An income-related loans proposal for drought relief for farm businesses[1]

Linda Courtenay Botterill
National Europe Centre
The Australian National University
Canberra

Bruce Chapman
Economics Program
Research School of Social Sciences
The Australian National University
Canberra

In 2004 the Commonwealth government is undertaking a review of its drought policy. This follows expenditure in excess of $1 billion on drought relief during 2002 and 2003 and comes only a decade after similarly large expenditure on support for farmers during the drought of the 1990s. Drought support for farm businesses has been provided within the framework of the National Drought Policy (NDP) agreed by Commonwealth and state governments in 1992 and at present is in the form of interest rate subsidies. This article suggests an alternative form of drought relief for farm businesses 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.

In early 2004, the Commonwealth government considered the recommendations of a Drought Review Panel set up to conduct a nationwide review of drought policy. The review considered *inter alia* the appropriateness of current drought assistance measures and alternative approaches that could be adopted (Truss 2003b).

This article is presented as a contribution to this contemporary policy discussion and development and is organised as follows. First, we consider briefly the context 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 some of 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 (HECS), which in international terms was the first use of income-contingent loans to finance university charges. A number of implementation issues remain to be explored further, but it is clear that considerable potential exists for improvements in drought policy along the lines suggested.

Policy and conceptual context

Australia has had a National Drought Policy (NDP) in place since 1992 based on principles of self-reliance and risk management. The underpinning rationale of the policy has been that drought is a normal part of the Australian farmer's operating environment and should be managed along with the other risks facing the farm business. An important caveat to this approach is a recognition in the policy that occasionally events occur which are beyond the management capacity of the best manager and during which government support is justified. These events are termed 'exceptional circumstances'. Since 1992 exceptional circumstances support for the farm business has been in the form of interest rate subsidies on both new and existing commercial finance. This support is limited to those farmers with 'prospects of long-term profitability and sustainability' (AFFA 2003).

In addition to interest rate subsidies, since 1992 the Commonwealth has made available a series of mechanisms to encourage income smoothing and accumulation of financial reserves to assist farmers to manage the risk of drought. The current scheme is the Farm Management Deposits Scheme, which provides favourable tax treatment in order to encourage farmers to put aside money in the good years. The scheme currently holds nearly $2.5 billion (Truss 2003a). For a more detailed recent history of drought policy in Australia, see Botterill (2003b).

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. 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 best be 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 government statements and documents which discuss rural policy in general and drought policy in particular (see, for example, Senate Standing Committee on Rural and Regional Affairs 1992:vi; Anderson 2002). The image of drought as an 'enemy' to be fought is evident in phrases such as 'Drought continues to devastate crops' (ABARE 2002) and is pervasive through much media discussion on the impact of drought (Wahlquist 2003).

In contradistinction to the above, there are perhaps two economic arguments for government intervention for farmers during drought that have some basis involving a possible form of market failure with respect to the delivery of credit to farm businesses. A first 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 they 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.

Second is the possibility that farmers in some circumstances might be reluctant to take on or increase debt because of the risks associated with default. That is, there is much to lose — the family farm, for example — given the possible incapacity to service high levels of debt. The point is taken up further below.

Apart from the above possible reasons, it should be noted 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 the Australian news media are 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 barefoot 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. Public generosity to appeals such as Farm Hand in 1994 and again in 2002 illustrate that concern for drought-affected farmers extends beyond the small farm vote.

The authors remain unconvinced that drought relief for farm businesses is justified. The NDP was based on a recognition of the reality of Australia's climate and an attempt to move away from 'expectations of climate that has predictable seasons and fits a pattern of "normal" behaviour around which we plan our agricultural activities' (Botterill 2003a). However, the debate about whether there should be drought relief at all is beyond the scope of this article. The following proposal is based on the political reality that, at least in the short term, governments will choose to intervene during severe drought events. Our concern is proposing an alternative to the interest rate subsidies which are currently offered, and addressing the regressivity associated with the provision of grants to farmers.

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, that is, 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 socioeconomic (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 NDP 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 (ACANZ 1992). The first few declarations of exceptional drought were fairly subjective assessments of the severity of the drought, being based on drought declaration processes by state governments which varied in the level of rigour applied (Botterill 2001:99). By 1994, the Commonwealth and state governments moved to develop more objective, 'scientific' criteria for the declaration of exceptional droughts. In October 1994, the Commonwealth and State Ministers 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 NDP 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 that 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, buffer zones were introduced in August 2001 to allow farmers 'in reasonable proximity and [who] can also demonstrate that they are affected by the same exceptional events' to apply for support as if they were in the defined area (ARMCANZ 2001:33). To a certain extent this change diffused the 'lines on maps' as an issue during the 2002–03 drought, but it has not removed the essential inequity associated with geographical delineation that is based on administrative boundaries and is unrelated to biophysical realities.

