

# GENERAL INSURANCE FUNDAMENTALS

March 2011

# AGENDA

**Part 1 – Understanding insurance basics**

**Part 2 – Industry thematics**

**Part 3 – Key drivers in an insurer's financials**

**Part 4 – IAG's businesses**

**Part 5 – Capital management**

# PART 1

## UNDERSTANDING INSURANCE BASICS



# WHAT AN INSURER DOES

## BASIC PRINCIPLES

- **The advantage of obtaining insurance is that it allows the pooling of risks and reduces the probability of one party bearing the entire cost of a loss**
- **Insurance policies originated in 17<sup>th</sup> century London coffee houses which became the place for sharing information on agreements of pooled risks between merchants, ultimately leading to the formation of Lloyds of London**
- **In the aftermath of The Great Fire of London, Nicholas Barbon an English physician opened “The Fire Office” to insure London’s brick homes, and established insurance policies as we know them today**
- **Today, an insurance contract is a contract in which one party (the insurer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policy holder. (AASB 4)**

# WHAT AN INSURER DOES

## Differences to assurance and other financial products

- **Insurance pools the risk of uncertain future events. This is different to assurance models which pool the risk of events which will happen such as death, retirement or paying interest**
- **The actual cost of providing the general insurance product is *not known* at the time of selling the product**
- **The product being sold only has *intangible* attributes such as selling a promise to pay and the likelihood of a claim occurring**
- **The product is often a ‘grudge’ purchase and a ‘need’ rather than a ‘want’**

# WHAT AN INSURER DOES

## BASIC PRINCIPLES

### SIMPLIFIED CONCEPT – RISK OF A LARGE AND INFREQUENT LOSS

*Every year 1 in every 1,000 houses suffers a fire at a cost of \$100,000.*



An individual risks having to finance \$100,000 if it is their turn for the 1:1000 loss.

A group of 1,000 householders pooling together pay only \$100 each to rebuild the house each year. Even after 10 years the individual has only paid \$1,000 to protect their risk of \$100,000.

# WHAT AN INSURER DOES

## BASIC PRINCIPLES

### SIMPLIFIED CONCEPT – RISK OF SMALL FREQUENT LOSSES

*Every year 100 in every 1,000 houses suffers a burglary at a cost of \$1,000.*



An individual risks having to finance \$1,000 if it is their turn for the 1:10 loss.

A group of 1,000 householders pooling together pay \$100 each to reimburse the cost of goods stolen. Over 10 years the individual has paid \$1,000.

# WHAT AN INSURER DOES

## PRODUCTS

### SHORT TAIL

- **Claims usually known and settled within 12 months**
- **Less complexity in managing claims**
- **Less risk in predicting final settlement**
- **Generally based around property**

### LONG TAIL

- **Claims may not even be reported within 12 months**
- **Settlement can take 3-4 years**
- **Greater complexity in managing claims**
- **Higher risk in predicting final settlement**
- **Generally based around medical and legal outcomes**

# WHAT AN INSURER DOES

## PRODUCTS

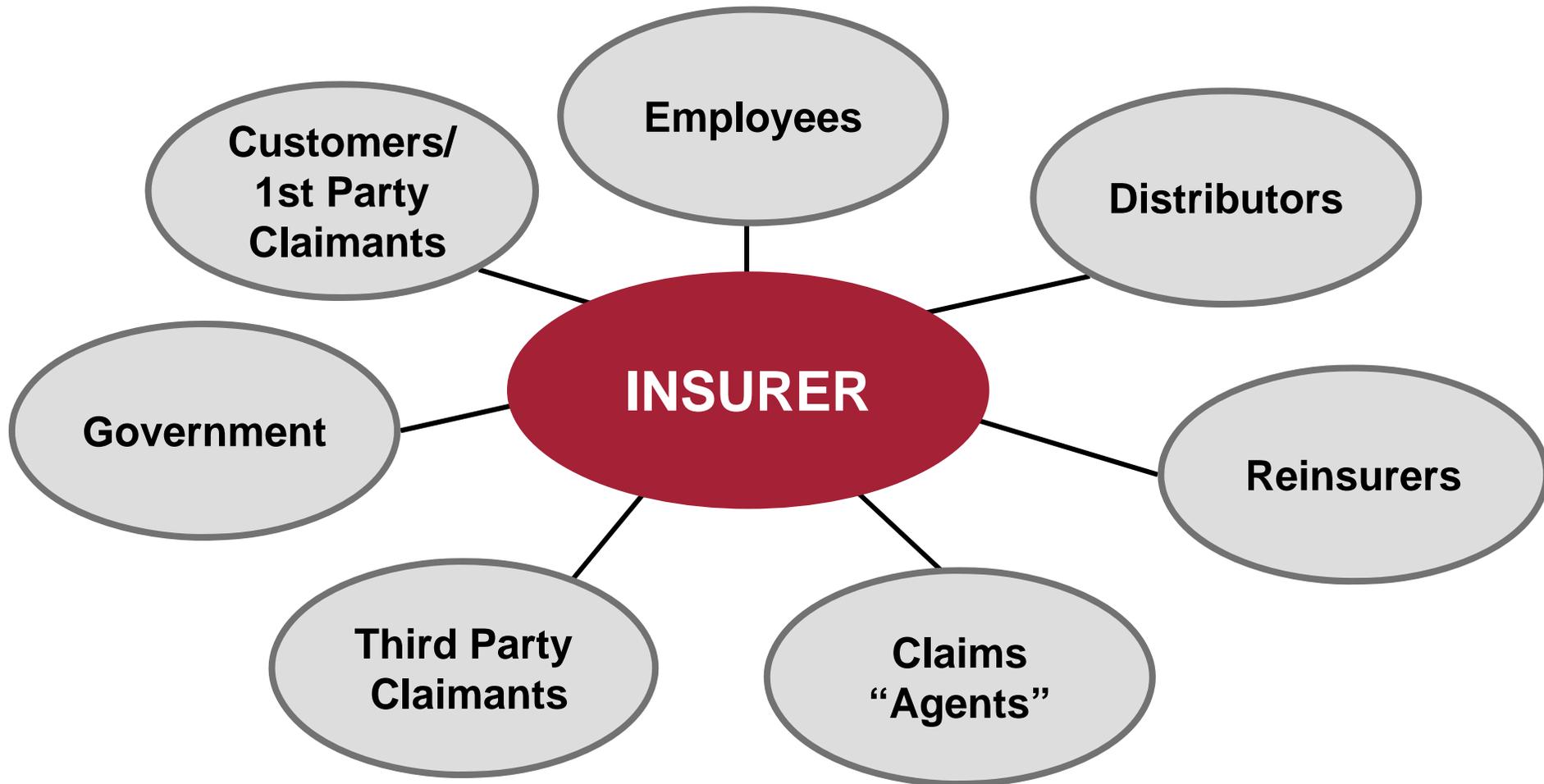
	PERSONAL LINES	COMMERCIAL
<b>SHORT TAIL</b>	<ul style="list-style-type: none"> <li>• Private Motor</li> <li>• Home, Contents</li> <li>• Personal Effects</li> <li>• Boat</li> <li>• Caravan / Trailer</li> <li>• Health</li> <li>• Travel</li> <li>• Transport Accident</li> <li>• Consumer Credit</li> </ul>	<ul style="list-style-type: none"> <li>• Fleet Motor</li> <li>• Fire, Explosion</li> <li>• Burglary, Theft</li> <li>• Goods in Transit</li> <li>• Construction</li> <li>• Personal Accident / Travel</li> <li>• Credit</li> <li>• Political Risks</li> <li>• Kidnap &amp; Ransom</li> </ul>
<b>LONG TAIL</b>	<ul style="list-style-type: none"> <li>• Compulsory</li> <li>• Third Party (statutory)</li> <li>• Home Liability</li> </ul>	<ul style="list-style-type: none"> <li>• Workers Compensation (statutory)</li> <li>• Public &amp; Products Liability</li> <li>• Product Recall</li> <li>• Professional Liability</li> <li>• D &amp; O Liability</li> <li>• Defamation</li> <li>• Environmental</li> </ul>

