

Incentives, Information & Drought Policy

*Arthur Ha, Gary Stoneham, Jane
Harris, Bill Fisher & Loris
Strappazzon
DPI, Victoria*

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Introduction

- Drought is normal in Australia
- Normal farm management risk
- No accepted definition
- No market failure (Freebairn 1983)
- But government provides assistance
 - ◆ Why?
 - ◆ Is this a problem?
 - ◆ Yes - poorly targeted



Some Relevant Economic Concepts

■ Risk

- ◆ Is drought insurable?

■ Asymmetric Information

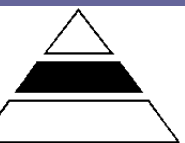
- ◆ Adverse Selection
- ◆ Moral Hazard

■ Government Commitment

- ◆ Credible Commitment

■ Incentive Compatibility

- ◆ Perverse incentives



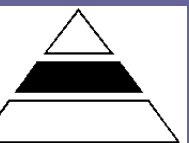
Performance of NDP

<i>Criterion</i>	<i>Performance</i>
Adverse selection	Poor — allocation by region not verifiable and objective 'need' criterion
Moral hazard	Poor — incentive for lobbying rather than drought preparation
Government Commitment	Poor — lobbying has revealed inability to commit
Incentive compatibility	Poor — poor incentive in drought policy and tax system to prepare or manage drought



Contracts for Drought Assistance

- Many alternatives proposed
 - ◆ Often do not deal with AS, MH well
 - ◆ Is current NDP ‘second-best’?
- Insurance sector deals with AS and MH by ‘menu-of-contracts’
 - ◆ Tailor contracts to different type of individuals’ incentives
- Can contracts be second-best?



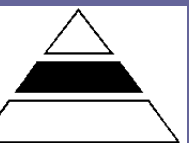
How Contracts can be Second-best

- Menu of contracts to limit AS
 - ◆ Contract 1: subsidised savings
 - ◆ Contract 2: social security payments
- Tie payments to verifiable actions to limit MH
- Sequence contracts to first solve MH and then AS



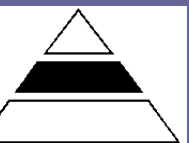
Discussion of Contracts

- Use of subsidies to limit AS and MH
 - ◆ Imposes costs on economy, but challenge is to minimise this cost to encourage preparation
- Credible commitment difficult to deal with in mechanism design
 - ◆ Institutional problem



Conclusions and Summary

- Current drought policy is the result of political-economic interactions
 - ◆ **Game theory appropriate framework**
- Contracts could be a solution
 - ◆ **Dependent on contract design**
- Possibility of a pilot to test menu of contracts idea
- More research needed on institutions



NDP - Normal Form Game

		Government	
		Declare (Not Commit)	Not Declare (Commit)
Lobbies	Lobby	5,1	-1,-1
	Not Lobby	3,0	0,2

- Assume Lobbies play first
 - ◆ Choose Lobby over Not Lobby
 - ◆ Government's best response is to declare
 - ◆ Nash Equilibrium is (Lobby, Declare)

