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Developing Equitable and Affordable Government Responses to Drought in Australia

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ABSTRACT

Once again in 2002 Australian taxpayers are being called on to provide relief to drought-affected farmers. Under the National Drought Policy which has been in place since 1992, support is provided by the Commonwealth Government predominantly in two forms: interest rate subsidies to assist farm businesses and a special welfare payment, the Exceptional Circumstances Relief Payment. Support is available under these programs only to farmers in geographically defined areas which have been declared to be experiencing 'exceptional circumstances'. This paper describes a number of problems with this approach and suggests an alternative form of drought relief based on the Higher Education Contribution Scheme, which is more equitable between farmers, less regressive in its impact on tax payers, and less open to politicisation.

Developing Equitable and Affordable Government Responses to Drought in Australia

Australia is the driest inhabited continent on earth and also experiences a high degree of climate variability. As such, drought is a frequent occurrence and drought of some magnitude is occurring somewhere in the country most of the time. Since the arrival of European-style agriculture, drought has been a recurring problem for Australia's farmers. The impact has been felt well beyond the farm sector. Although agriculture's contribution to the Australian economy has reduced from 18 per cent of GDP in 1952-53 to around 3 per cent in 1995-96 (McColl et al. 1997, 21), drought still has a significant impact on the overall economy. In October 2002, the Australian Bureau of Agricultural and Resource Economics estimated that the drought would reduce economic growth in 2002-03 by 0.7 per cent, implying lost output of about $5.4 billion (ABARE 2002).

In May 2002, the agenda for the meeting of the agricultural Ministerial Council included consideration of the 'exceptional circumstances' program through which support is provided to drought-affected farmers. At the time of writing, the outcome of the meeting had not been made public but it is understood that the sticking points were the definition of 'exceptional circumstances' and the appropriate funding split between the Commonwealth and State and Territory governments.

What is now presented is a contribution to this contemporary policy discussion and development, and is organised as follows. First, we consider briefly the history of Australian drought support policy. Second, we examine critically the arguments typically offered as justifications for government subsidisation of farmers experiencing drought. Third, we explore several problems of a political and policy nature related to contemporary approaches to drought relief. Fourth, we consider the cost of drought relief and the appropriate means for meeting that cost.

Finally, we offer a novel and alternative approach to the problem, aimed at addressing the conceptual, redistribution and practical weaknesses of current policy. This involves the suggestion of the use of government-financed loans with the unique feature that repayments are required only if and when farm revenues have recovered. The method builds on the foundations underlying the Higher Education Contribution System, which in international terms was the first use of income contingent loans to finance university charges. A number or implementation issues remain to be explored further, but it is clear that considerable potential exists for improvements in drought policy along the lines suggested.

Historical and Conceptual Context

A Brief History of Commonwealth Government Drought Relief Policy

The Commonwealth Government has expended large sums on drought relief in recent decades. Between 1992 and 1996 Queensland and New South Wales experienced prolonged drought which was considered to be the worst such event in the twentieth century and the 2002 drought has been described by the Bureau of Meteorology as 'remarkable' for the widespread nature of its impact (BOM 2002). The following sets the historical and conceptual context for Commonwealth Government involvement in the provision of drought relief as background to the discussion of the problems with present forms of intervention and a possible solution. For a more detailed history of drought policy in Australia, see Botterill (2003 forthcoming).

In policy terms, drought was treated for many years as a natural disaster. However, in 1989, the Commonwealth Government decided that drought would no longer be covered by the Commonwealth-State Natural Disaster Relief Arrangements. It is probable that the motivation for the decision was budgetary, as drought relief dominated the disaster relief budget, accounting for 57.6 per cent of Commonwealth expenditure in this area between 1962-63 and 1987-88 (Heathcote 1991, 226). There were also concerns about the misuse of the disaster relief scheme by the Queensland government, with the Commonwealth expressing the view that the Queensland government was using the scheme 'as a sort of National Party slush fund' (Walsh 1989, 189).

