



Deconstructing Insurance Financial Statements



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Course Outline

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Identify the **key principles and methods** used in insurance accounting



Understand the accounting for insurance premiums and reserves for **P&C insurance**



Understand the accounting for **reinsurance** within assets and reserves



Understand the accounting for insurance premiums and reserves for **life insurance**



Identify the key components of an insurance company's **income statement and balance sheet**

Earned and Unearned Premiums



Premiums are a **key form of revenue** for an insurance company

PRINCIPLE: Companies **recognize premiums as they are 'earned'** over the coverage period



Insurance company writes policy **midway** through year one

Premiums: **1,000**
Coverage period: **1 year**

\$1,000 premium received



\$500 earned

\$500 earned

Earned in Year 2
Unearned at end of Year 1

YEAR 1

Written premiums	1,000
Unearned premiums	(500)
Net earned premiums	500

(Recorded as a liability)
Unearned premium reserve

B	Beginning of year 1	0
A	Add: Premiums written	1,000
S	Subtract: Premiums earned	(500)
E	Ending of year 1	500

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P&C Claims and Reserves

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How are the claims against an insurance policy recognized as an expense?

PRINCIPLE: companies must recognize claims only that have been **incurred by the balance sheet date**

Incurred claims



The insurance company has **reasonable evidence** that a **loss event has occurred**



The claims expense and therefore amounts owed to policyholders will **increase as the insurance cover is provided**



It is a **misconception** that the insurance company must **record all future expected claims as soon as a policy is written**



How does the insurance company **estimate the claims incurred to date?**

Incurred claims

Earned premiums $\times$ loss ratio

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How are the claims against an insurance policy recognized as an expense?

PRINCIPLE: companies must recognize claims only that have been **incurred by the balance sheet date**



How does the insurance company **estimate the claims incurred to date?**

Incurred claims

Earned premiums $\times$ loss ratio

Premium: 100
Loss ratio: 80%



(total claims expected = 80)

50 premium earned

Policy period

50 $\times$ 80% = 40 incurred claims

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How are the claims against an insurance policy recognized as an expense?

PRINCIPLE: companies must recognize claims only that have been **incurred by the balance sheet date**



How does the insurance company **estimate the claims incurred to date?**

Incurred claims

Earned premiums $\times$ loss ratio



Appropriate when the claims against a policy **won't vary much over time** e.g., **car insurance**



Appropriate when an insurance company has **limited historical data** on how claims develop

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How are the claims against an insurance policy recognized as an expense?

PRINCIPLE: companies must recognize claims only that have been **incurred by the balance sheet date**



How does the insurance company **estimate the claims incurred to date?**

Claims reserves

(amounts owing to policyholders)

=

Incurred claims

-

Claims paid

Earned premiums $\times$ loss ratio

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How are the claims against an insurance policy recognized as an expense?

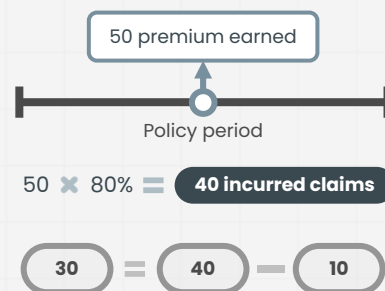
PRINCIPLE: companies must recognize claims only that have been **incurred by the balance sheet date**



How does the insurance company **estimate the claims incurred to date?**

$$\text{Claims reserves} = \text{Incurred claims} - \text{Claims paid}$$

Earned premiums $\times$ loss ratio

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How are the claims against an insurance policy recognized as an expense?

PRINCIPLE: companies must recognize claims only that have been **incurred by the balance sheet date**

Claims reserves

B	Beginning reserve	0
+	A Add: Claims expense	40
-	S Subtract: Claims paid	(10)
E	Ending reserve	30

Policy just written

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How are the claims against an insurance policy recognized as an expense?

PRINCIPLE: companies must recognize claims only that have been **incurred by the balance sheet date**

Claims reserves

B	Beginning reserve	0
+ A	Add: Claims expense	40
- S	Subtract: Claims paid	(10)
E	Ending reserve	30

Claims expense = increase in reserves + claims paid

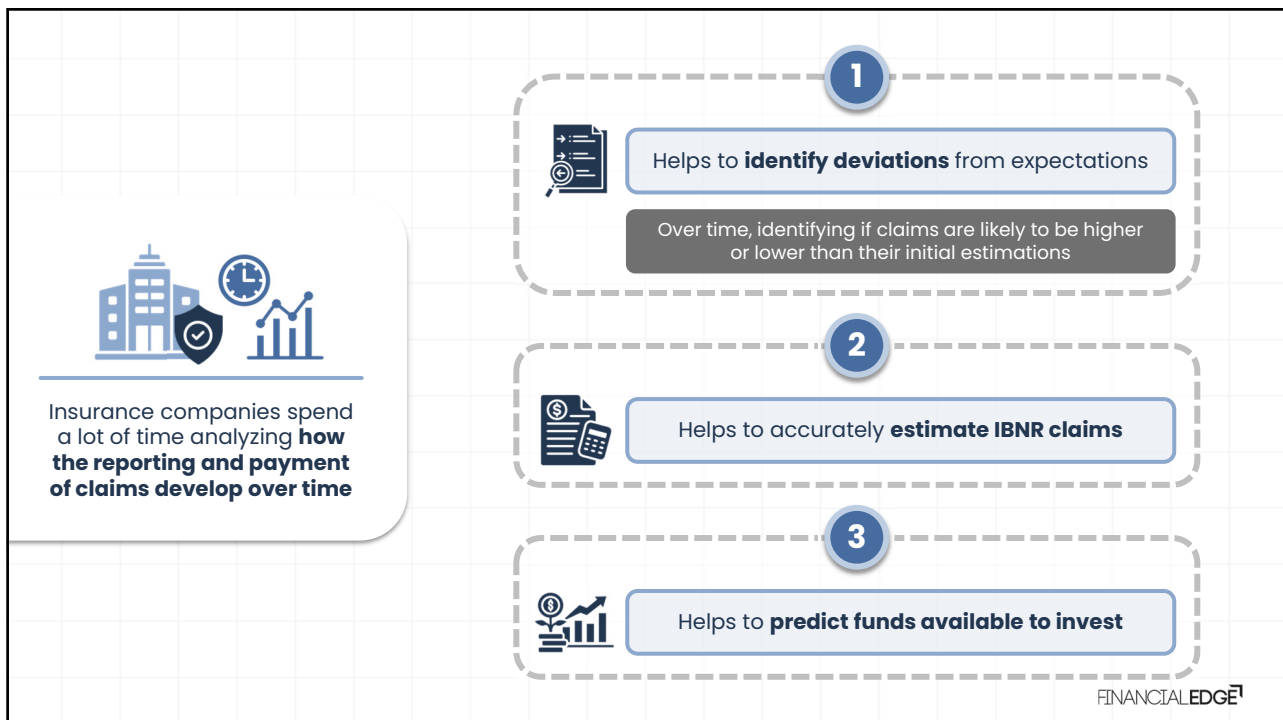
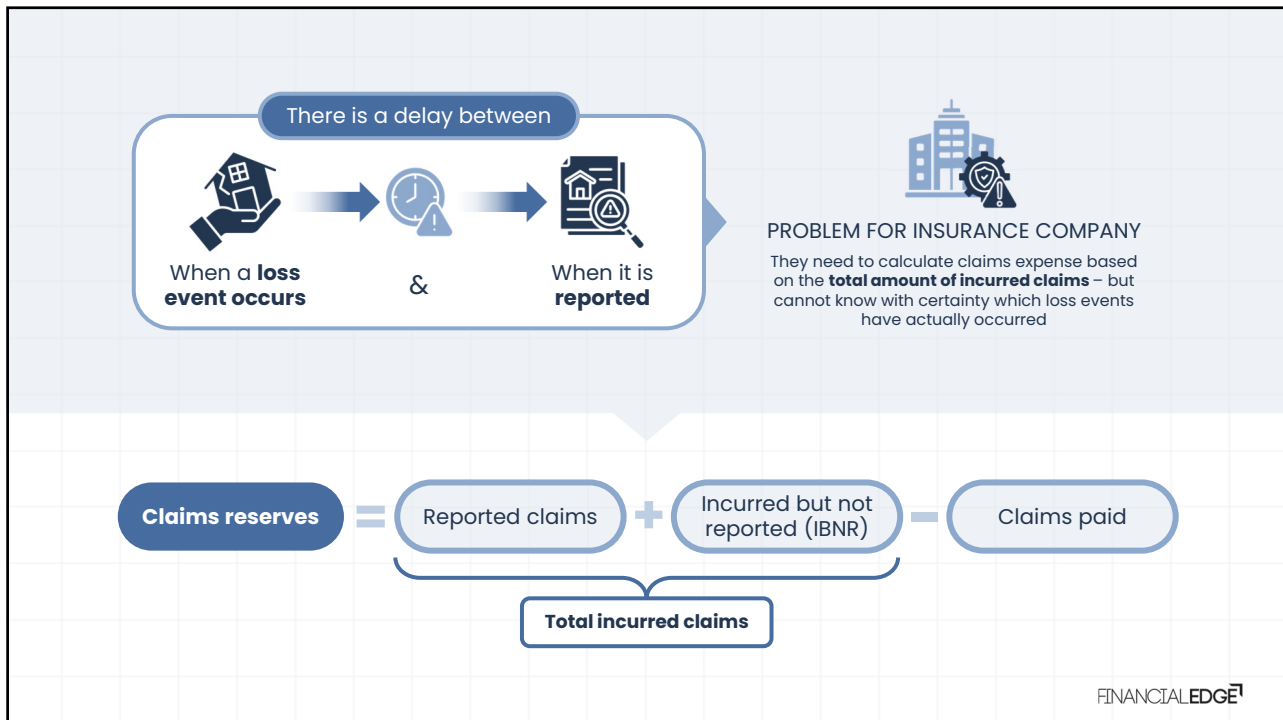
1. Incurred claims are calculated on a cumulative basis



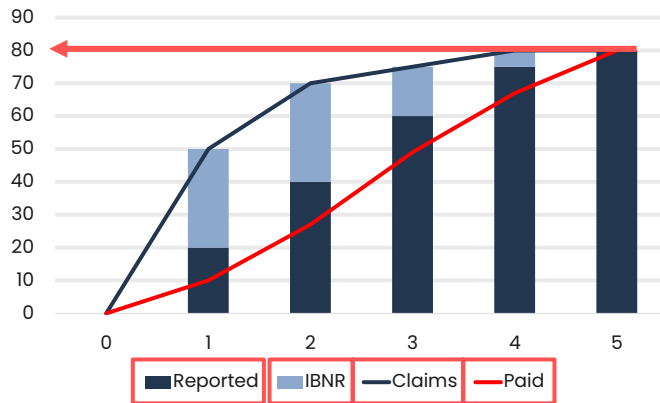
2. Claims paid over this time to policyholders are known

3. Use reserve movements to calculate claims expense

IBNR Reserves



How claims for a two-year policy might develop over time



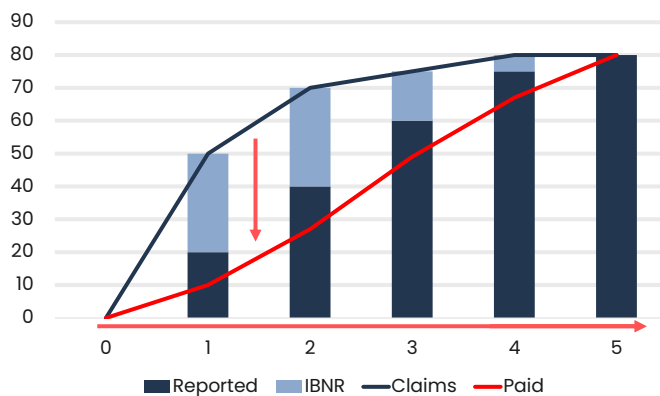
Data given on a
cumulative basis

Premium = 100

Loss ratio = 80%

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How claims for a two-year policy might develop over time

**DURING THE COVERAGE PERIOD**

IBNR claims make up a large portion of the total incurred claims

AFTER THE COVERAGE PERIOD

IBNR claims portion reduces rapidly as claims begin to be reported

REPORT-PAYMENT LAG

There is a lag between claims being reported and when they are paid

- ↳ It takes time for losses to be agreed and settled
- ↳ Lag is longer for commercial insurance (many months)
- ↳ Lag is shorter for auto insurance (days or weeks)

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Reserves and Profit Link

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Understanding the link between reserves and profits



Portfolio of 1 year insurance policies

Premium = \$100m

Loss ratio = 80%

Balance Sheet



ASSETS

Cash and investments

\$100m

LIABILITIES

Unearned premium

\$100m



START OF COVERAGE PERIOD

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Understanding the link between reserves and profits



Portfolio of 1 year insurance policies

Premium = \$100m

Loss ratio = 80%

Balance Sheet



ASSETS

Cash and investments
\$100m

LIABILITIES

Unearned premium
\$100m

Balance Sheet



ASSETS

Cash and investments
\$100m

LIABILITIES

Claims reserve
\$40m

Unearned premium
\$50m

6 MONTHS LATER

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Understanding the link between reserves and profits



