

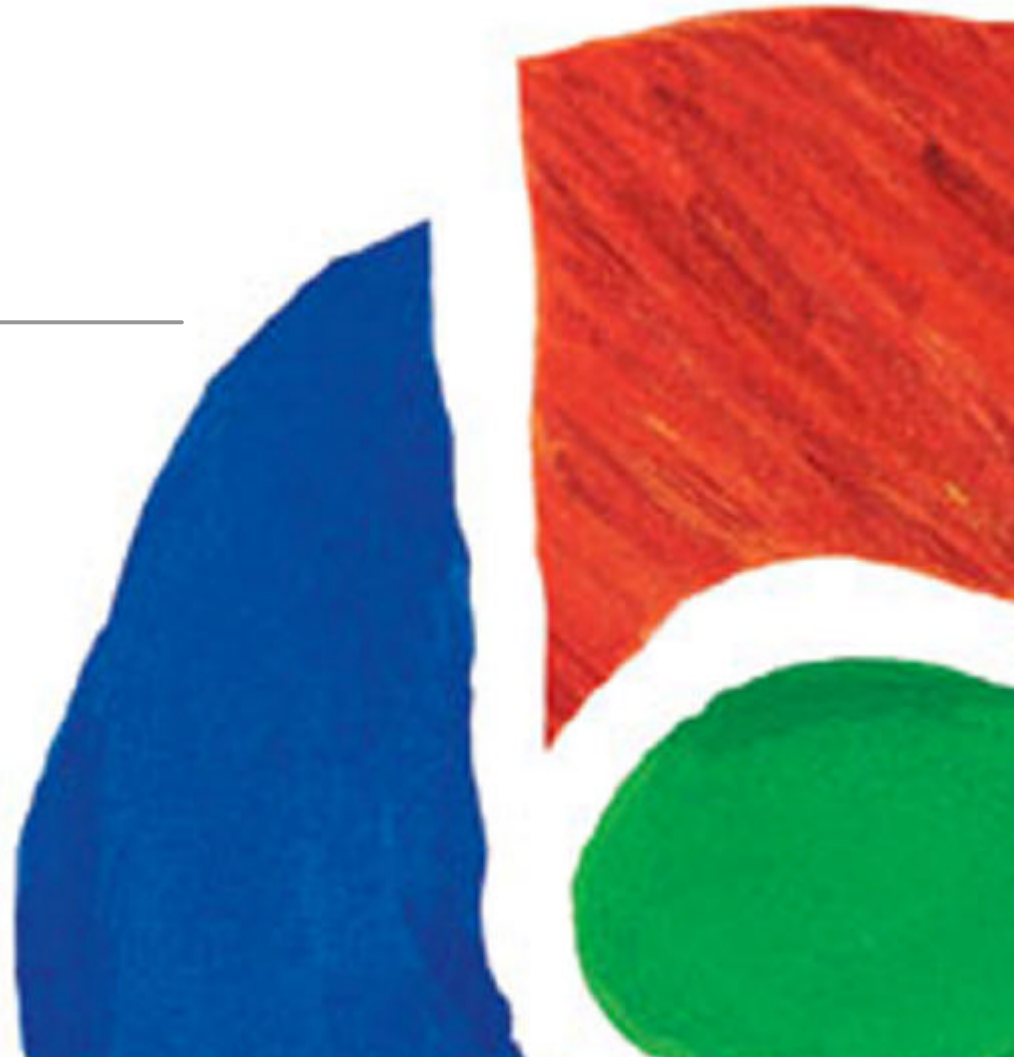


## HHG Life Services

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# Embedded Values and Regulatory Capital Position

31 March 2004





# Agenda

- Overview of Life Services
- Embedded Values
  - Framework
  - Results
  - Assumptions
  - Analysis of Movement
  - Sensitivity Analysis
- Regulatory Capital Position
  - Realistic Balance Sheets
  - ABI Presentation
  - Statutory Balance Sheets
  - Equity Backing Ratios
- Summary



# Overview of Life Services





## Embedded Value Framework

- Covers all business of Life Services including life companies and Service Company; excludes the value of investments in HHG companies outside Life Services
- Results prepared on both a Traditional and a Market-Consistent basis
- Traditional EV allows approximately for risk via risk-adjusted discount rate. Market-Consistent EV allows explicitly for the market-related risks within Life Services
- Market-Consistent EV includes a full market-consistent valuation of all policyholder liabilities using stochastic techniques and an asset calibration which replicates market prices at 31 December 2003
- Based on best estimate operating assumptions
- Advice provided by Tillinghast-Towers Perrin



