%	3.50%
Pensionable earnings increases:	4.20%	4.00%
Expenses	Implicit in discount rate	Implicit in discount rate
Interest on active special member’s DC accounts/annuity purchase rate	6.25%/4.50%	6.75%/4.75%
Mortality rates:	100% of the rates of the 1994 Uninsured Pensioner Mortality Table	100% of the rates of the 1994 Uninsured Pensioner Mortality Table
Mortality improvements:	Fully generational using Scale AA	Fully generational using Scale AA
Retirement age:	Age 65	Age 65
Termination rates:	None assumed	None assumed
Disability rates:	None assumed	None assumed

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Rationale for Assumptions

A rationale for each of the assumptions used in the current valuation is provided below.

Discount Rate

We have discounted the expected benefit payment cash flows using the expected investment return on the market value of the fund. Other bases for discounting the expected benefit payment cash flows may be appropriate, particularly for purposes other than those specifically identified in this valuation report.

The discount rate is comprised of the following:

- Estimated returns for each major asset class consistent with market conditions on the valuation date and the target asset mix specified in the Plan's investment policy
- Implicit provision for expenses determined as the rate of investment expenses paid from the fund over the last year.
- A margin for adverse deviations, based on the proportion of the Plan assets invested in equities and the excess return expected on equities, over government bond yields.

The discount was developed as follows:

Assumed investment return	2.94%
Implicit expense provision	(0.04%)
Margin	(0.25%)
Net discount rate	2.65%

Explicit Expenses

The assumed investment return reflects an implicit provision for investment expenses. Administrative expenses are assumed to be paid directly by the University.

Inflation

The inflation assumption is based on market expectations of long-term inflation implied by the yields on nominal and real return bonds at the valuation date.

Pensionable Earnings

The benefits, if any, ultimately paid to the active Special Members will depend on their final average earnings. To calculate the pension benefits payable upon retirement, we have taken each member's 2009 pensionable earnings and assumed that such pensionable earnings will increase at 4.20% per year.

This is based on:

- an assumed inflation rate of 2.7% per year,
- an assumed productivity component of 1.0% per year, and
- an assumed merit and promotional increases component of 0.5% per year.

YMPE

Since the benefits provided by the plan to the active Special Members depend on the Year's Maximum Pensionable Earnings (YMPE) under the Canada Pension Plan, it is necessary to make an assumption about increases in the YMPE for this valuation. We have assumed that the YMPE will increase at the rate of 3.7% per year from its 2010 level of $47,200.

This is based on:

- an assumed inflation rate of 2.7% per year, and
- an assumed productivity component of 1.0% per year

Interest on member's regular accounts

For purposes of calculating the possible excess pension for active Special Members, we have assumed the member's regular account and future regular contributions will earn a net investment return of 6.25%. We have based this assumption on the expected long-term return of a pension account invested 37% in fixed income, 55% in equities and 8% in cash, less an allowance for investment expenses and less a margin for adverse deviations.

We have also assumed the account balance at retirement would be converted to a pension using an annuity factor based on a 4.50% discount rate.

Termination rates

We have not made an assumption regarding the possibility of an active special member terminating employment before retirement. Such an assumption would not have a material impact on the valuation.

Mortality rates

Due to the size of the Plan membership who are entitled or potentially entitled to benefits under the Plan's DB component, there is no meaningful mortality experience but there is no reason to expect the mortality to differ from the 1994 Uninsured Pensioners mortality table. Furthermore, there is strong evidence of continuing improvement in mortality since 1994 and it has become an industry standard to assume this trend continues into the future.

We have assumed mortality after retirement in accordance with the 1994 Uninsured Pensioner Mortality table, with generational mortality improvements. Based on the assumption used, the life expectancy of a member age 65 at the valuation date is 19.5 years for males and 22.0 years for females.

Disability rates

Such an assumption would not have a material impact on the valuation.