Portfolio of 1 year insurance policies

Premium = \$100m

Loss ratio = 80%

Balance Sheet



ASSETS

Cash and investments
\$100m

LIABILITIES

Claims reserve
\$40m

Unearned premium
\$50m

Equity
\$10m

Income Statement



Premium earned/revenue
\$50m

—

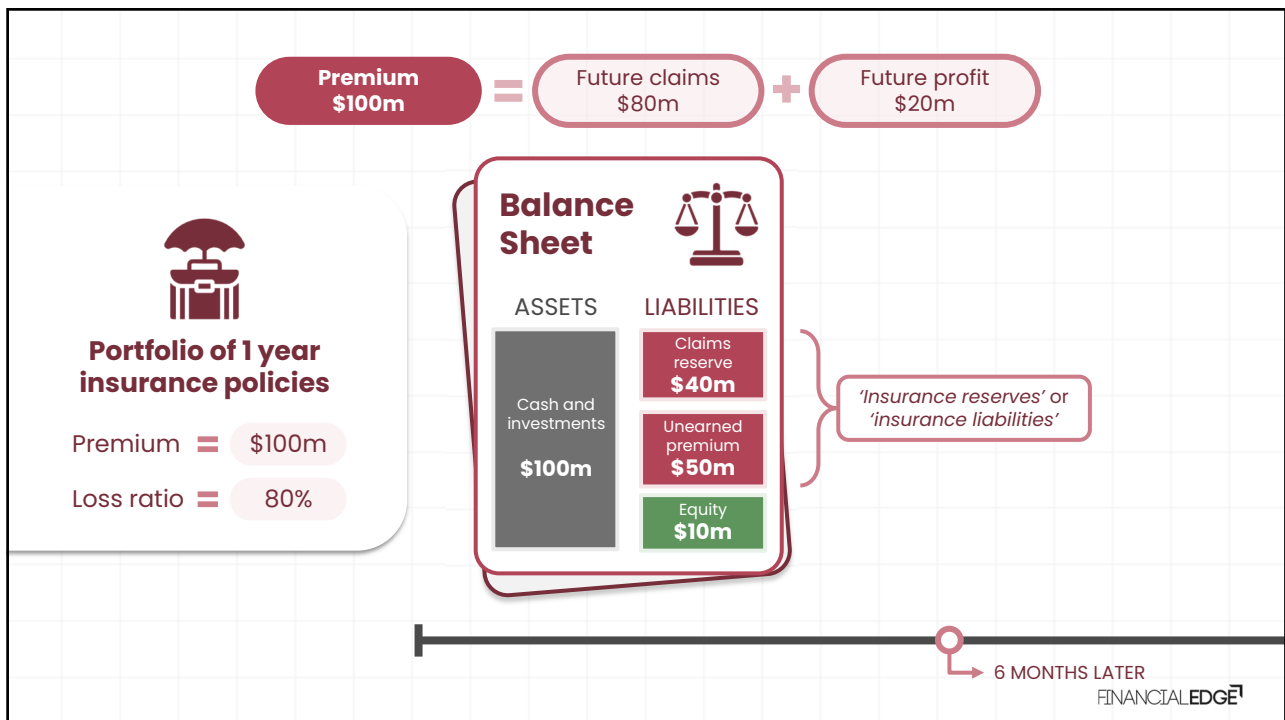
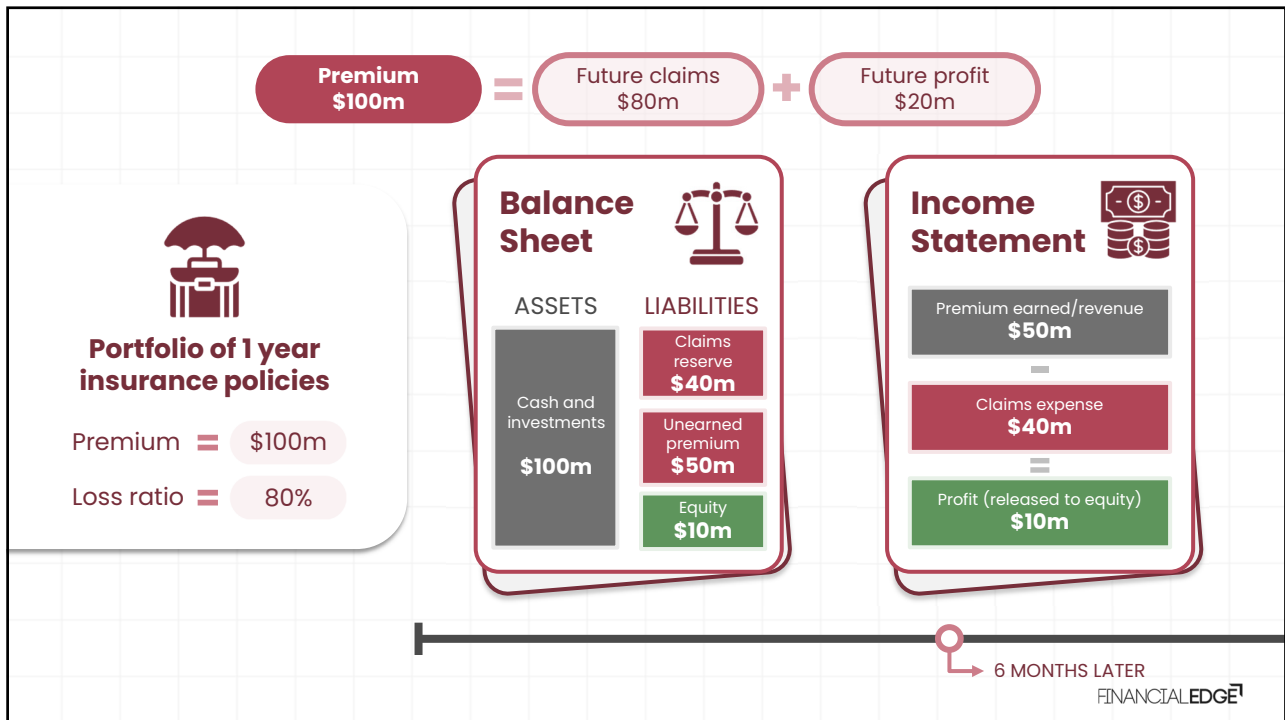
Claims expense
\$40m

=

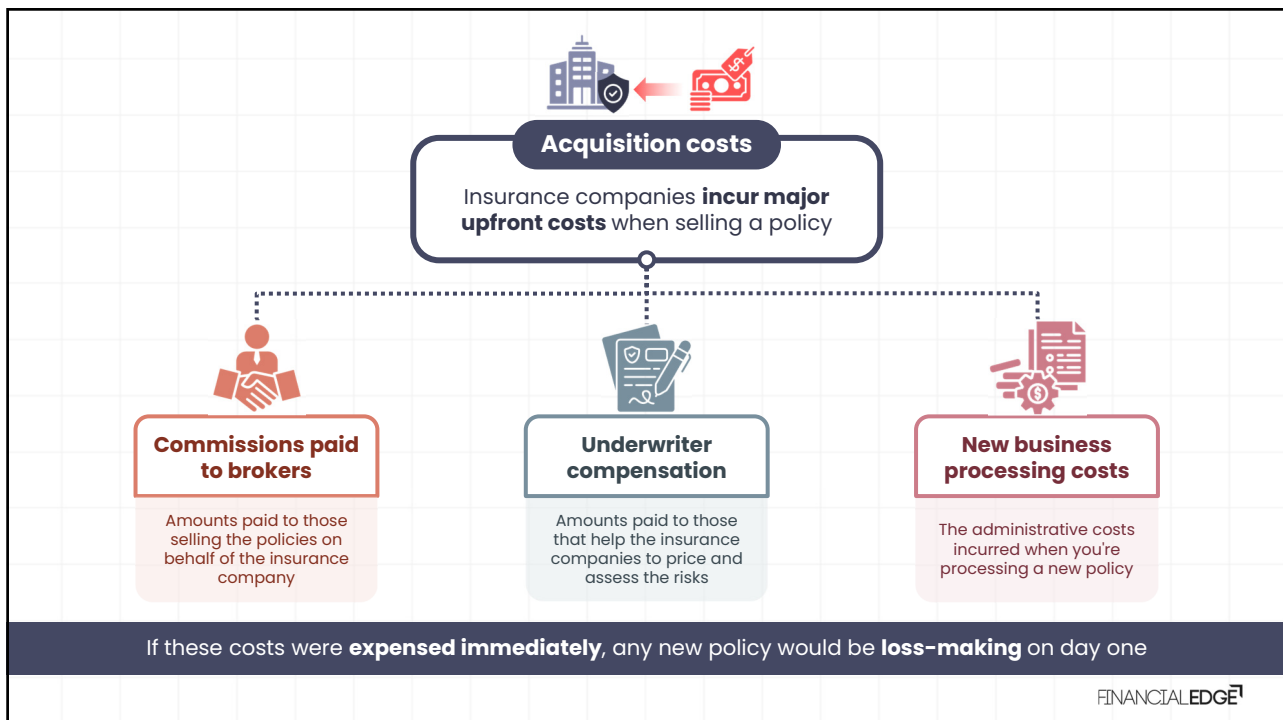
Profit (released to equity)
\$10m

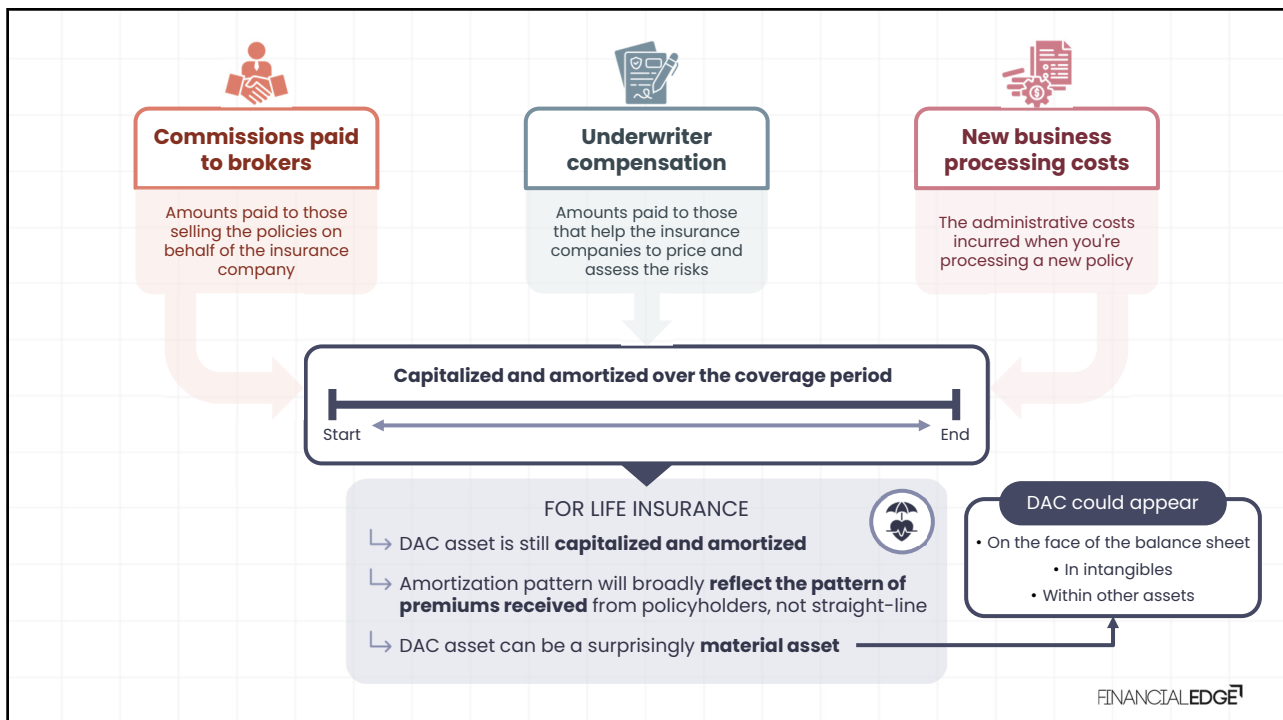
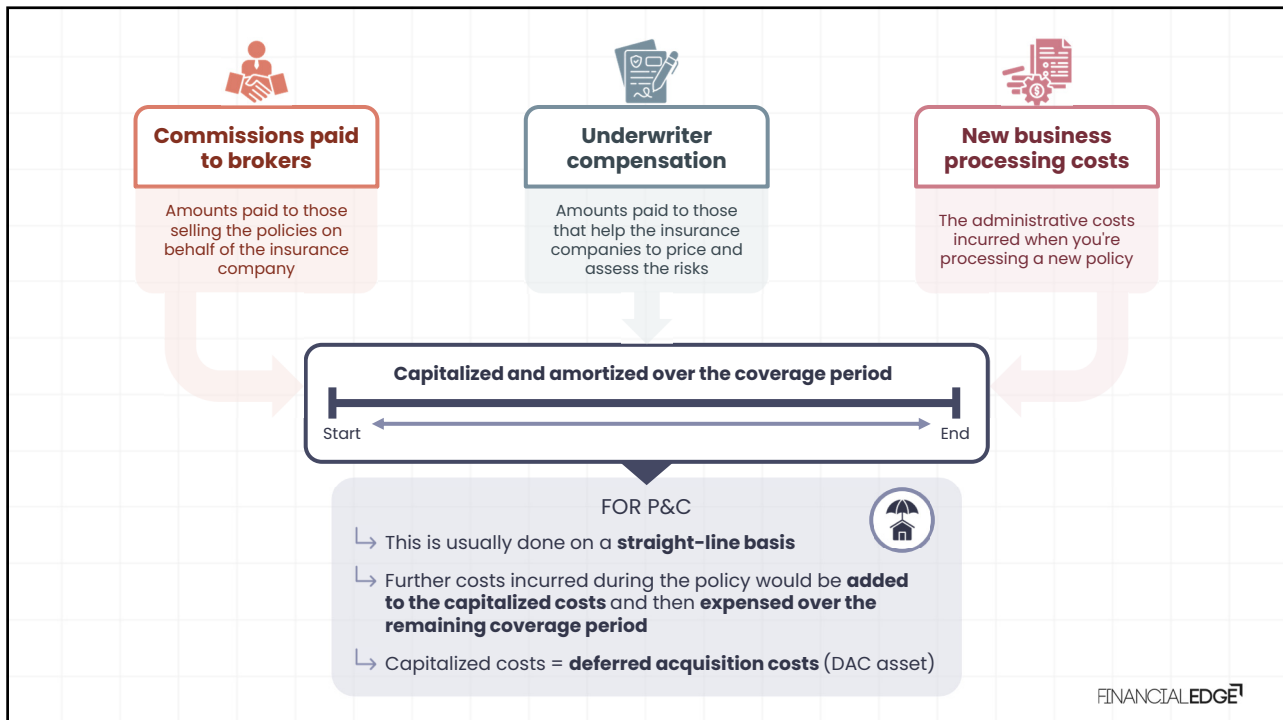
6 MONTHS LATER

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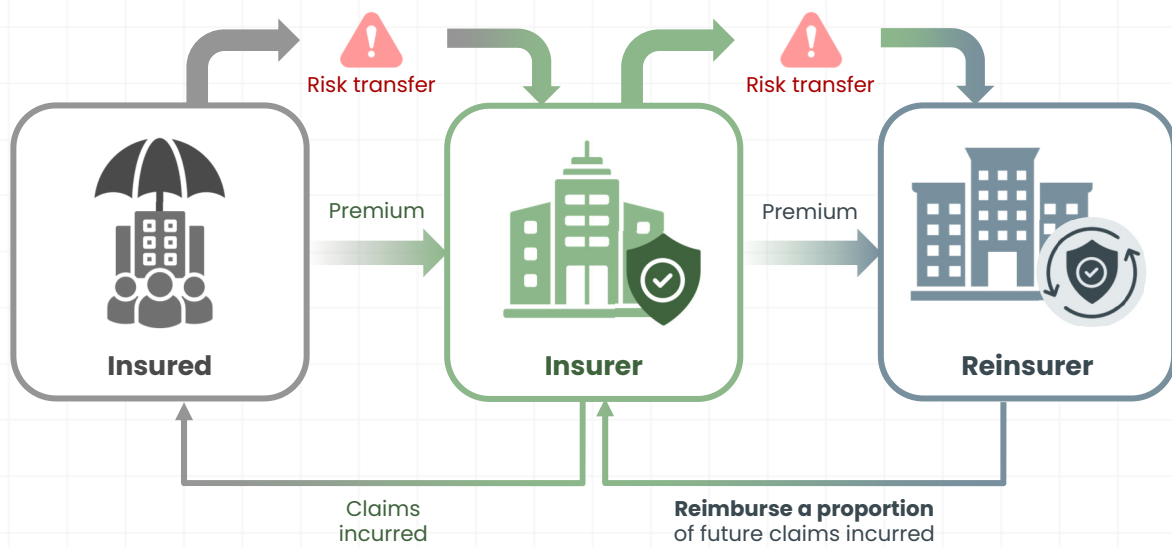


