OLIVER WYMAN

GUY CARPENTER

SUBMISSION
REFORMING FLOOD INSURANCE: NOVEMBER 2011 CONSULTATION PAPER

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FINANCIAL SERVICES

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In this response we address some questions raised by the Reforming Flood Insurance consultation paper but not all

- We have not addressed all of the questions presented in the Reforming Flood Insurance consultation paper; only selected questions where we think we can add value
- We also raise points not specifically called out in the paper where we think it is critical to the design of a flood insurance solution
- Our objective is to provide an objective view on the flood insurance solution design in Australia; As such, in some instances we have put forward a view and in others we provide a framework for solution design and suggest the implications of different choices, but do not put forward an opinion
- Our submission is only intended to cover residential flood cover as part of a home and / or contents policy

Contents

Section 1 | Perspectives on effectiveness of Government response

There are four key actions required to improve the effectiveness of the flood insurance system in Australia

		Description of the problem to address	Effectiveness of Government response
Primary source of insurer frustration	1 **Improve data quality**	• Lack of data quality leads to difficulty pricing for insurers • Lack of data consistency leads to differing views on risk amongst insurers and exacerbates problem of anti-selection • Lack of widely accepted model and data leads to risks being passed over by reinsurers and capital markets	
Primary sources of policy holder frustration	2 **Reduce confusion from policyholders**	• Many policyholders are unaware their policy does not cover flood • Many policyholders are unaware of the difference between flash and riverine flood (and also storm vs. flood) • Many policyholders are aware they are not covered, but mistakenly believe they are not exposed to any flood risk	
	3 **Increase level of coverage**	• High risk policyholders may either find that they cannot access flood cover or premiums are so high as to be prohibitive • Very high cost for a policyholder to try and individually reduce their own flood risk through mitigation measures or relocation to influence affordability of own flood premium	
Long term driver of problem for all stakeholders	4 **Increase focus on flood mitigation**	• Lack of focus on mitigation increases the long term cost of flood damage to residential properties in Australia and threatens the sustainability of any flood insurance system put forward over the long term	

1 The flood risk information portal is a step in the right direction in terms of improving the current system through better data quality

Desirable characteristics of flood risk data	Positives and **negatives** of Government response
Consistency	• This initiative will go a long way to achieving consistency in flood mapping in Australia through use of standardised mapping guidelines • However, if insurers are still using their own individually developed hazard models then there is still going to be divergence in opinions on flood risk exacerbating the problem of anti-selection
Availability	• This initiative improves the availability of data to insurers who need to make pricing decisions and policyholders who need to make decisions about "opting out" of cover
Timeliness	• This initiative (through funding and increased focus) will likely lead to an improvement in the timeliness and thus reliability of flood mapping data • Given that flood risk can change significantly over time due to developments and the changing shape of the land, this should remain a priority over time
Granularity	• To make proper pricing decisions, insurers need flood risk information with a high degree of granularity/resolution. If the Geoscience initiative continues with the current standard of using wide return intervals to display risk information, there will still likely be problems with pricing and anti-selection

The Geoscience information portal does not fully address the problem of anti-selection arising from the low resolution of flood maps in Australia and different hazard models amongst insurers

2 The Key Facts Sheet and standard definition of flood are positive steps to solving the problem of policyholder confusion over cover

Policyholders should be aware that	Positives and **negatives** of Government response
Their policy excludes flood from cover	• The Key Facts Sheet and standard definition for flood are positive initiatives and are likely to result in a reduction in the number of policyholders who are unaware their policy excludes flood cover • The proposal to make it mandatory for insurers to offer flood cover with all home and contents policies would likely mitigate this issue altogether
Not all types of water damage is covered	• The standard definition of flood removes the distinction of riverine vs. flash flood which is a positive step to assisting policyholders in understanding what types of damage to their home and contents are covered • However, the standard definition does not solve the issue of confusion around storm damage to a home vs. flood damage to a home as a result of a storm
They have some level of flood risk	• The Geoscience information portal is a positive step as it is likely to lead to flood mapping being both consistent and available to policyholders • The proposal to inform/remind policyholders of their flood risk at the point of sale when they are choosing whether or not to opt out is also a positive step which will reduce the instance where a policyholder does not choose to obtain flood cover because they are not aware of the risk to their property • However, it must be ensured that policyholders are informed in a way that does not rely on any ability to interpret probabilities

As long as there is still some difference in the way storm and flood are treated, there will exist some confusion from policyholders around whether they are covered

3 There is no market failure in Australia in terms of the availability of flood insurance

Various NSW pricing strategies seen in the market with examples[1]

Varying degrees of risk rating

Method of pricing	Examples[1]
Cross-subsidisation	Bank of Queensland
Differentiated pricing – not optional	Suncorp, ANZ, GIO, AAMI
Differentiated pricing – optional	NRMA, RACQ, Allianz
No cover (or minimal e.g. maximum claim of $10,000 for flood) offered	Comminsure, QBE, Real Insurance,

> *The Insurance Council of Australia, in its submission to the Natural Disaster Insurance Review, argues that there is no market failure regarding flood cover because flood insurance has been widelyavailable for every property in Australia since 2006…*
>
> – Reforming Flood Insurance

1. Based on a basket of quotes collected for Woy Woy, NSW in January 2012

3 However, for high risk policyholders the issue is that cover is not affordable

Hypothetical pricing scenario
Home built on reclaimed wetland

Low household income $50,000 p.a.