## Embedded Value Results

### Life Services

#### Traditional Embedded Value<sup>1</sup>

As at 31 December 2003 (£m)

	Pearl & National Provident Life	London Life	Unit Linked, Service & Other Companies	Total
Adjusted net assets	394	22	193	609
Value of in-force business	493	143	99	735
Cost of capital	(171)	(10)	(18)	(199)
Traditional Embedded Value	716	155	274	1,145

*Note*

1. At risk discount rates of 9.9% for Pearl & National Provident Life, and 7.9% for all other companies, representing margins above gilt rates of 5.0% and 3.0% respectively.



## Embedded Value Results

### Life Services

### Market-Consistent Embedded Value (Excluding Explicit Agency Costs)

As at 31 December 2003 (£m)

	Pearl & National Provident Life	London Life	Unit Linked, Service & Other Companies	Total
Adjusted net assets	394	22	193	609
Value of in-force business	470	205	112	787
Cost of capital	(113)	(4)	(8)	(125)
Market-Consistent Embedded Value	751	223	297	1,271



# Embedded Value Results

## Life Services Illustrative Market-Consistent Embedded Value As at 31 December 2003 (£m)

	Illustrative Level of Agency Costs <sup>1</sup>		
	0%	2.5%	5%
Market-Consistent Embedded Value (excluding explicit Agency Costs)	1,271	1,271	1,271
Agency Costs	0	(32)	(64)
Market-Consistent Embedded Value (including Agency Costs)	1,271	1,239	1,207

**Note**

1. Percent of Market-Consistent Embedded Value.



## Embedded Value Results

### Life Services Derivation of Adjusted Net Assets As at 31 December 2003 (£m)

UK GAAP net assets after excluding the value of any investments in HHG companies outside Life Services	1,177
Exclude intangibles <sup>1</sup>	(86)
Exclude London Life contingent loan <sup>2</sup>	(161)
Exclude National Provident Life Limited contingent loan <sup>3</sup>	(303)
Exclude accrued shareholder transfers in Pearl <sup>4</sup>	(18)
Adjusted net assets	609

#### Notes

*1 The intangibles excluded are NPI Goodwill of £31 million, NPI deferred acquisition costs of £48 million and Pearl deferred acquisition costs of £8 million.*

*2 The value of the contingent loan is included in the value of in-force business and is excluded from the adjusted net assets.*

*3 The value of National Provident Life is included within Pearl and National Provident Life's value of in-force business and is excluded from the adjusted net assets.*

*4 The value of the accrued shareholder transfers is included in the value of in-force and is excluded from the adjusted net assets.*



# Embedded Value Assumptions

- All on a best estimate basis
- Traditional EV economic assumptions

	31/12/02	30/6/03	31/12/03
Pre-tax Investment Returns			
<b>Equities</b>	7.1%	6.9%	7.4%
<b>Property</b>	6.6%	6.4%	6.9%
<b>Government Securities</b>	4.6%	4.4%	4.9%
Risk Discount Rate			
<b>Pearl &amp; NPLL</b>	9.6%	9.4%	9.9%
<b>London Life</b>	9.6%	7.4%	7.9%
<b>Unit Linked, Service &amp; Other Companies</b>	9.6%	7.4%	7.9%



