

Valuation of Insurance Operations

April 10-11, 2000 Regal Riverfront Hotel St. Louis, Missouri



How To Do A Valuation

Orin M. Linden, Ph.D., FCAS, MAAA

Objectives

- Generally we estimate a reasonable range of fair market value for 100% of the shareholders' equity of an insurance carrier as of a fixed point in time
- Valuations may be done for active carriers as well as run-off situations.
- Valuations can be done for entire groups as a single entity. Alternatively, subsidiaries and affiliates may be done separately by entity.
- Often a valuations is done for a single member of a group or, solely for a block of business.

Purposes and Key Premises

• The *premise of value* is fair market value. For purposes of analysis, fair market value is defined as:

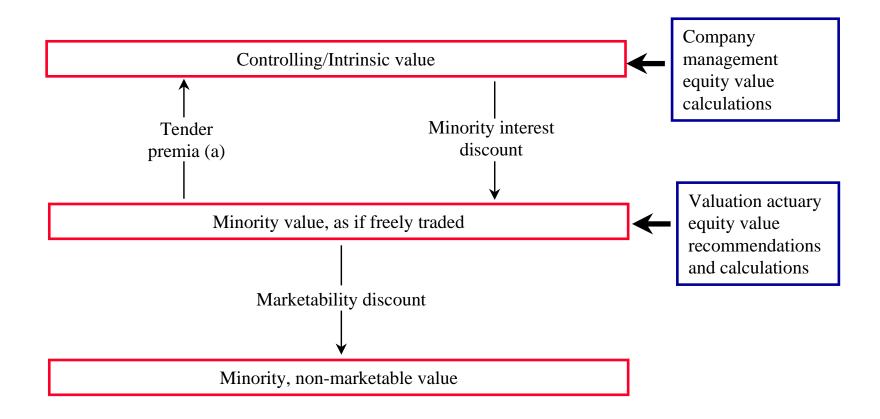
...the price at which stock would change hands between a willing buyer and a willing seller, neither being under compulsion to buy or sell and both having reasonable knowledge of all relevant facts as of the applicable valuation date.

- The *level of value* at which we estimate as fair market value is minority and marketable. As such, future earnings potential (inclusive of franchise value) is considered in the Estimation of fair market value. However, acquisition or tender premium are not normally considered at this level of value. Accordingly, in our valuation analysis we consider the future earnings potential of each as well as the franchise value.
- As with most economic events, market forces set the actual purchase price. Our efforts are usually to make an estimate of the actual purchase price and of intrinsic economic value. There are times where a valuation of an entity's purchase price will be materially different (higher or lower) than the actual price due to market conditions.

Uses of a Valuation

- A buyer seeking advice as to value of a target
- A seller seeking advice as to value of a group or a spin-off (including a block of business)
- Tax issues, e.g., 338 h(10) elections
- State insurance departments for a demutualization
- Fairness opinions for stock (or policy) holders
- Other miscellaneous reasons that pop up from time to time (e.g., minority shareholder buyout, executive retirement, phantom stock plan, etc.)

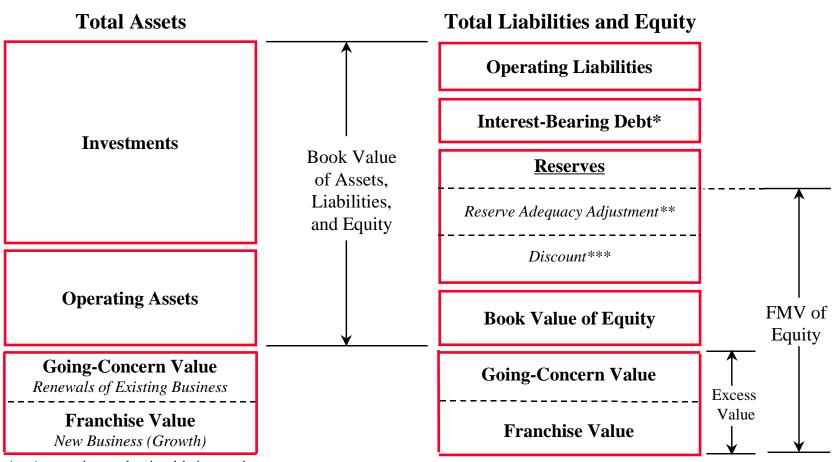
Shareholders' Levels of Value



Notes:

(a) Typical tender premia for publicly-traded insurance companies may range from 20% to 30%.

Components of Value



^{*} Assumes interest-bearing debt is at market rates.

^{**} Reserve Adequacy Adjustment is defined as the difference between the book value of reserves and an actuarial best estimate, net of applicable taxes.

^{***} Discount relates to present value effects of paying incurred claims in the future, net of applicable taxes.