Sum Insured $200,000

Risk-priced flood premium
(not including profit margin, cost of capital or other risks to home)
= 0.05 x 100,000
= $5,000 p.a. (10% of annual income)

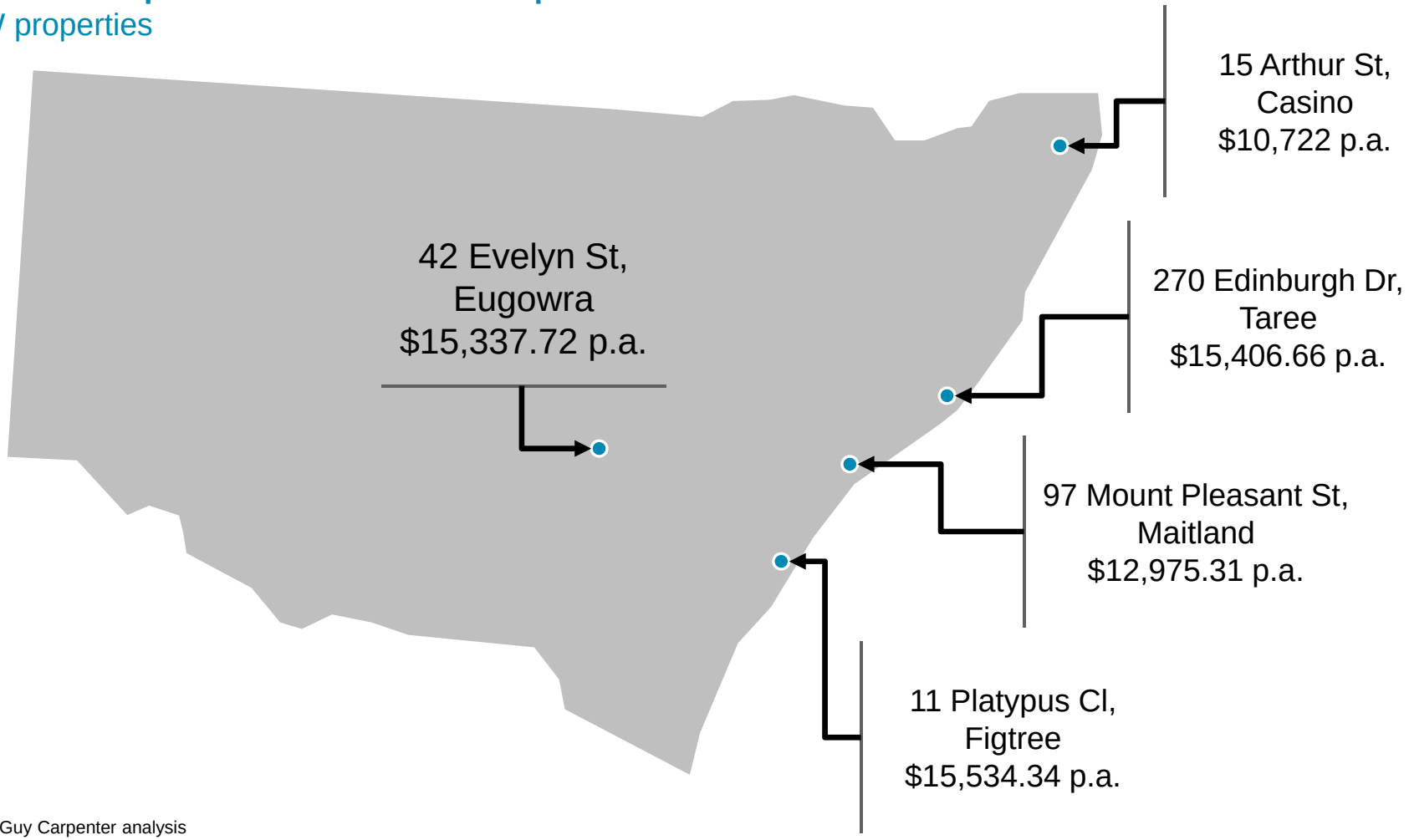
Probability of flooding – 1 in 20 years

Average claim size - $100,000 (50% SI)

Excluding some form of Government subsidy, affordability is likely to always remain an issue