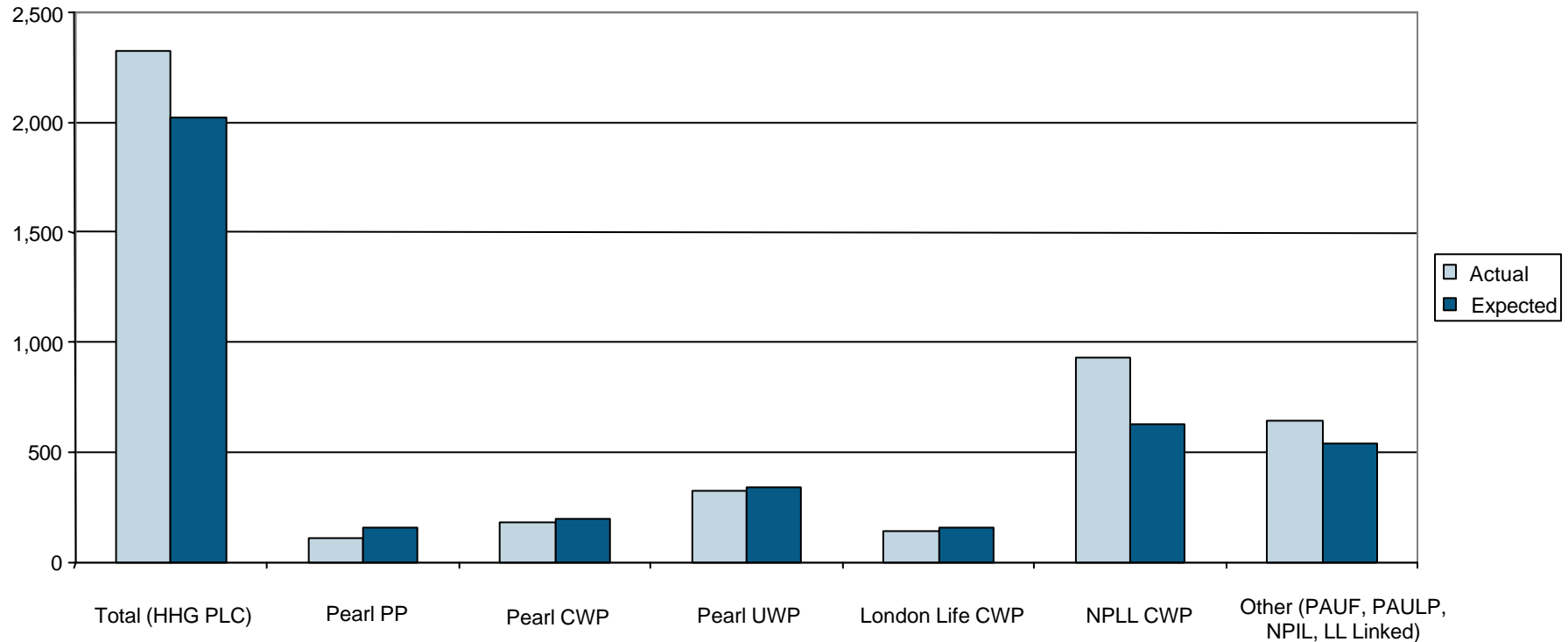
# Embedded Value Assumptions

- Market-Consistent EV economic assumptions calibrated using prices of traded instruments, primarily swaps, swaptions and equity puts
- Risk discount rate in Traditional EV will be reviewed from time to time and set by reference to the Market-Consistent EV
- Prudent approach to setting risk discount rates under the traditional EV, likely to catch up MCEV when benign market conditions have been more sustained
- Cost of capital captures a significant proportion of shareholder capital:
  - lock-in factor to the extent capital required to support with-profits capital requirement
  - recognition of double taxation on all assets on all assets, given likely requirement to retain within life companies



# Embedded Value Assumptions - Cashflow Reconciliation

Claims comparison H2 2003 (£m)



- Broadly in line except for NPLL
- NPLL variances
  - SERP & Personal Pensions (£150 million)
  - Life Bonds, Other (£150 million)
  - A broad offset with good and bad experience



# Embedded Value Analysis of Movement

## Life Services

### Analysis of Traditional EV Movement (£m)

31 December 2002 to 30 June 2003

<b>Traditional EV at 31 December 2002<sup>(1)</sup></b>	<b>1,979</b>
Opening adjustments	(95)
Expected Return	87
Assumption Variances	(206)
Experience Variances	(256)
Capital movements	152
Other items	(291)
Unexplained	(29)
<b>Traditional EV at 30 June 2003<sup>(1)</sup></b>	<b>1,341</b>
Differences in Assumptions	59
Differences in Expense Methodology	(129)
Other Differences	(10)
Differences in capital allocation	(416)
<b>Revised Traditional EV at 30 June 2003<sup>(2)</sup></b>	<b>845</b>

