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Recent Developments in Commonwealth Drought Policy

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Some key elements in drought relief policy are outlined and the major themes in associated lobbying are discussed. Recent policy changes announced in 1992 are described in detail against the background of the Report of the Drought Policy Review Task Force (1990). Indifference curve analysis is used to compare recent developments with the preceding policies and the targeting problems associated with both policy regimes are discussed. It is found that the new drought relief policy is unsatisfactory in a number of ways. Discussion of the welfare implications of recent changes in drought policy is then provided and conclusions are finally drawn.

1. Introduction

Despite the fact that the publicly stated reasons for drought relief policy have changed and evolved over time, there have been some fairly consistent themes in the political rhetoric associated with lobbying for assistance. An important efficiency-based theme has stressed the fundamental importance of agriculture to the wider economy and hence the broader social relevance of drought relief. This theme has agricultural fundamentalist origins and is losing both relevance and prominence as the share of farm earnings in national income shrinks and as education standards in the broader community rise. Another efficiency-based theme is that the farm sector is 'special' because activity is unlikely to be renewed in periods following drought or after other severe economic stress. The rhetoric has favoured expressions such as 'keep the farm going'. Freebairn (1978) examined this issue in the context of the adjustment problem and concluded that drought was unlikely to cause irreparable damage to agricultural infra-structure. Yet another theme has been that amongst the risks faced by farmers, drought is 'special'. Kraft and Piggott (1989)

took issue with this line of argument in their aptly named paper *Why single out drought?* In that paper, the authors made the point that drought was only one of a number of risks faced by entrepreneurs and that it did not make sense to single it out for special government treatment. Other themes in lobbying for drought relief have focussed on welfare aspects of drought particularly in terms of the impact of drought-related income contractions on the well-being of the farm family. With this theme an attempt is often made to link drought with the notion of 'disaster' and the widely accepted role of government in providing leadership and support in such situations. Recent lobbying has stressed equity in welfare receipts. It is argued that individuals in the urban sector are entitled to unemployment relief while farmers only have access under very restrictive conditions. Thus, in summary, the major themes in lobbying for drought relief have been, first, efficiency, and, second equity. Generally, the efficiency arguments have been found to be flawed in previous research while the equity arguments have turned out to be influential in recent policy developments.

Historically, drought relief has taken two major forms: concessional interest loans and subsidies or rebates (DPRTF 1989). The concessional interest loans have been for 'carry-on' purposes such as purchase of fodder, inputs for sowing and household items and for specific purposes such as restocking

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and development of emergency water supplies. Subsidies and rebates have been for transport of stock and fodder and financial assistance for agistment, fodder purchase, slaughter and droving. Thus, a prominent economic feature of drought assistance has been its 'tied' nature reflecting, one might conjecture, that farmers were not trusted to use cash handouts effectively or, possibly, simply a political distaste for such transfers. It is also possible that governments attempt to promote a 'problem solver' image with drought relief by redressing specific problems related to such things as restocking and fodder shortages. As will be discussed below, a prominent feature of recent developments in drought policy has been a reduction in the rigidity of policy in this regard.

The implementation of drought-relief policy has largely reflected its reactive nature. Generally, specific drought-affected areas have gained political prominence through lobbying where farm representatives seek a 'drought declaration' that qualifies them for consideration for assistance at the state level. This effort reflects co-operation by local politicians, regional economic interests and the rural media with farmer groups in what is often highly sophisticated and well co-ordinated political representation.

Administrative procedures vary widely between all the states and territories (DPRTF 1989). For example, in New South Wales, Rural Lands Protection Boards, supported by recommendations from government veterinary experts, make an application to the Minister for Agriculture and Rural Affairs, while in Victoria, local municipalities apply directly to the Minister for a drought declaration. The applications are supported by data on pasture condition, rainfall and farm yields. The assessment of applications is complicated by differences within areas in the way that farmers are coping with low rainfall and by the lack of any widely accepted definition for what constitutes drought.

The major role in drought relief has historically been played by the state governments with the Commonwealth government playing a subsidiary funding role. Commonwealth involvement is usually prompted by the states' drought declaration. To date Commonwealth involvement has occurred under the National Disaster Relief Arrangements (NDRA) legislation with matching of some state relief payments and, also, assistance has been provided through the Rural Adjustment Scheme (RAS).

