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A FINANCIAL MODEL TO FUND LAND REDISTRIBUTION IN THE SUGAR INDUSTRY OF KWAZULU-NATAL

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This article examines the requirements for successful redistribution of land to emerging commercial farmers. It outlines a model used to successfully finance emerging commercial farmers in the sugar industry. The model uses a capital sacrifice by the seller to subsidise the interest rate on the bond on a declining, inflation linked basis, this overcomes the initial cash flow problems associated with agricultural land purchases. The article proposes this as a method which could finance other land transactions with very limited impact on the fiscus, land and capital markets.

1. INTRODUCTION

The need for a rapid transfer of land to people previously excluded from the land market is crucial for the long term political and economic stability of the country (Lyne, 1996 and van Zyl, 1994). It is also crucial that present and future consumers in an increasingly urbanised South Africa are protected by ensuring that our extremely limited and fragile agricultural resources are used on a sustainable, efficient and productive basis.

This paper examines a model which has been used to successfully provide finance for the purchase of miller come planter (MCP) owned sugar cane farms in the KwaZulu-Natal midlands and north coast. This model has however the potential to be utilised for other State and private land redistribution initiatives which seek to give emerging farmers an opportunity to obtain commercially viable farms.

Evidence from surveys conducted in South Africa indicate that the rental return to agricultural land is in the region of five percent per annum (Nieuwoudt, 1980; Hattingh, 1980). If real interest rates are held at a positive rate of five percent above the inflation rate and inflation is measured at ten percent per annum the nominal interest rate will be fifteen percent. Based on these figures and assuming that land is the farmers largest asset, the farmer would have a cash flow problem with a bond of more than thirty three percent of the total land value (Nieuwoudt and Vink, 1995).

However, nominal returns increase over time with inflation, whereas nominal repayments remain constant if the bond on the land is not increased. The net effect is that the farmers debt repayment capacity improves over time in line with inflation. Therefore, cash flow problems which arise when land is financed with debt can be removed by providing a finite and diminishing interest rate subsidy.

2. CRITERIA FOR SUCCESSFUL LAND REFORM

A productive agricultural sector is dependant on efficient land markets (AID, 1986, Lyne *et al* 1995 and Kille and Lyne, 1993). A land rental market will transfer land from individuals who are not able or willing to use their land efficiently to more effective users. A land sale market creates a strong incentive for investors to conserve and improve land because the

asset can be liquidated at any time (Pasour, 1990).

In order for the market to operate the owner or user of the land must have property rights which are fully exclusive to the investor(s) and which are assured over time. Studies in KwaZulu indicated that there is a strong positive correlation between investment in land and property rights. (Kille and Lyne, 1993). These conditions are necessary but not sufficient for investment (Place *et al*, 1994 in Lyne, 1995). If the market is constrained investment in fixed improvements will be sub-optimal. As a result it is important that these rights are fully transferable.

As has been described earlier, any investment in farming operations requires borrowings as the cash returns are generally too low to finance all investment directly. Consequently the land's collateral value is vital. However land has collateral value only when it can be repossessed and sold on an active land market. The market system also has a spinoff benefit as it allows an objective market value to be attached to the land which reduces information costs and facilitates sound investment decisions.

Transaction costs need to be kept to a minimum to ensure that potential investors are not faced with costs that may outweigh the potential benefits of the investment. These costs include not only survey, subdivision and transfer taxes but the cost of negotiating with the owners. The latter costs escalate rapidly with large and less organised groups of potential owners (Kille, 1993 and McHugh, 1980).

There is a considerable fear that South Africa's scarce agricultural resources will be fragmented into completely unviable units through sales and inheritance. Strict enforcement of the sub-division of land adds considerable cost to land transactions and constrains the market. If however, the land rental market is unconstrained, transaction costs are kept low and land is effectively zoned exclusively for agricultural use, the areas should respond to size economies.

In order to promote a sustainable market based land redistribution, several criteria need to be met;

- disadvantaged farmers must be given an opportunity to gain full access to the land market,
- the assistance given to the new entrants should minimise distortions to the land and capital

markets,

- the new entrants must be given an opportunity to succeed as farmers with proper training, as well as financial and extension support,
- private property rights need to be effectively assured by the State,
- land zoning needs to be applied to prevent scarce agricultural resources from becoming residential areas,
- in addition, they must be able to cope with the initial cash flow problems associated with the purchase of land,

3. BACKGROUND

The Board of a KwaZulu-Natal based sugar milling company took a strategic decision to focus on the company's key activities of cane procurement and the production of sugar and to dispose of some of their sugarcane estates.