*Notes*

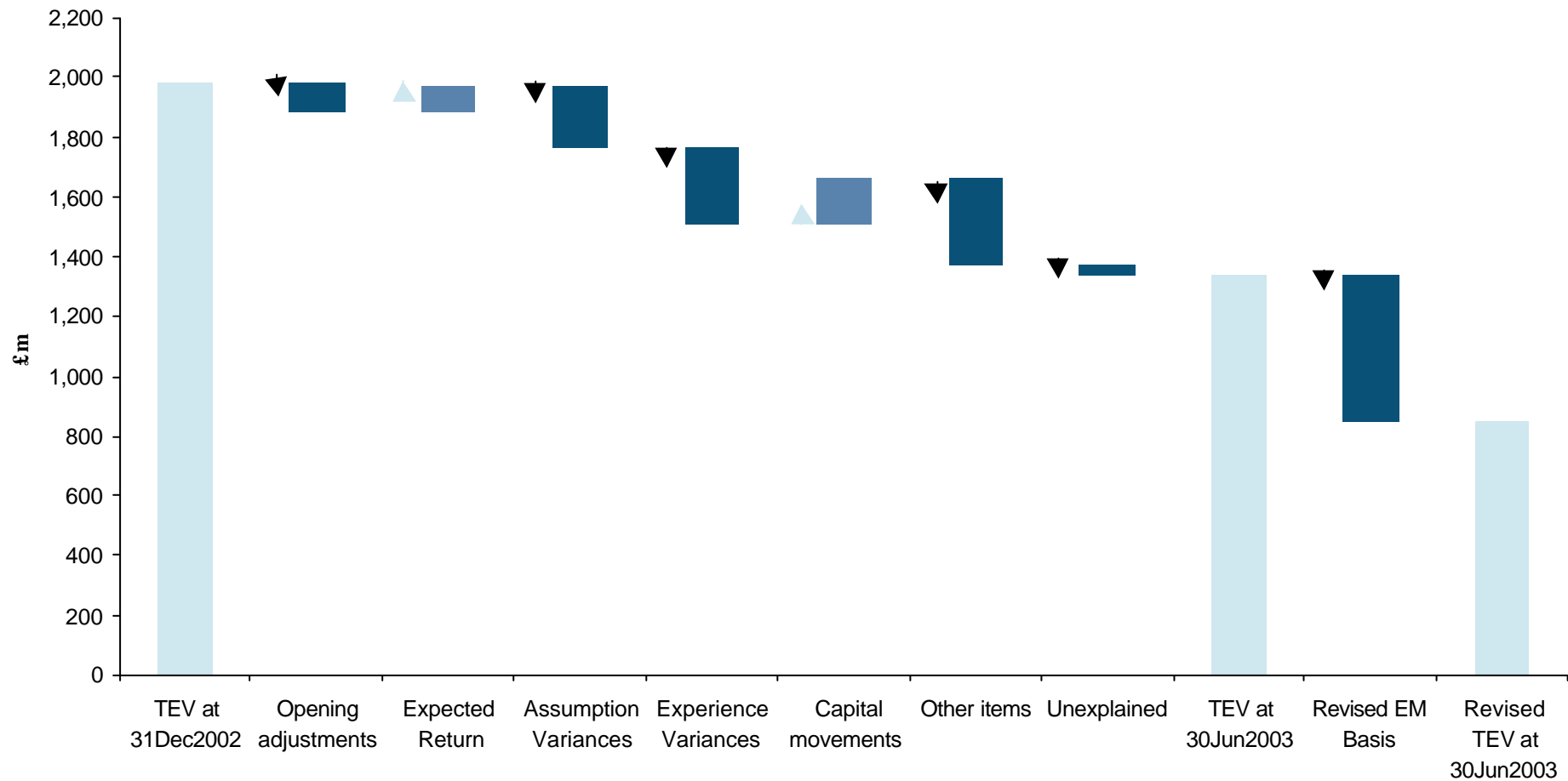
*1 As published in AMP's Investor Reports.*

*2 A review of the Traditional EV was performed by Tillinghast-Towers Perrin, Consulting Actuaries.*