The frequency of drought declarations has varied between states. All of Victoria has been drought declared at least twice since June 1967, in Queensland some shires have been either partially or completely drought declared 70 per cent of the time since 1964 and in New South Wales some districts have been drought declared for three months or more in twenty years of the last thirty (DPRTF 1990).

The overall magnitudes of government assistance to farmers during drought have been substantial. During the 1982-83 drought Australian governments provided over \$300 million for assistance with around \$120 million coming from the Commonwealth and the rest from state governments. Total Commonwealth assistance for drought since 1962-63 is around \$600 million (Smith and Callahan 1988 and media sources).

1.1 Framework for Evaluation

In the remainder of this paper the rapid evolution of drought relief policy in the last three years is described and an attempt is made to evaluate developments within an economic framework. The development of a suitable framework requires (1) a statement about the philosophy underlying the approach and (2) explicit assumptions about the purposes of drought policy.

As outlined in the discussion above, research by leading Australian economists over three

decades has failed to produce any plausible 'market failure' rationale for drought policy. As discussed in the introductory paragraphs, explicit and implicit efficiency arguments in the rhetoric supporting drought relief have been found to be without substantial foundation and thus identification of government policy objectives within the usual Paretian framework is difficult or impossible. An alternative perspective is required and Gardner's political market approach seems appropriate: 'In short, the set of farm policies we observe, in the United States and the industrial countries generally, whatever the stated goals may be, appear to be observationally equivalent to policies intended to support the incomes of farmers as an interested group.' (Gardner 1987, p. 347.)

Gardner (1987) takes the view that different types of assistance result in different social costs and hence that discussion of the relative efficiency of policy options (even for achieving goals that are purely politically motivated) is important.

Australian politicians have consistently expressed the view that the purpose of drought relief policy is to provide assistance to farmers who are suffering as a consequence of drought. It will be assumed throughout this analysis that this is in fact the purpose of drought policy. Thus, the goal of drought policy is assumed to be the improvement of the welfare of the farm family during periods of financial stress associated with low rainfall. It will also be assumed that the means by which this goal may be approached are (1) direct transfers and (2) reducing farmers' exposure to the risk of such stress. These assumptions, which are likely to be unsatisfactory to some, are consistent with previous research cited above and the lack of any credible efficiency goals apart from those relating to environmental externalities.

A further assumption about policy objectives will be made that government is concerned about the environmental implications of any

changes in drought relief arrangements and, in particular, about the implications for soil degradation of encouraging production during drought.

Equipped with these assumptions about policy objectives, the approach taken in the study will be to use previous drought relief arrangements as a benchmark for comparison against which new arrangements can be evaluated. In this context, the evaluation attempts to answer whether new drought relief arrangements will lead to achievement of the assumed policy goals at a lower net social cost.

1.2 Recent Changes in Policy

There have been three major developments in drought policy in the last three years. The first was the removal of drought from the Commonwealth NDRA disaster legislation. The second was publication of the Drought Policy Review Task Force (DPRTF) findings in 1990 that have contributed to the development of new attitudes towards drought relief. The third development was new Commonwealth legislation for drought policy emphasising the role of the RAS, providing for a new type of 'drought bond' under the Income Equalisation Deposit (IED) scheme and providing finance for research and education (DPIE 1992a,b).

Following the recommendations in the Interim Report of the DPRTF in 1989, drought relief was finally removed from the NDRA umbrella in July 1990. Prior to this, drought had been dealt with politically in the same way as natural disasters such as cyclones, fire and flood, even though differences existed with the way drought relief was administered. The change reflected concerns about the legitimacy of the 'disaster status' of droughts based on perceptions that drought was a relatively slow phenomenon and that the general occurrence of drought could be anticipated and thus people could prepare for it. There were also related concerns about the potential for moral hazard

and adverse selection problems associated with the policy treatment of drought as a disaster. This change in legislation had two important effects. First, it helped to defuse some of the emotional content of political discussion opening the way for changes in emphasis in the broader drought policy debate. Second, it released the Commonwealth from some of its funding arrangements with the states which required matching of Commonwealth and State grants. This has increased Commonwealth flexibility in dealing with drought while removing some of the financial incentives that exist with joint funding arrangements for states to declare droughts.

The final report of the DPRTF was published in May 1990 and had far reaching implications for perceptions of drought by policy makers, eventually influencing Commonwealth legislation significantly. The report called for a change in 'philosophy' concerning drought. A plea was made for a shifting of responsibility for management of climate onto farmers and away from government and acceptance of drought as a normal part of the commercial processes of agriculture: "The need to manage for variable climatic conditions puts an onus on producers to adopt more flexible farming and management strategies" (DPRTF 1990, Vol 1 p. 4).