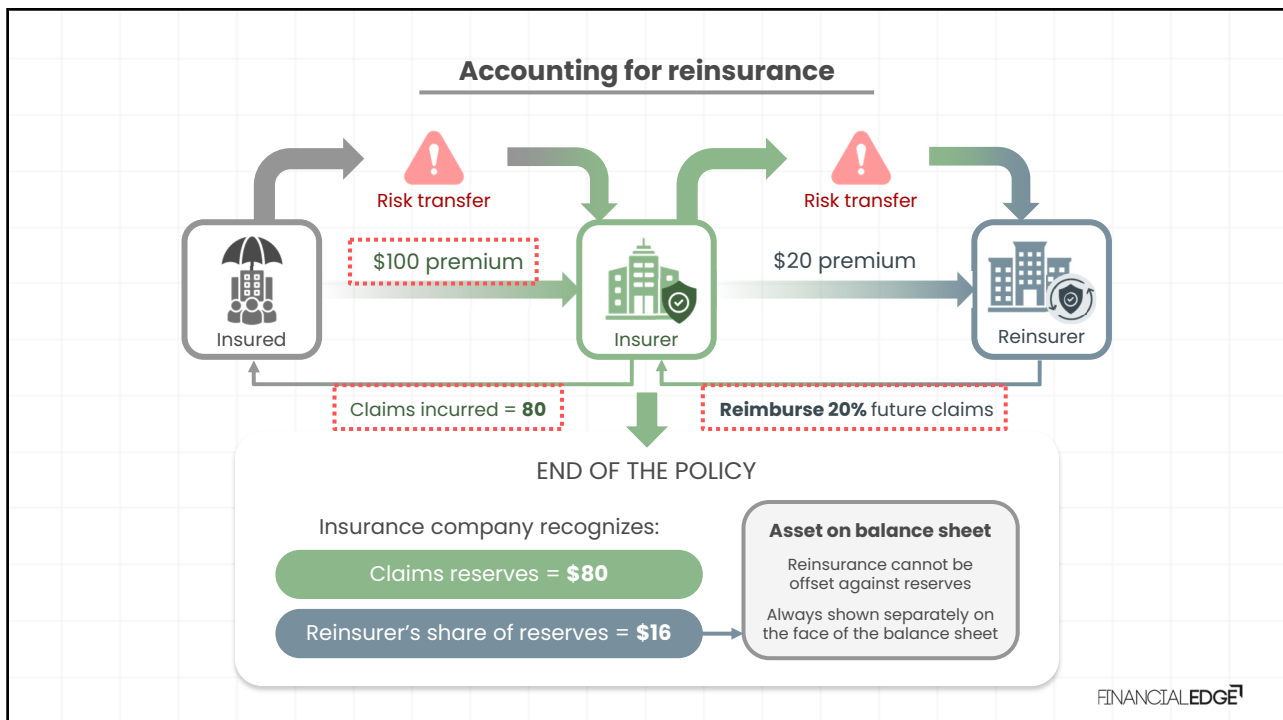
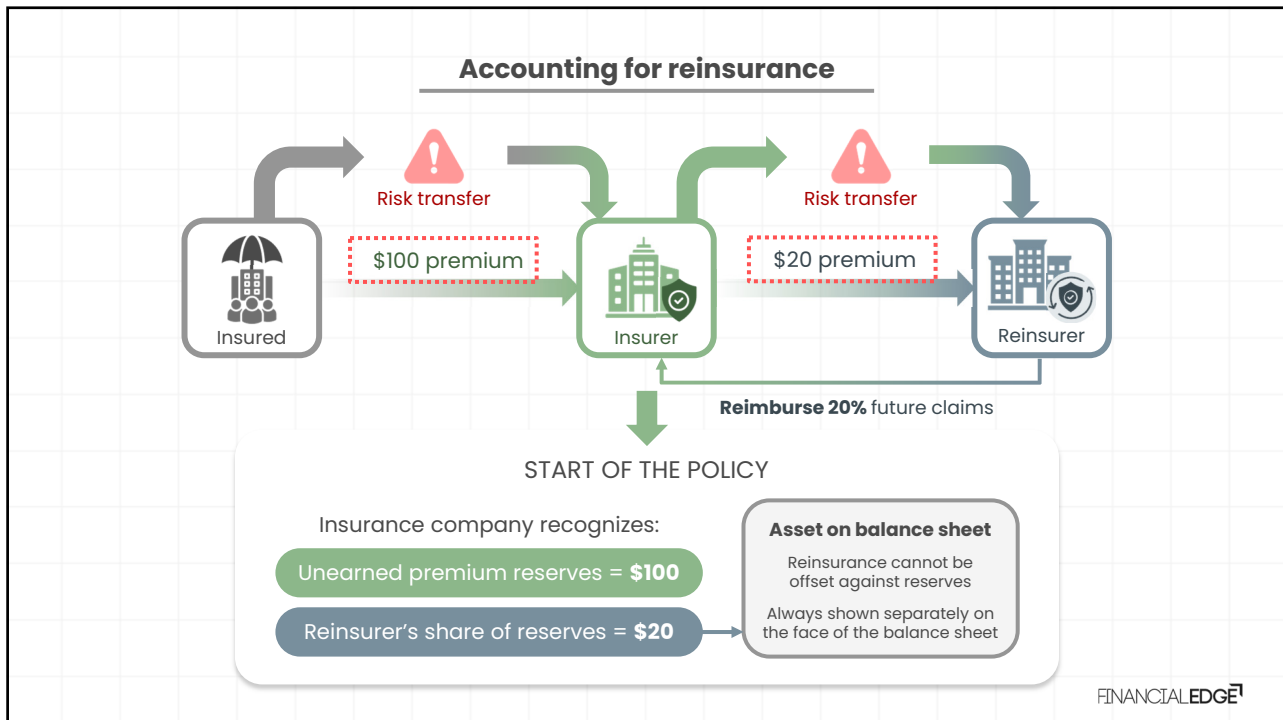
Deferred Acquisition Costs (DAC)

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Reinsurance Accounting

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US GAAP P&C Financial Statements

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US GAAP Income Statement



Reflect premiums after
**deducting the amount
ceded to reinsurance**

Net premiums earned	72,000
Investment income	3,000
Total revenue	75,000
Net claims expense	(49,000)
Policy acquisition costs	(5,000)
Operating costs	(10,000)
Finance costs	(500)
Total expenses	(64,500)
Tax expense	(2,500)
Net income	8,000

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US GAAP Income Statement



Generated from
investments in the
balance sheet

Net premiums earned	72,000
Investment income	3,000
Total revenue	75,000
Net claims expense	(49,000)
Policy acquisition costs	(5,000)
Operating costs	(10,000)
Finance costs	(500)
Total expenses	(64,500)
Tax expense	(2,500)
Net income	8,000

Income items

Included together at the
top of the US GAAP
income statement

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US GAAP Income Statement

Net premiums earned
+ Investment income

= Total revenue

Some P&C insurers may
include **fee income**
from additional services

Net premiums earned	72,000
Investment income	3,000
Total revenue	75,000
Net claims expense	(49,000)
Policy acquisition costs	(5,000)
Operating costs	(10,000)
Finance costs	(500)
Total expenses	(64,500)
Tax expense	(2,500)
Net income	8,000

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US GAAP Income Statement

Includes:

- All **claims incurred** during the period
- **Costs associated** with assessing those losses



After **subtracting** any **claims recovered** from **reinsurers**

Net premiums earned	72,000
Investment income	3,000
Total revenue	75,000
Net claims expense	(49,000)
Policy acquisition costs	(5,000)
Operating costs	(10,000)
Finance costs	(500)
Total expenses	(64,500)
Tax expense	(2,500)
Net income	8,000

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US GAAP Income Statement

Deferred Acquisition Costs:

- Paid to **brokers**
- Paid for **processing new policies**



Amortized through expenses over the period of cover

Net premiums earned	72,000
Investment income	3,000
Total revenue	75,000
Net claims expense	(49,000)
Policy acquisition costs	(5,000)
Operating costs	(10,000)
Finance costs	(500)
Total expenses	(64,500)
Tax expense	(2,500)
Net income	8,000

Net premiums earned
 - Net claims expense
 - Policy acquisition costs
 = **Underwriting profit**

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US GAAP Income Statement

Includes overheads
of the business:



Staff costs



IT costs



**Head office
costs**

Net premiums earned	72,000
Investment income	3,000
Total revenue	75,000
Net claims expense	(49,000)
Policy acquisition costs	(5,000)
Operating costs	(10,000)
Finance costs	(500)
Total expenses	(64,500)
Tax expense	(2,500)
Net income	8,000

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US GAAP Income Statement

Interest expense on
borrowings

Net premiums earned	72,000
Investment income	3,000
Total revenue	75,000
Net claims expense	(49,000)
Policy acquisition costs	(5,000)
Operating costs	(10,000)
Finance costs	(500)
Total expenses	(64,500)
Tax expense	(2,500)
Net income	8,000

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US GAAP Income Statement

- Net claims expense
- + Policy acquisition costs
 - + Operating costs
 - + Finance costs
- = **Total expenses**

Net premiums earned	72,000
Investment income	3,000
Total revenue	75,000
Net claims expense	(49,000)
Policy acquisition costs	(5,000)
Operating costs	(10,000)
Finance costs	(500)
Total expenses	(64,500)
Tax expense	(2,500)
Net income	8,000

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US GAAP Income Statement

- Insurance companies have lower tax rates as:
- Some investment income and dividends are **tax deductible** or taxed at a **preferential rate**

Net premiums earned	72,000
Investment income	3,000
Total revenue	75,000
Net claims expense	(49,000)
Policy acquisition costs	(5,000)
Operating costs	(10,000)
Finance costs	(500)
Total expenses	(64,500)
Tax expense	(2,500)
Net income	8,000

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US GAAP Balance Sheet

Largest item in assets



Typically **fixed income** instruments e.g. **government** and **corporate debt**



Relatively liquid



Minimize downside risk

Investments	80,000
Premiums receivable	9,000
Reinsurance recoverables	4,500
Prepaid reinsurance premium	500
Deferred acquisition costs	2,000
Total assets	96,000
Unearned premiums	24,000
Loss / claims reserves	39,000
Debt	7,000
Equity	26,000
Total liabilities and equity	96,000

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US GAAP Balance Sheet



Premiums written that the policyholder has **not yet paid**

Investments	80,000
Premiums receivable	9,000
Reinsurance recoverables	4,500
Prepaid reinsurance premium	500
Deferred acquisition costs	2,000
Total assets	96,000
Unearned premiums	24,000
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Debt	7,000
Equity	26,000
Total liabilities and equity	96,000

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US GAAP Balance Sheet



Claims recoverable
from **reinsurers**

It is presented on the
balance sheet as **gross**
(a separate asset item)

Investments	80,000
Premiums receivable	9,000
Reinsurance recoverables	4,500
Prepaid reinsurance premium	500
Deferred acquisition costs	2,000
Total assets	96,000
Unearned premiums	24,000
Loss / claims reserves	39,000
Debt	7,000
Equity	26,000
Total liabilities and equity	96,000

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US GAAP Balance Sheet



Premiums paid
upfront to reinsurers
where **cover has not**
been provided yet

Investments	80,000
Premiums receivable	9,000
Reinsurance recoverables	4,500
Prepaid reinsurance premium	500
Deferred acquisition costs	2,000
Total assets	96,000
Unearned premiums	24,000
Loss / claims reserves	39,000
Debt	7,000
Equity	26,000
Total liabilities and equity	96,000

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US GAAP Balance Sheet



Amounts paid during the acquisition of new policies

Investments	80,000
Premiums receivable	9,000
Reinsurance recoverables	4,500
Prepaid reinsurance premium	500
Deferred acquisition costs	2,000
Total assets	96,000
Unearned premiums	24,000
Loss / claims reserves	39,000
Debt	7,000
Equity	26,000
Total liabilities and equity	96,000

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US GAAP Balance Sheet



Premiums written which have **not been earned yet**

Investments	80,000
Premiums receivable	9,000
Reinsurance recoverables	4,500
Prepaid reinsurance premium	500
Deferred acquisition costs	2,000
Total assets	96,000
Unearned premiums	24,000
Loss / claims reserves	39,000
Debt	7,000
Equity	26,000
Total liabilities and equity	96,000

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US GAAP Balance Sheet



Claims incurred
which have **not yet**
been settled with
policyholders

Investments	80,000
Premiums receivable	9,000
Reinsurance recoverables	4,500
Prepaid reinsurance premium	500
Deferred acquisition costs	2,000
Total assets	96,000
Unearned premiums	24,000
Loss / claims reserves	39,000
Debt	7,000
Equity	26,000
Total liabilities and equity	96,000

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US GAAP Balance Sheet

Insurance reserves
(total liability to
policyholders)

Investments	80,000
Premiums receivable	9,000
Reinsurance recoverables	4,500
Prepaid reinsurance premium	500
Deferred acquisition costs	2,000
Total assets	96,000
Unearned premiums	24,000
Loss / claims reserves	39,000
Debt	7,000
Equity	26,000
Total liabilities and equity	96,000

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US GAAP Balance Sheet



Loans and bonds
used to help **finance**
the business

Investments	80,000
Premiums receivable	9,000
Reinsurance recoverables	4,500
Prepaid reinsurance premium	500
Deferred acquisition costs	2,000
Total assets	96,000
Unearned premiums	24,000
Loss / claims reserves	39,000
Debt	7,000
Equity	26,000
Total liabilities and equity	96,000

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US GAAP Balance Sheet



Covered by
regulatory capital
requirements

Investments	80,000
Premiums receivable	9,000
Reinsurance recoverables	4,500
Prepaid reinsurance premium	500
Deferred acquisition costs	2,000
Total assets	96,000
Unearned premiums	24,000
Loss / claims reserves	39,000
Debt	7,000
Equity	26,000
Total liabilities and equity	96,000

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IFRS P&C Financial Statements

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IFRS Income Statement

1



**No premiums
referenced**

- IFRS refers to premiums earned as **insurance revenue**
- IFRS requires insurance revenue to be **presented gross of premiums paid to reinsurers**

Insurance revenue	5,000
Insurance service expenses	(3,400)
Net expense from reinsurance	(500)
Insurance service result	1,100
Investment return	200
Other operating costs	(300)
Finance costs	(100)
Profit before tax	900
Tax expense	(200)
Net income	700

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IFRS Income Statement

2



**No claims
expense/policy
acquisition costs
referenced**

- IFRS refers to all of these as **insurance service expenses**

Insurance revenue	5,000
Insurance service expenses	(3,400)
Net expense from reinsurance	(500)
Insurance service result	1,100
Investment return	200
Other operating costs	(300)
Finance costs	(100)
Profit before tax	900
Tax expense	(200)
Net income	700

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IFRS Income Statement



**Premiums paid to
reinsurers net of
claims recovered
from reinsurers**

Insurance revenue	5,000
Insurance service expenses	(3,400)
Net expense from reinsurance	(500)
Insurance service result	1,100
Investment return	200
Other operating costs	(300)
Finance costs	(100)
Profit before tax	900
Tax expense	(200)
Net income	700

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IFRS Income Statement

Insurance revenue
 + Insurance expenses
 + Net expense from reinsurance
 = **Insurance service result**
 (underwriting profit)

Insurance revenue	5,000
Insurance service expenses	(3,400)
Net expense from reinsurance	(500)
Insurance service result	1,100
Investment return	200
Other operating costs	(300)
Finance costs	(100)
Profit before tax	900
Tax expense	(200)
Net income	700



IFRS Income Statement

Required subtotal
under IFRS

Insurance revenue	5,000
Insurance service expenses	(3,400)
Net expense from reinsurance	(500)
Insurance service result	1,100
Investment return	200
Other operating costs	(300)
Finance costs	(100)
Profit before tax	900
Tax expense	(200)
Net income	700



IFRS Income Statement

Insurance revenue	5,000
Insurance service expenses	(3,400)
Net expense from reinsurance	(500)
Insurance service result	1,100
Investment return	200
Other operating costs	(300)
Finance costs	(100)
Profit before tax	900
Tax expense	(200)
Net income	700

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IFRS Income Statement

Reinsurance is
included separately

← KEY DIFFERENCES →

Underwriting income and
expenses presented separately

Insurance revenue	5,000
Insurance service expenses	(3,400)
Net expense from reinsurance	(500)
Insurance service result	1,100
Investment return	200
Other operating costs	(300)
Finance costs	(100)
Profit before tax	900
Tax expense	(200)
Net income	700

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IFRS Balance Sheet

More aggregated
than a US GAAP
balance sheet

Investments	5,000
Premiums receivable	1,000
Reinsurance assets	1,000
Total assets	7,000
Insurance contract liabilities	5,000
Financial liabilities	1,000
Equity	1,000
Total liabilities and equity	7,000

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IFRS Balance Sheet

1



**No deferred
acquisition costs**

- These are **deducted from insurance reserves** and **included net within liabilities**

