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Performance Measures of the Canadian Agri-Food Supply Chain

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WHAT'S INSIDE

This study compares the financial performance of four segments of the Canadian agri-food supply chain (crop production, animal production, food manufacturers and food and beverage retailers). It examines key profitability ratios of these segments and discusses why they differ from one another, as well as why they differ from the ratios of the retail and manufacturing industries.

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Executive Summary

- The purpose of this study is to compare the financial performance of four segments of the Canadian agri-food supply chain (crop production, animal production, food manufacturers and food and beverage retailers).
- The data for this comparison comes from the Quarterly Survey of Financial Statistics for Enterprises produced by Statistics Canada. The survey is conducted among corporate enterprises and the data is structured such that it represents the financial data of all corporate enterprises in Canada.
- Not all of the data was available for all the industry segments over the complete time period under consideration. Where necessary, the Conference Board of Canada extrapolated financial data for some of the industry segments using data on capital flows and stock, farm finances, and manufacturing shipments.
- Structural differences make cross industry comparisons difficult. For example, food and beverage retailers are a service industry, while the remainder of the industries examined are goods producing industries.
- With this caveat in mind, a discussion of the characteristics of each industry is included and key financial ratios for the various segments of Canada's agri-food supply chain are compared.
- Food and beverage retailing is best characterized as a low margin, high volume business. It has the highest asset turnover and lowest profit margin of all the industry segments examined in the study. However, food and beverage retailers also have the highest return on assets.
- The food manufacturing industry is also a low margin, high volume business, but to a lesser degree than is the case with retailers. Profit margins are modestly higher at manufacturers than at retailers, but their return on assets is also lower.
- Crop production is the weakest segment of the Canadian agri-food supply chain. This industry has experienced a decline in profit margins in recent years, and has the lowest return on assets of all the industry segments.
- Animal production also has a low return on assets, but it has the highest profit margin of all the industry segments examined in this study. A key reason for this is that producers of dairy and poultry products operate in an environment of import restrictions, supply management systems and even outright price controls.
- Both margins and return on assets at food manufacturers and food and beverage retailers are remarkably stable over time. This is not the case crop and animal

producers. Larger fluctuations in prices and production, as well as a higher degree of leverage translate into increased volatility in profitability.

- Animal producers are more insulated from this volatility due to the supply management systems and price controls that exist for some industry products. Thus, although more volatile than food manufacturers and food and beverage retailers, profitability of animal producers is more stable than at crop producers.
- A key difference between the industry segments in Canada's agri-food supply chain is the degree of concentration. Retailers are highly concentrated, manufacturers less so, and crop and animal producers are highly disaggregated. This heightens the sensitivity of individual firms to the effects of volatile prices and production.
- Another key distinction among the industry segments in Canada's agri-food supply chain is the preferential treatment crop and animal producers receive from policy makers. This is apparent in the fact that non-market sources of revenue account for more than 13 per cent receipts for the two segments combined.
- Preferential treatment from policy makers is also apparent in the preferential tax treatment that crop and animal producers receive. Both industries generally have below average effective tax rates.

Introduction

This study was commissioned by the Canadian Agri-Food Policy Institute for the purpose of comparing the financial performance of four segments of the Canadian agrifood supply chain, namely crop production, animal production, food manufacturers and food and beverage retailers. This is primarily done by comparing the return on assets and profit margins for each segment, but other financial ratios are also calculated. Appendix 1: Financial Ratios has the definition for all of the financial ratios used in this report.

The financial data used to calculate these ratios is provided by Statistics Canada. Its source is the Quarterly Survey of Financial Statistics for Enterprises produced by Statistics Canada. The survey is conducted among corporate enterprises and the data is structured such that it represents the financial data of all corporate enterprises in Canada. The raw data used in the analysis can be found in Appendix 3: Financial Data.

The study is broken out into several sections. Initially, there is a discussion of each of the industry segments in Canada's agri-food supply chain. Within each section, there is both a discussion of the industry's structure, as well as its financial performance. A variety of data including, employment, output, and capital stock are used in conjunction with the financial data to conduct the analysis in these sections. Appendix 2: Data Sources provides a detailed description of the data used.

The next section in the study compares the financial performance of each industry to that of the other industries. The object is to determine who the best and worst performer by each measure is. The difficulties inherent in making cross industry comparisons using financial ratios are highlighted. In addition to the return on assets and the profit margin, other financial ratios are examined in an effort to expand on the information provided by these two key ratios.

The study ends with a conclusion that sums up the key findings for each industry segment.

Food and Beverage Retailers

Industry Structure

Food and beverage stores are comprised of establishments whose primary purpose is the retailing of food products, as well as packaged alcoholic beverages, such as beer, wine and liquor. This segment includes traditional supermarkets and grocery stores, as well as convenience stores, and purveyors of specialized food products. It is defined as North American Industry Classification System (NAICS) code 445. Most of the data used in this survey is reported using the NAICS code format, but there are a few exceptions. See Appendix 2: Data Sources for a more detailed discussion of the data.

Food and beverage stores are a sizeable segment of the retail industry, accounting for 23 per cent of total retail sales. In relation to the economy as a whole, the segment accounts for 1.3 per cent of real output, and 3.1 per cent of employment. In total, 490,000 people worked in this industry in 2004.

The sector is further subdivided into three categories, supermarkets and convenience stores, specialty food stores, and beer, wine and liquor stores. In 2004, supermarkets and convenience stores accounted for 72 per cent of retail sales in this sector, thus this category of outlet is clearly dominant. The second most important category of outlet is beer, wine and liquor stores, with 17 per cent of sales in this sector, followed by "other" food stores with the remaining 11 per cent.

Loblaws is the largest player in the Canadian supermarket industry, followed by Sobey's. Other major chains in Canada's retail food landscape include Safeway, the Métro Group, and A&P. These five companies dominate the food retailing industry, with their combined sales equivalent to approximately 90 per cent of retail sales reported at supermarkets. (See Chart 1.)



This high degree of concentration has had definite effects on the industry. For example, since 1994, prices at food and beverage stores have risen by 2 per cent per year on average, compared to 1.4 per cent for retailers as a whole. This suggests that food and beverage stores have more pricing power than the average retailer.