# Analysis of Traditional EV Movement

31 December 2002 to 30 June 2003





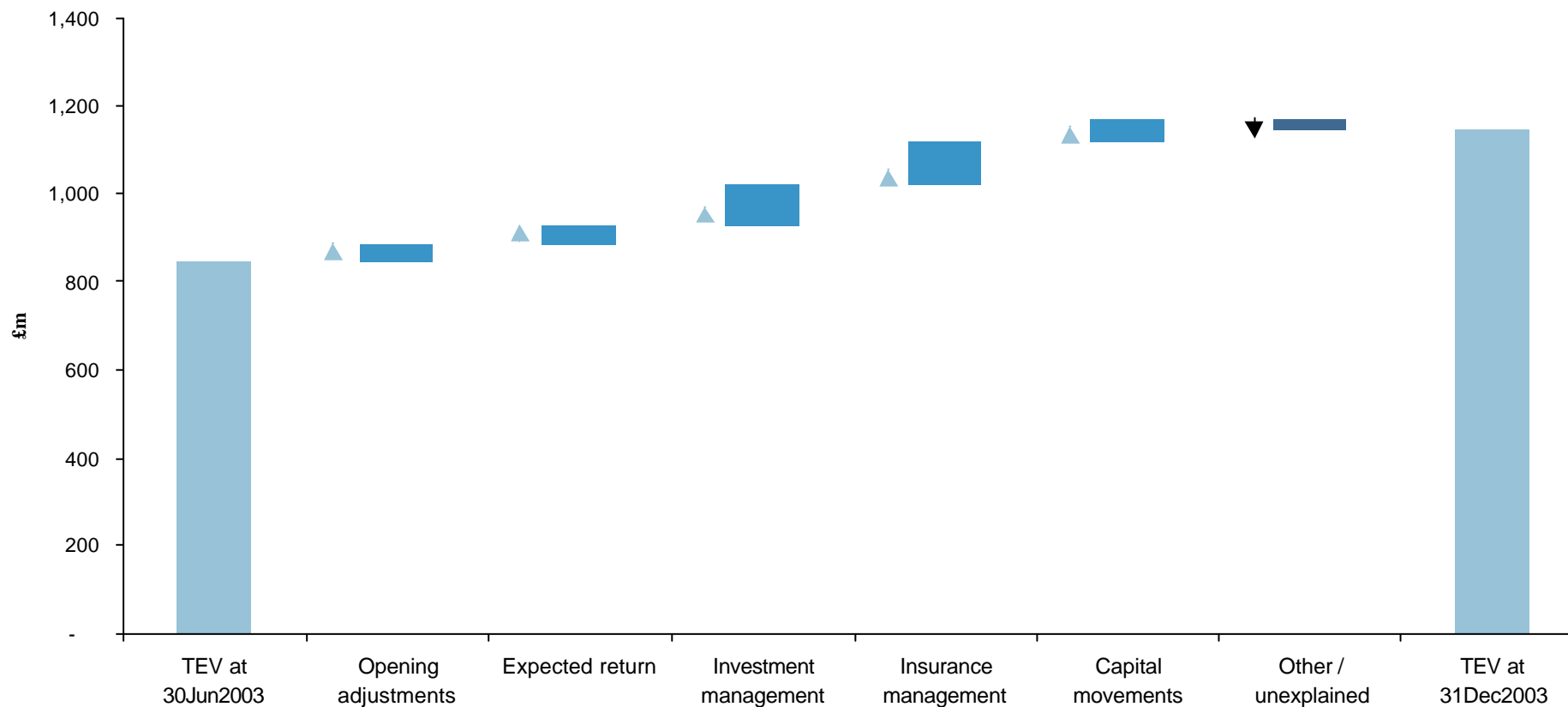
## Embedded Value Analysis of Movement

<b>Life Services</b>				
<b>Analysis of Traditional EV Movement (£m)</b>				
<b>30 June 2003 to 31 December 2003</b>				
	<b>Pearl &amp; National Provident Life</b>	<b>London Life</b>	<b>Unit Linked, Service &amp; Other Companies</b>	<b>Total</b>
Traditional EV at 30 June 2003	491	136	218	845
Opening adjustments	30	(1)	10	39
Expected Return	32	3	6	41
Value created through Investment Management	93	(1)	2	94
Value created through Insurance Management	43	23	34	100
Capital movements	47	0	0	47
Other items and unexplained	(20)	(5)	4	(21)
Traditional EV at 31 December 2003	716	155	274	1,145



