

Fair Value

A111. The fair value concepts and techniques described in Basic Issue 11 may be unfamiliar to some readers. This section of the Appendix includes several illustrations that the Steering Committee hopes will aid readers in understanding the basic computations and implications of differing views about fair value.

A112. The illustrations that follow are highly simplified pictures of an insurer that sells one-year general insurance contracts. The following assumptions apply to all of illustrations A51-A69:

- (a) the insurer collects a premium of 1,000 on the first day of year 1;
- (b) the insurer immediately invests the premium in 4-year bonds with an annual coupon of 7 percent;
- (c) the insurer expects to pay claims of 1,150 at the end of year 4, however, the amount finally paid may vary based on the severity and frequency of insured events;
- (d) the risk-free rate of interest is 5 percent;
- (e) the insurer's borrowing rate is 5.5 percent;
- (f) the yield curve to 4 years is flat throughout the period covered by the illustrations; and
- (g) interest rates do not change during the 4-year period.

Illustrations A51-A69 are designed to represent the relationships among financial statement elements and the consequences of differing views. The assumptions and amounts used in the illustrations that follow are not designed to represent real-world conditions and should not be taken as such. For example, insurers are rarely able to invest in instruments that return 200 basis points over the risk-free rate. Such an investment policy might trigger imposition of regulatory capital requirements, which are not considered in these illustrations.

A113. The appendix includes the following illustrations:

- (a) a hypothetical regulatory accounting model (Illustration A51);
- (b) measurements of the liability using estimated claim payments (without adjustment for risk) (Illustrations A52-A55);
- (c) measurements in which the fair value of the insurer's assets changes in year 2 (Illustrations A56-A60);

- (d) measurements of the liability that incorporate an adjustment for risk (Illustrations A61-A64); and
- (e) measurements of the liabilities for a participating contract (Illustrations A65-A69).

Illustrations of Basic Methods

A114. Illustration A51 portrays a hypothetical regulatory basis of accounting for the contracts described above. In this illustration, the regulator requires that the insurer record its claim liability based on the undiscounted sum of estimated future claim payments. The regulator also requires that the insurer hold assets with a fair value equal to the balance of the liability. Any assets in excess of that amount are considered distributable and, in these illustrations, are assumed to be distributed on the last day of the year. Any shortfall must be funded through the contribution of additional assets.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-	-	-	-	-
Premiums received	1,000	1,000	-	-	-
(Purchase)/Sale of investments	(1,150)	(1,150)	-	-	1,150
Interest received		81	81	81	81
Contribution/(Distribution)	150	69	(81)	(81)	(81)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	-	-	-
BALANCE SHEET					
Cash	-	-	-	-	-
Investments	1,150	1,150	1,150	1,150	-
Liability for unpaid claims	(1,150)	(1,150)	(1,150)	(1,150)	-
Equity	-	-	-	-	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(81)	(81)
(Gain)/Loss on investments	-				
Claim expense, claim element	1,150	1,150	-	-	-
Claim expense, interest element	-	-	-	-	-
Net (income)/loss	150	69	(81)	(81)	(81)

Illustration A51 - Hypothetical Regulatory Basis

A115. The regulatory accounting conventions in Illustration A51 are a necessary contrivance. They do not represent the requirements of any particular jurisdiction, nor do they represent any view of requirements that regulators should adopt. The embedded-value method (Illustration A54) reports the insurer's liability based on the amount required

by the regulator and records an asset based on the present value of distributable amounts. To illustrate that method, it was necessary to create a hypothetical regulatory framework.

A116. In Illustration A52, the balance of the insurer's liability is equal to the estimated claim payments (1,150) discounted at the **risk-free rate of interest** (5 percent); the liability measurement is independent of the assets held by the insurer. Adopting this measurement for financial reporting purposes, however, does not change the amount of assets that the regulator requires the insurer to hold and, as a consequence, the amounts of contribution or distribution. The cash flow summary is unchanged from Illustration A51.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-	-	-	-	-
Premiums received	1,000	1,000	-	-	-
(Purchase)/Sale of investments	(1,150)	(1,150)	-	-	1,150
Interest received	-	81	81	81	81
Contribution/(Distribution)	150	69	(81)	(81)	(81)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	-	-	-
BALANCE SHEET					
Cash	-	-	-	-	-
Investments	1,150	1,150	1,150	1,150	-
Liability for unpaid claims	(946)	(993)	(1,043)	(1,095)	-
Equity	(204)	(157)	(107)	(55)	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(81)	(81)
(Gain)/Loss on investments	-	-	-	-	-
Claim expense, claim element	946	946	-	-	-
Claim expense, interest element	-	47	50	52	55
Net income	(54)	(88)	(31)	(29)	(26)

Illustration A52 - Liability Measured Using Risk-Free Rate

A117. In Illustration A53, the balance of the insurer's liability is equal to the estimated claim payments (1,150) discounted at the expected rate of return on invested assets (7 percent); the liability measurement incorporates the return on assets held by the insurer. Adopting this measurement for financial reporting purposes, however, does not change the amount of assets that the regulator requires the insurer to hold and, as a consequence, the amounts of contribution or distribution. The cash flow summary is unchanged from Illustration A51.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-	-	-	-	-
Premiums received	1,000	1,000	-	-	-
(Purchase)/Sale of investments	(1,150)	(1,150)	-	-	1,150
Interest received	-	81	81	81	81
Contribution/(Distribution)	150	69	(81)	(81)	(81)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	-	-	-
BALANCE SHEET					
Cash	-	-	-	-	-
Investments	1,150	1,150	1,150	1,150	-
Liability for unpaid claims	(877)	(938)	(1,004)	(1,074)	-
Equity	(273)	(212)	(146)	(76)	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(81)	(81)
(Gain)/Loss on investments	-	-	-	-	-
Claim expense, claim element	877	877	-	-	-
Claim expense, interest element	-	61	66	70	76
Net income	(123)	(143)	(15)	(11)	(5)

Illustration A53 - Liability Measured Using Asset-Based Rate

A118. In Illustration A54, the insurer employs an embedded-value approach. This approach is sometimes used today in presenting supplementary disclosure for life insurers. Its use in a general-insurance environment is unusual, but there is no conceptual reason why its use should be limited to estimating the fair value of life insurance assets and liabilities. The insurer records a liability measured at the amount required by the regulatory authority. The insurer also records an asset at the present value of future distributable income. In this illustration, the embedded-value asset is computed using the asset-based discount rate of 7 percent.³ As in previous illustrations, the accounting measurements adopted for financial reporting purposes do not change the amounts required by the regulator.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-	-	-	-	-
Premiums received	1,000	1,000	-	-	-
(Purchase)/Sale of investments	(1,150)	(1,150)	-	-	1,150
Interest received	-	81	81	81	81
Contribution/(Distribution)	150	69	(81)	(81)	(81)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	-	-	-
BALANCE SHEET					
Cash	-	-	-	-	-
Investments	1,150	1,150	1,150	1,150	-
Embedded value asset	273	212	146	76	-
Liability for unpaid claims (regulatory basis)	(1,150)	(1,150)	(1,150)	(1,150)	-
Equity	(273)	(212)	(146)	(76)	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(81)	(81)
Change in embedded value asset	(273)	(212)	66	70	76
Claim expense, claim element	1,150	1,150	-	-	-
Claim expense, interest element	-	-	-	-	-
Net income	(123)	(143)	(15)	(11)	(5)

Illustration A54 - Embedded-Value Approach

³ The embedded-value approach is usually applied using a risk-adjusted discount rate. Illustrations later in this appendix will show the role of risk adjustments for each method.

