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Session Chairman:

Don Long

Virginia Polytechnic Institute and State University  
"Resource Productivity"

## CAPITAL PRODUCTIVITY IN THE RETAIL FOOD DISTRIBUTION INDUSTRY

by:

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We can begin this morning by discussing why capital costs are a relevant item in the retail food store environment. When we speak of capital costs, we are talking about rent, depreciation of fixed assets, and interest on the borrowed capital used to finance the business assets.

After labor expense, the capital costs are the most significant expense item on a percent of sales basis. Based on the fourth quarter 1979 and first quarter 1980 Food Marketing Institute (FMI) operating ratio studies, these capital costs are approximately 2.3% of sales. This data is consistent with the percentage relationship over the past several years, going all the way back to 1972 when the same costs were also 2.3% of sales. This 2.3% relationship is also consistent with the Cornell Food Studies which yield the same number after adjusting for interest they impute on the equity investment. One reason these costs have remained relatively constant as a percent of sales in the face of sharply escalating construction costs has been the depreciation process. This process matches costs measured in a mix of older historic cost dollars against current sales dollars and does not reflect in any one year the replacement capital costs required to build new stores.

These replacement capital assets are the land, the building and the equipment necessary to operate the store, whether they be leased or owned assets. Because of the significance of these capital assets and their impact on the profitability of the supermarket operations, we attempt to develop measures of capital productivity.

We'll now look at some of the trends in capital productivity and some of the measurements available of capital productivity. By any measure, the record is not particularly good. When we look at the Cornell Studies return on total asset figures, we see numbers over the last four years of 4.33, 3.08, 5.70 and then a decline in the most recent year to 4.55. If we look at asset productivity in the Cornell Studies, we see for the same years an ever-decreasing trend from 6.5 four years ago to 5.7 in the current year. This asset productivity is measured without considering the operating leases. Many of the retail food chains have constructed their leases such that they do not qualify for capitalization under the accounting treatment of the Financial Accounting Standards Board and, rather, are carried off the balance sheet. If these assets were included in the equation, the asset productivity figures would drop into the 4 range.

Another significant capital asset to be looked at for productivity would be the inventory and the figures on stock turns. The Cornell Studies show stock turns of 12.6 four years ago, decreasing to 12.5, rising to 13.5 and now back down to 12.8. These stock turns are on a FIFO adjusted basis to account for the fact that many people have converted to LIFO over the last year to two.

For a look at sales dollars from the "FMI Speaks" survey, we see that real sales dollars per square foot have decreased in each of the last five years. Now a better measurement might be to look at gross margin dollars generated per square foot since we've seen some slowdown in the inventory turns and an increase in the margins associated with certain nongrocery products. If we measured gross margin dollars per square foot, it would compensate for the change in product mix.

Return on invested capital is not a figure typically reported in the supermarket industry. Return on invested capital is the concept that a profit-making organization must earn a return on all capital, whether supplied as a debt obligation or as permanent equity. Most executives recognize the obligation to existing stockholders and the practical risks involved in not meeting dividend expectations of current shareholders. Thus, the denominator in the return-on-investment-capital (ROIC) calculation includes not only long-term debt but also stockholders' equity, and sometimes "permanently" deferred obligations. Of course, everyone recognizes the penalty from not earning sufficient return to cover the borrowed capital. The numerator in our calculation is the earnings of the company (after tax) with the after-tax effect of interest added back to recognize the deductibility of interest expense.

While the industry has shown reasonable to good returns on equity, their re-

turns on invested capital would be dismal because much of the increased return on equity has been earned by piling on ever more leverage to what was already a leveraged balance sheet. A significant portion of the earnings has been retained in the business to maintain minimal debt: equity ratios. If we look at the large supermarket chains, publicly traded supermarket chains, in 1967 and 1977, we see that equity as a percent of total assets was 62% in 1967, but only 37% in 1977. This is just one measure of the increased leverage. Now, to some extent, this is the result of the capitalized leases brought on by FASB in 1976, but a significant number of leases are still off the balance sheet in this business.

When we look at the record for capital productivity in this industry, what we see, then, are five indicators of problems of return on investment. The first indicator is increasing asset intensity. As the industry invests more heavily in scanners to get marketing information, in refrigeration equipment to support the frozen foods and perishable high margin items, in larger stores as the trend toward combination stores and general merchandising increases, and in more specialty departments, they use even more assets. We also have the ever present effect of inflation on the capital requirements for inventory, the bottom line being the asset intensity of the supermarket business has increased significantly in recent years. The second indicator of return on investment problems is that the debt:equity ratios are approaching their maximum. This leads to a pattern of increased debt service costs and associated closed equity market due to leverage already present on the balance sheet. A third indicator is a rising dividend yield to support the stock price. The fourth indicator is a return on invested capital that is less than the cost of capital. And when we say cost of capital here, we're speaking about the interest cost on the borrowed capital as well as the expectations of price appre-

ciation and dividends necessary to support the equity capital. The fifth indicator of an industry troubled with return on investment is one where the market value of the company in the stock market is less than the book value of the underlying assets, which in turn are less than the replacement value of the physical assets. That is probably as true of the supermarket industry as any industry in the country. As we have seen from certain business failures, particularly in the New York and Philadelphia area, some of these chains were able to be liquidated quite profitably because of the underlying value of the real estate and the leases. Yet at the time, the market value of their stock was very depressed and traded at a significant discount from the book value.