The size of the firms in this industry segment has also given them the means to undertake new investment spending. After lagging the average for all retailers through much of the 1990s, investment spending as a share of revenues has climbed in recent years, and is now above average at 2.3 per cent versus 1.6 per cent for all retailers. In turn, the capital intensity of the food and beverage stores industry has quickly risen, and it is now the highest among all the major retail segments, with the existing capital stock at \$29,600 per employee in 1997 dollars. However, this is still well below the average for all industries of \$115,700.

These investments have been slow to develop into improvements in labour productivity. After years of essentially no growth in labour productivity, growth has accelerated over the past four years, exceeding the pace set by all retailers. This is a sign that new investments are beginning to bear fruit, but output per employee in the food and beverage retail industry is still below what it is for all retailers. (See Chart 2.)



The size of the current firms in the food and beverage stores sector has also affected the form which new entrants are taking in the industry. Due to the scale of operations required to compete with these large firms, it is not new small supermarkets that are the source of new competition within the industry. Instead, competition is coming from large established players in other retail segments. For example, Wal-Mart is now entering the food retail business.

Financial Performance

Revenue growth in the food and beverage stores industry is generally very modest. (See Table: NAICS 445 Food and Beverage Retailing in Appendix 3: Financial Data). An unusual jump in revenues occurred in 2002 and 2003, but this was likely the result of a change in the sample of stores covered by the survey. Over the past ten years, retail sales and revenues for the industry have averaged growth of 3.6 per cent and 3.2 per cent respectively. This better reflects the industry's trend revenue growth, and is well below the average for all retailers, which has seen average annual growth in revenues of 4.8 per cent per year since 1994.

Prices and volume sales, the two primary components of revenue, both experience modest growth for the food and beverage stores industry over time. As previously stated, price appreciation in the industry is in line with broad inflation at about 2 per cent per year. Growth in unit sales has been even weaker, with it averaging 1.6 per cent per year over the past ten years.

Weak unit sales are the result of the fact that domestic demand for food products in Canada grows only very slowly. (See Chart 3.) As a developed economy with a

generally well fed population, domestic food demand is driven by two factors: income and population. Over time population growth tends to allow food demand to grow by about 1 per cent per year. Rising incomes can also cause marginal increases in per capita consumption of food by allowing people to substitute away from lower value food items to higher value food items. For example, they may buy steaks instead of hamburger.



With revenue growth generally modest, cost control is the key means to generating returns at food and beverage stores. Costs in this industry are dominated by the cost of goods sold, which is the amount paid for items that will be resold. In the case of food and beverage stores this would consist largely of food and beverage products. The cost of goods sold account for 79 per cent of pre-tax costs; this is slightly above average for the retail industry as a whole. This reflects the fact that value added in the industry is quite low.

The combination of a stable, but slow growing environment for revenues, as well as sufficient market power to keep the cost of the industry's key inputs under control, results in most measures of profitability for the industry having low volatility. For example, the profit margin has remained between 1.3 per cent and 1.6 per cent over the past five years. Over the same period, the return on assets has remained between 4.3 per cent and 5.1 per cent.

While these numbers seem low, it is important to note that food and beverage stores have generally outperformed the retail industry as a whole in terms of profitability. It is only in the last two years that improving profitability in other retail segments has made the food and beverage store segment a below average performer. Retailing in general is an industry with low margins.

Food and Non-Alcoholic Beverage Product Manufacturing

Industry Structure

Companies in the food manufacturing sector transform livestock and agricultural products into products for intermediate or final consumption. The segments within the industry are distinguished by the types of raw materials that they process into food products. The nine major segments of the industry include: meat product manufacturing, dairy product manufacturing, fruit and vegetable preserving and specialty food manufacturing, sugar and confectionery product manufacturing, animal feed manufacturing, grain and oilseed milling, bakeries and tortilla manufacturing, seafood product preparation and packaging, and "other" food manufacturing. It is defined as NAICS code 311.

Non-alcoholic beverage manufacturing is comprised of businesses that engage in one or more of the following: manufacturing soft drinks, manufacturing ice, and purifying and bottling water. Ice manufacturing, while not a beverage, is included with non-alcoholic beverage manufacturing because it uses the same production process as water purification. It is defined as NAICS code 31211. For the purposes of this analysis we will focus on the food segment of this industry, though data for the combined food and non-alcoholic beverage industry is provided in Appendix 3: Financial Data.

The combined food and non-alcoholic beverage industry accounts for 10 per cent of real manufacturing output in Canada. However, the food segment dominates the industry, accounting for 95 per cent of production. As a result, food manufacturing was the third largest component of Canada's manufacturing industry in 2004. (See Table: Largest Components of Manufacturing). In relation to the economy as a whole, food manufacturing accounts for 1.7 per cent of both real output and employment. In total, 274,000 people worked in this industry in 2004.

Table: Largest Components of Canada's Manufacturing Industry								
	Share of Output	Output, mil of 1997\$						
Transportation Equipment	15.2	27.5						
Chemicals	9.7	17.6						
Food	9.6	17.4						
Fabricated Metal Products	7.4	13.5						
Wood Products	7.3	13.2						
Source: The Conference Board of Canada, Statistics Canada								

The meat processing segment is the largest component of Canada's food manufacturing industry, accounting for 29 per cent of shipments in 2004. Dairy is the next largest component, accounting for 17 per cent of shipments. The remainder of the segments in the industry each account for between 5 and 10 per cent of shipments. Thus, the industry's structure is quite diverse. (See Chart 4.)



Since the characteristics of each segment vary considerably from one to another, it also means that it is difficult to identify traits that are common across the industry. For example, the dairy segment is still heavily regulated, with both price and production controls in place. At the other end of the spectrum, some segments such as fruit and vegetable preserving have very limited regulations, and are fully open to trade competition.

There are however some key trends that are apparent in the industry. One of these is rising export intensity. Since 1994, the share of shipments that are bound for export markets has risen from 18 per cent to 29 per cent in real terms. This is still below the average for all manufacturing industries, of 52 per cent, but the increase is still remarkable. As a result, Canada has transitioned from a net importer of manufactured food products to a net exporter, with the value of exports more than doubling over this period.

A key reason for this was the implementation of NAFTA. The share of Canadian food exports bound for the United States has risen to 72 per cent, up from 65 per cent in 1994. Canadian producers have proven effective at capturing market share in the United States, allowing the industry to grow much more quickly than it would have if it had focused on the Canadian market.