3 This is reflected in some of the prices in the market currently for high risk homes

Extreme examples of unaffordable flood premiums in the market
NSW properties

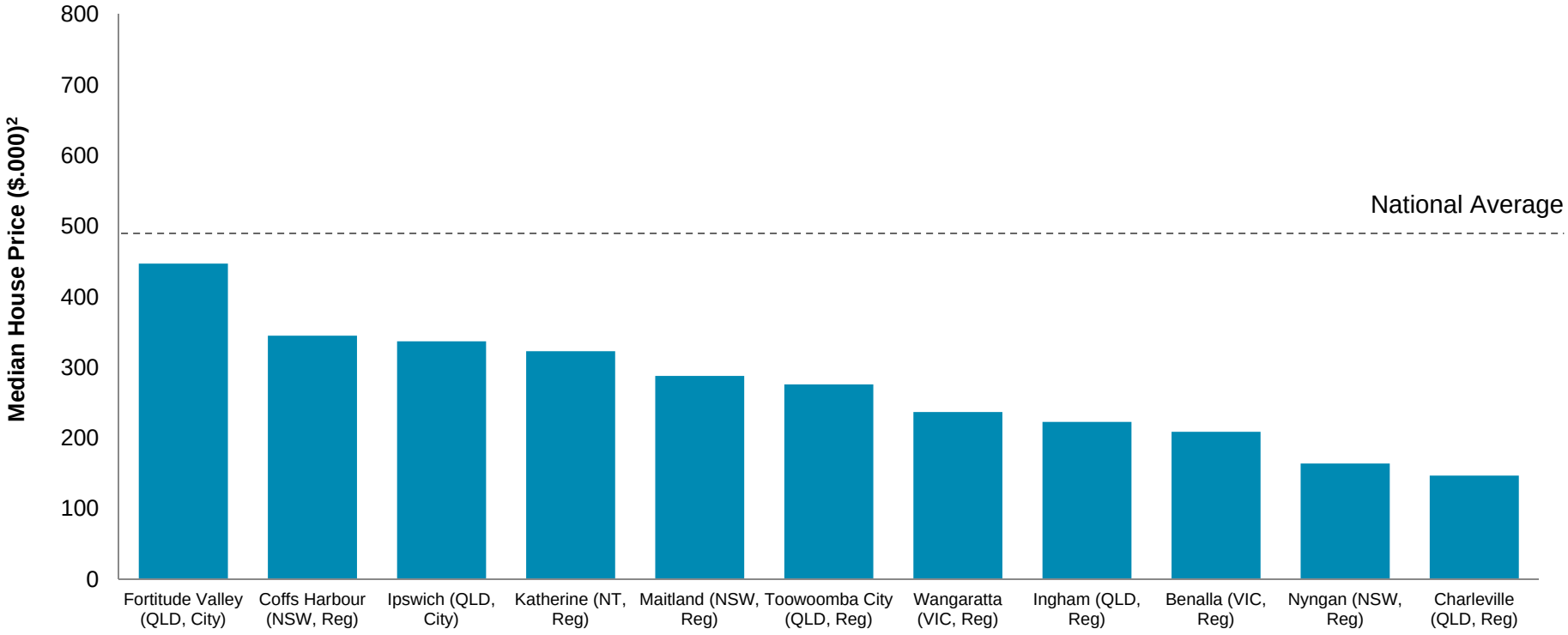


Source: Guy Carpenter analysis

3 The affordability issue is compounded by the fact many homes at flood risk are in low socioeconomic areas

Median house prices from a sample of flood affected suburbs vs. national average

Median prices based on 12 months of transaction data for a sample of suburbs affected by flood in the last fifteen years



Taking house prices as a proxy for socio-economic status, there are a significant amount of low-income households in flood affected areas

Sources: Oliver Wyman analysis, Australian Emergency Management Disaster Mapper, Australian Property Investor, RP Data, ABS

3 The affordability issue is a problem for the Government given there is already a substantial funding burden from flood

Queensland floods
Post-funded (from a Government perspective)

> *The Federal Government is raising $1.725 BN through an Australia-wide flood levy*
>
> – Brisbane Times

Christchurch earthquake
Pre-funded (from a Government perspective through EQC[1])

> *Finance Minister Bill English today said the Earthquake Commission (EQC) had increased its liability by about $4 BN to $7.1 BN. The new estimates will run down the Natural Disaster Relief Fund to zero, leaving the Government to pay for any shortfall and to foot the bill on any fresh disasters.*
>
> – Rebuild Christchurch

The real question is whether or not this burden should be pre-funded via a Government reinsurance pool or subsidy program to absorb some of the financial impact of a catastrophic event

1. Earthquake Commission: A Government owned entity which provides natural disaster insurance to residential properties

4 Mitigation reduces the long term cost of flooding, which reduces the impact on the policyholder and ensures insurers can continue to provide affordable cover

Potential actions

- Improve planning decisions to stop development in flood prone areas
- Fund risk reduction projects such as levees
- Provide incentives for individuals to adopt mitigation measures for their home
- Enforce improved building standards in flood prone areas through regulation

There has been little focus on this in consultation process and has been left up to individual councils