The Task Force also called for a separation of the welfare and efficiency elements in drought relief policy: "This approach calls for a clear separation between those policies aimed at providing incentives to improve the operation of the market place and those aimed at providing government relief in times of hardship..." (DPRTF 1990, Vol 1 p. 9).

Two additional points can be made about this report. The first is that it emphasised environmental issues with the word 'sustainable' figuring prominently throughout. While this may have been a concession to the fashion of the day, the important point was made that subsidising agriculture on drought-affected

land may lead to soil degradation. In the legislation that was to eventually follow the report, this aspect was not reflected in new arrangements. Second, the report distinguished between 'band-aid' and 'increased preparedness' policy approaches to drought. With responsibility for drought being on farmers rather than governments it meant that policy no longer needed to be reactive and 'after the event'. Rather, policy could focus on the preparedness of farmers for drought.

In August 1992 major changes in drought policy were announced in two Department of Primary Industry and Energy (DPIE) press releases (DPIE 1992a,b). These changes will significantly change the nature of both state and Commonwealth drought policy.

In DPIE (1992a) changes to the IED scheme were announced. The changes increased the incentives for farmers to smooth income by reducing the IED withholding tax rate from 29 to 20 per cent, increasing the maximum deposit from \$250 000 to \$300 000 and reducing the minimum deposit from \$5 000 to \$1 000. An additional instrument was created within the IED scheme called the Farm Management Bond (FMB) which attracted a higher rate of return than normal IED deposits. (DPIE (1992a) is vague about what the actual return is.) The FMB is available to farmers with taxable non-farm income of less than \$50 000 and the maximum deposit allowed is \$80 000. The latter is counted as part of the \$300 000 limit in conventional IED saving. FMBs can be 'cashed in' if farmers can establish eligibility for withdrawal on the basis of hardship. Withdrawals with forfeiture of the FMB return premium are allowed under all circumstances. In other words, the proposed instrument can be viewed as a type of drought bond with similarities to those used in Canada (Piggott, pers. comm. 1993).

DPIE (1992b) outlines expenditures of \$15.1 million to occur over the next four years. These expenditures include \$1.5 million for a

communication strategy, \$2.1 million for drought-related research and development and the balance is allocated to education and training in drought preparedness. The latter item is to be expended through Landcare, a community-based organisation dedicated to conservation and improvement of the environment.

DPIE (1992b) also outlines an expanded role for the RAS with additional household support provisions to be administered by the Department of Social Security. Thus farmers are provided with easier access to the welfare system. The new policy also allows increases in the extent of subsidisation of interest rates for eligible farmers during drought under the RAS. These subsidies can be up to 100 per cent and are funded jointly by the states and Commonwealth.

2. 'Band-aid' versus 'Increased Preparedness' Drought Policy

2.1 Theoretical Perspective

One of the aims of this article is to provide an economic evaluation of the new drought policy. The theoretical framework to be used is indifference curve analysis and the benchmark will be the previous drought policies that have been superseded by DPIE (1992a,b).

As outlined above, DPRTF (1990) encouraged a shift in the focus of policy towards the preparedness of farmers for drought and away from 'band-aid' policy after the occurrence of drought. The effects of 'band-aid' policy are described using Figure 1 where expected income is represented on the horizontal axis and risk is on the vertical axis. The units for the latter could be measured as the standard deviation of income, probability of bankruptcy or in some other manner. The 'technology', T , is an income-risk possibility frontier representing the efficient options open to the farmer for

trading off risk for income at the planning stage. The interior of this frontier is the rest of the feasible choice set. It is assumed that increasing amounts of risk must be accepted for additional expected income. Preferences for trading off expected income for reduced risk exposure are represented by I_1 . It is assumed that preferences are convex so that trade-offs have diminishing marginal utility and also that they are consistent and continuous. The effect of 'band-aid' drought policy is to shift the possibility frontier outwards to T^* . This outward shifting of the possibility frontier reflects that farmers have increased choices concerning combinations of planned income and risk exposure. Farmers respond to this increase in choices by finding a new combination of expected income and risk that reflects their expectations of assistance. Thus, they shift from point (a,c) on I_1 to point (b,d) on the 'higher' indifference curve I_2 . The policy has allowed farmers to reduce their risk exposure and increase expected income (both inclusive of expected relief payments).