# Analysis of Traditional EV Movement

30 June 2003 to 31 December 2003





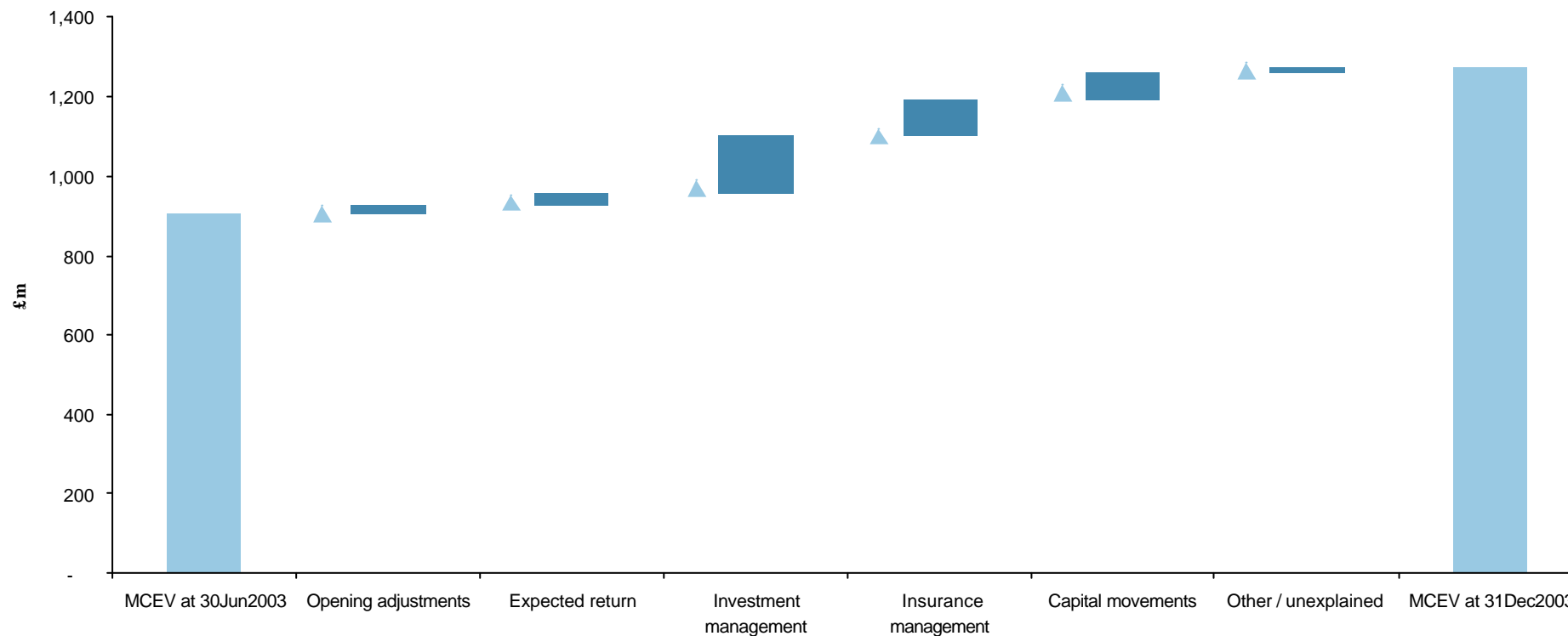
## Embedded Value Analysis of Movement

<b>Life Services</b>				
<b>Analysis of Market-Consistent EV Movement (£m)</b>				
<b>30 June 2003 to 31 December 2003</b>				
	<b>Pearl &amp; National Provident Life</b>	<b>London Life</b>	<b>Unit Linked, Service &amp; Other Companies</b>	<b>Total</b>
Market Consistent EV at 30 June 2003	476	177	247	900
Opening adjustments	12	2	7	21
Expected Return	23	5	6	34
Value created through Investment Management	127	14	2	143
Value created through Insurance Management	32	24	36	92
Capital movements	67	0	0	67
Other items and unexplained	14	1	(1)	14
Market Consistent EV at 31 December 2003	<u>751</u>	<u>223</u>	<u>297</u>	<u>1,271</u>



# Analysis of Market-Consistent EV Movement

30 June 2003 to 31 December 2003





# Embedded Value Sensitivity Analysis

## Life Services Sensitivity of Traditional Embedded Value As at 31 December 2003 (£m)

	Embedded Value			Total
	Pearl & National Provident Life	London Life	Unit Linked, Service & Other Companies	
Base value	716	155	274	1,145
Risk discount rate 1% higher <sup>1</sup>	687	134	265	1,086
Risk discount rate 1% lower <sup>1</sup>	748	179	284	1,211
Pre-tax investment returns on equities and property 1% lower and reduced by 0.25% on corporate bonds with bonus rates changing commensurately <sup>2</sup>	701	148	269	1,118
Discontinuance rates increased by 25% <sup>3</sup>	756	157	236	1,149
Annuitant mortality reduced by 5% <sup>4</sup>	682	147	271	1,100
Non-commission expenses increased by 10% <sup>5</sup>	716	155	210	1,081