The farm family and the farm business

Australian agriculture is dominated by the family farm. Less than 1 per cent 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 recent years, governments have emphasised that farming is a business and have structured programs in pursuit of economic objectives.

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 1990 a Drought Policy Review Task Force suggested that the government should treat the farm as a single entity (DPRTF 1990:27). Only two years later, the government was offered the opposite advice (Synapse Consulting (Aust) Pty Ltd 1992:ix) and more recently it has again been advised 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).

The question of business support is, however, a different issue. Traditionally, disaster relief in Australia has focused on the relief of personal hardship and the restoration of public assets to pre-disaster standards. Recent policy approaches to drought relief 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; 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

Since the Green Paper on rural policy in 1974 (Harris *et al.*), Australian policy makers have recognised that agriculture has been subject to ongoing adjustment pressures as a result of declining farm terms of trade. These arise as a result of the inelasticity of demand for farm products in an industrialised economy, which leads to input costs increasing faster than prices received for farm products. Adjustment to this changing situation has seen movement of labour out of farming and the amalgamation of farms in order to capture economies of scale.

The NDP 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 were 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 important 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 less regressive than current drought assistance arrangements. In 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. A rural financial counsellor in NSW reports that grants in his region during the current drought have been similar, averaging $16,000 within a range of $700 to $70,000 (interview October 2003).

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 mean that there may be a large number of farms in need of help but not receiving any and there will thus be 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, and it accepts the risk management approach underpinning recent drought responses. The proposal is to replace interest rate subsidies with a more equitable form of support within the existing system of drought declarations. It does not address the definitional shortcomings of exceptional circumstances.

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 NDP 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 conse-quences 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 grant assistance is offered to drought-eligible farmers (ie as with 'free' university, there is no charge associ-ated with current drought relief).

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 (Wran Committee 1988; Chapman 1997).

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.

The additional possible problem with normal loan arrangements is that borrowers face the prospect of default since uncertainties with respect to future income might mean an incapacity to maintain repayment; this raises the possibility of bankruptcy and severe loss for borrowers, now noted.

In the case of higher education students the non-payment of a loan has the potential to jeopardise a graduate's credit reputation and thus the cost of or access to other important loans, such as for the purchase of a house. For a farmer the costs of defaulting on a bank loan are potentially even higher than this, since they include the prospect of foreclosure and thus the loss of a property that may have been in the family for many generations.

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. That is, income-related loans have the significant advantage of providing default insurance for borrowers, which is achieved through the facility of not requiring repayment unless debtors have the capacity to repay. No other type of loan has this characteristic. 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 4 per cent of current annual revenue (Chapman and Ryan 2002), essentially 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, and certainly reduced, burdens for average taxpayers. Second, because much of the assistance will be repaid, the government could afford to offer support to a higher number of farmers in trouble.

Income-related borrowing for drought relief: Implementation issues

Repayment of the 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.

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 for inflation only. 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 upfront 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.

Fourth, in order to be consistent with the objectives of the NDP, farmers might be required to exhaust their Farm Management Deposits prior to gaining access to the loan. This is not presently the case with interest rate subsidies, which means that farmers are accumulating assets ostensibly to prepare for downturns and then not being required to access those financial reserves before calling on public funding.

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 worked from 1994 until its termination in 2003.

Although the government would receive a large part, if not all, of outlays back, there would still be a need to cap the amount of money available for the scheme. In order to ensure that the loan does not become a *de facto* financing facility for marginal farms on an ongoing basis, there would need to be a cap on any individual farm business debt both annually and in total.

Conclusion

Our research suggests that this scheme is a potentially simple and arguably cost-effective means for delivering drought relief to farm businesses. Its likely favourable strengths seem to be that:

- it is consistent with the NDP, which has been in place since 1992 and which enjoys broad bipartisan support;
- it is an add-on to the highly successful FMD scheme, providing additional resour-ces when FMDs are exhausted;
- 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; and
- it addresses to some extent the problem of regressivity associated with the provision of subsidies by all taxpayers.

With the Commonwealth government undertaking a review of drought policy, it is timely to consider alternative policy instruments which are arguably effective in relieving farmers' financial difficulties, but diminish many of the inequities inherent in the measures that have been applied to date. While not addressing many of the problems associated with drought declarations and the determination of exceptional circumstances, a HECS-type model of revenue-related loans has the potential to provide governments with a fairer and more affordable alternative to the interest rate subsidies currently in place for drought-affected farm businesses.

Note

1. The concept underlying this work was initiated in discussions between Bruce Chapman and Greg Taylor in 1996, and the authors are grateful for the input of the latter. The authors would also like to thank John Chudleigh for his generosity and wisdom in discussions of this proposal and three anonymous referees for their valuable feedback on an earlier draft. Responsibility for any errors or misunderstandings lies with the present authors.

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