# THE EDWARDS AND BELL THEORY: AN ACCOUNTING APPLICATION AND AN EVALUATION OF FINANCIAL ANALYSES

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#### CHAPTER T

#### INTRODUCTION

Financial management is the responsibility for obtaining and effectively utilizing the funds necessary for the efficient operation of an enterprise.

The decision-making process of the financial manager includes the evaluation of many relevant factors. One of the most significant factors, and generally the starting point in a financial analysis, is the accounting data of the firm. From the evaluation of the accounting data, direction for the financial manager is given to factors which require further analysis before an intelligent decision can be reached. Therefore, at an early stage in the financial analysis process, accounting data provide the basis for efficient results.

Financial statements derived from accounting data processed in accordance with generally accepted accounting principles in past years have come under the scrutiny and criticism of the users of these statements. The basic criticisms expressed are that these statements do not accurately disclose the current position of the business, and that the reported net income is a residual amount resulting from both operating income and capital gains rather than merely an

<sup>1</sup>J. Fred Weston, Managerial Finance (New York: Holt, Rinehart and Winston, 1962), p. 1.

operating gain.

Many efforts have been and continue to be made toward resolving the controversy surrounding these statements. Suggested methods, partial and complete, have come from accountants, economists, and others. Some of these methods have been accepted by the accounting profession for use in accounting for and presenting the financial information of a firm. Research by the accounting profession continues to be conducted in an effort to resolve the problems associated with these criticisms.

Edgar O. Edwards and Philip W. Bell have developed a theory of business income and the related techniques of application to measure business income.<sup>2</sup> Their concept represents an extensive effort and a comprehensive solution to the attendant problems in the determination of business income.

The purpose of this paper is to examine the effect of these concepts upon financial analyses by using statements prepared in accordance with the theory and techniques of application advanced by Edwards and Bell.

## Objectives

The objectives of this paper are: 1) to revise the financial statements of Wholesalers, Inc., in accordance with

ZEdgar O. Edwards and Philip W. Bell. The Theory and Measurement of Business Income (Berkeley and Los Angeles, California: University of California Press, 1965).

the Edwards and Bell theory; 2) to compute selected financial indicators from the revised financial statements of Wholesalers, Inc.; and 3) to evaluate the effect of the Edwards and Bell theory, were it to be accepted by the accounting profession, upon the financial analyses currently employed by financial managers.

#### Methodology

The securing of the cooperation of a business firm, their financial statements, and selected accounting data was necessary as the initial step to achieve the first objective of this paper. A wholesale grocery operation, centrally located in the United States, which distributes grocery products to retail outlets was selected. The identity of the firm was not to be disclosed, and therefore, the name of Wholesalers, Inc., was assigned to the cooperating firm.

The fiscal years ending in 1964, 1965, and 1966 were selected for purposes of this paper. The material supplied by Wholesalers, Inc., consisted of their annual reports for the years 1962 through 1966 and additional accounting data supplied via telephone interviews with the Financial Vice President. The data and information necessary for the scope of this paper are limited by the confidential nature as they related to the operation of the business.

The application of the Edwards and Bell theory requires the use of specific prices for assets, <u>viz.</u>,

inventories and fixed assets. Due to the enormous task of securing the large volume of prices necessary for this firm's type of operation and the subsequent magnitude of the computational work necessary to process the data, specific price indices were used for that purpose. The indices used for the inventories were the U.S. Department of Labor indices for wholesale prices of processed foods and feed (Table I). Current costs were established in this manner for use in the necessary inventory adjustments.

The fixed assets and related depreciation were analyzed to determine a realistic method of computing the necessary adjustments for those items. Specific price adjustments were computed by using the U. S. Department of Labor indices for wholesale prices of durable goods (Table I). Asset expenditures and depreciation were reported as net amounts in the data and information available. Also, because of expansion and diversification, additions were made to fixed assets through several types of acquisitions. The amount of fixed assets at the end of the 1963 fiscal year was treated as the base group amount. The reconciliation of the fixed asset net balance for each current year with the prior year resulted in an unidentified amount. That amount was determined to result from acquisitions and was added to the base group.

Computations to determine the annual depreciation applicable to each year's group of net asset expenditures were

made using the declining balance method at twice the straight-line rate based on an average life of ten years for the group. Depreciation for one-half of each year's group of net asset expenditures was computed for a full year and one-half year's depreciation was taken on the balance. The difference that existed between the reported net depreciation amount and the amount applicable to the new group was assigned to the base group plus acquisitions.

TABLE I
WHOLESALE PRICE INDICES®
(1957-59 = 100)

I tem	1963	1964	1965	1966
Foods and feeds, processed	101.1	101.0	106.7	113.0
Durable goods	101.0	102.4	103.7	106.0

aSee Appendix Q.

All of the price indices used in this paper were adjusted to establish 1963 as the base year since the determination of changes in the specific and general price indices required the establishment of base year indices and 1964 was the beginning year for the determination of these changes.

The adjustment of long-term dobt to market value was determined by using the interest rate for total bond and stock yields for corporate bonds (Table II). This adjustment required the computation of the present value of the long-term

debt using the current market rate of interest. Interpolation was necessary to secure the proper present value factor from the present value tables.

TABLE II

BOND AND STOCK YIELDS<sup>®</sup>
CORPORATE BONDS-TOTAL

	Rate
Year	Percent Per Annum
1964	4.57
1965	4.64
1966	5.34

<sup>&</sup>lt;sup>a</sup>See Appendix S.

Specific and general price indices do not always change the same amount or even move in the same direction during a period of time. The Edwards and Bell theory recognizes the resulting differences between the movement of the specific price indices and the general price indices in its application to accounting data. The computation of these differences was made through the use of the U. S. Department of Labor indices for consumer prices of all items (Table III). This is the price index recommended by the Edwards and Bell theory. 3

<sup>3&</sup>lt;sub>Ibid</sub>.

The substitution of specific price indices for specific prices and the determination of the fixed asset composition represents the only deviation from the method of securing data used by Edwards and Bell. The results achieved by the methods employed in this paper appear to be reasonable and the minor changes in methodology does not distort the objectives or conclusions.

TABLE III

CONSUMER PRICE INDICES<sup>a</sup>
(1957-59 = 100)

Item	1963	1964	1965	1966
All items	106.7	108.1	109.9	113.1

aSee Appendix R.

The adjustments were introduced into their respective accounts, and a balance sheet and an income statement for each year (Appendices N-1 thru P-3) were prepared using the adjusted balances. These statements supplied the necessary information for computing financial analysis data to achieve the second objective of this paper.

The above computations produced a set of comparative financial information (Appendices L-1 thru M-3) for each year to be used as the basis for satisfying the final objective.

A glossary (Appendix T) was prepared as an aid to the interpretation and understanding of the terms used in this paper.

#### CHAPTER II

#### THE EDWARDS AND BELL THEORY

The theory advanced by Edwards and Bell is an attempt to satisfy the needs and requests of the users of accounting data by extending the traditional accounting system to provide additional information. This new information supplements the historical accounting data to provide users with new areas of interpretation and the flexibility required of such resource data in a dynamic environment. Recognizing the objections expressed concerning prior efforts to meet these characteristics of accounting data, the theory is carefully evolved to eliminate or minimize these points of contention.

The techniques of application are designed to permit end-of-period adjustments. The introduction of new accounts in the chart of accounts preserves the conventional accounting data and clearly delineates these adjustments in the accounting system.

## Accounting Limitations

Current accounting conventions impose three major limitations upon the accounting data presented in financial statements. These limitations are summarized by Edwards and

# Bell 4 as follows:

- 1. Within the framework of present accounting practices, no capital gains or losses are recorded as they arise, i.e., as individual prices change; this limitation in turn has three main implications:
  - a) The capital gains (losses) for any one period are incomplete; i.e., they are not recognized until the assets are sold or used in the production of goods which are sold, and profit is therefore understated (overstated);

b) Some capital gains (losses) of former periods are recognized as capital gains (losses) of this period when assets which have risen in price over an extended period of time are sold in this period, thus overstating (understating) profit;

c) Balance sheet values are badly distorted.

- 2. Capital gains and losses which are realized through use of an asset whose price has changed and the subsequent sale of the product for which the asset was used are included as part of normal operating profit although the profit results from holding activities rather than using activities per se; this difficulty stems from keeping records at original purchase cost with the result, for example, that one of the expense deductions from operating revenue is depreciation based on the historic cost value of the fixed asset.
- 3. There is no recognition of changes in the general price level and thus no separation of <u>real</u> and <u>fictional</u> elements in reported profit figures as well as no true statement of real net worth on the balance sheet.

The objective of the Edwards and Bell theory and techniques of application is to produce financial statements void of these limitations.

<sup>4&</sup>lt;u>Tbid.</u>, p. 10. Underscoring indicates italics in the original; parentheses used in the original.

#### The Theory

The theory developed by Edwards and Bell is based upon the recognition of current costs and current values. These current amounts arise as the result of specific price movements of items in the accounts of the business. Also, financial activities and events affecting the business are clearly identified on a current period basis.

A careful separation is made of operating income and capital gains. Changes in the current amounts which result from operating activities of the firm are classified as operating income. Holding activities of the business which reflect changes in the current amounts are presented as capital gains.

The final phase of the theory is devoted to presenting financial information in real amounts. This is accomplished by employing a sharp distinction between changes in the prices of individual asset and liability items and changes in the

The income tax liability of a firm is computed on the basis of the firm's ordinary income and capital gains. Currently a 40% rate is applied to ordinary income and capital gains are taxed at the rate of 25%. The refined distinction and separation of capital gains from ordinary income employed by the Edwards and Bell method produces a material difference between conventional ordinary income and Edwards and Bell ordinary income. During periods of rising prices, conventional ordinary income is greater than Edwards and Bell ordinary income because the former includes amounts treated as capital gains by the Edwards and Bell method. Therefore, the income tax liability is the greater for the conventional accounting method since ordinary income is taxed at a higher rate than capital gains.

general price level.

## Techniques of Application

The first limitation is overcome by adjusting the accounting data to a current basis through the use of specific prices and interest rates applicable to their respective items in the accounts of the business. This procedure recognizes capital gains as they accrue, reports capital gains in the period in which they occur, and presents undistorted balance sheet values.

Operating income is separated from capital gains by using the current basis in the computation of the cost of sales, depreciation expense, and interest expense. In this manner, the second limitation is eliminated from the financial statements.

The recognition of changes in the general price level by adjusting the profit and equity amounts resolves the third limitation. The movement in the consumer general price index is applied to these amounts to convert them into real amounts.

## Specific Problems

Present accounting practices report several levels of profit in the presentation of the conventional income statement. Gross profit on sales, net operating income, and net income are typical titles given to these profit levels. Also, a distinction is made between net income and capital gains;

however, only a partial application of this distinction is reflected in their respective reported amounts. Thus, these profit levels contain an element of operating profits and an element of capital gains.

This commingling of operating profits and capital gains can be seen by analyzing the different levels of profit and examining the effects of specific operating activities and financial transactions upon them. A period of rising prices is assumed for purposes of this discussion. Also, two definitions of accounting terminology need to be reviewed to establish the basis for the distinction and separation of operating profits and capital gains. Operating profit is achieved by the firm performing the activities and functions directly relating to their primary business objective for which the revenues received exceed the expenses incurred in the generating of the revenues. A capital gain results from holding an asset over a period of time during which the market price of the asset increases and a gain is realized on the disposal of the asset.

The computation of gross profit on sales includes the cost of the beginning and ending inventories. Since in normal operations a portion of the inventory is carried forward from one fiscal period to the next, its current cost is higher than its recorded historic cost. Also, the portion of the ending inventory acquired earlier in the fiscal period is subject to the same cost change. The difference between the

current and historic cost of the inventory arises as a result of holding these portions of inventory acquisitions over a period of time and not from adding value to them from operations of the firm. This is precisely the definition of a capital gain.

Conventional accounting practices cost the inventories at their historic cost, a lower amount than current cost, in the computation of gross profit on sales. Therefore, gross profit on sales is overstated in the case of the beginning inventory and the ending inventory contributes to an understatement of this profit. The difference between current and historic cost of the inventory is a capital gain. Therefore, gross profit on sales does not represent a "pure" amount of operating profit.