# WHAT AN INSURER DOES UNDERWRITING

An insurer manages the pooling of risks to optimise the result (underwriting profit) – not all risk attributes in the pool are the same:

SPECIFIC	SOCIO DEMOGRAPHIC	ECONOMIC	CATASTROPHIC
<p><b><u>Individual Risk</u></b></p> <ul style="list-style-type: none"> <li>• Driver ability</li> <li>• Driver age</li> <li>• Gender</li> <li>• Ethical profile</li> <li>• Moral risk</li> </ul> <p><b><u>Asset Risk</u></b></p> <ul style="list-style-type: none"> <li>• Type of car</li> <li>• Type of finance</li> </ul>	<ul style="list-style-type: none"> <li>• Area</li> <li>• Average income</li> <li>• Level of un-employment</li> </ul>	<ul style="list-style-type: none"> <li>• Inflation</li> <li>• Exchange rates</li> <li>• Cost of parts</li> <li>• Fuel prices</li> <li>• Level of employment</li> </ul>	<ul style="list-style-type: none"> <li>• Hail</li> <li>• Earthquake</li> </ul>

# KEY STAKEHOLDERS IN INSURANCE TRANSACTIONS



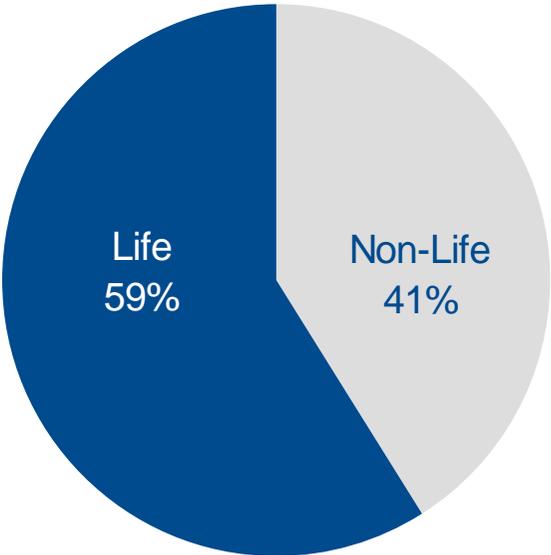
# PART 2

## INDUSTRY THEMATICS

# INDUSTRY THEMATICS

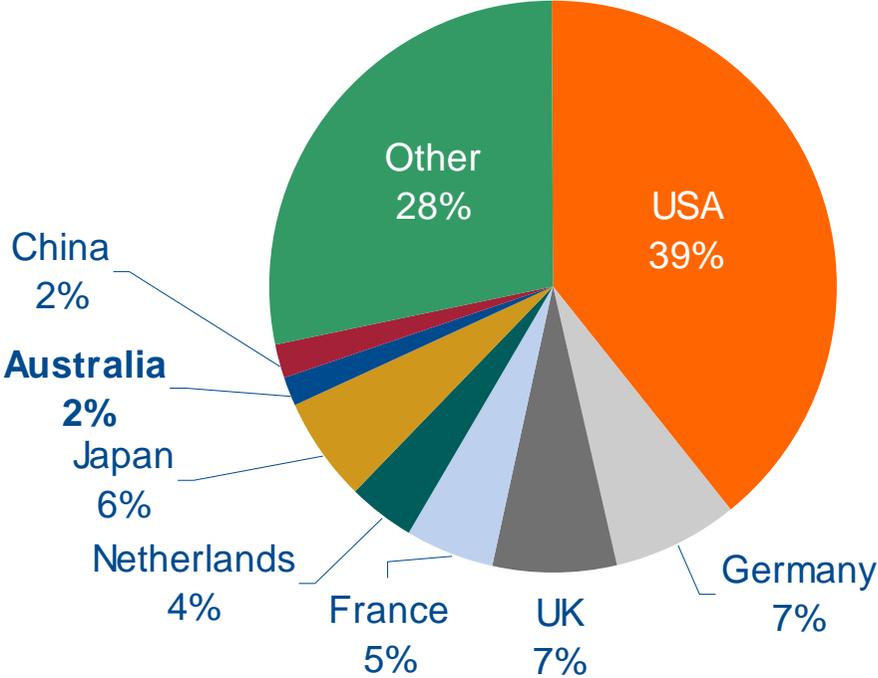
## GLOBAL

Global Insurance market (US\$4,060bn)



Source: Sw iss Re Sigma No3/2008. Data as at December 2007.  
 Notes: Includes non-life health premiums

Global GI market (US\$1,667bn)

