"AN ECONOMIC ANALYSIS OF THE FOOD DISTRIBUTION INDUSTRY IN THE UNITED STATES"

Prepared by Arthur Andersen & Co. for the Coca-Cola Retailing Research Group October 1980

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FOREWORD

The Coca-Cola Retailing Research Group is studying the influence of a number of factors on food retailing during the 1980's. This report is one of a series of three performed for the group.

The Coca-Cola Retailing Research Group wishes to express its appreciation to Robert L. Grottke of Arthur Andersen & Co. who authored this report.

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INTRODUCTION

Retail food store sales reached \$199 billion in the U.S. in 1979--\$93 billion in food chains, \$96 billion in independent food stores, and \$10 billion in convenience stores. Dollar sales increase over 1978 was 11%, somewhat less than the 13.3% annual rate of inflation measured by the Consumer Price Index. Such results have been reasonably consistent throughout the decade of the 1970's--dollar sales increases achieved through price gains with tonnage movement remaining relatively flat.

Effects of inflation on the food distribution industry were widely evident during the 1970's. Two decades of relative food price stability following World War II had given the industry some insulation from public criticism. This period of calm ended abruptly with sharp price increases, beginning in the late 1960's and continuing throughout the 1970's. A storm of criticism from a new breed of consumer activists and government interventionists made the retail food store a focal point for public complaints about the havoc inflation can wreak on family budgets.

Meanwhile, a period of rapid growth and new store development was giving way to industry concern for "overstoring" in many areas. Competition grew even more intense. By the end of the decade of the 70's, bankruptcies and wholesale store closings had become almost commonplace. A new generation of low cost outlets began to win

 Progressive Grocer, "47th Annual Report of the Grocery Industry," April 1980. adherents from operators intent on controlling escalating operating expenses, even if that meant eliminating services and reducing the product assortment to which a generation of shoppers had grown accustomed. These warehouse and limited assortment stores had the additional advantage of a lower capital investment.

From one point of view, however, the competitive turmoil was just an undercurrent, as traditional supermarkets remained the most successful store format during the 1970's. Many operators continued to develop future plans around extra-large, multi-department supermarkets known as super stores. And the fastest growing industry segment--convenience stores--built success not on low cost but speedy service and easy access.

Nevertheless, it is well recognized within the industry that inflation has done much more than simply to deflate dollar sales gains. It has affected operating expenses and capital needs as well. This impact of inflation may be well-recognized, but careful review of the industry operating and financial trends presented in the following report can still be a sobering experience. The extent of distortion of information about performance caused by inflation may not yet be fully recognized or incorporated into future planning. The accounting profession has taken the unprecedented step of prescribing a whole new set of inflation-engendered rules. A question that might be asked at the outset is: "Can the food distribution industry learn to live by these new rules?"

This report analyzes historical operating and financial trends in the food distribution industry during the 1970's, and extrapolates potential trends of the future, basing projections upon information and data generally available from public sources.

Objectives of Report

The overall objective of this report is to examine various projections of future trends in the food distribution industry, based on past results and other known factors. To accomplish this, the report analyzes operating results of a major segment of the food distribution industry for the past decade, and adjusts those results for inflation using the most current accounting principles.

Specific objectives include the following:

- To review the aggregate operating results of a representative segment of companies operating or supplying food stores.
- To adjust those results for the effects of inflation using current accounting standards and relate the adjusted operating results to productivity trends in the industry.
- 3. To project future operating trends based on past performances and specific assumptions.
- 4. To analyze rates of return on equity and debt capital using historical and inflation-adjusted data.
- 5. To analyze general operating characteristics of various types of stores, including key operating factors, and discuss their potential for the industry.

STUDY APPROACH

To analyze historical trends of the food distribution industry, published reports (both annual reports to shareholders and Form 10-K) of a representative selection of large and medium-sized publicly held food retailers and food wholesalers were examined. Annual data from these companies were accumulated into aggregate data, which has been used in the analysis. Some of the food retailers and food wholesalers included in the analysis may be in businesses other than the food distribution business; however, the total operations of these companies have been included in the analysis. Companies that have continuously operated or supplied food stores from 1970-1979 were the only ones included in the analysis in order to achieve comparability.

While the data were not adjusted for differences in accounting principles and procedures, except for the differences in valuing inventories on FIFO or LIFO, the accounting principles followed by the companies are reasonably similar, so results should be comparable. A significant change in the reporting of financial information occurred in 1977, when the Financial Accounting Standards Board (FASB) required companies to include certain qualifying leases as an asset and a liability on their balance sheets. Capitalized lease data have, however, been segregated in the analysis in order to isolate their effects, and in some cases restatements of earlier years were made to achieve reasonable comparability.

Adjustments for Inflation

Data reported by these companies were adjusted for inflation by applying newly prescribed accounting rules of the Financial Accounting Standards Board, known as Statement No. 33. These new rules represent the first requirement by the accounting profession in the U.S. to adjust financial statement data for the effects of inflation. FASB's statement requires certain data to be adjusted for inflation and reported on a supplemental basis for financial statements covering fiscal years ending after December, 1979. The major accounting concepts of the statement have been applied to the reported data included in this report because (1) they are the current rules for adjusting for inflation, and (2) they will afford comparability to future reports.

The new rules require that sales for a five year period be stated in constant dollars, i.e., dollars with equivalent purchasing power.

The new rules also require an adjustment for inflation to inventories and to depreciation. These adjustments are reflected in supplemental profit and loss statements. They generally reduce reported net income for the annual inflation in inventory and the understatement of depreciation due to inflation. The new rules also require a calculation of gain or loss on purchasing power applicable to cash, receivables, payables, debt, etc., which is shown on a memorandum basis separate from the inflation-adjusted net income.

Appendix 1 contains a detailed discussion of the effects of inflation on food store operations, and an explanation of how the new rules adjust for these effects. It also contains information on additional aspects of the study.

ANALYSIS OF OPERATING TRENDS-PUBLICLY OWNED RETAILERS

In analyzing operating trends of the industry, the amounts shown in company financial statements have been aggregated initially on a historical basis as reported; that is, without any adjustment for inflation. The figures have then been restated for the major inflation adjustments as required by the newly prescribed accounting rules of the FASB.

Exhibit 1 shows the aggregate comparative operating results of 20 large and medium-sized public food retailers for the period 1970 to 1979. Sales as reported increased from \$27 billion to \$64 billion.

Some companies made significant acquisitions during the decade. In addition, those companies followed a generally consistent pattern of modernizing to larger stores. Overall square footage of selling space increased from approximately 237 billion square feet in 1970 to 283 billion square feet in 1979, despite significant reductions in selling area, caused by extensive store closings by several companies included in the group.

Gross Margins

Gross margins as a percent to sales increased slightly from 1970 to 1971, then declined for two consecutive years before beginning a period of steady increases through 1978. In 1979, they decreased slightly. Operating expenses have increased from 1975 to 1978, then decreased somewhat in 1979. The recent trend reflects the ever-increasing cost of doing business, which pushes gross margins up to cover operating

COMPARATIVE OPERATING RESULTS -- FOOD RETAILERS

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Income Statement Sales	1970	\$28.7	\$31.2	\$34.7	1974	1975	1976	\$52.5	1978	\$64.0
Gross Margin Percent to Sales	\$ 5.5 20.36%	\$ 5.9	\$ 6.2	\$ 6.8 19.62%	\$ 8.0	\$ 9.0	\$ 9.9	\$11.3	\$13.1 22.39%	\$14.0 21.80%
Operating Expenses Percent to Sales	\$ 4.8	\$ 5.2	\$ 5.8 18.28%	\$ 6.2	\$ 7.3 18.35%	\$ 8.1 17.99%	\$ 8.9	\$10.1 19.29%	\$11.7 20.01%	\$12.5 19.49%
Interest Expense Fercent to Sales	\$.09	\$.09 .32%	\$.11	\$.13 .38%	.11 \$.13 \$.19 .35% .38% .48%	\$.20	\$.20	\$.26	\$.29	\$.31
Net Income Percent to Sales	\$.29	\$.29	\$.22	\$.27	\$.18	\$.42 .95%	\$.42 .85%	\$:49	\$.60	\$.69

Source: Annual reports of 20 selected food chains

costs and provide a net profit. Interest expense as a percent of sales has increased from a .32% level to .48% with a peak of .50% in 1977 and 1978, as total debt and interest rates have both increased. Since 1977, interest on capital lease obligations has been included in interest expense rather than operating expense, due to changes in capital lease accounting rules.

Gross margins as reported have also been reduced as more of the companies included in the analysis adopted the LIFO method of valuing inventories. In 1970, only two companies in the analysis used LIFO, whereas in 1979, all but four of the companies were on LIFO. If the gross margins were calculated on a strict FIFO basis, they would have increased as follows:

	Gross Margin	Gross		Percent	of Sales
	as	Margin	Increase	as	as
<u>Year</u>	Reported	On FIFO	(Decrease)	Reported	<u>Adjusted</u>
	(in i	millions)			
1970	\$5,500	\$5,492	\$ (8)	20.36%	20.36%
1971	5,865	5,876	11	20.40	20.40
1972	6,178	6,181	3	19.82	19.82
1973	6,816	6,777	(39)×	19.62	19.50
1974	8,001	8,089	`88	19.96	20.18
1975	8,986	9,026	40	20.17	20.26
1976	9,917	9,948	31	20.38	20.44
1977	11,271	11,337	66	21.47	21.59
1978	13,051	13,113	62	22.39	22.50
1979	13,963	14,154	191	21.80	22.10

^{*}One major company switched from LIFO to FIFO

Net Income

Net Income as a percent to sales was the highest in 1970 at 1.09%, and decreased significantly during the middle of the decade. Net

income in 1974 was particularly low, because one company provided a large store closing reserve. The last five years have been generally increasing, ranging from .95% in 1975 to 1.08% in 1979. If the net income were adjusted based on valuing inventories at FIFO, it would have increased as follows:

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On a FIFO basis, the profit percent in 1979 would be the highest of the decade. However, these profits have not been adjusted for inflation.

Exhibit 2 is a statement of sources and uses of funds (working capital) for the same companies from 1970 to 1979. The major sources of cash flow consist of net income and depreciation (a non-cash charge which is added to net income to obtain cash funds from operations). Dividends and property additions represent the major uses of funds.

The analysis shows a shortfall of funds provided from operations over uses in all but three of the ten years. The aggregate shortfall

for the ten years was \$450 million. During this same period, these companies borrowed a net amount of \$827 million in long-term debt, and they issued \$224 million in equity securities to cover the shortfall and to increase working capital to support the increased investment in inventories and other assets. In 1977 and later years, capital lease additions and obligations show as uses and sources of funds because of the change in accounting rules.

COMPARATIVE FUNDS STATEMENTS -- FOOD RETAILERS

(in millions)

Total	\$3,866.4 4,479.2 258.8	\$8,604.4	\$6,609.5 598.4	1,700.9	145.5	\$9,054.3	\$ (449.9)		\$ 826.7	370.5	223.9	\$ 971.2
1979	\$ 691.5 730.3 24.9	\$1,446.7	\$1,190.8 249.5	263.3	19.1	\$1,722.7	(27.5) \$ (276.0)		6.9	147.0	(27.4)	\$ (149.5)
1978	\$ 597.9 662.8 36.2	\$1,296.9	\$ 846.7 218.0	216.8	42.9	\$1,324.4	\$ (27.5)		\$ (2.4) \$	111.6	44.7	\$ 126.4
1977	\$ 485.5	\$1,084.4	\$ 686.1 130.9	192.7	11.6	\$1,021.3	\$ 63.1		\$ 197.2	111.9	22.5	\$ 394.7
1976	\$ 416.1 462.9 32.3	1	\$ 618.0 -	173.5	20.5	\$ 812.0	\$ 99.3		\$ 43.5	1	10.9	\$ 153.7 ======
1975	\$ 422.8 388.7 25.5	80	\$ 572.3	153.9	11.2	\$ 737.4	9.66 \$		\$ (25.3) \$ 106.7	1	41.3	
1974	\$ 176.1 483.2 6.4	\$ 665.7	\$ 652.6	147.1	15.7	\$ 815.4		1	\$ (25.3)	ŧ	35.7	\$(139.3) ======
1973	\$ 273.0 342.4 34.5	\$ 679.9	\$ 563.4	124.8	3.8	\$ 692.0	\$ (42.1)	 	\$ 80.1	1	20.8	\$ 58.8
1972	\$ 217.3 307.1 19.4	\$ 543.8	\$ 547.1	136.0	1.5	\$ 684.6	\$(140.8)	 	\$ 188.3	ı	27.0	\$ 74.5
1971	\$ 293.0 284.1 17.7	\$ 594.8	\$ 467.7	147.5	9.0	\$ 624.2	\$ (46.4) \$ (29.4) \$(140	 	\$ 86.5	ı	17.4	
1970	\$ 293.2 264.9 15.8	\$ 573.9	\$ 464.8	145.3	10.2	\$ 620.3	\$ (46.4)	 	\$ 145.2	i	31.0	\$ 129.8
	Funds provided from operations Net income Depreciation Deferred income taxes	Total funds provided from operations	Property additions, net of assets sold Capital lease additions	Cash dividends	Other, net	Total funds recuired	Excess (deficiency) of funds provided over funds required	(Excess applied to) deficiency covered by-	<pre>Increase (decrease) in long-term debt, net</pre>	Increase in capital lease obligations	Sale of stock, net of shares repurchased	Increase (decrease) in working capital

Source: Annual reports of 20 selected food chains

Note: Due to acquisitions and accounting changes, some ten-year totals on this statement may not agree with changes on Exhibit 3.