Intended outcome

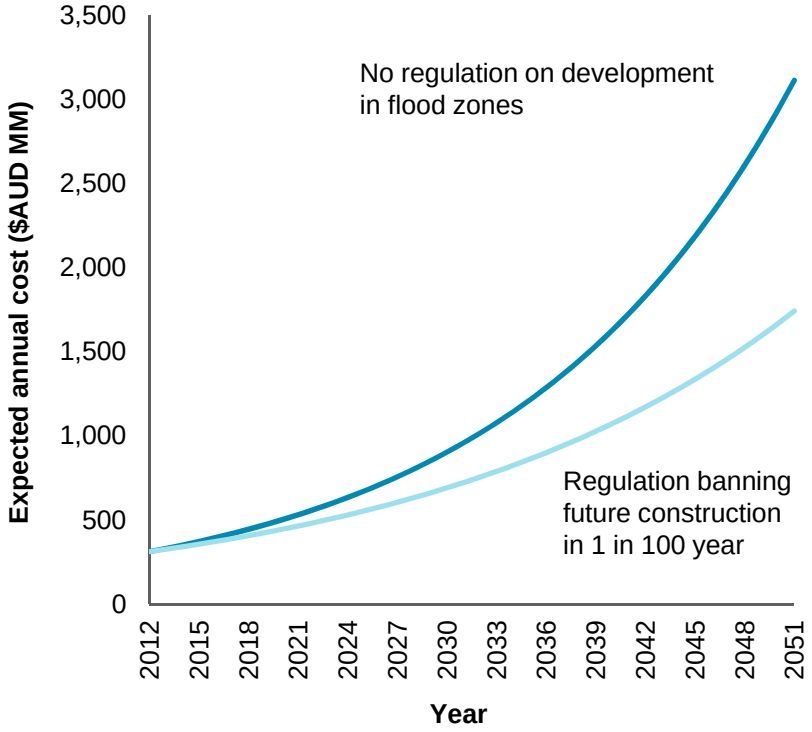
- Reduced instance of properties likely to flood frequently and predictably
- Reduced damage caused by major flood events

Long term result

Real financial burden of flood reduced over time

4 Regulation limiting construction in flood-prone areas alone would reduce flood damage cost by 28% corresponding to ~$112 MM p.a. over the next 50 years

Impact of a ban on development within a 1% ARI flood zone
Change in expected annual cost ($AUD MM)



- If building in areas with greater than a 1 in 100 chance of flooding each year was not permitted by regulation, annual expected flood cost would be dramatically reduced
- This change translates to a ~$6 BN (from $20 BN without regulation to $14 BN with regulation) reduction in the NPV of total flood damage over the next 50 years – or ~$112 MM for each year

Mitigation efforts for existing flood-prone settlements would further reduce the cost of flooding

Source: Oliver Wyman analysis, ABS, RBA, Axco, ICA

Section 2

Ideal flood insurance solution design

The ideal solution would satisfy the following 11 desirable characteristics of a flood insurance system

Policyholders

1. Cover available to those who need it
2. Cover affordable for those who need it
3. Those with no flood risk do not pay a premium for it
4. No confusion from policyholders whether they are covered or not
5. Incentive for policyholders to implement mitigation measures

Insurers

6. Quick turnaround times for claims in the event of a catastrophe
7. Long term solvency and minimum profitability for the insurance system
8. Incentive for insurers to price responsibly and contribute to reducing the long term costs of flood
9. Insurers maintain autonomy over product offering and pricing

Govt

10. Incentive for Government to reduce long term cost of flooding
11. No unnecessary burden on taxpayers

Some of these characteristics are conflicting; The ideal system would satisfy as many as possible whilst not placing an unreasonable financial burden on any stakeholder

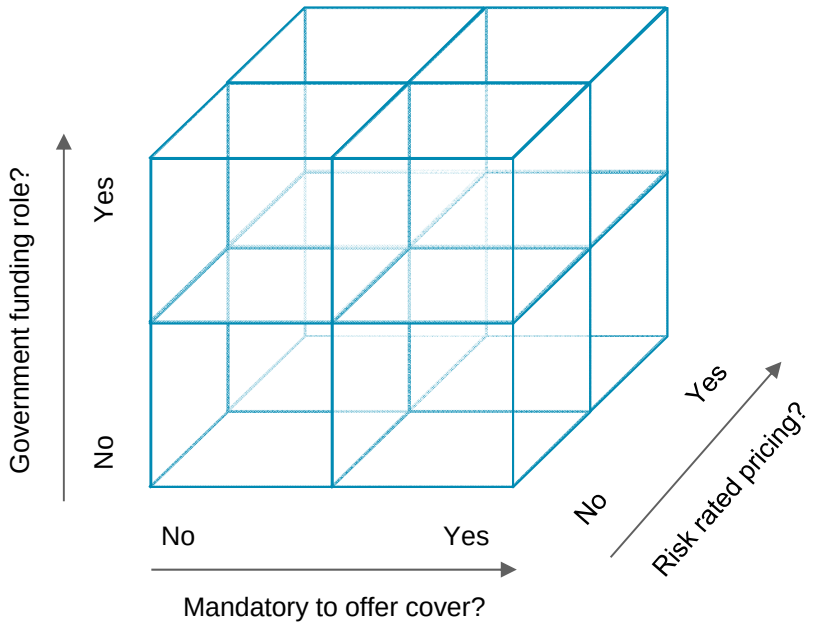
The objectives of the Reforming Flood Insurance paper should be broadened to encompass all 11 desirable characteristics[1]