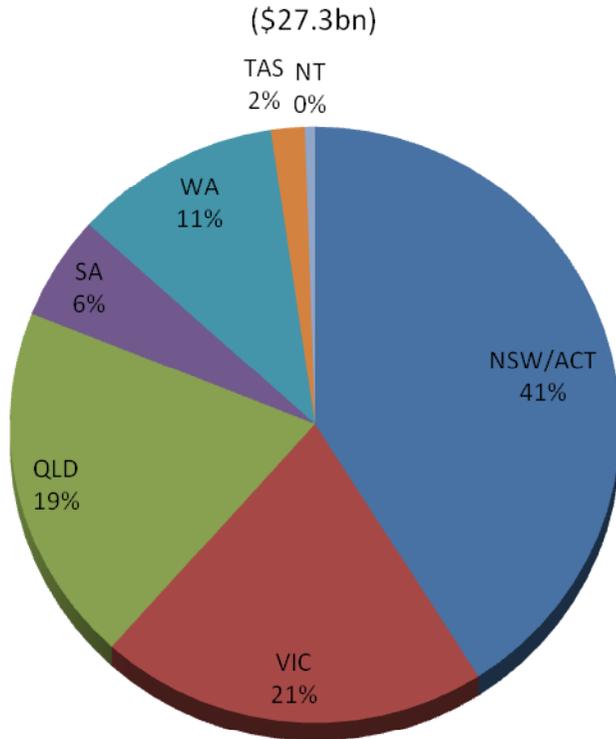


Source: Sw iss Re Sigma No3/2008. Data as at December 2007.