A119. Illustration A55 compares the first four illustrations in this series. As expected, each of the three approaches to estimating fair value produces a gain on the sale of the insurance contracts. The two approaches that use an asset-based discount rate produce more reported income in year 1 and lower reported income in future years, however, the total amount of reported income (174) is not affected by the accounting method used.

A120. Readers will also note that, before the addition of risk adjustments, a direct approach and an embedded-value approach produce the same net liability and pattern of reported income. Before the addition of risk adjustment, the two methods are conceptually identical approaches to the same objective of incorporating expected investment returns in the measurement of the insurer's net liability.

Methodology	Basic Models			
	<u>Regulatory Illustration A51</u>	<u>Direct Illustration A52</u>	<u>Direct Illustration A53</u>	<u>Embedded Value Illustration A54</u>
Measurement uses this rate	na	5% risk-free	7% asset-based	7% asset-based
Risk adjustment incorporated in	na	na	na	na
Unrealized loss in year 2	na	na	na	na
Year 2 activity				
Reported amount of liability	(1,150)	(1,043)	(1,004)	(1,150)
Embedded value asset	-	-	-	146
Net liability	<u>(1,150)</u>	<u>(1,043)</u>	<u>(1,004)</u>	<u>(1,004)</u>
Net income before adjustment	(81)	(31)	(15)	(15)
Unrealized loss on investments	-	-	-	-
Adjustment to net liability measurement	-	-	-	-
Net (income)/loss	<u>(81)</u>	<u>(31)</u>	<u>(15)</u>	<u>(15)</u>
Reported net (income)/loss				
Beginning of year 1	<u>150</u>	<u>(54)</u>	<u>(123)</u>	<u>(123)</u>
End of year 1	69	(88)	(143)	(143)
End of year 2	(81)	(31)	(15)	(15)
End of year 3	(81)	(29)	(11)	(11)
End of year 4	<u>(81)</u>	<u>(26)</u>	<u>(5)</u>	<u>(5)</u>
Total	<u>(174)</u>	<u>(174)</u>	<u>(174)</u>	<u>(174)</u>

Illustration A55 - Summary 1, Approaches Compared

Change in the Fair Value of the Insurer's Assets

A121. The next series of illustrations change the assumptions slightly. In year 2, a change in interest rates causes the fair value of the insurer's investments to decline. The change is a result of a shift in the sector spread that the market demands for investments of this type and is not accompanied by a shift in the risk-free rate of interest. The investments mature as expected and pay the full amount due at maturity.

A122. Illustration A56 shows the reaction of the hypothetical regulatory system to an unrealised investment loss at the end of year 2. In this jurisdiction, the regulator does not allow a company to report unrealised gains and losses as income or expense. The regulator requires the insurer to commit additional assets to support the book of contracts so that the fair value of the investments is again equal to the carrying amount of the liability. The new assets, displayed here as cash, are assumed to earn interest at the new market rate of 9 percent.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-		-	40	21
Premiums received	1,000	1,000	-	-	-
(Purchase)/Sale of investments	(1,150)	(1,150)	-	-	1,150
Interest received	-	81	81	85	83
Contribution/(Distribution)	150	69	(41)	(104)	(104)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	40	21	-
BALANCE SHEET					
Cash	-	-	40	21	-
Investments	1,150	1,150	1,150	1,150	-
Unrealized loss on investments	-	-	(40)	(21)	-
Liability for unpaid claims	(1,150)	(1,150)	(1,150)	(1,150)	-
Equity	-	-	(40)	(21)	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(85)	(83)
(Gain)/Loss on investments	-	-	-	-	-
Claim expense, claim element	1,150	1,150	-	-	-
Claim expense, interest element	-	-	-	-	-
Net (income)/loss	150	69	(81)	(85)	(83)

Illustration A56 - Regulatory Basis, Unrealised Investment Loss in Year 2

A123. Illustration A57 shows the financial picture that develops when the measurement of the liability is independent of the assets held by the insurer. Under the assumptions for this series of illustrations, the risk-free rate of interest used to measure the liability does not change. The value of the assets does change and the unrealised loss is reported, for purposes of illustration, in net income.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-		-	40	21
Premiums received	1,000	1,000	-	-	-
(Purchase)/Sale of investments	(1,150)	(1,150)			1,150
Interest received	-	81	81	85	83
Contribution/(Distribution)	150	69	(41)	(104)	(104)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	40	21	-
BALANCE SHEET					
Cash	-		40	21	-
Investments	1,150	1,150	1,150	1,150	-
Unrealized loss on investments	-	-	(40)	(21)	-
Liability for unpaid claims	(946)	(993)	(1,043)	(1,095)	-
Equity	(204)	(157)	(107)	(55)	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(85)	(83)
(Gain)/Loss on investments	-	-	40	(19)	(21)
Claim expense, claim element	946	946	-	-	-
Claim expense, interest element	-	47	50	52	55
Net (income)/loss	(54)	(88)	9	(52)	(49)

**Illustration A57 - Liability Measured Using Risk-Free Rate
Unrealised Investment Loss in Year 2**

A124. The net loss of 9 in year 2 is characteristic of what some consider a “measurement mismatch.” Those who take this view might accept the importance of reporting assets at fair value. However, they observe that the change in market value of the assets did not (in this illustration) alter the insurer’s ability to pay claims. They reason that the liability measurement should change as the value of assets committed to fund the liability changes.

A125. Illustration A58 shows the same situation, but with the liability measured using current rates of return on the insurer's assets. The carrying amount of the liability at the end of years 2 and 3 is the present value of estimated claims, discounted at the current rate of 9 percent. The resulting change in the liability measurement largely offsets the unrealised loss on assets and eliminates what some consider a measurement mismatch in year 2.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-	-	-	40	21
Premiums received	1,000	1,000	-	-	-
(Purchase)/Sale of investments	(1,150)	(1,150)	-	-	1,150
Interest received	-	81	81	85	83
Contribution/(Distribution)	150	69	(41)	(104)	(104)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	40	21	-
BALANCE SHEET					
Cash	-	-	40	21	-
Investments	1,150	1,150	1,150	1,150	-
Unrealized loss on investments	-	-	(40)	(21)	-
Liability for unpaid claims	(877)	(938)	(968)	(1,055)	-
Equity	(273)	(212)	(182)	(95)	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(85)	(83)
(Gain)/Loss on investments	-	-	40	(19)	(21)
Claim expense, claim element	877	877	-	-	-
Claim expense, interest element	-	61	30	87	95
Net income	(123)	(143)	(11)	(17)	(9)