The company has had considerable success with the development of small scale sugar farmers and decided to sub-divide and sell sections of their estates to selected black farmers. Their aim is to establish medium scale commercial black farmers. The initial phase has been restricted to three estates, two in the midlands area around Umbumbulu and Mid-Illovo and one in the Shakaskraal area on the north coast.

4. SALIENT FEATURES OF THE PROPOSED TRANSACTION

The farmers will be selected by the company from candidates who have indicated a desire to farm fulltime. Candidates must also be able to make an own contribution of at least ten percent towards the land purchase and must pass an external credit check.

The growers will obtain freehold title to the land. Of the transaction costs, the company will bear all survey and subdivision costs. However the growers will have to carry transfer fees, bond registration costs and certain banking charges.

The farms have been planned and developed according to sound land use and conservation principles. Each farm also has adequate infrastructure and buildings to ensure that the growers are able to begin operating immediately.

The company will initially supply all of the contracting services to establish, maintain, harvest and transport the crop, requests for and management of these services will be in the farmers hands. To assist farmers, the company and the South African Sugar Extension Service (SASEX) will provide a comprehensive extension and advisory service. A bookkeeping service will be provided by the economics section of South African Cane Growers Association (SACGA) and a liaison committee will be set up with the company, the growers and the local farming community to involve and support the new farmers to ensure that problems are identified and addressed quickly.

5. FINANCIAL STRUCTURE OF THE PROJECT

There are two methods for overcoming the cash flow problems associated with the purchase of agricultural land by people with limited equity to contribute to the purchase price. The first option is that disadvantaged farmers could be given a grant to offset the price of the land to ensure that the bond is manageable within the farmers cash flow constraints. On the other hand the farmers interest payments could be subsidised to an affordable level in line with the farm's cash flow.

Nieuwoudt *et al* (1994) and Nieuwoudt (1995) have shown that grant and interest subsidies impact on the cash flow differently, a grant of fifty five percent will still result in the farmer experiencing cash flow constraints in the first few years of operation. This exacerbates the problem that inexperienced farmers may well make poor management decisions during the first critical years after entry. An interest subsidy holding nominal interest charges to an affordable five percent is also an impossibly onerous fiscal burden over an extended period.

Nieuwoudt *et al.* (1994) suggest that the subsidy could be phased out in line with inflation which would take approximately eleven years, when the rate of inflation is constant at 10 percent. This has several advantages in that the amount of subsidy is limited, the cash flow constraints are overcome and distortionary effects on the land and capital markets are smaller than the distortions inherent in the grant system or an infinite interest subsidy.

The financial structure of this model employs the diminishing subsidy described by Nieuwoudt *et al.* (1994) without resorting to State funding. The programme and model have the following features.

The grower will be expected to pay the full market value of the land which will be financed by KFC. This value varies between the farms as their productivity is not the same. The company will forgo eighteen percent of the market price. The funds from this discount will be placed in an account at Ithala Bank which will earn interest at thirteen and a half percent. These funds, both the capital and interest, will then be used to fund a finite diminishing interest subsidy.

Interest will be subsidised from the long term rate of 16.5 percent to 10 percent in the first year and the subsidy will decline to zero over an estimated five years in line with a projected annual inflation rate of ten percent. At this stage no funds will be left in the Ithala account. The loan will be redeemed over a twenty year period.

6. FINANCIAL RESULTS

In order to examine the financial implications of the interest subsidy a twenty year cash flow was projected for a seventy hectare sugar farm. This scenario is compared with a one-off 18% land price subsidy grant. Some of the salient financial indicators of the grant and interest subsidy options are described in Table One, Figure One indicates the funds flow in the interest subsidy scenario.