Depreciation Shortfall

An excess of net property additions (gross additions, less proceeds from sales and retirements) over depreciation caused most of this cash flow shortfall. Depreciation during the period was \$4.5 billion; however, net property additions were \$6.6 billion, or \$2.1 billion in excess of depreciation. Estimates indicate that \$.6 billion of this was probably expansion, and \$1.5 billion can be attributed to inflation.

Net income for the period was \$3.9 billion, while dividends paid were \$1.7 billion, leaving \$2.2 billion reinvested in the business to cover part of the property additions in excess of depreciation and other cash needs. Net income for the five-year period 1970-1974 was \$1.3 billion and dividends paid were \$.7 billion, for a payout ratio of 56%. Income for the period 1975-1979 was \$2.6 billion and dividends paid were \$1 billion, for a 38% payout ratio. Improvements in net income in the 1975-1979 period have provided for both a higher dividend and a larger amount of reinvested earnings.

Exhibit 3 is an aggregate balance sheet of these companies for 1969 and 1979. The inventory has been converted to FIFO for those companies on LIFO for consistency and to evaluate the investment required for inventories in current dollars.

COMPARATIVE BALANCE SHEETS -- FOOD RETAILERS

(in millions)

	As Rep	orted		1979	-
	1969	1979	Adjustment to FIFO	as Adjusted	Increase (Decrease)
Cash	\$ 400.1	\$ 865.3	\$ -	\$ 865.3	\$ 465.2
Receivables	196.8	440.1	-	440.1	243.3
Inventory	1,909.4*	4,873.2	492.9	5,366.1	3,456.7
Prepaids	144.4	398.1	-	398.1	253.7
Total current assets	\$2,650.7	\$6,576.7	\$492.9	\$7,069.6	\$4,418.9
Short-term debt and current maturities	\$ 116.8	\$ 313.7	\$ -	\$ 313.7	\$ 196.9
Accounts payable	1,141.2	3,131.4	-	3,131.4	1,990.2
Accruals	280.5	1,105.7	-	1,105.7	825.2
Other	61.3	185.6	_	185.6	124.3
Total current liabilities	\$1,599.8	\$4,736.4	\$ -	\$4,736.4	\$3,136.6
Net working capital	\$1,050.9	\$1,840.3	\$492.9 	\$2,333.2	\$1,282.3
Fixed assets, net	\$2,040.8	\$4,721.4	\$ -	\$4,721.4	\$2,680.6
Capital leases		1,828.5	-	1,828.5	1,828.5
Other	170.4	478.7	-	478.7	308.3
Total long-term assets	\$2,211.2	\$7,028.6	\$ -	\$7,028.6	\$4,817.4
Long-term debt	\$ 579.4	\$1,457.5	\$ -	\$1,457.5	\$ 878.1
Deferred taxes	100.9	210.5	246.4	456.9	356.0
Capital lease obligations	-	2,182.7	-	2,182.7	2,182.7
Other	89.4	231.9	-	231.9	142.5
Total long-term liabilities	\$ 769.7	\$4,082.6	\$246.4	\$4,329.0	\$3,559.3
Equity	•	\$4,786.3	\$246.5 =====	\$5,032.8 ======	

*All but two companies on FIFO

Source: Annual reports of 20 selected food chains

Aggregate Balance Sheet

The increase in inventory of \$3.5 billion represents increases due to increased items in inventory and increased prices due to inflation. By recalculating the inventory in 1979 on a constant dollar basis, the increase of inventory values applicable to inflation can be estimated at \$2.1 billion. The balance of the increase of \$1.4 billion is due to increased units of inventory.

Of the total increase in inventory dollars, \$2 billion was financed by an increase in accounts payable. The following table shows the annual ratio of payables to inventory during the period:

	Inventory (FIFO Basis)	Accounts Payable	% of Payables to Inventory
	(in mil	lions)	
1970 1971 1972 1973 1974 1975 1976 1977 1978	\$2,048 2,213 2,455 2,945 3,431 3,521 3,936 4,304 4,773 5,366	\$1,317 1,341 1,486 1,756 1,821 2,043 2,218 2,553 2,845 3,131	64.3% 60.6 60.5 59.6 53.1 58.0 56.3 59.3

Source: Annual reports of 20 selected food chains

The greatest precentage of inventory financed during the period was in 1970. It appears that increased needs for cash led vendors to tighten terms, and somewhat reduced accounts payable as a source of funding inventories.

On a constant dollar basis, working capital has decreased \$163 million, rather than the nominal increase of \$1.3 billion.

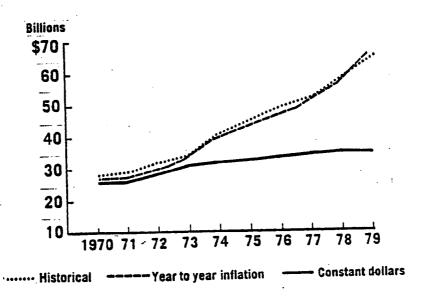
The increase in fixed assets represents the increased dollars required for replacements and expansion and acquisition.

The amount shown for capital leases in 1979 was \$1.8 billion versus nothing in 1969. This is due to a change in accounting rules during the period, requiring that certain qualifying leases be capitalized on the balance sheet starting in 1977. There is also a liability for capitalized leases of \$2.2 billion in 1979. An estimate of what these amounts would have been in 1970 is \$1 billion for the asset value and \$1.2 billion for the liability amount.

Inflation Adjustments

The graph below shows the effect of converting sales for the period to constant dollars using 1970 as the base year, the increase in sales due to year to year inflation and historical data.

SALES OF FOOD RETAILERS



The increase in constant 1970 dollars (adjusted for inflation) was from \$27 billion to \$34.3 billion. Although the constant dollar increase was much less than the reported increase, it is still very significant, particularly compared to the industry as a whole, where constant dollar sales for the decade showed very little growth.

The largest portion of the real sales growth was achieved during the period 1970-1974, when sales increased from \$27 billion to \$31.6 billion. From 1975-1979 the real sales increase was from \$32.1 billion to \$34.3 billion, a 7% increase, or an average of just over 1% per year. On a reversal of this trend, 1979 constant dollar sales decreased to \$34.3 billion from the \$34.7 billion reported in 1978.

Exhibit 4 shows the results of the companies included in the analysis on Exhibit 1, adjusted for inflation. The inflation adjustments have been made in accordance with the recently issued accounting rules, as previously discussed.

Two major inflation adjustments affecting inventories and depreciation have been made. Inventory increases due to price inflation were calculated using the CPI, and the amounts of these increases have been charged to income as an additional cost of sales. The annual expense for depreciation was increased to reflect inflation on each asset, and the additional charge for depreciation is included in operating expenses. In connection with this calculation, estimates of the useful lives of assets were made.

Inflation adjustments dropped aggregate net income from \$3.9 billion to \$.26 billion, or a decrease of \$3.6 billion. In other words, inflation wiped out virtually all profits for the 1970-1979 period. With inflation figured in, 1973 and 1974 turn from profit to loss years. As

COMPARATIVE OPERATING RESULTS

IN INFLATION-ADJUSTED DOLLARS--FOOD RETAILERS

(in billions)

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1979	404.	21.11%	\$12.	19.94%	\$.31	4.	\$(.04)	%(90.)	62. \$
1978	\$28.3 \$200.3	21.83%	\$11.9	20.40%	\$.29	.50%	\$.02	.03%	67.
1977	٠ ٢ ٢ - ١	21.08%	\$10.3	19.71%	\$.26	.50%	\$.06	.12%	\$.25
1976	\$48.7 648.7	\circ	\$ 9.1	18.73%	\$.20	.42%	\$.10	. 20%	\$.14
1975	\$77.0 \$77.0 \$	0	\$ 8.2	18.32%	\$.20	. 45%	\$.08	.18%	\$.20
1974	≺	19.27%	\$ 7.5	18.66%	\$.19	.48%	\$(.23)	(.56)%	\$.30
1973	(L)	18.85%	\$ 6.3	18.04%	\$.13	.38%	\$(.08)	(.24)%	\$.17
[2]	31.	\$ 6.1	\$ 5.8	18.53%	\$.11	.35%	\$.07	.21%	\$.05
1971	α	20.19%	\$ 5.3	18.33%	60. \$. 32%	\$.16	.57%	\$.04
1970	\$27.0	\$ 5.4 19.93%	\$ 4.9	18.07%	60. \$.32%	\$.12	.44%	\$0.
Income Statement		Gross Margin Percent to Sales	Operating Expenses	Percent to Sales	Interest Expense	Percent to Sales	Net Income	Percent to Sales	Purchasing power gain from holding net liabilities

Annual reports of 20 selected food chains Source:

noted above, 1974 results were affected significantly by a large store closing write-off by one company. The aggregate amount of inventory inflation written off during this period was \$2.1 billion and the additional amount of depreciation charged was \$1.5 billion.

These adjustments for inflation had the effect of decreasing gross margins by about .4% of sales and increasing operating expenses about .4% of sales. Net income as a percent of sales, which averaged .89% on a historical basis, fell to an average of .09% of sales.

Exhibit 5 restates the source and uses of funds for the inflation adjustments made to inventory and depreciation. This shows that the real aggregate shortfall of funds provided by operations was \$2.6 billion rather than the \$450 million shown in Exhibit 2. The difference represents the gross increase in the value of inventory due to inflation. Even after the sources of funds from debt and equity, there is a net decrease in working capital of \$1.1 billion.

COMPARATIVE FUNDS STATEMENTS --

INFLATION ADJUSTED -- FOOD RETAILERS

(in millions)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	Total
Funds provided from operations											
Net income	\$ 117.5	\$ 163.1	\$ 65.5	\$ (84.4)	\$(225.2)	\$ 81.5	\$ 96.8	\$ 63.5	\$ 16.4	\$ (38.2)	\$ 256.5
Depreciation	325.3	354.9	384.0	433.6	607.2	534.4	638.3	771.4	914.3	1,017.6	5,981.0
Deferred income taxes	15.8	17.7	19.4	34.5	6.4	25.5	32.3	46.1	36.2	24.9	258.8
Total funds provided from operations	\$ 458.6	\$ 535.7		. 61	\$ 388.4	\$ 641.4	- 1	\$ 881.0	966.9	\$1,004.3	\$6,496.3
Property additions, net of assets sold	\$ 464.8	\$ 467.7	\$ 547.1	\$ 563.4	\$ 652.6	\$ 572.3	\$ 618.0	\$ 686.1	.\$ 846.7	\$1,190.8	\$6,609.5
Capital lease obligations	1	•	i	1	1	1	1	130.9	218.0	249.5	598.4
Cash dividends	145.3	147.5	136.0	124.8	147.1	153.9	173.5	192.7	216.8	263.3	1,700.9
Other, net	10.2	0.6	1.5	3.8	15.7	11.2	20.5	11.6	45.9	19.1	145.5
Total funds required	\$ 620.3	\$ 624.2	\$ 684.6	\$ 692.0	\$ 815.4	\$ 737.4	\$ 812.0	\$1,021.3	\$1,324.4	\$1,722.7	\$9,054.3
Excess (deficiency) of funds provided over funds required	\$(161.7)	\$(161.7) \$ (88.5) \$(215	\$(215.7)	\$(308.3)	\$(427.0)	\$ (96.0)	\$ (44.6)	\$ (140.3)	\$ (357.5)	\$ (718.4)	\$(2,558.0)
Issuance of long-term debt-											
Increase (decrease) in long-term debt, net	\$ 145.2	\$ 86.5	\$ 188.3	\$ 80.1	\$ (25.3) \$ 106.7	\$ 106.7	\$ 43.5	\$ 197.2	\$ (2.4)	6.9	\$ 826.7
Increase in capital lease obligations	ı	1	1	1	1	t	1	111.9	111.6	147.0	370.5
Sale of stock, net of shares repurchased	31.0	17.4	27.0	20.8	35.7	41.3	10.9	22.5	44.7	(27.4)	223.9
Increase (decrease) in working caphtal	\$ 14.5	\$ 15.4		\$(2	\$(416.6)	\$ 52.0	\$ 9.8 ====================================	\$ 191.3	\$ (203.6)	\$ (591.9)	\$(1,136.9)

Source: Annual reports of 20 selected food chains

Purchasing Power Gains on Debt

An additional inflation adjustment to consider is the purchasing power gain that results when the companies hold a net monetary position of debt in excess of cash and receivables. The new accounting rules require that this purchasing power gain (or loss) be reported separately from inflation-adjusted net income. It is shown for these 20 companies on Exhibit 4 below net income.

Net monetary debt includes long-term debt and capital lease obligations. However, the companies hold a significant number of operating leases which are not recorded on the balance sheet and on which a purchasing power gain is also accruing.

As the companies have increased their debt to finance the additional dollars needed for inventory and equipment replacement, the purchasing power gain associated with holding the net liability position increases as inflation continues. The larger the annual rate of inflation, the bigger is the purchasing power gain.

The portion of the purchasing power gain that results from long-term debt and capital lease obligations is viewed by some accountants as an adjustment of the interest. One economic theory states that the real interest on debt is about 1% to 3%, and any additional amount is due to inflation. The following schedule relates that portion of the calculated gain on purchasing power arising from long-term debt and capital lease obligations to the interest expense.

Analysis of Interest Expense (in millions)

	Historical Interest	Purchasing Power Gain on Debt	Net		
1970 1971 1972 1973 1974 1975 1976 1977 1978	\$ 90 90 110 130 190 200 200 260 290 310	\$ (35) (24) (25) (74) (123) (71) (52) (126) (291) (452)	\$ 55 66 85 56 67 129 148 134 1 (142)		
	\$1,870	\$(1,273)	\$ 597		

The schedule indicates that the gain on purchasing power significantly reduces interest expense, particularly in 1978 and 1979.