Figure 1 could have been drawn somewhat differently without violating the assumptions of the model. If risk aversion were to diminish with income then I_2 might have been drawn with its tangency point at x . This would imply that drought policy actually led to an increase in the farmer's risk exposure. While such a scenario would be unusual, it is pertinent to the discussion. An example of a farmer whose preference for risk increased with income could be one who was young, relatively wealthy and desirous of expansion of his or her land base. Such a person, because of their preferred position of greater risk exposure, would be likely to experience drought-related financial stress. In this situation, 'band-aid' drought relief would have worked in the opposite direction to that intended by the government.

In Figure 2 a similar framework is used to outline the general principles for efficient 'increased preparedness' policy. 'Efficient' is

Figure 1: Ex-post Drought Relief Policy

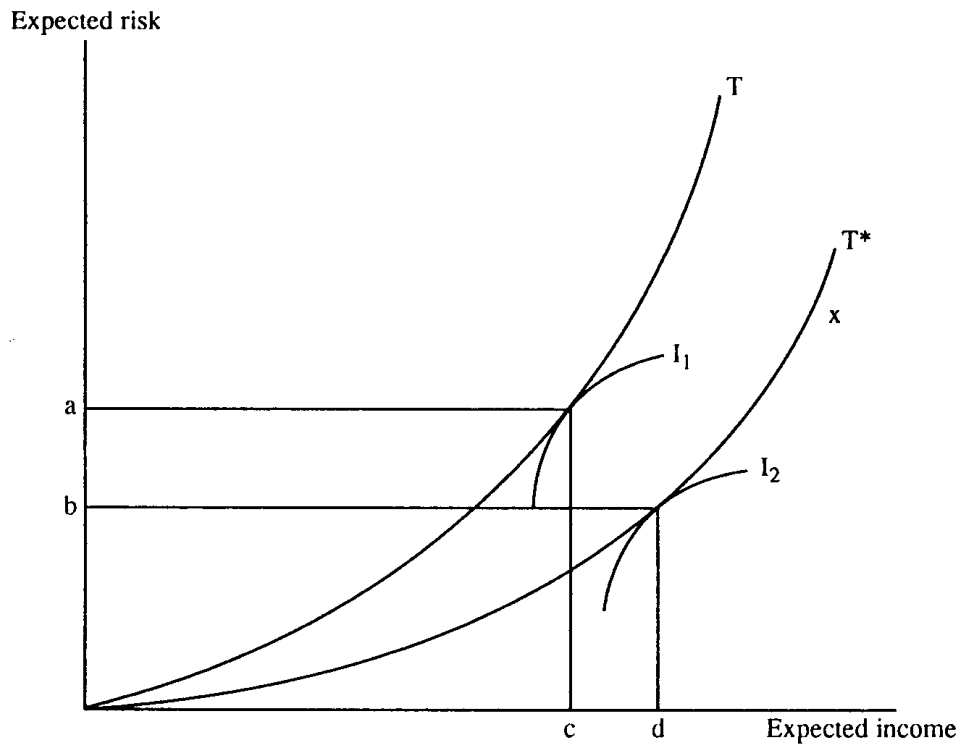
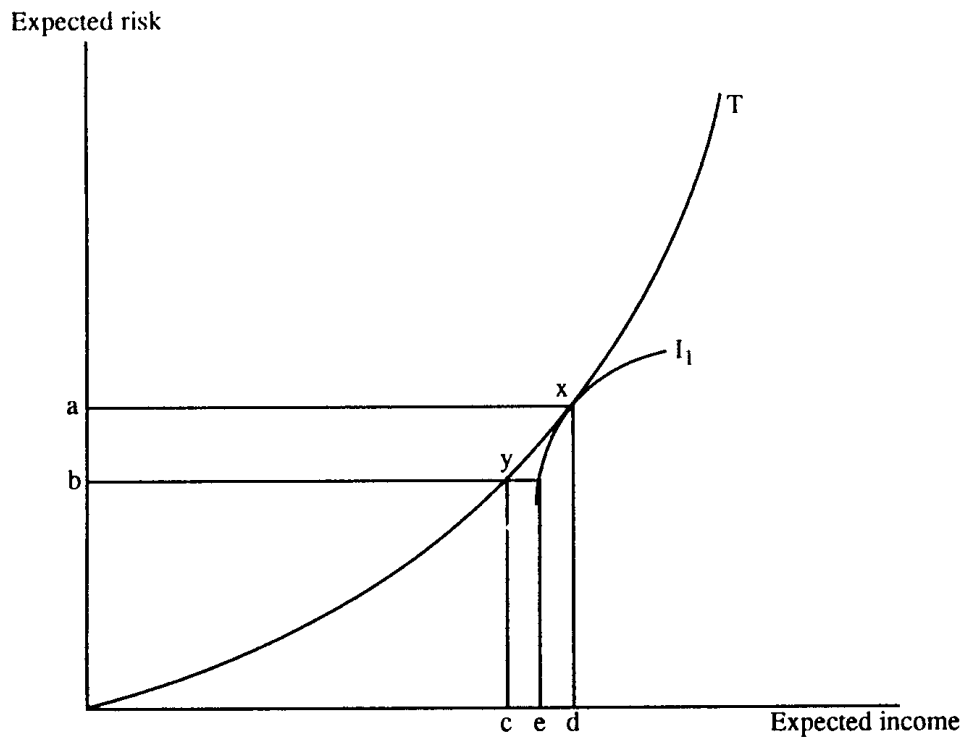