Valuation Methodologies

Guideline Company Method

The Guideline Company Method compares the subject company's risk profile and growth prospects to selected reasonably similar (or "guideline") publicly-traded companies. Valuation multiples are selected for various financial performance measures and applied to the subject company. These multiples estimate value by computing actual trading ratios of stock market prices to such indices as capital and surplus or earnings.

Similar Transactions Method

This is similar to the Guideline Company Method. In the Similar Transactions Method, consideration is given to prices paid in recent transactions, and the resulting multiples therefrom, that have occurred in the subject company's industry or in related industries. Valuation multiples are selected and applied to the subject company.

Actuarial Method

The Actuarial Method considers value to be the sum of: (i) adjusted statutory net worth ("Market Value Surplus"), (ii) the estimated net present value of insurance contracts inforce (including existing loss reserves), and (iii) the value of future business capacity (i.e., insurance contracts expected to be generated in the future).

Insurance market selection criteria

- Use companies that predominantly have insurance carrier-related activities.
- Attempt to find companies with similar size and characteristics (Geographics, lines of business, Distribution system, etc.)
- The companies must be publicly traded.
- Adequate financial information about the company was available. (Stock price, beta, annual statements, etc.
- Premium for control is not addressed in this method.
- Hard to adjust if proposed savings/operational changes are to be incorporated.

		Comp				
Insurance market comparative ratios ^(a)	Target	Median	Co 1	Co 2	Co 3	Co 4
<u>Profitability</u>						_
Return on Equity	23.0%	12.7%	17.3%	6.1%	12.6%	12.8%
EBIT Margin	11.9%	39.5%	47.9%	28.9%	31.1%	49.1%
Net Income Margin	7.8%	37.1%	43.8%	17.7%	30.3%	45.3%
Operating Margin	-40.3%	11.6%	11.4%	2.7%	11.7%	19.0%
Combined Ratio	135.2%	89.0%	89.6%	89.6%	88.3%	86.4%
T						
<u>Leverage</u>	00.70/	55.10/	55.50/	54.5 0/	50 00/	52.00/
Total Liabilities / Total Assets	89.7%	55.1%	55.7%	54.5%	73.0%	53.9%
Net Premiums Written / Shareholders' Equity	130.4%	26.6%	22.5%	30.7%	32.5%	13.8%
Loss Reserves / Shareholders' Equity	1158.0%	79.3%	94.1%	12.8%	125.4%	64.5%
Growth Analysis						
4-Year Compounded Revenue Growth	24.2%	25.3%	27.2%	23.4%	43.7%	17.8%
4-Year Compounded EBIT Growth (b)	14.9%	27.6%	37.6%	1.1%	17.6%	44.4%
4-Year Compounded Shareholders' Equity Growth	5.0%	25.5%	35.9%	20.5%	19.5%	30.4%
Loss and LAE Reserve Growth	9.5%	107.7%	74.2%	214.3%	141.2%	0.3%
AM Best Rating	A (c)		A++ r	not rated (c)	A+	A ++
S&P Rating (debt)	Aa2(c)		A2	A1	Aa2	not rated (c)
S&P Rating (financial strength)	Aa2(c)		Aa2	Aa2	A1	not rated (c)

Notes

⁽a) Ratios are for the latest twelve months, except where indicated.

⁽b) Company 2 is a three year compounded growth rate.

⁽c) Company 2 and Company 4 are not rated based on insufficient data.

Insurance market multiples

Valuation Multiples	Co 1	Co 2	Co 3	Co 4
Earnings Multiples				
TIC / EBIT	8.1	11.7	10.5	10.1
MVE / Projected 1999 net income	12.9	8.7	9.9	13.0
MVE / Net income	8.5	15.6	9.1	10.5
Balance Sheet Multiples				
TIC / Total assets	0.7	0.5	0.4	0.7
MVE / Book equity	1.5	1.1	1.3	1.4
	Range		Average	Median
	Range Low	High	Average Multiple	Median Multiple
Earnings Multiples		High	O	
Earnings Multiples TIC / EBIT		High 11.7	O	
9 1	Low		Multiple	Multiple
TIC / EBIT	Low 8.1	11.7	Multiple 10.1	Multiple 10.3
TIC / EBIT MVE / Projected 1999 net income	8.1 8.7	11.7 13.0	Multiple 10.1 11.1	10.3 11.4
TIC / EBIT MVE / Projected 1999 net income MVE / Net income	8.1 8.7	11.7 13.0	Multiple 10.1 11.1	10.3 11.4

 $TIC = Total \ Invested \ Capital; \ MVE = Market \ Value \ of \ Equity; \ EBIT = Earnings \ Before \ Interest \ and \ Taxes.$

Insurance market recommended range of fair market value as of December 31, 1998 (\$US in Million's)

	Range of I	M ultiple s	Company	Range of Ente	rprise Value	Interest Bearing	M inority	Range of Eq	uity Value
Valuation M ultiples	Low	High	D a ta	Low	High	D e b t	Interest	Low	High
Earnings Multiples									
TIC / EBIT	11.0	12.0	\$200	\$2,200	\$2,400	(\$100)	(\$300)	\$1,800	\$2,000
MVE / Projected 1999 net income (a)	13.0	14.0	100	1,300	1,400	n/a	n/a	1,300	1,400
MVE / Net income	12.0	13.0	150	1,800	1,950	n/a	n/a	1,800	1,950
Balance Sheet Multiple									
MVE / Book equity	1.5	1.7	600	900	1,020	n/a	n/a	900	1,020

Notes:

All information is based on undiscounted financial data.

