

## **Global Conference of Actuaries 2011**

### Impact of Reserving on the Profit and Loss Account

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# Agenda



- 1. Demise of HIH
- 2. Reasons for the demise
- 3. Importance of reserving
- 4. Incurred claims / Profit and loss Account
- 5. Solvency Requirements
- 6. Reserving and Solvency



## **The demise of HIH Insurance**

□ On 15 March 2001 the major companies in the HIH Insurance group were placed in provisional liquidation.

□ Formal winding-up orders were made on 27 August 2001

□ By then the deficiency of the group was estimated to be between \$3.6 billion and \$5.3 billion

## But the shambling journey towards oblivion began a long time before March 2001.

## **Reasons for the demise**



□ The failure to provide adequately for future claims is called **'under-reserving' or 'under-provisioning'.** 

#### □ Why was there such serious under-reserving and why were the risks not properly priced?

#### □ <u>The answer was HIH was mismanaged.</u>

They were epitomised by :

▶rapid expansion,

- ≻under pricing,
- ➢ inadequate reserving
- Reckless and incompetent management
- ➤ False reporting
- >lack of integrity in the company's internal processes and systems.



## **Importance of proper reserving**

#### □ Liabilities need to be understood, analysed, properly valued and disclosed

There was a consistent failure of HIH, and FAI before it, to set aside enough money to pay their claims. Under-reserving had arisen because HIH was mismanaged.

> According to AM Best, 51% of insurance company failures are due to reserve deficiency.

➤ Deliberate manipulation of claims estimates by FAI management, contributed to underreserving. Excessive under-reserving of FAI's long-tail business. Est. loss \$590M.



## **Incurred Claims / Profit and Loss Account**

Particulars	Balance Sheet		Profit & Loss
Incurred Claims	31-Mar-10	31-Mar-11	
Claims Paid			1,000
Case Reserves	3,000	2,000	(1,000)
IBNR	2,500	6,000	3,500
	5,500	8,000	3,500

□ The Balance Sheet reflects the position as on the reporting date

□ The Profit and Loss Account reflects the net movement of the balance sheet

□ Each time a reserve is created the P/L is debited and a liability established

 $\hfill\square$  Each time a claim is paid the reserve is released and the claim paid .

□ The final claim payment would establish the efficacy the reserving process

□ Incurred Claims = Claims paid + Change in case reserves + Change in IBNR

Loss Ratio = Net Incurred Claims / Net Earned Premium

Dentioulere	1
Particulars	
One on Whitten Draminum	
Gross Written Premium	A
Net Written Premium	В
Net Earned Premium	С
Net Claims Incurred	D
Net Commission	E = F-G
Commission paid	F
Commission earned	G
Expenses of management	Н
Net underwriting results	I=C-D-E-H
Investment Income / other income	J
Profit before tax	K=I+J
Provision for taxes	L
Profit before tax	M=K-L
Profitability Ratios	
Loss Ratios - LR	D/C
Commission Ratio - CR	E/B
	H/B
Expense Ratio -ER Combined Ratio - COR	TI/D

#### Solvency requirements



□ The solvency norms for non life insurance companies in India are laid down in the Insurance Act 1938 as well as the solvency regulations

□ The minimum solvency a non life insurance company is required to keep at all times is **150%**.

□ Solvency is the ratio of Available Solvency Margin divided by the Required Solvency Margin .

□ Available Solvency Margin is the Net worth of the company with the following adjustments :

□ All fictitious assets have to be excluded

□ No credit is given for investments in furniture and fixtures

□ No credit is given for receivables over 90 days

 $\Box$  IT Hardware and Software assets have to be considered at 75%, 50%, 25% and 0% (in case they are 1, 2, 3 and 4 years old)

**Required Solvency Margin** is calculated in two steps (RSM1 & RSM2). The higher of the two amounts is treated to be the Required Solvency Margin.

**C**RSM 1 (based on premiums): Determined as twenty percent, of the amount which is the higher of the Gross Premiums multiplied by factors (provided by IRDA regulations) and the Net Premiums.

□RSM2 (based on claims): Determined as thirty percent, of the amount which is the higher of the Gross Incurred Claims multiplied by factors (provided by IRDA regulations) and the Net Incurred Claims.

□ INR 500 MN

□ Highest of the above three has to be considered

#### **Reserving and Solvency**



□ The solvency norms for non life insurance companies in India are based on the **Gross Numbers** which after multiplication by the prescribed factors are compared with the **Net Numbers**.

□ Hence the **Gross Reserves** created for a loss have a very significant impact on the **Solvency** .

Accordingly although the Net Loss on the books of the insurer might be limited the gross loss might have an impact on the solvency of an insurance company .

Example :

□ Mumbai Floods

□ Mangalore plane crash

□ However losses incurred in the 26<sup>th</sup> November terrorist attack are not treated in equal light as the above two

□ The importance of adequate reserving ( case ) or IBNR needs to be re-emphasised . A figure in the books of accounts translates into capital having to be kept aside .

Depending on the adequacy of capital it might require of capital infusion .

 $\Box$  Done properly / thoughtfully proper reserving strengthens the Balance Sheet .

Done recklessly it can bring down a company .