The announcement was followed in 1990 with the establishment of a Drought Policy Review Task Force (DPRTF) which rejected the concept of drought as a specific, defined event based purely on its climatic features, and argued that it was inappropriate to treat it as a disaster. In July 1992 the Commonwealth-State Ministerial Council announced a new National Drought Policy based on the principles of self-reliance and risk management. The Council and proposed that the move to this new approach be supported through the Rural Adjustment Scheme (RAS), which was at that time under review (ACANZ 1992, 13-17).

Rural adjustment schemes have been in operation in some form in Australia since 1935. Major reviews occurred in 1971, 1976, 1985, 1988 and 1992. The post-1975 schemes were very similar in format and tended to focus on the financial position of the farmer as the primary criterion for support. The 1992 review led to a refocussing of the scheme and a new legislative framework. The scheme was more market-oriented than its predecessors and focused on supporting productivity improvements by farmers with long-term, productive futures in agriculture.

However, the major innovation in the 1992 legislation was the introduction of the concept of 'exceptional circumstances', consistent with the principle in the National Drought Policy that, while farmers should prepare for 'normal' droughts, there were events for which even the best manager could not be expected to anticipate. Under the new provisions the interest rate subsidies offered under the Rural Adjustment Scheme would be increased during a period declared to be an exceptional circumstance from a maximum 50 per cent to a maximum 100 per cent – this has since been phased down to 50 per cent. This support was, however, limited to those farmers who would normally qualify for support through the scheme, ie 'those farmers with good prospects for long term profitability' (Crean 1992, 2414). A major flaw with the new scheme was that 'exceptional circumstances' were not defined in either the legislation or the Second Reading Speech.

In addition to its review of rural adjustment support, in 1992 the Commonwealth also undertook a review of its income-smoothing scheme, the Income Equalisation Deposits (IED) Scheme which was an income-smoothing mechanism to provide farmers with a mechanism for financial planning to assist risk management. The IED scheme was supplemented by a farm management bonds scheme, withdrawal from which was only possible in 'periods of financial stress caused by factors such as, drought, commodity price collapse, severe disease outbreak etc' (ACANZ 1992, 15). The IED and farm management bonds were both seen as mechanisms for moving farmers to a position of self-reliance through the accumulation of financial reserves, a position that it was hoped would reduce the need, if not the calls, for government support during dry spells.

The Rural Adjustment Scheme was reviewed in 1997, following which the Minister for Primary Industries and Energy announced that it was to be terminated and replaced with a new package of farm support measures, with the exceptional circumstances provisions set up as a stand-alone program incorporating both the business support element of interest rate subsidies and a welfare component in the form of an Exceptional Circumstances Relief Payment. At the same time the Income Equalisation and Farm Management Bond Schemes were replaced by a new Farm Management Deposit Scheme. The philosophy of the new scheme remained the same as its predecessors, that is, to provide a tool for farmers to accumulate financial reserves to be drawn down during downturns.

Is There a Case for Government Involvement?

Governments have delivered drought relief to farmers for decades and this has been justified in a variety of ways. As noted, until 1989 drought was considered to be a natural disaster and this formed the basis of the policy response. Related to the disaster approach has been a concern with the protection of the resource base, including the preservation of the breeding herd. In its 1992 report on a national drought policy, the Senate Standing Committee on rural and regional affairs argued that 'it is in the national interest for the Commonwealth Government to protect and maintain Australia's agricultural base and productive capacity, particularly Australia's breeding herd and flock' (Senate Standing Committee on Rural and Regional Affairs 1992, 69). Early drought relief schemes reflected this concern with an emphasis on the provision of subsidies for transporting fodder and moving stock to agistment.

A further argument for government intervention has related to the adverse impact of previous government policies. In the 1860s and again after both World Wars, active policies of closer settlement were pursued for a variety of reasons. Many of the farms established under these programs have proved to be too small to be sustainable in the face of declining farm terms of trade. Advocates of drought support have suggested that governments have a moral obligation to assist farmers whose problems are not of their own making but are the result of poor past government policy.

It seems to be the case that many of the rationales offered for drought support can be traced back to views of the role of the farm sector which can be best described as agrarianism or, in the Australian context, 'countrymindedness'. Although not explicitly stated, the agrarian image of agriculture as a virtuous and noble undertaking can be gleaned from a wide range of documents which discuss rural policy in general and drought policy in particular.