This is an example of why interest rates have increased so significantly this year. Lenders sometimes have to scramble to increase rates quickly enough to catch up to inflation. The net gains of 1978 and 1979 were caused by high rates of inflation applicable to those years. If inflation should decrease in future years, particularly compared to higher current interest rates, purchasing power gains would fall below historical interest expenses.

Inflation Effects on Retained Capital

Exhibit 6 shows a reconciliation of historical net income to inflation-adjusted net income. Results may be adjusted to reflect the impact of inflation on inventories and depreciation, but only the adjustment made to inventories can be used to adjust income for tax

RECONCILIATION OF HISTORICAL

TO INFLATION-ADJUSTED NET INCOME -- FOOD RETAILERS

(in millions)

	1970	1970 1971	1972	1973	1974	1975	1976	1977	1978	1972 1973 1974 1975 1976 1977 1978 1979 Total	Total
Pretax income	\$ 586.5 \$ 566.2		\$ 371.3	\$ 510.9	7.677 \$	\$ 772.5	\$ 775.1	\$ 878.0	\$1,125.4	\$ 371.3 \$ 510.9 \$ 449.4 \$ 772.5 \$ 775.1 \$ 878.0 \$1,125.4 \$1,174.9 \$ 7,210.2	\$ 7,210.2
Less: Inventory adjustment (115.2) (59.1)	(115.2)	(59.1)		(266.1	(277.3)	(195.6)	(143.9)	(203.4)	(330.0)	(74.9) (266.1) (277.3) (195.6) (143.9) (203.4) (330.0) (442.4) (2,107.9)	(2,107.9)
Depreciation adjustment	(60.4)	(60.4) (70.8)	(76.9)	(91.2) (124.0)	(145.7)	(175.4)	(218.6)	(76.9) (91.2) (124.0) (145.7) (175.4) (218.6) (251.5)		(287.3) (1,501.8)
Adjusted pretax income	\$ 410.9	\$ 436.3	\$ 219.5	\$ 153.6	\$ 48.1	\$ 431.2	\$ 455.8	\$ 456.0	\$ 543.9	\$ 445.2	\$ 3,600.5
Income taxes	293.4	273.2	154.5	238.0	238.0 273.3	349.7	359.0	392.5	527.5	483.4	3,344.5
Net income	\$ 117.5	\$ 163.1	1		\$ (84.4) \$(225.2)	\$ 81.5	8.96.\$	\$ 63.5	\$ 16.4	\$ (38.2)	\$ 256.0
Dividends	\$ 145.3	\$ 147.5	\$ 136.0		\$ 124.8 \$ 147.1	\$ 153.9	\$ 173.5	\$ 192.7	\$ 216.8	\$ 263.3	\$ 1,700.9
Net earnings retained after dividends	\$ (27.8)	\$ (27.8) \$ 15.6	\$ (71.0)	\$(209.2	(372.3)	\$ (72.4)	\$ (76.7)	\$(129.2) =======	\$ (200.4)	\$ (301.5)	\$ (71.0) \$(209.2) \$(372.3) \$ (72.4) \$ (76.7) \$(129.2) \$ (200.4) \$ (301.5) \$(1,44.9)
Effective tax rate-	50.0%	#E . 87	61.5%	77.5% 46.6% 60.8%	60.8%	45.3%	46.3% 44.7%	44.7%	46.9%	41.1%	86.67
Inflation adjusted	71.4%	62.6%	70.2%	154.9%	568.2%	81.1%	78.8%	86.1%	97.0%	108.6%	95.9%
Dividend payout ratio- Historical	87.67	50.5%	62.6%	45.78	45.78 83.58	36.4%	41.78	39.7%	36.3%	38.1%	44.0%
Inflation adjusted	123.7%	87.06	207.6%	not meaningful	not meaningful meaningful	188.8%	179.2%	303.5%	1,321.9%	not meaningful	663.1%

Source: Annual reports of 20 selected food chains

purposes. Thus, the message from this analysis is that although income can be restated for the inflation adjustments on inventory and depreciation, taxes paid can be adjusted only to reflect inflation adjustments to inventory (i.e., LIFO). The effective tax rate increases from the 40% to 50% level to effective rates ranging from 63% to 568% and averaging 93%. By adopting LIFO, these companies could have obtained the approximate tax benefits applicable to the inflation adjustment for inventory. However, during this period, not all the companies have adopted LIFO and many did not adopt LIFO until late in the period as shown by the following schedule:

Number of	Companies	Adopting	LIFO
1970 1970 1970	1	2 4 3	
1978 1979		5	
		<u>16</u>	

Four companies still have not adopted LIFO, some because of the overriding tax benefits from net operating loss carry-forwards. Additional tax relief is needed, however, to mitigate the effect of inflation on the additional dollars needed to replace property and equipment in periods of inflation.

Exhibit 6 also shows that dividends were partially or completely paid out of capital in every year. An excess of \$1.4 billion of dividends over income was paid during the period.

Return on Invested Capital

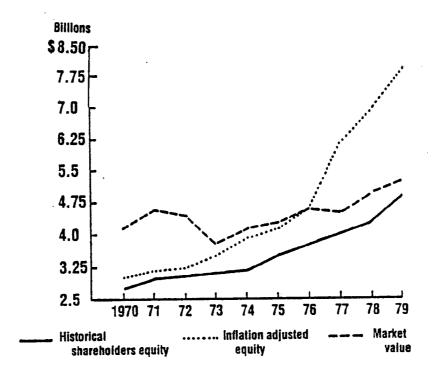
There are several accepted methods which can be used to measure return on invested capital. The effects of inflation should also be considered when making these calculations in order to compare all results in equal amounts of purchasing power.

Return on shareholders' equity is one of the most common measures used to measure performance. The traditional method is to relate historical net income to historical equity (i.e., book value of common stock). To account for the erosion of real returns caused by inflation, however, these additional measurements should be considered:

- Inflation-adjusted net income as a return on historical equity
- Inflation-adjusted net income as a return on inflation-adjusted equity
- Inflation-adjusted net income and purchasing power gain on debt as a return on inflation-adjusted equity and purchasing power gain.

Inflation-adjusted net income used in these calculations is the same as shown in earlier exhibits in this report. Inflation-adjusted equity was calculated by adjusting retained earnings at the beginning of 1970 to the current dollar value of inventory and of property and equipment. Each year this adjusted equity was increased by inflation-adjusted net income and the annual increase in purchasing power gain and reduced for dividends paid. Each year an additional adjustment was made to increase inventory and property and equipment to current dollars. The FIFO value of inventory was assumed to represent current dollars.

The following graph shows the relationship in the aggregate for the companies of historical equity, inflation-adjusted equity and market value.



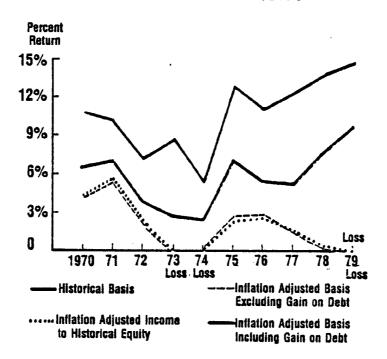
Inflation-adjusted equity and market value generally exceed historical equity. Inflation-adjusted equity and market value were approximately equal from 1973 through 1976. From 1977 to 1979, inflation-adjusted equity exceeded market value. Significant purchasing power gains on net debt caused this in 1978 and 1979.

Market values are also affected by other factors such as net income and divident payments.

Return on Common Shareholders' Equity

The following graph shows net income as a return on shareholders' equity using the various concepts discussed above:

FOOD RETAILERS RETURN ON EQUITY



As can be seen from the above graph, the return on shareholders' equity after adjustment for inflation, on whatever basis, is less than the return as calculated on an historical basis. While there is always a positive return when considering purchasing power gain, it would be considered low by conventional standards. Because of large purchasing power gains in 1978 and 1979, the return on a full inflation-adjusted basis increased significantly.

Ratio of Stock Market Price to Earnings

The stock market investor has apparently also adjusted the net reported earnings of these companies. As the following table shows, even while the historical return on equity has been increasing, the ratio of the stock market price to historical net income has been decreasing.

Ratio of Stock Market Price to

	Historical Net Income	Inflation- adjusted Net Income	Inflation- adjusted Net Income and Purchasing Power Gain
1970	14.4	36.0	23.6
1971	15.7	28.3	22.6
1972	20.4	67.7	38.2
1973	13.4	loss	43.2
1974	23.7	loss	52.5
1975	10.1	52.6	15.3
1976	11.2	48.0	19.5
1977	9.3	70.8	14.2
1978	8.3	301.3	9.8
1979	7.4	loss	6.7

The figures on the left are also sometimes referred to as the Price/Earnings (P/E) ratio. On an inflation-adjusted basis, the multiple is much higher unless purchasing power gain is also considered. One conclusion that could be drawn is that the stock market investor recognizes that reported results are overstated because of inflation and so buys stock only when multiples are lower. However, on an inflation-adjusted basis excluding purchasing power gain, the multiple appears high. This is probably because investors have not had good information on the specifics of the effect of inflation and because they are sometimes willing to buy these equities at higher multiples.

The column on the far right, which has the purchasing power gain on debt in the adjusted figures, shows consistently high price/earnings ratios except for the last two years, when the market place has dipped significantly. This ratio has generally been much higher than the historical P/E ratio, except in 1978 and 1979.

The following table shows the dividend yield for these companies for the period:

Dividend	Yield	to	Stock	Market	Value
				,	
19	970		3	. 43%	
19	971		3	. 20	
19	972		3	.07	
19	973		3	. 41	
19	974		3	.52	
19	975		3	.59	
19	976		3	.73	
19	977		4	. 28	
19	978		4	. 39	
19	979		5	.11	

No inflation adjustment is needed for this analysis since dividends are paid in current dollars, and stock market prices are also in current dollars. These numbers should adjust themselves to inflation.

The schedule shows that yields have been low, but have been increasing in recent years. These companies have had to reinvest much of their net income in the business to finance expansion and the effect of inflation, so dividend yields have been low.

Debt/Equity Ratios

The ratio of debt to equity has been affected by many circumstances during the ten-year period reviewed. Because of inflation, the companies have had to incur much additional debt to finance inventory and replace equipment. Equity capital markets have not been attractive, because of low price/earnings ratios.

In 1977, changes in financial reporting rules required that capital leases be recorded on the face of the balance sheet, thereby increasing the recorded debt of these companies.

While this accounting change did not change the economic facts, it served to highlight, particularly to the nonsophisticated reader of financial statements, the debt position of food distribution companies. However, there remains a significant amount of lease debt not recorded on the balance sheet which is classified as operating leases.

Since shareholders' equity on an historical basis is generally understated in terms of current dollars, the ratio of debt to equity is also adversely affected.

The following tables have been prepared to illustrate the effects of changing capital ratios both on an historical basis and considering the effects of inflation:

Historical Basis

Elements of Capital	1970	<u>1971</u>	1972	1973	1974	1975	1976	1977	<u>1978</u>	1979
Long-term debt	21%	20%	21%	23%	24%	24%	23%	24%	26%	23%
Equity	79	80	79	77	76	76	77	76	74	<u>77</u>
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

The above table is based on long-term debt and equity only; it excludes deferred tax liabilities and capitalized lease obligations because capitalized leases have only been recorded since 1977. On an historical basis, the debt-to-equity ratio changed slightly during the period after a 26% debt high in 1978. There were some significant additional debt issues in 1980, immediately after the prime rate dropped from its historical 20% high. Therefore, the trend to a larger percentage of debt capital may continue in the 1980's.

The increase in equity is almost entirely from retained earnings. There were few stock issues over this period except for stock dividends, the exercise of stock options and stock issued for acquisitions.

The following table shows the relationship between debt and inflation-adjusted equity:

Inflation-adjusted Basis

Elements of Capital	1970	<u>1971</u>	1972	1973	1974	<u>1975</u>	<u>1976</u>	1977	1978	1979
Long-term debt	20%	19%	20%	23%	22%	22%	20%	17%	18%	15%
Equity	80	81	80	77	78	78	80	83	82	85
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Debt would not be adjusted for inflation because it is a fixed obligation. Therefore, the significant purchasing power gains resulting from holding a net monetary debt position during inflation transfer to shareholders' equity and help the debt-to-equity ratio, adjusted for inflation.

Debt/Equity Ratio Including Capital Leases

Since 1977, changes in reporting rules have required that certain leases be recorded as debt on financial statements. While the way supermarkets do business did not change (i.e., store facilities are leased), financial reports now reflect more leverage. Prior to 1977, the SEC required supplemental disclosure of the impact of leases under different criteria, so no comparable data on capital lease obligations is publicly available.

The following table shows the effect of capitalized leases, obligations and deferred taxes. Capitalized leases have been estimated for 1970 to facilitate a reasonable comparison.

<u>Historical Basis</u>

	<u>1970</u>	1977	1978	1979
Long-term debt	15.0%	17.0%	18.3%	17.0%
Capital lease obligations	25.8	26.4	25.5	25.3
Deferred taxes	2.1	2.8	2.8	2.4
Equity	57.1	53.8	53.4	55.3
	100.0%	100.0%	100.0%	100.0%

This schedule shows the impact of capital leases and deferred taxes on the capital structure of the companies.

The following table shows the same data with equity adjusted for inflation:

Inflation-Adjusted Ratio

Elements of Capital	1970	1977	1978	1979
Long-term debt	14.6%	13.4%	14.1%	12.3%
Capital leases	25.2	20.8	19.6	18.4
Deferred taxes	2.0	2.2	2.1	1.7
Equity	58.2	63.6	64.2	67.6
	100.0%	100.0%	100.0%	100.0%

This indicates that the ratio of debt to equity is better when the full effects of inflation are considered. Debt and capitalized leases are not adjusted for inflation because they are fixed obligations, and the purchasing power gain on these debts accrues to shareholders' equity.

