



Institute of Actuaries of Australia

XIth Accident Compensation Seminar 2007

Funding Shocks to New Zealand's ACC Scheme

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Outline

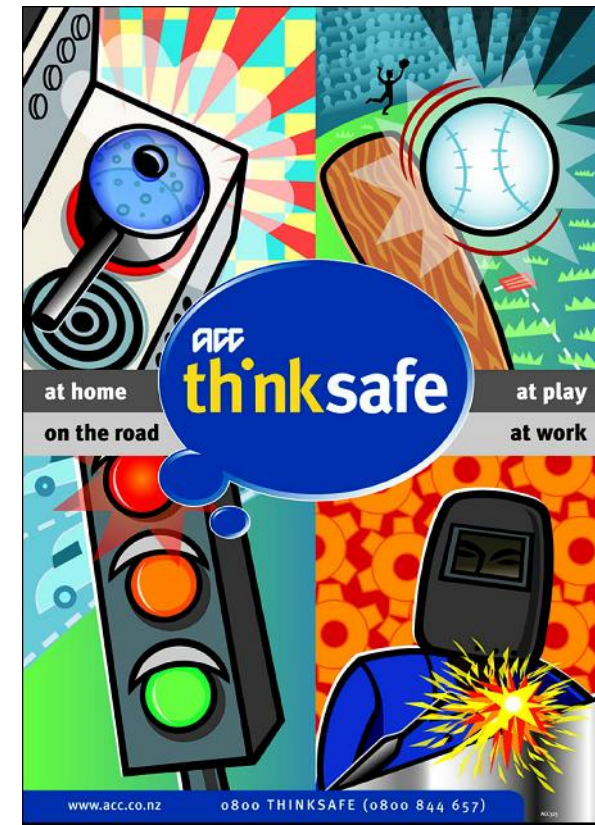
- Accident Compensation Commission
- Potential Funding Shocks
- Questions/Discussion



The ACC scheme provides New Zealanders with comprehensive 24-hour, no-fault personal accident cover:

- At work (c.f. Workers' Comp)
- At home
- On the roads (c.f. CTP)
- In the operating theatre
- Playing sports