Another trend in the industry is rising concentration, with fewer companies accounting for an increasing share of production. For example, three companies (Agropur, Parmalat Canada and Saputo Inc.) process 70 per cent of all the milk produced in Canada. Despite this, the average size of an establishment remains somewhat below that for all manufacturers, with food manufacturers generating \$10 million in revenues per establishment versus \$10.6 million for all manufacturing. Rising concentration is both an effort to counterbalance the market power of retailers, and a natural means for companies to grow in a mature industry. Growth in real domestic food consumption is very modest at only about 2 per cent per year. Thus if food producers want to grow more quickly than this, one way to do this is to acquire other companies. Another alternative is to turn to export markets, which they have also done.

However, the rise in concentration has not translated into increased pricing power. Output prices for the food manufacturing industry have averaged increases of just 1.5 per cent per year since 1994 versus 1.8 per cent for all manufacturers and 2 per cent for the economy as a whole. (See Chart 5.) The market power of retailers is a key reason for this. Import competition is another.



Although some segments of the industry are protected from import competition, the import share of domestic demand for food products has risen over the past decade and currently stands at 22 per cent. This is more than sufficient for import competition to place limits on price appreciation for food products in the domestic market. The rise in the value of the Canadian dollar over the past few years has only aggravated import competition, by making imports more cost competitive.

A more troubling trend in the food manufacturing industry in recent years has been a decline in investment spending relative to revenues. Investment in the food manufacturing industry was only 1.8 per cent of revenues in 2004, the lowest it has been over the period for which we have data. This compares to a figure of 2.7 per cent for manufacturers as a whole.

With investment weakening, the capital intensity of the industry has begun to decline. Capital stock per employee has now fallen for four consecutive years, and currently stands at \$54,500 in 1997 dollars. This compares to \$85,600 for all manufacturers.

With invested capital per employee a key determinant of labour productivity, it is also not surprising that labour productivity in the industry has declined. The average employee at a food manufacturer now only produces about 80 per cent as much output as the average manufacturing employee.

Financial Performance

Revenue growth in the food manufacturing industry has outperformed that of food and beverage stores, as well as the manufacturing industry as a whole in recent years. Since 1999, revenues in the industry have risen by an average of 4.5 per cent per year, versus 3.4 per cent for all manufacturers. (See Table: NAICS 311 Food Manufacturing in Appendix 3: Financial Data). Most of the increase in revenues has come from increased production, as opposed to rising prices, which have risen by 3.2 per cent and 1.8 per cent respectively since 1999. (See Chart 6.)



While import competition and retailer market power are limiting price gains in the industry, rising export intensity has allowed production to grow more quickly than it would have if it were dependent solely on the domestic market. The rise in the value of the Canadian dollar is expected to slow both price and output growth by making imported food items more competitive here, while making exported Canadian food items less competitive in the United States.

Although the industry has been experiencing above average growth in revenues, measures of profitability for food manufacturers remain modest. The profit margin has been little changed since 1999, averaging just 2.5 per cent between 1999 and 2004. This is below the average for total food and beverage manufacturing at 3 per cent, and the average for all manufacturers at 3.9 per cent.

In terms of return on assets, the industry's performance has been modestly better. Between 1999 and 2004 the return on assets at food manufacturers averaged 4.3 per cent. For combined food and beverage manufacturing this figure improves to 4.7 per cent, which compares favourably to the average for all manufacturers of 4.3 per cent.

However, this timeframe covers a period of exceptional weakness in profits in the manufacturing industry due to the downturn in telecom equipment over this period. As such, the return on assets for all manufacturing is normally higher, as reflected by this figure standing at or above 5 per cent both before and after the tech bust. This suggests that the food manufacturing industry underperforms the manufacturing industry as a whole in terms of profitability under normal conditions.

Crop Production

Industry Structure

Companies in the crop production industry grow crops mainly for food and fibre. The industry comprises establishments, such as farms, orchards, groves, greenhouses, and nurseries, primarily engaged in growing crops, plants, vines, or trees and their seeds. The industry is further subdivided into five components: oilseed and grain farming; vegetable and melon farming; fruit and tree nut farming; greenhouse, nursery, and floriculture production; and other crop farming. The crop production industry is defined as NAICS code 111.

Crop production in Canada accounts for 1 per cent of real output, and 0.9 per cent of employment. In total, 137,000 people worked in this industry in 2004. However, this number has fallen substantively in recent years, with employment as high as 173,000 only 10 years ago. Crop producers are maintaining production, while employing fewer workers. As such, output per employee is rising, and it now exceeds the average for the economy as a whole.

A key factor supporting worker productivity in the crop production industry is high capital intensity. (See Chart 7.) This is due to the large amount of land necessary to produce crops. Capital stock per employee currently stands at \$149,800 in 1997 dollars, and this number has risen in recent years. Although the industry's capital stock has been falling, employment has been falling more quickly, increasing the capital intensity of the industry.



An unusual characteristic of the crop industry is that a very low portion of the establishments in the industry are incorporated. This is most apparent when looking at the revenue data as reported in the Quarterly Survey of Financial Statistics for Enterprises. As this survey only covers incorporated businesses, reported revenues are never entirely comprehensive.

For most industries, this is not a major concern. For example, reported revenues in the food and beverage retailing and food manufacturing are both slightly above the retail sales and manufacturing shipments reported for those respective industries. This suggests that the financial data is comprehensive in its coverage of the industry. In the case of crop production, reported revenues were equivalent to only 56 per cent of the reported receipts for crops from the net farm income survey in 2004, at \$8.2 billion versus \$14.7 billion excluding non-market revenues. This is not surprising, as many farms in Canada are still operated as unincorporated family businesses. It also emphasizes the highly disaggregated nature of the crop production industry in Canada.

This low level of concentration aggravates the lack of pricing power in the industry. The products of the industry are global commodities, which severely limits the ability of firms to compete on quality. In addition, the low level of concentration means that no single firm has sufficient market power to influence production or inventories, or consequently prices. As such, firms are price takers. Prices are set by either world markets or domestic policy in the case of those products with mandated price supports.

The end result is that output prices for crop producers are both very volatile, and experience only very modest growth. Over the past ten years, output prices for crop producers have averaged annual increases of only 0.8 per cent per year. Further, it has not been unusual for prices to experience double-digit increases or decreases from one

year to the next. This volatility in prices filters through directly to the profitability of the industry.