There is a need in this industry to return to a return on investment concept both in terms of product line profitability and in control of the initial capital costs invested in the store location. When we talk about return on investment and maximizing return on investment, there are really only two approaches to the problem. One is to increase the return and the other is to reduce the investment. When we look at increased returns in the supermarket industry, it's not likely to occur. It is very difficult for an operator to obtain a return on an inflation-adjusted basis which is commensurate with the replacement-adjusted cost of the capital invested. Because the industry is so competitive, particularly in certain areas of the markets, an operator can know what his true costs of doing business are and can know what margins are required to recover those costs. But to the extent that his competitors in town are not aware of their actual costs of doing business, competitive pressures will restrict him from earning a reasonable and fair return. If we concede that an increased return is unlikely because of competitive pressures in the marketplace, then we have to look at reducing the capital investment. When we look at reducing the capital investment, let's first examine the typical

sizes and investment costs for land and building of six types of retail food stores--a conventional store at 24,000 square feet and \$1.5 million in costs; a super store at 31,000 square feet and \$1.7 million in costs; a combination store at 37,000 square feet and \$2.2 million per location; a warehouse store at the same 37,000 square feet and \$1.4 million in costs; a limited assortment store at 7,000 square feet and only \$400,000 in costs; and, at the cheapest end, a convenience store at 2,400 square feet and \$190,000 in costs.

In general, the operating costs for warehouse and limited assortment stores are lower than for conventional supermarkets because they provide fewer services, offer a smaller product assortment, thus less inventory capital investment, and use less elaborate facilities. This type of store also has significantly lower equipment costs and the related operating expenses because they provide only a limited selection of perishables and frozen foods or do not offer any frozen foods. The limited assortment store has all the positive aspects of capital productivity and, because of its lower operating expenses, can then work on a lower margin and apply competitive pressures to the supermarkets in the surrounding area. If lower margins in a recession environment and the flat per capita dollar growth in income that we've seen over the last year continue, they would probably combine to make price a prime determinant in shopping location. If this occurs in the retail food distribution market, then the limited assortment store is the store of the future. The limited assortment store is also attractive from a standpoint of capital investment at risk. We're looking at a risk of \$400,000 per location as opposed to the \$2.2 million per location in the super store. This increases the flexibility of response to competition in a given market area.

In summary, then, what we need to see is improved capital productivity, the

closing of some of the square footage in the industry with its outmoded capital facilities, and a need to focus on return on invested capital rather than percentage sales relationships in determining the profitability of a given enterprise. The percentage sales relationship tends to emphasize overly large stores to get a spread on fixed cost but is achieved from the standpoint of much higher capital investments. The return on investment concept emphasizes what you put into it, what you got out of it, and was it worth it. In emphasizing ROIC, the indus-

try has to focus on product line profitability. In combination with the scanning data and the marketing data, an operator should be able to put some general space allocation information into his computer and come up with some product line profitability which allocates costs based on space allocation. Only through attacking the problem of product line profitability on a product-by-product basis can the overall mix in the store be significantly changed to result in improved returns on the capital employed.

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## HEALING EMPLOYEE PRODUCTIVITY-- BANDAIDS OR MAJOR SURGERY

by:

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A modern day Rip Van Winkle who went to sleep decades ago and awakened in the summer of 1980 would have asked himself, "Hey man, what's happening. What's missing here?" We could tell him productivity. It's the crunch of the times involving a triple assault by big government, inflation, recession, and problems of energy. You see, Rip, these things got to growing and productivity matters just seem to get lost. So much for Rip and his long sleep. But why are we now awakening to this need for productivity growth?

All of us here will agree we are awakening because major problems we want to solve as a nation depend upon it. Without increases in output per hour our standards of living cannot increase. Poverty cannot be reduced and environmen-

tal quality cannot be improved. Without improved productivity performance in industries, specifically our own industry, we may continue to see the value of the dollar erode with the current inflationary pressures.

If we want to heal employee productivity, do we need bandaids or major surgery? If we look at our organization or business as a whole and compare it to the human body, we know that a bandaid will suffice on occasion. We also know that bandaids will only cover so much outside territory and when bandaids won't work, when the disease or wound is inside the body we must consider major surgery.

Mr. Horgan did an excellent job this morning defining productivity and its im-