Everywhere for everyone



New Zealand at A Glance

2 million in the paid workforce

190,000 employers

10% employ 80% of employees

**375,000 self-employed
(50% are full time)**

Turn Over 24%

**15,134 km
coastline**

**Population
4.1 million**

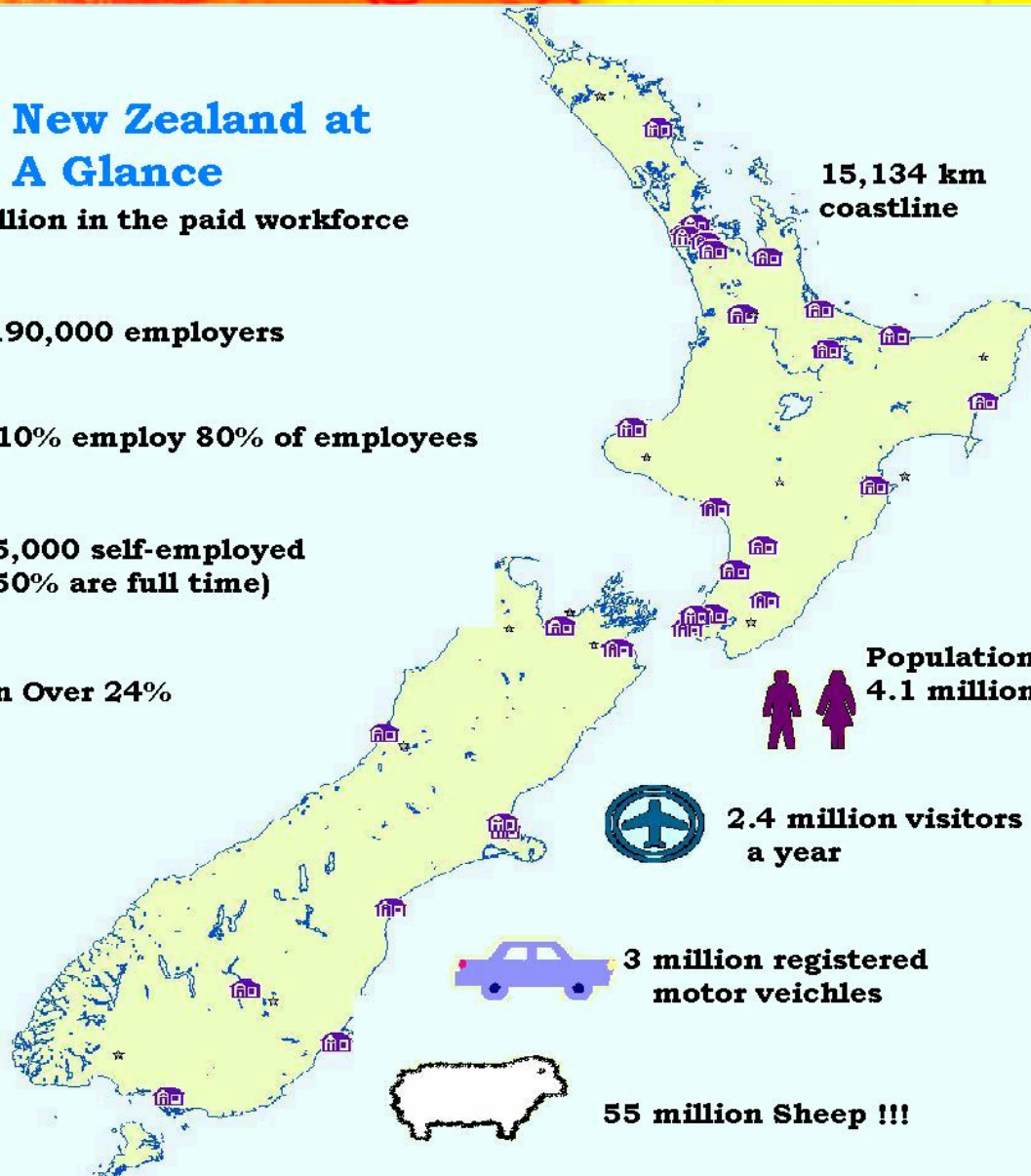
**2.4 million visitors
a year**



**3 million registered
motor vehicles**

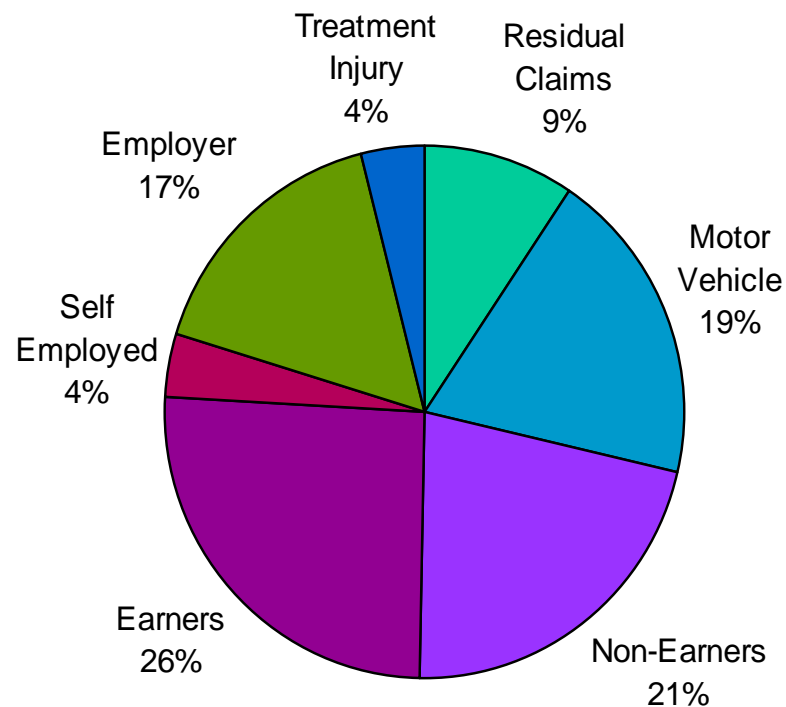


55 million Sheep !!!



2005/06 Levy Income (\$m)

Residual Claims	\$291
Motor Vehicle	\$592
Non-Earners	\$660
Earners	\$791
Self Employed	\$115
Employer	\$511
Treatment Injury	\$116
<u>Total</u>	<u>\$3,076</u>



30 June 2006 Liability

PROJECTED OUTSTANDING CLAIMS LIABILITY	
as at 30 June 2006	
Total (Net of Self Insurance)	(\$m)
Weekly Comp - Non Fatal	4,224
Weekly Comp - Fatal	384
Independence Allowance	543
Lump Sum	180
Total Rehab/Other	5,549
	Hospital Rehab 684
	Other Rehab 328
	Voc Rehab 159
	Social Rehab 4,378
Medical	963
Total	11,842
Claims Handling Expenses (CHE)	854
Ambulance and Pharmaceuticals	3
Acute Levy	15
Total Including CHE	12,715

30 June 2006 Liability

PROJECTED OUTSTANDING CLAIMS LIABILITY as at 30 June 2006

Total (Net of Self Insurance)	(\$m)
Residual Claims	2,848
Motor Vehicle	3,554
Non-Earners	2,074
Earners	2,222
Self Employed	989
Employers	773
Treatment Injury	255
Total Including CHE	12,715