TIC = Total Invested Capital; MVE = Market Value of Equity; EBIT = Earnings Before Interest and Taxes.

⁽a) Future net income is based on 1999 forecast

Similar Transactions Method

Insurance market selection criteria

- Similar to Guideline Company Method but uses recent transactions to estimate multipliers
- Generally requires that 100% of the target's shareholders' equity was acquired in each transaction and that the general terms of the transactions are publicly available.
- As with Guideline Company Method we attempt to restrict our multiplier computations to companies that appear "similar".
- Has the advantage that the specific issue of premium for control is implicitly computed but suffers from similar disadvantages.

Similar Transactions Method

Insurance market selected transactions

					Multiples of total inve	sted value ("TIC") to:	Multiples of equ	ity value to:	
Effective .			Transactio	on Values			Book	Net	Tender
Transaction date	Acquirer	Target	TIC	Equity	Revenue	EBIT	Equity	income	Premium
10/25/96	Munich Reinsurance	A merican Re Corp. \$	3,836	\$ 3,761	2.0	nmf	4.5	n m f	n m f
10/02/96	General Re Corp.	National Re Corp.	1,095	881	2.7	13.2	2.9	17.0	61%
06/11/97	Exel, Ltd.	GCR Holdings, Ltd.	687	637	4.5	7.3	1.6	7.0	19%
08/10/98	Exel, Ltd.	Mid Ocean Ltd.	2,977	2,899	4.7	11.5	2.2	11.8	22%
open	Exel, Ltd.	NAC Re Corp.	1,183	1,183	1.6	8.4	1.6	12.4	18%
				Low (a)	1.6	7.3	1.6	7.0	18%
				High (a)	4.7	13.2	2.9	17.0	61%
				Average (a)	3.4	10.1	2.1	12.1	30%
				Median (a)	3.6	10.0	1.9	12.1	21%

Notes:

(a) All multiples exclude American Re.

TIC = total invested capital; EBIT = earnings before interest and taxes.

Source of data: Securities Data Corporation / Houlihan, Lokey, Howard & Zukin / Conning & Company / Bloomberg.

Actuarial Methodology General Approach

The Actuarial Method considers value to be:

- Market Value of Surplus (adjusted Stautory net worth)
 Plus ("+")
- Net Present Value of After-Tax Future Earnings of future and in-force insurance contracts

• Net Present Value of Opportunity Cost of Capital Needed to Support Underwriting

Actuarial Methodology Sources of Data

- Statutory financial statements: generally at least five years by entity and consolidated
- GAAP financial statements
- Informational interviews with the senior management the nature and operations of the entities under study including:
 - historical financial performance
 - any existing business plans, future performance estimates, and budgets; and
 - the operating and risk characteristics of the entities and associated cash flows.
- Actuarial studies for loss reserving, pricing etc.
- Lapse rate information for Policy counts, premium dollars and agent/broker relationships
- Reinsurance schedules and policies as needed

Actuarial Methodology

Surplus Considerations

- Book value of statutory surplus value is the amount reported in balance sheet of the Statutory Annual Statement
- Market value of surplus is calculated as follows:
 - Bonds are marked-to-market;
 - Provisions for deferred acquisition costs are removed;
 - Non-admitted assets are added back to the extent that they have value;
 - Provision for value of licenses
 - Charge for Schedule P penalties and unauthorized reinsurance added back to the extent appropriate;

Actuarial Methodology Surplus Considerations (cont.)

- Market value of surplus is calculated as follows (cont.):
 - Loss and LAE reserves at actuarial "best estimate" compared to booked reserves
 - Loss and LAE reserves are undiscounted (except as allowable by law);
 - Reflect appropriate tax considerations;
 - Special surplus adjustments include:
 - Parental reinsurance expected to be gone;
 - Off-balance sheet transactions.

Actuarial Methodology *Net Present Value of Future Earnings*

- Project all future earnings from insurance operations: run-off of loss and LAE reserves, run-off of unearned premium reserves, renewals and new business.
- Follow statutory accounting as statutory accounting dictates when profits can be released.
- Future earnings considerations:
 - Based on both historical experience of insurer and reasonable anticipated results;
 - Projected future profit stream discounted at an appropriate risk-related rate of return;
 - Allows for recognition of investment income and deferred acquisition costs as earned under statutory accounting;
 - Considers investment income using current rates; and
 - Any "survivable" tax characteristics are reflected.

