

Local Authority Protection Programme

Unveiling the secrets of LAPP pricing

April 2015

Jeremy Holmes

Principal, Melville Jessup Weaver



MELVILLE JESSUP WEAVER

Towers Watson Alliance Partner

Contents

- Actuaries and MJW
- LAPP concept
- Data
- Event catalogue
- Claim modelling
- Setting contributions
- Future
- Questions

MJW - consulting actuaries

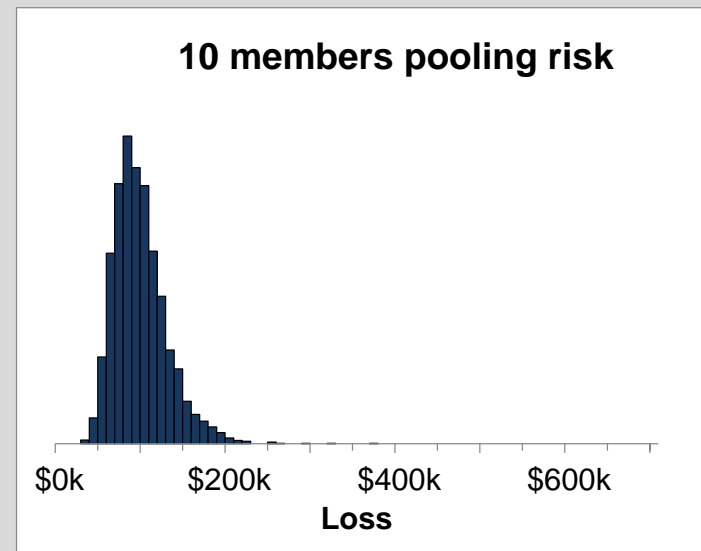
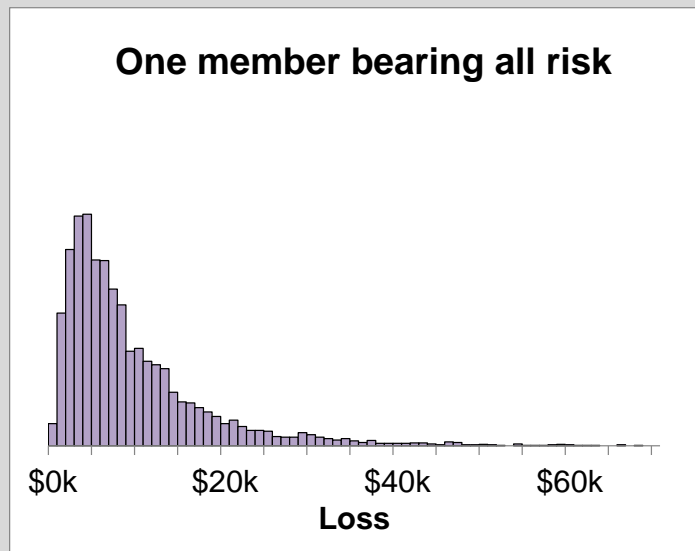
- Actuaries



- Bound by standards, code of conduct
-
- MJW work – weathertightness, earthquakes
 - Collect data
 - Analyse trends
 - Project results
 - Communicate

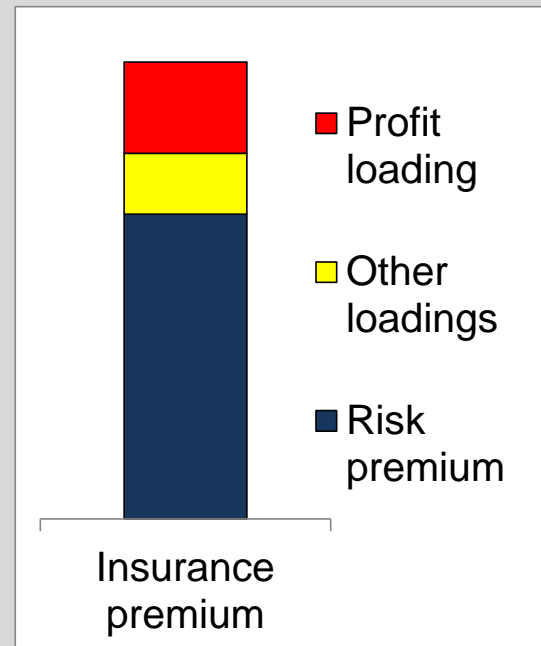
LAPP concept

- Risk pooling illustration:
 - Each member has average loss of \$10k p.a.
 - 10 members decide to pool their losses
- Individually: 10% chance member loss > \$20k
- Pooled: 1% chance group loss > \$200k