**Illustration A58 - Liability Measured Using Asset-Based Rate,
Unrealised Investment Loss in Year 2**

A126. Illustration A59 shows the affect of an unrealised loss on the embedded-value method. The recorded amount of the liability (which is based on the amount required by the regulator) does not change. The amount of the embedded-value asset changes to reflect both the change in interest rates and the change in distributable amounts.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-	-	-	40	21
Premiums received	1,000	1,000	-	-	-
(Purchase)/Sale of investments	(1,150)	(1,150)	-	-	1,150
Interest received	-	81	81	85	83
Contribution/(Distribution)	150	69	(41)	(104)	(104)
Claims paid	-	-	-	-	(1,150)
Ending balance	<u>-</u>	<u>-</u>	<u>40</u>	<u>21</u>	<u>-</u>
BALANCE SHEET					
Cash	-	-	40	21	-
Investments	1,150	1,150	1,150	1,150	-
Unrealized loss on investments	-	-	(40)	(21)	-
Embedded value asset	273	212	182	95	-
Liability for unpaid claims (regulatory basis)	<u>(1,150)</u>	<u>(1,150)</u>	<u>(1,150)</u>	<u>(1,150)</u>	<u>-</u>
Equity	<u>(273)</u>	<u>(212)</u>	<u>(182)</u>	<u>(95)</u>	<u>-</u>
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(85)	(83)
Loss/(Gain) on investments	-	-	40	(19)	(21)
Change in embedded value asset	(273)	(212)	30	87	95
Claim expense, claim element	1,150	1,150	-	-	-
Claim expense, interest element	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Net income	<u>(123)</u>	<u>(143)</u>	<u>(11)</u>	<u>(17)</u>	<u>(9)</u>

**Illustration A59 - Embedded-Value Approach
Unrealised Investment Loss in Year 2**

A127. Illustration A60 compares Illustrations A57-A59. As noted earlier:

- (a) the unrealised loss does not affect the amount of income reported under the hypothetical regulatory regime or the mandated measurement of the liability. However, the regulator requires the insurer to commit additional assets to support the book of contracts;
- (b) the unrealised loss does not affect the amount of liability reported in Illustration A57;
- (c) adjustments to the liability in Illustration A58 and the embedded-value asset in Illustration A59 largely offset the unrealised loss in year 2; and
- (d) the total amount of reported income is slightly higher than before, as a result of interest earned on additional assets contributed in year 2.

Methodology	Unrealized Loss in Year 2			
	<u>Regulatory Illustration A56</u>	<u>Direct Illustration A57</u>	<u>Direct Illustration A58</u>	<u>Embedded Value Illustration A59</u>
Measurement uses this rate	na	5% risk-free	7% asset-based	7% asset-based
Risk adjustment incorporated in	na	na	na	na
Unrealized loss in year 2	40	40	40	40
Year 2 activity				
Reported amount of liability	(1,150)	(1,043)	(968)	(1,150)
Embedded value asset	-	-	-	182
Net liability	<u>(1,150)</u>	<u>(1,043)</u>	<u>(968)</u>	<u>(968)</u>
Net income before adjustment	(81)	(31)	(15)	(15)
Unrealized loss on investments	-	40	40	40
Adjustment to net liability measurement	-	-	(36)	(36)
Net (income)/loss	<u>(81)</u>	<u>9</u>	<u>(11)</u>	<u>(11)</u>
Reported net (income)/loss				
Beginning of year 1	<u>150</u>	<u>(54)</u>	<u>(123)</u>	<u>(123)</u>
End of year 1	69	(88)	(143)	(143)
End of year 2	(81)	9	(11)	(11)
End of year 3	(85)	(52)	(17)	(17)
End of year 4	<u>(83)</u>	<u>(49)</u>	<u>(9)</u>	<u>(9)</u>
Total	<u>(180)</u>	<u>(180)</u>	<u>(180)</u>	<u>(180)</u>

Illustration A60 - Summary 2, Unrealised Investment Loss in Year 2

Adjustments for Risk

A128. The next series of illustrations eliminates the unrealised loss and adds the notion of an adjustment for risk. In a fair-value measurement system, each period's liability measurement would reflect current assumptions about claim payments, interest rates, and risk adjustment. For purposes of illustration, the examples in this series assume that risk diminishes rateably over time on an interest adjusted basis, consistent with the behaviour of the claim liability.

A129. In Illustration A61, the insurer's management concludes that a marketplace adjustment for risk would raise the estimated claims from 1,150 to 1,200. Stated differently, another insurer would demand compensation for bearing the risk that claims might be 1,500 instead of the expected 1,150. The price of that risk can be expressed as an upward adjustment to estimated claims, as in this illustration, or a downward adjustment in the discount rate.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-	-	-	-	-
Premiums received	1,000	1,000	-	-	-
(Purchase)/Sale of investments	(1,150)	(1,150)	-	-	1,150
Interest received	-	81	81	81	81
Contribution/(Distribution)	150	69	(81)	(81)	(81)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	-	-	-
BALANCE SHEET					
Cash	-	-	-	-	-
Investments	1,150	1,150	1,150	1,150	-
Liability for unpaid claims	(946)	(993)	(1,043)	(1,095)	-
Risk provision	(41)	(31)	(21)	(11)	-
Equity	(163)	(126)	(86)	(44)	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(81)	(81)
(Gain)/Loss on investments	-	-	-	-	-
Claim expense, claim element	946	946	-	-	-
Claim expense, interest element	-	47	50	52	55
Claim expense, risk element	41	31	(10)	(10)	(11)
Net income	(13)	(57)	(41)	(39)	(37)

**Illustration A61 - Liability Measured Using Risk-Free Rate,
Measurement Includes an Adjustment for Risk**

A130. In Illustration A62, the insurer makes the same risk adjustment of 50 to estimated claims, but computes the present value of that adjustment using the asset-based discount rate of 7 percent.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-	-	-	-	-
Premiums received	1,000	1,000	-	-	-
(Purchase)/Sale of investments	(1,150)	(1,150)	-	-	1,150
Interest received	-	81	81	81	81
Contribution/(Distribution)	150	69	(81)	(81)	(81)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	-	-	-
BALANCE SHEET					
Cash	-	-	-	-	-
Investments	1,150	1,150	1,150	1,150	-
Liability for unpaid claims	(877)	(938)	(1,004)	(1,074)	-
Risk provision	(38)	(29)	(20)	(10)	-
Equity	(235)	(183)	(126)	(66)	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(81)	(81)
(Gain)/Loss on investments	-	-	-	-	-
Claim expense, claim element	877	877	-	-	-
Claim expense, interest element	-	61	66	70	76
Claim expense, risk element	38	29	(9)	(10)	(10)
Net income	(85)	(114)	(24)	(21)	(15)

**Illustration A62 - Liability Measured Using Asset-Based Rate
Measurement Includes an Adjustment for Risk**

A131. In Illustration A63, the insurer adjusts for risk by altering the interest rate used to measure the embedded-value asset from 7 percent to 10 percent.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-	-	-	-	-
Premiums received	1,000	1,000	-	-	-
(Purchase)/Sale of investments	(1,150)	(1,150)	-	-	1,150
Interest received	-	81	81	81	81
Contribution/(Distribution)	150	69	(81)	(81)	(81)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	-	-	-
BALANCE SHEET					
Cash	-	-	-	-	-
Investments	1,150	1,150	1,150	1,150	-
Embedded value asset	257	201	141	74	-
Liability for unpaid claims (regulatory basis)	(1,150)	(1,150)	(1,150)	(1,150)	-
Equity	(257)	(201)	(141)	(74)	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(81)	(81)
Change in embedded value asset	(257)	(201)	60	67	74
Claim expense, claim element	1,150	1,150	-	-	-
Claim expense, interest element	-	-	-	-	-
Net income	(107)	(132)	(21)	(14)	(7)

**Illustration A63 - Embedded-value Approach,
Measurement Includes an Adjustment for Risk**

A132. Illustration A64 compares the results of different approaches to adjusting for risk in the estimate of fair value. The regulatory approach is included here for purposes of comparison, although the hypothetical regulatory scheme included in this Appendix does not have an explicit adjustment for risk.