Actuarial Methodology Net Present Value of Future Earnings (cont.)

• Growth

- Management has ability to maintain reasonable growth in premium volume without adversely affecting profitability; and
- Assumed equal premium rate adequacy of new and renewal business segments.
- Payout Pattern need to estimate at best estimate
 - In our example, payments were assumed to be made at mid-year, and investment income was assumed to be earned at mid-year, as a surrogate for continuous payments for earnings;
 - Run-off of loss reserves and projected incurred losses were distributed to project payment year according to the selected payout pattern.
- Investment Income Rate In our example we have assumed that the U.S. Long Term Treasury Bond rate at time of valuation was 6.0%

Actuarial Methodology Net Present Value of Future Earnings (cont.)

- Discount Rate In our example, based on CAPM
- Opportunity Cost of Capital
 - Cost of capital assumes: capital = 1/3 of written premium (minimum). This may be greater than estimated risk-based capital requirements.
 - Assumed cost of capital = WACC, and treated as an expense for tax effecting.

Actuarial Methodology Opportunity Cost of Capital

- The opportunity cost of capital reflects lost opportunity of higher profits if capital were free to be invested at higher yields.
- Insurance capital and surplus must be invested in low yield assets having minimal return risk.
- As the opportunity cost of capital is a form of lost profits, it is treated as an expense and is tax-effected.

Weighted Average Cost of Capital

Insurance market

Insurers require capital to support their writings. Capital can be raised in many ways but, they generally reduce to debt or equity. In performing an actuarial valuation the cost of capital must be specifically considered as an actual cost since the actual surplus of the company is separately valued without regard to restriction for this purpose.

In our example The Weighted Average Cost of Capital ("WACC") analysis is utilized to estimate an appropriate discount rate. (Note: Other choices are possible.) The WACC measures a company's cost of debt and equity financing weighted by the percentage of debt and percentage of equity in a company's target capital structure. Arithmetically, the formula for calculating the after-tax WACC is:

After-Tax WACC =
$$(k_d \times (1-T) \times D/(D+E)) + (k_e \times E/(D+E))$$

where:

 k_d = Cost of debt financing (based on targets actual borrowing rate)

 k_e = Cost of equity financing (in our examples we utilize CAPM)

D = Estimated market value (or book value) of debt

E = Estimated market value of equity

T = Assumed tax rate

Risk Related Rate of Return

Cost of Equity

To estimate the cost of equity financing (rate of return that an investor would likely expect for investments of similar risk, our example utilizes the Capital Asset Pricing Model ("CAPM"). (Note: Other choices are possible.) The CAPM measures the return required by investors given the company's risk profile. This model is expressed arithmetically by the following equation:

$$k_e = r_f + (\beta x rp_m) + rp_s + \alpha$$

where:

k_e = Cost of equity financing r_f = Risk-free rate of return

 β = Beta representing level of non-diversifiable risk

 $rp_m = Market equity risk premium$

rp_s = Small stock equity risk premium

 α = Unsystematic risk factor

Weighted Average Cost of Capital

Low Range	ook value	M arket value	Effective	Levered	Unlevered
Selected data for subject company	of debt 5.0%	of equity 95.0%	tax rate 20.0%	beta 	Beta 0.9
After-Tax Cost of Equity:					
Relevered beta using selected data for subject company					0.9
Equity risk premium (a)					8.0%
Company risk premium					7.5%
add: Risk free rate: return on long-term Treasury bonds (b)					5.1%
Unadjusted after-tax cost of equity					12.6%
add: Small company risk premium (c)					0.5%
add: Unsystematic risk factor (d)					0.0%
Subtotal, after-tax cost of equity					13.1%
After-Tax Cost of Debt:					
Pretax cost of debt (e)					6.6%
Estimated effective tax rate					20.0%
Subtotal, after-tax cost of debt					5.3%
Weighted Average Cost of Capital					
		Type of		A fter-Tax	Weighted
	_	Financing	% of Total	Cost	Cost
		Equity	95.0%	13.1%	12.4%
		Debt	5.0%	5.3%	0.3%
			100%		12.7%
				Rounded	13%
Notes:					
(a) Source: Ibbotson.					
(b) Source: Federal Reserve Bank of St. Louis as of December 31, 1998.					
(c) Source: Ibbotson.					
(d) Qualitative adjustment based on company-specific/future performance estimates	te factors.				
(e) Source: Federal Reserve Bank of St. Louis as of December 31, 1998.					