1. Acknowledging that there are inherent trade-offs amongst the eleven

Undoubtedly the proposals made in the Reforming Flood Insurance paper are steps in the right direction, but the full solution needs to be addressed

Flood insurance end-game framework

Assumes market continues to provide some form of cover even under voluntary scenario



There are three key components to any flood insurance system:

- Whether or not it will be mandatory for insurers to offer cover with home and / or contents policies
- Whether the price of this flood cover will be cross-subisdised, risk-rated or somewhere in between
- What level of funding role (pre or post-event) will be played by the Government

Each choice results in a different stakeholder bearing a larger portion of the uncompensated risk

The consultation paper focuses on the ‘mandatory to offer cover’ component of the solution

There are eight potential choices for a flood insurance system – the current proposal suggests the final outcome would be one of four options

	Description	Characteristics satisfied[1]	Stakeholder bearing uncompensated risk	Desirability
	Mandatory risk-rated cover with Government funding role	1 2 3 4 5 6 8 9 10	Government	NDIR
	Voluntary risk-rated cover with Government funding role	1 2 3 5 7 8 9 10	Government	NDIR voluntary alternative
	Mandatory risk-rated cover with no Government funding role	1 3 4 5 6 7 8 11	High-risk policyholders	Best non-Govt funded alternative
	Mandatory cross-subsidised cover with Government funding role	1 2 4 6 7 8 10	Government, insurers and no-risk policyholders	
	Voluntary risk-rated cover with no Government funding role	1 3 5 8 9 11	High-risk policyholders	Current
	Mandatory cross-subsidised cover with no Government funding role	1 2 4 6 8 11	Insurers, no-risk policyholders	
	Voluntary cross-subsidised cover with Government funding role	1 2 7 8 10	Government, insurers and no-risk policyholders	
	Voluntary cross-subsidised cover with no Government funding role	3 5 9 11	No-risk policyholders, high-risk policyholders if cover unavailable	

Mandatory option

The choice on the x-axis of the solution leads to implications on the decision on other axes – This is better to be addressed upfront rather than dealt with later in the process

1. Available; 2. Affordable 3. Don't pay if not at risk 4. No confusion about cover; 5. Incentive for policyholders to mitigate 6. Quick turnaround times for claims; 7. Long term solvency and profitability of insurers; 8. Incentive to price responsibly; 9. Insurers retain autonomy; 10. Incentive for Govt to reduce long term flood cost; 11. No unnecessary burden on taxpayers

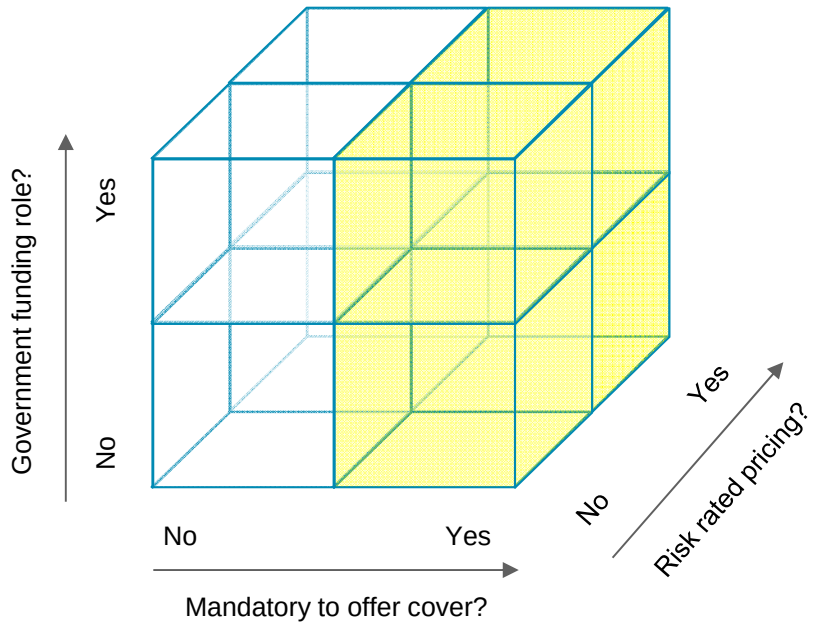
Section 3

Perspectives on maximising the effectiveness of current consultation process

The consultation paper has chosen to only focus on a component of the full solution design