LAPP vs. insurance

LAPP	Insurance
Autonomy	Market forces
Benefit of pooling	Benefit to insurer
Control of risk management	Risk management requirements
Bespoke / flexible cover	Standard policies
Control of reinsurance	Insurer control
Ownership	Shareholders
Profit retention	Return on capital



Input data

- Prepared by RMP
 - GNS earthquake risk
 - Flood Special Focus Groups

Member risk data

	Member XYZ
Assets covered	200,000,000
Central govt deductible	1,000,000
100 year EQ event	245,000
500 year EQ event	1,580,000
1000 year EQ event	2,440,000
20 year flood event	120,000
100 year flood event	1,100,000
500 year flood event	5,000,000
1000 year volcanic event	70,000



Event catalogue

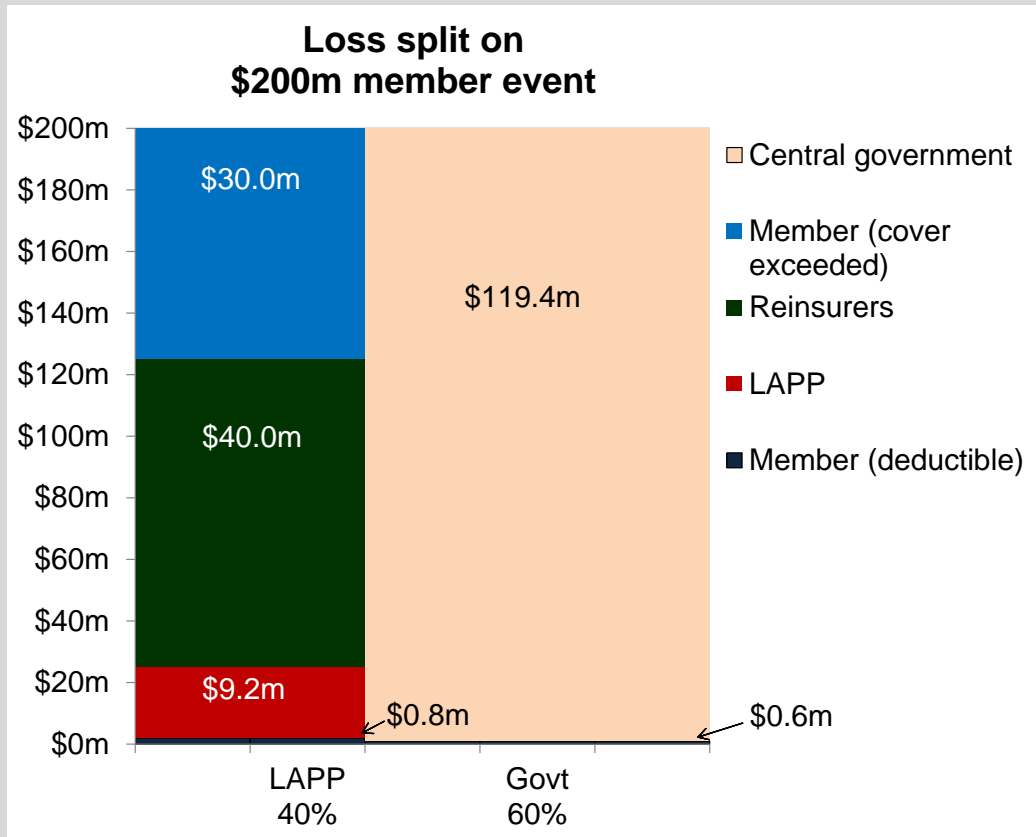
- Develop distributions for:
 - Probability of event
 - Size of event
- Simulate:
 - 50,000 outcomes for year
 - 400,000 events

Event catalogue

Simulation number	Member	Event	Cost
1	Council ABC	EQ	15,584
1	Council XYZ	EQ	385,110
1	Council 123	Flood	256,359
1	Council ABC	EQ	211
2	Council ABC	Flood	465,849
2	Council XYZ	Flood	935
3	Council 123	Flood	907,974
4	Council ABC	Flood	75,485
4	Council 123	EQ	367
5	Council XYZ	Flood	490
5	Council XYZ	EQ	83,872
5	Council 123	Volcanic	46
5	Council 123	EQ	8,768,183