High Range

Notes:
(a)
(b)
(c)
(d)
(e)

Weighted Average Cost of Capital

Selected data for subject company 5.0% 95.0% 20.0%	0.9
	0.9
After-Tax Cost of Equity:	0.9
Relevered beta using selected data for subject company	
Equity risk premium (a)	8.0%
Company risk premium	7.5%
add: Risk free rate: return on long-term Treasury bonds (b)	5.1%
Unadjusted after-tax cost of equity	12.6%
add: Small company risk premium (c)	0.5%
add: Unsystematic risk factor (d)	2.0%
Subtotal, after-tax cost of equity	15.1%
After-Tax Cost of Debt:	
Pretax cost of debt (e)	6.6%
Estimated effective tax rate	20.0%
Subtotal, after-tax cost of debt	5.3%
Weighted Average Cost of Capital	
Type of After-Ta:	Weighted
Financing % of Total Cos	Cost
Equity 95.0% 15.1%	14.3%
Debt <u>5.0%</u> 5.3%	0.3%
<u>100%</u>	14.6%
Rounded	15%
<u>:</u>	
Source: Ibbotson.	
Source: Federal Reserve Bank of St. Louis as of December 31, 1998.	
Source: Ibbotson.	
Qualitative adjustment based on company-specific/future performance estimate factors.	
Source: Federal Reserve Bank of St. Louis as of December 31, 1998.	

Total Assets

The Personal Automobile Insurance Company Statutory Balance Sheet As of 12/31/99 (\$Millions)

ASSETS	LIABILITIES			
Bonds	3,000	Loss & LAE reserve	1,800	
Other Assets (includes reinsurance	2,300	Unearned premium reserve	849	
receivable on paid loss)		Schedule P Penalty	200	
		Policyholders' Surplus	2,451	

5,300

Total Liabilities

As shown on pages 2 and 3 of PAIC's 1999 Statutory Annual Statement.

5,300

The Personal Automobile Insurance Company Information You Have Gathered As of 12/31/99 (\$Millions)

	1995	1996	1997	1998	1999	
Gross Written Premium	2,250	2,750	3,250	3,750	4,250	
Gross Earned Premium	2,000	2,500	3,000	3,500	4,000	
Loss/LAE Ratio	80.0%	100.0%	50.0%	50.0%	60.0%	Taken from your loss reserve study
Commission (to WP)	10.0%	13.0%	15.0%	10.0%	10.0%	
Other U/W expense (to EP)	15.0%	12.0%	10.0%	9.0%	11.0%	
Accident year loss payout pattern	Year 1	Year 2	Year 3	Year 4	Year 5	
Incremental	30.0%	25.0%	20.0%	15.0%	10.0%	Taken from your loss reserve study
Cumulative	30.0%	55.0%	75.0%	90.0%	100.0%	
Renewal Rates						
Policies	70.0%	60.0%	70.0%	70.0%	70.0%	Taken from your loss reserve study
Premium	60.0%	50.0%	90.0%	90.0%	80.0%	Taken from your loss reserve study
Income Tax Rate	20.0%	20.0%	25.0%	30.0%	30.0%	

Notes: The following were based upon management interviews

No tax carryforwards exists. Company has paid no taxes in 5 years due to prior ${\bf r}$

carryforwards now exhausted

Reinsurance: 25% quota share, all years

For 1995-1997 Dead Re (now in liquidation) participated at 20% [for total of 5.0% (.25 x .20)]

PAIC believes that they will ultimately recover all of this so the balance sheet has no adjustment.

To date, nothing has been recovered.

PAIC recently renegotiated its agency contracts.

PAIC has non-admitted assets of \$400. Deferred acquisition expenses are \$100.

Market value of bonds are \$2,700.

The Personal Automobile Insurance Company Run-Off Of Loss/LAE Reserves As of 12/31/99 (\$Millions)

Accident <u>Year</u>	Gross Earned <u>Premium</u> (1)	Est. Ult. Loss/LAE <u>Ratio</u> (2)	Gross Ultimate Loss/LAE (3)=(1)x(2)	Net Ultimate Loss/LAE (4)=(3)x75%	Net Paid <u>Loss/LAE</u> (5)	Estimated Net O/S Loss/LAE (6)=(4)-(5)	Held Net O/S Loss/LAE (7)	Reserve Redundancy/ (Deficiency) (8)=(7)-(6)
1995	2,000	80.0%	1,600	1,200	1,200	-	-	-
1996	2,500	100.0%	2,500	1,875	1,688	188	146	(42)
1997	3,000	50.0%	1,500	1,125	844	281	218	(63)
1998	3,500	50.0%	1,750	1,313	722	591	459	(132)
1999	4,000	60.0%	2,400	1,800	540	1,260	978	(282)
Total	15.000		9.750	7.313	4.993	2.319	1.800	(519)

