Comparative Financial Performance Analysis of Canadian Co-operatives, Investor-Owned Firms, and Industry Norms

Andrea Harris and Murray Fulton

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Saskatoon
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Introduction and Summary of Results

Introduction

The performance of co-operatives in the Canadian economy is attracting increasing attention. The recent GATT and NAFTA agreements, industry structural change, increased competition, and deregulation raise concerns about Canadian co-operatives' ability to compete and survive. These events, however, also represent an opportunity for new co-operative development and for repositioning by existing co-operatives. Co-operative proposals for financial restructuring highlight the need for additional capital and raise questions about co-operatives' capacity to generate competitive rates of return that will attract outside investors. At the same time, co-operatives are under increased pressure to pursue local members' needs, such as community development, which are not wholly reflected in traditional rate of return figures.

An important aspect of Canadian co-operatives' ability to form, compete, attract capital, and provide services to their members is their financial and operating performance relative to other firms in the economy. Comparative performance data provides critical benchmarks for specific co-operatives. It also highlights the co-operative sector's strengths and weaknesses, which are useful in advertising the benefits of co-operatives to new members and the general public, and in encouraging new co-operative businesses to form.

Despite its importance, and although the ownership structure of firms has been shown to be an important factor in the competitiveness of firms, there is a lack of performance comparison data in Canada (Vining and Boardman). Available information from studies in the United States suggests co-operatives' financial performance is as strong as that of their investor-owned counterparts. The purpose of this paper is to empirically examine the financial performance of Canadian co-operatives and to compare this performance with that of investor-owned firms (IOF) and industry norms. The methodology used in this study focuses on comparing a number of accounting ratios and growth rates which provide insight into the liquidity, profitability, productivity, leverage, and growth of a firm.

This study differs from similar U.S. studies because it compares a number of ratios in each performance category and covers a broad range of industry sectors. The research follows the financial performance and growth of co-operatives over time and takes account of the industry in which the co-operative is operating. For instance, retail grocery co-operatives are compared to other retail groceries, while dairy co-operatives are compared to other dairies. Differences in scale are accounted for by comparing firms in two size categories.

Co-operatives in each sector are compared to published industry standards (with the exception of grains and oilseeds, for which comparable industry norms are unavailable). Non-parametric statistical tests are also undertaken to ascertain if significant differences between co-operatives and investor-owned firms exist. However, the range of co-operatives that can be directly compared with their investor-owned counterparts is restricted to those organizations which are relatively large. Table 1.1 provides an overview of the size of

firms, the period covered, and the form of comparative analysis undertaken for each of the industry sectors examined in this study.

The empirical results are linked to a conceptual framework which explicitly considers the unique characteristics of co-operatives. This conceptual framework is developed by reference to the fairly large theoretical literature on co-operative behaviour which suggests that differences between the financial performance of co-operatives and other business organizations can be expected due to differences in their business objectives, strategies, and structure. The analysis therefore allows a number of questions to be analysed, including Canadian co-operatives' relative efficiency and profitability and whether Canadian co-operatives have greater constraints with respect to capital and growth. Questions such as these are important for co-operative policy makers and advocates, co-operative development workers, and co-operative members and managers.

Many of the benefits attributed to co-operative enterprise are difficult to measure and quantify. Hence, co-operatives are typically modeled as a variant of an investor-owned firm (IOF) and are evaluated using financial performance criteria, such as ratios and growth rates, developed for investor-owned firms. Financial ratios and growth rates reflect the effect of corporate strategic decisions and, as such, can provide insight into the impact different business strategies may be having on co-operative performance. Although financial performance indicators are difficult to interpret by themselves, they are well-suited to comparative analysis. Furthermore, because these are the criteria by which financial institutions and critics commonly use to judge co-operative performance, they can provide an indicator of co-operatives' ability to operate and survive in a market.

Table 1.1 Overview of Sectors Analysed and Methodology

	Type of Comparison	
	Co-op/IOF	Co-op/Ind.Norm
Sector and Size of Firms Analysed		
Retail Grocery		
Total Assets > $1,000,000	1989-1993	1989-1993
Total Assets > $250,000; < $1,000,000	-	1987-1993
Fruit and Vegetables		
Total Assets > $250,000	1990-1993	1990-1993
Dairy		
Total Assets > $1,000,000	-	1986-1993
Grains and Oilseeds		
Total Assets > $1,000,000	1989-1993	-
Feed		
Total Assets > $1,000,000	1989-1993	1989-1993
Total Assets > $250,000; < $1,000,000	-	1986-1993
Fish		
Total Assets > $1,000,000	1989-1993	1989-1993
Total Assets > $250,000; < $1,000,000	-	1986-1993

Summary of Results

The results of this study are based on a comparison of a number of performance criteria typically used to evaluate the financial performance of firms. The rates and ratios compared in the study are grouped into five broad performance categories: liquidity, profitability, productivity, leverage, and growth. Table 1.2 lists these performance indicators and how they are calculated from balance sheet and income statement entries.

The organizational structure of co-operatives is unique. Co-operatives can provide members with a number of benefits, both directly through patronage refunds, and indirectly, through the market, but they also face a number of problems unique to user-owned businesses. Co-operative theory suggests that both the positive and negative aspects of user-ownership and control will affect the business decisions and strategies of a co-operative firm.