Return on Total Capital

Another measure of performance is the relationship of earnings to total capital--both debt and equity. In this calculation, the after-tax cost of the interest on the debt capital is added to earnings. Another way of looking at this calculation is that it represents the return on the net assets invested. Net assets is defined as all assets less current and long-term liabilities, but not formal debt capital.

The following table shows the return of historical net income and inflation-adjusted net income to total capital invested. Both net incomes have been increased by the net after-tax cost of interest on long-term debt and capitalized leases.

	Historic	al Basis	Inflation Adjusted
		Inflation-	Net Income and
	Historical	adjusted	Purchasing Power Gain/
<u>Year</u>	Net Income	Net Income	Inflation-Adjusted Equity
1970	7.2	2.5	6.5
1971	9.2	4.4	7.0
1972	7.1	1.7	4.5
1973	8.0	loss	3.7
1974	6.3	loss	4.3
1975	11.0	1.7	9.0
1976	10.2	1.9	7.5
1977	8.4	. 9	6.6
1978	9.2	. 2	7.7
1979	9.9	loss	10.2

The above schedule indicates what the companies are earning on the net assets employed in the business or, looked at another way, what they are earning on the total capital employed in the business, including debt and equity capital. Debt capital includes long-term debt and capital leases. The return on an historical basis and a full inflation basis are the most representative. The middle column does indicate, however, what the return is without the benefit of purchasing power gains on holding net monetary liabilities. Without these gains, the return has been minimal or even a loss. Considering these gains, the return has been 2% to 4% below the return on a historical basis except for 1979, when it slightly exceeded it, mainly because of a huge purchasing power gain in 1979 due to high inflation and a large net debt position of the companies.

ANALYSIS OF OPERATING TRENDS-MAJOR PUBLICLY OWNED WHOLESALERS

Exhibit 7 is a summary analysis of the comparative operating results for 10 selected large public food wholesale companies. These wholesalers had sales of \$13.5 billion in 1979. Assuming they supply approximately half the needs of their food store customers and that these wholesale transactions are marked up to retail, they probably represent about \$34 billion of retail sales in the independent market, or about one-third. While these wholesalers do not operate a large number of food stores, they are an important part of the retail food distribution operating system through their impact on independent food store operators, who are their customers.

Sales on an historical or reported basis have increased from \$4.1 billion to \$13.5 billion. This increase, like that for the 20 retailers discussed above, is significant when compared to the total food distribution industry's rather flat performance during the 1970's. However, it should be noted that much of this growth has come from acquisitions.

Exhibit 7 shows that margin dollars have been increasing, but gross margin percent to sales has decreased from 1974 to 1977 and then increased dramatically in 1978 and 1979. Operating expenses have performed about the same--increased in dollars, decreased as a percent to sales up to 1977 and then increased in 1978 and 1979. Net income has been a rather consistent .8% to .9% of sales except in 1977 and reached a high of .98% in 1979. Interest expense as a percent to sales has increased significantly from .12% of sales in 1970 to .34% of sales in 1979. Notably, these companies performed well in the wage/price control period of 1973-1974.

Gross margins as reported have also been reduced as more of the companies included in the analysis adopted the LIFO method of valuing inventories. In 1974, the first three wholesalers in the analysis adopted LIFO, whereas in 1979, six of the ten companies were on LIFO. If the gross margins were calculated on a strict FIFO basis, they would have increased as follows:

orted On	-	Increase (Decrease		as Adjusted
(in mil				
(lions)			
13 164 540 571 749 340	373 413 464 540 691 746 841 920	\$ - - - 20 (3) 1 5	9.09% 9.07 8.89 8.72 9.13 8.78 8.70 7.74 8.53	9.09% 9.07 8.89 8.72 9.41 8.75 8.70 7.79 8.80
	373 \$ +13 +64 540 571 749 340 915	+13	\$ 373 \$ 373 \$ - \$ 13 \$ 413	\$ 373 \$ 373 \$ - 9.09% \$ 13

Net income has been a rather consistent .8% to .9% of sales except in 1977 and reached a high of .98% in 1979. These companies also performed well in the wage/price control period of 1973-1974. If the net income were adjusted based on valuing inventories at FIFO, it would have increased as following:

<u>Year</u>	Net Income as Reported (in	Net Income if all Com- panies On FIFO millions)	Increase (Decrease)	Percent as Reported	of Sales as Adjusted
1970 1971 1972 1973 1974 1975 1976 1977 1978	\$ 35 41 45 54 68 72 87 76 117	\$ 35 41 45 54 78 71 87 79 133 141	\$ - - - 10 (1) - 3 16 9	.86% .91 .86 .86 .92 .84 .90 .64	.86% .91 .86 .86 1.06 .83 .90 .66 1.10

COMPARATIVE OPERATING RESULTS -- FOOD WHOLESALERS

AS REPORTED

(in millions)

Income Statement		1970		1971	-	972		1972 1973		1974		1974 1975 1976 1977		9261		1977	٦,	1978		1979
Sales	**	,102.2	\$ 7	\$4,102.2 \$4,557.7	\$5,	212.5	9\$,195.6	\$7,	\$5,212.5 \$6,195.6 \$7,345.3		,528.5	6\$	6.659.	\$1]	\$8,528.5 \$9,659.9 \$11,818.9		\$12,076.2	\$13	\$13,530.1
Gross Margin % of Sales	9	372.9 9.09#	9}	372.9 \$ 413.2 9.09% 9.07%	⇔	463.5 8.89%	↔	540.1 8.72%	€9-	670.8 9.13%	↔	748.9	↔	840.1	↔	463.5 \$ 540.1 \$ 670.8 \$ 748.9 \$ 840.1 \$ 914.8 \$ 1,030.3 \$ 1,156.1 8.89% 8.72% 9.13% 8.78% 8.70% 7.74% 8.53% 8.54%	. 	1,030.3	↔	1,156.1
Operating Expenses % of Sales	⇔	336.2 8.19%		\$ 370.1 8.12%	49 -	417.6 8.01%	€	474.7	₩	587.0 7.99%	⇔	417.6 \$ 474.7 \$ 587.0 \$ 662.6 \$ 731.5 \$ 8.01% 7.66% 7.99% 7.77% 7.57%	⇔	731.5		806.8	⇔	876.9 \$	⇔	977.9
Interest Expense % of Sales	₩	5.0	↔	5.9 881.	↔	7.4	s>	11.6	₩	16.3	↔	7.4 \$ 11.6 \$ 16.3 \$ 14.7 \$ 21.8 \$.14% .19% .22% .17% .23%	⇔	21.8	↔	33.2 \$	⇔	36.5 \$	⇔	.348
Net Income % of Sales	⇔	35.4	⇔	41.4	⇔	44.7	⇔	53.5 .86%	€9-	67.7	↔	44.7 \$ 53.5 \$ 67.7 \$ 71.9 \$ 86.8 \$.86% .86% .92% .84% .90%	⇔	86.8 808.	⇔	75.7 \$	⇔	\$ 6.911 .97%	₩	132.4

Source: Annual reports of 10 selected large 'ood wholesalers

An analysis of the cash flow statements of these companies (Exhibit 8) shows that they have been able to generate some funds from internal operations in all years except 1977 and 1979. The dividend payout ratio of these 10 companies was 32%.

Property additions exceed depreciation provided by \$347 million--\$801 million of additions versus \$454 million of depreciation provided. Adjusting depreciation for inflation would provide an additional \$150 million, and the balance of the excess can be presumed to be for expansion.

The aggregate balance sheet shown on Exhibit 9 indicates that inventories increased \$716 million, of which \$445 million was financed by an increase in accounts payable. Accounts receivable, which represents a significant investment for a wholesaler, increased \$217 million. Fixed assets increased \$432 million. These increases were financed by an increase of \$211 million in long-term debt and \$559 million in equity.

Adjustments for Inflation

Sales in constant dollars have increased from 4.1 billion to 7.2 billion; however, they have showed a slight decline over the last three years. The graph below shows the effect of converting sales for the period to constant dollars using 1970 as the base year, the increase in sales due to year-to-year inflation and historical sales.

SALES OF FOOD WHOLESALERS

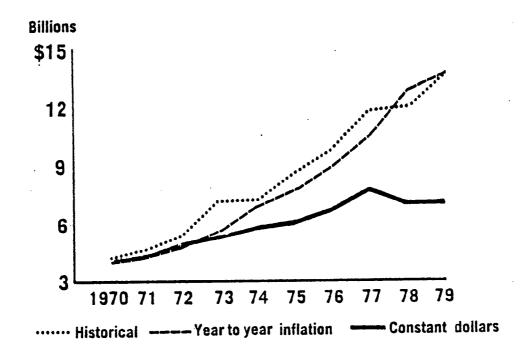


Exhibit 10 recasts the historical results of operations for the adjustments for inflation applicable to inventories and depreciation as specified by the new accounting rules. This has the effect of reducing gross margin percentage between .2% to .6% of sales. Expenses as adjusted for inflation were increased about .2% of sales on average.

These adjustments had the effect of decreasing net income between .3% and .9% of sales. Interestingly, net income for 1977 and 1979 drops dramatically almost to break-even.

COMPARATIVE FUNDS STATEMENTS -- FOOD WHOLESALERS

(in millions)

.81	453,577	12,017	801,165	232,222	46,743	8,059	84,379	211,240	(22,058)	34,213	307,774
Total	\$ 726	\$1,192,438	88	23,	46,743	\$1,108,059	80 i	\$ 21	(2)	ω.	\$ 307,774
1979	\$132,440 86,584	\$223,012	\$194,490	37,856	13,390	\$253,818	\$(30,806)	\$ 58,305	(1,804)	1,439	\$ 27,134
1978	\$116,918 77,926	\$194,801	\$126,849	35,338	9,771	\$182,215	\$ 12,586	\$ 38,185	(13,814)	4,540	\$ 41,497 =======
1977	\$ 75,718 64,800	\$139,214	\$102,963	31,811	2,608	\$146,972	\$ (7,758)	\$ 22,859	(6,440)	2,601	\$ 11,262
1976	\$ 86,833 46,081	\$135,795	\$ 77,652	27,754	(2,583)	\$102,823	\$ 32,972	\$ 6,238	1	7,088	\$ 46,298
1975	\$ 71,902 40,606	\$115,197	\$ 58,084	23,722	16,394	\$ 98,200	\$ 16,997	\$ 4,361	1	21,395	\$ 42,753
1974	\$ 67,710	\$105,410	\$ 60,208	19,315	445	\$ 79,965	\$ 25,445	\$ 17,673	ŧ	258	\$ 43,376
1973	\$53,545 31,592	\$85,845	\$59,322	14,860	820	\$75,002	\$10,843	\$15,930	ŧ	(2,344)	\$24,429
1972	\$44,723	\$71,807	\$49,869	14,390	4,537	\$68,796	\$ 3,011	\$10,744	1	(2,638)	\$11,117
1971	\$41,648	409 \$65,243	\$40,907	14,357		\$56,839	\$ 8,404	\$23,342	1	1,644	\$33,390
1970	\$35,407	172 \$56,114	\$30,821	12,819	(211)	\$43,429	\$12,685	\$13,603	1	230	\$26,518
	Funds provided from operations Net income Depreciation	Deferred income taxes Total funds provided from operations	Property additions, net of assets sold	Cash dividends	Other, net	Total funds required	Excess (deficiency) of funds provided over funds required (Excess applied to)	Increase (decrease) in long-term debt, net	Increase (decrease) in capital lease obligations	Sale of stock, net of shares repurchased	Increase (decrease) in working capital

Source: Annual reports of 10 selected large food wholesalers

Note: Due to acquisitions and accounting changes, some ten-year totals on this statement may not agree with changes on Exhibit 9.