Retirement age

Due to the size of the Plan membership who are potentially entitled to benefits under the Plan's DB component, there is no meaningful retirement experience. Further, the choice of a retirement age assumption has no material impact on the valuation given the Plan provisions. This assumption is based on the Plan provisions and our experience with similar plans and groups.

Appendix D

Methods and Assumptions – Hypothetical Wind-up and Solvency

Hypothetical Wind-up Basis

The Canadian Institute of Actuaries requires actuaries to report the financial position of a pension plan on the assumption that the plan is wound-up on the effective date of the valuation. For the purposes of the hypothetical wind-up valuation, the Plan wind-up is assumed to occur in circumstances that maximize the actuarial liability.

To determine the actuarial liability on the hypothetical wind-up basis, we have valued those benefits that would have been paid had the Plan been wound up on the valuation date, including benefits that would be immediately payable if the Employer's business were discontinued on the valuation date, with all members fully vested in their accrued benefits.

The circumstances in which the Plan wind-up is assumed to have taken place is the University makes a decision to discontinue the current pension plan. No benefits payable on Plan wind-up were excluded from our calculations.

Upon Plan wind-up members are given options for the method of settling their benefit entitlements. The options vary by eligibility and by province of employment, but in general, involve either a lump sum transfer or an immediate or deferred pension.

The value of benefits assumed to be settled through a lump sum transfer are based on the assumptions described in Section 3800 – *Pension Commuted Values* of the Canadian Institute of Actuaries Standards of Practice applicable for December 31, 2009 for benefits expected to be settled through transfer in accordance with relevant portability requirements.

The value of benefits provided as an immediate or deferred pension are assumed to be settled through the purchase of annuities based on an estimate of the cost of purchasing annuities.

We have estimated the cost of settlement through purchase of annuities in accordance with the *Canadian Institute of Actuaries Educational Note: Assumptions for Hypothetical Wind-up and Solvency Valuations with Effective Dates Between December 31, 2009 and December 30, 2010.*

We have not included a provision for adverse deviation in the solvency and wind-up valuations.

The assumptions and other methods and considerations described below are relevant only to the DB component of the Plan and are as follows:

Form of benefit settlement elected by member	
Lump sum:	70% of active member under age 55 and 40% of active members over age 55 elect to receive their benefit entitlement in a lump sum
Annuity purchase:	All remaining members are assumed to elect to receive their benefit entitlement in the form of a deferred or immediate pension. These benefits are assumed to be settled through the purchase of deferred or immediate pension
Basis for benefits assumed to be settled through a lump sum	
Mortality rates:	UP94 projected to 2020
Interest rate:	3.90% per year for the first 10 years following December 31, 2009, 5.40% per year thereafter
Basis for benefits assumed to be settled through the purchase of an annuity	
Mortality rates:	UP94 projected to 2020
Interest rate:	4.49% per year
Retirement age	
Maximum age:	Members are assumed to retire at the age which maximizes their valuation from the Plan based on the Plan eligibility requirements which have been met in the valuation.
Grow-in:	The benefit entitlement and assumed retirement age of Ontario members whose age plus service equial 55 at the valuation date reflect their entitlement to grow into early retirement subsidies.
Other assumptions	
Special payments:	Discounted at the average interest rate of 2.65% per year
Final average earnings:	Calculated using actual pensionable earnings for 2009 and the assumed rate of increase in earnings.
Termination expenses:	$45,000

To determine the wind-up position of the Plan, a provision has been made for estimated termination expenses payable from the Plan's assets in respect of actuarial and administration expenses that may reasonably be expected to be incurred in terminating the Plan and to be charged to the Plan.

In addition, termination expenses also include a provision for transaction fees related to the liquidation of the Plan's assets and for the reduction in the value of the Plan's equity assets resulting from their liquidation. Such fees and liquidation impact are difficult to assess and will vary depending on the nature of the assets held and market conditions at the time assets are liquidated.