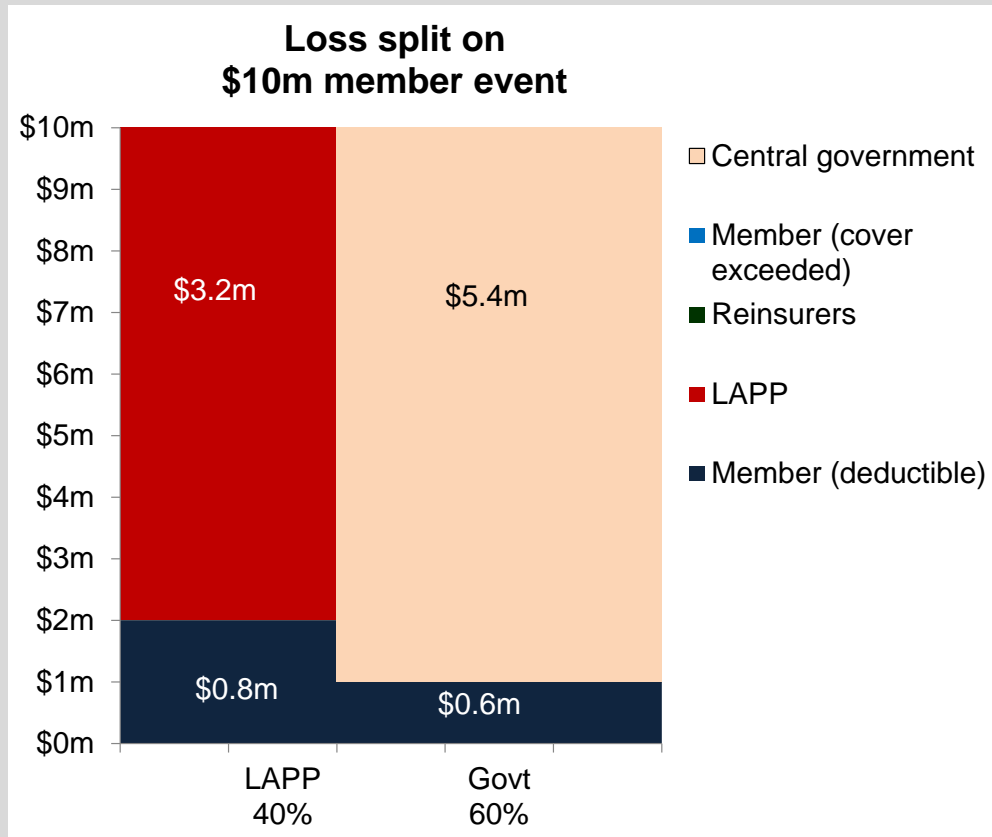
Application of cover rules

- \$200m event; \$2m LAPP deductible; \$1m Govt deductible

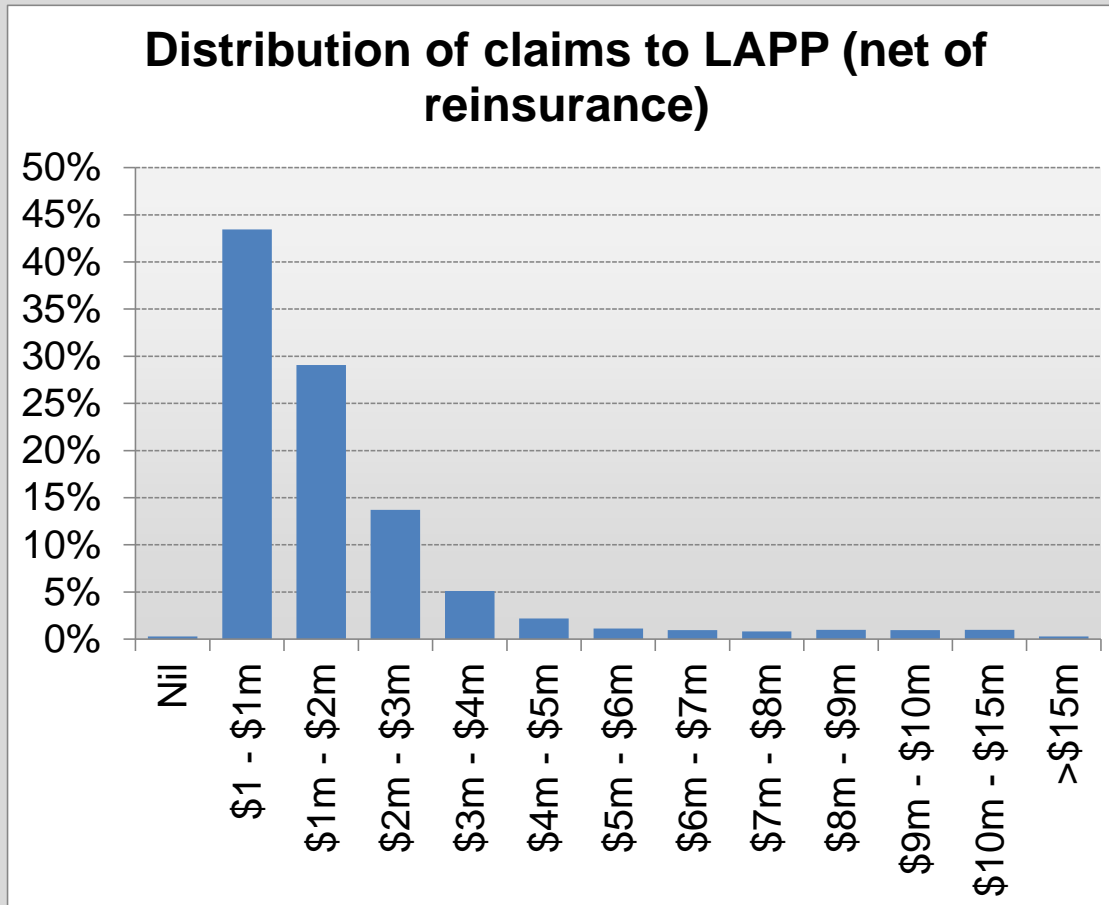


