

TABLE OF CONTENTS

Part I

CHAPTER I

VALUATION PRINCIPLES

| PARAS. | | PAGES |
|--------|--|-------|
| 1-4 | Necessity for valuation | 1 |
| 5 | Valuation formulae available | 2 |
| 6-8 | Valuation bases—Mortality | 3-4 |
| 9 | Interest | 5-6 |
| 10-11 | Expenses | 6-7 |
| 12 | Bonus Reserve method | 7-8 |
| 13-15 | Net Premium method | 8-11 |
| 16-18 | New business strain | 11-14 |
| 19 | Valuation for solvency | 14-15 |
| 20-21 | Model offices | 15-16 |

CHAPTER II

VALUATION MACHINERY

| | | |
|-------|---|-------|
| 1-3 | Continuous valuation machinery | 17-19 |
| 4 | Checks on accuracy of data | 19-20 |
| 5 | Preliminary enquiries before valuation | 20-21 |
| 6 | Grouping—General remarks | 21-22 |
| 7 | Whole life assurances | 22 |
| 8-9 | Endowment assurances | 23-25 |
| 10 | Limited payment policies | 25-26 |
| 11 | Double endowments | 26-27 |
| 12 | Term assurances | 28-29 |
| 13 | Children's deferred assurances | 29-30 |
| 14 | Endowments without return of premiums | 30 |
| 15 | Joint whole life assurances | 31 |
| 16 | Joint life endowment assurances | 31 |
| 17 | Contingent assurances | 32 |
| 18 | Annuities | 32-33 |
| 19-20 | Special Reserves—Incidence of premium income | 33-34 |
| 21 | Premiums payable more frequently than once a year | 34-35 |

| xii | | CONTENTS | |
|--------|--|----------|-------|
| PARAS. | | | PAGES |
| 22 | Special Reserves—Early payment of claims | | 35 |
| 23 | Lapsed policies | | 35 |
| 24–29 | Loading on limited-payment policies | | 36–39 |
| 30 | Exchange fluctuations | | 39–40 |
| 31 | Additional loading for non-profit policies | | 40 |
| 32 | Influence of the bonus system | | 40–42 |

CHAPTER III

INDUSTRIAL ASSURANCE VALUATIONS

| | | |
|-----|---|-------|
| 1 | Valuation principles | 43–44 |
| 2 | Valuation methods—General remarks | 44 |
| 3 | Grouping—Whole life assurances | 44–45 |
| 4–6 | Endowment assurances | 45–46 |
| 7 | Requirements of Industrial Assurance Act 1923 | 47 |

CHAPTER IV

APPROXIMATE METHODS OF VALUATION

| | | |
|-------|--|-------|
| 1–2 | Introduction | 48 |
| 3–6 | General principles | 49–51 |
| 7 | A. E. King's method | 51–52 |
| 8–9 | Woolhouse's method | 52–53 |
| 10–13 | Henry's method | 53–56 |
| 14 | Trachtenberg's method | 56 |
| 15 | Use of fixed maturity age for endowment assurances | 56–58 |
| | Experimental data | 57 |

CHAPTER V

MISCELLANEOUS VALUATION PROBLEMS

| | | |
|-----|--|-------|
| 1–4 | Policies subject to extra risk | 59–61 |
| 5 | Treatment of reassurances | 62–63 |
| 6–7 | Select valuation | 63–64 |

CONTENTS

xiii

Part II

CHAPTER VI

ORIGIN AND NATURE OF SURPLUS

| PARAS. | | PAGES |
|--------|--|-------|
| 1 | Introduction | 65-66 |
| 2 | Treatment of assets | 66 |
| 3-4 | Distinction between surplus and profit | 66-67 |
| 5-6 | Emergence of surplus | 68 |
| 7 | Result of varying valuation bases | 68-69 |
| 8-11 | Effect of change in actual experience | 69-71 |
| 12 | Development of the bonus system | 71-72 |
| 13-15 | Influence of bonus system on valuation methods and bases | 72-75 |
| 16-17 | Stabilized or fluctuating bonuses | 75-76 |

CHAPTER VII

METHODS OF DISTRIBUTION
OF SURPLUS

| | | |
|-------|---|-------|
| 1-2 | Introduction | 77 |
| 3-6 | General nature of problem | 77-79 |
| 7-9 | Contribution method | 80-82 |
| 10-12 | Reversionary bonus system | 82-84 |
| 13 | Cash bonus system | 84-85 |
| 14 | Reduction of premium system | 85-86 |
| 15 | Deferred bonus systems | 86-87 |
| 16 | Allocation of miscellaneous surplus | 87 |
| 17 | Interim bonuses | 87-88 |

CHAPTER VIII

ANALYSIS OF SURPLUS, AND
MISCELLANEOUS PROBLEMS

| | | |
|-------|--|-------|
| 1-3 | Analysis of surplus—Objects | 89-90 |
| 4-6 | Methods | 90-92 |
| 7-8 | Industrial Assurance profit sharing | 92-93 |
| 9-11 | Discounted bonus policies | 93-95 |
| 12-13 | Reassurances—Other companies' rates of bonus | 95-96 |
| | SUMMARY OF REFERENCES | 97-99 |