Because the settlement of all benefits on wind-up is assumed to occur on the valuation date and is assumed to be uncontested, the provision for termination expenses does not include custodial, investment management, auditing, consulting and legal expenses that would be incurred between the wind-up date and the settlement date or due to the terms of a wind-up being contested. Expenses associated with the distribution of any surplus assets that might arise on an actual wind-up are also not included in the estimated termination expense provisions.

In determining the provision for termination expenses payable from the Plan's assets, we have assumed that the plan sponsor would be solvent on the wind-up date. We have also assumed, without analysis, that the Plan's terms as well as applicable legislation and court decisions would permit the relevant expenses to be paid from the Plan.

Actual fees incurred on an actual Plan wind-up may differ materially from the estimates disclosed in this report.

Solvency Basis

In determining the financial position of the Plan on the solvency basis, we have used the same assumptions and methodology as were used for determining the financial position of the Plan on the hypothetical wind-up basis.

The solvency position is determined in accordance with the requirements of the Act.

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Appendix E

Membership Data

Analysis of Membership Data

The actuarial valuation is based on membership data as at December 31, 2009, provided by the University of Western Ontario.

We have applied tests for internal consistency, as well as for consistency with the data used for the previous valuation. These tests were applied to membership reconciliation, basic information (date of birth, date of hire, date of membership, gender, etc.), pensionable earnings, credited service, DC account balances and pensions to retirees. Pensions to retirees were compared with corresponding amounts reported in financial statements. The results of these tests were satisfactory.

Plan membership data are summarized below. For comparison, we have also summarized corresponding data from the previous valuation.

	31.12.09	31.12.06
Active Members		
Number	54	90
Total pensionable earnings	$3,057,067	$4,720,608
Average years of pensionable service	34.8	32.9
Average age	60.4	58.6
Accumulated regular contributions account	$23,567,788	$44,641,317
Pensioners and Survivors		
Number	57	86
Total annual lifetime pension	$287,877	$353,894
Average annual lifetime pension	$5,050	$4,115
Average age	88.2	86.8

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The membership movement for all categories of membership since the previous actuarial valuation is as follows:

	Active Special Members	Pensioners and Beneficiaries
Total at 12.31.2006	90	86
Terminations		
Deaths	(1)	(29)
Retirements	(35)	
Beneficiaries		
Total at 12.31.2009	54	57

The distribution of the active special members by age and pensionable service as at December 31, 2009 is summarized as follows:

	Years of Pensionable Service							
Age	15-19	20-24	25-29	30-34	35-39	40-44	45 +	Total
55 to 59			10	4	12	1		27
			$55,320	$61,350	$57,676	N/A		$58,018
60 to 64				7	16	3		26
				$38,473	$61,265	$55,244		$54,434
65 +							1	1
							N/A	N/A
Total			10	11	28	4	1	54
			$55,320	$46,792	$59,727	$60,378	N/A	$56,612

Note: The second cell above indicates average pensionable earnings. Certain cells have been suppressed to preserve confidentiality. Missing earnings information is available upon request.

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The distribution of the inactive members by age as at 12.31.2009 is summarized as follows:

	Pensioners and Survivors	
Age	Number	Average Annual Pension
65 - 69	1	N/A
70 - 74	1	N/A
75 - 79	3	$7,965
80 - 84	9	$12,099
85 - 89	20	$5,000
90 - 94	15	$2,449
95 - 99	7	$951
100 +	1	N/A
Total	57	$5,050

Note: certain cells have been suppressed to preserve confidentiality. Missing pension information is available upon request.

Appendix F

Summary of Plan Provisions

This valuation is based on the Plan provisions in effect on December 31, 2009. Since the previous valuation, the Plan has been amended to make minor changes to clarify certain provisions of the Plan. These changes have had no material financial impact on the Plan.

The following is a summary of the main provisions of the Plan in effect on December 31, 2009. This summary is not intended as a complete description of the Plan.