The selling, general, and administrative expenses are deducted from gross profit on sales in the calculation of net operating profit. Depreciation expense is included in this category of expenses. Conventional accounting practices record depreciable assets at their historic cost and this cost serves as the basis for the computation of depreciation expense. The difference between the current and historic cost of the depreciable assets occurs as a result of the firm holding the assets over a period of time. This difference constitutes a capital gain. Conventional accounting practices transforms this capital gain into operating profit by recognizing a lesser amount of depreciation expense based upon the

lower historic cost. Net operating profit is overstated by the amount of the capital gain.

Financing the operations of a business in our present economy involves the use of borrowed funds at a fixed rate of interest for most firms. Generally, these funds are borrowed for extended periods of time. The interest expense on these funds is part of the deduction from net operating profit for the period. Interest rates fluctuate in the money market over a period of time thereby changing the cost of the borrowed funds to the firm. Conventional accounting practices use the contract rate of interest adjusted for any premium or discount in computing the interest expense for the period. Since interest rates may change above or below the contract rate, the interest expense recognized may be either overstated or understated and an opposite effect results in the reported net profit.

As interest rates increase in the money market, the net funds from borrowing at a fixed rate of interest decreases. Assuming the firm has borrowed funds at a contract rate of interest lower than the current market rate of interest, the firm actually has more funds for operations than it could secure at the present time at the contract rate. The difference between the amount of borrowed funds and the amount of current funds available results from the firm holding a debtor position over a period of time. This represents a capital gain to the firm. Conventional accounting practices

do not recognize this gain and capital gains would be understated in this instance.

Capital gains are not recognized in the fiscal period in which they accrue by conventional accounting practices. This situation can be clearly demonstrated by examining the acquisition and disposition of a nondepreciable asset. Assuming the asset is acquired at the beginning of the fiscal period, the recorded historic cost will be less than its current cost at the end of the period and each subsequent period until its disposition. Therefore, the holding of the asset over a period of time has generated a capital gain. Conventional accounting practices do not recognize this capital gain until the disposition of the asset.

This discussion serves to point out several examples, although not exhaustive, of how conventional accounting practices mix profits and capital gains in the determination of net income and fail to report the actual capital gains for the period. It should also be noted that these practices do not state the current balance for numerous balance sheet accounts. The misstatement of balances will occur in any account which includes an asset or liability that is carried forward in the operation of the business from one period to one or more future periods. Also, relevant capital accounts will be misstated.

## Specific Solutions

The Edwards and Bell method adjusts all accounting data to a current basis to overcome these problems attendant to conventional accounting practices. The majority of the transactions of a business occuring within a fiscal period are treated on a current basis by the Edwards and Bell method. This handling is justified because the money received and the value disbursed and/or the money disbursed and the value received occurs within the fiscal period. Therefore, the Edwards and Bell theory is applicable to those transactions involving more than one fiscal period in the receipt or disbursement of their value.

The distortion in the reported balance sheet amounts is eliminated by stating these balances in current amounts. The application of the Edwards and Bell theory to the previously cited problems demonstrates how their method separates operating profits and capital gains, states amounts on a current basis, and recognizes capital gains in the period in which they accrue.

The items in the ending inventory are adjusted to their current cost by using their prevailing market price at the close of the fiscal period. The difference between their current cost and historic and/or prior current cost is entered in a valuation adjustment account and it is recognized as a capital gain for the period. The stating of the

inventories at current cost results in the computation of a gross profit on sales amount representing the actual profit derived from this operating activity of the firm.

The market price at the close of the fiscal period or the valuation amount as of that date is used to adjust the depreciable assets to their current cost. A valuation adjustment account is used to record the difference between their current cost and historic and/or prior current cost. This difference represents a recognized capital gain for the period. The current cost serves as the basis for the calculation of the depreciation expense for the period. Thus, depreciation expense in the income statement is stated in terms of its current cost.

The valuation of long-term borrowed funds and the related interest expense is accomplished in several steps. The present value of the funds is computed by using present value tables and the market rate of interest. The difference between the present value of the funds and the amount of funds actually borrowed is recognized in a valuation adjustment account. Also, a capital gain is recorded as a result of this adjustment. The interest expense for the period is stated on a current basis by adjusting the amount computed using the contract rate to the amount computed based on the market rate of interest.

Other long-lived assets are adjusted to their current market price and/or valuation amount with the adjustment

being recorded in a valuation adjustment account. These capital gains are recognized in the period in which they accrue.

The preceding techniques of application of the Edwards and Bell method demonstrate how their theory overcomes the major limitations of conventional accounting practices. The limitation of no real statement of net profit and net worth is eliminated by the Edwards and Bell method through a general price level adjustment of the differences between current cost and historic and/or prior current cost. In every case where an adjustment is necessary, the Edwards and Bell method uses a special account to record the amount of the adjustment. This results in the conventional accounting records being left intact, and historic costs are not destroyed.

#### CHAPTER III

#### FINANCIAL RATIO COMPARISON

The financial ratios computed from the accounting data of Wholesalers, Inc., for the fiscal years ending in 1964, 1965, and 1966 consisted of a ratio calculation for each accounting method, where applicable, for each year. This information provided the basis for observing the differences, if any, that existed between the ratios computed from the two sources of accounting data. The factors causing the differences were determined for further analysis and evaluation.

Realizing that an almost unlimited number of ratios can be computed from accounting data, a set of representative ratios was selected for purposes of this paper. The ratios are compared and discussed in four general groups. The groupings are: 1) liquidity ratios; 2) leverage ratios; 3) activity ratios; and 4) profitability ratios. These groups denote the areas of concern to the financial manager.

## Liquidity Ratios

The effect of the Edwards and Bell theory upon the liquidity ratios (Table IV) of Wholesalers, Inc., was introduced through the account balances for the inventories and the current portion of long-term debt. The adjustments necessitated by the movement of the specific price level index for

the inventories and of the market rate of interest produced new balances in these accounts for the Edwards and Bell data.

TABLE IV
WHOLESALERS, INC., LIQUIDITY RATIOS<sup>8</sup>

	Conventional		Edwards and Bell Current Cost			
Ratio	Accounting	Money	Real			
Current Ratio (x): 1964 1965 1966	2.44 2.33 2.45	2.44 2.34 2.46	2.44 2.34 2.46			
Quick Ratio (x): 1964 1965 1966	1.00 .91 .89	1.00 .91 .89	1.00			
Acid-Test Ratio (x): 1964 1965 1966	•39 •32 •21	.39 .32 .21	.39 .33 .23			
Inventory to Working Capital (%): 1964 1965 1966	100.31 104.98 103.31	100.35 104.99 103.25	100.3! 104.99 103.2			

a See Appendices L-1 thru L-3.

The current ratio is the basic indicator in a financial analysis of a firm's liquidity. The Edwards and Bell data for this ratio reflected the combined effect of the market value of the inventories and of the current portion of long-term debt. Even though there was an increase in the market value of the debt with no price movement of the inventories, the change was relatively minor, and the ratio

for 1964 was the same for the conventional method and for the Edwards and Bell method. However, for 1965 and 1966, this relationship changed, due mainly to an increase in the market value of the inventories. A slight trend toward higher interest rates caused the market value of the debt to decrease adding to the increase in this ratio. A continuation of these trends existed for 1966 with the difference in the current ratio for the two methods remaining the same.

No difference in the quick ratios for each method was observed for each year being studied as the inventories are eliminated from this calculation. The changes in the market value of the debt were too insignificant to affect the Edwards and Bell ratios.

The acid-test ratios for the two methods were the same each year, due to the negligible effect in the Edwards and Bell data of the minor change in the market value of the debt.

The inventory to working capital ratio computed from the Edwards and Bell data for 1964 was higher than the ratio applicable to the conventional data for that year. This difference was caused by the increased market value of the debt reducing the working capital in the Edwards and Bell data. The same relationship existed between the ratios for 1965; however, the degree of difference was reduced, due to the increase in the market value of the inventories for the Edwards and Bell method. For 1966, this relationship had reversed itself and the greatest disparity during the three years

existed between these ratios. The combined effect of an increase in the market value of the inventories and a decrease in the market value of the debt, recognized by the Edwards and Bell theory, resulted in this difference.

## Leverage Ratios

All of the factors recognized by the Edwards and Bell theory as requiring adjustment were reflected in the leverage ratios (Table V) computed from the Edwards and Bell data for Wholesalers, Inc.

The decrease in the market rate of interest had the greatest impact on the total liabilities to total equity ratio for the Edwards and Bell data for 1964. Although a lesser amount of interest expense was recognized, and there was an increase in the market value of the fixed assets for the Edwards and Bell method, the effect of the adjustment to the total liabilities resulted in a higher ratio for the Edwards and Bell data. This ratio for 1965 and 1966 was higher for the conventional data. The change was due, in most part, to the inventories increasing in market value for the Edwards and Bell method. The market value of the fixed assets continued its upward movement during both years for the Edwards and Bell data. The effect of the market rate of interest upon this ratio was reversed for the Edwards and Bell method as an increasing trend prevailed for 1965, and. for 1966, this rate had exceeded the fixed rate of interest applicable

to the major portion of the long-term debt. The combination of the above factors, recognized in the Edwards and Bell method, resulted in the differences observed between the ratios for both years.

TABLE V WHOLESALERS, INC., LEVERAGE RATIOS<sup>a</sup>

	Conventional		Edwards and Bell Current Cost			
Ratio	Accounting	Money	Real			
Total Liabilities to						
Total Equity (%): 1964 1965 1966	100.60 83.10 80.80	102.59 82.77 78.14	102.59 82.77 78.14			
Interest Coverage (x): 1964 1965 1966	30.54 24.36 27.96	35.70 23.21 22.47	35.70 23.21 22.47			
Preferred Dividend Coverage (x): 1964 1965	24.98	28.32 20.51	28.32 20.51			
1905 1966 Current Liabilities to Common Stock Equity (%)	21.73	- 20.51	-			
1964 1965 1966	69.07 63.10 59.49	69.72 62.43 57.82	69.75 62.47 57.88			
Fixed Assets to Total Equity (%): 1964 1965 1966	37.25 37.26 32.85	37.85 37.73 33.48	37.85 37.73 33.48			

aSee Appendices L-1 thru L-3.

The amount of preferred dividends is the same for both methods, due to their recognition on a current amount basis

by the Edwards and Bell theory. Therefore, since the interest coverage ratio and the preferred dividend coverage ratio consist of the same factors, with the exception of the inclusion of preferred dividends in the latter ratio, the differences can be compared and discussed jointly.

The financial operating profit computed in accordance with conventional accounting methods was greater than the Edwards and Bell amount. This was due to a rising current amount basis existing for those factors reflected in the computation of the Edwards and Bell financial operating profit. These factors were the recognition of the market value of the inventories causing the cost of sales to increase and the market value of the fixed assets requiring the recording of a greater amount of depreciation expense.

In addition to those factors affecting the Edwards and Bell ratios, the market rate of interest contributed significantly to the cause for differences to exist between the ratios computed for the two methods each year. This rate was considerably lower than the fixed rate of interest applicable to the major portion of the long-term debt for 1964. The resulting lesser amount of interest expense, recognized by the Edwards and Bell method, contributed to the ratio being the higher for the Edwards and Bell data.

The market rate of interest began to rise in 1965 and continued to move upward through 1966. The Edwards and Boll ratio was less than the conventional ratio for 1965 even

though the market rate of interest was still lower than the fixed rate of interest pertaining to the major portion of the long-term debt. This relationship reflected the effect of the increased cost of sales resulting from the increase in the market value of the inventories being recognized by the Edwards and Bell method. For 1966, the market rate of interest increased to a point greater than the fixed rate of interest applicable to the major portion of the long-term debt. This movement added to the effect of the Edwards and Bell financial operating profit to produce a lower ratio for that method for 1966.