Notes: (1), (5) and (7) taken from annual statement

⁽²⁾ based upon actuarial study

	Cumulative					
Accident	Payout	Pr	ojected Payme	ent Year		
<u>Year</u>	<u>Pattern</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>Totals</u>
1995	100.0%	-				-
1996	90.0%	188	-			188
1997	75.0%	169	113	-		281
1998	55.0%	263	197	131	-	591
1999	30.0%	450	360	270	180	1,260
Total		1,069	669	401	180	2,319
					Held Loss/LAE	1,800
			Net Loss/I	_AE Reserve R	edundancy (Deficiency)	(519)

The Personal Automobile Insurance Company Uncollectible Reinsurance As of 12/31/99 (\$Millions)

Accident <u>Year</u>	Gross Ultimate <u>Loss/LAE</u> (1)	Dead Re R/I <u>Percentage</u> (2)	Dead Re Ultimate Loss/LAE (3)=(1)x(2)	Dead Re Paid <u>Loss/LAE</u> (4)	Dead Re O/S <u>Loss/LAE</u> (5)=(3)-(4)
1995	1,600	5.0%	80	80	-
1996	2,500	5.0%	125	113	13
1997	1,500	5.0%	75	56	19
1998	1,750	0.0%	-	-	-
1999	2,400	0.0%	-	-	-
Total	9,750		280 \$	249	31

Results in

- (1) Asset write-off of \$249
- (2) Liability loss/LAE reserve increase of \$31
- (3) Total Loss/LAE reserve deficiency is thus \$551 [i.e. \$519 + \$31]

Notes: (1) based upon actuarial study

(2),(4) taken from annual statement, management interviews and

review of reinsurance contracts

	Cumulative					
Accident	Payout	Pr	ojected Payme			
<u>Year</u>	<u>Pattern</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>Totals</u>
1995	100.0%	-				-
1996	90.0%	13				13
1997	75.0%	11	8			19
1998	55.0%	-	-	-		-
1999	30.0%	-	-	-	-	-
Total		24	8	-	-	31

Payment of Loss/LAE reserves Including uncollectible reinsurance

	Pr	ojected Payme	ent Year		
All Accident Years	2000	<u>2001</u>	2002	<u>2003</u>	<u>Totals</u>
Loss/LAE Runoff	1,069	669	401	180	2,319
Uncollectible Reinsurance	24	8	-	-	31
Total	1,093	677	401	180	2,351

The Personal Automobile Insurance Company Computation of Future Profits - Loss/LAE Reserve Runoff As of 12/31/99 (\$Millions)

	1999	2000	2001	2002	2003	2004	Total
Loss/LAE Reserves BOY		2,351	1,258	581	180	-	
Paid Loss/LAE		1,093	677	401	180	-	
Loss/LAE Reserves EOY	2,351	1,258	581	180	-	-	
Underwriting Cash Flow		(1,093)	(677)	(401)	(180)	-	(2,351)
Net Underwriting Profit		-	-	-	-	-	-
Investment Income @ 6.0%		108	55	23	5	-	192
Discounted Pre-Tax Profits @ 14.0%		95	42	15	3		156
Total Profits, After Tax @ 25.0%		71	32	12	2	-	\$ 117

Asset: Future profit In loss/LAE reserves

Notes: (1) Why we don't discount loss/LAE reserves

(2) Allows us to take risk into account

The Personal Automobile Insurance Company Runoff of Unearned Premium Reserve As of 12/31/99 (\$Millions)

	<u>1999</u>	<u>2000</u>	<u>2001</u>	2002	<u>2003</u>	<u>2004</u>	<u>Total</u>
Net Written Premium		-					
Net Unearned Prem. Reserve	849	-					
Net Earned Premium		849					
Loss/LAE Ratio		80.0%					
Commission %		10.0%					
Other U/W expense %		10.0%					
Net Incurred Loss		679					679
Commissions (to WP)		-					-
Other U/W expenses (to EP)		85					85
Net Underwriting Profit		85					85
Incremental Payout Pattern		30.0%	25.0%	20.0%	15.0%	10.0%	
Loss/LAE Reserves BOY		-	475	306	170	68	
Paid Loss/LAE		204	170	136	102	68	679
Loss/LAE Reserves EOY	-	475	306	170	68	0	
Underwriting Cash Flow		(289)	(170)	(136)	(102)	(68)	(764)
Investment Income @ 6.0%		42	23	14	7	2	89
Total Profits, Before Tax		127	23	14	7	2	174
Discounted Pre-Tax Profits @ 14.0%		112	18	10	4	1	145
Total Profits, After Tax @ 25.0%		84	14	7	3	1	\$ 108

Asset: Future profit in unearned premium reserves

Notes:

Commission uses latest ratio (10.0%) due to renegotiation Other u/w expense uses latest 2 year average ratio (10.0%) to earned premium

The Personal Automobile Insurance Company **Adjusted Balance Sheet** As of 12/31/99 (\$Millions)