In contradistinction to the above, there is perhaps an economic argument for Government intervention to farmers during drought that has some basis involving a possible form of market failure with respect to the delivery of credit to farm businesses. The essential credit argument used to support Government provision of financial assistance is that in some circumstances farmers have lost the support of their financial institution even though it is arguably the case that that are in fact viable over the long term and require carry-on finance to see their businesses through short term difficulties. This perspective underlay the early rural adjustment schemes and later schemes such as the Farm Household Support Scheme.

Apart from the above possible reason, a bottom line is that drought policy is essentially politically motivated; the rationales for intervention are often little more than assertions made to support the case for assistance. Part of the issue is that Australian media is very urban focused with few reporters understanding the complexities of drought policy. As a result, media reporting of droughts tends to be sensationalist, using stereotyped images of bare foot children, parched earth and dying sheep with little in depth analysis of the severity of the drought or the ability of farmers to manage its consequences.

A range of reasons has been canvassed by farmers and their advocates for Commonwealth involvement in drought relief, ranging from the plausible to the highly dubious. The removal of drought from the Natural Disaster Relief Arrangements ended the 'natural disaster' rationale but the Government continues to be persuaded, possibly by mostly political imperatives, that significant financial outlays are justified when there is a severe drought. The next section discusses the problems with the policy responses to drought that have been implemented to date. This is then followed by a discussion of an alternative approach.

Problems with the Usual Approaches

Australian governments have continued to grapple with the problem of developing an appropriate policy response to drought. A number of related issues challenge policy makers:

- the question of the definition of drought;
- the high level of integration between the farm family and the farm business, which means that policy makers need to confront the issue of whether drought support should be directed at the whole farm unit or be limited to the farm business; and

- the question of structural adjustment, which has important implications with respect to eligibility for drought support programs, ie whether support should only be available to farmers who are viable in the long-term.

In addition to these issues troubling policy makers, we suggest that the question needs to be addressed with reference to financing , specifically whether more equitable approaches can be developed.

The Definition of Drought

There is no agreed definition of drought. It can be meteorological, hydrological, agricultural and/or socio-economic (Wilhite and Glantz 1985, 113). In essence, it is drought's impact on human activities that is its most important feature — it is the result of a mismatch between demand for and supply of water (Dracup et al. 1980, 297;Wilhite 2000, 16). Australia's National Drought Policy was based on the principle that farmers should manage the risk of drought as it is a normal feature of their operating environment. Taken to its logical conclusion, such a construction of drought does not require drought declarations, as farmers adapt their management practices in response to the climatic conditions they face.

However, the introduction of the exceptional circumstances concept meant that severe drought needed to be separated from so-called 'normal' drought events. The first few declarations of exceptional drought were based on fairly subjective assessments of the severity of the drought. By 1994, the Commonwealth and State governments moved to develop more objective, 'scientific' criteria for the declaration of exceptional droughts. In October 1994, the Ministerial Council agreed six core criteria which would be taken into account by Commonwealth and State/Territory governments in considering exceptional circumstances applications. These criteria were:

1. meteorological conditions;
2. agronomic and stock conditions;
3. water supplies;
4. environmental impacts;
5. farm income levels; and
6. scale of the event. (ARMCANZ 1994, 3)

The framework specified that a rare and severe drought was a 'once-in-a-generation' circumstance (ARMCANZ 1994, 8), with the meteorological situation as the threshold event. In 1999, the Ministerial Council blurred the definitional issue by removing the primacy of meteorological criteria and agreeing that 'Income becomes the key measure to determine the impact of the event, and whether assistance should be provided' (ARMCANZ 1999, 59).

The biggest issue encountered in the administration of the exceptional circumstances program has become known as the 'lines on maps' problem. Since the 1992 National Drought Policy was announced, the focus has been on limiting drought support to those farmers experiencing extreme or exceptional drought. The exceptional circumstances support schemes for farm businesses have also been budget limited so elements of rationing have occurred. In order to determine eligibility, policy makers have identified geographic areas which are considered to be experiencing a severe downturn. This inevitably has resulted in farmers on the margins of such areas being excluded from support when their situations are arguably indistinguishable from those of their neighbours. To address this apparent inequity, the ministerial council agreed in August 2001 that

> Farmers outside the defined zone, but who are in reasonable proximity and can also demonstrate that they are affected by the same exceptional events, will be eligible to make application under the same terms and conditions as those within the defined zone. (ARMCANZ 2001, 33)

This decision has simply moved the lines and not removed the inequity.