The net effect of all the adjustments required by the Edwards and Bell theory flows into the common stock equity. Therefore, the current liabilities to common stock equity ratio for the Edwards and Bell data was affected by the increase in the market value of the inventories for 1965 and 1966. This latter factor accounted heavily toward the Edwards and Bell data having the higher ratio for 1964. The increase in the market value of the inventories and the upward movement of the market rate of interest for 1965 and 1966 were the main factors responsible for the conventional ratios being the higher of the two methods for those years.

The current liabilities to common stock equity ratios were the first ratios in the set to be affected by the Edwards and Bell real concept of profit. Differences did exist in the money amounts and the real amounts of common stock

equity for 1964 and 1965. Since those years covered a period of inflation, the real amounts were less than the money amounts. The common stock equity amounts were the same for 1966 for both concepts because there was no preferred stock outstanding that year, and the adjustments for the fictional elements were made within the equity section leaving the total equity the same for both concepts. A difference between the ratio for the money data and the ratio for the real data was observed for 1964 and 1965 due to the price level adjustment. In each year, the ratio for the real data was lower than the ratio for the money data. No difference existed for 1966 because of the absence of outstanding preferred stock.

The fixed assets to total equity ratio computed from the Edwards and Bell data was higher each year than the same ratio calculated from the conventional data. The continued increase in the market value of the fixed assets for 1964 through 1966, recognized by the Edwards and Bell method, attributed to this difference. Also, the differences in the profit flowing into the retained earnings account affected the results obtained from the two methods each year for this ratio.

# Activity Ratios

The data processed for Wholesalers, Inc., in accordance with the two methods resulted in variances existing

between the same activity ratios (Table VI) computed for each set of data.

TABLE VI WHOLESALERS, INC., ACTIVITY RATIOS<sup>8</sup>

	Conventional	Edwards and Bell Current Cost			
Ratio	Accounting	Money	Real		
Inventory Turnover (x): 1964 1965 1966 Fixed Assets Turnover (x)	20.71 21.40 19.64	20.71 21.33 19.51	20.71 21.33 19.51		
1964 1965 1966	48.62 44.72 55.00	48.62 43.68 52.48	48.62 43.68 52.48		
Total Assets Turnover (2 1964 1965 1966	9.03 9.10 9.99	9.02 9.02 9.86	9.02 9.02 9.86		

aSee Appendices L-1 thru L-3.

The market value of the inventories was the only factor that affected the inventory turnover ratios. Since the market value of the inventories remained unchanged for 1964, no difference existed between the inventory turnover ratios computed for the two types of data. The increase in the market value of the inventories for the Edwards and Bell data for 1965 and 1966 caused this ratio to be higher for the conventional data for those years. The cost of sales computation and the average inventory calculation reflected the price movement of the inventories.

The same factors affected the fixed assets turnover ratios and the total assets turnover ratios; therefore, the differences can be discussed concurrently. Both types of ratios exhibited the same relationship between the conventional method and the Edwards and Bell method. In every case, the computations using the conventional data produced the higher results. Net sales are recognized on a current amount basis by the Edwards and Bell theory; therefore, no differences were created by the use of net sales in the ratio. The increases in the amount of fixed assets and the amount of total assets for the Edwards and Bell data were caused by the recognition of the increases in the market value of the fixed assets in all three years for both ratios and in the market value of the inventories for 1965 and 1966 for the total assets turnover ratio for the Edwards and Bell data.

## Profitability Ratios

The most significant differences between the conventional data and the Edwards and Bell data were observed in the profitability ratios (Table VII) of Wholesalers, Inc.

The gross operating profit to net sales ratios were the same for each method for 1964 because the market value of the inventories did not change. However, the increase in the market value of the inventories for 1965 and 1966, recognized by the Edwards and Bell method, caused an increase

 $\label{eq:table_vii} \mbox{ Table VII} \\ \mbox{ Wholesalers, inc., profitability ratios}^{\alpha}$ 

D. L.	Conventional	Edwards :	
Ratio	Accounting	Money	Real
Gross Operating Profit to			
Net Sales (%):	1.92	1.92	1.92
1965	1.97	1.76	1.76
1966	2.05	1.78	1.78
Net Operating Profit to Net Sales (%):			
1964	1.62	1.62	1.62
1965	1.66	1.45	1.45
1966	1.76	1.48	1.48
Vet Current Operating Profito Net Sales (%):			
1964	.82	.82	.82
1965	.88	.67	.67
1966 Wet Realized Profit to Net	.90	.62	.62
Sales (%):			
1964	_	.82	.76
1965	-	.88	.80
1966	-	.90	.74
let Business Profit to Net			
Sales (%):			
1964	-	.77	.72
1965	-	.98	.89
1966 Tet Current Operating Profi	_	1.00	.84
to Total Assets (%):	T		
196L	7.36	7.42	7.42
1965	8.02	6.06	6.06
1966	9.03	6.11	6.11
et Realized Profit to	7.00	0.11	0.11
Total Assets (%):			
1964	-	7.36	6.83
1965	-	7.95	7.19
1966	_	8.91	7.31
let Business Profit to			
Total Assets (%):		( -1	,
1964 1965	-	6.94	6.51
1966	-	8.85	7.99
1700	-	9.85	8.27

TABLE VII (continued)

	Conventional	Edwards and Bell Current Cost			
Ratio	Accounting	Money	Real		
Net Current Operating Profit to Common Stock					
Equity (%): 1964 1965 1966	15.51 15.14 16.32	15.75 11.41 10.89	15.76 11.42 10.89		
Net Realized Profit to Common Stock Equity (%): 1964	_	15.65	14.52		
1965 1966 Net Business Profit to	=	14.97 15.87	13.55		
Common Stock Equity (%): 1964 1965 1966	-	14.75 16.66 17.54	13.83 15.05 14.73		

<sup>&</sup>lt;sup>a</sup>See Appendices L-N.

in the cost of sales and a decrease in the gross operating profit for the data of that method. The Edwards and Bell ratios were smaller than the conventional ratios for those years as a result of the price movement of the inventories.

Although the Edwards and Bell net operating profit was less than the conventional net operating profit for 1964, the difference was nominal, and no variation was observed between the net operating profit to net sales ratios computed for the two methods for that year. The minor difference in the net operating profit was due to the increased amount of depreciation expense recognized by the Edwards and Bell

method.

Realized profit and business profit does not exist in the conventional accounting data and financial statements. Thus, ratios containing either or both of these factors cannot be computed for comparison of the two methods. The remaining three ratios compared and discussed in this section are: 1) net current operating profit to net sales; 2) net current operating profit to total assets; and 3) net current operating profit to common stock equity.

The impact of the Edwards and Bell theory upon accounting data and financial statements is revealed in the current operating profit. This figure reflects the significance of separating operating income from holding gains. The Edwards and Bell current operating profit exceeded the conventional amount for 1964. The difference was due to the elimination of amounts attributable to holding activities consisting of the realized cost saving on depreciation expense and the realized cost loss on interest expense in the Edwards and Bell data. For 1965 and 1966, the conventional current operating profit was more than that amount computed for the Edwards and Bell method. The difference for 1965 resulted from the realized cost savings on the cost of sales and the depreciation expense and the realized cost loss on interest expense derived from holding activities being segregated from current operating profit in the Edwards and Bell data. The separation of operating and holding activities for 1966 resulted in realized cost savings on cost of sales, depreciation expense, and interest expense in the Edwards and Bell method and caused the difference that year.

Net current operating profit is the current operating profit less income taxes and preferred dividends. The amounts for income taxes and preferred dividends are the same for the two methods; thus, no differences are created by the factors used to compute net current operating profit.

The net current operating profit to net sales ratio for 1964 was the same for each method. Although the Edwards and Bell net current operating profit was the larger amount, the difference was nominal, and no variation existed between the ratios for each method. The Edwards and Bell ratios for 1965 and 1966 were lower than the conventional ratios for those years. The lesser amount of the Edwards and Bell current operating profit, as explained in the preceding material, was the cause of the difference.

The Edwards and Bell net current operating profit to total assets ratio was higher than the conventional ratio for 1964. The difference was due to the greater amount of current operating profit computed for the Edwards and Bell data. The increase in the total assets for that data was relatively minor and did not materially affect the results. The ratios for the conventional method were higher for 1965 and 1966 because of the smaller amount of current operating profit resulting from the Edwards and Bell method. The

significant increases in the amount of total assets recognized in the Edwards and Bell data for those years contributed to lessen the effect upon the differences created by the lower Edwards and Bell current operating profit.

Differences existed between the net current operating profit to common stock equity ratios for each method computed for all three years. For 1964, the Edwards and Bell ratio was higher because of the effect in that data of the lesser amounts of current operating profit and retained earnings. The retained earnings amount was lower due to the business profit being less than the conventional current operating profit. The lower current operating profit and the higher retained earnings computed for the Edwards and Bell data accounted for those ratios being lower for 1965 and 1966. The recognition of operating activities and holding activities in the Edwards and Bell method caused material differences to exist in the current operating profit computed in accordance with the two methods for those years. The Edwards and Bell amount was appreciably smaller. Business profit for those years was greater than the conventional current operating profit. That caused the Edwards and Bell retained earnings to be higher for both years.

A difference in the net current operating profit to common stock equity ratio for the money data and the real data existed in the Edwards and Bell method for 1964 and 1965. The presence of outstanding preferred stock and the

subsequent price level adjustment of it in the real data for those years created the difference. No difference existed for 1966 because there was no preferred stock outstanding.

#### CHAPTER IV

#### FINANCIAL DATA EVALUATION

The decision-making process of the financial manager includes an evaluation phase of the financial ratios of the firm. Therefore, an evaluation of the differences that existed between the ratios computed for the conventional method and the Edwards and Bell method of processing the Wholesalers, Inc., accounting data was necessary to determine the importance of the Edwards and Bell theory for the purpose of this paper.

The fact that some of the differences were as little as one-half of one percent did not mean that it was an insignificant variance. In cases where these ratios involved large dollar amounts, some of the differences represented an excess of one-half million dollars. Also, because of the relationship of the factors in the ratios, the magnitude of the dollar amount of the difference in the factors was not revealed. The evaluation of the differences existing between the ratios for the two methods was made within the framework of the four areas of concern, previously outlined, to the financial manager. Therefore, significant importance was attached to a difference for purposes of one decision and lesser or no importance for another decision-making process.

## Liquidity Position

The liquidity position of the firm is a major responsibility of the financial manager. The financial ratios reflecting the liquidity position of Wholesalers, Inc., indicated relatively minimal effects from the application of the Edwards and Bell theory to the accounting data. It was noted, however, that an appreciable leverage effect does result from the movement in the price level index and the market rate of interest. This characteristic becomes significant if the dollar amounts used in the adjustments are sizable.

The differences amounting to an increase of \$5,764 and \$12,467 for 1964 and 1965, respectively, and a decrease for 1966 of \$8,852 in the Edwards and Bell current liabilities did not weigh heavily in the evaluation of the liquidity position of Wholesalers, Inc., for those years. The amount of inventories for the Edwards and Bell data for 1965 was \$219,540 more than that amount for the conventional data. For 1966, the same trend in that difference amounted to \$216,697. These amounts produced only slight differences in the current ratio and the inventory to working capital ratio for 1965 and 1966.

The minimal effect upon the liquidity position was supported by the fact that ratio analysis of the liquidity position of a firm would be insufficient as a means for basic decision purposes. A complete cash analysis utilizing a cash budget is a necessity to complete a liquidity position

appraisal.

### Leverage Position

The ability of the financial manager to achieve a favorable financial leverage in the financial operation of a business is a desired goal. The financial data developed by the Edwards and Bell method that was used in the calculation of the leverage ratios indicated major changes in the financial operating profit, common stock equity, total equity, fixed assets, and interest expense. The importance of those changes in financial decisions was reflected in the interest coverage ratio.

The financial operating profit for the Edwards and Bell method was \$8,209 less for 1964, \$965,039 less for 1965, and \$1,370,632 less for 1966 than the conventional method amount. The interest coverage ratio for Wholesalers, Inc., for each of the years observed was quite adequate for both methods. However, the contribution from operating activities was clearly identified in the Edwards and Bell data. The significance of the inclusion of holding activities in the conventional data was evidenced by the differences that existed in the ratios computed for both methods.

