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# OCFAID – A PRACTICAL APPLICATION IN COOPERATIVE ANALYSIS

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## ABSTRACT

Following Robb (1999) the financial statements of six United Kingdom cooperatives covering four to six years were analysed to assess performance. The cut-off year was at least three years prior to the research. When the research was conducted the researcher had no knowledge of the subsequent events at the cooperatives. Applying the OCFAID method of analysis the researcher drew conclusions about the future of each cooperative beyond the cut-off date. In all six cases, the researcher's conclusions were accurate. The study suggests the OCFAID technique is useful for other researchers and for managers or directors of cooperatives.

*Keywords: Plunkett, OCFAID, cash flow, financial performance, collapse.*

## Introduction

The identification of signs of financial distress has received much academic attention over the last 80 years. Early studies focussed primarily on profitability ratios and traditional structural ratios such as working capital/total assets, the current ratio, total debt/total assets and net income/total assets (Fitzpatrick, 1932; Winakor and Smith, 1935; Merwin, 1942).

Few studies recognized any place for cash flow data, probably because the obligation to present a statement of cash flows did not arise until the 1980s.

The Statement of Cash Flows was intended to complement the income statement, not replace it. The American Financial Accounting Standards Board (FASB) believed that the Statement of Cash Flows, if used in conjunction with the other financial statements, would help interested parties assess an entity's past performance and also its ability to generate future cash flows (FASB 1986).

Lee (1992) succinctly stated the importance of both profits and operating cash flows: "the ultimate bottom line in business is not profit – it is the ability to earn a profit on the transaction and realise it in cash, and to do this repeatedly."

Lee also cautioned against assessing the entity's heath solely on the basis of single indicators or of a single period.

Robb (1999) produced a technique involving the simultaneous monitoring of (a) Operating Cash Flows after Interest and Distributions (OCFAID) and (b) Retained Earnings. With its graphical presentation it made clear to all readers, even those with minimal understanding of accounting, whether the entity had been generating a profit and turning it into cash and doing so repeatedly.

The OCFAID technique was applicable to cooperatives and investor-owned companies alike. It facilitated valid comparisons between the different types of entity. This was an important step away from models that emphasised profits and profitability as determinants of survival or failure.

Robb's technique was published by the Plunkett Foundation in The World of Cooperative Enterprise. Numerous other publications followed .

Discussions at the Plunkett Foundation in 1998 had sparked a suggestion from one of the senior advisors, David Thirkell, that it would be interesting to apply the technique to recent reports of half a dozen UK cooperatives and see whether the analysis was accurate.

Consequently Thirkell sent Robb a collection of annual reports of Buchan Meat Producers Ltd (1990 to 1994); Eastern Counties Farmers Ltd (1987 to 1993); English Fruit Company (1992 to 1997); Midland Shires Farmers Ltd (1992 to 1997); National Farmers Union Mutual Insurance Society Ltd (1992 to1997) and North Eastern Farmers Ltd (1992 to 1997).

## Research Method

The financial reports were taken by the second author who was at that time (the year 2000) completing a Bachelor of Commerce (Honours) degree. One of her courses was 'Aspects of Corporate Distress' which included the OCFAID methodology. She had no knowledge of the six cooperatives' results beyond the annual reports and her analysis was based totally on the material in those reports.

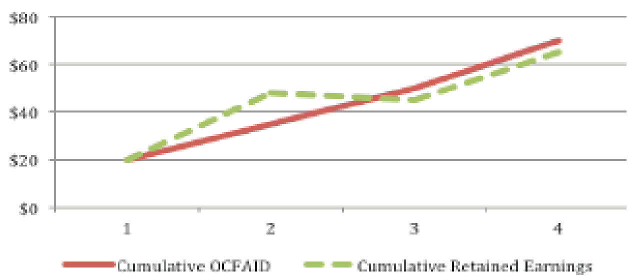
Buchan's financial report for the year ended 31 March 1992 was not available. Therefore data relating to 1992 was obtained from the comparative figures in the 1993 report. This may limit the accuracy of the OCFAID calculation for 1992, as insufficient information was disclosed in the 1993 report to gauge the reliability of the figures presented.

Similarly the OCFAID figures for the first year under review for all firms included in the study were calculated from the comparative figures included in the subsequent year's financial reports and are subject to the same limitation.