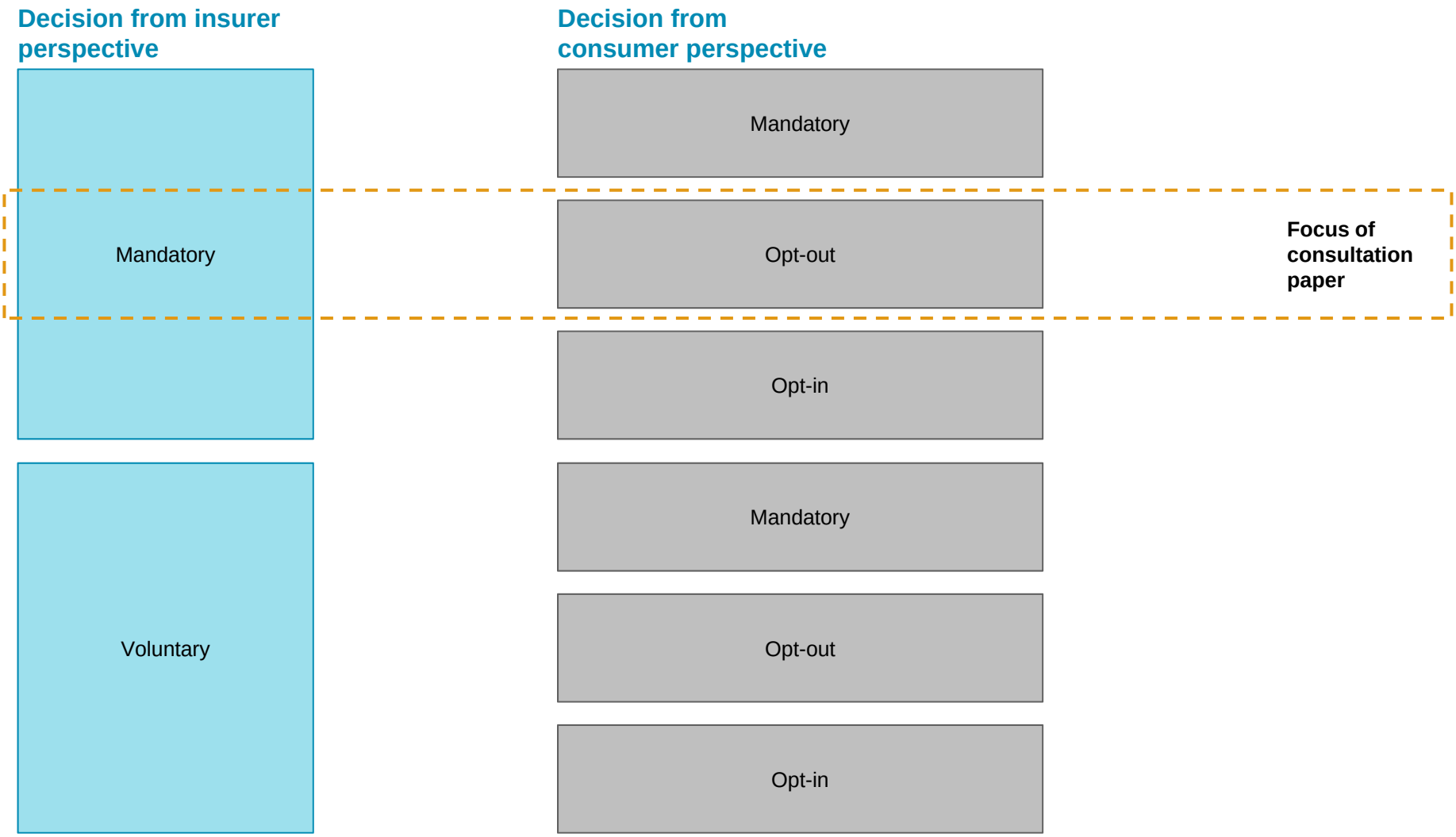
Flood insurance end-game framework

Assumes market continues to provide some form of cover even under voluntary scenario



Implied solution bound by Reforming Flood Insurance consultation paper

Within this the paper also suggests that the decision from a consumer perspective should be one of opt-out



If this is the approach taken, then to achieve a desirable solution the following components of the full solution need to be considered

Levers to use to improve the desirability of a mandatory opt-out system

	Desirable characteristic	Selected levers to consider to achieve the desirable characteristic in a mandatory opt-out system
1	Cover available to those who need it	
2	Cover affordable for those who need it	• Subsidisation process for those with unaffordable premiums • Sublimits and excess
3	Those with no flood risk do not pay a premium for it	
4	No confusion from policyholders whether they are covered or not	• Mechanism in place to ensure policyholders are aware of their flood risk and the consequences of not obtaining cover • Ensure maximum possible take-up when policyholders are given the option to opt-out
5	Incentive for policyholders to implement mitigation measures	
6	Quick turnaround times for claims in the event of a catastrophe	
7	Long term solvency and minimum profitability for the insurance system	• Reinsurance mechanism in place • Smaller insurance able to absorb additional administrative and operating costs
8	Incentive for insurers to price responsibly and contribute to reducing the long term costs of flood	
9	Insurers maintain autonomy over product offering and pricing	
10	Incentive for Government to reduce long term cost of flooding	
11	No unnecessary burden on taxpayers	

These selected levers are the aspects of the proposal that we have chosen to comment on. For the optimal solution design levers for all eleven desirable characteristics would need to be addressed

Levers to ensure affordability

Without some level of subsidisation it is likely that there will always be a problem with affordability

Subsidisation decision – Who bears the cost and when?