### Notes

- 1 Risk discount rates in respect of each line of business were increased/decreased by 1% per annum, for example from 9.9% pa to 10.9% pa for Pearl & NPLL. No corresponding change was assumed in future investment returns.*
- 2 Assumed future pre-tax investment returns in respect of equities and property were decreased by 1% per annum, for example from 7.4% pa to 6.4% pa, and on corporate bonds by 0.25% per annum, for example from 5.4% pa to 5.15% pa. Future policyholder bonus and crediting rates were assumed to be adjusted commensurately. No corresponding change was assumed in opening asset values or in risk discount rates.*
- 3 Discontinuance rates in respect of all products were assumed to be 125% of the best-estimate rates (for example increasing an assumption of 10% to 12.5%). This was applied in respect of both full and partial discontinuances.*
- 4 Annuitant mortality rates were assumed to be 95% of the best-estimate assumed rates for all products.*
- 5 All non-commission expenses (other than investment expenses) were assumed to be 110% of the best-estimate assumption. Premium rates and bonuses were assumed to remain unchanged. Assuming that the current service company fee agreements remain in force, then HHG Services Limited is the only company affected by this change.*



# Embedded Value Sensitivity Analysis

## Life Services

### Sensitivity of Market-Consistent Embedded Value (Excluding Explicit Agency Costs)

As at 31 December 2003 (£m)

	Embedded Value			Total
	Pearl & National Provident Life	London Life	Unit Linked, Service & Other Companies	
Base value	751	223	297	1,271
Equity: 20% fall	674	216	285	1,175
Property: 20% fall	661	207	292	1,160
Corporate spreads as per CP195 <sup>1</sup>	654	202	297	1,153
Fixed interest yields fall by 100 basis points	646	211	294	1,151
Swaption volatilities increase by 1.5 percentage points <sup>2</sup>	733	223	297	1,253
Equity and property implied volatilities increase by 7 percentage points	705	223	297	1,225
Discontinuance rates increased by 25% <sup>3</sup>	794	224	253	1,271
Annuitant mortality reduced by 5% <sup>4</sup>	700	212	293	1,205
Non-commission expenses increased by 10% <sup>5</sup>	751	223	226	1,200

#### Notes

1 The corporate bond spreads test is based on a widening of GBP corporate bond spreads of 17 basis points for AAA rated and 94 basis points for BBB rated bonds.

2 A flat 1.5 percentage point increase was assumed across the swaption volatility "surface".

3 Discontinuance rates in respect of all products were assumed to be 125% of the best-estimate rates (for example increasing an assumption of 10% to 12.5%). This was applied in respect of both full and partial discontinuances.

4 Annuitant mortality rates were assumed to be 95% of the best-estimate assumed rates for all products.

5 All non-commission expenses (other than investment expenses) were assumed to be 110% of the best estimate assumption. Premium rates and bonuses were assumed to remain unchanged. Assuming that the current service company fee agreements remain in force, then HHG Services Limited is the only company affected by this change.



# Regulatory Capital

- Significant UK regulatory changes
- CP195 published by FSA in August 2003
- Twin Peaks assessment for all UK Life Companies with material WP Funds including Pearl, National Provident Life and London Life
- Methodology and assumptions for Realistic Peak very similar to those used for Market-Consistent Embedded Value
- Advice provided by Tillinghast-Towers Perrin



## Realistic Balance Sheets based on CP 195

### Life Services

### Illustrative Realistic Balance Sheets based on CP 195

As at 31 December 2003 (£m)

	Pearl	National Provident Life	London Life
Admissible assets <sup>1</sup>	14,499	7,035	2,706
Adjustment for non-profit business	(3,319)	88	(1,044)
Available assets	11,180	7,123	1,662
Realistic liabilities	(10,383)	(6,948)	(1,640)
Assets available to cover risk capital margin	797	175	22
Risk capital margin	(559)	(112)	(22)
Free capital	238	63	0

*Note*

*1 Admissible assets held in both the long-term and shareholder funds.*



## Realistic Balance Sheets - ABI Presentation

<b>With Profits Realistic Basis Balance Sheet (£m)</b>			
	Pearl	National Provident Life	London Life
<b>Realistic Basis Assets</b>			
Total Statutory Asset of With Profit Fund	10,617	6,569	1,662
Additional Statutory Assets outside With Profit Fund backing With Profits Business	522	213	22
Valuation Adjustments to Statutory Assets and Additional Assets arising on Realistic Basis	268	341	49
<b>Total</b>	<b>11,407</b>	<b>7,123</b>	<b>1,733</b>
<b>Liabilities</b>			
Policyholder Realistic Basis Liabilities	9,604	5,883	1,573
Other Liabilities	779	1,065	89
<b>Total</b>	<b>10,383</b>	<b>6,948</b>	<b>1,662</b>
Realistic Basis Assets in Excess of Total Liabilities	1,024	175	71
With Profits Capital Requirements on a Realistic Basis	319	18	0
Realistic Basis Assets in Excess of Total Liabilities and Capital Requirements	705	157	71
Ratio of Realistic Base Assets to With Profits Capital Requirements on a Realistic Basis	3.2	9.7	n/a