Investments	5,000
Premiums receivable	1,000
Reinsurance assets	1,000
Total assets	7,000
Insurance contract liabilities	5,000
Financial liabilities	1,000
Equity	1,000
Total liabilities and equity	7,000

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IFRS Balance Sheet

2



Single line for
reinsurance assets

- IFRS requires **reinsurance recoverables** and **prepaid reinsurance premiums** to be **aggregated** together

Investments	5,000
Premiums receivable	1,000
Reinsurance assets	1,000
Total assets	7,000
Insurance contract liabilities	5,000
Financial liabilities	1,000
Equity	1,000
Total liabilities and equity	7,000

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IFRS Balance Sheet

3



No unearned
premiums reserve
or claims reserve

- IFRS requires these to be **aggregated** together as **insurance contract liabilities**
- Reflects the **net future revenues and expenses** associated with insurance policies

Investments	5,000
Premiums receivable	1,000
Reinsurance assets	1,000
Total assets	7,000
Insurance contract liabilities	5,000
Financial liabilities	1,000
Equity	1,000
Total liabilities and equity	7,000

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Life Insurance Fundamentals

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1

2

3

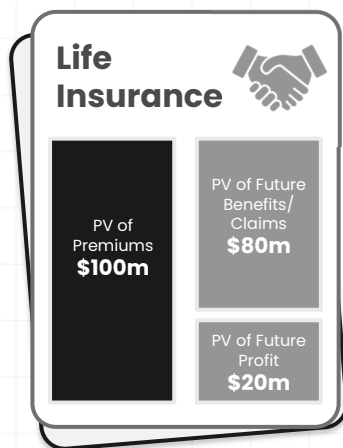


Accounting fundamentals for life insurance
(long duration insurance contracts)

These apply for both **US GAAP** and **IFRS**

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1



Longer duration contracts
(often many decades)

All cash flows need to be **discounted**

Linking premiums, claims and profits

PV of Premiums

=

PV of Future Benefits

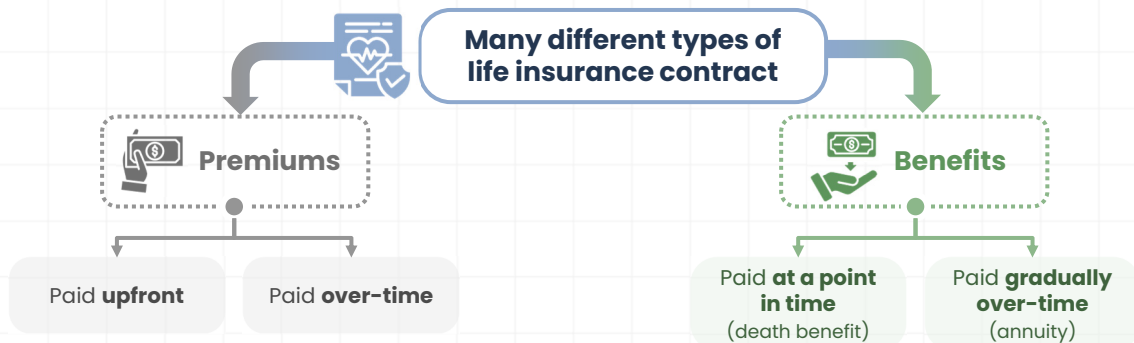
+

PV of Future Profits

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2

Many different types of life insurance contract



Profit recognition reflects how the insurance company is 'released from risk' over-time
(profits are gradually released to earnings over the contract duration)

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Reserves are updated to reflect current estimates

Cash flow estimates in reserves

Reflect current expectations of:

Mortality

Policy lapses/surrenders

Discounted using:

Current discount rates

Life Insurance



PV of Premiums

PV of Future Benefits/Claims

LONG DURATION CONTRACT

- ↳ Becomes **onerous**
- ↳ PV of Future Benefits/Claims **exceed** the value of premiums
- ↳ Is **loss making** rather than generating future profits

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US GAAP Contract Types

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US GAAP long duration contracts

Traditional Life



Significant insurance risk and **fixed premiums paid** over a similar period as the benefits are paid

.....
E.g. term life insurance and whole life insurance

Limited-Payment



Significant insurance risk but **premium period is paid upfront or over a short duration** compared to benefits

.....
E.g. annuities

Universal Life



Significant insurance risk but **premiums are flexible** and policy values are not guaranteed

.....
Guaranteed interest rate may be offered

Each has modified accounting for determining **insurance reserves** and **how profits are 'earned'**

US GAAP Traditional Life



Traditional Life Insurance Contracts

US GAAP approach key principles:

1

Future cash flows are **discounted** using **high-quality corporate bond yields**

Discount rates updated each reporting period and reflect current estimates of future cash flows

2

Gross premiums are **recognized as revenue as they are due**

E.g. a term life policy requires level premium of \$100 per year – this is recognized as revenue each year

3

'Net premium approach' is used to match benefits expense to gross premiums

Profits are gradually released over the coverage period

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Traditional Life Insurance Contracts

US GAAP approach key principles:

3

'Net premium approach' is used to match benefits expense to gross premiums

Profits are gradually released over the coverage period

Determines the **net premium ratio**

$$\text{Net Premium \%} = \frac{\text{PV Future Benefits}}{\text{PV Gross Premiums}}$$

$$90\% = \frac{900}{1,000}$$

PV of Net Premiums
90% x \$1000
= \$900

PV of Future Benefits
\$900

PV Gross Premiums
\$1,000

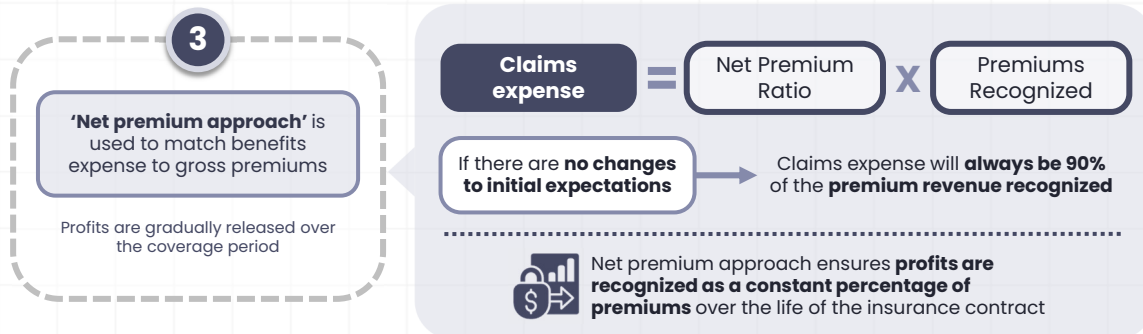
PV of Future Profit
\$100

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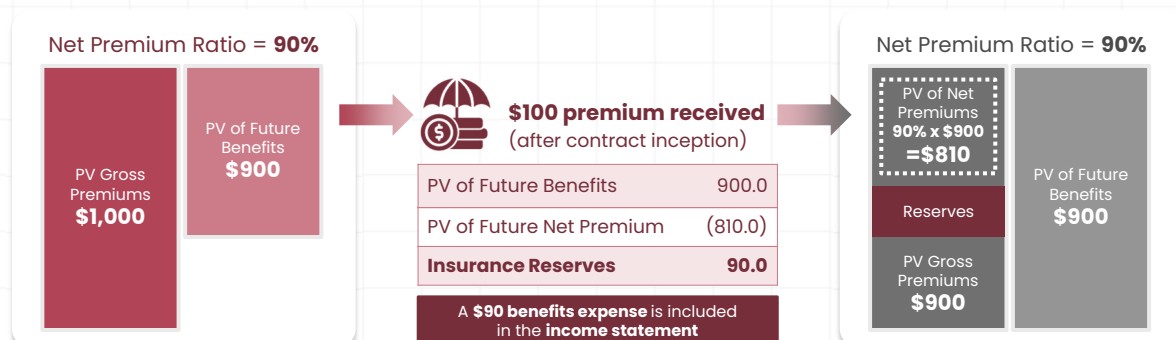
Traditional Life Insurance Contracts

US GAAP approach key principles:

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$$\text{Life Insurance Reserves} = \text{PV of Future Benefits} - \text{PV of Future Net Premium}$$

$$\text{PV Gross Premium} \times \text{Net Premium Ratio}$$

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US GAAP Updating Assumptions

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What happens if cash flow expectations change?

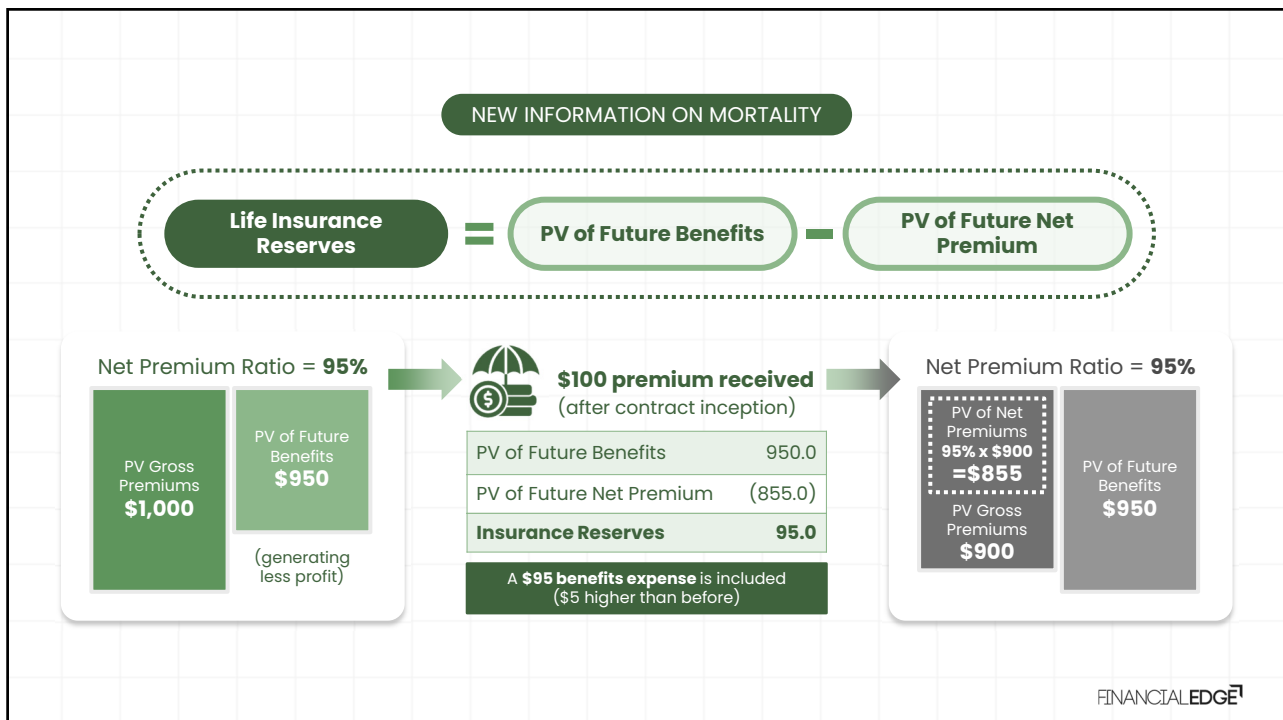
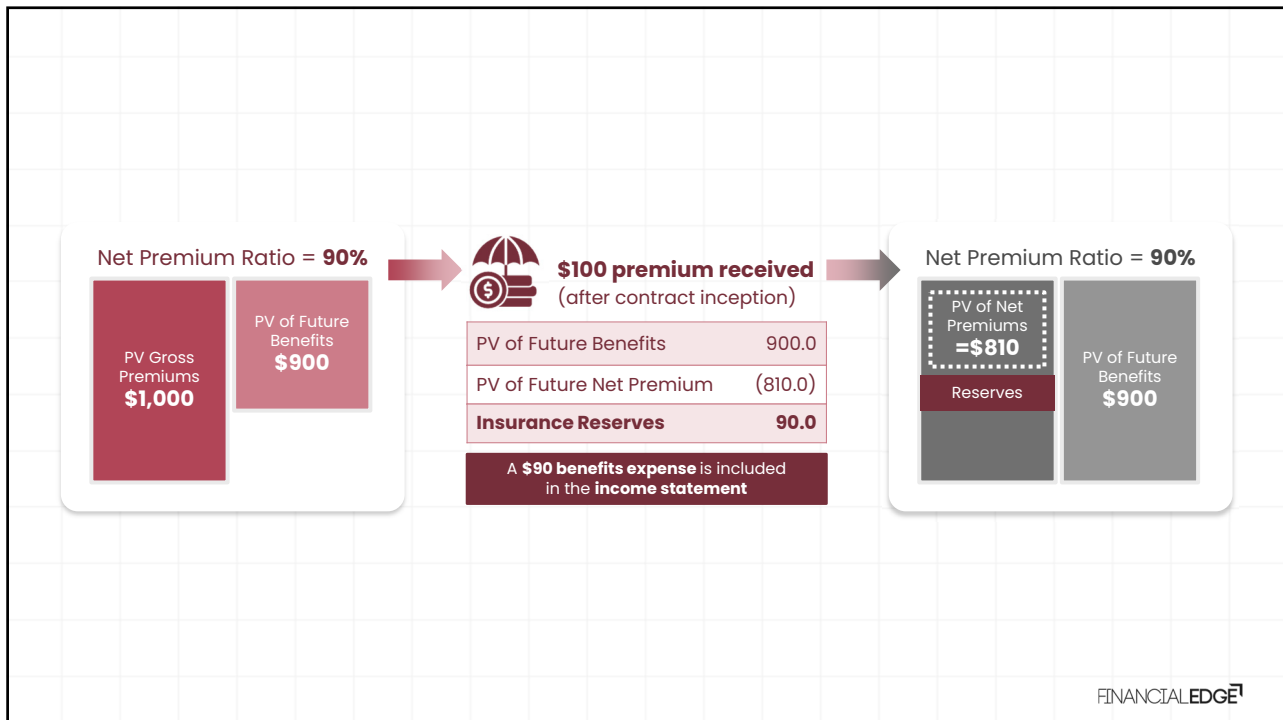
The net premium ratio is updated each year to reflect current cash flow expectations