Financial Performance

Revenue growth in the crop production industry has been very modest in recent years, with revenues rising by an average of 1.2 per cent per year between 2000 and 2004. (See Table: NAICS 111 Crop Production in Appendix 3: Financial Data). However, this figure hides wide fluctuations in both production and prices over this period. Large movements in prices and production tend to offset each other, that is, prices generally rise during periods of weak production and vice versa. This helps to reduce the fluctuations in revenues, but revenue growth for the crop production industry is still very volatile.

Contributing to revenue volatility over the past couple of years has been the rise in the value of the Canadian dollar. Exports of crop products are equivalent to 63 per cent of market receipts as reported in the net farm income survey. Thus, the industry has a high level of export intensity. The rise in the value of the Canadian dollar has reduced the effective price that exporters of crop products receive on world markets, placing downward pressure on prices. With the dollar expected to remain stronger over the coming years, this pressure on prices and revenues will persist.

One factor helping to reduce revenue volatility is non-market sources of revenue. These include everything from crop insurance to government supplements and subsidies. For crop and animal producers combined, non-market sources of revenue currently account for 13 per cent of revenues according to the net farm income survey.

The effect of this volatility in revenues on profits is amplified by the fact that the industry has a high level of fixed costs. Interest and depreciation expenses account for a sizeable share of costs within the crop production industry. (See Chart 8.) This is not surprising given the high level of capital intensity in the industry, but it does mean that crop producers are generally highly leveraged. As a result measures of profitability in the industry are much more volatile than they are for either food manufacturers or food and beverage retailers.



Over the past five years, the profit margin has averaged 2.8 per cent for crop producers. However, the margin has ranged between 0.1 per cent and 5.2 per cent over this period. Return on assets has witnessed a similar volatility, with it averaging 1.6 per cent between 2000 and 2004, but fluctuating between 0.1 per cent and 3.1 per cent over this period.¹

Given the apparent extra risk associated with this volatility in earnings, the crop production industry would be expected to be providing returns higher than those in the more stable food manufacturing and food and beverage retailing industries. However, this is not the case. Even without adjusting for risk, the return on assets of the crop production industry is below that of these other two segments.

¹ It is important to note that the definition of assets in this report is considerably different than the one used in the Balance Sheet of the Agricultural Sector, a survey commonly referred to when looking at agricultural assets. Firstly, this data only looks at incorporated farms, whereas the Balance Sheet of the Agricultural Sector looks at all farms. Secondly, the Balance Sheet of the Agricultural Sector includes leased land as an asset. The data used in this report either expenses leases, or capitalizes them, as according to Generally Accepted Accounting Principles. Thus, leases do not appear on the balance sheet in the first case and as a liability, not an asset in the second. The Conference Board of Canada uses this measure of assets to be consistent with both the reported income used in the survey and to be consistent in comparisons with the other industries in Canada's agri-food supply chain. This issue is relevant to both the crop and animal producing industries.

Animal Production

Industry Structure

The animal production industry raises or fattens animals for the sale of animals or animal products. The industry comprises establishments, such as ranches, farms, and feedlots primarily engaged in keeping, grazing, breeding, or feeding animals. These animals are kept for the products they produce or for eventual sale. The industry is comprised of six major segments: cattle ranching and farming; hog and pig farming; poultry and egg production; sheep and goat farming; animal aquaculture; and other animal production. The animal production industry is defined as NAICS code 112.

Animal production in Canada accounts for 0.4 per cent of real output, and 1 per cent of employment. In total, 166,000 people worked in this industry in 2004. Employment in this industry has also dropped in recent years, with employment as high as 194,000 only 10 years ago. With production rising over this period, this has resulted in output per employee rising, but labour productivity in the animal production industry is still the lowest among the segments in Canada's food supply chain. (See Chart 9.)



What is truly surprising about the low level of productivity is that the industry has a very high level of capital intensity. Due to the large amount of land necessary to livestock and poultry production, capital stock per employee currently stands at \$171,100 in 1997 dollars. Further, this number has risen in recent years, as employment has fallen and the capital stock has remained unchanged.

The animal production industry in Canada is also highly disaggregated, though not as much as is the case with crop production. The ratio of reported corporate revenues to

cash receipts for animal production was 70 per cent in 2004, at \$12.0 billion versus \$17.2 billion excluding non-market revenues. Again, this low level of concentration is not surprising, as many farms in Canada are still operated as unincorporated family businesses. However, it also limits the pricing power of firms in the industry.

Like crop production, most of the industry's outputs are commodity like, limiting the ability of firms to compete on quality. However, due to the fact that the industry's inventory consists of live animals, significant costs are incurred when the animals are transported over long distances due to the need to keep them alive. This means that the market is more regional in character, than global. However, firms remain too small to influence prices and thus remain price takers.

The regional nature of the industry is apparent in its low level of export intensity. Exports were equivalent to only 8.3 per cent of receipts (as reported in the net farm income survey) in 2004, and nearly all were bound for the United States. This is down considerably from the 18 per cent achieved in 2002, prior to the ban on live cattle exports following the discovery of a cow with BSE or mad cow disease in Alberta.

The high degree of protection from imports that this industry receives due to regulatory controls also limits exports. Other countries are generally unwilling to allow access to their markets for those industries where international competition is prohibited or severely limited in the Canadian market. Imports of a variety of animal products, including most dairy and poultry products are strictly controlled.

The regional nature of the industry also limits supply swings, and thus price volatility, but large price swings are still apparent, as is common in commodity producing industries. The lack of pricing power is most apparent in the weak price appreciation in the industry. Over the past ten years, livestock and poultry product prices have averaged increases of only 0.4 per cent per year.

Financial Performance

The fortunes of the animal production industry have not been particularly good in recent years. Since 2000, revenues have actually declined by an average of 3.1 per cent per year, though they did improve somewhat in 2004. (See Table: NAICS 112 Animal Production in Appendix 3: Financial Data). Weak pricing over much of the past few years was the primary cause of the decline in revenues.

The strengthening of the Canadian dollar and the effects of the BSE crisis on cattle prices have both acted to reduce the price received for animal products in recent years. Although export intensity in the industry is quite low, the rise in the Canadian dollar has reduced the effective price at which exported products are sold. The effects of the BSE crises have been more pronounced, as the export ban on live cattle has caused rising cattle inventories and weak pricing. However, the effects of this on revenues have been partially offset by increased government support payments.

Like crop production, animal producers have high capital intensity and are highly leveraged. The share of costs that interest and depreciation expenses account for are second only to the crop production industry among the segments examined in this report. This has translated into profitability being more volatile than it is for either food manufacturers or food and beverage retailers. However, profits at animal producers are considerably less volatile than in the crop production segment.