COMPARATIVE BALANCE SHEETS--FOOD WHOLESALERS

(in millions)

•	1969	1979	Adjustment for LIFO	1979 as <u>Adjusted</u>	Increase (Decrease)
Cash	\$ 31.1	\$ 106.1	\$ -	\$ 106.1	\$ 75.0
Receivables	90.5	307.8	-	307.8	217.3
Inventory	203.4	847.1	72.3	919.4	716.0
Prepaids	13.5	36.5	-	36.5	23.0
Total current assets	\$338.5	\$1,297.5	\$72.3	\$1,369.8	\$1,031.3
Short-term debt and current maturities	\$ 19.2	\$ 91.5	\$ -	\$ 91.5	\$ 72.3
Accounts payable	125.6	570.1	-	570.1	444.5
Accruals	28.7	73.3	-	73.3	44.6
Other	1.1	96.6	-	96.6	95.5
Total current liabilities	\$174.6	\$ 831.5	\$ - 	\$ 831.5	\$ 656.9
Net working capital	\$163.9	\$ 466.0	\$72.3	\$ 538.3	\$ 374.4
Fixed assets, net	\$ 98.9	\$ 530.5	\$ -	\$ 530.5	\$ 431.6
Capital leases	-	154.1	-	154.1	154.1
Other	17.1	106.3	-	106.3	89.2
Total long-term assets	\$116.0	\$ 790.9	\$ - 	\$ 790.9	\$ 674.9
Long-term debt	\$ 49.9	\$ 261.1	\$ -	\$ 261.1	\$ 211.2
Deferred taxes	1.9	9.8	36.1	45.9	44.0
Capital lease obligations	-	181.5	-	181.5	181.5
Other	3.0	16.3	-	16.3	13.3
Total long-term liabilities	\$ 54.8	\$ 468.7	\$36.1	\$ 504.8	\$ 450.0
Equity		\$ 788.2 ======		\$ 824.4 ======	

Source: Annual meports of 10 selected large food wholesalers

COMPARATIVE OPERATING RESULTS

IN INFLATION-ADJUSTED DOLLARS -- FOOD WHOLESALERS

(in millions)

1979	\$ 1,066.0 7.88%	\$ 1,009.3 7.46%	.348	11.0	83.2
\$13	₩	↔	69	⇔	₩
1978	998.6	902.8	36.5	59.2	7.97
\$12	↔	6	€	↔	(9
1977	878.2	829.9	33.2	16.0	24.9
\$11	⇔	s>	⇔	↔	⇔
1976	813.5	748.7	21.8	42.9	13.7 \$
6,6	∽	⇔	₩	⇔	₩.
1975	\$ 711.4 8.34%	\$ 678.1 7.95%	14.7	19.0	17.7 \$
89 80	₩		₩	⇔	↔
1974	638.9	599.3 8.16%	16.3	23.6	27.8
8.4	₩	₩	\$	••	₩.
1973	508.8 8.21%	482.5	11.6	14.4	16.4
	↔	€3-	↔	\$	₩
1972	452.6	423.8 8.13%	7.4	27.6	4.5
⇔	↔	↔	↔	⇔	₩
1970 1971 \$4,102.2 \$4,557.7	\$ 404.6 8.87%	375.4	5.9	24.2	3.4
**		↔	⇔	⇔	↔
1970 1971 \$4,102.2 \$4,557	360.6 8.79#	341.0	5.0	18.4	4.0
	⇔	↔	€ >	€	€
Income Statement Sales	Gross Margin % to Sales	Operating Expenses % to Sales	Interest Expense % to Sales	Net Income % to Sales	Purchasing power gain on net liabilities held

Source: Annual reports of 10 selected large food wholesalers

Exhibit 11 is a comparative funds statement prepared with the inflation-adjusted net income. The effect is to reduce funds generated internally from \$84 million to a shortfall of \$236 million. The long-term borrowings of \$211 million and capital stock sales of \$34 million during the period cover the \$236 million funds shortfall.

Purchasing Power Gain on Debt

An additional inflation adjustment to be considered is the purchasing power gain resulting from the companies' net monetary position of debt in excess of cash and receivables. The new accounting rules require that this purchasing power gain (or loss) be reported separately from inflation-adjusted net income.

The purchasing power gain on the net monetary debt position of these companies is shown on Exhibit 10 below net income.

Net monetary debt includes long-term debt and capital lease obligations. However, these companies have a significant number of operating leases which are not recorded on the balance sheet and on which a purchasing power gain is accruing.

As the companies have increased their debt to finance the additional dollars needed for inventory, receivables and equipment replacement, the purchasing power gain associated with holding a net liability position increases. Also, the larger the annual rate of inflation, the bigger is the purchasing power gain.

COMPARATIVE FUNDS STATEMENTS --

INFLATION ADJUSTED -- FOOD WHOLESALERS

(in millions)

ı	.0 .7	c ~ ·	6 1	5 (יס ת	3	ı (5 .)	<u> </u>		0	8)	ω 1	5)
Total	256,576	12,017	871,809	801,165	27,929	46,743	\$1,108,059	\$ (236,250)		211,240	(22,058	34,213	(12,855
-	€	; !	⇔ i	9			\$1	⇔ !		₩.	_	1	6/3 − 11
1979	\$ 11,056	3,988	\$ 133,006	\$ 194,490	8,082	13,390	\$ 253,818	\$(120,812)		\$ 58,305	(1,804)	1,439	\$ (62,872) ========
1978	\$ 59,229	103,913	\$163,099	\$126,849	10,257 35,338	9,771	\$182,215	\$(19,116)		\$ 38,185	(6,440) (13,814)	4,540	\$ 9,795
1977	\$ 16,003	87,937 (1,304)	\$102,636	\$102,963	9,590	2,608	\$146,972	\$(44,336)		\$ 22,859 \$ 38,185	(6,440)	2,601	\$(25,316)
1974 1975 1976	* 42,920	63,362	\$109,163	\$ 77,652	27.754	(2,583)	\$102,823	\$ 6,340		\$ 6,238	ı	7,088	\$ 19,666
1975	\$ 19,016	56,045	\$ 77,750	\$ 58,084	23.722	16,394	\$ 98,200	\$(3,634) \$(7,881) \$(20,413) \$(6,365) \$(20,450) \$ 6,340		15,930 \$17,673 \$ 4,361	ı	21,395	\$ 5,306
1974	\$23,580	48,012 2,008	\$73,600	\$60,208	19.315	745	\$79,965	\$(6,365)		\$17,673	ŧ	258	\$11,566
1973	\$ 14,462	39,419	4	\$ 59,322	- 2860	820	\$ 75,002	\$(20,413)		\$ 15,930	ı	(2,344)	φ <u>ii</u>
1972	\$27,636	32,770	\$60,915	\$49,869	77 390	4,537	\$68,796	\$(7,881)		\$10,744	ı	(2,638)	\$ 225
1971	\$24,247	28,549	\$53,205	\$40,907	7 259	1,575	\$56,839	\$(3,634)		\$23,342	I	1,644	\$21,352
1970	\$18,427	25,247	\$43,846	\$30,821	י ה ה	(211)	\$43,429	\$ 417		\$13,603	1	230	\$14,250
	Funds provided from operations	Depreciation Deferred income taxes	Total funds provided from operations	Property additions, net	Capital lease additions	casn dividends Other, net	Total funds required	Excess (deficiency) of funds provided over funds required	(Excess applied to) deficiency covered by-	Increase (decrease) in long-term debt, net	(Decrease) in capital lease obligations	Sale of stock, net of shares repurchased	Increase (decrease) in working capital

Source: Annual reports of 10 selected large food wholesalers

The portion of the purchasing power gain that results from long-term debt and capital lease obligations is viewed by some accountants as an adjustment of the interest. One economic theory states that the real interest on debt is about 1% to 3%, and any additional amount is due to inflation. The following schedule relates that portion of the calculated gain on purchasing power arising from long-term debt and capital lease obligations to the interest expense.

Analysis of Interest Expense

Year	Historical Interest	Gain on Holding Net Liabilities	Net Interest Cost
1970 1971 1972 1973 1974 1975 1976 1977 1978	\$ 5.0 5.9 7.4 11.6 16.3 14.7 21.8 33.2 36.5 45.7	\$ (2.9) (2.3) (3.0) (8.6) (13.8) (8.9) (6.5) (14.5) (31.6) (51.4)	\$ 2.1 3.6 4.4 3.0 2.5 5.8 15.3 18.7 4.9 (5.7)
	<u>\$198.1</u>	<u>\$(143.5)</u>	\$ 54.6

The schedule indicates that the gain on purchasing power actually diminishes interest expense. Most of the excess came from purchasing power gains that occurred in 1978 and 1979.

Inflation Effects on

Retained Capital

Exhibit 12 is a reconciliation of reported net income to inflation-adjusted net income. This exhibit shows that, on an historical basis, the effective tax rate vastly exceeded the reported range of 44.9% to 52.1%. Instead, the effective tax rate ranged from 59.0% to 90.7%. By adopting LIFO, these companies could have obtained the approximate tax benefits applicable to the inflation adjustment for inventory. However, during this period, not all companies have adopted LIFO, and many have adopted it late in the period as shown below:

1974 - 3

1978 - 2

1979 - 1

Four companies have not adopted LIFO. Additional tax relief is also needed to compensate for the effect of inflation on the additional dollars required to replace property and equipment in periods of inflation.

The dividend payout ratio after these inflation adjustments was an effective average rate for the period of 90%, or a range of 52.1% to 342%, as compared to the 32% based on reported results. The 342% was reported in 1979.

RECONCILIATION OF NET INCOME TO INFLATION-ADJUSTED

NET INCOME -- FOOD WHOLESALERS

(in millions)

	1970	1971	1972	1970 1971 1972 1973	1974	1975	1974 1975 1976	1977	1978	1979	Total
99	370,765	\$70,765 \$79,570	\$84,461	\$103,320	\$84,461 \$103,320 \$127,893 \$135,482 \$160,957	\$135,482	\$160,957	\$149,551	\$215,302	\$240,252	\$1,367,553
	12,222	8,553	10,892	31,256	31,810	37,447	26,633	36,578	31,702	900'06	317,099
	4,712	5,363	6,195	7,827	12,320	15,439	17,280	23,137	25,987	31,378	149,638
1 69	\$53,831	\$65,654	\$67,374	\$ 64,237	\$ 83,763	\$ 82,596	\$117,044	\$ 89,836	\$157,613	\$118,868	\$ 900,816
•	35,361	38,143	39,738	49,775	60,183	63,580	74,124	73,883	98,384	107,812	640,983
€	\$18,470	\$18,470 \$27,511	\$27,636	\$ 14,462	\$ 23,580	\$ 19,016	\$ 42,920	\$ 15,953	\$ 59,229	\$ 11,056	\$ 259,833
\Box	(5,819)	(14,357)	(14,390)	(14,860)	(12,819) (14,357) (14,390) (14,860) (19,315) (23,722) (27,754) (31,811) (35,338) (37,856)	(23,722)	(27,754)	(118,11)	(35,338)	(37,856)	(232,222)
i ea-⊪	\$ 5,651	\$13,154	\$13,246	\$ (398)	\$ (398) \$ 4,265	\$ (4,706) \$ 15,166	\$ 15,166	\$(15,858) \$ 23,891	\$ 23,891	\$(26,800) \$	\$ 27,611
	50.0%	47.94	70.64	48.2%	47.1%	46.9%	46.1%	\$7.67	45.78	44.9%	47.18
	65.8%	58.1%	59.0%	77.5%	71.9%	77.0%	63.3%	82.2%	62.4%	90.7%	71.5%
	36.3%	37.64	32,2%	27.8	28.5%	33.0%	32.0%	42.0%	30.3%	28.6%	32.1%
	89.69	59.2%	52.0%	103.1%	81.9%	124.7%	64.7%	198.8%	59.7%	342.4%	90.5%

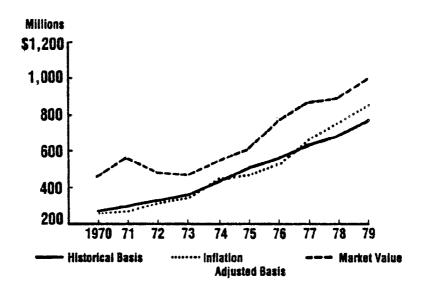
Source: Annual reports of 10 selected large food wholesalers

Return on

Invested Capital

The same method used to calculate return on invested capital for food retailers has been used for food wholesalers. The following graph shows the relationship of historical equity, inflation-adjusted equity and market value of equity shares.

FOOD WHOLESALERS SHAREHOLDERS EQUITY

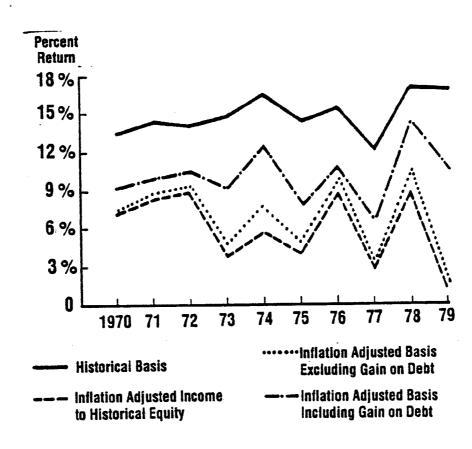


The above analysis indicates that the market value is generally above both the inflation-adjusted equity and the historical equity for these companies.

Shareholders' Equity

The following table shows net income as a return on shareholders' equity, using the various concepts discussed above:

FOOD WHOLESALER RETURN ON EQUITY



The net income return on equity is highest on an historical basis. However, returns on a complete inflation-adjusted basis do not decline as much as might be expected because of the significance of purchasing power gains on debt, particularly in recent years.

Ratio of

Stock Market Price

to Earnings

The stock market has reacted to the reported earnings of wholesalers and market prices have adjusted, as shown by the following table:

Ratio of Stock Market Price To

	Historical Net Income	Inflation- adjusted net income	Inflation-adjusted net income and purchasing power gain
1970	16.4	31.4	19.1
1971	14.9	25.5	20.1
1972	11.6	20.6	14.2
1973	8.3	30.9	14.5
1974	7.8	22.3	10.3
1975	8.3	31.3	16.2
1976	8.7	17.6	13.3
1977	11.2	52.9	20.7
1978	7.4	14.5	8.2
1979	7.5	90.1	10.6

The price/earnings ratio based on historical earnings has decreased significantly since 1970, but has held steady at about an 8+ to 1 ratio, except for 1977. Based on the inflation-adjusted net income, the multiple is much higher and somewhat more volatile in

recent years, with a large jump in 1977 and 1979. The inflation-adjusted amounts including purchasing power gains are significantly in excess of historical earnings, mostly because of significant purchasing power gains on debt held.

The following table shows the dividend yields to common stock values for these companies:

Dividend	Yield	to	Stock	Market	Value

1970	2.58%
1971	2.32
. 1972	2.70
1973	3.39
1974	3.66
1975	3.98
1976	3.67
1977	3.76
1978	4.10
1979	3.79

Yields were low early in the period and have increased steadily in recent years with a slight dip in 1979. A large share of earnings have been reinvested in the business to provide working capital and to finance expansion.

Debt/Equity

Ratios

The ratio of debt to equity has been affected by many circumstances during the ten-year period reviewed. Because of inflation, much additional debt has been incurred by the companies to finance inventory and receivables and to replace equipment. Equity capital markets have not been attractive during the period because of low price/earnings ratios.