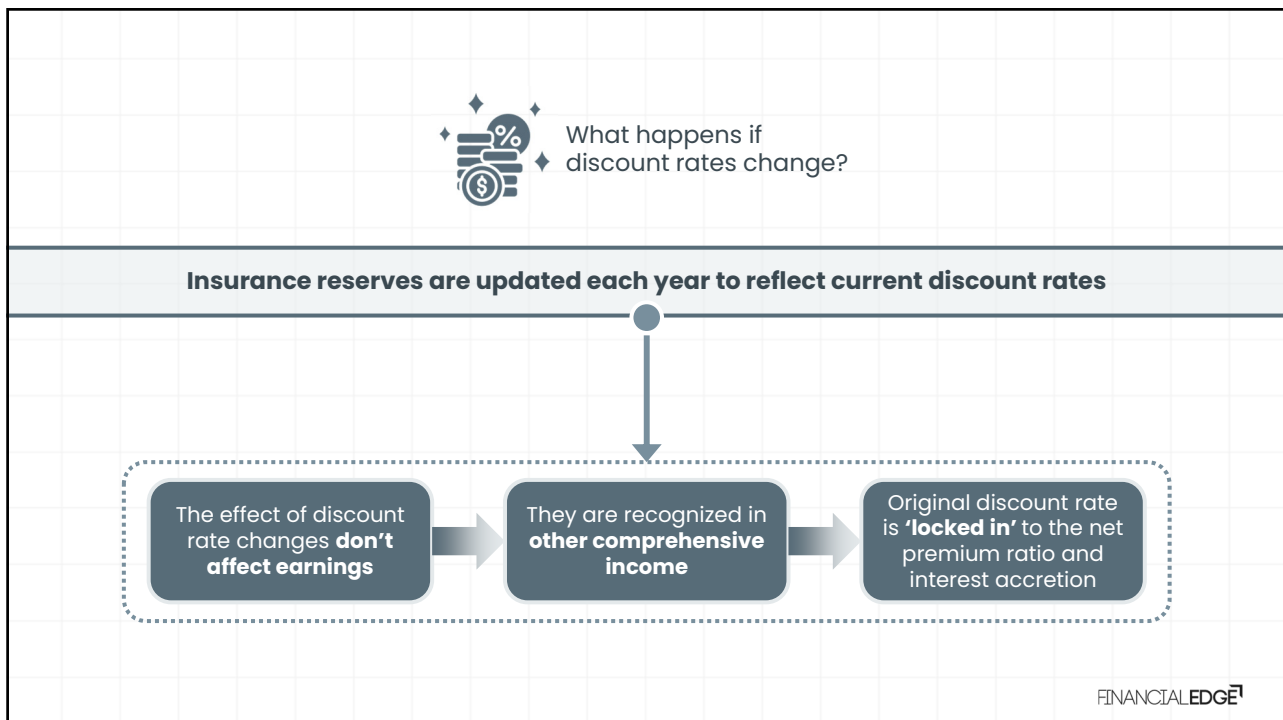
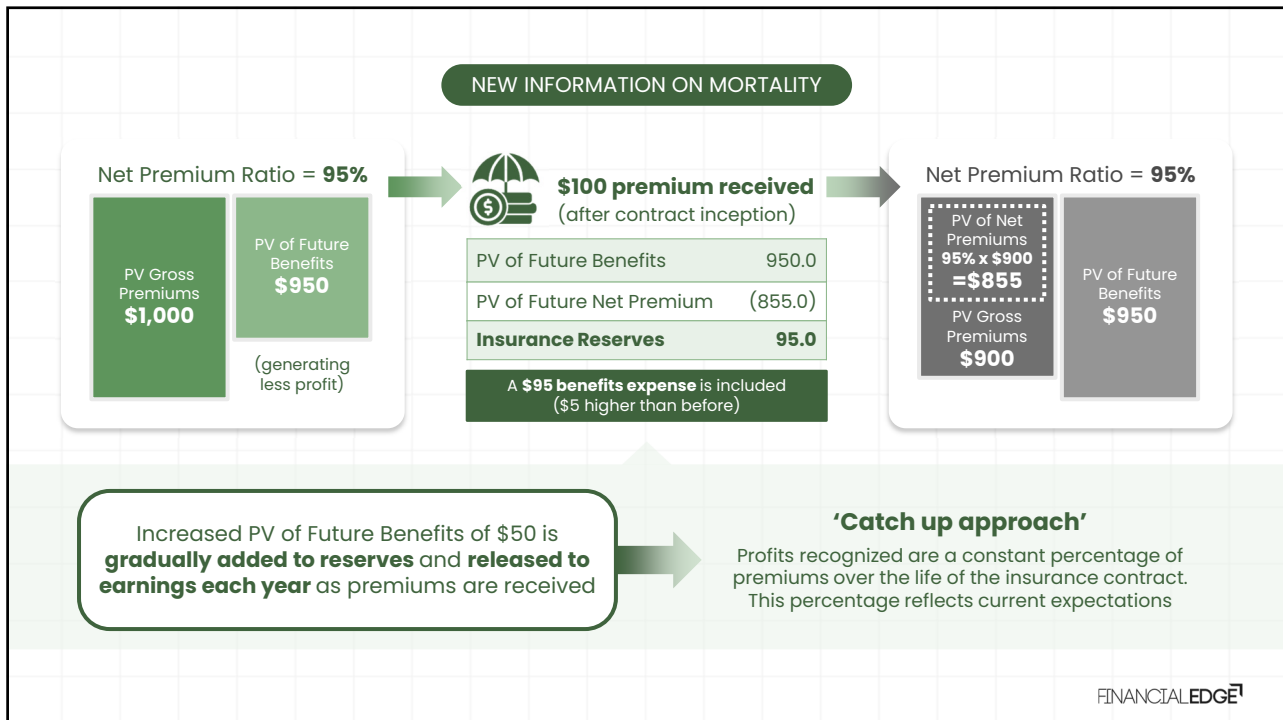


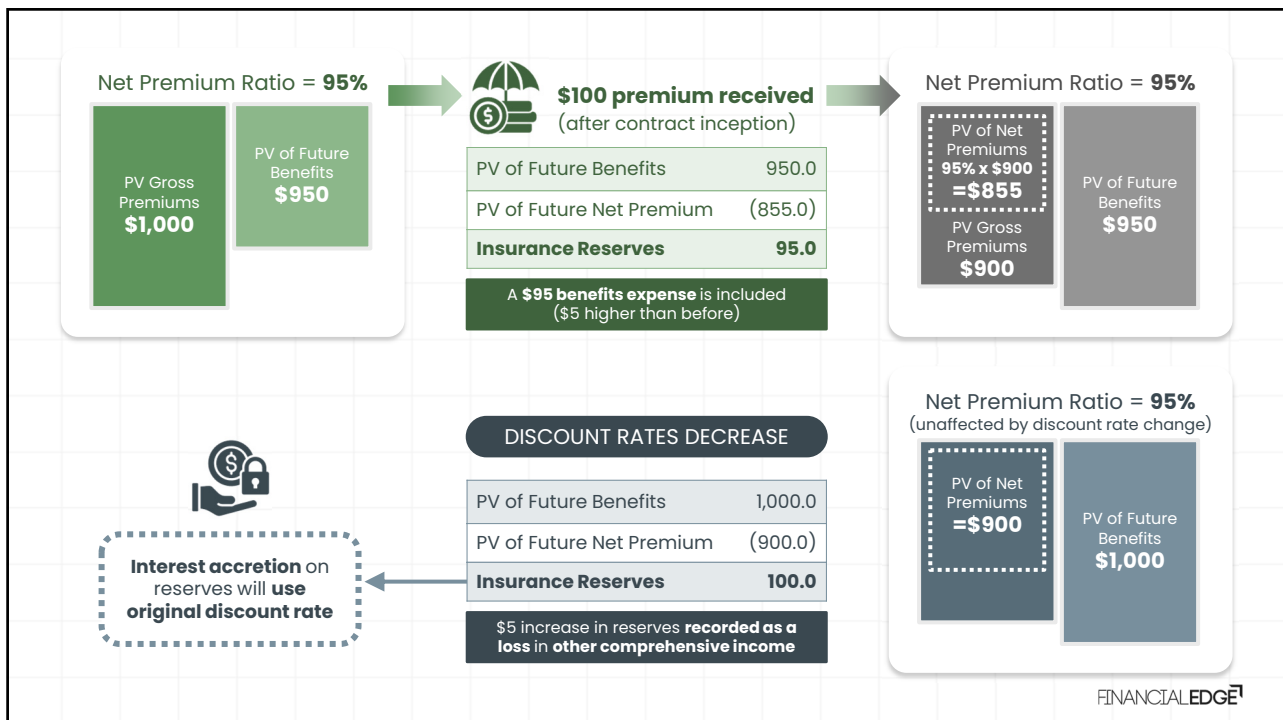
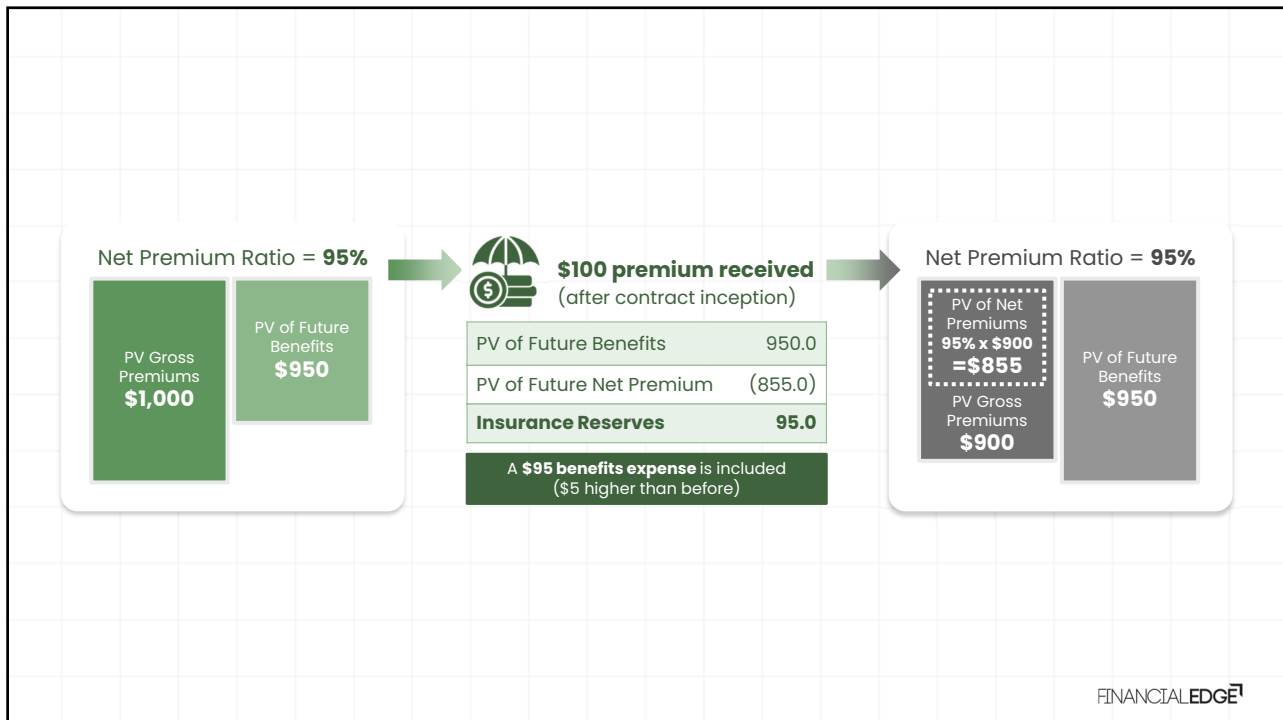
$$\text{Net Premium \%} = \frac{\text{PV Actual + Future Benefits}}{\text{PV Actual + Gross Premiums}}$$

- ↳ Used in the calculation of reserves going forward
- ↳ Only cash flows are updated
- ↳ Discount rate remains the same – it is 'locked in'

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US GAAP Limited Payment



Limited-Payment Contracts

Most premiums are received at the start of the contract, whilst benefits are paid out over the life of the contract

1

Future cash flows are **discounted** using **high-quality corporate bond yields**

2

'**Net premium approach**' is used to **spread the contract profit** over the contract life

3

Gross premium in excess of net premium is deferred to **gradually recognize profit**



Limited-Payment Contracts

Most premiums are received at the start of the contract, whilst benefits are paid out over the life of the contract

3

Gross premium in excess of net premium is deferred to **gradually recognize profit**

Determines the **net premium ratio**

$$\text{Net Premium \%} = \frac{\text{PV Future Benefits}}{\text{PV Gross Premiums}}$$

$$90\% = \frac{900}{1,000}$$

PV of Net Premiums
 $90\% \times \$1000$
=\$900

PV of Future Benefits
\$900

Excess Gross Premium
\$100

PV of Future Profit
\$100

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Limited-Payment Contracts

Most premiums are received at the start of the contract, whilst benefits are paid out over the life of the contract

3

Gross premium in excess of net premium is deferred to **gradually recognize profit**

Reserves calculated the same way as traditional contracts:

Life Insurance Reserves

= PV of Future Benefits

- PV of Future Net Premium

Deferred premium liability recognized for limited-payment contracts:

Deferred Premium Liability

= Gross Premium Received

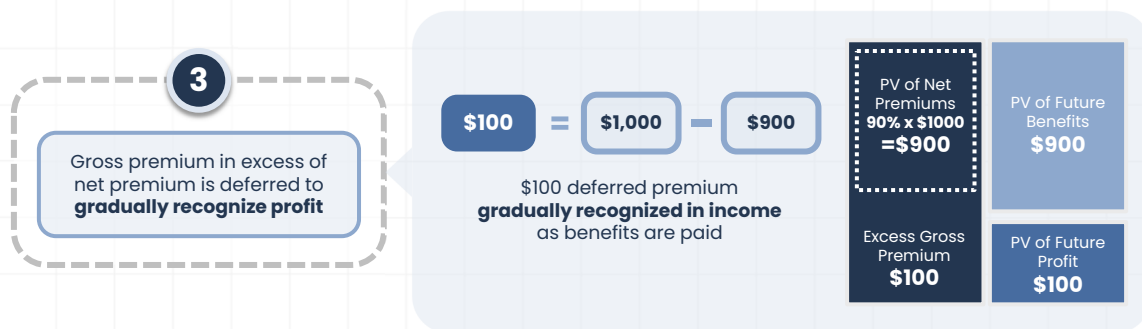
- PV of Future Net Premium

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Limited-Payment Contracts

Most premiums are received at the start of the contract, whilst benefits are paid out over the life of the contract

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US GAAP Universal Life

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Universal Life Insurance Contracts



Policyholders have flexibility
over the premiums paid



Insurance risk is low
compared to investment risk



Death benefit varies with
interest/market rate changes

Premiums are treated as a deposit, rather than revenues



Universal Life Insurance Contracts

Premiums are treated as a deposit, rather than revenues

Separately identified
on the face of the
balance sheet:

**Policyholder
account balances**

Reserves

Guaranteed
benefits

Amounts credited
to policyholders

Premiums

Income statement

Revenues now only reflect:

Fees charged to
policyholders

- ↳ Cost of insurance
- ↳ Surrender fees
- ↳ Asset management charges

US GAAP Life Financial Statements

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US GAAP Life Insurance Balance Sheet

Largest item in assets

Typically **fixed income** instruments



Less liquid than P&C



Greater risk appetite

Investments and cash	410,000
Premiums receivable	30,000
Deferred acquisition costs	20,000
Separate account assets	140,000
Total assets	600,000
Future policy benefits	200,000
Policyholder account balances	230,000
Separate account liabilities	140,000
Equity	30,000
Total liabilities and equity	600,000

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US GAAP Life Insurance Balance Sheet



Premiums written that the policyholder has **not yet paid**

Investments and cash	410,000
Premiums receivable	30,000
Deferred acquisition costs	20,000
Separate account assets	140,000
Total assets	600,000
Future policy benefits	200,000
Policyholder account balances	230,000
Separate account liabilities	140,000
Equity	30,000
Total liabilities and equity	600,000

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US GAAP Life Insurance Balance Sheet



Amounts paid during the **acquisition of new policies**

More material than for P&C since costs are deferred and amortized over a **much longer coverage period**

Investments and cash	410,000
Premiums receivable	30,000
Deferred acquisition costs	20,000
Separate account assets	140,000
Total assets	600,000
Future policy benefits	200,000
Policyholder account balances	230,000
Separate account liabilities	140,000
Equity	30,000
Total liabilities and equity	600,000

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US GAAP Life Insurance Balance Sheet



Contract holder assumes **all the investment risk** and **directs the investment objectives**

Segregated funds

Hold investments on behalf of the policyholder and insurance company charges a fee

Investments and cash	410,000
Premiums receivable	30,000
Deferred acquisition costs	20,000
Separate account assets	140,000
Total assets	600,000
Future policy benefits	200,000
Policyholder account balances	230,000
Separate account liabilities	140,000
Equity	30,000
Total liabilities and equity	600,000

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US GAAP Life Insurance Balance Sheet

Insurance reserves for:

- **Term Life** Policies
- **Whole Life** Policies
- **Fixed Annuities**



Future benefits payable net of any deferred net premium

Investments and cash	410,000
Premiums receivable	30,000
Deferred acquisition costs	20,000
Separate account assets	140,000
Total assets	600,000
Future policy benefits	200,000
Policyholder account balances	230,000
Separate account liabilities	140,000
Equity	30,000
Total liabilities and equity	600,000

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US GAAP Life Insurance Balance Sheet

For policies like
Universal Life contracts:



Policyholders have
**flexibility over
premiums paid**

Benefit is associated
with account value
(low insurance risk)

Investments and cash	410,000
Premiums receivable	30,000
Deferred acquisition costs	20,000
Separate account assets	140,000
Total assets	600,000
Future policy benefits	200,000
Policyholder account balances	230,000
Separate account liabilities	140,000
Equity	30,000
Total liabilities and equity	600,000

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US GAAP Life Insurance Balance Sheet



Covered by
**regulatory capital
requirements**

Investments and cash	410,000
Premiums receivable	30,000
Deferred acquisition costs	20,000
Separate account assets	140,000
Total assets	600,000
Future policy benefits	200,000
Policyholder account balances	230,000
Separate account liabilities	140,000
Equity	30,000
Total liabilities and equity	600,000

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US GAAP Life Insurance Income Statement



Premiums received for
Traditional Life contracts
and **amount deferred**
for Annuity contracts

Premiums	45,000
Universal life and investment policy fees	5,000
Investment income	20,000
Total revenue	70,000
Policyholder benefits and claims	(45,000)
Interest credited to policyholder accounts	(10,000)
Operating costs	(10,000)
Total expenses	(65,000)
Tax expense	(2,000)
Net income	3,000

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US GAAP Life Insurance Income Statement



Fees received for
Universal Life policies

And **fees charged on:**

- Investment products
- Managed funds
- Segregated accounts

Premiums	45,000
Universal life and investment policy fees	5,000
Investment income	20,000
Total revenue	70,000
Policyholder benefits and claims	(45,000)
Interest credited to policyholder accounts	(10,000)
Operating costs	(10,000)
Total expenses	(65,000)
Tax expense	(2,000)
Net income	3,000

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US GAAP Life Insurance Income Statement



Generated from
investments in the
balance sheet

Premiums	45,000
Universal life and investment policy fees	5,000
Investment income	20,000
Total revenue	70,000
Policyholder benefits and claims	(45,000)
Interest credited to policyholder accounts	(10,000)
Operating costs	(10,000)
Total expenses	(65,000)
Tax expense	(2,000)
Net income	3,000

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US GAAP Life Insurance Income Statement

**3 core revenue
streams** for a life
insurance business

Premiums	45,000
Universal life and investment policy fees	5,000
Investment income	20,000
Total revenue	70,000
Policyholder benefits and claims	(45,000)
Interest credited to policyholder accounts	(10,000)
Operating costs	(10,000)
Total expenses	(65,000)
Tax expense	(2,000)
Net income	3,000

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US GAAP Life Insurance Income Statement



Increase in reserves on existing policies including **interest accretion**

Claims & benefits on:

- **Term Life** insurance
- **Whole Life** insurance
- **Annuity** business

Premiums	45,000
Universal life and investment policy fees	5,000
Investment income	20,000
Total revenue	70,000
Policyholder benefits and claims	(45,000)
Interest credited to policyholder accounts	(10,000)
Operating costs	(10,000)
Total expenses	(65,000)
Tax expense	(2,000)
Net income	3,000

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US GAAP Life Insurance Income Statement



For **Universal Life** contracts where the benefit is based on the **policyholder account balance**

Premiums	45,000
Universal life and investment policy fees	5,000
Investment income	20,000
Total revenue	70,000
Policyholder benefits and claims	(45,000)
Interest credited to policyholder accounts	(10,000)
Operating costs	(10,000)
Total expenses	(65,000)
Tax expense	(2,000)
Net income	3,000

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US GAAP Life Insurance Income Statement

Includes overheads
of the business:



Staff costs



IT costs



**Head office
costs**



And amortization
of **deferred
acquisition costs**

Premiums	45,000
Universal life and investment policy fees	5,000
Investment income	20,000
Total revenue	70,000
Policyholder benefits and claims	(45,000)
Interest credited to policyholder accounts	(10,000)
Operating costs	(10,000)
Total expenses	(65,000)
Tax expense	(2,000)
Net income	3,000

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US GAAP Life Insurance Income Statement

Insurance companies
have lower tax rates as:

- Some investment income and dividends are **tax deductible** or taxed at a **preferential rate**

Premiums	45,000
Universal life and investment policy fees	5,000
Investment income	20,000
Total revenue	70,000
Policyholder benefits and claims	(45,000)
Interest credited to policyholder accounts	(10,000)
Operating costs	(10,000)
Total expenses	(65,000)
Tax expense	(2,000)
Net income	3,000

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IFRS General Model



Life insurance contracts with **fixed premiums and benefits** (Traditional Life insurance and Fixed Annuities) use the **general model under IFRS**

IFRS General Model 3 Key Principles:

IFRS General Model 3 Key Principles:

1

Future cash flows are **discounted** using **high-quality corporate bond yields**

Discount rates updated each reporting period and reflect current estimates of future cash flows

2

Contract profit or contractual service margin ('CSM') is calculated at the start

After deducting expenses, underwriting and acquisition costs, and risk margin due to insurance risk

3

CSM is released to the income statement based on the **proportion of benefits paid in each period**

Recorded on a net basis as 'insurance service revenues'

PV of Premiums
€1,000

PV of Future Benefits & Expenses
€850

Risk margin
€50

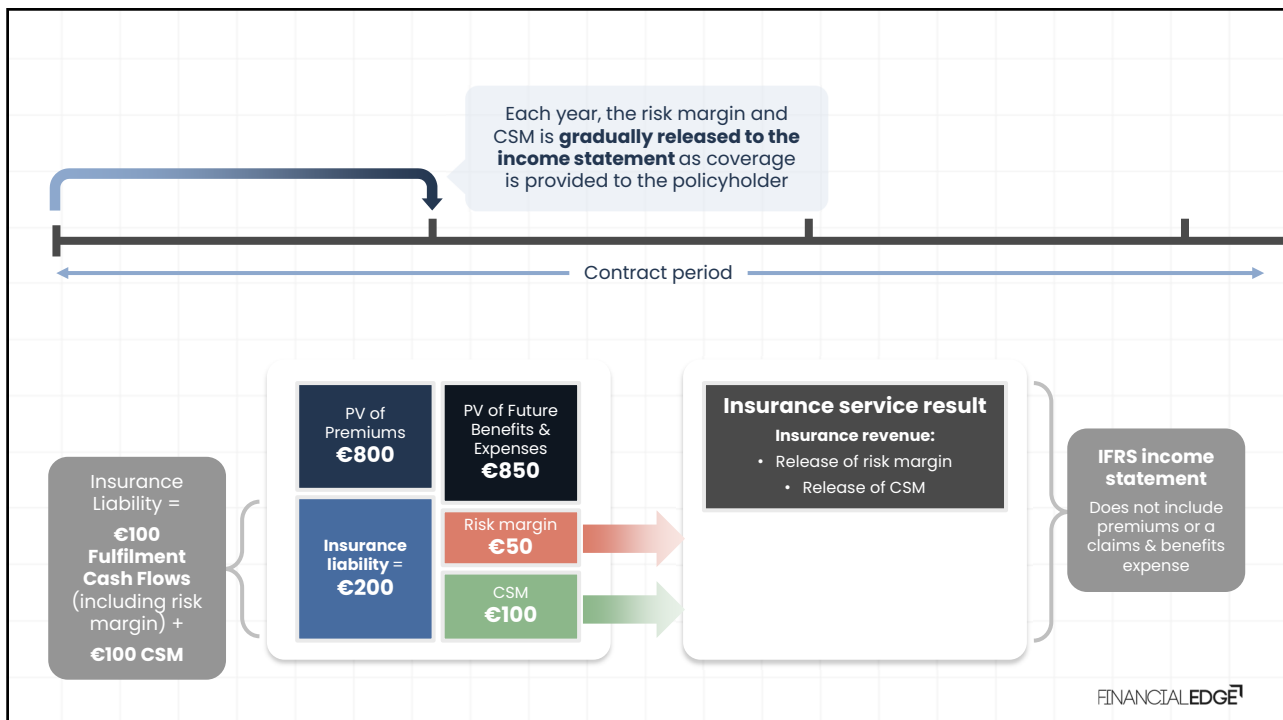
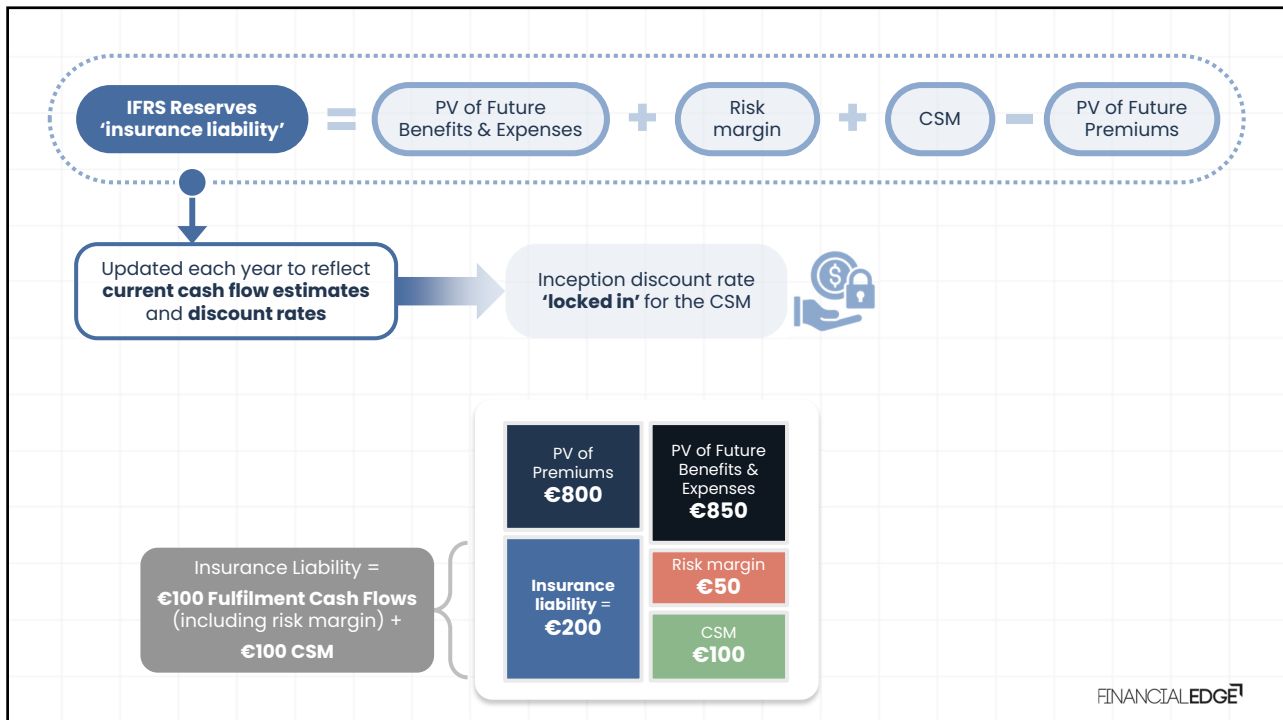
CSM
€100

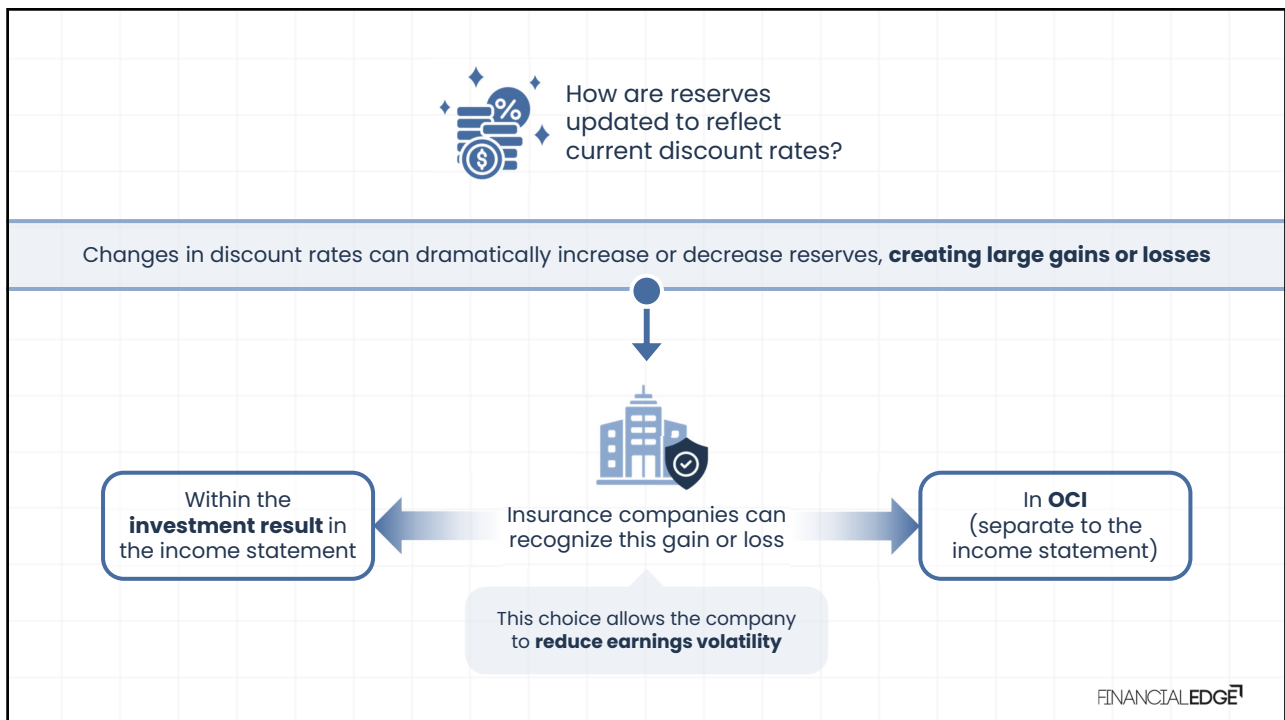
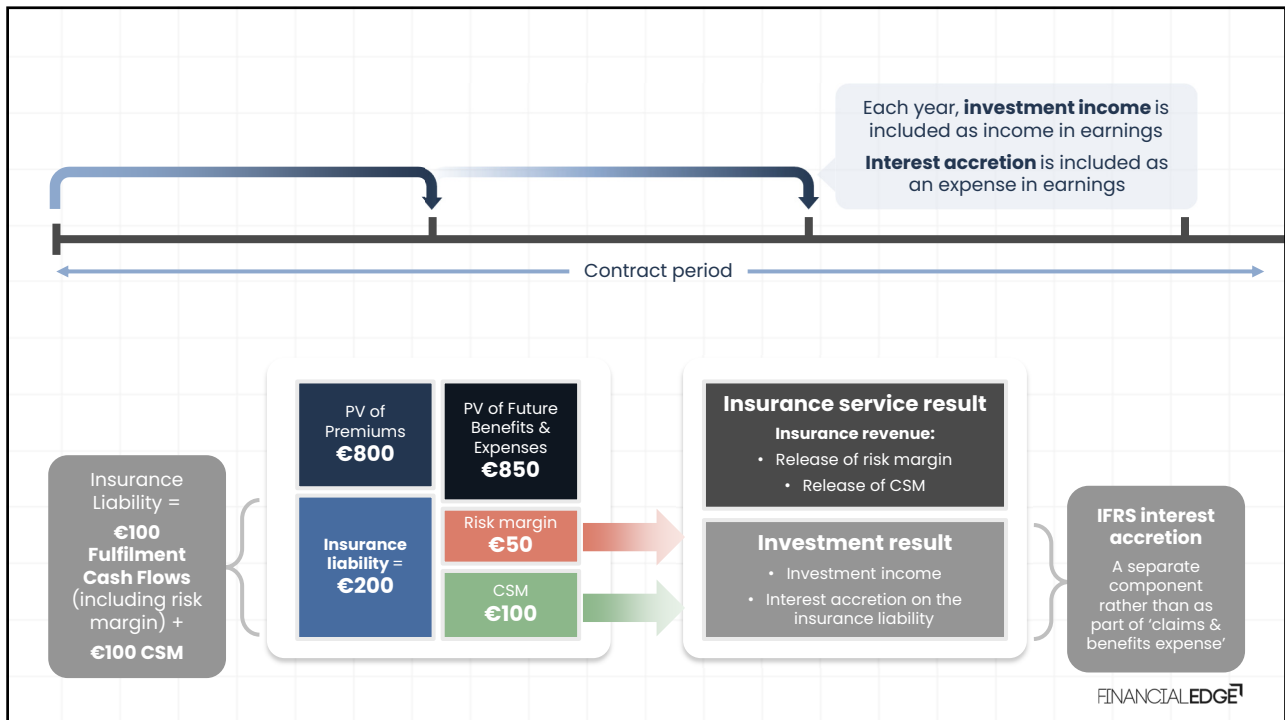
Model can be applied for all contracts with fixed premiums and benefits **regardless of cash flow timings**