The cost of the debt, represented by this ratio, is incurred as a result of the determination in the financial plan of a firm that the firm can produce a return in the operation of the business from the use of debt funding in

excess of the cost of the debt. Therefore, proper evaluation of this ratio requires that only the results from operating activities be included in its computation. The material effect, evidenced by the Wholesalers, Inc., data for the Edwards and Bell method, points to the fact that holding activities can contribute significantly to a satisfactory ratio resulting from conventional accounting methods. The financial manager in this situation would accept the present debt, and possibly incur new debt, and subsequently be faced with the problem of why current operations cannot meet the expense of the debt in the event of adverse price movements.

The presence of cumulative preferred stock increases the importance of the concept of operating activities versus holding activities in the Edwards and Bell theory when analyzing the results obtained from the preferred dividend coverage ratio.

For 1964, the amount of the interest expense for the Edwards and Boll data was over 1½ percent less than the conventional amount and over 7 percent less for 1965. The difference, amounting to \$51,363 for those two years, provided an early indication of the need to review the financial structure of the firm. An analysis and a projection of the future money market would guide the decision to refinance at more favorable terms, if possible.

While material changes did occur in other financial data when processed in accordance with the Edwards and Bell

method, their effect upon the leverage position, as evidenced by the ratios computed, was not of the magnitude to warrant changes in financial leverage decisions.

# Activity Position

The use of the resources of the firm is indicated by the activity ratios. Conditions of overtrading on the assets, excessive investments, and idle capacity are the major guidelines established for the financial manager by these ratios. The fixed assets turnover ratio for Wholesalers, Inc., exhibited the only major difference between the two methods relevant to the activity position.

The Edwards and Bell fixed assets turnover ratios were less than the same conventional ratios for 1965 and 1966. The difference of \$239,636 more for the amount of fixed assets in the Edwards and Bell data for 1965 accounted for the turnover to be 1.0½ times lower for that data. For 1966, that amount was \$426,716 more than the conventional amount and resulted in a difference of 2.52 times less activity for the Edwards and Bell method. While that difference did not signal a need for action to improve the activity position of the firm, an indication was given to view the profitability position with a critical eye as a result of the greater value of assets being owned by the firm.

## Profitability Position

The profitability position of Wholesalers, Inc., indicated the greatest degree of change and the most significant effects from the application of the Edwards and Bell theory to their accounting data. The profit figures presented in Table VIII give effect to the impact of the Edwards and Bell method upon accounting data.

Table VIII

WHOLESALERS, INC., OPERATING PROFIT AMOUNTS a (Dollars)

Profit	Conventional Accounting	Edwards and Bell Current Cost	
		Money	Real
Gross Profit:			
196L 1965 1966 Gross Operating Profit: 196L 1965 1966	19,591,660 25,264,425 26,714,393	19,591,660 24,329,569 25,402,838	19,591,660 24,329,569 25,402,838
	6,055,606 8,855,760 10.007,250	6,055,606 7,920,904 8,695,695	6,055,606 7,920,904 8,695,695
Net Operating Profit: 1961 1965 1966	5,106,891 7,450,979 8,600,522	5,098,682 6,1485,9110 7,229,890	5,098,683 6,485,940 7,229,890
Financial Operating Profit:	, , , , , , ,		
19614 1965 1966	5,487,384 8,036,864 8,905,877	5,479,175 7,071,825 7,535,245	5,479,17 7,071,82 7,535,24
Current Operating Profit: 1964 1965 1966	5,307,720 7,706,949 8,587,329	5,325,685 6,767,099 7,199,925	5,325,68 6,767,09 7,199,92

aSee Appendices M-1 thru M-3.

The movement of the price index for the inventories began in 1965, and the Edwards and Bell gross profit was \$934,856 less than the conventional amount because of the change in the price index. For 1966, the same type of difference occurred but in the amount of \$1,311,555. Those differences in the gross profit represented more than 12 and 15 percent of the conventional current operating profit reported for 1965 and 1966, respectively.

The potential profit that exists from holding activities associated with the inventories is revealed in the Edwards and Bell method. This information is of significant value to the financial manager. The evaluation of the risk represented by the inventories is determined by making a projection of the trend for the prices of the inventories. Through the coordinated efforts of the purchasing function and the selling function, the inventories can be established at optimal levels and the changes in selling prices, where possible, and the timing of them can be determined to maximize the gross profit. The financial manager is able to plan the financial operations of the firm within an informed environment with this current information. Also, his knowledge of the current operations and the current position is improved through the use of the Edwards and Bell data.

Selling and administrative expenses are accounted for on a current amount basis by the Edwards and Bell theory; therefore, no additional differences were present in the computation of gross operating profit.

The net operating profit reflected the effect of the depreciation expense upon the determination of profit. The amount of that expense in the Edwards and Bell data was more than that amount in the conventional data for each year. The additional amount attributed to holding activities was \$8,209 for 1964, \$30,183 for 1965, and \$59,077 for 1966. These amounts were not considered to be material from the aspect of the total operation of the business. However, the significant factor related to the increased amount of depreciation expense was the appreciation of the fixed assets. The increase in the market value of the fixed assets has been previously discussed in this paper.

Current cost depreciation expense, as advanced by the Edwards and Bell theory, can assume a level of importance in the decision-making process. The pricing of a product, the production of a product, and the replacement of a fixed asset are examples of decisions involving the recognition of depreciation expense.

Other income and other expense are usually immaterial amounts and seldom become factors of major importance in the financial plans of a firm. However, the other income of Wholesalers, Inc., made a significant contribution to the financial operating profit each year.

Current operating profit is computed by deducting the interest expense from the financial operating profit.

Interest expense and its importance were discussed in earlier parts of this paper. The separation of operating activities from holding activities produced differences of \$17,965 more, \$939,850 less, and \$1,387,404 less current operating profit for 1964, 1965, and 1966, respectively, for the Edwards and Bell method than for the conventional method. Thus, over 12 percent for 1965 and over 16 percent for 1966 of the amount reported as conventional current operating profit was attributable to the holding activities of Wholesalers, Inc. The percentage for 1964 was negligible. These differences were further reflected in the net current operating profit for each year.

The net current operating profit to net sales ratios are presented in Figure 1. The divergent trends from 1964 through 1966 of these ratios for each method are illustrated. Conflicting results were computed concerning the operations of the business. The conventional ratios could have caused the financial manager to take no action if those ratios met the goals set for them in planning. Also, since the ratios exhibited an upward trend, indications for further analysis were minimized. The Edwards and Bell ratios, on the other hand, presented the actual results of the operating activities of Wholesalers, Inc., for the period observed. The financial manager would have been alerted to the need for additional analysis to determine the causal factors and

reverse the trend.

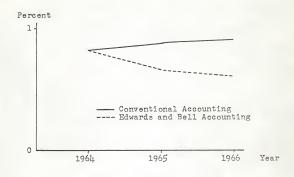


FIGURE 1
WHOLESALERS, INC., NET CURRENT OPERATING
PROFIT TO NET SALES

The amount of net current operating profit for each method for each year is set forth in Table IX. Also, net realized profit and net business profit are included for comparative purposes.

The combined effect of a smaller amount of net current operating profit and a larger amount of assets for the Edwards and Bell data for 1965 and 1966 was displayed by the net current operating profit to total assets ratios (Figure 2). The operations of Wholesalers, Inc., were on a rising trend and at an increasing rate according to the conventional

ratios. However, the separation of operating activities from holding activities for the Edwards and Bell ratio data resulted in a downward trend for the ratio for 1965 and a slight rising trend for it for 1966. The financial manager's evaluation of the operations of the business could not have been the same for the two sets of data presented in their respective statements. The Edwards and Bell data indicated that the favorable ratio trend was dependent upon factors outside the control of the business.

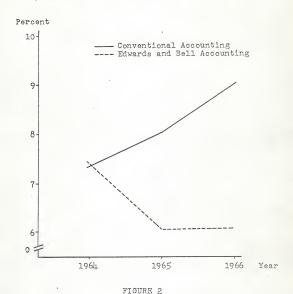
TABLE IX
WHOLESALERS, INC., NET PROFIT AMOUNTS<sup>a</sup>
(Dollars)

Net Profit	Conventional Accounting	Edwards and Bell Current Cost	
		Money	Real
Net Current Operating Profit:			
1961 1965 1966 Net Realized Profit: 1961 1965 1966 Net Business Profit: 1961 1965 1966	2,574,408 3,956,602 4,419,447	2,592,373 3,016,752 3,032,043	2,592,373 3,016,752 3,032,043
	=	2,574,408 3,956,602 4,419,1447	2,387,505 3,577,731 3,624,212
	=	2,427,015 4,404.754 4,883,699	2,274,522 3,974,522 4,100,663

aSee Appendices M-1 thru M-3.

The financial manager is primarily concerned with the decisions based upon factors controllable within the firm.

These decisions are made within a knowledgeable framework of the effects of the uncontrollable, external factors upon the future operations of the business.



WHOLESALERS, INC., NET CURRENT OPERATING PROFIT TO TOTAL ASSETS

The interests of the owners are a basic responsibility of the financial manager. The net current operating profit to common stock equity ratio indicates the rate of return

that the common stockholders are receiving on their investment in the business. Figure 3 provides a visual comparison of the rate of return for each method for each year and the movement of the rate for each method during the period selected for study. While both methods exhibited a downward trend for this ratio for 1965, the Edwards and Bell ratio declined to a much lower value than did the conventional ratio. The movement of the ratios for the two methods was in opposite directions for 1966. The rate of return indicated by the Edwards and Bell data appraised the operating activities of Wholesalers, Inc., in a realistic manner.

The two sets of data for Wholesalers, Inc., exhibited material differences in the reported profits each year which created significant effects upon the ratios used to evaluate the profitability position of the operations of the firm. Thus, two different conclusions for the same phase of the operations were possible. The existence of that situation emphasizes the impact of the Edwards and Bell theory upon financial analyses.

Money realized profit is the same as conventional current operating profit. The difference between money realized profit and money current operating profit is the amount of realized cost savings and realized capital gains for the current period represented by the holding activities, as defined by Edwards and Bell, of the firm. Conventional accounting methods do not have an identical counterpart for money

realized profit; therefore, further comparisons between the results obtained from each method were not possible.

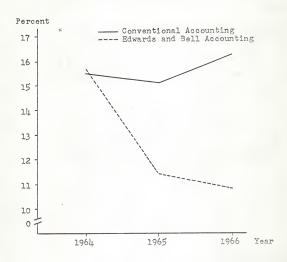


FIGURE 3
WHOLESALERS, INC., NET CURRENT OPERATING PROFIT TO COMMON STOCK EQUITY

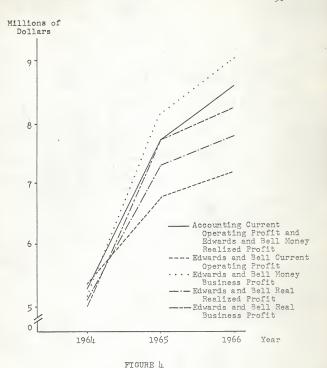
Money business profit is the sum of the money current operating profit and the total amount of realizable cost savings and the realizable capital gains for the current period represented by the holding activities, as defined by Edwards and Bell, of the firm. The difference between money realized

profit and money business profit is the unrealized portion of the realizable cost savings and the realizable capital gains for the current period. No comparison of money business profit was possible since it is unique to the Edwards and Bell method.

Real realized profit and real business profit were included in the presentation of the Edwards and Bell data in this paper to show the effects of the price level adjustments proposed in their theory. The real purchasing power of the reported profits was represented by their dollar amounts. The maximizing of money profits also maximizes real profits; therefore, comparison with real data was not necessary for the purposes of this paper.

The relationships of the various types of profits and of their trends during the period observed is presented in Figure 4. The trends of the various profits reflected the results of the activities of Wholesalers, Inc. In addition, the respective Edwards and Bell profits disclosed the effects of separating operating activities from holding activities, recognizing the realizable profits, segregating the realized portion from the realizable profits, and eliminating the fictional element from the money profits.