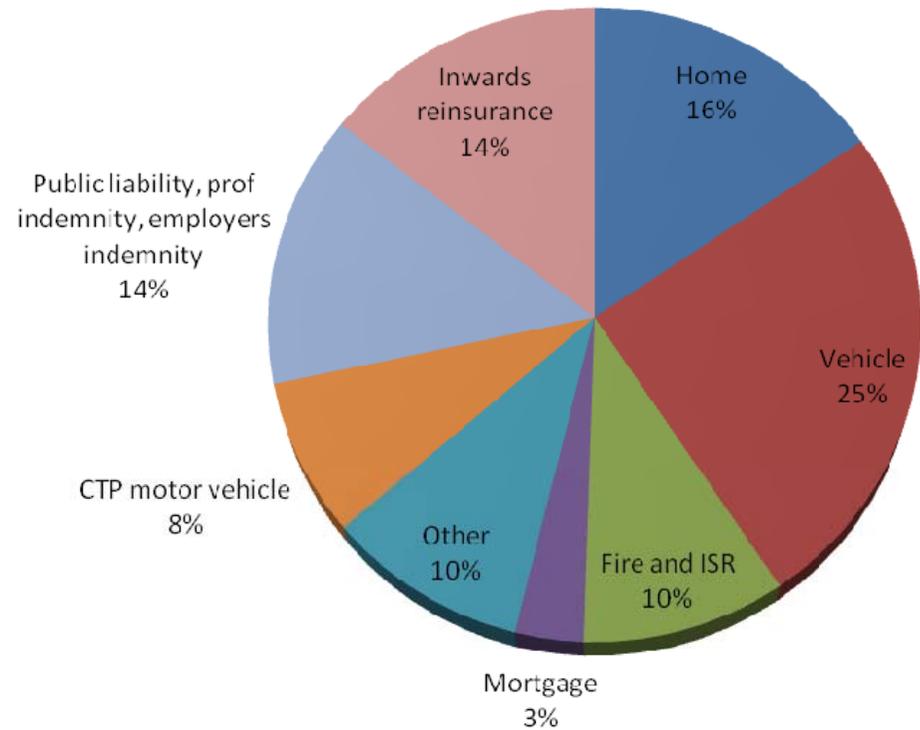
# INDUSTRY THEMATICS

## AUSTRALIA

**Australian Direct Insurance Premiums**



**Australian premium by class**

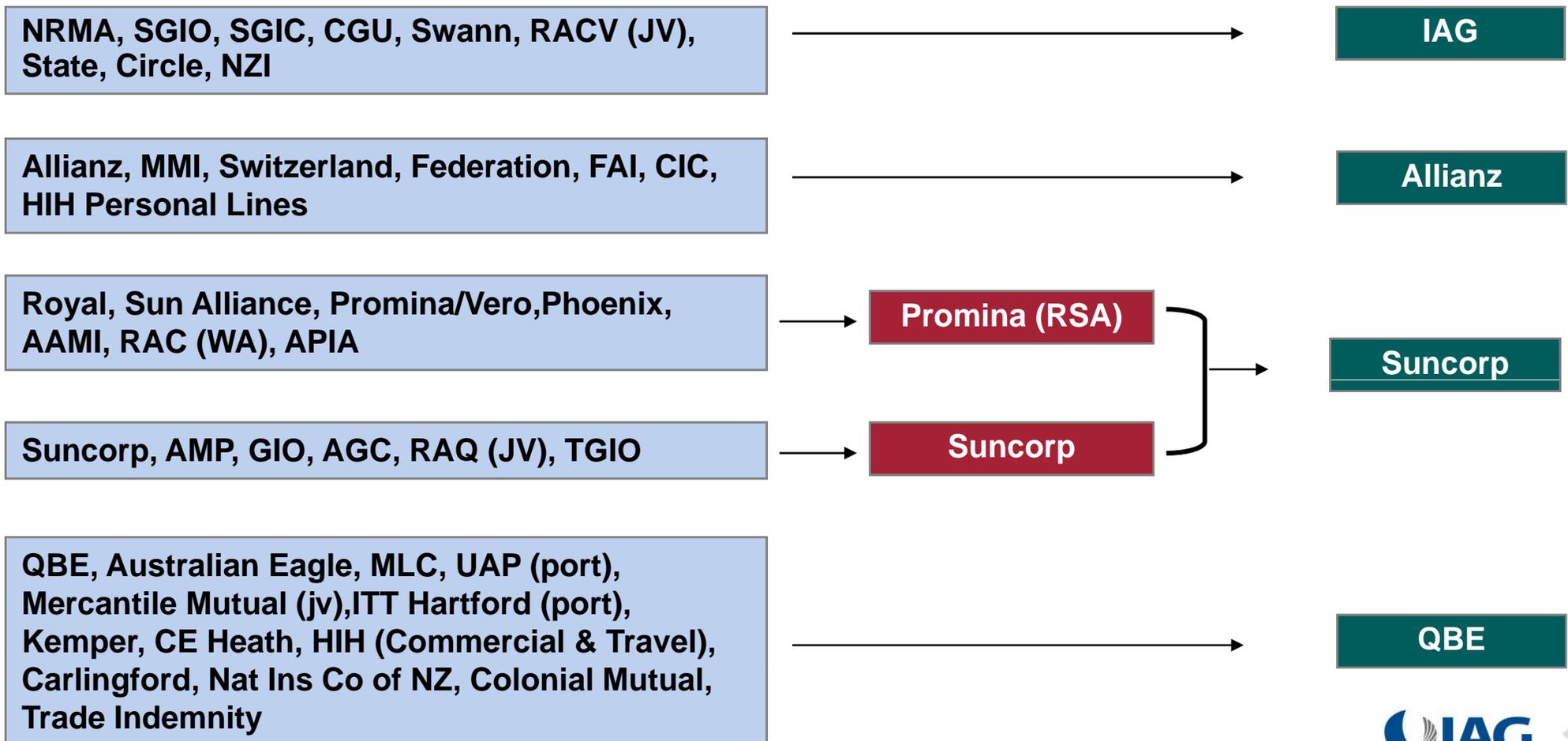


Source: APRA Industry Statistics, June 2010

# INDUSTRY THEMATICS

## AUSTRALIA

Over the last decade there has been a trend of privatisation, demutualisation and consolidation.



# INDUSTRY THEMATICS

## TRENDS

Price Increases –  
The Insurance Market Cycle



Source: Ord Minnett / Deloitte Touche



# LARGEST GLOBAL INSURANCE LOSSES 1970 - 2008

6 of the most costly losses have occurred in the last four years

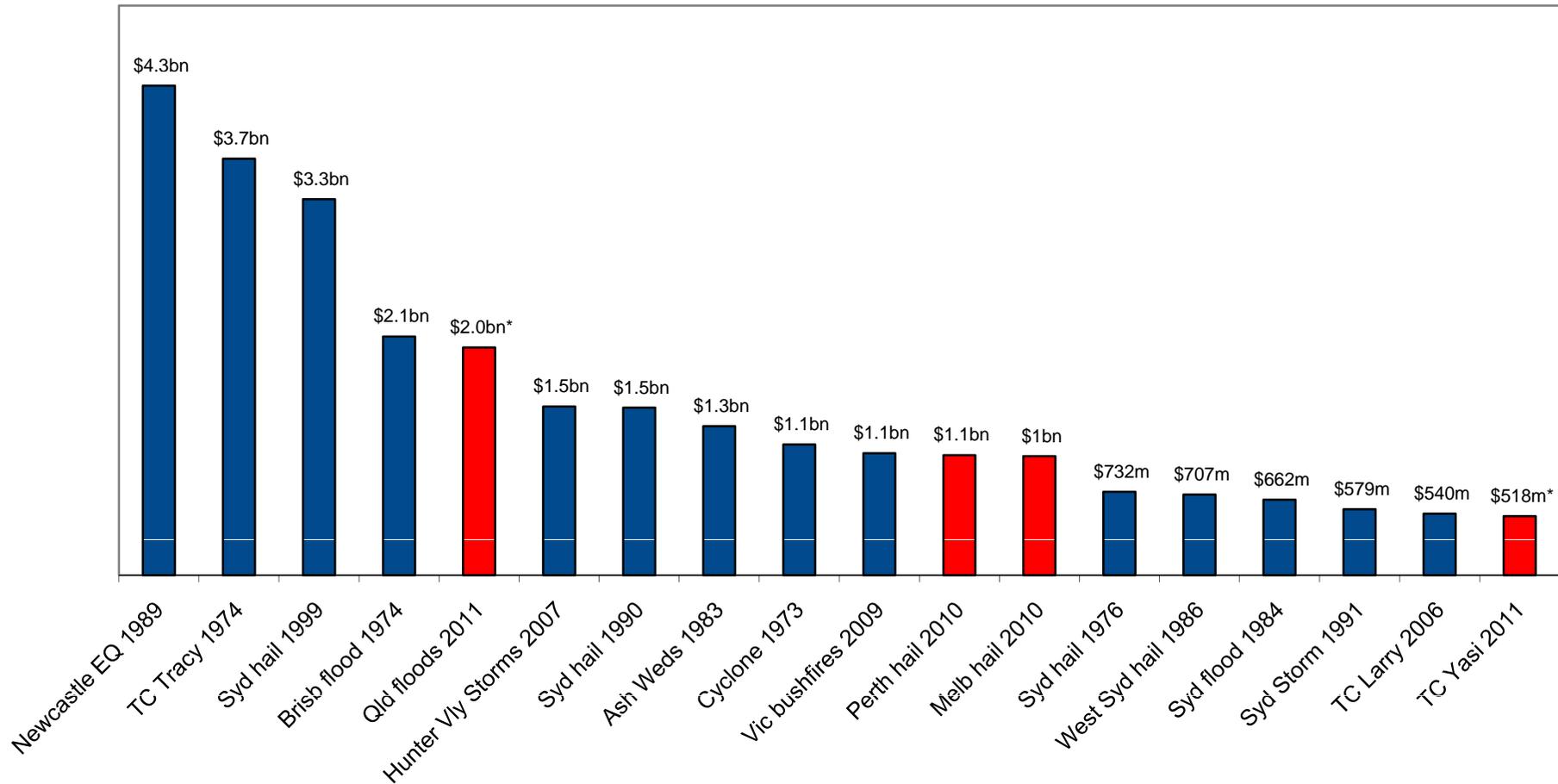
Rank	Event	Insured Loss \$bn *	Year
1	Hurricane Katrina	71.3	2005
2	Hurricane Andrew	24.6	1992
3	WTC Terrorist Attack	22.8	2001
4	US, Northridge Earthquake	20.3	1994
5	Hurricane Ike	20	2008
6	Hurricane Ivan	14.6	2004
7	Hurricane Wilma	13.8	2005
8	Hurricane Rita	11.1	2005
9	Hurricane Charlie	9.2	2004
10	Japan, Typhoone Mireille	8.9	1991

\* Indexed to 2008

Source: Swiss Re Sigma No 2/ 2009. All figures quoted in USD.