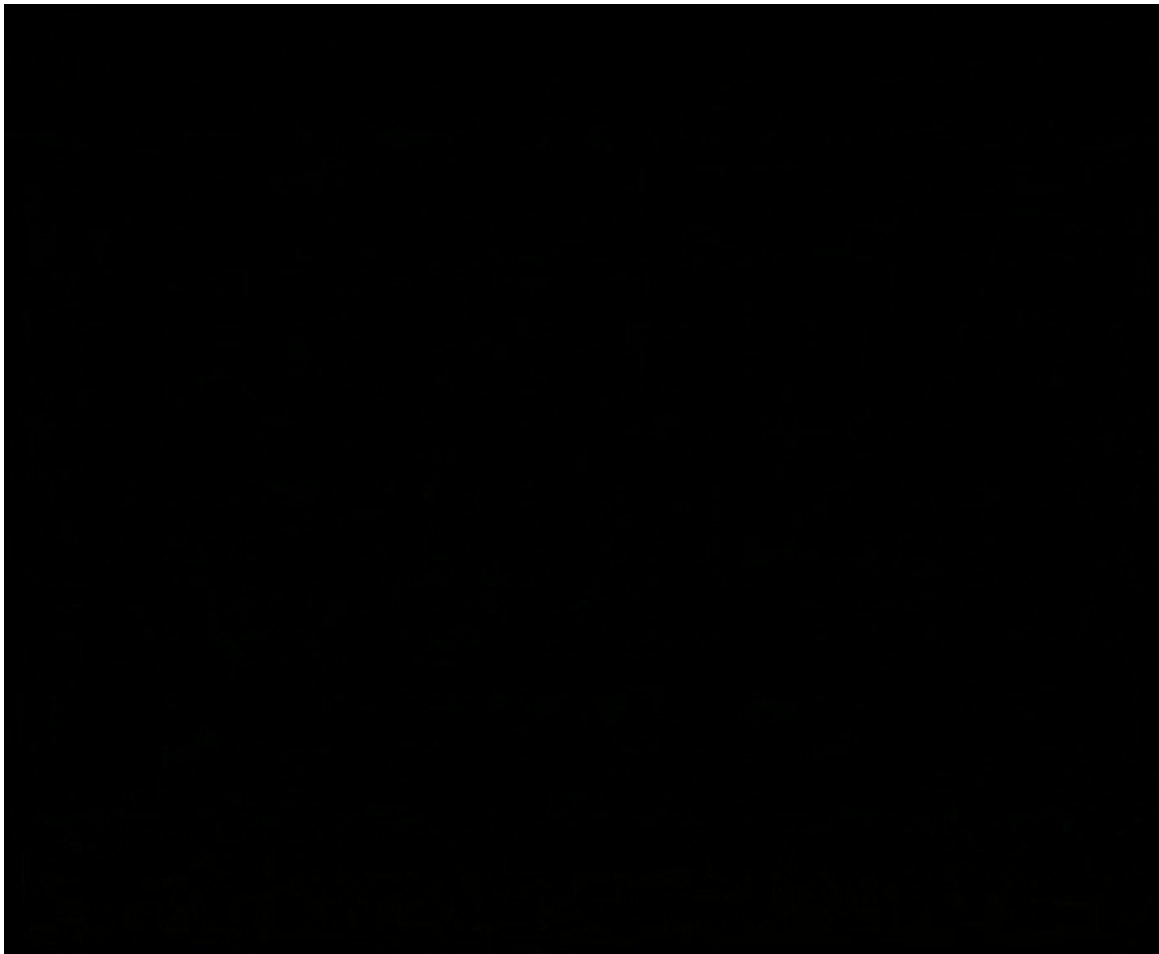
Issues for ACC

- Funding structure
- High levels of uncertainty
- Very long tail business
- Reinsurance vs. post funding

Funding Shocks

- One off shock – pandemic
- Cost shock affecting new claims – new benefit type
- Cost shock affecting all claims – increased benefits
- Investment shock – share market crash

Earthquake?



Earthquake

- Wellington during working hours
- Probability of occurrence = 1 in 500
- Injured workers, non-workers, motorists