In 1977, changes in financial reporting rules required that capital leases be recorded on the face of the balance sheet, thereby increasing the recorded debt of these companies. While this accounting change did not change the economic facts, it served to highlight, particularly to the untrained reader of financial statements, the debt position of these companies. However, there remains a significant amount of lease debt not recorded on the balance sheet which is classified as operating leases.

Since shareholders' equity on an historical basis is generally understated in terms of current dollars, the ratio of debt to equity is also adversely affected.

The following tables have been prepared to illustrate the effect of changing capital ratios both on a historical basis and considering the effects of inflation:

<u>Historical Basis</u>

Elements of Capital	<u>1970</u>	1971	1972	1973	1974	1975	1976	1977	1978	<u>1979</u>
Long-term										
debt	18%	23%	22%	23%	24%	21%	20%	21%	22%	25%
Equity	82	77	78	<u>77</u>	<u>76</u>	<u>79</u>	80	79	78	_75_
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

On a historical basis, the debt/equity ratio of these companies has deteriorated from over 4 to 1 to 3 to 1. This is somewhat misleading because it does not consider the effect of either inflation or capital leases. However, these wholesalers have generally borrowed heavily to finance expansion and working needs.

Inflation-adjusted Basis

Elements of Capital	<u>1970</u>	<u>1971</u>	1972	<u>1973</u>	1974	1975	1976	1977	1978	<u>1979</u>
Long-term										
debt	18%	23%	23%	25%	23%	22%	21%	21%	21%	23%
Equity	82	77	<u>77</u>	75	77	78_	79	79	79	_77
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
										

Differences between the historical and the inflation-adjusted bases are not significant except in the latter years, when the inflation-adjusted basis is slightly better than the historical basis. This occurs because debt -- a fixed obligation -- would not be adjusted for inflation because it is a fixed obligation. During an inflationary period, therefore, the significant purchasing power gains resulting from holding a net monetary debt position transfer to shareholders' equity and help the debt-to-equity ratio.

Debt/Equity Ratio

Including

Capital Leases

Since 1977, changes in reporting rules have required that certain leases be recorded as debt on financial statements. Financial reports now reflect more leverage. Prior to 1977, the SEC required supplemental disclosure of the impact of leases under different criteria, so no comparable data on capital lease obligations is publicly available.

The following table shows the effect of capital lease, obligations and deferred taxes. Capital leases have been estimated for 1970 to facilitate a reasonable comparison.

Hictorical	D 2010
Historical	Dasis

Total	100.0	100.0	100.0	100.0
Equity	58.5	63.8	64.1	63.5
Deferred taxes	. 6	.5	.3	. 8
Capital leases	28.0	18.6	17.5	14.6
Long-term debt	12.9	17.1	18.1	21.0
	<u>1970</u>	1977	1978	<u>1979</u>

Long-term debt of these companies has been increasing as has been discussed. Obligations under capital leases have been steadily decreasing since 1977, when the companies were initially required to record these transactions on the balance sheet. This is because payments have exceeded additions under capital leases.

Inflation Adjusted Basis

Total	100.0	100.0	100.0	100.0
Equity	62.9	64.5	65.9	<u>65.6</u>
Deferred taxes	. 6	.5	. 3	. 7
Capital leases	22.6	18.4	16.6	13.8
Long-term debt	13.9	16.9	17.2	19.9
	<u>1970</u>	<u>1977</u>	1978	1979

The above table shows the effect of inflation on the full capital structure of these companies. Generally, equity increases by several percentage points and debt decreases by a like amount because of the purchasing power gain on debt.

Return on

Total Capital

Another measure of performance is the relationship of earnings to total capital -- both debt and equity. In this calculation, the after-tax cost of the interest on the debt capital is added to earnings. Another way of looking at this calculation is that it represents the return on the net assets invested. Net assets is defined as all assets less current and long-term liabilities, but not formal debt capital.

The following table shows the return of historical net income and inflation-adjusted net income to total capital invested. Both net incomes have been increased by the net after-tax cost of interest on long-term debt and capitalized leases

Historical Basis

		Inflation-	Inflation-adjusted basi:
	Historical	adjusted	and purchasing power gain
	net Income	net income	inflation adjusted equi
1970	11.9	5.8	8.2
1971	11.8	6.4	8.5
1972	11.7	6.7	9.1
1973	12.3	3.0	8.6
1974	13.8	4.3	12.0
1975	12.3	2.9	8.2
1976	13.7	6.0	11.4
1977	9.5	1.6	6.6
1978	12.6	5.5	12.8
1979	12.6	. 9	11.0

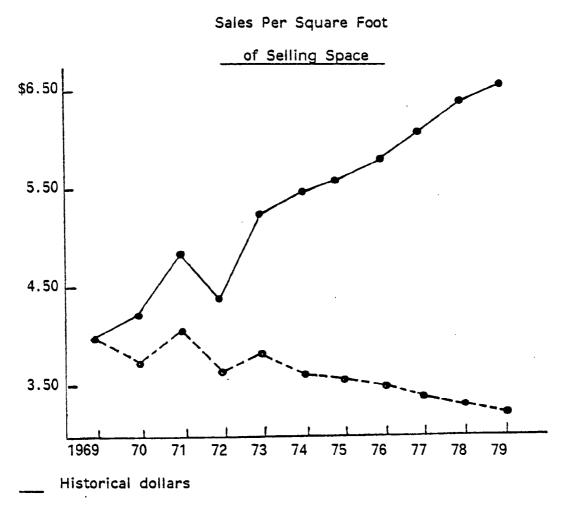
The above schedule indicates that the historical return is reasonably consistent at about 12% except for 1977. The inflation-adjusted return is much less when the purchasing power gain is not considered. However, when that gain is considered (far column

to the right), the return averages about 9%. The last two years -- 1978 and 1979 -- are higher because of significant purchasing power gains from holding large net debt positions.

PRODUCTIVITY TRENDS IN THE INDUSTRY

As inflation and other factors push up operating costs and force pressure on margins, one method of combating that problem would be to increase productivity. An analysis of various indicators in the industry, however, reveals that significant productivity increases have not been achieved.

The table shown below of sales per square foot of selling space is a good indicator of the productivity of the store facilities employed in the marketplace.



--- Constant 1969 dollars

Source: The Food Marketing Industry Speaks

As the table illustrates, on a historical or unadjusted basis, sales per square foot have increased. However on an inflation-adjusted basis, sales per square foot have been declining in the industry. Part of this may be due to the stores carrying more general merchandise, which is higher margin and slower moving. However, the effect is still to require a greater investment to support a dollar of sales.

Inventory Required

for Each Sales Dollar

The next table shows an analysis of gross margin, inventory turnover, and sales per dollar in inventory.

Gross Margin and Inventory Turnover

	% To Sales	Stock <u>Turns</u>	Sales Per Dollar of Inventory Investment
1970	21.31%	12.42	15.78
1971	21.39	12.52	15.93
1972	21.53	12.51	15.94
1973	20.93	12.73	16.10
1974	10.90	12.74	16.11
1975	21.15	12.61	15.99
1976	21.22	12.76	16.20
1977	21.35	12.59	16.01
1978	21.74	12.43	15.88
1979	21.93	13.47	17.25

Source: Cornell University's "Operating Results of Food Chains"

Gross margins declined from 1970 and then increased steadily since 1974. Stock turns and sales per dollar of inventory investment were stable until 1979 when a significant increase occurred. Some of the 1979 effect may be due to valuing inventories on LIFO. This reduces the value of inventories because it adjusts for inflation; however, cost of sales is higher because it is at current dollars. Since turnover is calculated by dividing cost of sales by inventory, the result would be to increase turnover results as companies value inventory on LIFO.

Payroll Cost and

Labor Productivity

In the next analysis payroll data and information on labor productivity are adjusted for inflation.

Payroll Data and Labor Productivity

	Sales/Ma	n-Hour Adjusted to 1969 Dollars	Average Ho	urly Wage Adjusted to 1969 Dollars	Payroll and Fringe Benefits Percent to Sales(2)
1969 1970 1971 1972 1973 1974 1975 1976 1977	\$34.39 36.37 38.66 40.24 42.63 47.70 54.06 57.40 59.62 65.71 68.56	\$34.39 34.33 34.99 35.26 35.17 35.46 36.96 36.97 36.92 34.63	\$2.77 2.87 3.15 3.29 3.43 3.69 4.25 4.53 4.91 5.36 5.92	\$2.77 2.71 2.85 2.88 2.83 2.74 2.89 2.92 2.97 3.01 2.99	10.53% 10.65 11.09 11.38 11.57 11.59 11.71 11.68 12.03 12.34 12.23
10 Yr. Average Increas		0.09%	10.6%	1.03%	1.5%

Sources:

⁽¹⁾ Food Marketing Institute
(2) Cornell University's "Operating Results of Food Chains"

While sales per man-hour have increased significantly on an unadjusted basis, after adjusting for inflation the increase is only an average of 0.09% per year, which is significantly less than the real increase in wage rates (1.03%) and less than the increase of payroll and fringe costs as a percent to sales (1.5%).

Payroll and fringe benefit costs as a percent to sales have increased significantly. In fact, since wages have basically increased with sales, most of the increase is in fringe benefits. This increase reflects government-induced increases in payroll-related taxes and employee-induced increases in pensions, vacations and other benefits. Social Security tax per hour based on the above historical average hourly wage has increased 156% over the ten years from \$.138/hour in 1970 to \$.354/hour in 1979.

PROJECTIONS OF FUTURE TRENDS BASED UPON RECENT HISTORICAL RESULTS

Projected future operating results for the industry can be made from the analysis of the operating results and industry trends during the decade of the 1970's. Following are projections for a five-year period. These are some of the trends on which projections are based:

- Dollar sales increases will reflect inflation, rather than tonnage increases.
- Gross margins will continue to increase as a percentage of sales.
- Operating expenses will increase. Labor costs and utilities have been increasing at a rate faster than inflation. Rents and depreciation have also been increasing, but they have lagged behind inflation because of the effect of long-term leases and the depreciation of purchases of equipment over 8 to 12 years. Increases in other operating expenses have been approximately equal to inflation.
- Productivity will remain flat or decrease.
- The amount of capital required to replace equipment will continue to increase. Since 80% of companies are now on LIFO, less funds are needed to finance inventory growth than if they had remained on FIFO. The projections take this change into account.

- interest expense will increase as the size of debt increases and interest rates rise.
- net income after taxes is projected to remain at approximately 1% of sales.

A basic set of projections has been prepared to reflect the trends discussed above. Various "what if" questions or changes were then made to reflect potential alternative results.

Following is a discussion of the details of the assumptions used to prepare projections in accordance with these trends:

Inflation

Rate

An inflation rate of 10% has been used for the five-year projection. The actual inflation rate in the CPI for the period 1975-1979 is 41%, for an average of 8% per year. However, the rate for 1978 and 1979 averaged 11.1%. The BLS food index for the same period was 30%, for an average of 6% per year.

Sales

Sales of the food retailers included in the analysis were relatively flat for the period 1975-1979. On a constant dollar basis, the increase was \$32.1 billion to \$34.3 billion, a 6.8% increase, or an average of just over 1% per year. In 1979, constant dollar sales decreased from \$34.7 billion to \$34.3 billion. Based on these results, the five-year projection allows for a 10% sales increase to reflect inflation pressure only.

These projections include no allowances for increases due to real growth or growth of individual companies by acquisition.

Gross Margin

Gross margins for the five-year projection were determined by freezing net income after taxes at 1% of sales, and adding projected operating expenses and interest expense. As a result gross margins increased during the period, which is consistent with the ten-year historical trend.

Operating

Expenses .

Operating expenses are projected to increase at the assumed rate of inflation of 10%, except for the following:

- labor costs
- utility costs
- depreciation
- interest expense

Labor Costs

Fringe benefits associated with payroll costs include such expenses as Social Security taxes, health and welfare contributions, vacation and holiday pay. These costs have generally been increasing faster than the general rate of inflation, because of government-mandated rate increases and a trend toward more liberal employee benefits. The food distribution business is labor intensive, so these increases will significantly impact operating results.

Scheduled increases in Social Security taxes for the next several years would not appear to cause increases in fringe costs in excess of a 10% inflation rate. However, since productivity in the industry has been static, and since the data from the 1970's indicate that payroll and fringes have taken an increasing percentage of sales, projections are based upon annual increases in payroll and fringe costs of .15% of sales above the inflation rates.

Rental

Costs

Increases in rental costs generally lag behind other operating expenses during an inflationary period because rental payments for store facilities are fixed under long-term lease agreements. Because of the difficulty of obtaining specific data on rental costs, these projections assume that the increases in rental costs will be equal to inflation.

Utility

Costs

Following is an analysis of utility costs for the period 1970-1979:

			Utility cost
	Utility cost	Utility cost	per square foot,
	as a	per	adjusted for
	% to sales	square foot	<u>inflation</u>
1970	.71	\$1.54	\$1.45
1971	.74	1.75	1.58
1972	.78	1.76	1.54
1973	.79	1.93	1.59
1974	.82	2.17	1.61
1975	. 94	2.61	1.78
1976	1.05	3.00	1.93
1977	1.02	3.08	1.86
1978	1.08	3.46	1.94
1979	1.04	3.51	1.77

Source: "Food Marketing Industry Speaks" and Cornell report data.

In this analysis, utility costs increased at a pace in excess of inflation. There has been a notable slowing of the pace of utility cost increases during the past two years. Nevertheless, utility costs have been projected to increase at a rate of 12.5% rather than 10%, the projected inflation rate.

Depreciation

Depreciation has been projected based upon adding estimated additions to the property base and calculating depreciation, which means it will lag inflation. However, an inflation-adjusted income statement has also been prepared which estimates the effects of inflation on depreciation.