Background	The Plan became effective May 1, 1974. The pension plan is essentially a defined contribution pension plan, with the exception of a minimum defined benefit provision for Special Members. A Special Member is one who was a member of the staff on May 1, 1974.
Eligibility for membership	The plan covers all staff members as a condition of employment.
Member's Contributions	Members hired before 1991 contribute 6.0% of pensionable earnings less their contribution to the Canada Pension Plan. These members were given the opportunity to reduce their required contribution rate to 2.5% of pensionable earnings. Members hired on or after January 1, 1991 contribute 2.5% of their pensionable earnings. Members from Brescia University College and Huron University College contribute 5.0% and 7.0% of pensionable earnings respectively.

University's Contributions	The University contributions are, with minor exceptions, 7.5% of pensionable earnings for members with less than 10 years of service, 8.0% of pensionable earnings for members with between 10 and 19 years of service and 8.5% of pensionable earnings for members with more than 20 years of service. The additional 0.5% or 1.0%, depending on the service band, is kept separate for purposes of determining any amount under the minimum guarantee since these additional amounts are not factored into the calculation. Brescia University College contributes 6.0% of pensionable earnings. Huron University College contributes 7.0% of member pensionable earnings. The University is also required to make additional contributions as are necessary to fund the minimum pension benefits for Special Members. The contributions of each member and the University's basic contributions on the member's behalf are credited to an individual account in the member's name and accumulate with net investment earnings. The value of this account is fully vested upon retirement, termination of employment or death before retirement. The member's defined contribution account balance at retirement can be applied to purchase a life annuity for the member. Alternatively, the member may transfer their account balance to a locked-in retirement account, life income fund or locked-in retirement income fund.
Retirement Dates	Normal Retirement Date ▪ The normal retirement date is the first day of the month coincident with or next following the member's 65th birthday. Early Retirement Date ▪ The member may choose to retire as early as age 55. Postponed Retirement Date ▪ An active member may postpone retirement beyond the normal retirement date but must commence receiving pension benefits from the Plan no later than the end of the calendar year in which the member attains age 71.

Minimum Guaranteed Pension	The minimum guaranteed pension at Normal Retirement Date is equal to: 2.0% of the member's best average 5 year earnings multiplied by the number of years of eligible service, to a maximum of 35 years Less 0.7% of such average earnings up to the YMPE in the year of retirement times the years of eligible service after January 1, 1966 The minimum guaranteed pension may not exceed the lesser of 2% of the member's best 5 year average earnings and $1,715, multiplied by the number of years of eligible service to a maximum of 35 years. If a member retires early, the minimum guaranteed pension is subject to a reduction of 0.375% for each month by which the early retirement date precedes the normal retirement date. The normal form of payment is a lifetime pension guaranteed for five years. However, the member may elect to receive an optional form of pension on an actuarial equivalent basis. The Special Member shall be entitled to the excess, if any, of the minimum guaranteed pension over the pension provided by the member's regular account (excluding the additional 0.5% or 1.0% as applicable) and any pension payable to the Special Member under the Prior Pension Plan. For retiring Special Members whose minimum pension exceeds the basic pension provided from the member's regular account, the member's entire pension is paid directly from the pension fund.

Appendix G

Employer Certification

With respect to the report on the actuarial valuation of the University of Western Ontario Pension Plan for Members of the Administrative Staff, as at December 31, 2009,
I hereby certify that, to the best of my knowledge and belief:

- the valuation reflects the Employer's decisions in regards to determining the solvency funding requirements.
- a copy of the official plan documents and of all amendments made up to December 31, 2009, were provided to the actuary and is reflected appropriately in the summary of plan provision contained herein,
- the asset information summarised in Appendix B is reflective of the Plan's assets,
- the membership data provided to the actuary included a complete and accurate description of every person who is entitled to benefits under the terms of the Plan for service up to December 31, 2009, and
- all events subsequent to December 31, 2009 that may have an impact on the pension plan have been communicated to the actuary.

Date	Signed
	Name

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