The chart (Appendix A) and the selected graphs (Appendices B thru K) illustrate the amounts and relationships of the various profit concepts, their movements during the period studied, and their effects upon financial ratios.



WHOLESALERS, INC., PROFIT TREND BY TYPE FOR PERIOD 1964-1966

#### CHAPTER V

#### SUMMARY

The accounting data and information supplied to the financial manager for use in analyzing the activities of the firm should be timely and accurate. The analysis should disclose the results of past activities of the business, the financial statements should present the current position of the firm, and these factors should form a base for planning future business operations.

The preparation and presentation of the financial statements of Wholesalers, Inc., in accordance with the conventional accounting method and the Edwards and Bell method provided two sets of financial analysis source material for each fiscal year. The financial data and ratios computed from these statements produced financial indicators for each fiscal year that were different in a majority of the cases. Significant variations in the results of past activities of the business for each fiscal year were indicated by the two methods. Based upon these indicators, analyses used in the decision-making process would have been different in many instances; therefore, financial decisions and actions would have varied as a result of the disclosed differences.

The process of financial analysis focuses upon net income derived from the traditional operating concept. Income statements prepared in accordance with the conventional current operating concept most nearly approach the ideal for financial analysis purposes. In effect, the Edwards and Bell theory is an application of that concept but with a different interpretation of operating activities. Also, a literal definition of current activities is advanced in their theory.

The Edwards and Bell current concept injects an element of significant value into accounting data. Their clear distinction between operating activities and holding activities provides meaningful supplementary accounting data. Financial ratios calculated from data processed in accordance with the Edwards and Bell theory and the conclusions drawn from those ratios are generally materially different from the results obtained when the source of information is conventional accounting data.

The short-term solvency of the firm is generally measured by the liquidity ratios. Since only the current accounts are used in these ratio calculations and the Edwards and Bell theory treats the current accounts as being on a current basis as is, with the exception of inventories, decisions concerning the firm's solvency are not materially altered by the use of the Edwards and Bell method. However, it is noted that the current ratio can be materially changed because of its inclusion of inventories adjusted to their current cost. Other ratios are more relevant to determining the level of inventories to be maintained by the firm. Therefore, a decision to shift out of short-term funds into long-term funds to

finance the higher current cost of operations is probably the only change in liquidity decisions that can result from the application of Edwards and Bell method. The early detection of this need for a change in the financial structure of the firm is a distinct advantage to the financial manager in performing his planning function.

Decisions relating to the composition of the financial structure of the firm and the risks of debt financing are based upon the leverage ratios. The Edwards and Bell method introduces significant differences in these ratios thus creating a potential for changes in financial decisions. The financial manager uses the leverage ratios as a basis for decisions relating to whether additional funds should be secured by long-term borrowing or by the issuance of capital stock, the ability of the firm to incur additional fixed charges on debt, the feasibility of refinancing the present debt at lower interest rates, and the proper balance between the components of the financial structure to insure a favorable position in the money market.

The recognition by the Edwards and Bell method of the current cost of the assets, the present value of the long-term debt, and the market rate of interest introduces factors affecting the leverage ratios and the above decisions based upon conventional accounting ratios will either be reinforced or reversed.

The Edwards and Bell activity ratios exhibit important

variances from their conventional accounting counterparts. The valuation of inventories and fixed assets at their current cost accounts for these differences. The inventory turnover ratio serves as a guide for the financial manager in determining the proper level of inventories to maintain relative to the firms operations. A satisfactory level may be indicated by the conventional accounting ratio; however, the inclusion of current costs during periods of rising prices and a favorable sales trend can signal a need for a reduction in the inventory levels.

Decisions regarding the acquisition of additional fixed assets are influenced by the fixed assets turnover ratio. Conventional accounting data, void of the current cost of the fixed assets, may indicate that the firm is overtrading on its fixed assets and that additional assets should be acquired. The restatement of the fixed assets at their current cost by the Edwards and Bell method can result in a satisfactory turnover ratio. This latter ratio may even indicate an excessive investment in fixed assets representing idle capacity in the operation of the firm. In either case, the financial manager's decision is altered and his attention will be directed to the immediate problem at hand.

The evaluation of the pricing structure of the firm's products can; in part, be determined by the gross operating profit to net sales ratio. The Edwards and Bell method states the inventories at their current cost. During periods

of rising prices, the Edwards and Bell ratio will be lower than the conventional accounting ratio; therefore, an early indication is given to the financial manager of the need for reviewing the selling prices of the firm's products. The conventional accounting ratio delays revealing this trend and can cause the firm to suffer an unnecessary reduction in sales revenues.

The net operating profit to net sales ratio measures the profitability of the firm's operating activities. Since the Edwards and Bell method eliminates the element of capital gains present in conventional accounting methods from this ratio, a lower profit position is disclosed by their ratio in the case of rising prices. Decisions concerning promotional efforts, cost control, and expansion of operations are based upon this ratio. These types of decisions require an accurate statement of the net operating profit and its relationship to net sales. If the firm is receiving a significant contribution to this profit figure from capital gains resulting from holding activities, the contribution to profit from operating activities, or its lack of, is disguised and the financial manager is misinformed in his decisions regarding the operating activities of the firm.

The net current operating profit to net sales, net current operating profit to total assets, and net current operrating profit to common stock equity ratios serve as overall
indicators of the firm's operations. These ratios suffer

material deficiencies for decision-making purposes under conventional accounting practices. The financial manager observes these ratios first in his evaluation of operation; therefore, the initiation of further analyses depends upon the proper disclosure of operation by these ratios.

Major decisions relating to the level of operations, size of plant, asset composition, and stockholder's interests are developed as a result of the evaluation of the latter three ratios. Since these decisions are generally of a long-term nature, errors based on inaccurate data can have a prolonged and deleterious effect upon the firm.

The financial manager uses the various types of profit amounts as key indicators and basic factors in the analyses of the firm. Accounting for the activities of a business in accordance with the Edwards and Bell current concept minimizes the overstatement or understatement of profit. Realistic profit amounts are presented as an aid in the financial decision-making process.

The use of current costs of asset services provides the essential information relevant to decisions to use an asset's services, to sell an asset, to replace an asset, or to produce a product. A margin of error is introduced into analyses using historic costs of asset services during periods of changing prices. For example, a decision based upon historic cost analyses to replace an asset could result in a return of less than that planned or even a less could occur

because of increased depreciation expense resulting from the higher current cost of the asset.

The Edwards and Bell method produces financial data that indicates the current cost of funds being used to finance the operation of the business. The financial manager is currently informed concerning decisions involving the acquisition or retirement of capital. He is guided toward the optimum financial structure for the firm.

Historical cost accounting data injects a high degree of uncertainty into the position of the stockholders. The absence of the current characteristic from the accounting data prevents the financial manager from using meaningful data in fulfilling his responsibility to the stockholders. Conventional accounting data of a firm could reveal highly profitable past operations and an above average return on the stockholders' investment for those years. Also, the market value of the firm's stock would be high because of reported favorable profits. The major portion of the assets of the firm, being old and acquired during a period of lower prices. are to be replaced during the present fiscal year. The effects of the now higher current cost of the newly acquired assets reduces the rate of return on the stockholders' investment to an unsatisfactory level for the present year and probably for a number of future years. A lower market value for the firm's stock would exist during the period of low profits.

The need for additional capital could arise during this latter period and present several obstacles to the financial manager of the firm. The low profit position would not attract capital investors, the low market value of the stock would require a greater number of shares to be issued to acquire a given amount of capital, and the stockholders would not be interested in investing additional funds in the business. The lack of current cost information places the financial manager at a considerable disadvantage in his function.

The Edwards and Bell theory contends that a business performs both operating activities and holding activities. Therefore, an operating management function and a holding management function exists within a firm. The financial manager is placed within this environment in his decision-making processes. He must not only concern himself with the internal evaluation by management of these functions, but must also give cognizance to the evaluation of management of these functions by external interests. The Edwards and Bell method furnishes the financial manager with the information necessary to appraise these factors.

Traditional financial statements present a hazardous basis for use by the financial manager in analyses comparing his firm with other firms and with the industry. Hidden inefficiencies exist in these statements due to the different acquisition dates and costs of the assets. Profits are

overstated or understated in the income statements and distorted balance sheet values are presented. Meaningful comparisons become a matter of coincidence under these circumstances. The Edwards and Bell statements do not suffer from these deficiencies.

Knowledgeable financial managers are aware of specific and general price movements, and they recognize to a limited extent the effects of these movements upon business operations. They can and do make mental adjustments for these factors in their analyses; however, such adjustments are at best rough estimates. The Edwards and Bell techniques of application produce accounting data and financial statements that disclose the effects of price movements. Their method makes use of the body of knowledge relevant to these factors and minimizes the degree of error created by the absence of these elements in analyses.

Business operations are conducted within a dynamic economy and a full knowledge of the economic forces is essential to management. The intelligent allocation of resources requires a full knowledge of the environment potentials within which a decision is to be made. The efficient use of resources calls for informative feedback to guide the decision-making processes. The Edwards and Bell method fulfills these needs of the financial manager. Decisions based upon data processed in accordance with their theory should result in greater output from and cyclical stability in the operation

of the firm. Also, as these latter two results occur within each firm, the total economy would evolve toward this optimal state.

The fulfillment of the first two objectives of this paper and the preceding resume warrant the conclusion that accounting data prepared in accordance with the Edwards and Bell theory produces material changes in and significant effects upon the financial analyses used by financial managers.

The recognition of the effects of the Edwards and Bell theory upon financial analyses would require that financial managers revise their interpretation of the affected financial indicators and/or develop new standards of evaluation for these indicators. If only the interpretations changed, the present standards could remain unchanged. However, the adherence to the distinction between operating activities and holding activities in the accounting data should result in the development of a new set of standards and interpretive guidelines for each financial indicator. The latter would seem to be the wise course of action to follow currently.

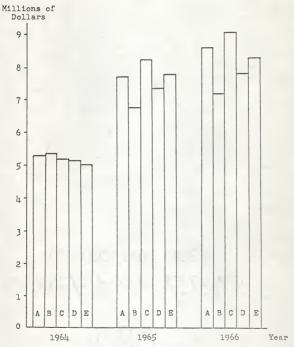


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### APPENDIX A

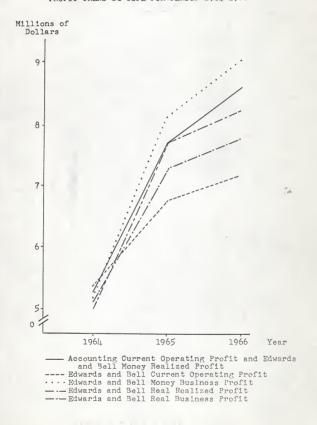
#### PROFIT AMOUNT BY TYPE AND YEAR



- A Accounting Current Operating Profit and Edwards and Bell Money Realized Profit
- Bell Money Realized Profit
  B Edwards and Bell Current Operating Profit
- C Edwards and Bell Money Business Profit D - Edwards and Bell Real Realized Profit
- E Edwards and Bell Real Business Profit