ASSETS		LIABILITIES	
Bonds	2,700	Loss & LAE reserve	2,351
Other Assets (includes reinsurance	2,051	Unearned premium reserve	849
receivable on paid loss)		Schedule P Penalty	-
Non-Admitted Assets	400	Policyholders' Surplus	1,952
Total Assets	5,151	Total Liabilities	5,151

Notes:

- 1) Book value of bonds of 3,000 adjusted to market value of 2,700
- 2) Other assets of 2,300 reduced for uncollectible reinsurance of 249
- 3) Held loss/LAE reserves of 1,800 adjusted for reserve deficiency of 519 and outstanding uncollectible reinsurance of 31
- 4) Policyholders' surplus of 2,451 adjusted for market value of surplus, uncollectible reinsurance, non-admitted assets and Schedule P penalty

The Personal Automobile Insurance Company Projection of Future Earnings As of 12/31/99 (\$Millions)

	1999	2000	2001	2002	2003	2004
Gross Written Premium		4,750	5,250	5,750	6,250	6,750
Net Written Premium		3,563	3,938	4,313	4,688	5,063
Net Unearned Prem. Reserve	-	949	1,049	1,149	1,249	1,348
Net Earned Premium		2,614	3,838	4,213	4,588	4,963
Loss/LAE Ratio		80.0%	100.0%	50.0%	50.0%	60.0%
Commission %		10.0%	10.0%	10.0%	10.0%	10.0%
Other U/W expense %		10.0%	10.0%	10.0%	10.0%	10.0%
Net Incurred Loss		2,091	3,838	2,106	2,294	2,978
Commissions (to WP)		356	394	431	469	506
Other U/W expenses (to EP)		261	384	421	459	496
Net Underwriting Profit		(95)	(778)	1,254	1,366	983

Notes:

UEPR percentage is 26.6% i.e. (849/(4,250x0.75))

Only 73.4% [i.e. (1-0.266)] of 2000 new written premium is earned in year $\,$

Commission uses latest ratio (10.0%) due to renegotiation

Other u/w expense uses latest 2 year average ratio (10.0%) to earned premium

The Personal Automobile Insurance Company Computation of Future Business Loss Payments and Reserves As of 12/31/99 (\$Millions)

	Estimated	Cumulative					
Accident	Ultim a te	Payout		Projecte	d Payment Ye	ear	
<u>Year</u>	Loss/LAE	<u>Pattern</u>	<u>2000</u>	2001	2002	<u>2003</u>	2004
2000	2,091	30.0%	627	523	418	314	209
2001	3,838	55.0%		1,151	959	768	576
2002	2,106	75.0%			632	527	421
2003	2,294	90.0%				688	573
2004	2,978	100.0%					893
Totals			627	1,674	2,009	2,296	2,673

The Personal Automobile Insurance Company Computation of Future Profits As of 12/31/99 (\$Millions)

	1999	2000	2001	2002	2003	2004	<u>Total</u>
Net Incurred Loss		2,091	3,838	2,106	2,294	2,978	
Loss/LAE Reserves BOY		-	1,464	3,627	3,724	3,722	
Paid Loss/LAE		627	1,674	2,009	2,296	2,673	
Loss/LAE Reserves EOY	-	1,464	3,627	3,724	3,722	4,027	
Unearned Premium Reserve	-	949	1,049	1,149	1,249	1,348	
Underwriting Cash Flow		2,318	1,486	1,451	1,464	1,387	
Net Underwriting Profit		(95)	(778)	1,254	1,366	983	2,730
Investment Income @ 6.0%		70	189	324	336	340	1,259
Total Profits, Before Tax		(25)	(588)	1,578	1,703	1,322	3,989
Total Profits, After Tax @ 25.0%		(19)	(441)	1,183	1,277	992	2,992
Discounted After-Tax Profits @ 14.0%		(17)	(339)	799	756	515	1,714
Average After Tax Profits						598	
Value of Perpetuity at 14.0%						4,274	
Discounted Value of Perpetuity at 14.0%						2,220	2,220
Total Discounted, After Tax Profits		(17)	(339)	799	756	2,735	\$ 3,934
Renewal Percentage		0.740	0.548	0.405	0.300	0.222	
Value of pure renewal business		(12)	(186)	324	227	607	\$ 959
Value of pure new business		(4)	(154)	475	529	2,128	\$ 2,975

Notes:

Discounted value of perpetuity = $4,274 \times (1.14)^{-5}$

The Personal Automobile Insurance Company Computation of Future Profits Cost of Capital As of 12/31/99

(\$Millions)