The absence of an adequate definition of 'severe' drought combined with the need to ration support through the imposition of geographic criteria suggests that a scheme which is not tied to a meteorological event may be more equitable in providing support to farm businesses in financial difficulty. Such an approach is discussed below.

The Farm Family and the Farm Business

Australian agriculture is dominated by the family farm. Less than one percent of farm operations are incorporated (Wilson and Johnson 1997, 12), and there is a large number of small farms. The top 20 per cent of farms produce 80 per cent of farm output (Wilson and Johnson 1997, 15). In spite of recent attempts by governments to describe farmers as 'farm business managers' (Crean 1992, 2412) and references to the 'farm family business' (Anderson 1997), it remains true of much of family farming in Australia that it is characterised by a 'unity of business and household' (Mauldon and Schapper 1974, 65). In recent years, governments have emphasised that farming is a business and have structured programs in pursuit of economic objectives. The 1992 Rural Adjustment Scheme was focused on productivity improvement and its replacement, similarly focused, given the catchy title 'FarmBis'.

In spite of this, the unity of farm business and farm family is still strong and governments have struggled with the issue of whether support should be structured to recognise this unity or whether it should clearly separate household and business support. In its 1990 Report, the Drought Policy Review Task Force suggested that the government should treat the farm as a single entity by recommending that '[t]he income support needs of rural families in severe financial difficulties are appropriately addressed through the Rural Adjustment Scheme' (DPRTF 1990, 27). Only two years later, the consultants reviewing the Rural Adjustment Scheme gave the opposite advice (Synapse Consulting (Aust) Pty Ltd 1992, ix). The government chose to follow the latter's suggestion. More recently, the 1997 review of the RAS stated that

> Welfare assistance should not be delivered through instruments that assist businesses. Such an approach confuses the objective of the intervention, does not effectively target the welfare problem and distorts market signals to farm businesses receiving assistance. (McColl, et al. 1997, 38)

Attempts to separate family income support from farm business support, however, raise some issues for policy makers. Australia's general social welfare safety net is primarily focused on wage and salary owners and the asset-rich, income-poor status of farm families can exclude them, even when they qualify for support on all other criteria. In general, welfare support in Australia is offered to those in need without regard to their future earning capacity. People who access the unemployment benefit may later in life accumulate significant assets but this does not detract from their right to access income support when they are in need. A similar approach should apply to farm families, however a discussion of such a scheme is beyond the scope of this paper.

The question of business support is however, a different issue. Traditionally disaster relief in Australia focused on the relief of personal hardship and the restoration of public assets to pre-disaster standards. Recent policy approaches have shifted the emphasis more towards the preservation of private assets with schemes to provide interest rate subsidies to allow farmers to sustain their businesses during drought. This raises some equity issues as, while it is undoubtedly true that farmers experiencing drought will be receiving low incomes, it is very unlikely to be the case that they are economically disadvantaged in a lifetime sense. Many farmers in this situation are asset-rich, taking into account the value of their properties and, once the drought finishes, they will be back on track although many will have received considerable financial benefits to help them through the trauma.

The issues raised by the integration of farm business and farm family therefore relate to the equity of providing government support to asset-rich individuals during downturns; the business structures of many farms which enable farmers to 'hide' income and an emphasis on capital accumulation at the expense of income (Vincent et al. 1975, 86) which makes assessment of a farm family's true income situation very difficult; and meeting the welfare needs of the farm family without undermining the Government's industry policy objectives for agricultural businesses.

Structural Adjustment

One of the key principles guiding the policy-makers who developed the original drought policy in 1992 was that any response to drought should not undermine the structural adjustment process in agriculture (Botterill 2000). This principle extended to the provision of welfare support on the basis that untargeted income support could act as a subsidy to otherwise unviable businesses. Although there is no empirical evidence to support this assumption, and in fact it may be groundless (Chudleigh, pers comm), it had an important influence on the structuring of drought support policy.