A133. Readers will note that the measurements in Illustrations A62 and A63 are no longer the same. The difference arises from the approach to the risk adjustment. In Illustration A62, the entire adjustment is placed in the estimate of future claim payments, while in Illustration A63 the adjustment is placed in the discount rate used to measure the embedded-value asset. The dynamics of compound interest computations make it unlikely that those two approaches would ever produce the same result. The two approaches also lead to significantly different reported leverage (gearing). The embedded-value approach could be adjusted to result in approximately the same measurements produced by a risk adjustment to estimated claims (Illustration A62). However, in these illustrations, that would require a risk-adjusted discount rate of about 16 percent - a rate adjustment well in excess of that typically employed in existing applications of embedded-value measurements.

Methodology	Including Adjustment for Risk			
	<u>Regulatory Illustration A50</u>	<u>Direct Illustration A61</u>	<u>Direct Illustration A62</u>	<u>Embedded Value Illustration A63</u>
Measurement uses this rate	na	5% risk-free	7% asset-based	10% risk-adjusted
Risk adjustment incorporated in	na	estimated claims	estimated claims	interest rate
Unrealized loss in year 2	na	na	na	na
Year 2 activity				
Reported amount of liability	(1,150)	(1,064)	(1,024)	(1,150)
Embedded value asset	-	-	-	141
Net liability	<u>(1,150)</u>	<u>(1,064)</u>	<u>(1,024)</u>	<u>(1,009)</u>
Net income before adjustment	(81)	(31)	(15)	(15)
Unrealized loss on investments	-	-	-	-
Adjustment to net liability measurement	-	(10)	(9)	(6)
Net (income)/loss	<u>(81)</u>	<u>(41)</u>	<u>(24)</u>	<u>(21)</u>
Reported net (income)/loss				
Beginning of year 1	<u>150</u>	<u>(13)</u>	<u>(85)</u>	<u>(107)</u>
End of year 1	69	(57)	(114)	(132)
End of year 2	(81)	(41)	(24)	(21)
End of year 3	(81)	(39)	(21)	(14)
End of year 4	<u>(81)</u>	<u>(37)</u>	<u>(15)</u>	<u>(7)</u>
Total	<u>(174)</u>	<u>(174)</u>	<u>(174)</u>	<u>(174)</u>

Illustration A64 - Summary 3, Addition of an Adjustment for Risk

Application to a Participating Contract

A134. The final series of illustrations in this section portray the application of different estimates of fair value to a participating contract. In Illustration A65, the insurer issues participating contracts. By regulation, the insurer is required to distribute 70 percent of accumulated profit to policyholders at the end of year 4. The regulator requires that the insurer hold assets with a fair value equal to the policy liability and any accumulated liability for policyholder dividends.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-	-	-	8	57
Premiums received	1,000	1,000	-	-	-
Purchase of investments	(1,150)	(1,150)	-	(8)	(57)
Sale of investments	-	-	-	-	1,215
Interest received		81	81	81	85
Contribution/(Distribution)	150	69	(73)	(24)	(25)
Policyholder dividends paid					(125)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	8	57	-
BALANCE SHEET					
Cash	-	-	8	57	-
Investments	1,150	1,150	1,150	1,158	-
Liability for policyholder dividends	-	-	(8)	(65)	-
Liability for unpaid claims	(1,150)	(1,150)	(1,150)	(1,150)	-
Equity	-	-	-	-	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(81)	(85)
(Gain)/Loss on investments	-				
Claim expense, claim element	1,150	1,150	-	-	-
Claim expense, interest element	-	-	-	-	-
Net income before dividends	150	69	(81)	(81)	(85)
Provision for policyholder dividends	-	-	8	57	60
Net (income)/loss	150	69	(73)	(24)	(25)

**Illustration A65—Hypothetical Regulatory Basis
Participating Contracts**

A135. Illustration A66 shows the estimated fair value of the insurer's liabilities, including an adjustment for risk, with the discount rate set at the risk-free rate of interest. Just as the reported claim liability differs from the regulatory requirement, the liability for policyholder dividends represents the portion (70 percent) of income reported in the financial statements that is ultimately distributable as policyholder dividends.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-	-	-	8	57
Premiums received	1,000	1,000	-	-	-
Purchase of investments	(1,150)	(1,150)	-	(8)	(57)
Sale of investments	-	-	-	-	1,215
Interest received	-	81	81	81	85
Contribution/(Distribution)	150	69	(73)	(24)	(25)
Policyholder dividends paid	-	-	-	-	(125)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	8	57	-
BALANCE SHEET					
Cash	-	-	8	57	-
Investments	1,150	1,150	1,150	1,158	-
Liability for policyholder dividends	(9)	(40)	(69)	(96)	-
Liability for unpaid claims	(946)	(993)	(1,043)	(1,095)	-
Risk provision	(41)	(31)	(21)	(11)	-
Equity	(154)	(86)	(25)	(13)	-
	-	-	-	-	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(81)	(85)
(Gain)/Loss on investments	-	-	-	-	-
Claim expense, claim element	946	946	-	-	-
Claim expense, interest element	-	47	50	52	55
Claim expense, risk element	41	31	(10)	(10)	(11)
Net income before dividends	(13)	(57)	(41)	(39)	(41)
Provision for policyholder dividends	9	40	29	27	29
Net income	(4)	(17)	(12)	(12)	(12)

**Illustration A66 - Liability Measured Using Risk-Free Rate,
Measurement Includes an Adjustment for Risk
Participating Contracts**

A136. Illustration A67 portrays the same book of participating contracts, but with the liability computed using an asset-based discount rate.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-	-	-	8	57
Premiums received	1,000	1,000	-	-	-
Purchase of investments	(1,150)	(1,150)	-	(8)	(57)
Sale of investments	-	-	-	-	1,215
Interest received	-	81	81	81	85
Contribution/(Distribution)	150	69	(73)	(24)	(25)
Policyholder dividends paid	-	-	-	-	(125)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	8	57	-
BALANCE SHEET					
Cash	-	-	8	57	-
Investments	1,150	1,150	1,150	1,158	-
Liability for policyholder dividends	(60)	(80)	(97)	(112)	-
Liability for unpaid claims	(877)	(938)	(1,004)	(1,074)	-
Risk provision	(38)	(29)	(20)	(10)	-
Equity	(175)	(103)	(37)	(19)	-
	-	-	-	-	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(81)	(85)
(Gain)/Loss on investments	-	-	-	-	-
Claim expense, claim element	877	877	-	-	-
Claim expense, interest element	-	61	66	70	76
Claim expense, risk element	38	29	(9)	(10)	(10)
Net income before dividends	(85)	(114)	(24)	(21)	(19)
Provision for policyholder dividends	60	80	17	15	13
Net income	(25)	(34)	(7)	(6)	(6)

**Illustration A67 - Liability Measured Using Asset-Based Rate,
Measurement Includes an Adjustment for Risk
Participating Contracts**

A137. Illustration A68 shows the application of the embedded-value method, including an adjustment for risk, to the same book of participating contracts. In this method, both the claim liability and liability for policyholder dividends represent the amounts required by the regulator.