Net Written Premium NWP / 3 Cost of Capital @ 8.0%	2000 3,563 1,188 (95)	2001 3,938 1,313 (105)	2002 4,313 1,438 (115)	2003 4,688 1,563 (125)	2004 5,063 1,688 (135)	<u>Total</u>
Cost of Capital, After Tax @ 25.0% Discounted After-Tax Cost of Capital @ 14.0%	(71) (63)	(79) (61)	(86) (58)	(94) (56)	(101) (53) (86)	(431) (289)
Average After Tax Cost of Capital Value of Perpetuity at 14.0% Discounted Value of Perpetuity at 14.0% Total Discounted, After Tax Cost of Capital	(63)	(61)	(58)	(56)	(616) (320) (373)	(320) \$ (609)

Notes:

Discounted value of perpetuity = $-616 \times (1.14)^{-5}$

The Personal Automobile Insurance Company Summary of Results As of 12/31/99 (\$Millions)

Adjusted Surplus	1.952
Aujusieu Guipius	1,33

Future Profits

Loss Reserves117Unearned premium Reseves108Renewals959Pure New Business2,975Cost of Capital(609)

Totals 3,550

Total Economic Value 5,501

Multipliers

To Surplus 2.245
To Adjusted Surplus 2.819

Comments:

No Value for Licenses

Terminal annuity for new business could be increasing

Can differ discount rates by type of future profit

Limitations

- 1. This report has been prepared solely for the purpose stated, and should not be used for any other purpose. Neither this report nor any portions thereof shall be copied or disseminated through advertising, public relations, news, sales, Securities and Exchange Commission disclosure documents or any other public (or private) media without the express written approval of Ernst & Young LLP.
- 2. The recommendations and calculations contained herein are not intended to represent the values of the subject company at any time other than the effective date that is specifically stated in this report. Changes in market conditions could result in recommendations of value substantially different than those presented at the stated effective date. We assume no responsibility for changes in market conditions or for the inability of the owner to locate a purchaser of the subject company at the values stated herein.
- 3. In the course of our analysis, we were provided with written information, oral information, and/or data in electronic form (e.g., computer diskettes), related to the structure, operation, and financial performance of the subject company. We have relied upon this information in our analyses and in the preparation of this report, and have not independently verified its accuracy or completeness.
- 4. Certain historical financial data used in our valuation engagement were derived from audited financial statements and are the responsibility of management. The financial statements include disclosures required by generally accepted accounting principles. Those disclosures required are not repeated herein, and those who are not informed about such matters should refer to the reviewed financial statements. In addition, certain historical financial data used in our valuation engagement were provided by management and are unaudited. We have not independently verified the accuracy or completeness of the data provided and do not express an opinion or offer any form of assurance regarding its accuracy or completeness.
- 5. No responsibility is assumed for information furnished by others (including target company management), and such information is believed to be reliable.
- 6. The estimates of cash flow data provided by the subject company, and included herein, are solely for use in the valuation analysis and are not intended for use as forecasts or projections of future operations. We have not performed an examination or compilation of the accompanying cash flow data in accordance with standards prescribed by the American Institute of Certified Public Accountants, and, accordingly, do not express an opinion or offer any form of assurance on the accompanying cash flow data or their underlying assumptions. Furthermore, there will usually be differences between estimated and actual results because events and circumstances frequently do not occur as expected, and those differences may be material.
- 7. The value calculation contained herein are based, in part, on the subject company's estimate of ultimate insurance underwriting losses. All actuarial data provided to us and reported in the financial statements of the subject company are the responsibility of the management of the subject company. We have not independently verified the accuracy or completeness of the data and do not express an opinion or offer any other form of assurance regarding its accuracy or completeness. Inherent in the estimate of ultimate losses are expected trends in claim severity and frequency and other factors which may vary significantly as estimated future claims are settled. Accordingly, ultimate losses may be materially less than or greater than the amount relied upon in our analysis.

Limitations (cont.)

- 8. Our report assumes full compliance with all applicable federal, state and local zoning, usage, environmental and similar laws and regulations, unless otherwise stated.
- 9. We assume no responsibility for any financial and tax reporting judgments, which are appropriately those of management. It is our understanding that management accepts the responsibility for any financial statement and tax reporting issues with respect to the assets covered by our analysis, and for the ultimate use of our analysis and report.
- 10. This presentation does not comprise a Comprehensive Written Business Valuation Report as set forth in BVS-VIII, as of January 1994 by the Business Valuation Committee of the American Society of Appraisers ("ASA") and approved by the ASA Board of Governors. Segments consisting of detailed description concerning the history and nature of the business, industry and economic outlook, and financial analysis have been omitted from this presentation. The data underlying these sections will be retained in the working papers and will be made available upon written request.
- 11. The recommendations of value contained herein do not take into account any potential liability to the subject company from computer malfunctions, errors, or other problems associated with not being Year 2000 compliant. Furthermore, we have not considered (unless otherwise described in this presentation) any potential costs or expenses associated with bringing the computer systems or other software of the subject company into Year 2000 compliance. It is recommended that the appropriate experts be retained to investigate and determine to what extent, if any, there are costs and/or potential liabilities for not being Year 2000 compliant.