Interest Expense

Interest expense has been increasing as a percent of sales because borrowing has increased and rates have gone up. Increased funds will be needed to replace existing equipment and finance inventory inflation. It is also assumed that long-term debt being repaid is at lesser rates than the refinancing being done at current rates.

Operating Income

Projections

The five-year projection on Exhibit 13 for food retailers indicates that to maintain profitability, gross margins would have to increase approximately 1% of sales over the five-year period. If this could not be accomplished, based on the anticipated costs of doing business, the companies in the projection would not be able to maintain a profit of 1% of sales. Operating expenses increase from 19.73% to 20.67% based on the assumptions previously stated.

Interest expenses continue to increase significantly from .49% of sales to .57% of sales based on the need for additional debt at current rates.

One of the problems with the assumption that income should be 1% of sales and that the increases in costs should be covered by gross margin, is that competition may not allow the operators of these food stores to raise prices enough to obtain the gross margin necessary to provide a net of 1% of sales. This point should be kept in mind by readers of this report.

COMPARATIVE PROJECTED OPERATING RESULTS --

FOOD RETAILERS

(in billions)

	1980	1981	1982	1983	1984
Sales	\$70.4	\$77.4	\$85.2	\$93.7	\$103.1
Gross Margin	\$15.5	\$17.2	\$19.2	\$21.4	\$ 23.8
% of Sales	22.07%	22.31%	22.57%	22.83%	23.09%
Operating Expenses % of Sales	\$13.8	\$15.4	\$17.2	\$19.1	\$ 21.3
	19.73%	19.95%	20.19%	20.43%	20.67%
Interest Expense % of Sales	\$.35	\$.39	\$.45	\$.51	\$.58
	.49%	.51%	.52%	.54%	.57%
Net Income	\$.70	\$.78	\$.85	\$.94	\$ 1.03
% of Sales	1.0%	1.0%	1.0%	1.0%	1.0%

Inflation distorts historical operating results. Recognizing this problem, the more sophisticated operators will adjust plans for inflation and calculate the level of margin necessary to achieve their projected return in real purchasing power dollars. However, other operators may fail to account fully for the effects of inflation on their business, or they may simply decide to plan for a lower rate of return. Competition may then dictate that the projections here will be impossible to achieve. If that happens, then operating results would fall below those projected in this report.

The level of interest expense will also continue to increase as inflation forces operators to borrow additional funds to finance the same level of inventory and to maintain or replace equipment. As more companies have converted to LIFO, the need to borrow to finance inventories has eased considerably. In other words, as purchasing power is eroded through inflation, additional dollars are required to support capital investments. Since the equity market has not been a generally satisfactory source of capital for these operators, additional borrowings have been made, and the percentage of interest expense as related to sales (and perhaps, more importantly, as related to pretax income) has increased dramatically in the decade of the 1970's. Moreover, it appears that if the same trends and conditions persist, these increases will continue into the 1980's.

Exhibit 14 is a projected funds statement based on the historical figures. It is significant to note that there is a deficiency of funds provided over funds applied when considering funds provided from operations less the property additions and cash dividends. However, assumed increases in long-term debt including capital lease obligations and some sales of capital stock are sufficient to cover the deficiency.

Working capital has been assumed to remain constant because 80% of the companies included in the projection are now on the LIFO inventory valuation method. Therefore, the price inflation attributable to the inventory will be treated as additional cost of sales and the only increase in inventory would be due to increased units. Since the sales have been assumed to increase only with inflation, inventory units should not increase significantly. The inventory increase of those companies remaining on FIFO has been assumed to be offset by increases in payables.

PROJECTED COMPARATIVE FUNDS STATEMENTS

(in millions)

	1980	1981	1982	1983	1984	Total
Funds provided from operations-						
Net income	\$ 704	\$ 775	\$ 852	\$ 938	\$1,031	\$ 4,300
Depreciation	890	1,024	1,177	1,354	1,557	6,002
Deferred income taxes	30	30	30	30	30	150
Total funds provided from operations	\$1,624	\$1,829	\$2,059	\$2,322	\$2,618	\$10,452
Property additions, net of assets sold	\$1,369	\$1,575	\$1,811	\$2,083	\$2,395	\$ 9,233
Capital lease additions	275	303	333	366	403	1,680
Cash dividends	282	310	341	375	412	1,720
Other, net	20	20	20	20	20	100
Total funds required	\$1,946	\$2,208	\$2,505	\$2,844	\$3,230	\$12,733
Excess (deficiency) of funds provided over funds applied	\$ (322) \$ (379)\$ (446)\$ (522)\$ (612)\$(2,281)
Increase in long-term debt, net	121	161	210	265	332	1,089
Increase in capital lease obligations	171	188	206	227	250	1,042
Sale of stock	30	30	30	30	30	150
Increase in working capital	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Property additions of \$9.2 billion and capital leases of \$1.7 billion exceed historical depreciation of \$6.0 billion by \$4.9 billion. This causes a deficiency of funds from operations of \$2.3 billion, which is covered by \$1.1 billion in additional debt, \$1.0 billion in capital lease obligations and \$150 million in additional capital stock.

Exhibit 15 illustrates the balance sheet that would result from the projections. Working capital does not show an increase because of the LIFO method of valuing inventories, as discussed. Significant increases in fixed assets are financed by debt and equity in a ratio approximately equal to the existing capital structure of the companies in 1979 as shown below:

Debt/Equity Ratios

	<u> 1979</u>	<u> 1984</u>
Long-term debt	17.8%	18.7%
Capital lease obligations	25.0	23.6
Deferred taxes	2.6	2.6
Equity	54.6	55.1
	100.0%	100.0%

PROJECTED BALANCE SHEET --

REPORTED AMOUNTS

	1979	1984	Increase
Net working capital	\$1,840	\$ 1,840 	\$ -
Fixed assets, net	\$4,721	\$ 7,952	\$3,231
Capital leases	1,829	3,509	1,680
Other	479	679	200
Total long-term assets	\$7,029	\$12,140	\$5,111
Long-term debt	\$1,458	\$ 2,547	\$1,089
Deferred taxes	210	360	150
Capital lease obligation	2,183	3,225	1,042
Other	232	332	100
Total	\$4,083 	\$ 6,464	\$2,381
Equity	\$4,786 =====	\$ 7,516	\$2,730 =====

Operating Income Projections --

Adjusted for Inflation

Exhibit 16 represents the same projected operating results for the five years 1980-1984; however, this exhibit has been adjusted for the effects of inflation on inventory and depreciation. The result is that instead of an economic profit as shown on the prior exhibit, net income is reduced significantly. Inflation adjustments include charging to expense the additional dollars required to support the same level of inventories and the additional dollars required to adjust depreciation to current dollars.

The additional cost associated with the higher investments required for inventories during the five-year period is approximately \$500 million, representing the 20% of the companies still on FIFO, and the additional cost associated with higher replacement costs is approximately \$3.7 billion. These adjustments have been calculated using the CPI for urban consumers, which has been estimated to increase at a 10% rate for the period 1980-1984.

Net income is significantly reduced in these projections and a small loss occurs in 1983 and 1984. Purchasing power gains on the net monetary liability position of the companies provide a significant offset when these gains are added to inflation-adjusted net income, in 1980 through 1982; however, returns are still significantly lower than historical net income in 1983 and 1984.

COMPARATIVE PROJECTED OPERATING RESULTS--

ADJUSTED FOR INFLATION -- FOOD RETAILERS

(in billions)

	1980	1981	1982	1983	1984
Sales	\$70.44	\$77.49	\$85.24	\$93.76	\$103.14
Cness Mensin	015 16	\$17.20	# 30 37	\$21.29	\$ 23.70
Gross Margin % of Sales		22.20%			
Operating Expenses					
% of Sales	20.27%	20.66%	21.01%	21.41%	21.76%
Interest Expense	\$.35	\$.39	\$.45	\$.51	\$.58
% of Sales	.49%	.51%	.52%	.54%	.57%
/T	d : 0.4	.	. 0.5	# (CO)	ф (Э.)
Net Income (Loss)	→ .∠4 ======	\$.14 =====	φ .U2 =====	\$ (.U9) =====	\$ (.2I)
% of Sales	. 34%	.18%	.06%	loss	loss
Purchasing power	\$.65	\$.69	\$.76	\$.78	\$.87
gain	φ .07	φ .09	ψ ./O ======	φ .70 =====	φ .07

Exhibit 17 adjusts the funds statement for the effects of inflation, and the deficiency of funds provided over funds used from operations increases dramatically.

Depreciation as adjusted for inflation of \$9.7 billion is much closer to projected additions of \$9.2 billion and capital leases of \$1.7 billion. The net decrease in working capital results from making inflation adjustments to the inventory value of those companies still on FIFO.

Projection

Variations

In order to consider what other courses the future of the industry might take, some alternative projections were made. These are not presented in detail here; however, a summary discussion of the results follows.

Since the largest single operating expense is payroll and related fringe costs, any increases in productivity in this area would have a significant impact on the operating results. For example, the industry has not achieved the full potential productivity benefits projected for front-end scanners, partially because of mandatory price-marking regulations in some areas, and partly because of various other reasons. However, the potential still exists for management to re-appraise this area and obtain productivity improvements.

If a zero rate of inflation and no real sales growth were assumed, margins and expenses would not increase from the base year. However, equipment replacement cost lags inflation, and there would still be a shortfall between replacement cost and depreciation until a catch-up period was complete.

COMPARATIVE PROJECTED FUNDS STATEMENTS --

ADJUSTED FOR INFLATION

(in millions)

	1980	1981	1982	1983	1984	Total
Funds provided from operations-						
Net income (loss)	\$ 240	\$ 140	\$ 50	\$ (90)\$ (210)\$ 130
Depreciation	1,270	1,570	1,872	2,269	2,685	9,666
Deferred income taxes	30	30	30	30	30	150
Total funds provided from operations	\$1,540	\$1,740	\$1,952	\$2,209	\$2,505	\$ 9,946
Property additions, net of assets sold	\$1,369	\$1,575	\$1,811	\$2,083	\$2,395	\$ 9,233
Capital lease additions	275	303	333	366	403	1,680
Cash dividends	282	310	341	375	412	1,720
Other, net	20	20	20	20	20	100
Total funds required	\$1,946	\$2,208	\$2,505	\$2,844	\$3,230	\$12,733
Excess (deficiency) of funds provided over funds applied	\$ (406)\$ (468)\$ (553)\$ (635)\$ (725)\$(2,787)
Increase in long-term debt, net	121	161	210	265	332	1,089
Increase in capital lease obligations	171	138	206	227	250	1,042
Sale of stock	30	30	30	30	30	150
<pre>Increase (decrease) in working capital</pre>	\$ (84)\$ (89 =====)\$ (107 =====)\$ (113 =====)\$ (113 =====)\$ (506) =====

Store Facilities

As indicated earlier in this report, there are emerging trends in the industry toward the development of limited assortment stores and warehouse stores. The industry is also continuing to develop super stores and combination stores. Significant future shifts from earlier patterns in the types of stores operated would also impact the operating results. The table below shows typical sizes of various types of stores and their average investment costs:

	Conventional	Super	Combination	Warehouse	Limited <u>Assortment</u>
Average size in square feet	24,000	31,000	37,000	37,000	7,000
Investment cost (000 omitted) Land and building	\$ 875 \$	1,000	\$ 1,450	\$ 900	\$ 350
Equipment	600 \$1,475 \$====================================	700 1,700	<u>800</u> \$ 2,250	475 \$1,375	50 \$ 400

In many instances, warehouse stores have been operated in used store facilities and, as such, benefit from lower occupancy costs.

In general, operating costs for warehouse and limited assortment stores are lower than for conventional supermarkets because they provide fewer services, offer a smaller product assortment, and use less elaborate facilities. Many limited assortment stores have lower equipment costs and related operating costs, because they provide only a limited selection of perishables and frozen foods; others do not offer perishables or frozen foods. Also, many limited assortment stores keep shorter business hours than conventional supermarkets.

Operating costs are expected to continue to increase, basically because of inflation. The unknown seems to be what the inflation rate will be in the future, not whether or not there will be inflation. The higher the rate of inflation, the higher operating expenses will rise.

Limited assortment and warehouse stores may be attractive to supermarket operators, because their investment requirements are lower. Their lower operating margins could also attract customers if inflation makes price a more important consideration than service, store decor, or product variety.

Super stores and combination stores have higher initial investment costs, and the operating goal is usually to achieve a significantly higher volume, which can be spread over the fixed costs. Large volume super or combination stores can result in higher sales per square foot and lower per unit operating costs. These stores also carry expanded lines of general merchandise or other specialty items which can yield the higher margins needed to cover costs without increasing margins on basic food items.

During the 1970's, the companies in this analysis increased their total square feet of selling space, even though there were a significant number of store closings during the decade. Some of these closings occurred as companies declared bankruptcy, and others when companies closed divisions, generally because of heavy operating losses. Many of the stores closed were smaller or outmoded facilities.

Some of the increased selling space of the companies may have been for expanded departments to handle general merchandise, health and beauty aids, or prescription drugs. To the extent that square footage is dedicated to these lines of merchandise, higher margin dollars per square foot of selling space may result even when there is a decline in constant dollar sales per square foot.

If the trend of the 1970's continues with regard to sales, and increases in sales volume are due to inflation rather than real growth, an improvement in constant dollar sales per square foot of selling space can take place only if fewer square feet of selling space are used to achieve the projected sales volume.

Store closings will probably continue to take place in the 1980's. Much of the sales volume of the closed stores will be shifted to newer, more modern facilities, and the total selling area of replacement space could be less than the abandoned space, although that has not been the trend of the past.