The welfare component of the current exceptional circumstances program is decoupled from business performance, however, the interest rate subsidies currently available under exceptional circumstances conditions, now with a maximum of 50 per cent, continue to be available only to farmers who are considered viable in the long term.

The National Drought Policy was structured in such a way as to ensure that drought support would be consistent with ongoing structural adjustment in the farm sector. Its emphasis on risk management and the provision of support only to those with a viable future in the industry was designed to ensure that the principles of self reliance and ongoing productivity improvement were promoted. Policy makers are concerned that drought support for marginal businesses can in fact keep them going. If a farmer can make ends meet during good years and get support during bad years they can remain in farming even if their businesses are in poor shape. Governments interested in structural adjustment would prefer to see these marginal properties change hands either through amalgamation or be taken on by better resource managers who will manage the farm more productively.

Financing Drought Relief

Although the point is not given much coverage in discussions of drought policy, a critical issue is to recognise that government outlays for drought relief have to be financed in some way and that public sector subsidies are paid for from tax revenue. This means that all taxpayers are contributing to drought relief, and this raises the critical equity point related to farm assets. The vast majority of taxpayers do not own significant wealth-producing assets, meaning that it is likely that most of those paying for drought relief will be less advantaged over their lifetimes relative to the farmers being assisted.

There is a different way of looking at this issue. It is the recognition that all public sector outlays have an opportunity cost in terms of alternative possible expenditures. Thus for any given level of taxation, dollars allocated to grants-based drought relief could be spent instead on social security, or for health, or for income distribution. It is likely that the vast majority of alternative uses of the funds are more progressive than current drought assistance arrangements. n other words, from the point of view of either taxation or spending, grants to drought-stricken farmers are very likely to be regressive in a life-cycle context: they redistribute income away from those with less wealth on average.

Moreover, grants-based schemes are expensive. For example, in the three years 1993-94 to 1995-96, the Commonwealth Government in nominal dollars spent in excess of $210 million on exceptional circumstances interest subsides with a further $82 million in 1994-95 and around $130 million in 1995-96 outlaid on the Drought Relief Payment (DPIE Annual Reports 1993-1996). It is worth noting that these aggregate figures disguise significant grants to individual farm operators. The average grant received by way of an exceptional circumstances interest rate subsidy in 1994-95 was a little over $17,365. Treasury has estimated that the 2002 drought could cost the Commonwealth $200 million in exceptional circumstances payments (Truss 2002). .

Because of the regressivity associated with the nature of drought financing, the case for a drought relief subsidy seems to be weak. However, it seems obvious that political considerations imply that governments will continue to want to offer support in some form to drought-affected farmers. The critical issue then concerns the nature and form of this intervention.

An Alternative Approach: Income Related Borrowing

In essence, a government providing grants-based drought assistance faces unpalatable choices. The first, high levels of assistance, is expensive and inequitable with respect to the relative economic circumstances of those providing the subsidy. Second, low levels of coverage means that there are necessarily a large number of farms in need of help but not receiving any and there will be the arbitrary rules defining eligibility. This last, implies that some properties experiencing drought-related hardship will receive no assistance at the same time that other properties in the same circumstances will be eligible for considerable support.

The following sets out an alternative approach to drought support. In line with recent trends in government policy, it suggests the separation of the farm business from the farm family and as such, focuses only on the support needs of the business. It attempts to address a number of the problems of current policy settings by rejecting the need for drought declarations and 'lines on maps' to determine eligibility. It also accepts the risk management approach underpinning recent drought responses.

The suggested approach offers improved forms of drought relief with respect to the above issues *under the presumption that drought assistance will remain a significant aspect of agricultural economic policy in the near future.* Thus the following is simply a possible alternative instrument for achieving the objectives of the National Drought Policy while addressing some of the equity problems inherent in the current approach.

Income Related Borrowing: Conceptual Issues

The proposal builds on the risk management approach to drought pursued by governments since 1989. As part of that general strategy farmers have the capacity to build financial reserves in preparation for drought through the Farm Management Deposit scheme which provides a mechanism and tax incentives for farmers to prepare in advance for downturns such as drought. However, for those circumstances which are prolonged and for which the farmer has acquired inadequate reserves, or for farmers new to the industry who have not had time to build reserves, an additional policy instrument seems to be desirable.