# AUSTRALIA'S MAJOR INSURANCE LOSSES

WEATHER EVENTS DOMINATE AUSTRALIAN INSURANCE DISASTER STATISTICS



# **PART 3**

## **KEY DRIVERS IN AN INSURER'S FINANCIALS**

# HOW DOES AN INSURER MAKE MONEY ?

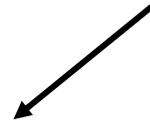
REVENUE



Premiums



Investment Income



LESS EXPENSES



Claimants



Govt. Taxes & Levies



Reinsurers



Salaries & associated admin expenses

PROFIT



Distribution to Shareholders (return on their investment)



# IAG 1H11 PROFIT & LOSS

	1H10 A\$m	2H10 A\$m	1H11 A\$m
<b>Gross written premium</b>	<b>3,863</b>	<b>3,919</b>	<b>3,936</b>
Gross earned premium	3,872	3,749	3,938
Reinsurance expense	(229)	(327)	(228)
<b>Net earned premium</b>	<b>3,643</b>	<b>3,422</b>	<b>3,710</b>
Net claims expense	(2,335)	(2,737)	(2,359)
Commission expense	(341)	(317)	(336)
Underwriting expense	(689)	(707)	(694)
<b>Underwriting profit/(loss)</b>	<b>278</b>	<b>(339)</b>	<b>321</b>
Investment income on technical reserves	210	344	149
<b>Insurance profit</b>	<b>488</b>	<b>5</b>	<b>470</b>
Net corporate expense	8	(4)	-
Interest	(43)	(45)	(44)
Profit/(loss) from fee based business/share of associates	11	(1)	17
Investment income on shareholders' funds	91	5	147
<b>Profit/(loss) before income tax and amortisation</b>	<b>555</b>	<b>(40)</b>	<b>590</b>
Income tax expense	(156)	(56)	(223)
<b>Profit/(loss) after income tax (before amortisation)</b>	<b>399</b>	<b>(96)</b>	<b>367</b>
Non-controlling interests	(58)	(41)	(44)
<b>Profit/(loss) attributable to IAG shareholders (before amortisation)</b>	<b>341</b>	<b>(137)</b>	<b>323</b>
Amortisation and impairment	(12)	(101)	(162)
<b>Profit/(loss) attributable to IAG shareholders</b>	<b>329</b>	<b>(238)</b>	<b>161</b>
<b>Insurance Ratios</b>			
Loss ratio	64.1%	80.0%	63.6%
Immunised loss ratio	65.0%	78.0%	66.4%
Expense ratio	28.3%	30.0%	27.8%
Commission ratio	9.4%	9.3%	9.1%
Administration ratio	18.9%	20.7%	18.7%
Combined ratio	92.4%	110.0%	91.4%
Immunised combined ratio	93.3%	108.0%	94.2%
Insurance margin	13.4%	0.1%	12.7%

# KEY DRIVERS - HOW INSURANCE WORKS

## TERMINOLOGY

Premiums

=

### **Gross Written Premium (GWP)**

Is the total amount we received from customers for the payment of their insurance policies.

### **Gross Earned Premium (GEP)**

When we calculate our results for the year (financial) we only include the portion of policies up to June 30.

### **Net Earned Premium (NEP)**

Our net earned premium is our gross earned premium minus reinsurance costs.

# KEY DRIVERS - HOW INSURANCE WORKS

**NEP**

Is the total amount we received from customers after making adjustments for 'unearned premium' and 'reinsurance' costs

-

**Net Claims Expense**

This is the gross amount paid out during the year, as well as an estimate of how much we need to pay on future claims which have been incurred (whether reported or not). It also includes the cost of processing claims. We deduct from this gross amount any recoveries (reinsurance, salvage, third parties, etc, which arise from the gross claim.

-

**Underwriting Expenses**

These are costs associated with researching risk and determining appropriate premiums, administering policy information, marketing, distribution, etc.

=

**Underwriting Profit/Loss**

This is the profit/loss we make from our insurance business before we consider related investment income

# KEY DRIVERS - HOW INSURANCE WORKS



This is the profit/loss we make from our insurance business before we consider related investment income

‘Policy Holder Funds’, this is the income received from investments that were made using funds received from customers paying their premiums

Our insurance profit is determined by adding net earned premium to the investment return from our technical reserves and subtracting claims and underwriting expenses

# KEY DRIVERS - HOW INSURANCE WORKS



Our insurance profit is determined by adding net earned premium to the investment return from our technical reserves and subtracting claims and underwriting expenses.

This is the income received from investments made using shareholders funds. These investments are usually more aggressive than those made using technical Reserves.

\* Other costs include interest, amortisation, etc which is specific to a company.

This is the net result after allowing for income taxes and the share of profit owing to minority shareholders/ unit holders within the Group.

# KEY DRIVERS - HOW INSURANCE WORKS

## TERMINOLOGY

Loss Ratio

The ratio of net claims expense to Net Earned Premium (NEP)

+

Expense Ratio

The ratio of underwriting expenses to net earned premium

=

Combined Ratio

Our claims and underwriting expenses measured as a percentage of our net earned premium

+

Investment income  
on technical reserve

=

Insurance Margin

The pre tax profit margin of the general insurance operations as a percentage of net earned premium

# KEY DRIVERS

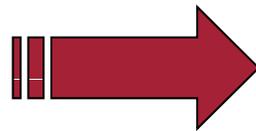
## USE OF CAPITAL

Policyholders Funds  
("Technical  
Reserves")  
Provisions made for  
unearned premiums  
& outstanding claims



More conservative  
investment  
approach 100%  
Fixed Interest

Capital  
("Shareholders  
Funds")