			Source of funding		
			A Policyholders	B Local council	C Federal/State Government
Existing properties	**Timing of funding**	Pre-event (premium)	Unaffordable premiums for high risk properties	Premium subsidy/rebate	Premium subsidy/rebate
		Post-event (claims)	Uninsured taking wealth hit	Disaster relief	Disaster relief
New properties	**Timing of funding**	Pre-event (premium)	Unaffordable premiums for high risk properties	Premium subsidy/rebate	Premium subsidy/rebate
		Post-event (claims)	Uninsured taking wealth hit	Disaster relief	Disaster relief

It is not our intention to say what the decision should be; Just to provide a framework for making the decision based on the desired objective (see example on next slide)

Levers to ensure affordability

The choice of who should bear the cost and when should be based on the objectives of the system

Subsidisation decision – Who bears the cost and when?

Example where objective is to penalize local councils for poor planning decisions

			Source of funding		
			A Policyholders	B Local council	C Federal/State Government
Existing properties	**Timing of funding**	Pre-event (premium)	Unaffordable premiums for high risk properties	Premium subsidy/rebate	Premium subsidy/rebate
		Post-event (claims)	Uninsured taking wealth hit	Disaster relief	Disaster relief
New properties	**Timing of funding**	Pre-event (premium)	Unaffordable premiums for high risk properties	Premium subsidy/rebate	Premium subsidy/rebate
		Post-event (claims)	Uninsured taking wealth hit	Disaster relief	Disaster relief

Choice of subsidy source and timing that satisfies the objective

Levers to ensure affordability

We do not think that sub-limits or excesses are an effective way to decrease flood premiums for high risk policyholders and achieve affordability

Risk band (ARI or frequency of flooding)	Average claim size ($)
Low (>111 year ARI)	40,242
Medium (50 – 111 year ARI)	40,928
High (20 – 50 year ARI)	43,736
Extreme (<20 year ARI)	55,114

The large average claim size for flood means that sub-limits and excesses would not significantly reduce the frequency of claim for insurers

Sources: ICA quoted in Reforming Flood Insurance consultation paper

Levers to ensure no confusion from policyholders
Need to ensure maximum take-up from policyholders in an opt-out system

A. Ensure the cost is not prohibitively high

Discussed in the section on affordability

B. Ensure policyholders understand their exposure to flood risk and the consequences if they do choose to opt-out of cover

C. Increase the “hassle” involved in opting out

See next slides

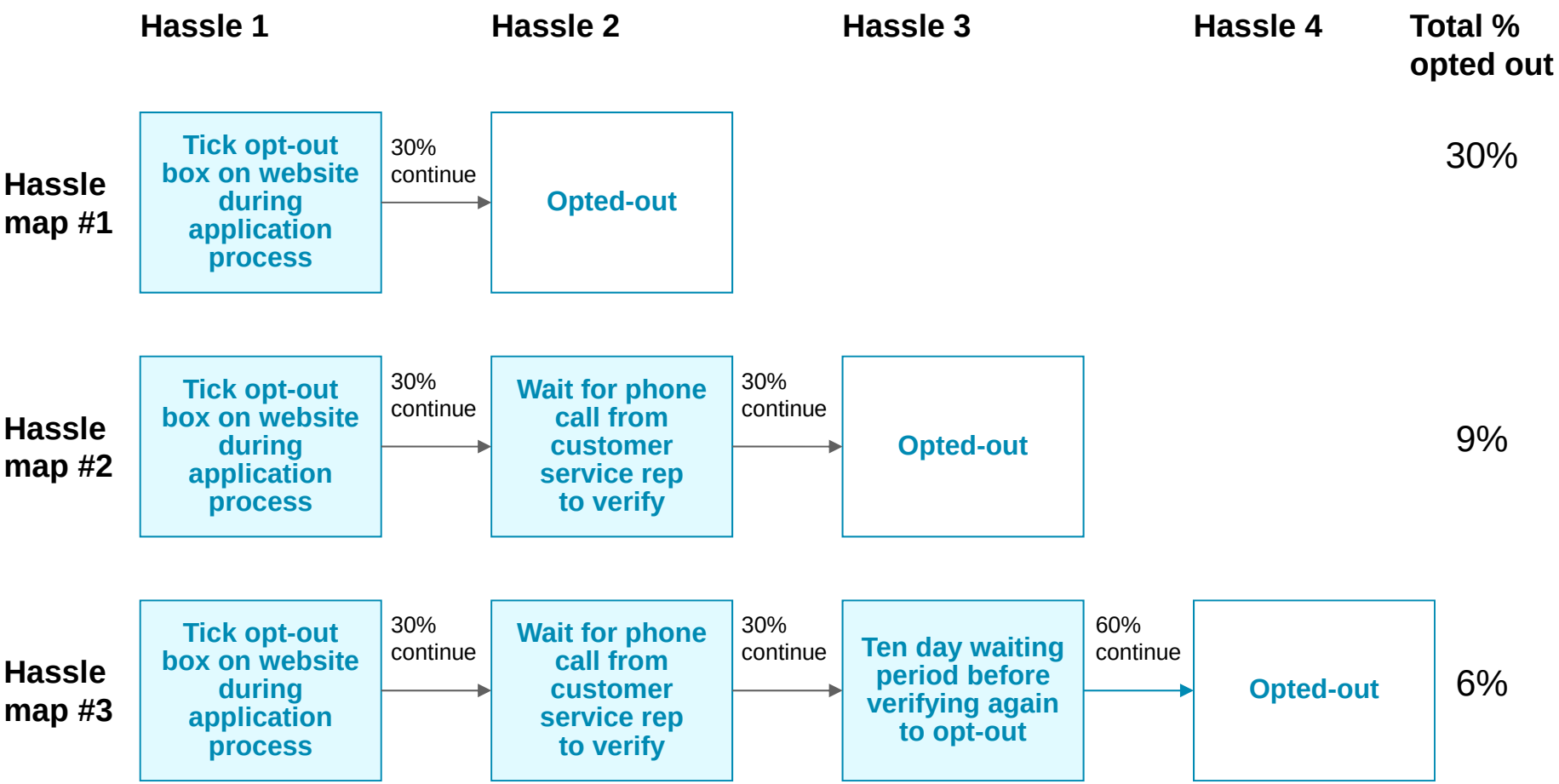
B Levers to ensure no confusion from policyholders
Ensuring the policyholder understands the consequences of “opting-out” will increase the take-up of cover