Figure 2: Ex-ante Drought Relief



defined in terms of least-cost achievement of policy goals. The axes, preferences and technology are defined identically in Figure 2 to the same concepts in Figure 1. It is assumed that the policy goal is to be achieved by reducing the farmer's risk exposure from a to b and that this is achieved through incentives for the farmer to increase preparedness for drought by changing his or her technical position from x to y. Note that with efficient 'increased preparedness' policy the possibility frontier does not shift as occurs with 'band-aid' policy. There are two reasons for this: (1) the analysis is conducted under the assumption of full information. Thus it is not possible for the farmer to increase his level of management skills in the model. This reflects the assumption that relief is in cash (or its equivalent), not extension or educational services; and (2) the objective of 'increased preparedness' policy is to reduce drought-related financial stress by reducing the farmer's risk exposure and this is achieved by compensating him or her for adjusting within his or her existing choice set and not through expansion of the choice set. If the policy is efficient then it does not include any subsidy and the farmer is simply being compensated for taking a more 'prepared' approach to drought in his or her planning. As such, the policy could be viewed as an instrument designed to compensate the farmer for shifting from a position of private utility maximisation to a position preferred by the government. From an analytical perspective, the problem is to identify the minimum 'bribe' that will induce this behaviour. From Figure 2, it is apparent that the incentive would need to have a minimum expected value to the farmer of (d-e) dollars. This is the value of the incentive that would be necessary to maintain the farmer on his or her before-policy indifference curve after changing risk exposure from a to b. Note that (d-e) is less than the actual expected income loss, (d-c), resulting from adjustment of production because the farmer is partially compensated for his or her adjustment by the resulting reduction in risk exposure.

An immediate result from the preceding discussion is that farmers are likely to do better out of 'band-aid' policy than efficient 'increased preparedness' policy. Ignoring any potential non-farm social gains that might arise from drought policy, 'band-aid' drought policy is a *lose-win* game with tax-payers losing and farmers winning; it is really just a transfer payment. Alternatively, 'increased preparedness' drought policy is a *lose-no win* game where taxpayers lose and farmers are no better off. Essentially, with 'increased preparedness' drought policy, farmers are compensated by taxpayers for changing their production in a way that they would not wish in the absence of the policy.

2.2 Policy Targeting

The second aspect of the comparison between 'band-aid' and 'increased preparedness' drought policy is targeting. That is, the efficiency with which the policy impact can be delivered to the desired recipient. In this regard, 'band-aid' policy has strengths and weaknesses. Its strength lies in its reactive nature. The policy only needs to be applied to farmers who are suffering financially as a result of reduced rainfall; it is not necessary to target the whole farming community in order to provide assistance to a small number of farmers. This is important in view of the fact that most droughts are regional or sub-regional and contrasts with 'increased preparedness' policy where all farmers must be targeted to help the few who will be influenced by drought in the unknowable future.

The importance of the difference between the targeting attributes of the two policies depends on the distribution and frequency of drought-related financial stress. For example, in the 1982-83 drought 60 per cent of all broad-acre farms were drought declared by October 1982 with Western Australia being the only state unaffected. The frequency of occurrence of this type of drought is low however. It was

referred to in DPRTF (1990) as a 'one in forty years drought'. This implies that, from a targeting perspective, 'band-aid' policy is likely to be more efficient than 'increased preparedness' policy.