The approach outlined below has been motivated by the view that there are major advantages associated with the use in public policy of government based income related loan policies. The first international policy of this type was Australia's Higher Education Contribution Scheme (HECS), introduced in 1989 as a response to university funding problems (For an historical and conceptual analysis of HECS, see Chapman 1997).

While the basic motivation for HECS might seem to be a long distance from drought relief, there are remarkable similarities between the two areas. To assist understanding it is useful to describe the conceptual basis of student financing and in so doing make explicit comparisons with drought relief policy.

Governments face three broad options with respect to the financing of university education. Of great interest is that many of the consequences of each of the three approaches apply also to drought relief policy. This is now illustrated.

A no charge system

A university education could be offered to academically eligible students without charge, and this was essentially the nature of the Australian system from 1974 to 1989. Such an approach is very much in the flavour of current drought relief grants, in that assistance is offered to drought eligible farmers without charge.

There are two basic problems with having a 'free' university charging arrangement. The first is that such a system is highly regressive in a life cycle context. Because 'free' means financed by all taxpayers, the vast majority of whom will not have had the privilege of a university education and who will in general experience over their lives far lower incomes than the graduates they have financed (Chapman 1997;Wran Committee 1988).

The second problem with not charging for higher education is that governments will often find themselves unable or unwilling to finance further expansions of the university system; budgets are, after all, limited. In the late 1980s this was a major problem for Australian higher education. Many academically eligible prospective students were denied a university education because the Commonwealth government was not prepared to provide the funding necessary to allow an expansion in the number of places to accommodate the excess demand (Wran Committee 1988).

It is remarkable that both of the problems associated with not charging for university education are present in different forms with respect to grants-based drought relief. That is, such an arrangement is essentially regressive in that subsidies are provided by relatively asset-poor taxpayers to relatively asset-rich farms. As well, it is clear that drought outlays are insufficient to provide relief to all eligible farms because, as is the case with university financing, policy-makers have judged that there are not sufficient taxpayer resources available to assist all those in need.

Leaving the System to the Market

Instead of providing university education free of charge, governments could leave the system to the market and allow universities to charge fees with no public sector financial assistance being offered to poor students. However, in such a circumstance prospective students with no access to finances will face enrolment barriers, for two reasons.

First, the commercial banking system will be unwilling to provide loans. The basic reason is that borrowing undertaken for investment in human capital is risky, and unlike the case for loans for housing mortgages, in the event of default the bank is unable to cover its losses through the sale of collateral – slavery is, after all, illegal. This 'capital market failure' on the supply side is the basic reason that governments intervene in the provision of student finances.

Second, some potential students – particularly those with uncertain prospects – may be very reluctant to commit themselves to repaying loans to banks (even if such loans are available). If the future turns out to be poor, borrowers will have repayment obligations which might be hard to meet, or can only be met under duress. If hardships result in default, there will be major adverse implications for a former student's credit reputation and thus access to future borrowing. In short, 'leaving the system to the market' won't work.

These commercial bank financing problems are arguably faced also with respect to agricultural credit provision. That is, under some risky circumstances banks will be unwilling to lend to tide a farm over and/or help finance a farm's recovery. Unlike the case for investments in human capital however, banks will have access to collateral to sell in the event of default; but if the drought persists the bank may believe – perhaps accurately – that the value of the property is not such as to cover the risks and transactions costs of the loan.

Income Related Loans

A third broad approach to university financing involves the use of income related loans, and this is the method used in Australia (and increasingly, a large number of other countries). In 1989 HECS was introduced to address the university funding problems associated with either not having a charge, or of leaving the system to the market.

The defining characteristic of HECS is that university charges are paid if and only when a former student's income exceeds a given threshold; at that time this threshold was average earnings. There is a critical issue associated with having an income contingent aspect to a loan. This is that if repayments depend on future success, it becomes very likely that the arrangement is associated with no risk of default for the borrower. And it is this absence of default risk that seems to be the reason that HECS has not been associated with the erection of barriers to university participation by the poor (Chapman 1997).