## Expected OCFAID trajectories

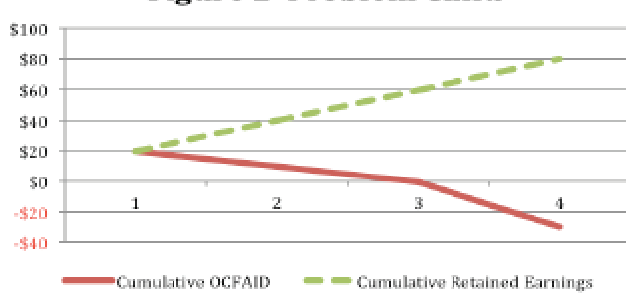
Robb (1999) postulated that there are four main and one transitional trajectories. These are shown in Figures 1 to 5.

**Fig 1 Star Performer**



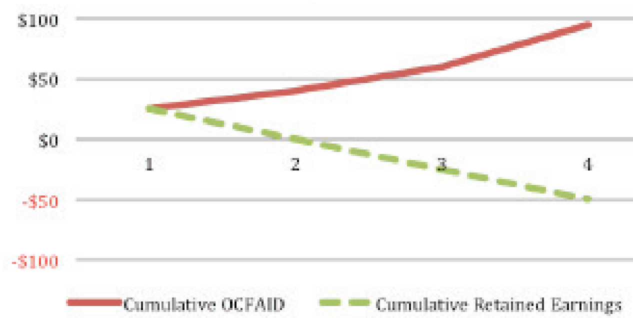

The star performer has strong net operating cash flows (after interest and distributions) and a high retention of profits. This is the ideal situation for any entity. A star performer might not have the strongest financial position but a positive OCFAID would be a comfort to creditors and the retention of profits would result in an improving debt/asset ratio over time.

**Figure 2 Problem Child**



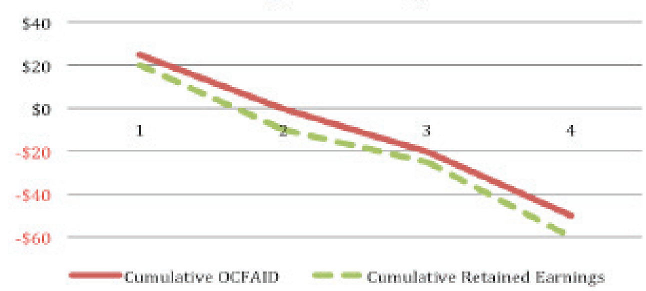

The problem child is generating profits but not net operating cash flow. It will continue to operate only so long as it can fund the negative operating cash flow from some source, for example asset liquidations and capital injections.

**Figure 3 Cash Cow**



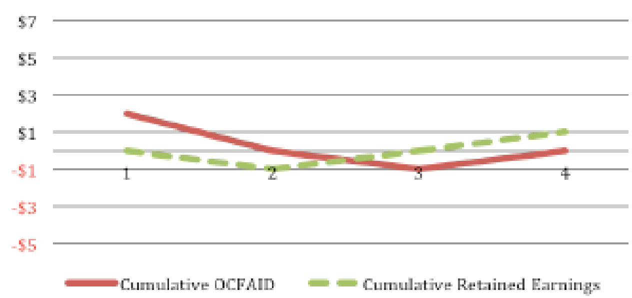

The third trajectory is the cash cow, which produces a regular cash flow from operations but operates at a loss. This is better than the problem child, but still less than optimal.

**Figure 4 Dog**



The dog is undoubtedly the worst of the trajectories, as its operations generate neither cash flow nor profit. It is both loss making and cash consuming.

**Figure 5 Breakeven company**



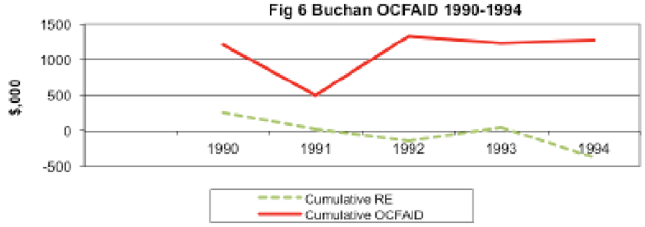

A fifth possible trajectory was proposed by Robb (1997) to illustrate a breakeven situation arising from a change in management or directors. It is possible that this shows the transition between two of the previous trajectories.

## Results

Buchan Meat Producers Ltd

This cooperative was involved in cattle and lamb processing and wholesaling. Its financial statements were available for a four-year period from the year ended 31 March 1990 to the year ended 31 March 1994. This included the time, 1991, when Bovine Spongiform Encephalopathy (BSE) disease outbreak hit the United Kingdom.