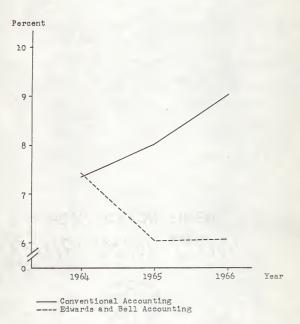
APPENDIX B

### PROFIT TREND BY TYPE FOR PERIOD 1964-1966



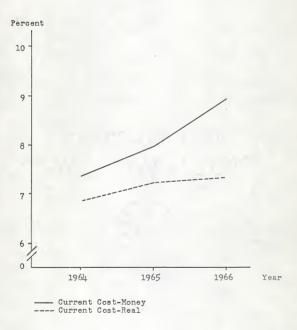
APPENDIX C

# NET CURRENT OPERATING PROFIT TO TOTAL ASSETS



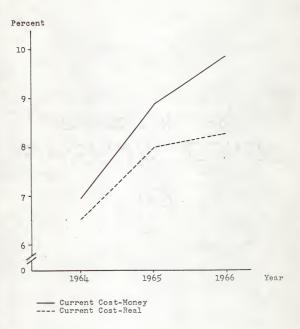
APPENDIX D

# NET REALIZED PROFIT TO TOTAL ASSETS



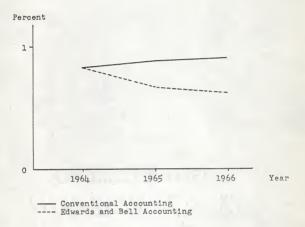
APPENDIX E

## NET BUSINESS PROFIT TO TOTAL ASSETS



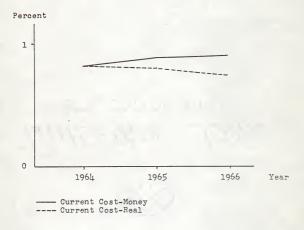
APPENDIX F

# NET CURRENT OPERATING PROFIT TO NET SALES



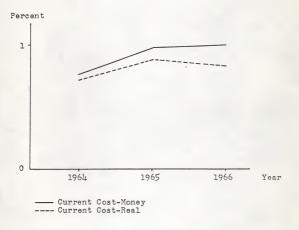
APPENDIX G

# NET REALIZED PROFIT TO NET SALES



APPENDIX H

## NET BUSINESS PROFIT TO NET SALES



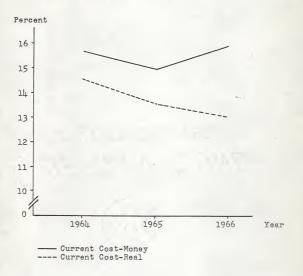
APPENDIX I

## NET CURRENT OPERATING PROFIT TO COMMON STOCK EQUITY



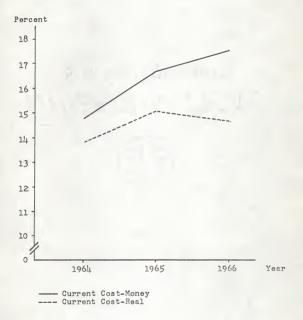
APPENDIX J

# NET REALIZED PROFIT TO COMMON STOCK EQUITY



APPENDIX K

## NET BUSINESS PROFIT TO COMMON STOCK EQUITY



APPENDIX L-1 WHOLESALERS, INC., FINANCIAL RATIOS DECEMBER 26, 1964

Data		onventional	Edwards and Bell Current Costa	
Items	Ratio	Accounting	Money	Real
1/6	Acid-Test Ratio (x)	•39	.39	.39
2/6	Quick Ratio (x)	1.00	1.00	1.00
3/6	Current Ratio (x)	2.44	2.44	2.44
26/9	Inventory to Working	300 33	300 25	300 25
8/12	Capital (%) Total Liabilities to	100.31	100.35	100.35
0/12	Total Equity (%)	100.60	102.59	102.59
18/28	Interest Coverage (x)	30.54	35.70	35.70
18/(28	Preferred Dividend	50.54	32.10	22.10
+29)	Coverage (x)	24.98	28.32	28.32
6/11	Current Liabilities to			
•	Common Stock Equity (%)	69.07	69.72	69.75
4/12	Fixed Assets to Total			
	Equity (%)	37.25	37.85	37.85
14/25	Inventory Turnover (x)	20.71	20.71	20.71
13/4	Fixed Assets Turnover (x)	48.62	48.26	48.26
13/5	Total Assets Turnover (x)	9.03	9.02	9.02
16/13	Gross Operating Profit to			
2/22	Net Sales (%)	1.92	1.92	1.92
17/13	Net Operating Profit to Net Sales (%)	1.62	1.62	1.62
22/13	Net Current Operating Prof		1.02	1.02
22/13	to Net Sales (%)	.82	.82	.82
23/13	Net Realized Profit to	.02	.02	.02
- 2/ - 2	Net Sales (%)	_	.82	.76
24/13	Net Business Profit to		.02	• 10
,>	Net Sales (%)	_	.77	.72
22/5	Net Current Operating Prof	it		
, .	to Total Assets (%)	7.36	7.42	7.42
23/5	Net Realized Profit to			
	Total Assets (%)	-	7.36	6.83
214/5	Net Business Profit to		1	,
20/22	Total Assets (%)	-	6.94	6.51
22/11	Net Current Operating Prof		35 35	35 3/
23/11	to Common Stock Equity (	%) 15.51	15.75	15.76
-)/11	Common Stock Equity (%)		15.65	14.52
24/11	Net Business Profit to	-	19.05	14.52
/	Common Stock Equity (%)	_	14.75	13.83
			4.17	20.00

Average-of-Period Dollars.

APPENDIX L-2
WHOLESALERS, INC., FINANCIAL RATIOS
DECEMBER 25, 1965

Data		onventional	Edwards and Bell Current Cost	
Items	Ratio	Accounting	Money	Real
1/6	Acid-Test Ratio (x)	.32	.32	.32
2/6	Quick Ratio (x)	.91	.91	.91
3/6	Current Ratio (x)	2.33	2.34	2.34
26/9	Inventory to Working	1	2 01 00	7.01. 00
11.1-	Capital (%)	104.98	104.99	104.99
8/12	Total Liabilities to	83.10	82.77	82.77
18/28	Total Equity (%) Interest Coverage (x)	24.36	23.21	23.21
18/(28	Preferred Dividend	24.50	23.61	دے ، رے
+29)	Coverage (x)	21.73	20.51	20.51
6/11	Current Liabilities to	C1 . 1 J	20.71	20.72
0/ 11	Common Stock Equity (%)	63.10	62.43	62.47
4/12	Fixed Assets to Total			
	Equity (%)	37.26	37.73	37.73
14/25	Inventory Turnover (x)	21.40	21.33	21.33
13/4	Fixed Assets Turnover (x)	44.72	43.68	43.68
13/5	Total Assets Turnover (x)	9.10	9.02	9.02
16/13	Gross Operating Profit to		/	
- /	Net Sales (%)	1.97	1.76	1.76
17/13	Net Operating Profit to	1.66	1.45	1.45
22/13	Net Sales (%) Net Current Operating Prof		1.47	1.45
22/13	to Net Sales (%)	.88	.67	.67
23/13	Net Realized Profit to	•00	.01	•01
- 3/ -3	Net Sales (%)	_	.88	.80
24/13	Net Business Profit to			
	Net Sales (%)	-	.98	.89
22/5	Net Current Operating Prof	it		
	to Total Assets (%)	8.02	6.06	6.06
23/5	Net Realized Profit to		E 05	F 3.0
01 /5	Total Assets (%)	-	7.95	7.19
24/5	Net Business Profit to Total Assets (%)		8.85	7.99
22/11	Net Current Operating Prof	4+	0.05	1 . 77
cc/11	to Common Stock Equity (		11.41	11.1,2
23/11	Net Realized Profit to	/-/ -/	11.41	11 01/10
/	Common Stock Equity (%)	-	14.97	13.59
24/11	Net Business Profit to			
.,	Common Stock Equity (%)	-	16.66	15.05

Average-of-Period Dollars.

APPENDIX L-3
WHOLESALERS, INC., FINANCIAL RATIOS
DECEMBER 31, 1966

Data		Conventional	Edwards and Bell Current Cost	
Items Ratio	Ratio Accountin		Money	Real
1/6	Acid-Test Ratio (x)	.21	.21	.21
2/6	Quick Ratio (x)	.89	.89	.89
3/6	Current Ratio (x)	2.45	2.46	2.46
26/9	Inventory to Working		302 05	300 05
0 /2 0	Capital (%)	103.31	103.25	103.25
8/12	Total Liabilities to Total Equity (%)	80.80	78.14	78.14
18/28	Interest Coverage (x)	27.96	22.47	22.47
18/(28	Preferred Dividend	21.70		
+29)	Coverage (x)	_	-	-
6/11	Current Liabilities to			
,	Common Stock Equity (%)	59.49	57.82	57.82
4/12	Fixed Assets to Total	04	10	10
	Equity (%)	32.85	33.48	33.48
14/25	Inventory Turnover (x)	19.64	19.51	19.51 52.48
13/4	Fixed Assets Turnover (x)	55.00 9.99	52.48 9.86	9.86
13/5	Total Assets Turnover (x) Gross Operating Profit to	9.99	9.00	7.00
16/13	Net Sales (%)	2.05	1.78	1.78
17/13	Net Operating Profit to	2.07	1.10	
-1/-2	Net Sales (%)	1.76	1.48	1.48
22/13	Net Current Operating Proj	fit		
	to Net Sales (%)	.90	.62	.62
23/13	Net Realized Profit to			-1
	Net Sales (%)	-	.90	.74
24/13	Net Business Profit to		1.00	.84
22/5	Net Sales (%) Net Current Operating Pro:	C4+	1.00	.04
22/5	to Total Assets (%)	9.03	6.11	6.11
23/5	Net Realized Profit to	7.00	0.11	0,11
2)//	Total Assets (%)	_	8.91	7.31
24/5	Net Business Profit to			
	Total Assets (%)	-	9.85	8.27
22/11	Net Current Operating Pro:			3.0.0-
/	to Common Stock Equity	(%) 16.32	10.89	10.89
23/11	Net Realized Profit to		15.87	13.02
24/11	Common Stock Equity (%) Net Business Profit to	-	15.07	13.02
24/11	Common Stock Equity (%)	_	17.54	14.73
	Johnson Dood Equitor (/0)		11.04	14.17

Average-of-Period Dollars.

## APPENDIX M-1

## WHOLESALERS, INC., FINANCIAL DATA DECEMBER 26, 1964 (Dollars)

Data				Edwards and Bell Current Cost <sup>a</sup>	
No.	Item	Accounting	Money	Real	
1 ( 2 3 4 1 5 6 6 6 7 7 1 1 8 9 1 1 1 1 5 1 1 6 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Cash Assets Quick Assets Current Assets Fixed Assets Total Assets Current Liabilities Current Liabilities Cong-Term Liabilities Working Capital Preferred Stock Equity Common Stock Equity Total Equity Net Sales Gross Profit Gross Operating Profit Financial Operating Profit Current Operating Profit Business Profit Business Profit Net Current Operating Profit Net Current Operating Profit Net Realized Profit	4,507,694 11,415,452 27,941,297 6,481,907 34,908,740 11,466,836 6,039,601 17,506,437 16,474,461 800,000 16,602,303 315,163,543 295,571,883 19,591,660 6,055,606 5,106,891 5,487,384 5,307,720	4,507,694 11,415,458 27,941,297 6,530,578 34,957,411 11,472,600 6,229,901 17,702,501 16,468,697 800,000 16,454,910 315,163,543 295,571,883 19,591,660 6,055,606 5,098,685 5,479,175 5,325,685 5,479,175 5,325,685 5,307,720 5,160,327 2,592,373 2,571,408	4,507,694 11,415,458 27,941,297 6,530,578 34,957,411 11,472,600 6,229,901 17,702,501 16,468,697 807,383 16,447,521 315,163,543 295,571,883 19,591,666 5,098,686 5,479,175 5,325,685 5,479,175 5,325,685 5,479,175 5,325,685 5,479,175 5,325,685 5,479,175	
26 I 27 I 28 I	Inventories (average) Inventories Depreciation Interest Preferred Dividends	14,271,295 16,525,839 948,715 179,664 40,000	14,271,295 16,525,839 956,924 153,490 40,000	14,271,295 16,525,839 956,924	

<sup>&</sup>lt;sup>a</sup>Average-of-Period Dollars.