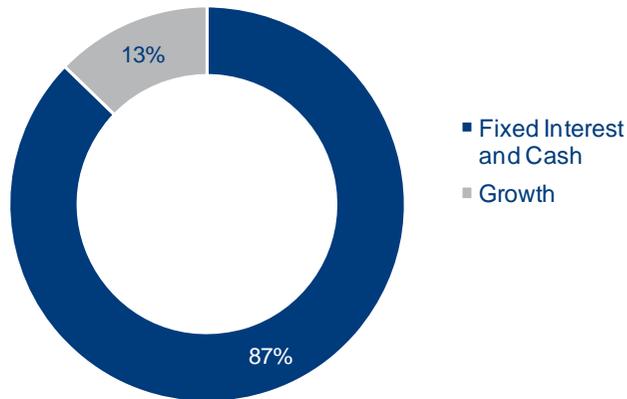


More assertive,  
includes  
investment in  
equities

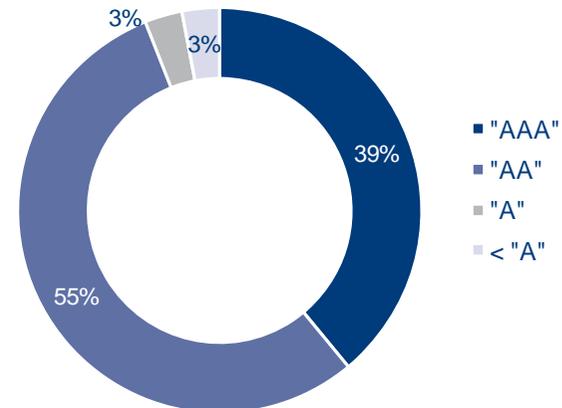
# CAPITAL

## CONSERVATIVE MIX – HIGH CREDIT QUALITY

**INVESTMENT ASSET  
ALLOCATION – \$11.8B**



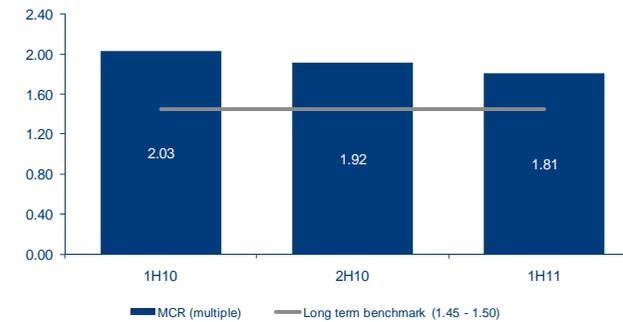
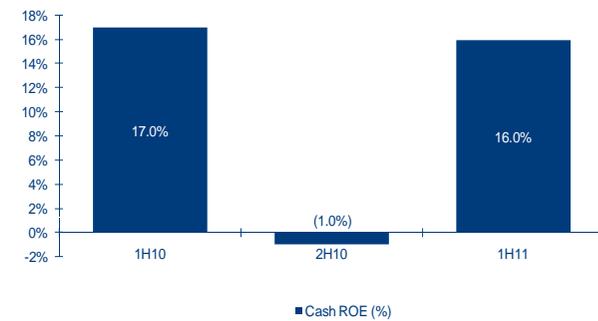
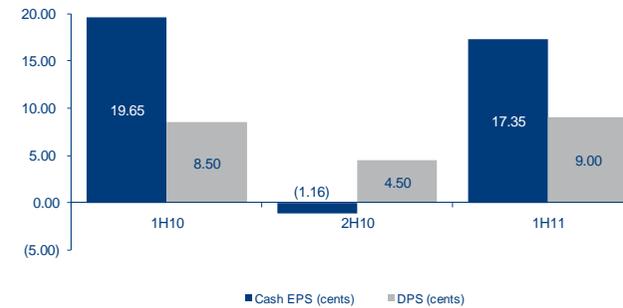
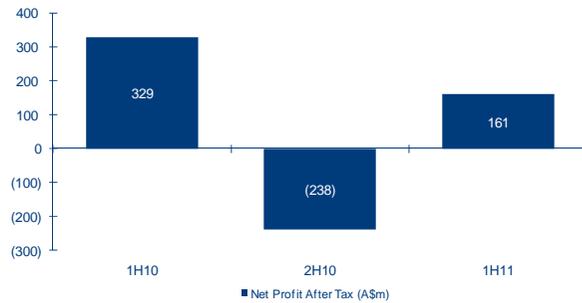
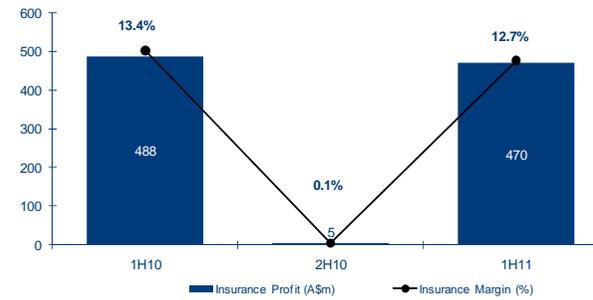
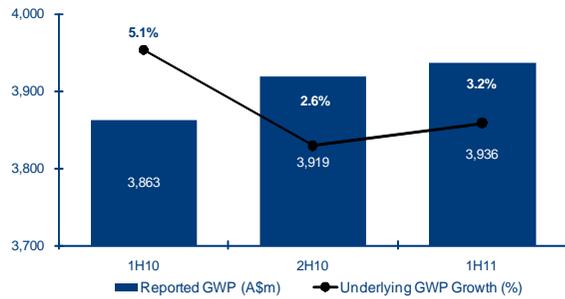
**GROUP FIXED INTEREST &  
CASH – \$10.3B**



- 87% of total portfolio in fixed interest and cash
- Growth assets have risen to 40% of shareholders' funds
- Credit quality remains high – 94% of fixed interest and cash rated 'AA' or better