	Beginning of Year 1	End of Year 1	End of Year 2	End of Year 3	End of Year 4
CASH FLOW SUMMARY					
Beginning balance	-	-	-	8	57
Premiums received	1,000	1,000	-	-	-
Purchase of investments	(1,150)	(1,150)	-	(8)	(57)
Sale of investments	-	-	-	-	1,215
Interest received	-	81	81	81	85
Contribution/(Distribution)	150	69	(73)	(24)	(25)
Policyholder dividends paid	-	-	-	-	(125)
Claims paid	-	-	-	-	(1,150)
Ending balance	-	-	8	57	-
BALANCE SHEET					
Cash	-	-	8	57	-
Investments	1,150	1,150	1,150	1,158	-
Embedded value asset	169	106	42	23	-
Liability for policyholder dividends	-	-	(8)	(65)	-
Liability for unpaid claims (regulatory basis)	(1,150)	(1,150)	(1,150)	(1,150)	-
Equity	(169)	(106)	(42)	(23)	-
INCOME STATEMENT					
Premium revenue	(1,000)	(1,000)	-	-	-
Interest income	-	(81)	(81)	(81)	(85)
Change in embedded value asset	(169)	(106)	64	19	23
Claim expense, claim element	1,150	1,150	-	-	-
Claim expense, interest element	-	-	-	-	-
Net income before dividends	(19)	(37)	(17)	(62)	(62)
Provision for policyholder dividends	-	-	8	57	60
Net income	(19)	(37)	(9)	(5)	(2)

**Illustration A68 - Embedded-value Approach,
Measurement Includes an Adjustment for Risk
Participating Contracts**

Methodology	Participating Contracts			
	<u>Regulatory Illustration A65</u>	<u>Direct Illustration A66</u>	<u>Direct Illustration A67</u>	<u>Embedded Value Illustration A68</u>
Measurement uses this rate	na	5% risk-free	7% asset-based	10% risk-adjusted
Risk adjustment incorporated in	na	estimated claims	estimated claims	interest rate
Unrealized loss in year 2	na	na	na	na
Year 2 activity				
Reported amount of liability	(1,150)	(1,043)	(1,004)	(1,150)
Embedded value asset	-	-	-	42
Liability for policyholder dividends	(8)	(69)	(97)	(8)
Net liability	<u>(1,158)</u>	<u>(1,112)</u>	<u>(1,101)</u>	<u>(1,116)</u>
Net (income)/loss before dividends	(81)	(41)	(24)	(17)
Provision for policyholder dividends	<u>8</u>	<u>29</u>	<u>17</u>	<u>8</u>
Net (income)/loss	<u>(73)</u>	<u>(12)</u>	<u>(7)</u>	<u>(9)</u>
Reported net (income)/loss				
Beginning of year 1	<u>150</u>	<u>(4)</u>	<u>(25)</u>	<u>(19)</u>
End of year 1	69	(17)	(34)	(37)
End of year 2	(73)	(12)	(7)	(9)
End of year 3	(24)	(12)	(6)	(5)
End of year 4	<u>(25)</u>	<u>(12)</u>	<u>(6)</u>	<u>(2)</u>
Total	<u>(53)</u>	<u>(53)</u>	<u>(53)</u>	<u>(53)</u>

Illustration A69 - Summary 4, Participating Contracts

Reinsurance

- A138. Basic Issue 10 discusses reinsurance. The amount paid by a direct insurer to a reinsurer often differs from the carrying amount of related insurance liabilities. For example, a direct insurer might collect premiums of 1,000 and cede half of the insurance coverage for a reinsurance premium of 425. The half that is ceded has the same risk profile and other characteristics as the half that is retained. (In this example, the reinsurance premium is less than 50% of the premium on the direct insurance contract. There may be a number of reasons for this. For example, the direct insurer may need to cover the costs of an extensive sales network and the reinsurer does not.) Over the life of the contracts, the insurer incurs and pays claims of 950.
- A139. Illustration A70 shows the simple prospective reinsurance arrangement just described. The first two columns depict financial statements in which the ceding company recognises a gain for the difference between the reinsurance premium (425) and the related deferred premium (500). The final two columns depict financial statements in which the ceding company does not recognise a gain on inception. The illustration is not intended to indicate a preference for a particular method of presentation. Also, it does not address accounting for acquisition costs.
- A140. In Illustration A70, the ceding company purchased reinsurance at about the same time that it collected premiums from policyholders - a prospective reinsurance arrangement. However, many reinsurance arrangements are retroactive. The ceding company purchases reinsurance after insured events have occurred but before claims have settled, perhaps even before policyholders have presented claims. In Illustration A71, the ceding company purchases reinsurance at the end of the term of direct insurance contracts. As before, the first two columns show the ceding company recognising a gain when it pays the reinsurance premium.
- A141. The two illustrations portray reinsurance of general insurance contracts. Reinsurance of life insurance contracts is often more complex, owing to the long-term nature of life insurance. However, the underlying principles and issues are similar. The two illustrations also portray situations in which the ceding company expects the reinsured claims to equal or exceed the reinsurance premium. Most in the insurance industry agree that in the opposite case, in which the reinsurance premium exceeds the expected amount of reinsured claims, deferral is not appropriate. In that situation, the ceding company should re-evaluate its estimate of claims and recognise additional claim expense or a loss on the reinsurance contract.