The major reason for this is the price supports that key segments of the industry receive. For example, most dairy products, which accounted for 27 per cent of industry receipts in 2004, have supply management systems and price controls in place, ensuring stable profitability. Poultry products are also under a supply management system.

The end result is that the profit margin has averaged 6.6 per cent for animal producers over the past five years, ranging between 5.1 per cent and 8 per cent. (See Chart 10.) Even the low end of this range is considerably better than any other industry segment examined in this study. The return on assets for animal producers is less remarkable. This figure averaged 3.5 per cent between 2000 and 2004, ranging between 2.5 per cent and 4 per cent.



Comparisons of Financial Performance

Before beginning to compare the financial statistics of the various industry segments examined in this study it is important to note that differences in an industry's characteristics can make cross industry comparisons of financial ratios difficult. For example, food and beverage retailing is a service industry, while the other segments of the food supply chain are classified as goods producing. Thus, it is not surprising that these other segments are more capital intensive than the food and beverage retailing industry. The end result is that what is "normal" for one industry may differ considerably from one industry to another.

With this said, there are some interesting trends in the profitability among the industry segments examined in this report. For example, in terms of profit margin, animal producers have been consistently the highest among the segments examined since 2000. However, in terms of return on assets, the industry's rank has declined in recent years, and is now among the lowest.

Turning to crop producers, over the past five years they have been ranked either last or second last in terms of return on assets. (See Chart 11.) Further, the volatility of profits in the crop production industry led to falling profit margins, such that they were ranked second only to animal production in 2000-2001, but have since fallen to second lowest.



In the case of food manufacturers, profitability is much more stable and their performance is consistently in the middle of the road compared to the other industry segments examined, both in terms of return on assets and profit margins. Food manufacturers consistently under perform both the food and non-alcoholic beverage manufacturing segment, and the entire manufacturing industry. The only time that food manufacturers outperformed the manufacturing industry as a whole in recent years was during 2001-02, when the tech bust led to sub-par performance in tech related manufacturing industries.

For food and beverage retailers, one outstanding feature is that their profit margins are consistently among the lowest of all the industry segments examined in this report.

Food and beverage retailers had been outperforming the average for all retailers in terms of profit margins, but the situation changed in 2003 and has persisted into 2004.

In terms of return on assets, food and beverage retailers fair considerably better. By this measure food and beverage retailing is among the top performers among the industry segments examined, and it has outperformed the average for all retailers in every year except 2004. Thus, although food and beverage retailing is a low margin business, companies in the industry are very effective at using their asset base to generate profits.

Given the difficulties inherent in comparing financial ratios across industries and the limited information available from profit margins and return on assets, the Conference Board of Canada also looked at other financial ratios in this analysis. One interesting exercise is the use of the DuPont method to break the return on equity into five key components: operating profit margin, asset turnover ratio, financial leverage multiplier, interest expense rate, and implied tax rate. This provides both supporting evidence to previous observations, and some additional insight as to what ultimately is driving profitability in the industry segments.

The operating profit margin is the profits before interest and taxes as a share of revenues. It tells a story similar to the profit margin that has already been calculated. Namely, animal producers have the highest margins, and food and beverage retailers the lowest. (See Chart 12.) Also, a decline in margins at crop producers is noticeable.



The asset turnover ratio is calculated as revenues divided by assets, and is a measure of how effectively an industry is using its assets to generate revenues. This measure supports previous observations about asset use at livestock, poultry and crop producers. Food manufacturers have a somewhat better turnover ratio, and food and beverage retailers are the most effective at making use of their assets among the industry segments examined here. Also of note is that the asset turnover ratios for both food manufacturers and food and beverage stores are above the average for all manufacturers and all retailers respectively. (See Chart 13.)



It is apparent from both the asset turnover ratio and the return on assets that crop and animal producers are less able to generate revenues and profits from their asset base than the other segments in Canada's agri-food supply chain. This is not entirely unexpected.

Crops, livestock and poultry are all primary goods, while food manufacturers generate secondary goods and food and beverage retailers provide a service. The asset base required to operate in these segments of the economy differs considerably. Also, the supply management practices used in dairy and poultry production likely contribute to this trend, by artificially limiting the output that can be generated with a given set of assets.

The financial leverage multiplier is calculated as the ratio of assets to equity, and is a measure of what an industry's debt load is. Crop producers currently have the highest degree of financial leverage, followed by animal producers, then food and beverage retailers and finally food manufacturers. (See Chart 14.) One interesting fact is that animal production's financial leverage multiplier has steadily declined in recent years. Also of note is that the food manufacturing industries has above average financial leverage compared to the manufacturing industry as a whole. Finally, financial leverage at food and beverage retailers has been steadily rising, while it has been steadily falling for the retail industry as a whole. As a result, food and beverage retailers now have

above average leverage. This is likely the result of the considerable investment spending that the industry has undertaken in recent years.



The interest expense rate is defined as the ratio of net interest expense to assets, and is a measure of what it costs to maintain an industry's asset base. An interesting result here is that despite the fact that animal and crop producers are more highly leveraged, they have the lowest interest expense rates. (See Chart 15.) The reason for this is that this measure uses net interest expense. That is interest expense less any interest earned on investments and any gains on asset sales.



Both animal and crop producers have been able to make considerable and consistent gains in recent years on asset sales, with gains equivalent to 3.5 per cent of revenues in 2004. This has helped to offset interest expenses, reducing the interest expense rate. Possible reasons for this include agricultural land being sold for other uses, or farmers selling their land at a profit and then leasing it back for continued use for agricultural production.

Looking at food manufacturers and food and beverage stores, both have interest expense rates that are above the average for all manufacturers and all retailers respectively. This is not a surprising result, as both have above average levels of financial leverage. Given the stability of revenues in these industry segments, it is a sensible strategy to carry higher debt loads.

The last measure to be calculated is the effective tax burden, and is calculated by taking the difference between before tax and after tax profits as a percentage of before tax profits. One finding from this measure that stands out is that crop producers consistently have effective tax burdens that are below those of the other industry segments examined in this study. On average, animal producers also have below average tax burdens, though this is less consistent. (See Chart 16.)