# KEY DRIVERS

## 1H11 FINANCIAL MEASURES



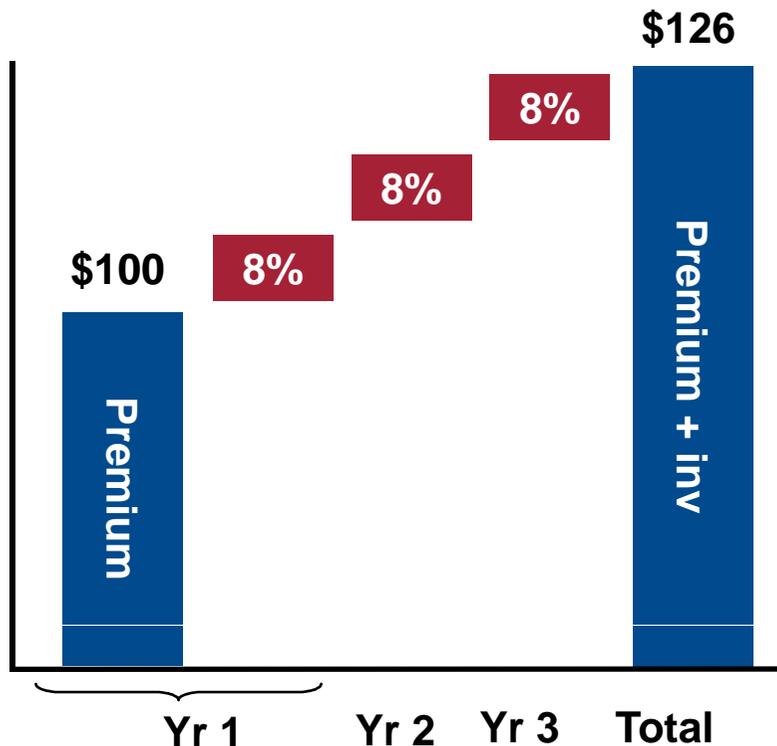
# KEY DRIVERS

## DIFFERING OPERATING RATIOS

Long tail has more volatility, longer duration and higher capital

### Long tail

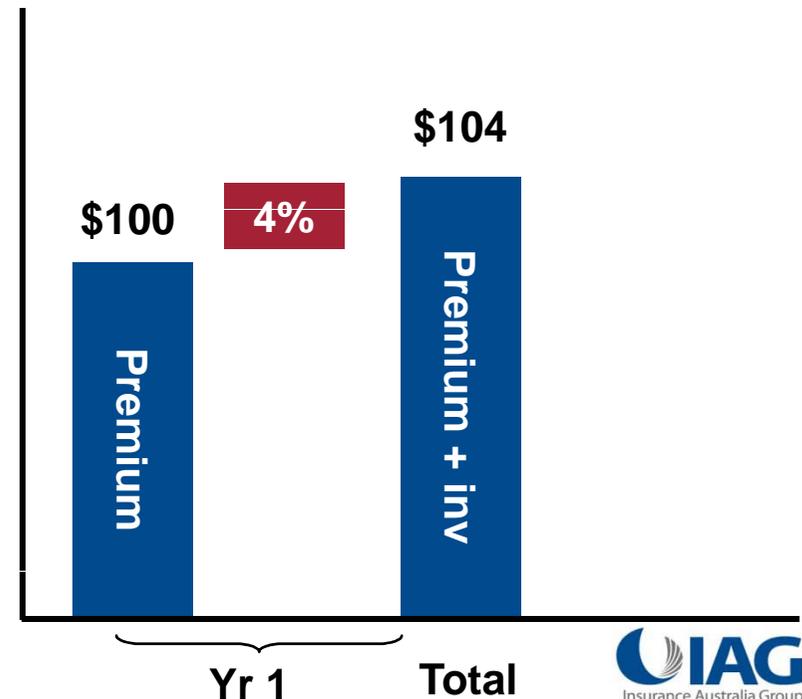
Long tail business has significantly longer claims payment cycle allowing investment returns to offset the higher loss ratio's:



vs.

### Short tail

Short tail business has average claims payment cycle of less than 12 months, so investment return has less of an impact on the insurance margin earned:



# KEY DRIVERS IN AN INSURER'S FINANCIALS

## WHAT DRIVES SHARE PRICE?

- **Quality & Stability of Earnings**
  - Underwriting
  - Claims management
  - Liability & risk management
  - Asset management
  - Balance sheet management
  - Stability of earnings
- **Competitive Returns on Invested Capital**

# **PART 4**

## **IAG'S BUSINESSES**

# IAG'S CORPORATE STRATEGY

**A portfolio of high performing, customer-focused diverse operations providing general insurance in a manner that delivers superior experiences for our stakeholders and creates shareholder value**

## OUR TARGETS

- Top quartile TSR
- ROE > 1.5x WACC

## OUR STRATEGY

- Deliver superior performance by actively managing our portfolio and driving operational performance and execution

## OUR STRATEGIC PRIORITIES

- Improve our performance in Australia and New Zealand
- Pursue selective international growth options – Asia and other narrow specialist opportunities
- Driving operational performance and execution

# OUR BUSINESS MODEL AND BRANDS

	DIRECT INSURANCE	INTERMEDIATED INSURANCE	ONLINE INSURANCE		DIRECT INSURANCE	DIRECT INSURANCE	INTERMEDIATED INSURANCE
AUSTRALIA			 2	NEW ZEALAND		 3	
						 4	
					INTERMEDIATED INSURANCE	 5	
						INTERMEDIATED INSURANCE	
 1					OTHER		
							
							

## ACTIVE PORTFOLIO MANAGEMENT & GOVERNANCE (CORPORATE OFFICE)

1. RACV is via a distribution relationship and underwriting joint venture with RACV Limited
2. RACV has a 30% interest in The Buzz
3. 49% ownership of AmG Insurance, which is part of AmAssurance
4. 98% voting rights in Safety Insurance, based in Thailand
5. 26% ownership of SBI General Insurance Company, a joint venture with the State Bank of India

## IAG'S HISTORY

- 1925** National Roads and Motorists' Association (NRMA) starts providing motor insurance to its members in NSW and the Australian Capital Territory.
- 1969** NRMA Insurance begins underwriting home insurance.
- 1994** NRMA Insurance expands interstate, launching in Victoria.
- 1995** NRMA Insurance launches in Queensland.
- 1997** NRMA Insurance acquires MLC Building Society.
- 1998** NRMA Insurance acquires an interest in Thailand's Safety Insurance.  
NRMA Insurance acquires SGIO (including SGIC).
- 1999** NRMA Insurance signs a joint venture agreement with RACV.  
NRMA Insurance acquires an interest in China's CAA.
- 2000** NRMA Insurance Group Limited lists on the ASX.

# IAG'S HISTORY

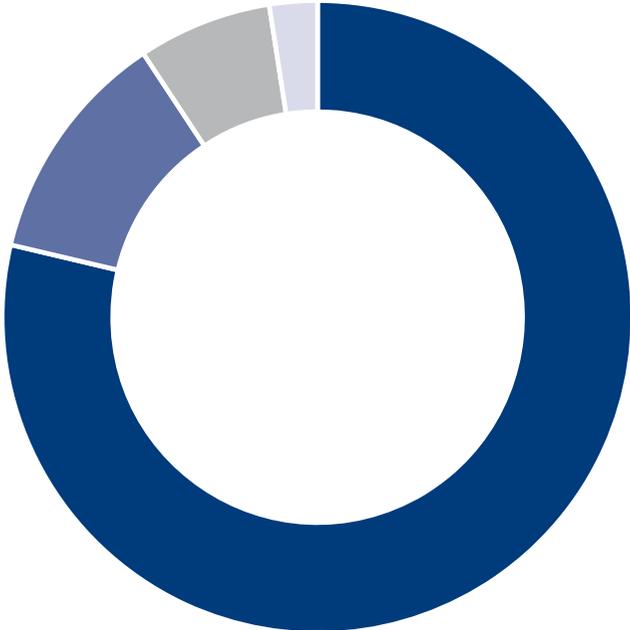
- 2001** NRMA Insurance acquires State Insurance in NZ.  
NRMA Insurance acquires the in-force policies and renewal rights to the HIH Australian workers' compensation businesses.  
NRMA Insurance sells its Building Society.  
NRMA Insurance puts its inwards reinsurance portfolio into run off.
- 2002** NRMA Insurance changes its name to Insurance Australia Group (IAG).
- 2003** IAG acquires general insurance businesses in Australia and NZ of CGU and NZI from Aviva.  
IAG acquires Zurich Insurance's NSW workers' compensation business.  
IAG sells its health insurance underwriting and claims operation.  
IAG increases its interest in China's CAA to 100%.
- 2004** IAG sells its financial services business, ClearView.  
IAG's NZ business acquires a 50% interest in Mike Henry Travel Insurance.
- 2005** IAG's NZ business acquires specialist underwriters National Auto Club and Clipper Club Marine.  
IAG acquires Royal & SunAlliance's general insurance business in Thailand.  
IAG acquires a 30% interest in Malaysia's AmAssurance.