**Fig 6 Buchan OCFAID 1990-1994**



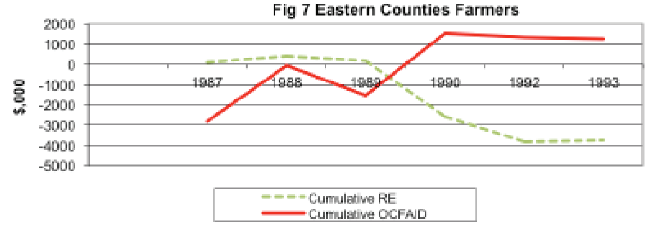

The downward sloping retained earnings line and the higher OCFAID line indicate a cash cow situation. The researcher noted that debt to total assets rose from 68% to 75% between 1992 and 1994. The bulk of debt was trade creditors (72-80% of total debt). This presented more of a risk than if the bulk of debt had been term liabilities. Consequently, Buchan's future was uncertain.

## Eastern Counties Farmers

This cooperative was involved in the provision of agricultural supplies and services. Its financial statements covered the years ended 31 December 1987 to 30 April 1993. A change of balance date resulted in a sixteen-month trading period to 30 April 1992 and no report for the year to 31 December 1991. Because the OCFAID graphs present cumulative data and not year-on-year the impact of a balance sheet change is minimal.

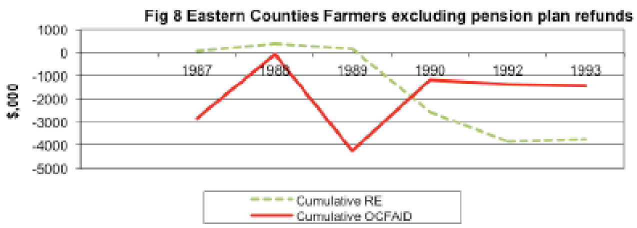
ECF experienced losses due to the cessation of business sectors in 1990, 1992 and 1993.

**Fig 7 Eastern Counties Farmers**




OCFAID was positive in only two years (1988 and 1990) and at first sight presents the trajectory of a cash cow. Note that a cash cow can have some periods with negative operating cash flows.

However a closer reading of the annual report disclosed that a significant part of the cash inflows in 1989 arose from pension plan refunds. These rare occurrences are not considered part of operating activities and so the graph was redrawn excluding them.

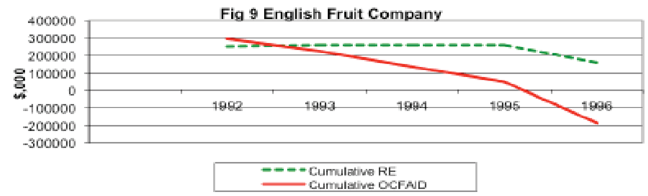



The exclusion of the pension plan refunds has a dramatic effect on the cumulative OCFAID trajectory. At no time does the cumulative total exceed zero, leading the researcher to conclude that ECF was in a dog situation rather than being a cash cow. ECF's debt to total assets was high at 72%. Management had proposed converting ECF to a public company believing that it had a firm efficient base on which to build in the future. Consequently, regardless of its organisational structure the future for ECF appears extremely bleak.

## The English Fruit Company

The English Fruit Company's activities were marketing fruit on behalf of members. Financial reports were available for the year ended 31 July 1992 to the year ended 31 July 1997.

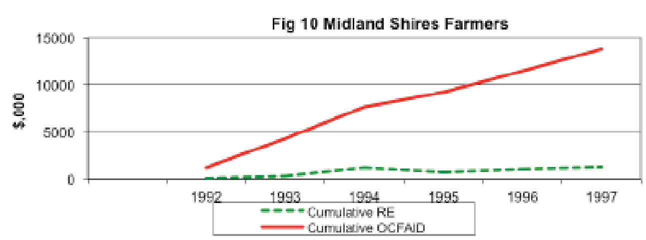
It was noted that in each year a depreciation adjustment was made to account for the difference between historical cost depreciation charge and the actual depreciation charge calculated on the revalued cost of the assets. This adjustment was a transfer from Revaluation Reserve to the Profit and Loss Account. Coincidentally (?) it was often equal to the amount of the loss made in that year. While this had a beneficial effect on profits it made no impact on OCFAID.




As illustrated in Figure 9, the near horizontal retained earnings line and the downward sloping OCFAID line indicate a problem child situation. The cooperative was not generating sufficient operating cash flows to fund operations and without the depreciation adjustment, noted above, retained earnings would show signs of decline before 1996. The debt to asset ratio increased continuously from 1993, from around 35% to almost 70%. The OCFAID model shows that the cooperative was a problem child, its financial structure was weak and its future was "very bleak."