Application of cover rules

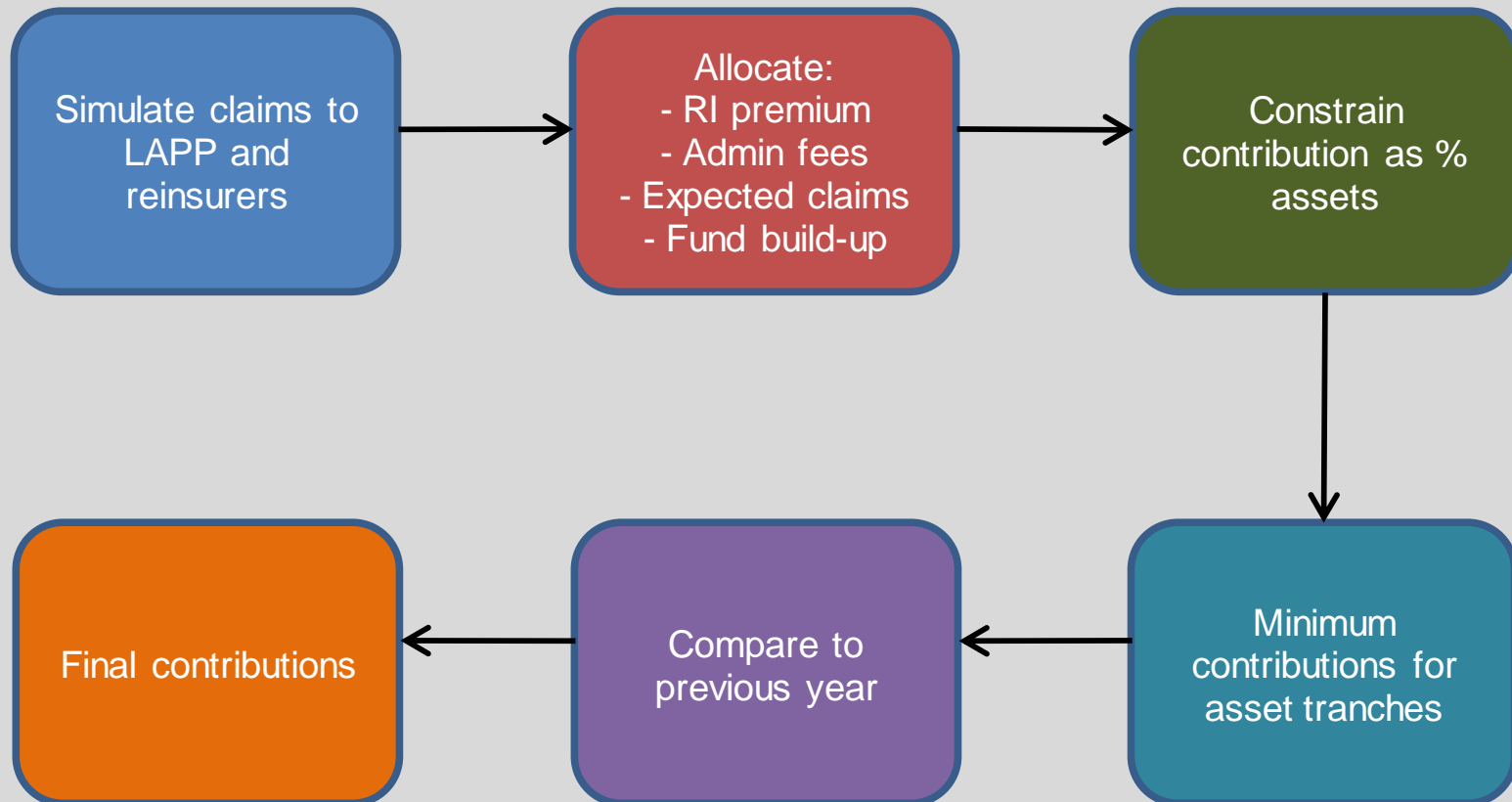
- \$10m event; \$2m LAPP deductible; \$1m Govt deductible