The different goals and business strategies of co-operative firms versus investor-owned firms are expected to affect financial performance in a number of ways. A co-operative objective to increase the welfare of its members may lead to lower profit levels and higher liquidity ratios than IOF competitors or the industry norms. Moral hazard and horizon problems may cause operational inefficiencies and have a negative impact upon productivity ratios. Low levels of member investment may cause a co-operative to be more

highly leveraged. All of these factors can combine to have a negative impact upon the relative growth of co-operative firms.

To examine if the goals and business strategies have influenced the financial performance of co-operatives, mean and median values of the selected financial indicators for co-operatives in different sectors and size categories are compared with published industry norms over a number of years through the use of graphic analysis and yearly and summary statistics. Table 1.3 provides an indication of the expected difference between the ratios analysed for co-operatives versus IOFs in the first column, and also summarizes the results of the comparisons of co-operatives and industry norms for similarly sized firms. Plus signs indicate a larger overall average ratio for co-operatives than the industry norm and minus signs indicate a lower co-operative overall average ratio. Profit and growth measures could not be compared due to the unavailability of data.

In a number of sectors, co-operatives are also compared directly with investor-owned firms. Non-parametric statistical tests are conducted to examine if significant differences exist between the mean ratios of large co-operatives and IOFs. The null hypothesis is that co-operatives and IOFs have similar mean values for each of the performance indicators. Table 1.4 summarizes the results from these tests. The approximation symbol (≈) is used to denote cases where the null hypothesis could not be rejected and plus and minus signs are used to indicate the relative difference between the co-operative mean ratio and the IOF mean ratio when the hypothesis is rejected.

Liquidity

Co-operatives operating in all of the sectors analysed in this study appear to be more liquid in the short-run than other firms in their industry. The results from the industry norm comparisons show that higher than average current and quick ratios were reported in each sector. In sectors where direct co-operative and IOF comparisons were made, co-operatives were found to be at least as liquid as the IOFs. These results suggest that further research is required regarding the attitudes of co-operatives towards risk. Perhaps, as Staatz (1984) suggests, co-operatives are more risk averse that other forms of enterprise and are therefore more likely to support business strategies which maintain a stable short-term debt position.

Profitability

The results from the non-parametric statistical comparisons of profitability measures for co-operatives and IOFs suggest that although co-operatives may not theoretically hold profit maximization as their primary objective, there is little evidence to suggest that this has had a significant impact upon their reported rates of return. Large co-operatives in the retail grocery and fish sectors report rates of return which are generally higher than their IOF counterparts, while co-operatives involved in the fruit and vegetable, feed, and grain handling sectors report rates of return which are generally similar to those of their IOF competitors.

Table 1.2 Summary of Ratios Analysed

Productivity

By examining asset turnover ratios, co-operatives in all sectors, with the exception of the retail grocery industry, appear to be more productive than what is considered the norm for the industries within which they operate. Co-operatives operating in the feed, fish, fruit and vegetable, and dairy sector generally report higher asset turnover ratios than the industry norm. Retail grocers as a whole report lower asset turnover ratios than the industry norm. In comparison to IOFs, large co-operatives in the feed, fish, fruit and vegetable, and grain handling industries all report similar mean sales-to-total asset and sales-to-inventory ratios, while retail grocers report lower sales-to-total asset figures. Feed, fish, and grain handling co-operatives also report higher sales-to-fixed asset ratios than their IOF competitors. The latter result could be due to operational efficiencies, but may also indicate a lack of capital investment on behalf of co-operatives.

With the exception of the dairy and retail grocery industry, co-operatives in the remaining sectors all reported lower levels of accounts receivable as a portion of sales when compared to industry norms, suggesting greater efficiency in credit collection. None of the comparisons made between co-operatives and IOFs (again, with the exception of retail grocers) indicate statistically significant differences in credit collection policies. The higher number of credit days reported by retail grocery co-operatives is not surprising when considering that a large percentage of their accounts receivable are likely being held by member-patrons.

Leverage

Based on the comparison of leverage ratios, the majority of co-operative firms analysed do not appear to be more leveraged or less financially secure in the long-run than other firms operating in the same industry. With the exception of co-operatives operating in the fruit and vegetable and fish sectors, co-operative firms report lower relative debt levels than comparable industry norms. Non-parametric analysis suggests that large co-operatives in the retail grocery, feed, and grain handling industry are less leveraged than their IOF competitors, while large commercial fish co-operatives are as leveraged as their IOF competitors. Fruit and vegetable co-operatives are, on the other hand, more leveraged than IOF processors and wholesalers.

It must be noted, however, that leverage ratios do not reveal the complete debt structure of co-operatives. This is because co-operatives frequently rely on retained earnings as a means of generating additional capital. Retained earnings are included in total equity figures even though they are, in some aspects, similar to debt in that they must be repaid to members at a future date.

Growth

Statistical comparisons of the sales and asset growth rates of co-operative firms and IOFs suggest that co-operatives in the retail grocery, fruit and vegetable, fish, and grain handling sector are growing at rates comparable to investor-owned firms. Co-operatives involved in feed milling report lower sales growth than their competitors, but a similar rate of asset growth. However, there are extremely high variances in the growth rates amongst the co-operative and investor-owned firms. One implication of this large variance

is that the rejection of statistical hypotheses is very difficult. Hence, conclusive statements regarding differences between co-operative and IOF growth are hard to make. An additional implication, is that both co-operatives and IOFs need to keep this variance in mind when comparing their growth rates with their industry counterparts.

Table 1.3 Summary of Results from Co-operative / Industry Norm Comparative Analysis

Table 1.4 Summary of Results from Co-operative / IOF Comparative Analysis