# IAG'S HISTORY

- 2006** IAG increases its interest in Safety Insurance in Thailand to almost 100%.  
IAG's NZ business acquires a 51% stake in mechanical warranty insurance company DriveRight.  
IAG acquires a Lloyd's managing agency and specialist Asian syndicate, branded Alba Group.  
IAG's NZ business increases its interest in Mike Henry Travel Insurance to 100%.  
IAG acquires Hastings Insurance Services and Advantage Insurance in the UK.
- 2007** IAG acquires Equity Insurance Group in the UK.
- 2008** IAG's UK business acquires specialist insurance broker Barnett & Barnett.  
IAG enters negotiations to form Indian general insurance joint venture with the State Bank of India.  
Following a strategic review, IAG revises its corporate strategy. As a result IAG scales back its UK operations by divesting some of its UK mass market underwriting and distribution businesses.

# IAG'S GWP MIX: 1H11

### GWP BY REGION



- Australia
- New Zealand
- UK
- Asia

### GWP BY CHANNEL



- Direct
- Broker/agent
- Affinity

# **PART 5**

## **CAPITAL MANAGEMENT AND PRICING**

# INSURANCE BASICS

- **Outcomes of risks from individual policies are unknown when underwritten**
- **However, when many similar risks are underwritten, expected results of total portfolio become more predictable**
- **Claims processes are driven by:**
  - Frequency (or probability) of a claim event occurring; and
  - Severity (or size) of a claim if it occurs
- **Risks inherent in different classes of insurance vary:**
  - High frequency / low severity (eg motor and health) – outcomes easy to predict reliably
  - Low frequency / high severity (eg earthquake and hail) – outcomes hard to predict reliably

# THE NEED FOR CAPITAL

*Capital plays a central role in the provision of insurance:*

- **Provides security to policyholders that claims will be paid**
- **Provides support in face of adverse unexpected outcomes from insurance activities, investment performance and operations**
- **Facilitates growth**
- **Can be defined as = Total Assets – Total Liabilities**

# MINIMUM CAPITAL REQUIREMENTS

- **Capital available for regulatory purposes includes:**
  - Tier 1 (Share capital, retained earnings, eligible hybrid debt and excess technical provisions less intangible assets and goodwill) and
  - Tier 2 (Subordinated debt, non tier 1 eligible hybrid debt and other)
- **MCR is calculated as required by APRA as:**
  - Insurance risk charge, plus
  - Investment risk charge, plus
  - Maximum event retention
- **Capital strength is measured by:**
- **Capital multiple = capital available/ MCR**
- **Capital multiple must always > 1.0 to stay in business**

## IAG'S MINIMUM CAPITAL REQUIREMENTS A WORKING EXAMPLE

	1H10 A\$m	2H10 A\$m	1H11 A\$m
<b>Tier 1 capital</b>			
Paid-up ordinary shares	5,353	5,353	5,353
Non-controlling interests	154	170	147
Treasury shares	(34)	(31)	(35)
Hybrid equity <sup>1</sup>	496	475	496
Reserves	(37)	(34)	(91)
Retained earnings	(362)	(775)	(692)
Excess technical provisions (net of tax)	482	522	454
Less: deductions <sup>2</sup>	(2,789)	(2,513)	(2,326)
<b>Total Tier 1 capital</b>	<b>3,263</b>	<b>3,167</b>	<b>3,306</b>
<b>Tier 2 capital</b>			
Hybrid equity in excess of Tier 1 limit <sup>1</sup>	404	425	404
Subordinated debt <sup>3</sup>	537	536	465
Other	4	12	9
<b>Total Tier 2 capital</b>	<b>945</b>	<b>973</b>	<b>878</b>
<b>Capital base</b>	<b>4,208</b>	<b>4,140</b>	<b>4,184</b>
<b>Minimum Capital Requirement (MCR):</b>			
Insurance risk	1,242	1,344	1,315
Investment risk	693	790	850
Catastrophe concentration risk	135	20	150
<b>Total MCR</b>	<b>2,070</b>	<b>2,154</b>	<b>2,315</b>
<b>MCR multiple</b>	<b>2.03</b>	<b>1.92</b>	<b>1.81</b>

<sup>1</sup> Hybrid equity includes Reset Exchangeable Securities and Reset Preference Shares. These securities are classified under APRA's prudential standards as "Innovative Tier 1" and are eligible to be included in Tier 1 capital up to a limit of 15% of net Tier 1 capital. The aggregate amount of these securities in excess of this limit is included in Tier 2 capital.

<sup>2</sup> Includes goodwill and intangibles, net deferred tax assets, capitalised software, deferred reinsurance expense and expected dividends.

<sup>3</sup> The amount of subordinated debt eligible to be included in Tier 2 capital excludes capitalised transaction costs and discount on issue, and for foreign currency denominated debt, the liability is translated at the current exchange rate excluding any related cross-currency swaps.

# THE ROLE OF PRICING

- **Meet expected claims**
- **Meet operational expenses**
- **Provide a return on capital**
- **Be competitive in market for risk**

# THE RIGHT WAY!

- **Analyse and understand the risk**
- **Premium comprised of**
  - Risk Premium
  - Claims administration expenses
  - Acquisition & maintenance expenses (incl. Commission)
  - Taxes, levies, duties
  - Reinsurance costs
  - Profit Margin
- **Risk Premium**
  - Expected No. of claims x Expected Average Claim Size
  - Inflated and discounted

# QUESTIONS