It is also instructive in the case of HECS that administrative costs of collection have turned out to be small, at less than half of one per cent of current revenue. This is because the Australian Tax System is very efficient. How such a scheme might work in the context of farm incomes is not completely clear, however, and is considered further below.

A HECS-type system replacing grants-based drought relief has the following advantages. First, it means that the assistance is not regressive. Farmers will have been helped to sustain their businesses when they needed such help, with potentially low burdens only for average taxpayers. Second, because much of the assistance will be repaid, the government will be able to afford to offer support to the vast majority of farmers in trouble. This will avoid the charge and reality of arbitrary rules with respect to eligibility.

There may be no sound reasons why the scheme could not be generally available to farmers at all times and not be linked to drought declarations. Such a scheme would be consistent with the principle that drought is a normal part of Australia's climate and would contribute to the removal of a 'disaster' approach to drought support.

Income Related Borrowing for Drought Relief: Implementation Issues

Repayment of the Higher Education Contributions Scheme (HECS) debt is triggered when the former student's taxable income reaches a threshold. This mechanism works because the majority of graduates find employment as wage and salary earners and it is relatively straightforward for the Australian Tax Office to determine when the repayment threshold is triggered and to collect the repayments. Taxable income is a good measure of the former student's actual income situation.

In the case of farms, the situation is more complex. The true financial situation of the family farm is difficult to determine due to the blurring of business and family expenditure. Johnson explains:

> First many household expenditures such as housing costs, may have been paid wholly or in part by the business so there is an unidentified in-kind source of income; second many businesses may receive tax discounts on expenditures that apply to their households as well as to their business; third businesses may have the opportunity to average income over several years so that negative income may be recorded, and finally the structure of the business may involve more than one income unit making attribution of income difficult. (Johnson 1996, 53)

These perquisites of farming combined with the opportunities within the tax system for the self-employed to find deductions mean that taxable income is a misleading indicator of actual income (Vincent, et al. 1975, 76). The bottom line is that an income contingent loans scheme for drought relief should not use taxable income as the basis for collection of the loan. Instead it would appear to be much more preferable to use a measure of total revenue, such as gross sales, or of profits, such as gross operating surplus (the difference between total revenue and total costs), and to impose a flat percentage levy in periods following the borrowing.

The former measure is collected for the Business Activity Statement for GST purposes, and is thus available on a quarterly basis. Gross operating surplus would have to be calculated and reported in an additional line, but available information suggests that this would not be difficult. In an Appendix we consider in detail the major collection issues, and how they might be addressed.

The use of revenue or gross operating surplus as the basis for loan collections is not ideal, since in some periods a high level of total revenue is not necessarily indicative of a high level of farm material welfare; for example, in difficult times involving the sale of assets. Consequently, to help insure against such exigencies, it is proposed that the levy be a low proportion only, perhaps a maximum of 5 per cent and/or have a ceiling on the level of repayments in any one year.

A second major issue concerns the rate of interest on such loans. One approach would be to have the real rate of interest set at zero; that is, adjusting the debt only for inflation. Compared to a real rate of interest, the scheme would have two properties: insurance against the size of the debt escalating in times of continuing adversity; and an implicit subsidy from taxpayers as the government would be losing the opportunity cost of the funds for each period in which the debt remained unpaid.

Alternatively, the scheme could be designed in a way that implicitly imposes a broad rate of interest, as HECS currently does. Specifically, students choosing to pay a HECS debt up-front receive a 25 per cent 'discount', which is equivalent to repaying nominally an additional one third of the debt. An illustrative example is that farmers borrowing say, $10,000, would agree to repay, say $13,000. Given that apart from this there would be no additional real rate of interest, the monies recovered would come at around no cost to the budget. The extent of the subsidy is, however, ultimately a decision of government.

Third, as is the case with HECS, a trust fund could be set up in which loan repayments were hypothecated to be used only to help finance additional agricultural credit outlays. Over the longer term this arrangement has the advantage of demonstrating the net benefits to government of moving away from a grants-based system towards a more equitable and affordable drought assistance system.

Finally, such a scheme need not necessarily be financed directly from the budget. That is, it might be possible and useful to have the revenue provided by commercial banks, with the government contracting to repay the financial institution in the knowledge that the revenue will eventually be forthcoming to the public sector from farms. This is precisely the way the AUSTUDY Loans Supplement has worked since 1994.