From the perspective of targeting, a second advantage of 'band-aid' relief is that it has the potential to discriminate between different types of farms and hence between farms that are affected differently by drought. In the 1982-83 drought meat production fell by only 12 per cent on average from the preceding four years while wheat production fell by 42 per cent (ABARE 1991).

A weakness in targeting of 'band-aid' drought relief is the possibility that drought declaration procedures may become politicised. In this situation relief is unlikely to be distributed efficiently in terms of the policy goal of relieving drought-related financial stress and equity issues are also likely to arise. This type of targeting problem is particularly important in consideration of drought policy because of the lack of agreement on a definition of drought and the resultant situation whereby any dry day is, arguably, a drought.

Part of the argument for 'increased preparedness' approaches to drought policy has been that such a policy may cause a change in behaviour so that farmers voluntarily reduce their risk exposure. This argument is represented in the latest policy changes by the allocation to education through Landcare (DPIE 1992b). Whether such allocations would contribute to attitude or education goals, or even whether such goals are realistic, is clearly contentious. However, if this attitudinal change is both a high priority and a possibility, then, from a targeting perspective, 'increased preparedness' drought policy could be superior to 'band-aid' policy.

2.3 Drought Bonds

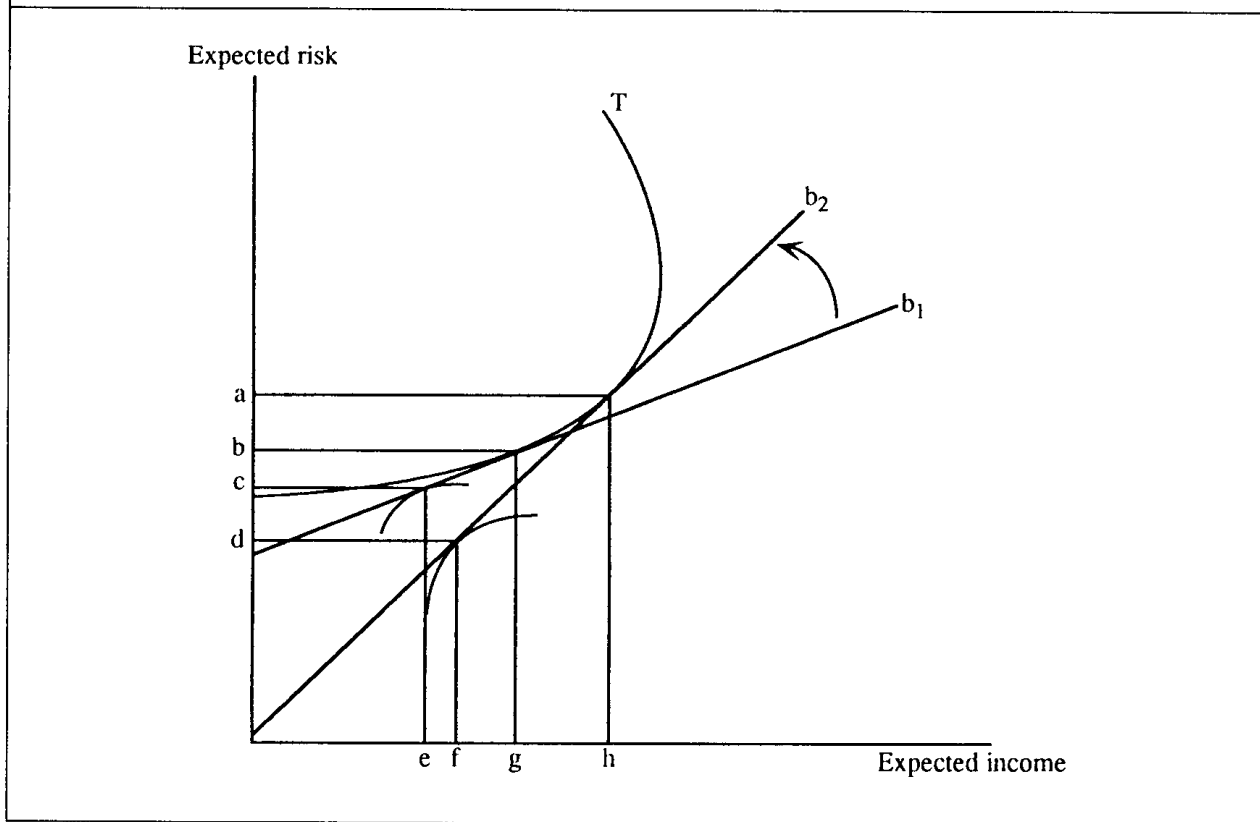
The proposal for FMBs or drought bonds outlined in DPIE (1992a) is similar in principle to the concessional interest rates that were offered as a drought-relief measure in the past. The difference is that drought bonds are offered before rather than after the advent of drought. As such, drought bonds are really an ongoing input subsidy and thus invite comment from the standpoint of policy efficiency.