Capital

Costs

Capital costs continue as a significant cost to the industry. Most of the capital added in the 1970's has been debt capital. Capital for facilities has also been provided by leases. The cost of this capital has been increasing as interest rates have been rising. Although purchasing power gains are significant as both debt and inflation continue to rise, these gains are noncash gains.

Lenders also are demanding higher rates, shorter lease terms, variable mortgage rates, etc., to compensate for the effects of inflation. These changes could significantly affect the industry's ability to attract capital as well as its willingness to pay the higher prices being demanded. This situation could affect future investment considerations.

FINAL OBSERVATIONS

Results of the past decade show improved operating performance, particularly toward the end of the decade. Sales held steady, and net income (unadjusted for inflation) improved consistently from 1975 through 1979, even while most of the companies valued inventories by LIFO. However, the industry should consider carefully the needs and methods available to adjust operating results for inflation, and set inflation-adjusted goals that, if achieved, will result in more adequate returns on invested capital.

Increased

Capital Needs

The industry has had to take on significant additional debt during the decade fo finance inventories, receivables (for wholesalers), and equipment and facilities replacement. Common stock prices have not been attractive enough to warrant large increases in equity capital. However, by reinvesting a significant portion of earnings, the companies have maintained a reasonably consistent debt/dequity ratio.

Debt service requirements have been taking an increasing share of the sales dollar when analyzed on a historical basis. However, significant purchasing power gains on the net debt position have been accruing to the shareholders of the companies as a sort of hedge against inflation. If these gains are viewed as a reduction of the interest cost on the debt, the borrowing costs were very small in the

beginning of the decade and were more than offset in recent years. Current trends toward higher interest rates, along with other changes in borrowing terms, and future inflation rates will undoubtedly impact this situation in the near future.

Income Tax

Considerations

Adoption of LIFO has given some relief from the excessive tax burden that inflation causes in the industry. Those companies that have adopted LIFO should be much better able to handle increasing investment requirements caused by inflation in inventory values during the 1980's. Many food distributors not included in the sample for this report have also adopted LIFO in recent years.

This industry, as well as many others, would benefit from relief from the effects of inflation on depreciation and the related effects of heavy taxation. Inflation rates of 5% to 10% have a devastating effect on the capital requirements associated with equipment, buildings, and leasehold improvement replacement. Currently, companies are not allowed to deduct replacement cost depreciation for tax purposes. The new accounting changes, which show the effects of replacement depreciation as a supplemental calculation, are a step in the right direction. Some tax relief equivalent to what LIFO can provide for inventories is needed in the area of depreciation. Provision for accelerated depreciation for tax purposes will help, but such action does not address the problem directly. What is needed is some adjustment of historical depreciation to recognize the inflation in the currency (loss of purchasing power); in other words, depreciation based upon replacement cost.

Productivity

Productivity in the industry has been static. Thus, the industry suffers the full burden of the effects of inflation. It cannot look for offsets from productivity gains.

One of the biggest areas of potential for the industry is to increase sales volume through existing store facilities. This is commonly measured by weekly sales per square foot of selling space. While total square footage of store space seems to be increasing, sales (as adjusted for inflation) per square foot of selling space has been decreasing. An appreciable increase in this real sales per square foot would have the effect of reducing the cost of facilities, equipment and the related interest cost of capital used to finance facilities. Other productivity gains may also be experienced in labor and other operating expenses.

Changes in the types of store facilities operated in the future and the mix of those facilities operated (i.e., the number of super stores, conventional stores, limited assortment stores, etc.) could also have an impact on this important productivity factor.

Food distribution desperately needs labor productivity gains, because the industry is so labor intensive. The full potential of scanning at the checkout, automated warehouses, and other labor-savings systems and operational improvements needs to be realized if the industry is to accomplish this goal.

APPENDICES

Stuc	dy appi	roach				1
CPI	index	used	for	inflation	adjustments	2

APPENDIX 1

STUDY APPROACH

Inflation has two major effects on most business operations. One is the effect on cash required for investment in the business, and the other is the effect on the purchasing power of the net assets or equity invested in the business. Each of these factors has a different effect, and the effect of each is significant.

The major effects on cash requirements manifest themselves in inventory, fixed assets and depreciation. The effect on inventory will be discussed first.

Assume a food store or supermarket has 200,000 individual items in inventory at an average cost of 80 cents an item. The inventory value is \$160,000. The following analysis indicates the effect of maintaining that inventory for a five-year period at assumed inflation rates of 6% and 10%:

200,000 Item Inventory

6% Inflation			10%_	Inflation
	Average		Average	
Year	Unit Cost	Total	<u>Unit Cost</u>	Total
1	\$.800	\$160,000	\$.800	\$160,000
2	. 848	169,600	.880	176,000
3	.899	179,800	. 968	193,000
4	.953	190,000	1.065	213,000
5	1 010	202.000	1.171	234.200

The above table illustrates the added investment needed in an inflationary period to maintain the same level of inventory.

A portion of this added investment could be financed by increases in accounts payable; the balance, however, must come from increased working capital. This requires an additional investment on the part of the store owner, which must originate from equity or debt capital.

LIFO/FIFO Inventory

Valuation Methods

In a period of inflation, the choice of method for valuing inventory become important. There are two basic alternative methods for valuing inventory -- first-in, first-out (FIFO method and last-in, first-out (LIFO) method. These methods are pricing or valuation methods based on a theoretical assumption about the flow of goods. FIFO valuation is based on the assumption that the first of oldest items purchased are the first sold. Therefore, these items are charged against sales as cost of goods sold. The latest or most recent purchases are then assumed to be in inventory, and the applicable purchase costs are used to value inventories.

The LIFO method of valuing inventory assumes just the opposite. The most recent or last purchases are assumed to be the first sold and charged as cost of sales, while the oldest or first goods received are assumed to remain in inventory.

In the example of the 200,000 units in inventory, at the end of five years for the 6% assumed inflation rate, the inventory value would be \$202,000 using FIFO and \$160,000 using LIFO assuming either method was adopted and followed for the full five-year period. Of significance, of course, is that under LIFO, the difference in inventory valuation of \$42,000 is treated as an additional cost of sales, thereby reducing reported income and the related income taxes. Assuming an effective income tax rate of 50%, the savings would be

\$21,000 over the five-year period. This would contribute significantly toward the additional investment needed to finance the increased inventory investment.

FAS #33 Treatment

of Inventory

Statement No. 33 of the Financial Accounting Standards Board (FASB), requires that the increased dollar value of inventory due to inflation be treated as additional cost of sales. In order to obtain consistency in the calculation of the adjustment, the Consumer Price Index for urban consumers (CPI-U) must be used to calculate the adjustment. Application of this index will usually result in a different inventory value than if a company calculated its own index to convert its inventory to a LIFO value.

A company normally valuing all or part of its inventory on LIFO effectively readjusts the inventory to FIFO before applying the CPI-U to calculate the inflation adjustment.

This approach recognizes what is sometimes called "the economic income" theory. Under that theory, real or economic income is not earned until a sale is made and the inventory used to make that sale is replaced. Inventory is assumed to be a constant or relatively fixed investment which is necessary to continue in business, particularly in a distribution or consumer goods oriented business. Therefore, the additional dollars needed to replace inventory are treated as additional cost of sales.

While these techniques may be appropriate to measure income or investment dollars, they are inconsistent when applied to inventory valuation for purposes of determining financial position. Obviously, the current dollars are more correct in determining current values of

inventory. Financial statements prepared using the LIFO inventory method disclose the FIFO inventory value in a footnote or supplemental calculation.

Replacement of Equipment

and Similar Assets

The second major area where the effect of inflation causes ever-increasing cash requirements is in the area of equipment and other similar asset replacement costs.

Consider an item of equipment purchased ten years ago for \$10,000 and depreciated (charged to operations) over a ten-year period (assuming no salvage value). Depreciation of \$1,000 per year would be charged to operations, representing the cost of the use of that equipment over its estimated economic life. At the end of that period, the equipment generally would have to be replaced, and, if inflation had averaged 10% during the period, the replacement equipment would cost approximately \$26,000. Therefore, additional cash investment is required to continue in business and replace the equipment. While this is a simplified example, it is an accurate illustration of the problem caused by inflation, which is that annual depreciation charges tend to be in dollars that no longer have the same values (purchasing power) as the other items of income and expense in the current year of operations. Therefore, profits are overstated on an economic basis, similar to the problem with inventory.

Companies presently can accelerate, for tax purposes (and for reporting purposes if desired), the write-off of the asset, but they cannot claim depreciation in excess of its original cost. (Investment credits should not be considered a subsidy for this situation, since

they are intended to stimulate business investment and so represent a government program with different stated objectives.)

Statement No. 33 requires that depreciation be restated in the supplemental income statement by indexing the annual depreciation charges for inflation using the CPI-U. In periods of inflation, this will result in depreciation charges greater than those based upon original cost.

While some relief from income taxes is available in the inventory area to the companies claiming a LIFO valuation, no such relief is available in the area of depreciation. Therefore, while additional depreciation may be calculated to adjust for inflation, income taxes paid on inflated incomes cannot be restated or adjusted. This results in effective income tax rates much higher than statutory rates during periods of high inflation.

Purchasing Power

Effect of Inflation

Besides the cash effects of inflation, there is also an erosion of purchasing power, or real economic value, of the equity invested in a business. Likewise there can be a gain in purchasing power associated with borrowed funds.

For example, if a business consisted of \$10,000 invested in savings and no other transactions during the year, the following would result, assuming a 6% interest rate and a 6% inflation rate. Interest income of \$600 would be reported and equity would increase from \$10,000 to \$10,600 exclusive of tax considerations. However, the \$10,600 at the end of the year would buy no more than \$10,000 at the beginning, so the real or economic income would be zero.

If in that example inflation were 10%, a real or economic loss would result. If in that example one-half of the capital were borrowed funds at a 6% interest rate, then the economic effect to the shareholders would only be one-half of the result of the changes in the \$10,000 investment because the balance of the effect would be shifted to the debt holders.

Items such as cash, receivables, payables and debt are labeled as monetary items under Statement No. 33 because they are convertible to cash or money at a fixed rate. Each company is to determine its net position with these monetary items and calculate a purchasing power gain or loss.

A company with a net monetary position of cash and receivables in excess of debts owed will suffer a loss in purchasing power applicable to those assets. A company with a monetary position of debt in excess of cash or receivables is in a net borrowed position and, in an inflationary period, will experience a net gain in purchasing power applicable to its net debt position.

One concept is to treat gain on purchasing power associated with debt repayment as an adjustment of interest expense. The theory is that real interest rates are generally low, i.e., 1% to 3%; the nominal higher rates, then, are considered compensation of the lender for inflation.

Statement No. 33 requires that the supplemental income statement be adjusted for calculations to reflect inflation effects of inventory and depreciation, which will generally require increased cash to maintain inventory levels or to replace equipment. However, the gain or loss in purchasing power applicable to a net monetary receivable or debt

position is reflected on a memo basis only, perhaps because it is not currently a cash gain.

Methods of Calculating

Inflation Adjustments

to Reported Data

The inflation adjustments to the financial data as reported by these public companies were made on an aggregate basis and, in many cases, estimates had to be used. However, the results are believed to be accurate.

Sales were adjusted to a constant dollar basis by converting all years presented to 1970 dollars using the CPI.

For the inventory adjustment, all inventory was adjusted to a first-in, first-out (FIFO) basis. Inventory was adjusted to the average dollars of the current year by applying an appropriate price index. The inventory change in constant dollars was compared to the inventory change in current dollars, and the difference between the current dollar change was determined to be the inventory inflation adjustment and was added to or subtracted from cost of sales. Calendar year Consumer Price Index information was used in this as well as all other calculations. Since the companies have various year-ends, this is a simplifying assumption which should not materially affect the adjustments. Using the year-end price index as a divisor in the calculation assumes the inventory will turn at least 12 times a year, which is a reasonable assumption in this industry.

To adjust depreciation expense, the aggregate age of the property was determined by dividing accumulated depreciation by depreciation expense. Actual depreciation expense was multiplied by

the current year average Consumer Price Index and divided by the Consumer Price Index at the date the property was acquired.

To calculate the gain in purchasing power, all assets and liabilities other than property and inventory were assumed to be monetary. Beginning and ending net monetary liabilities were converted to average year dollars using the current year average Consumer Price indices. The purchasing power gain was determined by deducting the increase in net monetary liabilities in constant dollars from the increase in current dollars.

Productivity

Analysis

General industry data on productivity was obtained from Food Marketing Institute's "The Food Marketing Industry Speaks" and Cornell University's "Operating Results of Food Chains." This data was used to develop certain productivity measures, such as sales per square foot, sales per man-hour, and selected other costs per square foot. Some of the data developed used a combination of information from these two sources. Conversions to an inflation-adjusted basis were developed using the Consumer Price Index for urban consumers, as appropriate.

Projected Trends

and Analyses

Projections were made for the retailers studied for a five-year period based upon the results of past operations, assumed rates of inflation and other known factors. These projections were prepared in the same format as the historical results analyzed.

Supplemental analyses were also prepared of various types of store operations and the related capital investment required.

APPENDIX 2

CONSUMER PRICE INDEX -- URBAN CONSUMERS

Year	Index at End of <u>Year</u>	Average Index for the 	Annual Index
1969	112.9	109.8	
1970	119.1	116.3	5.4
1971	123.1	121.3	3.4
1972	127.3	125.3	3.4
1973	138.5	133.1	7.2
1974	155.4	147.7	12.2
1975	166.3	161.2	7.0
1976	174.3	170.5	4.8
1977	186.1	181.5	6.8
1978	202.9	195.4	9.0
1979	229.9	217.4	13.3