These five measures combine to generate return on equity for the various industry segments, which measures how well an industry is generating returns on the owners' invested capital. The information conveyed by the return on equity measure is similar to that of return on assets, but animal and crop producers fair considerably better according to the return on equity, due to their high degree of leverage. (See Chart 17.) Crop producers still have the lowest returns among the industry segments examined, but returns at animal producers improve so much that their returns by this measure are considerably above average. Given the difficulties in comparing return on equity is useful.



One final factor worth mentioning is the degree to which livestock, poultry and crop producers depend on revenues from sources other than sales of their products. According to the net farm income survey, revenues from sources such as crop insurance, subsidies, and direct payments from government agencies accounted for 13 per cent of combined crop and animal receipts in 2004. Further, this share has increased in recent years, with it up from a low of 3.7 per cent in 1997.

None of the other industries examined here receive this degree of support from nonmarket sources. If combined revenues at crop and animal producers were to be reduced by an equivalent amount without any changes occurring in costs, the margin on profits before taxes in 2004 would be reduced from 6.8 per cent to -7.5 per cent. As such, revenues from non-market sources of revenue have become the key difference between these industries making money and losing it.

Conclusion

The key characteristics of each industry group in Canada's agri-food supply chain differ considerably from one to the next. This makes cross industry comparisons challenging, but looking at the financial ratios of the different segments provide insights into their health and operating performance. One thing that does stand out for every segment except animal production is that the process of creating food and bringing it to the consumer is a low margin business. Crop producers, food manufacturers and food and beverage retailers all face competitive markets that limit their ability to generate profit margins much above 2 per cent on a consistent basis.

Broadly speaking, food and beverage retailers can best be characterized as a low margin, high volume business. Companies make money by turning over their inventories quickly, as evidenced by the industry's high asset turnover. The industry is now highly concentrated, and retailers are using that market power to squeeze cost savings from their suppliers. However, competition from other retail segments is keeping the industry from experiencing excessive returns. The return on assets at food and beverage retailers is only modestly better than that of all retailers on average, and it actually fell below the average for all retailers in 2004.

The food manufacturing industry is also a low margin, high volume business, but to a lesser degree than is the case with retailers, due to the ability of firms to specialize in niche products. Some segments of food manufacturing are concentrated, but broadly speaking food manufacturing is much less aggregated than the food and beverage retailing industry. Food manufacturers have also benefited from the ability to grow through exports, which has allowed for stronger growth in production and revenues, whereas retailers are confined to the domestic market.

The crop production industry is the weakest segment of the agri-food supply chain. The industry is dominated by small, non-incorporated firms and is exposed to considerable volatility in both prices and production. In addition, investors in the industry are not compensated for this risk, with return on both assets and equity the lowest of all the segments examined in this report. Profit margins have also deteriorated, with food and beverage retailers currently only having lower profit margins.

Consolidation may be the best way for this industry to improve the efficiency of its production, by making better use of its assets. This would also reduce the exposure of the industry to price and production volatility by allowing firms to diversify both the geographic location of their production, and the crops that they produce. The one key advantage of the industry appears to be the preferential treatment it receives from policy makers, which is apparent both in the sizeable subsidies and payments it receives from government and in the industry's low effective tax rates.

Animal producers share some traits with crop producers, such as the low return on assets, and low industry concentration. However, the industry also has the highest profit margin of all the segments in Canada's agri-food supply chain. The key reason for this is that dairy and poultry producers operate in an environment of import restrictions, supply management systems and even outright price controls. Thus the key challenge for animal producers is how to produce more revenues from their existing asset base, as they are able to generate sizeable profit margins under the current regulatory regime.

Appendix 1: Financial Ratios

This appendix provides the mathematical formulas for all of the financial ratios used in this report.

Return on Assets = Earnings before Extraordinary Items / Assets * 100

Profit Margin = Earnings before Extraordinary Items / Revenues * 100

Return on Equity (ROE) = Earnings before Extraordinary Items / Equity * 100

Operating Profit Margin (OPM) = Earnings before Interest and Taxes / Revenues * 100

Asset Turnover Ratio (ATR) = Revenue / Assets

Financial Leverage Multiplier (FLM) = Assets / Equity

Interest Expense Rate (IER)=(Earnings before Interest and Taxes - Earnings before Taxes)*100 Assets

Implied Tax Rate (T) = (Earnings before Extraordinary Items - Earnings before Taxes) * 100 Earnings before Taxes

DuPont Method

ROE = (OPM / 100 * ATR - IER / 100) * FLM * (1 - T / 100) * 100

Example: food manufacturing in 2004 (See Appendix 3: Financial data for the raw data)

ROE = (4.83 / 100 * 1.79 - 1.027 / 100) * 2.42 * (1 - 30.8 / 100) * 100 = (0.076187) * 2.42 * (0.692) * 100 = 0.1276 *100 = 12.8 %

Appendix 2: Data Sources

This appendix provides detailed descriptions of all the data sources used in this report.

Output – The measure of output used in this report is Gross Domestic Product (GDP) in chained 1997 dollars, which is generated by Statistics Canada. GDP by industry is a measure of the economic production which takes place within the geographical boundaries of Canada. The term "gross" in GDP means that capital consumption costs, that is the costs associated with the depreciation of capital assets (buildings, machinery and equipment), are included. The production estimates are prepared for 216 separate industries using NAICS.

Employment – The employment data in this report comes from the labour force survey (LFS) produced by Statistics Canada. The LFS covers the civilian, non-institutionalised population 15 years of age and over, and reports employment statistics in a variety of ways. In the case of this study, the employment data is organized using the NAICS.

Retail sales – The retail sales data referred to in this study is produced by Statistics Canada as part of its monthly retail trade survey. The survey collects sales data and the number of retail locations by province and territory from a sample of retailers. Retail sales estimates do not include any form of direct selling that bypasses the retail store. The data is reported by NAICS code.

Manufacturing shipments – The manufacturing shipments data referred to in this report is generated by Statistics Canada in its monthly survey of manufacturing. This survey publishes statistical series for manufacturers, including shipments, inventories, unfilled orders and new orders. The target population consists of incorporated and non-incorporated establishments primarily engaged in manufacturing, and the data is reported by NAICS code.

Farm receipts – The farm receipts data quoted in this report come from the net farm income report from Statistics Canada. It covers all Canadian agricultural operations, as defined by the Census of Agriculture. The cash receipts series represents the cash income received from the sale of agricultural commodities, as well as direct program payments made to support or subsidize the agriculture sector. These accounts only relate to the farm business and hence exclude any income that farm operators or their families may receive from other sources (wages and salaries, investment income, etc.). Data is not based on the NAICS codes, but is instead reported by commodity type.