Conclusion

Our research suggests that this scheme is a simple, cost-effective means for delivering drought relief to farm businesses. Its strengths seem clear:

- It is consistent with the National Drought Policy which has been in place since 1992 and which enjoys broad bipartisan support.
- It builds on an approach of self-reliance and risk management, allowing farmers to manage the risk of drought over the lifetime of their involvement in agriculture.
- It can be implemented in such a way to decouple support from drought events entirely to reinforce the reality that Australia has a highly variable climate and this is a fact of life for farmers.

- It addresses many of the equity issues associated with existing policy, ie between farmers either side of the boundaries delineating drought and non-drought areas, between good managers and poor managers, and between farmers and the non-farm community.
- It addresses the problem of regressivity associated with the provision of subsidies by all taxpayers.

As Australia experiences another El Niño episode, drought is once again on the public agenda. It is therefore timely to consider alternative policy instruments which are arguably effective in relieving farmers' financial difficulties but avoid many of the inequities inherent in the measures that have been applied to date. A HECS-type model of revenue related loans has the potential to provide governments with a fair and affordable alternative to the interest rate subsidies currently seen as the only policy candidate.

Appendix*
A Revenue Related Loan: Collection Issues

What now follows explores some administrative issues with respect to the collection of a revenue related loan for a farm business. These are addressed through consideration of particular examples where there is apparent potential to avoid repayment. It is assumed that the scheme is only available to registered entities able to supply an ABN for GST purposes, and a tax file number for taxation purposes. A typical example of how the scheme might work is first explained.

An existing ongoing business makes an application for funding on an approved application form containing ABN, personal details of the applicant including tax file numbers of the registered trading entity and associated individuals, and profit and loss and trading statements and balance sheets to enable determination of trigger repayment points.

The registered entity receives a loan and information concerning repayment obligations (such as, at 2 per cent of revenue for periods following borrowing). The ATO is advised and the loan is recorded against a particular ABN.

The entity has a succession of good seasons resulting in high levels of gross income and profits. GST returns are lodged quarterly and the loan commences to be repaid. (There may be a need to consider the inclusion of an additional line on the GST return for those entities that receive a loan. Presumably, the lodgement of the GST return for 1 quarter would trigger a predetermined and pre-printed repayment amount on the subsequent return.). The business continues to prosper and the loan is repaid.

Example 1

As for the above, except that after three years of loan repayments, the owners decide to sell the business or farm. One way to cover this would involve the requirement that in the event of a sale the loan would have to be repaid in full. Note that the ABN is unique to the registered entity, not the business.

As with all sales of businesses, farms etc, there are certain searches carried out by legal practitioners acting for both the buyer and the seller. An ABN search could become one of these for rural property owner. If the search revealed the existence of a loan, the legal profession is empowered to withhold and remit funds at settlement to satisfy the loan. Alternatively, an additional box could be added to the GST return, which would be required to be ticked/ left blank depending on the sale of a property or business. An incorrect answer would constitute a fraud and legal remedies would exist for collection.

Example 2

As for the normal case, but after 3 years the ownership of the registered entity changes (that is, a new shareholder comes into the company, a new partner is admitted to a partnership, or a partner in a partnership retires).

The change to the shareholding of a company, which has an existing loan under this scheme, will have no impact. The company will still retain the same ABN.

The re-constitution of a partnership is different, since a change in a partnership means a new ABN. Applications to change must address the question "did the partnership arise as a result of a re-constitution, that is, a change of partners?". If the answer is "yes", the TFN of the former partnership is required. This should be enough to alert the ATO to the existence of a loan, which may or may not require repayment. For example, if a father retires from a partnership, but the sons continue, the loan might not need to be repaid but transferred instead to the new TFN/ABN.

Example 3

As for the typical case, except that after several years, the owners of the business pass away. Under their wills, the executors can either take over the business or sell it.

If the business continues to run, there is no issue. However, if the executors were to sell the business, then the conditions of example 1 would come into play.

*The Appendix was prepared with Michael Egan from Hassall & Associates Pty Ltd. The responsibility for errors and omission lies with Dr Linda Botterill and Professor Bruce Chapman.

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