	<u>Gain Recognised</u>		<u>Deferral</u>	
	<u>At Inception</u>	<u>End of Policy Term</u>	<u>At Inception</u>	<u>End of Policy Term</u>
Cash Flows				
Beginning balance	-	575	-	575
Premium received	1,000		1,000	
Reinsurance proceeds received		475		475
Reinsurance premium paid	(425)		(425)	
Claims paid	<u>-</u>	<u>(950)</u>	<u>-</u>	<u>(950)</u>
Ending balance	<u>575</u>	<u>100</u>	<u>575</u>	<u>100</u>
Balance Sheets				
Cash and investments	575	100	575	100
Reinsurance receivable	500		425	
Unearned premium	(1,000)		(1,000)	
Claims payable	-		-	
Equity	(75)	(100)	-	(100)
Income Statement				
Premium revenue		(1,000)		(1,000)
Reinsurance ceded		500		425
Gain on reinsurance	(75)			
Claim expense		950		950
Reinsurance proceeds	<u>-</u>	<u>(475)</u>	<u>-</u>	<u>(475)</u>
Net income	<u>(75)</u>	<u>(25)</u>	<u>-</u>	<u>(100)</u>

Illustration A70 - Prospective Reinsurance Arrangement, Ceding Insurer

	<u>Gain Recognised</u>		<u>Deferral</u>	
	<u>End of Policy Term</u>	<u>End of Payments</u>	<u>End of Policy Term</u>	<u>End of Payments</u>
Cash Flows				
Beginning balance	-	575	-	575
Premium received	1,000		1,000	
Reinsurance proceeds received		475		475
Reinsurance premium paid	(425)		(425)	
Claims paid	<u>-</u>	<u>(950)</u>	<u>-</u>	<u>(950)</u>
Ending balance	<u>575</u>	<u>100</u>	<u>575</u>	<u>100</u>
Balance Sheets				
Cash and investments	575	100	575	100
Reinsurance receivable	475		475	
Deferred gain on reinsurance	-		(50)	
Claims payable (IBNR)	(950)		(950)	
Equity	(100)	(100)	(50)	(100)
Income Statement				
Premium revenue	(1,000)	-	(1,000)	-
Reinsurance ceded	425	-	425	-
Claim expense	950	-	950	-
Reinsurance proceeds	<u>(475)</u>	<u>-</u>	<u>(425)</u>	<u>(50)</u>
Net income	<u>(100)</u>	<u>-</u>	<u>(50)</u>	<u>(50)</u>

Illustration A71 - Retroactive Reinsurance Arrangement, Ceding Insurer

Elimination of Internal Transactions

A142. Basic Issue 16 discusses whether the effect of transactions between different funds included in the financial statements of an insurer should be eliminated from those financial statements. Illustrations A72-A76 show the impact of a building that is owned by a policyholder fund and occupied by the insurer. Illustration A72 shows the balance sheet of an insurer before recording the rent paid by the stockholder fund to the policyholder fund.

	Units	Price	Stockholders	Unit linked	Total
Investments			100	5,000	5,100
Other assets			<u>200</u>	<u>500</u>	<u>700</u>
			<u>300</u>	<u>5,500</u>	<u>5,800</u>
Unit liabilities	1000	5.5	0	5,500	5,500
Share capital			75	0	75
Retained earnings			<u>225</u>	<u>0</u>	<u>225</u>
			<u>300</u>	<u>5,500</u>	<u>5,800</u>

Illustration A72 – Elimination of Internal Rent, Opening Balance Sheet

A143. In Illustrations A73-A74, the stockholder fund pays rent of 100 at arm's length prices to the unit linked fund. Option 1 in Illustration A73 shows the presentation if the transaction is not eliminated. Option 2 shows the presentation where rental income and rental expense are eliminated, but the increase in unit liabilities is recognised as it reflects the liability due to policyholders.

	Stockholders	Unit linked fund	Total Option 1	Elimination	Total Option 2
Rental income	-	100	100	(100)	-
Rental expense	100	-	(100)	100	-
Increase in unit liabilities	<u>-</u>	<u>(100)</u>	<u>(100)</u>	<u>-</u>	<u>(100)</u>
Net (expense)	<u>(100)</u>	<u>-</u>	<u>(100)</u>	<u>-</u>	<u>(100)</u>

Illustration A73 – Elimination of Internal Rent, Unit Linked Fund

A144. Whilst it is possible to eliminate the income earned by the unit linked fund against the expenditure incurred by the stockholders' fund in the profit and loss account, it is not possible to exclude the entire transaction from the financial statements as to do so would mean that the effect on unit liabilities would be ignored. The increase in the liabilities arising from transactions between different funds needs to be recognised in order that

policyholder liabilities are properly reflected. Illustration A74 shows the balance sheet following the transaction.

	Units	Price	Stockholders	Unit linked	Total
Investments			100	5,000	5,100
Other assets			100	600	700
			200	5,600	5,800
Unit liability	1000	5.6	0	5,600	5,600
Share capital			75	0	75
Retained earnings			<u>125</u>	<u>0</u>	<u>125</u>
			<u>200</u>	<u>5,600</u>	<u>5,800</u>

Illustration A74 - Elimination of Internal Rent, Balance Sheet of Unit-linked Insurer

A145. In Illustrations A75-A76, the stockholder fund pays rent of 100 at arm's length prices to a with-profits (participating) fund. Assume that policyholders and stockholders share bonus in the ratio 90:10. The balance sheet before the transaction is the same as in Illustration A72 (except that the policyholder liabilities are not made up of priced units). Option 1 in Illustration A75 shows the presentation if the transaction is not eliminated. Option 2 shows the presentation where income and expense items are eliminated, but the increase in policyholder liabilities is recognised.

	Stockholders fund	With profits fund	Total Option 1	Elimination	Total option 2
Rental income	-	100	100	(100)	-
Rental expense	(100)		(100)	100	-
Increase in policyholder liabilities	-	(90)	(90)	-	(90)
Allocation to stockholders	<u>10</u>	<u>(10)</u>	<u>-</u>	<u>-</u>	<u>-</u>
Net (expense)	<u>(90)</u>	<u>-</u>	<u>(90)</u>	<u>-</u>	<u>(90)</u>

Illustration A75 - Elimination of Internal Rent, With-Profits Fund

A146. The above example also illustrates that it is possible to eliminate the income earned by the with-profits fund against the expenses incurred by the stockholders' fund in the income statement. However it is not possible exclude the entire transaction from the financial statements as to do so would mean that the effect on policyholder liabilities would be ignored. Illustration A76 shows the balance sheet following the transaction.

	Stockholders	With profits fund	Total
Investments	100	5,000	5,100
Other assets	<u>100</u>	<u>600</u>	<u>700</u>
	<u>200</u>	<u>5,600</u>	<u>5,800</u>
Policyholder liabilities	0	5,590	5,590
Share capital	75	0	75
Retained earnings	<u>125</u>	<u>10</u>	<u>135</u>
	<u>200</u>	<u>5,600</u>	<u>5,800</u>

**Illustration A76 - Elimination of Internal Rent,
Balance Sheet of With Profits Fund**

A147. Similar issues arise with other transactions including purchase and sales of assets between policyholder and stockholder funds. Views have been taken in the UK to recognise profit on sale of assets when these are transferred to stockholder funds.

Illustrative Formats

A148. Illustrations A77–A82 illustrate possible formats for the balance sheet, income statement and cash flow statement of a general insurer and a life insurer.

General Insurance Formats

A149. Illustrations A 77-A79 show how a general insurer might present its balance sheet (Illustration A 77), income statement (Illustration A78) and cash flow statement (Illustration A79). They present three different approaches - a deferral and matching approach, an asset and liability approach and a fair value approach using an asset-based discount rate (all based on the example in Illustration A1). Readers will note small rounding differences in some of the Illustrations. The following features have been added to the amounts in Illustrations A1.