Retail prices – The price data reported for retailers in this study is based on subcomponents of the consumer price index, as produced by Statistics Canada. The consumer price index is an indicator of changes in consumer prices experienced by Canadians. It is obtained by comparing through time, the cost of a fixed basket of commodities purchased by consumers. As such, the data is not based on the NAICS codes, but is instead reported by commodity type. **Manufacturing prices** – The price data reported for food manufacturers in this report comes from the industrial product price index. This report measures price changes for major commodities sold by manufacturers in Canada. The prices collected are for goods sold at the factory gate. As a result, the prices covered by the IPPI refer not to what a purchaser pays but to what the producer receives. The data are reported using NAICS.

Farm prices – The animal and crop producer prices referred to in this report come from the farm product price index produced by Statistics Canada. It is a monthly series that measures the changes in prices that farmers receive for the agriculture commodities they produce and sell. The price index has separate crop and livestock indexes, but this definition is based on commodity type, as opposed to the NAICS codes.

Financial data – The financial data used in this study comes from the Quarterly Survey of Financial Statistics for Enterprises produced by Statistics Canada. The survey is conducted among corporate enterprises and the data is structured such that it represents the financial data of all corporate enterprises in Canada. The data covers income statement and balance sheet concepts and is reported using NAICS based codes.

Capital stock and investment – The capital stock and investment data referred to in the report comes from Statistics Canada's fixed capital flows and stocks report. This program produces annual estimates of gross and net capital stocks, investment, and depreciation by industry. The report includes all Canadian businesses and governments from all the provinces and territories in Canada. The industries are defined using the NAICS.

International trade – The trade data referred to in this report can be found at Industry Canada's Strategis website. This data is obtained from Statistics Canada, and is based on the physical movement of goods as they are reflected on customs documents. The data is reported using NAICS codes.

Appendix 3: Financial Data

NAICS 111 CROP PRODUCTION						
	1999	2000	2001	2002	2003	2004
Assets (mils \$)	12,011	13,093	13,893	15,102	15,106	14,951
Revenue (mils \$)	5,211	7,861	8,260	7,897	7,488	8,258
Equity (mils \$)	3,200	3,563	3,321	3,541	3,440	3,623
Earnings Before Interest, Taxes & Depreciation (mils \$)	1,252	1,651	1,512	1,346	1,146	1,247
Earnings Before Interest & Taxes (mils \$)	344	524	415	265	33	239
Earnings Before Taxes (mils \$)	576	478	343	233	3	210
Earnings Before Extraordinary Items (mils \$)	487	412	311	207	8	184
Return on Assets (per cent)	4.1	3.1	2.2	1.4	0.1	1.2
Profit Margin (per cent)	9.3	5.2	3.8	2.6	0.1	2.2
Return on Equity (per cent)	15.2	11.6	9.4	5.8	0.2	5.1
Operating Profit Margin (per cent)	6.6	6.7	5.0	3.4	0.4	2.9
Asset turnover (ratio)	0.43	0.60	0.59	0.52	0.50	0.55
Interest Expense Rate (per cent)	-1.93	0.35	0.52	0.21	0.20	0.19
Financial Leverage Multiplier (ratio)	3.75	3.67	4.18	4.26	4.39	4.13
Implied Tax Rate (per cent)	15.5	13.8	9.3	11.2	-166.7	12.4

NAICS 112 ANIMAL PRODUCTION

	1999	2000	2001	2002	2003	2004
Assets (mils \$)	19,993	21,830	22,740	23,809	24,615	24,363
Revenue (mils \$)	9,565	13,608	12,406	11,705	11,384	11,976
Equity (mils \$)	3,189	4,316	4,617	5,037	5,717	6,606
Earnings Before Interest, Taxes & Depreciation (mils \$)	841	2,783	2,910	2,525	2,484	2,588
Earnings Before Interest & Taxes (mils \$)	-339	1,200	1,292	1,033	1,025	1,253
Earnings Before Taxes (mils \$)	-526	1,183	1,260	933	934	1,162
Earnings Before Extraordinary Items (mils \$)	-497	953	997	593	606	889
Return on Assets (per cent)	-2.5	4.4	4.4	2.5	2.5	3.7
Profit Margin (per cent)	-5.2	7.0	8.0	5.1	5.3	7.4
Return on Equity (per cent)	-15.6	22.1	21.6	11.8	10.6	13.5
Operating Profit Margin (per cent)	-3.5	8.8	10.4	8.8	9.0	10.5
Asset turnover (ratio)	0.48	0.62	0.55	0.49	0.46	0.49
Interest Expense Rate (per cent)	0.94	0.08	0.14	0.42	0.37	0.37
Financial Leverage Multiplier (ratio)	6.27	5.06	4.92	4.73	4.31	3.69
Implied Tax Rate (per cent)	5.5	19.4	20.9	36.4	35.1	23.5

NAICS 311 FOOD MANUFACTURING

	1999	2000	2001	2002	2003	2004
Assets (mils \$)	33,492	37,209	38,103	40,654	41,829	44,029
Revenue (mils \$)	59,964	65,724	65,353	66,129	69,159	74,575
Equity (mils \$)	13,831	15,759	16,283	17,798	18,605	20,339
Earnings Before Interest, Taxes & Depreciation (mils \$)	4,155	4,350	4,382	4,724	4,453	4,887
Earnings Before Interest & Taxes (mils \$)	2,899	2,979	3,026	3,324	3,037	3,443
Earnings Before Taxes (mils \$)	2,555	2,211	2,473	2,424	2,096	2,475
Earnings Before Extraordinary Items (mils \$)	1,769	1,518	1,811	1,668	1,477	1,735
Return on Assets (per cent)	5.3	4.1	4.8	4.1	3.5	3.9
Profit Margin (per cent)	3.0	2.3	2.8	2.5	2.1	2.3
Return on Equity (per cent)	12.8	9.6	11.1	9.4	7.9	8.5
Operating Profit Margin (per cent)	4.8	4.5	4.6	5.0	4.4	4.6
Asset turnover (ratio)	1.79	1.77	1.72	1.63	1.65	1.69
Interest Expense Rate (per cent)	1.03	2.06	1.45	2.21	2.25	2.20
Financial Leverage Multiplier (ratio)	2.42	2.36	2.34	2.28	2.25	2.16
Implied Tax Rate (per cent)	30.8	31.3	26.8	31.2	29.5	29.9