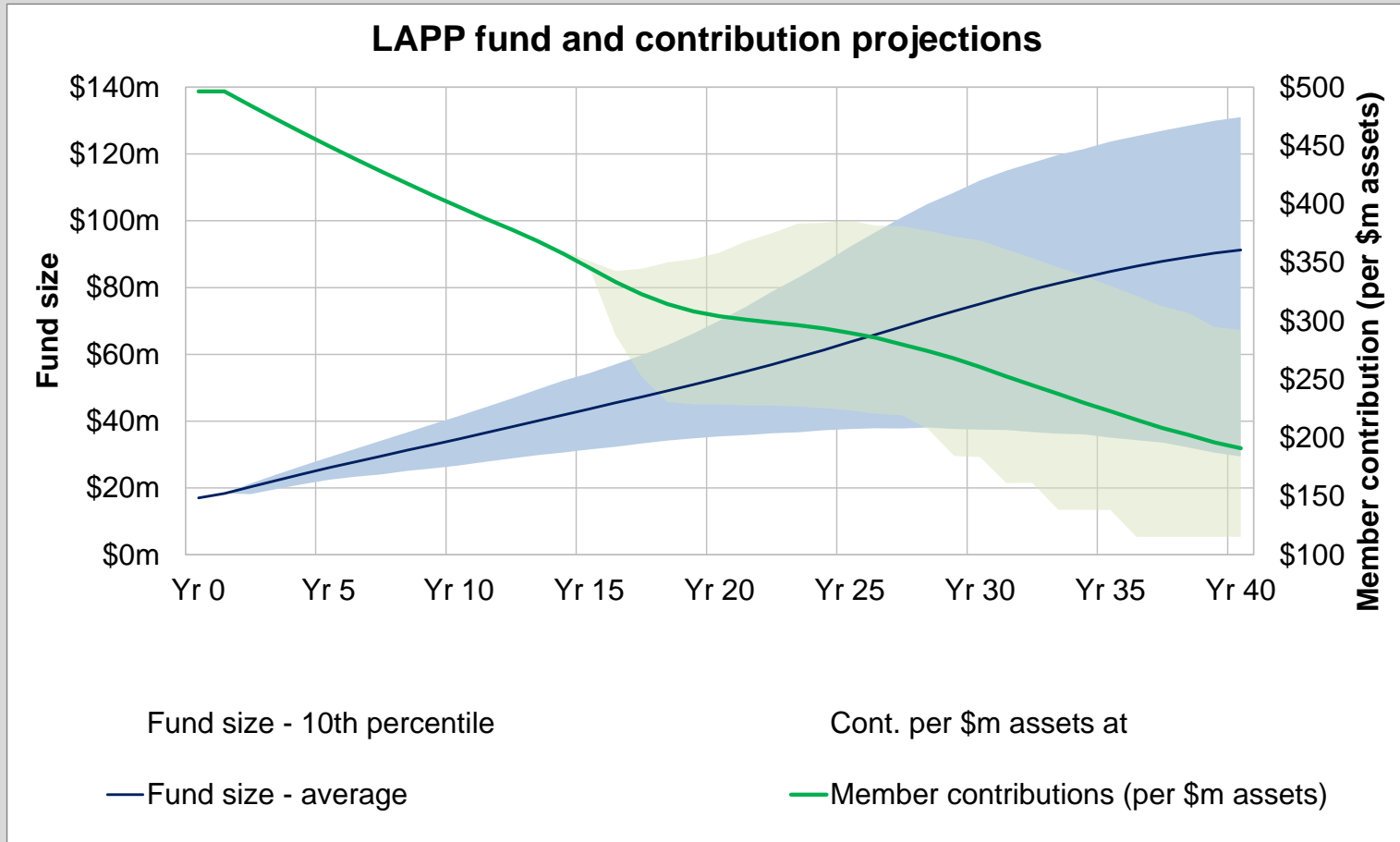
Claims to LAPP



Setting contributions



Future



Questions

Q & A