- (a) share capital of 5,000 (and investment return is increased accordingly);
- (b) reinsurance, 30% quota share;
- (c) risk adjustment of 500 at 31 December 1999 in the asset and liability and fair value approaches. This declines to 250 at 31 December 2000, because more information is available and this reduces the uncertainty. Risk adjustment of 250 at 31 December 1999 in the deferral and matching approach. The risk adjustment appears lower in this approach because it relates only to the amount shown as claims payable. In effect, the unearned premium provision in the deferral and matching approach already includes a margin to cover risk. Risk adjustment at 31 December 2000 – same as the other two approaches, because there is no longer any unearned premium provision to cover part of the risk margin);
- (d) discounting at 7.5% (asset-based rate) in the fair value approach, 5% (risk-free rate) in the other two approaches (as explained in Sub-issue 11G, Pending further discussion, the Steering Committee is evenly divided on whether the fair value of an insurer's liabilities incorporates the expected return on the insurer's assets. If fair value is based on a risk-free discount rate, the fair value approach would lead to the same results as the asset and liability approach in this example); and
- (e) changes in year 2000 in prior year estimates: 300 extra gross premium revenue and 125 additional gross claims, bringing total claims payable (including IBNR) to 10,125 before discounting.

A150. Other noteworthy points are as follows:

- (a) no new business is included for the year 2000, in order to demonstrate the accounting for a single block of policies over its period of cover;

- (b) in the deferral and matching approach, there is no premium deficiency on the facts as given, and so no need to establish an additional provision;
- (c) under the deferral and matching approach, unearned premium is shown on the face of the income statement as a deduction from premiums written. Sub-issue 19B discusses whether premiums and claims should be presented as a single item for premium revenue and a single item for claims expense, or as cash receipts and payments alongside movements on related asset and liabilities;
- (d) Illustration A77 shows provisions for risk and uncertainty on the face of the income statement, separately from the best estimate of claims expense. Illustration A78 presents provisions for risk and uncertainty as a component of claims payable. (For the convenience of readers of this Issues Paper, the balance sheet effect of provisions for risk and uncertainty and of discounting are shown at the foot of illustration A78) Sub-issue 20B discusses, among other things, whether IASC should require disclosure about provisions for risk and uncertainty;
- (e) Illustration A77 shows the presentation of other operating expenses and of income taxes (both assumed to be zero in this case); and
- (f) reinsurance is shown net in the income statement and gross in the balance sheet and cash flow statement (see Sub-issues 10C and 10D).

INCOME STATEMENT	Deferral/matching		Asset/liability		Fair value	
	31/12/99	31/12/00	31/12/99	31/12/00	31/12/99	31/12/00
Net premiums written	8,400	-	8,400	-	8,400	-
Net unearned premium provision	<u>(4,200)</u>	<u>4,200</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Net premiums earned	<u>4,200</u>	<u>4,200</u>	<u>8,400</u>	<u>-</u>	<u>8,400</u>	<u>-</u>
Net claims expense (after discounting)	(3,175)	(3,333)	(6,349)	-	(6,057)	-
Provisions for risk and uncertainty	<u>(175)</u>	<u>(175)</u>	<u>(350)</u>	<u>-</u>	<u>(350)</u>	<u>-</u>
Net claims expense (after risk)	<u>(3,350)</u>	<u>(3,508)</u>	<u>(6,699)</u>	<u>-</u>	<u>(6,407)</u>	<u>-</u>
Acquisition cost	<u>(500)</u>	<u>(500)</u>	<u>(1,000)</u>	<u>-</u>	<u>(1,000)</u>	<u>-</u>
Other operating expenses	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Sub-total	350	192	701	-	993	-
Changes in prior year estimates						
Net premium estimates	-	210	-	210	-	210
Net claims provision	-	(83)	-	(83)	-	(83)
Release from provisions for risk and uncertainty	<u>-</u>	<u>175</u>	<u>-</u>	<u>175</u>	<u>-</u>	<u>175</u>
Sub-total	<u>-</u>	<u>302</u>	<u>-</u>	<u>302</u>	<u>-</u>	<u>302</u>
Underwriting profit	350	494	701	302	993	302
Financing:						
Investment return	435	647	435	647	435	647
Unwinding of discount	<u>-</u>	<u>(159)</u>	<u>-</u>	<u>(318)</u>	<u>-</u>	<u>(453)</u>
Sub-total	<u>435</u>	<u>488</u>	<u>435</u>	<u>329</u>	<u>435</u>	<u>194</u>
Profit before tax	785	982	1,136	631	1,428	496
Income Taxes	-	-	-	-	-	-
Net profit for the period	785	982	1,136	631	1,428	496

A77 Illustrative Income Statement – General Insurance

BALANCE SHEET	Deferral/matching		Asset/liability		Fair value	
	31/12/99	31/12/00	31/12/99	31/12/00	31/12/99	31/12/00
Assets						
Investments	12,835	13,692	12,835	13,692	12,835	13,692
Reinsurers' share of:						
Unearned premium provision	1,800	-	-	-	-	-
Claims payable and IBNR	1,435	2,968	2,871	2,968	2,746	2,901
Deferred acquisition costs	<u>500</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Assets	16,570	16,660	15,706	16,660	15,581	16,593
Liabilities and Equity						
Share capital	5,000	5,000	5,000	5,000	5,000	5,000
Retained earnings:						
Brought forward	-	785	-	1,136	-	1,428
Current year result	<u>785</u>	<u>982</u>	<u>1,136</u>	<u>631</u>	<u>1,428</u>	<u>496</u>
Total equity	5,785	6,767	6,136	6,767	6,428	6,924
Unearned premium provision	6,000	-	-	-	-	-
Claims payable and IBNR	<u>4,785</u>	<u>9,893</u>	<u>9,570</u>	<u>9,893</u>	<u>9,153</u>	<u>9,669</u>
Total Liabilities	10,785	9,893	9,570	9,893	9,153	9,669
Total equity and liabilities	16,570	16,660	15,706	16,660	15,581	16,593
NOTES						
Claims payable and IBNR - undiscounted	5,000	10,125	10,000	10,125	10,000	10,125
Effect of discounting	(465)	(482)	(930)	(482)	(1,347)	(706)
Provision for risk and uncertainty	<u>250</u>	<u>250</u>	<u>500</u>	<u>250</u>	<u>500</u>	<u>250</u>
	<u>4,785</u>	<u>9,893</u>	<u>9,570</u>	<u>9,893</u>	<u>9,153</u>	<u>9,669</u>
Reinsurer's share of claims payable and IBNR:						
Claims payable and IBNR - undiscounted	1,500	3,038	3,000	3,038	3,000	3,038
Effect of discounting	(140)	(145)	(279)	(145)	(404)	(212)
Provision for risk and uncertainty	<u>75</u>	<u>75</u>	<u>150</u>	<u>75</u>	<u>150</u>	<u>75</u>
	<u>1,435</u>	<u>2,968</u>	<u>2,871</u>	<u>2,968</u>	<u>2,746</u>	<u>2,901</u>