NAICS 311 & 31211 FOOD AND NON-ALCOHOLIC BEVERAGE MANUFACTURING							
	1999	2000	2001	2002	2003	2004	
Assets (mils \$)	37,094	42,183	47,529	50,118	53,327	56,131	
Revenue (mils \$)	62,983	69,002	73,197	74,628	77,951	83,926	
Equity (mils \$)	14,556	17,484	19,420	20,721	23,469	23,985	
Earnings Before Interest, Taxes & Depreciation (mils \$)	4,926	5,060	4,983	5,718	5,613	6,139	
Earnings Before Interest & Taxes (mils \$)	3,257	3,193	3,333	4,043	3,909	4,404	
Earnings Before Taxes (mils \$)	2,870	2,410	3,461	2,957	3,305	3,783	
Earnings Before Extraordinary Items (mils \$)	2,021	1,712	2,703	1,981	2,257	2,811	
Return on Assets (per cent)	5.4	4.1	5.7	4.0	4.2	5.0	
Profit Margin (per cent)	3.2	2.5	3.7	2.7	2.9	3.3	
Return on Equity (per cent)	13.9	9.8	13.9	9.6	9.6	11.7	
Operating Profit Margin (per cent)	5.2	4.6	4.6	5.4	5.0	5.2	
Asset turnover (ratio)	1.70	1.64	1.54	1.49	1.46	1.50	
Interest Expense Rate (per cent)	1.04	1.86	-0.27	2.17	1.13	1.11	
Financial Leverage Multiplier (ratio)	2.55	2.41	2.45	2.42	2.27	2.34	
Implied Tax Rate (per cent)	29.6	29.0	21.9	33.0	31.7	25.7	

NAICS 31-33 MANUFACTURING

	1999	2000	2001	2002	2003	2004
Assets (mils \$)	498,391	569,146	620,217	625,489	629,154	653,220
Revenue (mils \$)	587,901	649,238	642,674	665,706	669,091	694,360
Equity (mils \$)	233,672	269,665	295,567	294,927	307,778	320,610
Earnings Before Interest, Taxes & Depreciation (mils \$)	66,536	75,242	58,278	62,671	60,476	73,406
Earnings Before Interest & Taxes (mils \$)	46,185	52,378	35,664	39,523	36,627	49,041
Earnings Before Taxes (mils \$)	42,449	48,992	26,937	25,881	34,080	43,442
Earnings Before Extraordinary Items (mils \$)	29,153	31,533	19,140	16,331	23,840	31,807
Return on Assets (per cent)	5.8	5.5	3.1	2.6	3.8	4.9
Profit Margin (per cent)	5.0	4.9	3.0	2.5	3.6	4.6
Return on Equity (per cent)	12.5	11.7	6.5	5.5	7.7	9.9
Operating Profit Margin (per cent)	7.9	8.1	5.5	5.9	5.5	7.1
Asset turnover (ratio)	1.18	1.14	1.04	1.06	1.06	1.06
Interest Expense Rate (per cent)	0.75	0.59	1.41	2.18	0.40	0.86
Financial Leverage Multiplier (ratio)	2.13	2.11	2.10	2.12	2.04	2.04
Implied Tax Rate (per cent)	31.3	35.6	28.9	36.9	30.0	26.8

NAICS 445 FOOD AND BEVERAGE RETAILING						
	1999	2000	2001	2002	2003	2004
Assets (mils \$)	17,752	19,586	21,323	25,387	28,368	31,521
Revenue (mils \$)	62,770	66,418	70,025	81,976	89,411	92,346
Equity (mils \$)	6,814	6,746	7,121	8,439	9,405	10,389
Earnings Before Interest, Taxes & Depreciation (mils \$)	3,754	2,854	3,203	3,783	3,983	4,093
Earnings Before Interest & Taxes (mils \$)	2,563	1,783	2,006	2,373	2,469	2,467
Earnings Before Taxes (mils \$)	2,269	1,471	1,643	2,040	1,998	1,930
Earnings Before Extraordinary Items (mils \$)	1,769	864	999	1,307	1,350	1,340
Return on Assets (per cent)	10.0	4.4	4.7	5.1	4.8	4.3
Profit Margin (per cent)	2.8	1.3	1.4	1.6	1.5	1.5
Return on Equity (per cent)	26.0	12.8	14.0	15.5	14.4	12.9
Operating Profit Margin (per cent)	4.1	2.7	2.9	2.9	2.8	2.7
Asset turnover (ratio)	3.54	3.39	3.28	3.23	3.15	2.93
Interest Expense Rate (per cent)	1.66	1.59	1.70	1.31	1.66	1.70
Financial Leverage Multiplier (ratio)	2.61	2.90	2.99	3.01	3.02	3.03
Implied Tax Rate (per cent)	22.0	41.3	39.2	35.9	32.4	30.6

NAICS 44-45 RETAILING

	1999	2000	2001	2002	2003	2004
Assets (mils \$)	97,365	103,744	112,151	123,584	137,424	148,687
Revenue (mils \$)	268,008	283,545	308,199	331,746	354,206	368,594
Equity (mils \$)	31,039	33,048	37,635	41,721	47,727	53,746
Earnings Before Interest, Taxes & Depreciation (mils \$)	12,096	11,765	12,294	15,461	17,260	20,359
Earnings Before Interest & Taxes (mils \$)	7,428	7,044	6,989	9,758	11,250	14,118
Earnings Before Taxes (mils \$)	6,347	5,152	5,820	7,948	9,359	12,104
Earnings Before Extraordinary Items (mils \$)	4,867	3,116	3,861	5,388	6,223	8,416
Return on Assets (per cent)	5.0	3.0	3.4	4.4	4.5	5.7
Profit Margin (per cent)	1.8	1.1	1.3	1.6	1.8	2.3
Return on Equity (per cent)	15.7	9.4	10.3	12.9	13.0	15.7
Operating Profit Margin (per cent)	2.8	2.5	2.3	2.9	3.2	3.8
Asset turnover (ratio)	2.75	2.73	2.75	2.68	2.58	2.48
Interest Expense Rate (per cent)	1.11	1.82	1.04	1.46	1.38	1.35
Financial Leverage Multiplier (ratio)	3.14	3.14	2.98	2.96	2.88	2.77
Implied Tax Rate (per cent)	23.3	39.5	33.7	32.2	33.5	30.5