### APPENDIX M-2

# WHOLESALERS, INC., FINANCIAL DATA DECEMBER 25, 1965

Data		Conventional	Edwards and Bell Current Cost <sup>a</sup>		
No.	Item	Accounting	Money	Real	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Cash Assets Quick Assets Current Assets Fixed Assets Total Assets Current Liabilities Long-Term Liabilities Working Capital Preferred Stock Equity Common Stock Equity Total Equity Net Sales Cost of Sales Gross Profit	5,285,216 15,003,096 38,447,196 10,035,509 49,310,851 16,488,228 5,892,010 22,380,238 21,958,663 26,130,613 448,812,068 443,547,646 448,12,068	5,285,216 15,003,096 38,666,73,66 10,275,145 49,770,027 16,500,697 6,037,960 22,538,655 22,166,041 800,000 26,431,372 448,812,068 424,482,499 24,329,569	5,285,216 15,003,096 38,666,736 10,275,145 49,770,027 16,500,69 22,538,65 22,166,041 26,412,299 27,231,372 448,812,068 424,482,499 24,329,569	
16 17 18	Gross Operating Profit Net Operating Profit Financial Operating	25,264,425 8,855,760 7,450,979	7,920,904	7,920,904 6,485,940	
3.0	Profit	8,036,864	7,071,825	7,071,825	
19 20 21	Current Operating Profit Realized Profit Business Profit	7,706,949 - -	6,767,099 7,706,949 8,155,101	6,767,099 7,328,078 7,724,869	
22 23 24	Net Current Operating Profit Net Realized Profit Net Business Profit	3,956,602	3,016,752 3,956,602 4,404,754	3,974,522	
25 26 27 28 29	Inventories (average) Inventories Depreciation Interest Preferred Dividends	19,788,788 23,051,737 1,404,781 329,915 40,000	19,898,558 23,271,277 1,434,964 304,726 40,000		

<sup>&</sup>lt;sup>a</sup>Average-of-Period Dollars.

## APPENDIX M-3

# WHOLESALERS, INC., FINANCIAL DATA DECEMBER 31, 1966

Data		Conventional	Edwards and Bell Current Cost <sup>a</sup>		
No.	Item	Accounting	Money	Real	
12345678910	Cash Assets Quick Assets Current Assets Fixed Assets Total Assets Current Liabilities Long-Term Liabilities Total Liabilities Working Capital Preferred Stock Equity	3,417,423 14,344,197 39,388,341 8,894,764 48,950,660 16,106,673 5,769,431 21,876,431 23,281,668	3,417,423 14,344,197 39,605,038 9,321,480 49,594,07,821 5,656,692 21,754,513 23,507,217	3,417,423 14,344,197 39,605,038 9,321,480 49,594.073 16,097,821 5,656,692 21,754,513 23,507,217	
11 12 13 14 15 16 17 18	Common Stock Equity Total Equity Total Equity Net Sales Cost of Sales Gross Profit Gross Operating Profit Net Operating Profit Financial Operating	27,074,549 27,074,549 489,217,305 462,502,912 26,714,393 10,007,250 8,600,522	25,402,838 8,695,695	27,839,560 27,839,560 489,217,305 463,814,467 25,402,838 8,695,695 7,229,890	
19	Profit	8,905,877	7,535,245	7,535,245	
20 21 22	Current Operating Profit Realized Profit Business Profit	8,587,329 - -	7,199,925 8,587,329 9,051,581	7,199,925 7,792,094 8,268,545	
23 24 25 26 27 28 29	Net Current Operating Profit Net Realized Profit Net Business Profit Inventories (average) Inventories Depreciation Interest Preferred Dividends	4,419,447 - 23,552,550 24,053,363 1,406,728 318,548	3,032,043 4,419,447 4,883,699 23,770,669 24,270,060 1,465,805 335,320	3,032,043 3,624,212 4,100,663 23,770,669 24,270,060 1,465,805 335,320	

aAverage-of-Period Dollars.

### APPENDIX N-1

# WHOLESALERS, INC., BALANCE SHEET DECEMBER 26, 1964

	Conventional Accounting	Edwards and Bell Current Cost <sup>a</sup> Money <sup>b</sup> Real <sup>b</sup>
Current Assets Cash Marketable Securities Notes and Receivables	\$ 4,408,321 99,373	\$ 4,408,321 \$ 4,408,321 99,373 99,373
(net) Inventories Other Current Assets Total Current Assets	-	6,907,764 16,525,839 16,525,839 \$27,941,297 \$27,941,297
Fixed Assets Property, Plant and Equipment (net) Total Fixed Assets	\$ 6,481,907 \$ 6,481,907	\$ 6,530,578 \$ 6,530,578 \$ 6,530,578
Other Assets Frepald Expense Investments Total Other Assets Total Assets	\$ 196,898 288,638 \$ 485,536 \$34,908,740	288,638 288,638
Current Liabilities Accounts Payable Other Current Liabilities Current Portion of Long- Term Debt Total Current Liabilities	179,518	\$ 8,971,846 \$ 8,971,846 2,315,472 2,315,472 185,282 185,282 \$11,472,600 \$11,472,600
Long-Term Liabilities Notes Payable Other Long-Term Liabilities Total Long-Term Liabilities Total Liabilities	103,469	\$ 6,126,432 \$ 6,126,432 103,469 103,469 \$ 6,229,901 \$ 6,229,901 \$17,702,501
Equity Preferred Stock, 5% cumulative, \$100 par Common Stock, \$2,50 par Excess Paid-In Capital Retained Earnings Reserves Total Equity Total Liabilities and Equity		\$ 800,000 \$ 807,383

Average-of-Period Dollars.
bThese amounts differ only in the equity section which includes price level adjustments in the real column.

### APPENDIX N-2

# WHOLESALERS, INC., BALANCE SHEET DECEMBER 25, 1965

	Conventional Accounting	Edwards a Current Moneyb	
Current Assets			
Cash Marketable Securities	\$ 4,133,355 1,151,861	\$ 4,133,355 1,151,861	\$ 4,133,355 1,151,861
Notes and Receivables (net) Inventories Other Current Assets	9,717,880 23,051,737 392,363	9,717,880 23,271,277	9,717,880 23,271,277
Total Current Assets	\$38,447,196	392,363 \$38,666,736	392,363 \$38,666,736
Fixed Assets Property, Plant and Equipment (net) Total Fixed Assets	\$10,035,509 \$10,035,509	\$10,275,145 \$10,275,145	
Other Assets Prepaid Expenses Investments Total Other Assets Total Assets	\$ 332,979 495,167 \$ 828,146 \$49,310,851	\$ 828.146	\$ 828,146
Current Liabilities Accounts Payable Other Current Liabilities Current Portion of Long-		\$12,632,085 3,383,725	\$12,632,085 3,383,725
Term Debt	472,418	484,885	484,885
Total Current Liabilities	\$16,488,228	\$16,500,695	\$16,500,695
Long-Term Liabilities Notes Payable Other Long-Term Liabilities Total Long-Term	\$ 5,528,686 363,324	\$ 5,674,636 363,324	\$ 5,674,636
Liabilities Total Liabilities	\$ 5,892,010	\$ 6,037,960 \$22,538,655	\$ 6,037,960
Equity Preferred Stock, 5% cumulative, \$100 par Common Stock, \$2,50 par Excess Paid-In Capital Retained Earnings Total Equity Total Liabilities	\$ 800,000 6,031,745 4,983,110 15,115,758 \$26,930,613	6,031,745 4,983,110 15,416,517 \$27,231,372	6,175,569 5,101,9l44 15,13l4,786 \$27,231,372
and Equity	\$49,310,851	\$1,9,770,027	劃19,770,027

Average-of-Period Dollars.

bThese amounts differ only in the equity section which includes price level adjustments in the real column.

## APPENDIX N-3

# WHOLESALERS, INC., BALANCE SHEET DECEMBER 31, 1966

	Conventional Accounting	Edwards and Bell Current Cost <sup>a</sup> Money <sup>b</sup> Real <sup>b</sup>
Current Assets Cash Marketable Securities Notes and Receivables	\$ 2,346,409 1,071,014	
(net) Inventories Other Current Assets Total Current Assets	10,926,774 24,053,363 990,781 \$39,388,341	10,926,774 24,270,060 990,781 \$39,605,038
Fixed Assets Property, Plant and Equipment (net) Total Fixed Assets	\$ 8,894,764 \$ 8,894,764	\$ 9,321,480 \$ 9,321,480 \$ 9,321,480 \$ 9,321,480
Other Assets Prepaid Expenses Investments Total Other Assets Total Assets	\$ 267,614 399.941 \$ 667.555 \$48,950.660	399.941 399.941
Current Liabilities Accounts Payable Other Current Liabilities Current Portion of Long- Term Debt Total Current Liabilities	414,321	\$12,323,442 \$12,323,442 3,368,910 3,368,910 405,469 405,469 \$16,097,821 \$16,097,821
Long-Term Liabilities Notes Payable Other Long-Term Liabilities Total Long-Term Liabilities Total Liabilities	\$ 5,273,901 495,537	\$ 5,161,155 \$ 5,161,155
Equity Common Stock, \$2.50 par Excess Paid-In Capital Retained Earnings Total Equity Total Liabilities and Equity	4,944,352 16,226,782 \$27,074,549	\$ 5,903,415 \$ 6,239,144 4,944,352 5,225,545 16,991,793 16,374,871 \$27,839,560 \$27,839,560 \$419,594,073

 $$a_{\rm Average}$-of-Period Dollars.$$b_{\rm These}$ amounts differ only in the equity section which includes price level adjustments in the real column.$ 

### APPENDIX 0-1

# WHOLESALERS, INC., RETAINED EARNINGS STATEMENT FOR THE YEAR ENDED DECEMBER 26,1964

	Conventional	Edwards and Bell Current Cost
	Accounting	Money Real
Retained Earnings, Beginning Balance	\$ 6,318,062	\$ 6,318,062 \$ 6,318,062
Retained Earnings Acquired through Acquisitions (net) Accounting Profit Business Profit Total Additions	F 207 720	\$ 983,476 \$ 983,476 5,160,327 5,007,834 \$ 6,143,803 \$ 5,991,310
Sub-Total		\$12,461,865 \$12,309.372
Income Taxes Cash Dividends Total Deductions	\$ 2,693,312 1,243,501 \$ 3,936,813	\$ 2,693,312 1,243,501 \$ 3,936,813 \$ 3,936,813
Sub-Total	\$ 8,672,445	\$ 8,525,052 \$ 8,372,559
Price Level Adjustment	\$ -	\$ - \$ 72.675
Retained Earnings, Ending Balance	\$ 8,672,445	\$ 8,525,052 \$ 8,445,234

aThe format differs from those used in practice in order to conform to the Edwards and Bell theory and to present the data in a comprehensive manner.

bAverage-of-Period Dollars.

### APPENDIX 0-2

# WHOLESALERS, INC., RETAINED EARNINGS STATEMENT<sup>a</sup> FOR THE YEAR ENDED DECEMBER 25, 1965

	Conventional	Edwards a	and Bell t Cost <sup>b</sup>
	Accounting	Money	Real
Retained Earnings, Beginning Balance	\$ 8,672,445	\$ 8,525,052	\$ 8,445,234
Retained Earnings Acquired through Acquisitions (net) Insurance Reserve	\$ 4,400,662 78,467 7.706.949	\$ 4,400,662 78,467	\$ 4,400,662 78,467
Accounting Profit Business Profit Total Additions	-	8,155,101 \$12,634,230	7,724,869 \$12,203,998
Sub-Total	\$20,858,523	\$21,159,282	\$20,649,232
Income Taxes Cash Dividends Reorganization Charge (net) Minority Interest Total Deductions	88,069 84,694	\$ 3,710,347 1,859,655 88,069 84,694 \$ 5,742,765	88,069
Sub-Total	\$15,115,758	\$15,416,517	\$14.906,467
Price Level Adjustment	\$ -	\$ -	\$ 228,319
Retained Earnings, Ending Balance	\$15,115,758	\$15,416,517	\$15,134,786

<sup>&</sup>lt;sup>a</sup>The format differs from those used in practice in order to conform to the Edwards and Bell theory and to present the data in a comprehensive manner.

bAverage-of-Period Dollars.