In Figure 3 a modified version of the basic model used in Figures 1 and 2 is presented. The axis and farmer preferences are defined as before while technology is redefined in the following manner. T defines the expected income and risk possibilities for the farmer exclusive of income smoothing possibilities that could be achieved through saving and dis-saving. Thus T represents the possibilities for on-farm diversification and, if such markets exist, for crop insurance and futures trading. T is drawn for the general case (including off farm income) starting above the origin on the vertical axis to facilitate the drawing of the figure.

The farmer has access to credit and can smooth his or her income by arbitraging risk along the credit price line, b_1 . Thus, in the absence of drought bonds, the farmer produces at (b,g) and his or her financial position is at (c,e). The effect of drought bonds is to reduce the price of smoothing income over time through saving activity and 'swivel' the risk price line b_1 (in the direction of the arrow) to b_2 . This 'swivelling' reflects the reduction in the effective price of income smoothing when drought bonds are used. If the producer is utility maximising, the new production point is (a,h) and the new financial position is at point (d,f).

The model in Figure 3 does not allow for statements such as 'risk exposure will be reduced' ($d < c$) or 'expected income will increase' ($f > e$) with drought bonds since it would have been possible to draw the 'after

Figure 3: Drought Bonds



policy' indifference curve higher or lower on the price line without violating assumptions. However the model does yield two definitive results. First, if preferences are convex and consistent, farmers must be better off with the policy. That is, they must 'end up' on a 'higher' indifference curve. The second result is that under the reasonable assumption that the costs of shifting risk are increasing, it must follow that $a > b$ and $h > g$. That is, the policy causes the farmer to plan for higher on-farm income by increasing his or her on-farm risk exposure. Thus, drought bonds are likely to be somewhat self-neutralising inasmuch as they invite a market response that at least partially negates the impact sought by the policy maker.

To the extent that drought bonds encourage production during drought, any increase in on-farm risk exposure may impact negatively on the environment by increasing soil erosion. An argument that production during drought leads to soil erosion could be based on reports

in the media of dust storms of unprecedented magnitude in Victoria during the 1982-83 drought and also from submissions reported in DPRTF (1990). However, scientific clarification of this issue is needed.

Drought bonds are thus an 'increased preparedness' policy measure which expand the farmer's budget and hence his or her choice set and utility. This result seems counter-intuitive given the results obtained in the preceding section from Figure 2. However remember that those results referred to efficient policy and that drought bonds, as a type of input subsidy, are not efficient in terms of achieving the goal of reduced risk exposure. That is, there would be lower cost ways of achieving the policy goals; at least in principle. The inefficiency in the drought bond instrument results in an income effect that increases utility.

From the viewpoint of targeting, drought bonds are less efficient than 'band-aid' con-

From the viewpoint of targeting, drought bonds are less efficient than 'band-aid' concessional interest rates for two reasons. First, all farmers are being targeted in an attempt to protect the minority that will be influenced severely by drought. Second, unlike the 'band-aid' concessional interest rate approach, the voluntary nature of drought bond usage may mean that farmers choose to remain unprepared for drought.

The criticism of drought bonds based on the need for general targeting of farmers to deal with a problem that is likely to influence only a small proportion of them needs to be tempered. The FMB is actually a more general instrument than simply a drought bond because access rights require evidence of financial hardship, not of drought-related financial stress specifically. This aspect means that the instrument is more efficient than it initially appears to be.

Thus, in summary, drought bonds unambiguously make farmers better off by increasing their utility, unambiguously make tax-payers worse off because they must pay for the policy and will cause increases in on-farm risk exposure that may have a negative impact on the environment. If 'band-aid' drought policy is to be viewed as the benchmark, given the targeting and environmental problems outlined above, the FMB initiative must be viewed as unsatisfactory.