Steps to ensuring policyholder fully understands opt-out consequences	Actions required
Flood risk information exists	The Geoscience flood information portal should ensure this step is carried out
Flood risk information is publically available	The Geoscience flood information portal should ensure this step is carried out
Flood risk information is communicated to policyholders at PoS	The Reforming Flood Insurance consultation paper’s proposal to inform policyholders of their flood risk at point of sale before they can opt-out should satisfy this step
Flood risk information is understood by the policyholder	The proposal should go one step further to ensure the information is communicated in qualitative fashion (i.e. “medium risk”) that policyholders will understand rather than quantitative terms (i.e. “1 in 100 year probability of flooding”) which policyholders tend to underestimate the significance of

C Levers to ensure no confusion from policyholders

Increasing the "hassle" of opting out is likely to increase the overall take-up rate

Illustrative



Levers to ensure the long term solvency and profitability of insurers
Take steps to make Australian flood more attractive to reinsurers

Steps required

Increase the size of the pool and the spread of risks within it	The mandatory proposal will go a long way to achieving this, however, allowing opt-out may offset this significantly
Improve the granularity of the data	It does not appear that the current Geoscience flood information portal plans include improving the granularity of flood risk exposure data from the current bands. This improvement is needed to help reinsurers understand the risks they are taking on
Ensure there is one consistent version of the model across the industry	Without one consistent model for hazard in the industry (i.e. if each individual insurer continues to use their own internally developed flood hazard models) then anti-selection will continue to be a problem and reduce the attractiveness of Australian flood to reinsurers
Alleviate reinsurer concern around aggregation risk through levels of Govt backstop	Providing some level of Government backstop (i.e. effectively providing excess of loss cover for the system) would reduce reinsurer anxiety over the shape of the tail of flood risk

Levers to ensure the long term solvency and profitability of insurers
Leverage reinsurers expertise to reduce the administrative cost burden of mandatory flood cover on smaller insurers

Three possible options for smaller insurers to reduce administrative burden

Most likely → **Least likely**

1

Retain risk but leverage administrative systems

- Include flood cover in home and contents policies
- "Rent" pricing/administration capability from reinsurer at a total cost less than building the capability from scratch
- Retain risk

2

Pool and transfer home and contents risk

- Include flood cover in home and contents policies
- "Rent" pricing/administration capability from reinsurer at a total cost less than building the capability from scratch
- For home and contents cover act as a Managing General Agent (MGA) and pass all risk on to the reinsurer, potentially after pooling with other small insurers (may be difficulty in getting the reinsurer interested in taking on the flood risk component in current environment)

3

Pool and transfer flood component

- Include flood cover in home and contents policies
- "Rent" pricing/administration capability from reinsurer at a total cost less than building the capability from scratch
- For the flood component of home and contents cover act as a Managing General Agent (MGA) and pass all risk on to the reinsurer, potentially after pooling with other small insurers (unlikely to get much interest from reinsurers for just flood component in current environment)