## Realistic Balance Sheets

£m	CP195 30/06/03	CP195 31/12/03	ABI Basis 31/12/03
<b>Pearl</b>			
Available Assets	386	797	<b>1,024</b>
RCM	311	559	<b>319</b>
Coverage	1.2	1.4	<b>3.2</b>
<b>National Prov</b>			
Available Assets	201	175	<b>175</b>
RCM	151	112	<b>18</b>
Coverage	1.3	1.6	<b>9.7</b>
<b>London Life</b>			
Available Assets	29	22	<b>71</b>
RCM	29	22	<b>0</b>
Coverage	1.0	1.0	<b>-</b>



## Statutory Balance Sheets

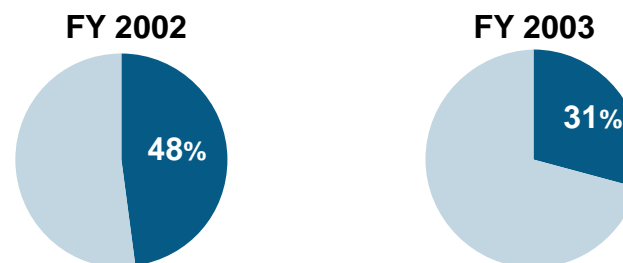
£m	Regulatory Capital FY02	Regulatory Capital HY03	Regulatory Capital FY03
<b>Pearl</b>			
Available Assets	495	452	839
Implicit Items	500	400	31
RMM	602	588	560
FAR %	2.7%	1.8%	2.1%
<b>National Prov</b>			
Available Assets	427	341	374
Implicit Items	0	0	0
RMM	322	310	276
FAR %	1.2%	0.4%	1.4%
<b>London Life</b>			
Available Assets	94	50	125
Implicit Items	80	80	12
RMM	98	99	89
FAR %	2.6%	1.1%	1.7%



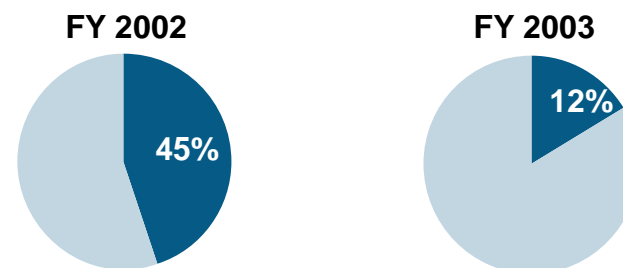
# Equity Backing Ratios

- Separate asset measures for each fund
- Gilts and bond used to back non-profit business
- Risk based evaluation of asset mix for with-profits funds
- Use of derivatives to hedge where appropriate
- Out of the money equity puts provide insurance in Pearl
- Swaptions held against GAO risk in all funds

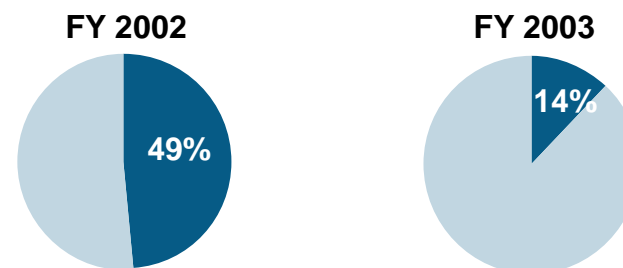
**EBR - Pearl**



**EBR<sup>1</sup> - London Life**



**EBR<sup>1</sup> - National Provident Life**



<sup>1</sup> Equity Backing Ratios in London Life and National Provident Life reflect non-equity growth assets - primarily property and some private capital.



# Summary

- Strong growth in EV
- Stable and improving capital position
- Successfully managing the business in accordance with the new regulatory environment
- Financial tools to deliver the new regulatory requirements in place
- Tightening of controls to manage and actively seek to reduce risk



## Limitation

Certain of the statements contained herein are statements of future expectations and other forward-looking statements. These expectations are based on management's current views and assumptions and involve known and unknown risks and uncertainties. Actual results, performance or events may differ materially from those in such statements due to, among other factors: performance of financial markets, changes in interest rates, changes in the market prices of assets which replicate life insurance liabilities, changes in laws, regulation and government policy, mortality and persistency experience, changes in tax treatment, changes in reinsurance arrangements and developments in accounting practice. HHG assumes no obligation to update any forward-looking information contained in this document.