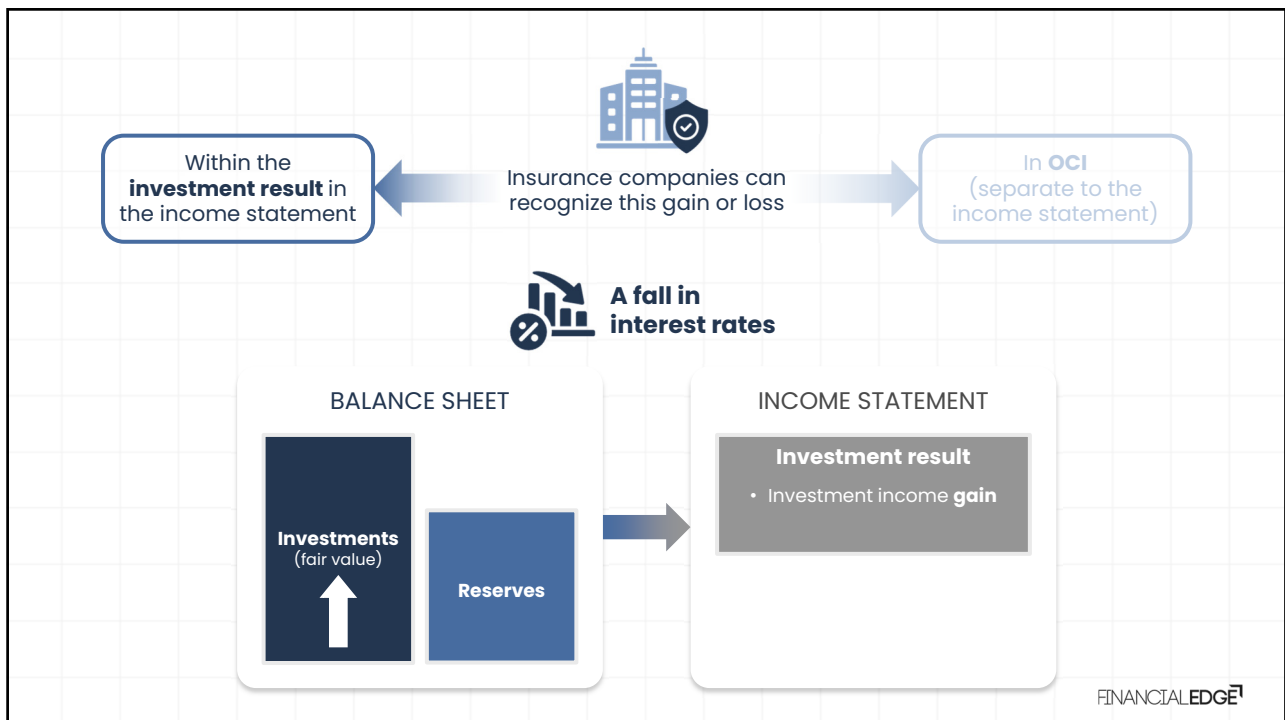
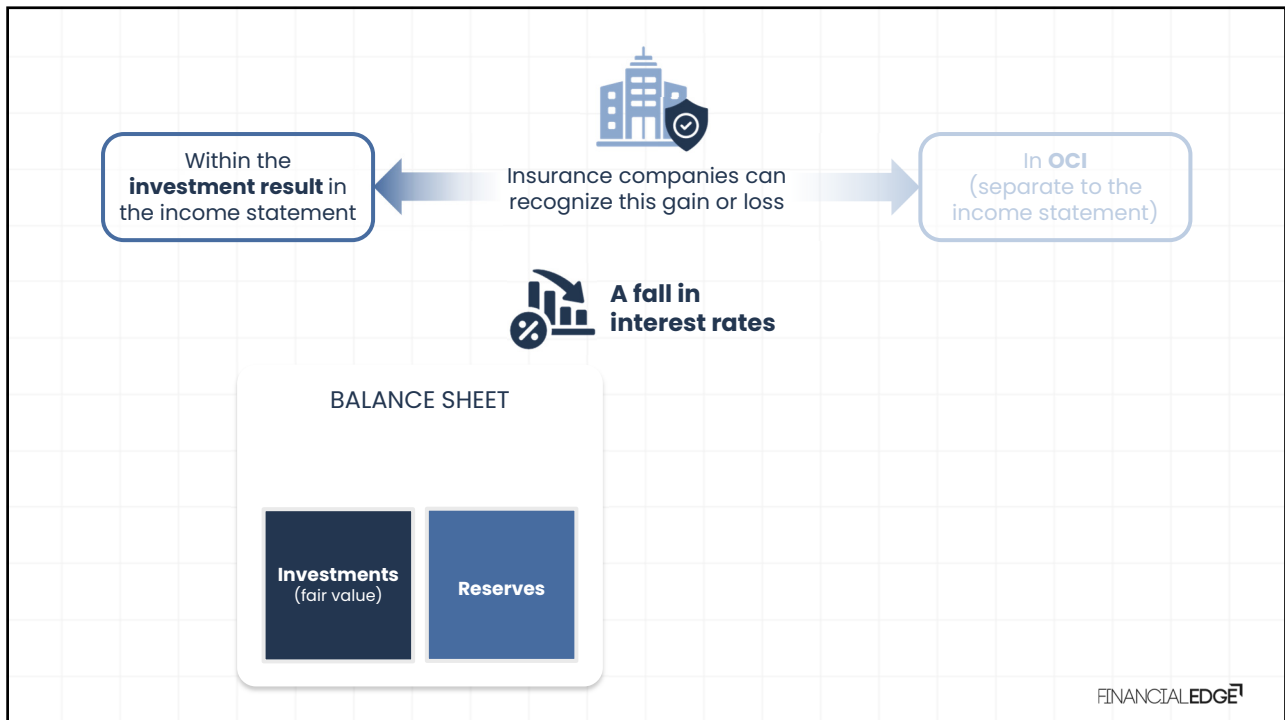
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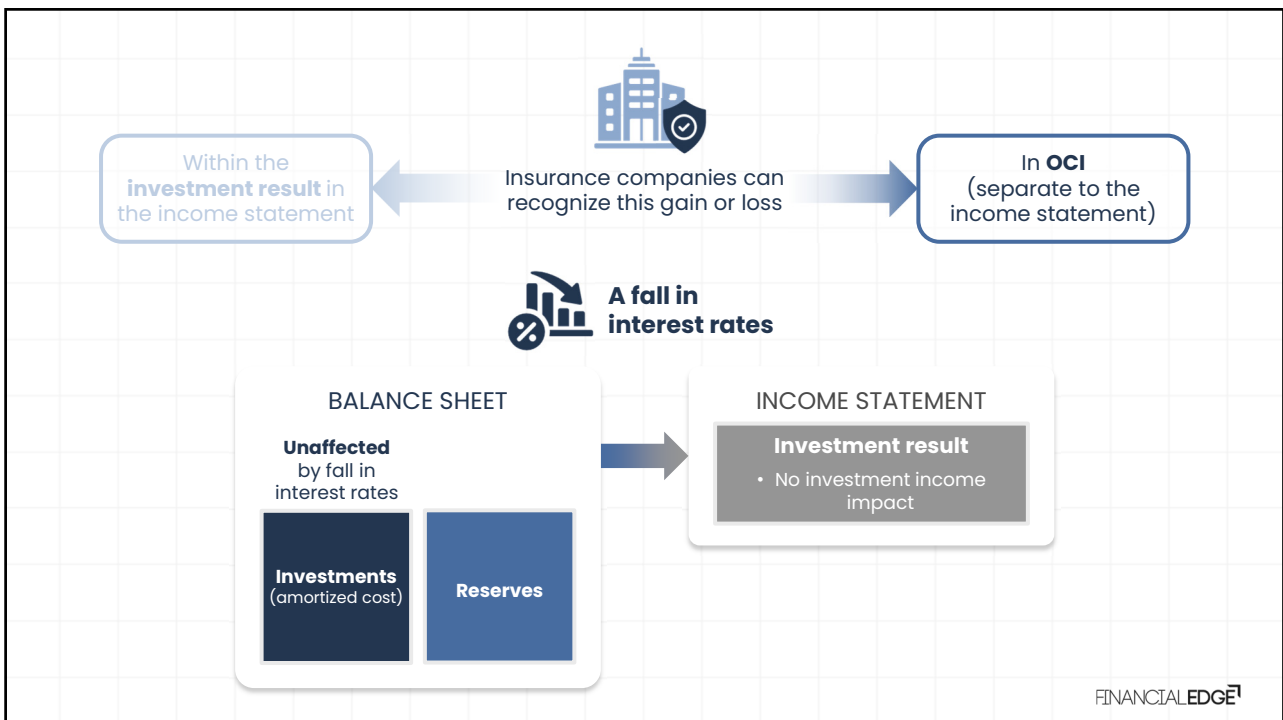
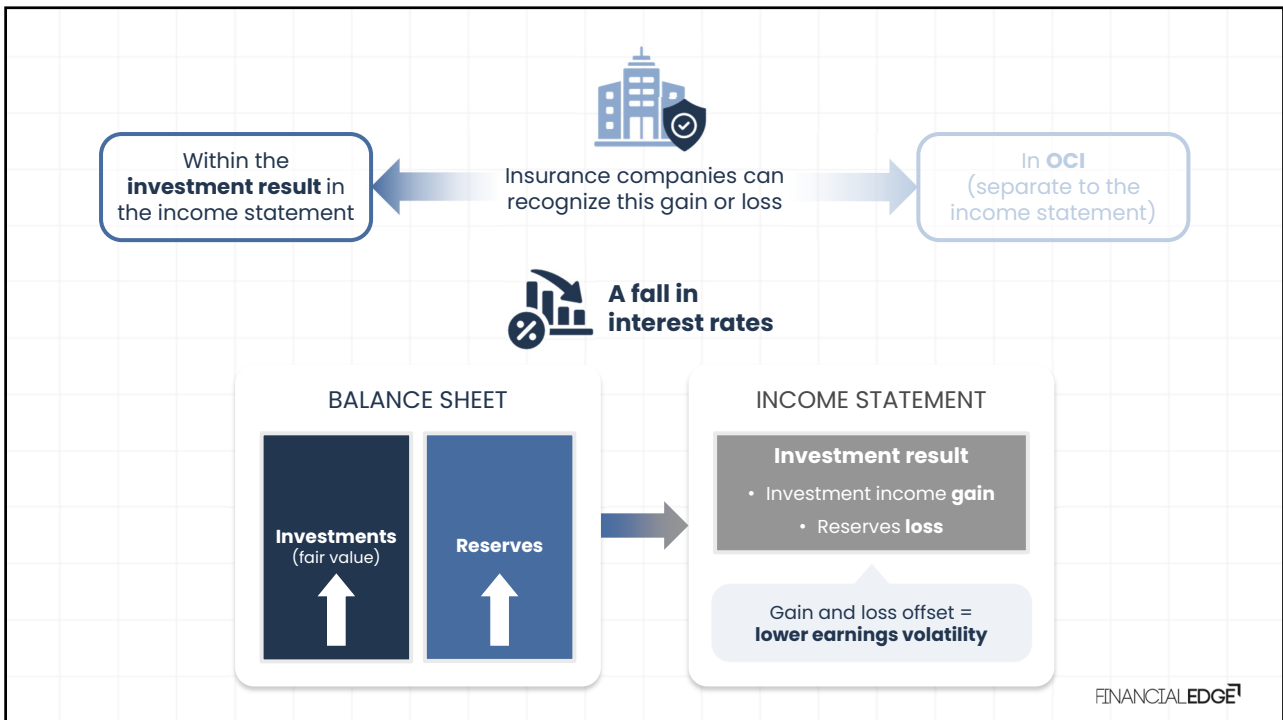
IFRS Reserves and Earnings

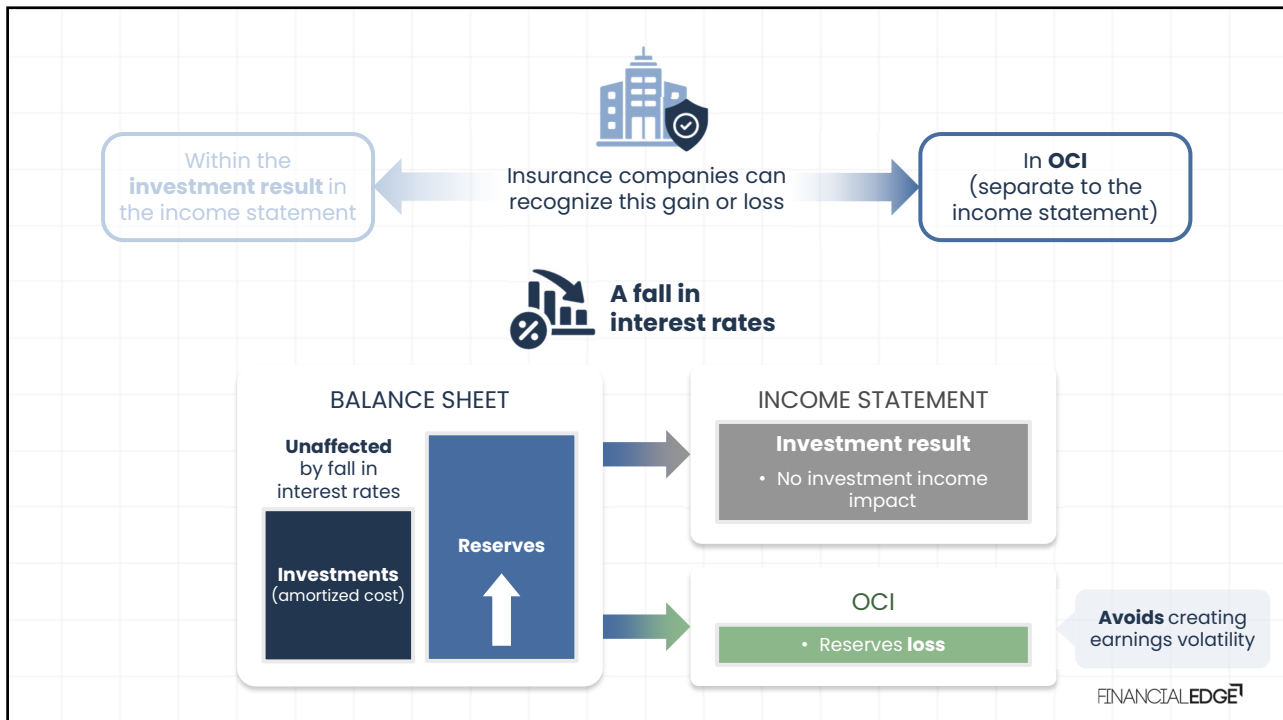
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IFRS Variable Fee Approach