## Midland Shires Farmers Ltd

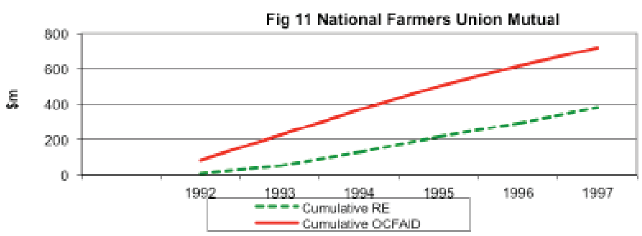
Midland supplies inputs to the farming sector, markets grain for producers and provides supporting services for associated cooperatives. Financial reports were available for the year ended 31 October 1992 to the year ended 30 November 1997. The 1995 balance date was changed from 31 October to 30 November.



The upward sloping OCFAID line and the near horizontal retained earnings line indicate a star performer. Midland had a strong financial structure over the six years with debt to assets being between 53-57%. The strong operating cash flows were being used to reduce bank borrowings and invest in noncurrent assets. The OCFAID analysis indicated that Midland was in a good situation for a cooperative and had a bright future ahead of it.

## National Farmers Union Mutual

The National Farmers Union Mutual Insurance Society Ltd is, as the name suggests, involved in providing general insurance, life assurance, pensions, and related financial services. Its performance was analysed over the years ended 31 December 1992 to 31 December 1997.

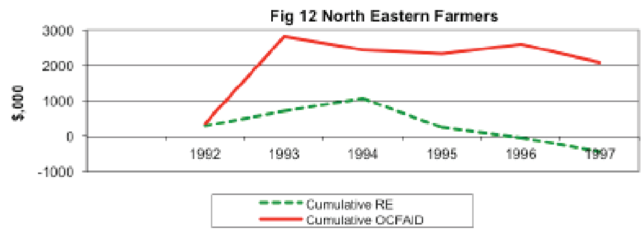



The OCFAID trajectory of NFU is that of a star performer. Its cash generating ability allows for the accumulation of cash reserves in case of a disaster. Its debt levels were very low.

According to the OCFAIR, this is a star performer in the true sense of the phrase. The OCFAID analysis reveals strong liquidity and profitability while the debt/asset ratio reveals strong fincial structure. It is in excellent health and should continue to perform well in the future.

## North Eastern Farmers

This cooperative is involved in the manufacture and supply of animal food, the supply of agriculture fertilisers and other farming requisites. Financial statements were available for the years ended 30 June 1992 to 30 June 1997.




The trajectory shown in Figure 12 indicates a cash cow situation. It is more favourable than those displayed by Buchan and ECF.

Although primarily involved in the same business sector as Midland Shires farmers, the BSE crisis had a more significant impact on North Eastern Farmers. As the beef sector reduced output in response to the crisis the demand for agricultural supplies fell.

Over the period under review debt ranged from 55-48% of total assets.

The OCFAID analysis indicates that overall NEF appears to be in a good position. This conclusion is based on the recognition that the firm has survived a major industry crisis with minimal impact, though not as little as for MSF. Their situation is similar to Buchan's in that they are a cash cow, yet their future prospects are more promising because they have a stronger financial structure. The firm is not relying on increased creditors to increase operating cash flow Like Buchan and generally apear more capable of coping with future uncertainties. For these reasons NEF appears to have a reasonable future ahead of it.

The research findings were submitted to Thirkell at the Plunkett Foundation. Thirkell then disclosed the subsequent history of each of the six cooperatives. They are shown in Table 1 alongside the researcher's opinion based on the OCFAID analysis.

*Table 1: Comparison of OCFAID analysis to actual outcomes*

| Co-operative | OCFAID analysis | Outcome |
|---|---|---|
| Buchan | Uncertain future | Wound up |
| Eastern Counties Farmers | Extremely bleak future | Wound up |
| English Fruit Company | Very bleak future | Restructured so radically it amounts to winding up. |
| Midland Shires Farmers | Bright future ahead | Continued in business |
| National Farmers Mutual | Should continue to perform well | Continued in business |
| North Eastern Farmers | Reasonable future ahead of it | Continued in business |

## Conclusions

OCFAID has proven to be a practical tool in understanding past business history (Robb and Lewis, 2002; Martin, 2004, Boyce 2005). The technique also allows the financial performance of cooperatives to be compared with investor-owned companies.

This application to six cooperatives – all going concerns – allowed a researcher to apply the technique to a real world situation where the author had no knowledge of the subsequent progress of the co-operatives. The analysis was unaffected by hindsight and was extremely accurate. This is unlikely to be due to chance as the technique has had extensive applications elsewhere.

It would be informative for another researcher to follow this study with an OCFAID analysis of the three survivors (Midland Shires, National Farmers and North Eastern Farmers). It would equally valuable for other researchers to apply the technique and for managers and boards of cooperatives to make it a part of their monthly reports.

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