- Previous estimated maximum probable loss
= \$250 - \$300 million

- Revised to \$100 million in total

Earthquake

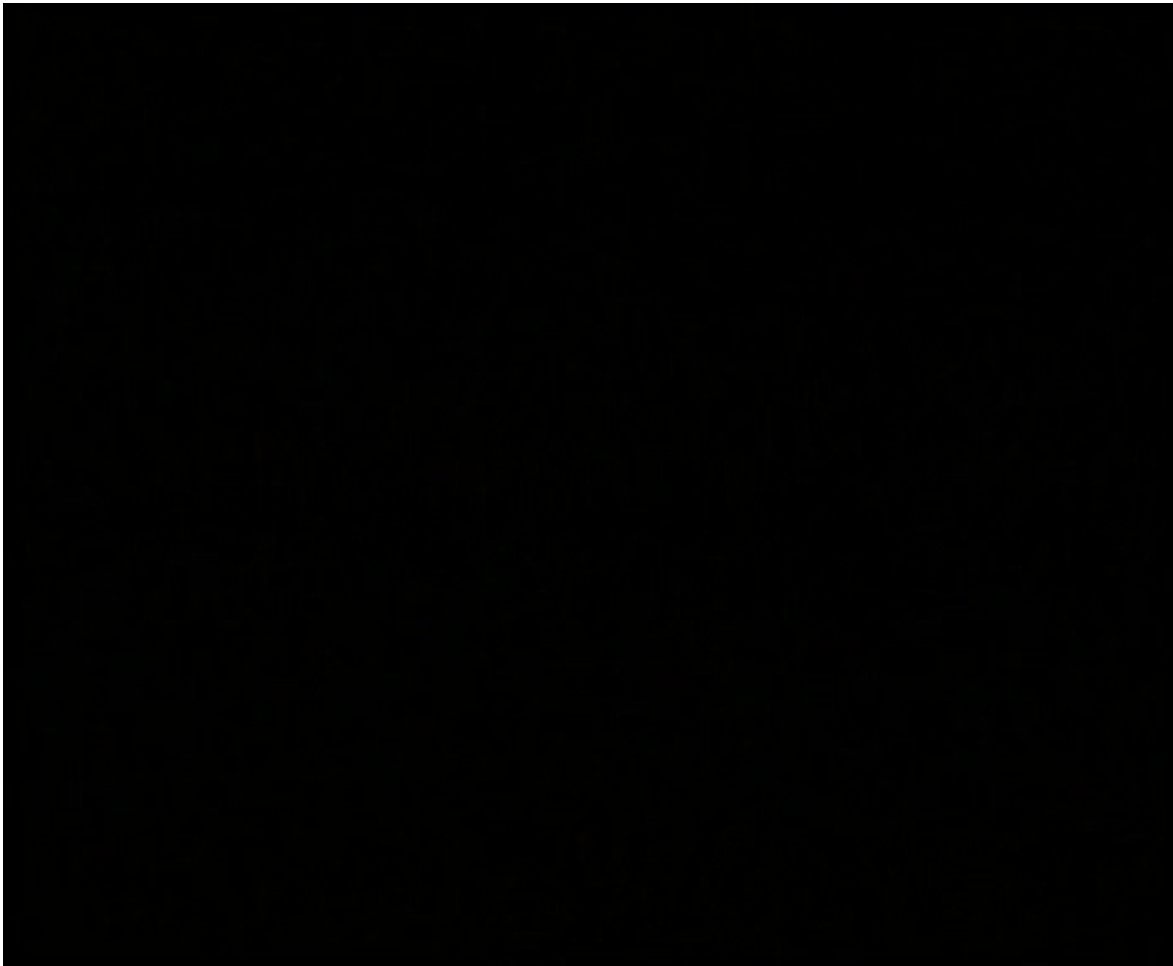
Percentage Increase in Levy

Levy Year	Employer Composite	Earners	Motor Vehicle
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A \$100 million increase in one year's claim costs occurs in each account occurs in 2007 or 2012. For example, an earthquake increases the number of claims for only one accident year.

2008/09	3.9%	2.5%	3.6%
2013/14	3.4%	3.1%	3.8%

Tsunami?



Tsunami

- Summertime during the day

Probability of Event	Costs <u>with</u> Warning (\$m)	Costs <u>without</u> Warning (\$m)
1 in 50	\$90	\$230
1 in 100	\$270	\$700
1 in 200	\$710	\$1,600
1 in 500	\$1,600	\$3,200
1 in 1,000	\$2,800	\$5,000
1 in 2,500	\$4,800	\$7,700

Tsunami

Percentage Increase in Levy

Levy Year	Employer Composite	Earners	Motor Vehicle
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A \$200 million increase in one year's claim costs occurs in each account occurs in 2007 or 2012. For example, a tsunami increases the number of claims for only one accident year.

2008/09	7.8%	5.0%	7.2%
2013/14	6.8%	6.2%	7.6%

Most Significant “Shock”

Percentage Increase in Levy

Levy Year	Employer Composite	Earners	Motor Vehicle
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Long term outlook for inflation rises by 2% while bond yields remain unchanged causing a \$2,716 million shock in 2007 or \$3,879 million in 2012.

2008/09	27%	28%	38%
2013/14	55%	46%	107%

Questions/Discussion

- Public vs. privately underwritten?
- Funding policies in other jurisdictions
- Natural perils – 1 in 250; 1 in 500?
- Pre-funding?
- Reinsurance?