A78 Illustrative Balance Sheet – General Insurance

CASH FLOW STATEMENT		
	31/12/99	31/12/00
Cash flows from operating activities:		
Gross premiums received	12,000	300
Reinsurance premiums paid	(3,600)	(90)
Gross claims paid	-	-
Reinsurance recoveries	-	-
Acquisition costs paid	(1,000)	-
Other operating costs paid	-	-
Net cash flows from operating activities	<u>7,400</u>	<u>210</u>
Cash flows from investing activities:		
Purchase of investments	(7,835)	(857)
Investment earnings	<u>435</u>	<u>647</u>
Net cash flows from financing activities	<u>(7,400)</u>	<u>(210)</u>
Net increase in cash and cash equivalents	<u>-</u>	<u>-</u>

A79 Illustrative Cash Flow Statement – General Insurance

Life Insurance Formats

A151. Illustrations A80-A82 show how a life insurer might present its balance sheet (Illustration A 80), income statement (Illustration A81) and cash flow statement (Illustration A82). They present four different approaches - a deferral and matching approach (based on amounts in Illustration A22), an asset and liability approach (based on amounts in Illustration A36) and two versions of a fair value approach (based on amounts in Illustration A38). One fair value approach uses a risk-free discount rate and the other uses an asset-based discount rate. (As explained in Sub-issue 11G, pending further discussion, the Steering Committee is evenly divided on whether the fair value of an insurer's liabilities incorporates the expected return on the insurer's assets.) Readers will note small rounding differences in some Illustrations.

A152. Other noteworthy points are as follows:

- (a) the amounts in Illustrations A22, A36 and A38 have been adjusted to include share capital of 5,000 and additional investment return of 350 (5,000 at 7%) in 1999. No additional investment return is included in 2000, because total equity in 2000 reflects the amount of capital required by the regulatory regime;
- (b) the contribution / distribution amount for 1999 and 2000 is the amount needed to bring investments held to the amounts of 8,951 and 16,341 respectively, which is the amount assumed to be required under the hypothetical regulatory regime underlying Illustrations A 36 and A38. It is assumed that this amount is not changed by the accounting method adopted for external financial reporting. It is also assumed that no cash is held;
- (c) under the asset and liability model, the policyholder-deposit balance in 1999 (nil) is a higher liability amount than the negative amount (asset) that arises on a policyholder-benefit basis. In line with the tentative Steering Committee view in Sub-issue 8D, this higher amount is recognised. In 2000, the policyholder-benefit balance (9,174) is recognised, because it is higher than the policyholder-deposit balance (5,244) – see Illustration A36;
- (d) Illustration A80 shows the presentation of other operating expenses and of income taxes (both assumed to be zero in this case); and
- (e) this example does not split investment return into portions attributable to policyholders and portion attributable to stockholders. To illustrate one possible presentation, the financing section of the income statement includes a line for stockholders' investment return. Sub-issue 18D discusses whether policyholder funds should be presented or disclosed separately. The “unwinding” of the discount on policyholder liabilities is included in the change in policyholder assets (in the operating section of the income statement); and

- (f) the income statement (Illustration A80) assumes that there are no changes in assumptions. Sub-issue 19D discusses whether these should be shown separately on the face of the income statement.

INCOME STATEMENT	Deferral/matching		Asset/liability		Fair value (1) (Risk-free rate)		Fair value (2) (Asset-based rate)	
	31/12/99	31/12/00	31/12/99	31/12/00	31/12/99	31/12/00	31/12/99	31/12/00
Premiums written	14,000	11,194	14,000	11,194	14,000	11,194	14,000	11,194
Claims expense	(421)	(1,126)	(421)	(1,126)	(421)	(1,126)	(421)	(1,126)
Expenses incurred	(12,277)	(1,270)	(12,277)	(1,270)	(12,277)	(1,270)	(12,277)	(1,270)
Deferred acquisition costs	9,712	(699)	-	-	-	-	-	-
Change in policyholder liabilities/assets	(8,457)	(6,566)	-	(9,176)	309	(9,485)	7,312	(8,904)
Other operating expenses	-	-	-	-	-	-	-	-
Investment return	<u>471</u>	<u>1,321</u>	<u>471</u>	<u>1,321</u>	<u>471</u>	<u>1,321</u>	<u>471</u>	<u>1,321</u>
Net operating income	3,028	2,854	1,773	943	2,082	634	9,085	1,215
Financing:								
Stockholders' investment return	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Profit before tax	3,028	2,854	1,773	943	2,082	634	9,085	1,215
Income Taxes	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Net profit for the period	<u>3,028</u>	<u>2,854</u>	<u>1,773</u>	<u>943</u>	<u>2,082</u>	<u>634</u>	<u>9,085</u>	<u>1,215</u>

Notes:

1. Other operating expenses and income taxes are nil in this example, but lines are included to illustrate possible presentation
2. This example does not split investment return into portions attributable to policyholders and portion attributable to stockholders.
To illustrate one possible presentation, a line for stockholders' investment return is included in the financing section.

A80 Illustrative Income Statement – Life Insurance

BALANCE SHEET	Deferral/matching		Asset/liability		Fair value (1) (Risk-free rate)		Fair value (2) (Asset-based rate)	
	31/12/99	31/12/00	31/12/99	31/12/00	31/12/99	31/12/00	31/12/99	31/12/00
Assets								
Investments	8,951	16,314	8,951	16,314	8,951	16,314	8,951	16,314
Rights under life insurance contracts	-	-	-	-	309	-	7,312	-
Deferred acquisition costs	<u>9,712</u>	<u>9,014</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Assets	18,663	25,328	8,951	16,314	9,260	16,314	16,263	16,314
Liabilities and Equity								
Share capital	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Contribution/distribution	2,178	(576)	2,178	(576)	2,178	(576)	2,178	(576)
Retained earnings:								
Brought forward	-	3,028	-	1,773	-	2,082	-	9,085
Current year result	<u>3,028</u>	<u>2,854</u>	<u>1,773</u>	<u>943</u>	<u>2,082</u>	<u>634</u>	<u>9,085</u>	<u>1,215</u>
Total equity	10,206	10,306	8,951	7,140	9,260	7,140	16,263	14,724
Policyholder liabilities	8,457	15,022	-	9,174	-	9,174	-	1,590
Total equity and liabilities	18,663	25,328	8,951	16,314	9,260	16,314	16,263	16,314

A81 Illustrative Balance Sheet – Life Insurance

CASH FLOW STATEMENT

	31/12/99	31/12/00
Cash flows from operating activities:		
Gross premiums received	14,000	11,194
Investment earnings	471	1,321
Gross claims paid	(421)	(1,126)
Acquisition costs paid	(12,277)	-
Other operating costs paid	<u>-</u>	<u>(1,270)</u>
Net cash flows from operating activities	<u>1,773</u>	<u>10,119</u>
Cash flows from investing activities:		
Purchase of investments	<u>(3,951)</u>	<u>(7,365)</u>
Net cash flows from investing activities	<u>(3,951)</u>	<u>(7,365)</u>
Cash flows from financing activities:		
Contribution (distribution)	<u>2,178</u>	<u>(2,754)</u>
Net cash flows from financing activities	<u>2,178</u>	<u>(2,754)</u>
Net increase in cash and cash equivalents	<u>-</u>	<u>-</u>

A82 Illustrative Cash Flow Statement – Life Insurance

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