### APPENDIX 0-3

# WHOLESALERS, INC., RETAINED EARNINGS STATEMENT & FOR THE YEAR ENDED DECEMBER 31, 1966

	Conventional	Edwards : Curren	and Bell t Cost <sup>b</sup>
	Accounting	Money	Real
Retained Earnings, Beginning Balance	\$15,115,758	\$15,416,517	\$15,134,786
Liquidation of Subsidiaries Accounting Profit Business Profit Total Additions	8 587 320	\$ 9,078 9,051,581 \$ 9,060,659	\$ 9,078 8,268,545 \$ 8,277.623
Sub-Total	\$23,712,165	\$24,477,176	\$23.412.409
Income Taxes Cash Dividends Excess Over Par for			\$ 4,167,882 2,009,354
Acquisitions Minority Interest Total Deductions	1,277,000 31,147 \$ 7,485,383	1,277,000 31,147 \$ 7,485,383	1,277,000 31,147 \$ 7,485,383
Sub-Total	\$16,226,782	\$16,991,793	\$15,927,026
Price Level Adjustment	\$ -	\$ -	\$ 447.845
Retained Earnings, Ending Balance	\$16,226,782	\$16,991,793	\$16,374,871

aThe format differs from those used in practice in order to conform to the Edwards and Bell theory and to present the data in a comprehensive manner.

bAverage-of-Period Dollars.

## APPENDIX P-1

# WHOLESALERS, INC., INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 26, 1964

	Conventional Accounting Profit		wards a Current Prof:	t Co	
Net Sales Other Income Total Income Operating Costs:	\$315,163,543 380,493 \$315,544,036	\$		3,54 0,49 4,036	3
Cost of Sales Selling and Administra-	\$295,571,883	\$2	295,57	1,88	3
tive Expenses Interest Total Operating Costs	14,484,769 179,664 \$310,236,316	\$	14,49; 15 310,21	3,490	2
Current Operating Profit	\$ 5,307,720	\$	5,32		
		Moi	ney		Real
Realized Cost Savings (Los On Cost of Sales On Depreciation On Interest	ses):		8,209 6,174	\$(	180,250) 7,352 26,174)
Total Realized Cost Savings (Losses)		\$( 1	7,965)	\$(	199,072)
Realized Capital Gains (Lo: On Net Money Claims		\$		\$(	5,796)
Total Realized Capital Gains (Losses)		\$		\$(	5,796)
Realized Profit		\$5,30	7,720	\$ 5	,120,817
Realizable Cost Savings (L On Net Money Claims On Inventories On Investments	osses):	\$	-	\$(	5,796) 140,498) 2.697)
On Fixed Assets On Long-Term Liabilities		( 22	6,880 2,238)	(	2,697) 2,753 171,613)
Total Realizable Cost Savings (Losses)		\$( 16	5,358)	\$(	317,851)
Business Profit		\$5,16	0,327	\$ 5	,007,834

Average-of-Period Dollars.

APPENDIX P-2

# WHOLESALERS, INC., INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 25, 1965

		Conventional Accounting Profit		vards Curren Prof	t Co	
Net Sales Other Income Total Income		\$448,812,068 585,885 \$449,397,953		48,81 58 49.39	5,88	
	Operating Costs: Cost of Sales	\$423,547,643	\$1	\$424,482,499		
	Selling and Administra- tive Expenses Interest Total Operating Costs	17,813,446 329,915 \$441,691,004	\$1	17,843,629 304,726 \$442,630,854		
	Current Operating Profit	\$ 7,706,949	\$	6,76	7,09	9
	Realized Cost Savings (Los On Cost of Sales On Depreciation On Interest Total Realized Cost Savings (Losses) Realized Capital Gains (Lo On Net Money Claims Total Realized Capital Gains (Losses)		( 25	1,856 1,183 5,189) 1,850	\$ ( \$ 6) ( \$ 7	Feal 579,271 13,110 30,979) 561,402 423) 423) 328,078
			41,100	• /4/	47	, , , , , , ,
	Realizable Cost Savings (L On Net Money Claims On Inventories On Investments On Fixed Assets On Long-Term Liabilities Total Realizable Cost Savings (Losses)	osses):		,148 2,458	\$(	423) 768,619 7,591) 58,325 138,840
	Business Profit		\$8,155	,101	\$ 7	,724,869

<sup>&</sup>lt;sup>a</sup>Average-of-Period Dollars.

## APPENDIX P-3

# WHOLESALERS, INC., INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 31, 1966

	Conventional Accounting Profit		and Bell nt Cost Tit <sup>a</sup>
Net Sales Other Income Total Income Operating Costs:	\$489,217,305 305,355 \$489,522,660 \$462,502,912	\$489,21 30 \$489.52 \$463.81	05,355 22,660
Cost of Sales Selling and Administra- tive Expenses Interest Total Operating Costs	18,113,871 318,548 \$480,935,331		72,948
Current Operating Profit	\$ 8,587,329	\$ 7,19	99,925
Realized Cost Savings (Los On Cost of Sales On Depreciation On Interest Total Realized Cost Savings (Losses) Realized Capital Gains (Lo On Net Money Claims On Investments Total Realized Capital Gains (Losses)		Money \$1,311,555 59,077 16,772 \$1,387,404 \$ - \$ -	\$ 573,326 15,251 ( 437) \$ 588.140 \$ 5,402 ( 1.373) \$ 4,029
Realized Profit		\$8,587,329	\$ 7,792,094
Realizable Cost Savings (L On Net Money Claims On Inventories On Investments On Fixed Assets On Long-Term Liabilities Total Realizable Cost Savings (Losses)	ossęs):	\$ 1,308,712 246,157 296,787 \$1,851,656	\$ 5,402 632,834 ( 12,749) ( 32,718) 475,851
Business Profit		\$9,051,581	

aAverage-of-Period Dollars.

### APPENDIX Q

### WHOLESALE PRICE INDICES (1957-59 = 100)

Item	1963 <sup>a</sup>	1964 <sup>a</sup>	1965 <sup>b</sup>	1966 <sup>b</sup>
Foods and feeds, processed	101.1	101.0	106.7	113.0
Durable goods	101.0	102.4	103.7	106.0

<sup>&</sup>lt;sup>8</sup>U. S. Department of Commerce, Office of Business Economics. "Business Statistics," 1965 Biennial Edition (Washington, D. C.: U. S. Government Printing Office), p. 43.

bU. S. Department of Commerce, Office of Business Economics. "Survey of Current Business," Vol. 47, No. 4 (Washington, D. C.: U. S. Government Printing Office, April, 1967), p. S-8.

#### APPENDIX R

### CONSUMER PRICE INDICES (1957-59 = 100)

Item	1963 <sup>a</sup>	1964 <sup>a</sup>	1965 <sup>b</sup>	1966 <sup>b</sup>
All items	106.7	108.1	109.9	113.1

<sup>&</sup>lt;sup>a</sup>U. S. Department of Commerce, Office of Business Economics. "Business Statistics," 1965 Biennial Edition (Washington, D. C.: U. S. Government Printing Office), p. 39.

bu. S. Department of Commerce, Office of Business Economics. "Survey of Current Business," Vol. 47, No. 4 (Washington, D. C.: U. S. Government Printing Office, April, 1967), p. S-7.

APPENDIX S

# BOND AND STOCK YIELDS CORPORATE BONDS-TOTAL

Year	Rate Percent
1964 <sup>a</sup>	4.57
1964 <sup>a</sup> 1965 <sup>b</sup>	4.64
1966 <sup>b</sup>	5.34

a"Federal Reserve Bulletin," January, 1966, p. 72.

b"Federal Reserve Bulletin," June, 1967, p. 1005.

#### APPENDIX T

### GLOSSARY

- Average-of-period dollars. The current costs and current values in effect at the mid-point in the fiscal period.
- Business profit. The sum of current operating profit and realizable cost savings.
- Current cost. The cost currently of acquiring the inputs which the firm used to produce the asset being valued.1
- Current operating profit. The excess over a period of the current value of output sold over the current cost of the related inputs.<sup>2</sup>
- Current values. Values actually realized during the current period for goods or services sold.3
- Financial operating profit. Net operating profit plus other income minus other expense.
- Gross operating profit. Gross profit minus selling and administrative expenses, excluding depreciation expense.
- Gross profit. Net sales minus cost of sales.
- Money amounts. Current money amounts.
- Net business profit. Business profit minus income taxes and preferred dividends.
- Net current operating profit. Current operating profit minus income taxes and preferred dividends.
- Net operating profit. Gross operating profit minus depreciation expense.

lEdgar O. Edwards and Philip W. Bell, The Theory and Measurement of Business Income (Berkeley and Los Angeles, California: University of California Press, 1965), p. 79.

<sup>&</sup>lt;sup>2</sup>Ibid., p. 115.

<sup>3</sup>Ibid., p. 79.

- Net realized profit. Realized profit minus income taxes and preferred dividends.
- Real amounts. Current money amounts adjusted for price level changes.
- Realizable cost savings. The increase in the current cost of assets while held by the firm during the fiscal period. 4
- Realized capital gains. The excess of proceeds over (depreciated) historic costs on the irregular sale or disposal of assets.
- Realized cost savings. The excess of the current cost over the historic cost of inputs used in producing output sold.
- Realized profit. The sum of current operating profit, realized cost savings, and realized capital gains.

<sup>4&</sup>lt;u>Ibid.</u>, p. 115.

<sup>5&</sup>lt;u>Ibid.</u>, p. 115.

<sup>&</sup>lt;sup>6</sup>Ibid., p. 115.

# THE EDWARDS AND BELL THEORY: AN ACCOUNTING APPLICATION AND AN EVALUATION OF FINANCIAL ANALYSES

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ROBERT D. HOLLINGER

B. S., Kansas State University, 1964

AN ABSTRACT OF A MASTER'S THESIS

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requirements for the degree

MASTER OF SCIENCE

College of Commerce

KANSAS STATE UNIVERSITY Manhattan, Kansas Financial ratios serve the financial manager as basic tools in his decision-making process. The accounting data and the financial statements prepared from them provide the basis for these ratios. The validity of the ratios is partially a function of the accurateness of the accounting data. Conventional accounting practices have long been criticized for numerous voids in fulfilling the needs of financial reporting in a dynamic economy.

The Edwards and Bell theory advances the necessary concepts and their applications to eliminate the major limitations attendant to current accounting data. The determination of the effect of the Edwards and Bell methods upon financial ratios was the objective of this paper.

A cooperating firm was selected and they supplied the financial statements and selected accounting data. The Edwards and Bell techniques of application were applied to the accounting data and financial statements were prepared from the adjusted data. A set of financial data for each method was generated to provide the basis for computing the financial ratios.

Selected financial ratios were computed; one set was calculated using conventional accounting data and the other set was computed from the Edwards and Bell data. A comparison was made between the two sets of financial ratios to determine if material and significant differences existed between these ratios. Based upon these findings, an

evaluation of the effects of the Edwards and Bell theory upon financial ratios was made.

Material differences were exhibited in the financial data produced in accordance with the Edwards and Bell method. The significance of these differences was disclosed in the financial ratios and the decision-making processes based upon the ratios.

Ratios applicable to the current analysis of the firm were affected to a limited degree by the Edwards and Bell theory. The treatment of the majority of the current accounts on a current cost basis by the Edwards and Bell method accounted for these nominal differences. The inventory adjustment was the major factor influencing specific current ratios. This adjustment, if material, can introduce important changes in the decision-making process.

The impact of the Edwards and Bell theory had a pronounced effect upon ratios reflecting the adjustments involving financial transactions serving more than one fiscal period. These adjustments were necessary to equate the position of the firm with the dynamic economic environment within which the firm operates. The decision-making bases demonstrated significant potentials for altering the financial managers evaluation of the firm's operations and the subsequent decisions to be made by him.

The Edwards and Bell theory makes a clear distinction between the operating activities and the holding activities of the firm. This distinction creates the major difference between the conventional accounting ratios and the Edwards and Bell ratios. These significant differences enable the financial manager to intelligently evaluate the contribution of these activities to the firm.

The use of the financial ratios prepared in accordance with the Edwards and Bell theory indicates the need to either revise the interpretations applied to the majority of the financial ratios presently used or develop new standards for these ratios as guidelines in the decision-making process of the financial manager.