Variable fee approach

IFRS accounting rules for policies where the **profits are affected by the performance of underlying investments**

Used for **participating policies**

Investment returns of a pool of assets are shared between insurer and policyholder

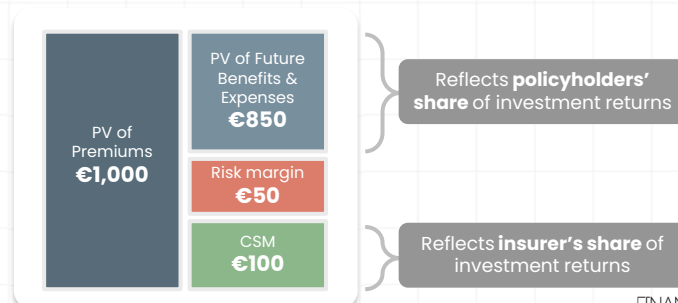
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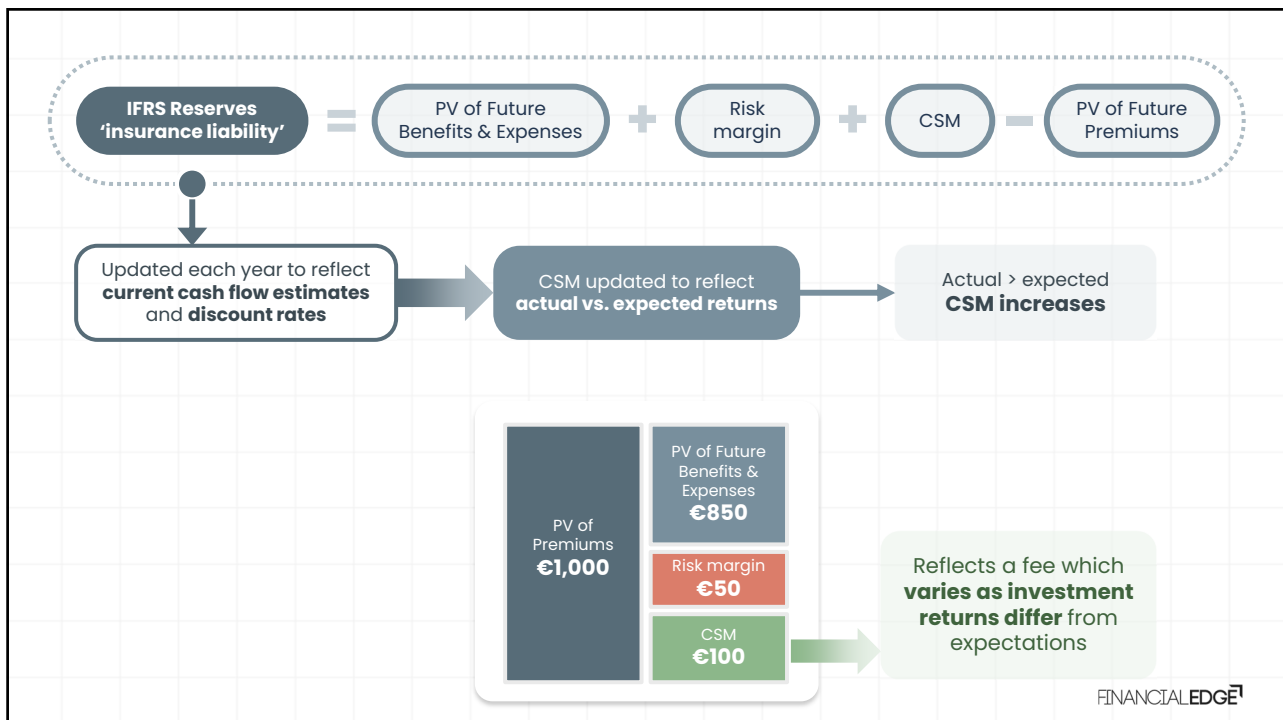
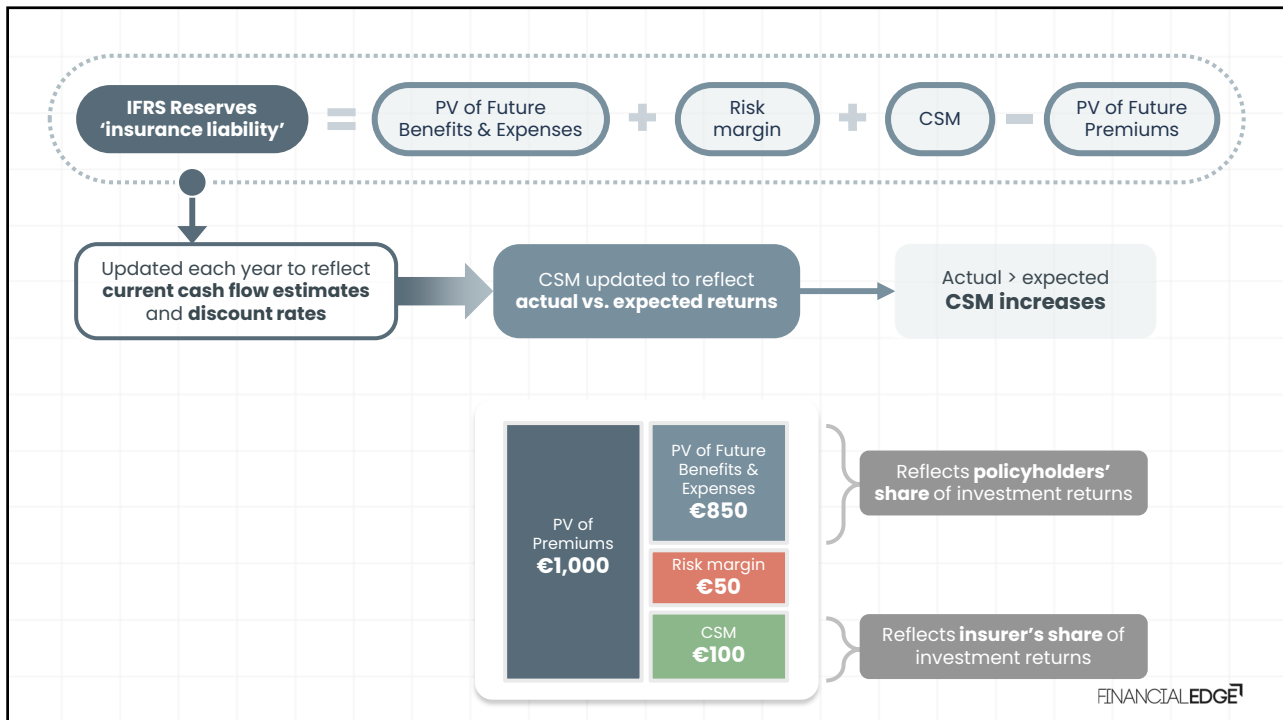
Variable fee approach

IFRS accounting rules for policies where the **profits are affected by the performance of underlying investments**

Used for **participating policies**

Investment returns of a pool of assets are shared between insurer and policyholder

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IFRS Life Financial Statements

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IFRS Life Insurance Balance Sheet

More aggregated
than a US GAAP
balance sheet

Investments	500,000
Cash	45,000
Total assets	545,000
Insurance contract liabilities	95,000
Investment contract liabilities	320,000
Net asset value attributable to unitholders	30,000
Borrowings	90,000
Equity	10,000
Total liabilities and equity	545,000

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IFRS Life Insurance Balance Sheet

Largest item in assets



Includes value of investments held within unit trusts for **unit linked policies**

- Separately disclosed on the **face of the balance sheet**
- In the **footnotes** to the accounts

Investments	500,000
Cash	45,000
Total assets	545,000
Insurance contract liabilities	95,000
Investment contract liabilities	320,000
Net asset value attributable to unitholders	30,000
Borrowings	90,000
Equity	10,000
Total liabilities and equity	545,000

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IFRS Life Insurance Balance Sheet



Cash held for **operational purposes**

Any **insurance contract assets** are included within **insurance liabilities**

- E.g. **premiums receivable** or **deferred acquisition costs**

Investments	500,000
Cash	45,000
Total assets	545,000
Insurance contract liabilities	95,000
Investment contract liabilities	320,000
Net asset value attributable to unitholders	30,000
Borrowings	90,000
Equity	10,000
Total liabilities and equity	545,000

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IFRS Life Insurance Balance Sheet

Reserves for all insurance policies with **significant insurance risk**

- Traditional Life
- Annuities
- Participating Life with **significant guaranteed benefits**

Investments	500,000
Cash	45,000
Total assets	545,000
Insurance contract liabilities	95,000
Investment contract liabilities	320,000
Net asset value attributable to unitholders	30,000
Borrowings	90,000
Equity	10,000
Total liabilities and equity	545,000

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IFRS Life Insurance Balance Sheet



Policies with **low insurance risk** that **offer investment services** to policyholders

For European insurers:

- **Unit-linked** policies
- Participating policies with **minimal guaranteed benefits**

Investments	500,000
Cash	45,000
Total assets	545,000
Insurance contract liabilities	95,000
Investment contract liabilities	320,000
Net asset value attributable to unitholders	30,000
Borrowings	90,000
Equity	10,000
Total liabilities and equity	545,000

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IFRS Life Insurance Balance Sheet

350,000 investments

(held within unit trusts for
unit linked policies)

– **320,000** investment
contract liability

(current account value of
unit linked policies)

**= Net asset value of
30,000**

(belongs to the unitholders)

Investments	500,000
Cash	45,000
Total assets	545,000
Insurance contract liabilities	95,000
Investment contract liabilities	320,000
Net asset value attributable to unitholders	30,000
Borrowings	90,000
Equity	10,000
Total liabilities and equity	545,000

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IFRS Life Insurance Balance Sheet



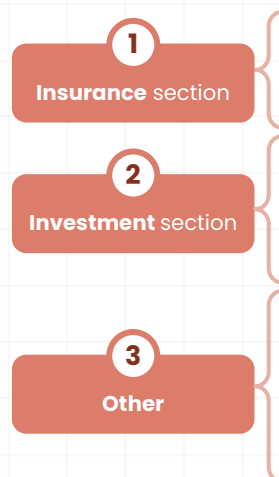
Long dated
borrowings and equity
are covered by
European **regulatory
capital requirements**

Investments	500,000
Cash	45,000
Total assets	545,000
Insurance contract liabilities	95,000
Investment contract liabilities	320,000
Net asset value attributable to unitholders	30,000
Borrowings	90,000
Equity	10,000
Total liabilities and equity	545,000

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IFRS Life Insurance Income Statement



Insurance revenue	12,000
Insurance expense	(10,000)
Insurance service result	2,000
Investment return	20,000
Finance expense on insurance contracts	(1,000)
Change in investment contract liabilities	(18,000)
Insurance and investment result	3,000
Fees from fund management and investment contracts	1,000
Other finance costs	(500)
Profit before tax	3,500
Tax expense	(1,000)
Net income	2,500

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IFRS Life Insurance Income Statement



Reflects profits released on insurance contracts

- Contractual service margin (CSM)
- Risk margin

Insurance revenue	12,000
Insurance expense	(10,000)
Insurance service result	2,000
Investment return	20,000
Finance expense on insurance contracts	(1,000)
Change in investment contract liabilities	(18,000)
Insurance and investment result	3,000
Fees from fund management and investment contracts	1,000
Other finance costs	(500)
Profit before tax	3,500
Tax expense	(1,000)
Net income	2,500

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IFRS Life Insurance Income Statement



Non-contractual
operating expenses



Staff costs



Acquisition
costs

Insurance revenue	12,000
Insurance expense	(10,000)
Insurance service result	2,000
Investment return	20,000
Finance expense on insurance contracts	(1,000)
Change in investment contract liabilities	(18,000)
Insurance and investment result	3,000
Fees from fund management and investment contracts	1,000
Other finance costs	(500)
Profit before tax	3,500
Tax expense	(1,000)
Net income	2,500

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IFRS Life Insurance Income Statement

Effectively the
underwriting profit

Insurance revenue	12,000
Insurance expense	(10,000)
Insurance service result	2,000
Investment return	20,000
Finance expense on insurance contracts	(1,000)
Change in investment contract liabilities	(18,000)
Insurance and investment result	3,000
Fees from fund management and investment contracts	1,000
Other finance costs	(500)
Profit before tax	3,500
Tax expense	(1,000)
Net income	2,500

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IFRS Life Insurance Income Statement

Investment return

Insurance revenue	12,000
Insurance expense	(10,000)
Insurance service result	2,000
Investment return	20,000
Finance expense on insurance contracts	(1,000)
Change in investment contract liabilities	(18,000)
Insurance and investment result	3,000
Fees from fund management and investment contracts	1,000
Other finance costs	(500)
Profit before tax	3,500
Tax expense	(1,000)
Net income	2,500

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IFRS Life Insurance Income Statement

Investment return

— Finance expense on
insurance contracts
(interest accretion)

Insurance revenue	12,000
Insurance expense	(10,000)
Insurance service result	2,000
Investment return	20,000
Finance expense on insurance contracts	(1,000)
Change in investment contract liabilities	(18,000)
Insurance and investment result	3,000
Fees from fund management and investment contracts	1,000
Other finance costs	(500)
Profit before tax	3,500
Tax expense	(1,000)
Net income	2,500

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IFRS Life Insurance Income Statement

Investment return

- Finance expense on insurance contracts (interest accretion)
- Change in investment contract liabilities (amounts credited to policyholder accounts for unit linked policies)

Insurance revenue	12,000
Insurance expense	(10,000)
Insurance service result	2,000
Investment return	20,000
Finance expense on insurance contracts	(1,000)
Change in investment contract liabilities	(18,000)
Insurance and investment result	3,000
Fees from fund management and investment contracts	1,000
Other finance costs	(500)
Profit before tax	3,500
Tax expense	(1,000)
Net income	2,500

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IFRS Life Insurance Income Statement

Investment result

- + Insurance result
- = Insurance and investment result**
(effectively the operating profit)

Insurance revenue	12,000
Insurance expense	(10,000)
Insurance service result	2,000
Investment return	20,000
Finance expense on insurance contracts	(1,000)
Change in investment contract liabilities	(18,000)
Insurance and investment result	3,000
Fees from fund management and investment contracts	1,000
Other finance costs	(500)
Profit before tax	3,500
Tax expense	(1,000)
Net income	2,500

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IFRS Life Insurance Income Statement

Insurance revenue	12,000
Insurance expense	(10,000)
Insurance service result	2,000
Investment return	20,000
Finance expense on insurance contracts	(1,000)
Change in investment contract liabilities	(18,000)
Insurance and investment result	3,000
Fees from fund management and investment contracts	1,000
Other finance costs	(500)
Profit before tax	3,500
Tax expense	(1,000)
Net income	2,500

Interest expense
on their borrowings

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IFRS Life Insurance Income Statement

Insurance revenue	12,000
Insurance expense	(10,000)
Insurance service result	2,000
Investment return	20,000
Finance expense on insurance contracts	(1,000)
Change in investment contract liabilities	(18,000)
Insurance and investment result	3,000
Fees from fund management and investment contracts	1,000
Other finance costs	(500)
Profit before tax	3,500
Tax expense	(1,000)
Net income	2,500

Profit for
shareholders

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