3. Changes in the RAS and Social Security Provisions

A major point made by the DPRTF was that drought assistance should be provided under the existing RAS rather than on an *ad hoc* basis by the states (DPRTF 1990). The 1989 RAS provides adjustment assistance in the form of cash, concessional loans and professional advice for farmers facing severe financial stress.

The Task Force recommended increased funding for Part A of the RAS which provides support for structural adjustment on farms to improve viability. Specifically, it provides assistance with debt restructuring and professional guidance for farmers wishing to change production systems. The Task Force also recommended that Parts B and C of RAS, that relate to 'carry on' concessional loans and industry exit payments respectively, be used as mechanisms for providing assistance during drought. It was acknowledged that use of the RAS for drought assistance would require increased RAS funding levels and the Task Force recommended such increases.

While the specific recommendations concerning the use of the RAS in DPRTF (1990) were never adopted, the recent changes outlined in DPIE (1992b) reflect the Task Force goals of encouraging self reliance on the part of farmers and of separating the welfare and efficiency functions of drought policy. The new policy includes both the modifications to the RAS outlined earlier and changes to IED and social security arrangements.

Mr Simon Crean, Commonwealth Minister for Primary Industry and Energy, is quoted in DPIE (1992b) as saying: "The key to the successful management of drought is preparedness through property management planning including risk management..... The Government will facilitate this process through the revised Rural Adjustment Scheme (RAS), and the improved Income Equalisation Deposit scheme (IEDs), which includes the new Farm Management Bond (FMB)."

In DPIE (1992b) it is also stated: "The Government will also introduce new measures to support farmers unable to meet living expenses. Farmers in extreme financial hardship, who cannot obtain commercial finance, will be able to access farm household support under new legislation to be administered by the Department of Social Security on an agency basis from DPIE."

A number of points can be made about these changes. First, it is contentious whether there is in fact any efficiency grounds for subsidising agriculture or any useful role for government in 'facilitating' management. While concessional interest rates and 'carry-on' finance may sound as if they are more than simply political side payments, convincing arguments to this effect have yet to be found. However, perhaps there is merit in segregating such payments from relatively straight-forward welfare payments that are more easily justified on equity grounds. The efficiency and transparency of activity occurring in political markets may be improved.

The second point that can be made in favour of the reforms outlined above is that they provide farmers with greater flexibility than in the past. The era of subsidised feed, agistment, transport and the like, with its associated inefficiencies and dubious hidden political agendas, may be over in the Commonwealth political arena. Increasing farmers' access to cash means that the best informed decision maker, that is, the farmer, is making the management decisions and that the scarce resources that are available during drought are likely to be used in their most valued end-uses.

A final point is that the new policy initiatives outlined above provide clarification of the relationship between farmers and the general welfare system. With changing community attitudes to the receipt of unemployment relief, rural lobbying in the last five years or so has been more likely to emphasise the apparent inequity resulting from the very limited access of farmers to unemployment relief compared to people employed in the non-agricultural sectors. This lobbying pressure and exigencies arising from the current recession resulted in legislative changes in 1991 giving farmers greater access to unemployment relief. Presumably, the same factors were influential in the formulation of the policy initiatives outlined in DPIE (1992a,b).

4. Conclusions

Recent changes in Commonwealth drought policy represent a significant departure from the philosophy and rationale of the past. The three most prominent changes are the shift away from viewing drought as disastrous, the shift away from 'tied assistance' and the acceptance of the distinction, embodied in new Commonwealth legislation, between the welfare and market 'facilitation' components of policy.

While these changes may be in the right direction, drought policy remains a system for subsidising agriculture and the merit of such subsidisation is contentious. One might take the neo-classical view that such subsidies are intrinsically wrong and simply see the recent changes in drought policy as a continuation of past errors.

Alternatively, one might adopt the public choice view that policy making should be about minimising deadweight losses associated with subsidies rather than about eliminating subsidies generally (Gardner 1987). For adherents of this approach drought relief is viewed simply as the result of political processes and the fundamental question is not 'why drought relief?' but, rather, whether such assistance could be provided at lower social cost. From the latter perspective, the new policies are likely to be an improvement inasmuch as they engender greater flexibility for both farmers and the Commonwealth, increase the transparency of the transfer process and provide scope for trade-offs between policies.

The microeconomic analysis in this paper shows that the main instrument of the policy reform, the FMB (or drought bond) has undesirable characteristics in terms of both policy targeting and likely environmental impact. Thus, it is reasonable to conclude that there is scope for the improvement of instruments in

this important policy area and a need for more and better research.

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