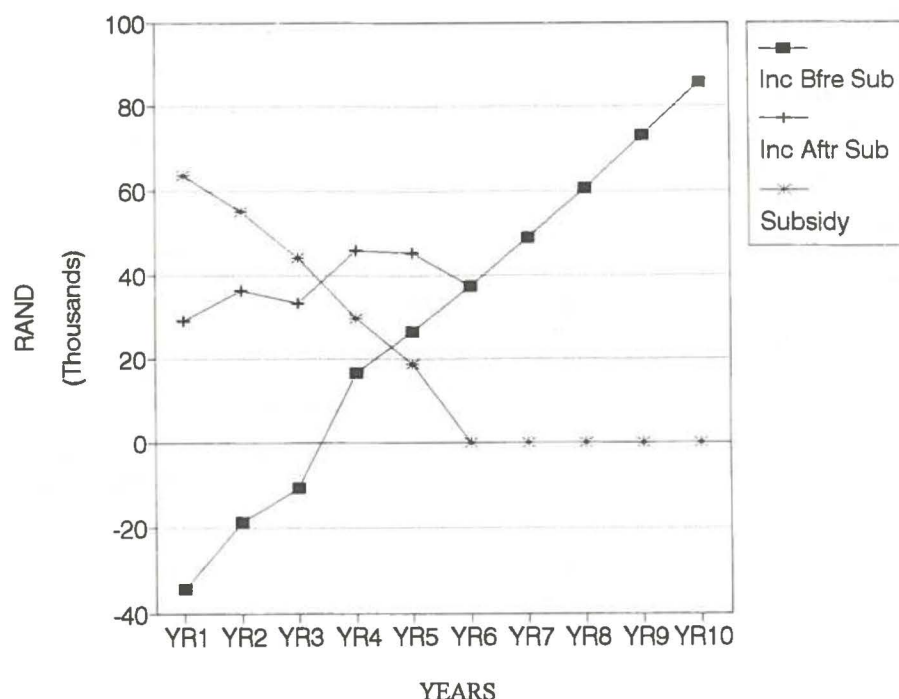


Figure 1: Funds flow

Table 1: Salient Financial Indicators

Indicator	One-off Grant Subsidy	Interest Subsidy
Total Area of Farm	70	70
Market Value of Land	693 910	693 910
Total Subsidy (NPV to Mill)	123 970	123 970
NPV of Subsidy to farmer	123 970	145 659
20 Year IRR Before Finance	31,05%	27,17%
20 Year IRR After Finance	12,58%	10,55%
Cash on Hand Year 2	(18 080)	54 134
Cash on Hand Year 5	44 488	138 407
Cash on Hand Year 10	576 758	537 072
Cash on Hand Year 20	4 687 042	4 358 654

The model has also been tested by simulating inflation rates varying from five percent to twenty five percent. It was found that the cash flows remained positive and that the amount of capital sacrifice did not need to be altered. However, the relationship between inflation, saving, lending and subsidy rates was held constant.

These figures clearly indicate that although the grant subsidy provides a slightly better 20 year internal rate of return (IRR). The subsidised interest rate performs better in two critical areas. Firstly for the same initial amount of subsidy the net present value (NPV) of the interest subsidy to the farmer is 16% higher than that of the grant subsidy. This extra value translates into the second area of benefit which is a far better cash flow situation in the first five years. The grant scheme is unable to sustain itself in it's first two years of operation and is very vulnerable to slight fluctuations in net income in the first five years.

7. CONCLUSION

This financial structure has several benefits to both the grower and the financier,

- the cash flow in the first vulnerable years is boosted giving the financier and grower added security,
- distortions to the market values of farm land are minimised, although the subsidy will tend to be discounted into the land price this distortion is far lower than that of a grant subsidy, especially since the grant would have to be considerably larger than 18 percent to eliminate the cash flow problems,
- a grant may encourage opportunists to immediately capitalise their subsidy by selling the farm and pocketing the subsidy,

- the cash deposited in the bank also gives added security if the grower does default,
- the services to be provided by the company, the sugar industry, the community and the financier will ensure that the new entrants are given all the support required to ensure their success,
- the title-deed which the growers will receive will enable them to participate in the land market although the high initial transaction costs associated with the purchase of land may not make selling economically feasible, this will not preclude their participation in a rental market nor will it restrict the secondary land market ensuring an active rental and sale market,

This model could well be applied to State land. If the land is sold at market values with the State forgoing a portion of this value to enable financiers to offer a finite and diminishing subsidy there would be no impact on the State's constrained cash reserves. In fact the State would receive a considerable cash injection from the privatisation of its land. A limited lease period could be agreed to at a rental rate which would enable the entrants with little or no equity to build up sufficient cash reserves to obtain finance to exercise their option to purchase.

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