Z
M575.6
M584bue
14

MIDWESTERN BUSINESS AND ECONOMIC REVIEW

Government Publications
Texas State Documents
MAY 06 1992
Depository
Dallas Public Library

Number 14 **Fall 1991**

THE LEGAL STATUS OF RESALE PRICE MAINTENANCE IN NEW ZEALAND
Anthony J. Greco, Professor of Economics, University of Southwestern Louisiana

IS THE MALE-FEMALE EARNINGS GAP NARROWING?
Garland Hadley, Professor of Economics, Midwestern State University
Cynthia Barfield, MBA Student, Midwestern State University

EARLY WARNING SIGNALS FOR GROWTH COMPANIES WITH CASH MANAGEMENT PROBLEMS
Carroll D. Aby, Jr., Hardy M. Graham Distinguished Professor of Finance, University of Tennessee at Martin
Robert L. Putman, Associate Professor of Accounting, University of Tennessee at Martin

THE RECOGNITION OF INCREASING POSTRETIREMENT HEALTH CARE COSTS AND ITS POTENTIAL IMPACT ON RETIREES' BENEFITS
Jerry G. Kreuze, Associate Professor of Accounting, Western Michigan University
Sheldon A. Langsam, Assistant Professor of Accounting, Western Michigan University
Gale E. Newell, Professor of Accounting, Western Michigan University

AIDS IN THE WORKPLACE: THE DIFFERING APPROACHES OF LARGE AND SMALL BUSINESSES IN TEXAS
Geralyn McClure Franklin, Associate Professor of Management, Stephen F. Austin State University
Alicia Briney Gresham, Assistant Professor of Marketing, Houston Baptist University
Robert Solomon, Professor of Marketing, Stephen F. Austin State University
Gwen F. Fontenot, Dallas, Texas

AUDITOR LIABILITY: RESPONSIBILITIES AND DEFENSE
K.R. Tilker, Assistant Professor of Business, Midwestern State University
Benny R. Zachry, Associate Professor of Accounting, Midwestern State University

REAL ESTATE LENDING ACTIVITY BY CREDIT UNIONS
James E. Larsen, Assistant Professor of Finance, Wright State University
Daniel J. Kaufman, Associate Professor and Chairman of Finance, Wright State University
Joseph W. Coleman, Assistant Professor of Management Science, Wright State University

Bureau of Business and Government Research
Midwestern State University
Wichita Falls, Texas

BUREAU OF BUSINESS AND GOVERNMENT RESEARCH
MIDWESTERN STATE UNIVERSITY
WICHITA FALLS, TEXAS

The Bureau of Business and Government Research is an integral part of Midwestern State University. The principal purposes of the Bureau are:

1. To provide assistance in research conducted by the faculty and students in the University.

2. To conduct and encourage research related to the local community.

3. To promote public understanding of contemporary economic, business and government issues.

The Bureau of Business and Government Research publishes the Midwestern Business and Economic Review. The articles published present points of view of the individual authors and to not necessarily reflect those of the Bureau and Midwestern State University. The authors assume responsibility for the accuracy of facts published in the articles.

Midwestern Business and Economic Review invites the submission of original manuscripts and research reports by individuals in the public and private sector in the areas of economics and business administration. Of principal interest are topics dealing with issues relevant to Texas and the Southwestern United States. A style guide for manuscripts is found inside the back cover.

Additional copies of this publication are available, upon request, from the Bureau of Business and Government Research, Midwestern State University, Wichita Falls, TX 76308-2099. Price $3.00

Third-class postage paid in Wichita Falls, TX 76308-2099.

MIDWESTERN BUSINESS AND ECONOMIC REVIEW

Number 14 **Fall 1991**

In this issue: page

THE LEGAL STATUS OF RESALE PRICE MAINTENANCE IN NEW ZEALAND 1
Anthony J. Greco, Professor of Economics, University of Southwestern Louisiana

IS THE MALE-FEMALE EARNINGS GAP NARROWING? 5
Garland Hadley, Professor of Economics, Midwestern State University
Cynthia Barfield, MBA Student, Midwestern State University

EARLY WARNING SIGNALS FOR GROWTH COMPANIES WITH CASH MANAGEMENT PROBLEMS 13
Carroll D. Aby, Jr., Hardy M. Graham Distinguished Professor of Finance, University of Tennessee at Martin
Robert L. Putman, Associate Professor of Accounting, University of Tennessee at Martin

THE RECOGNITION OF INCREASING POSTRETIREMENT HEALTH CARE COSTS AND ITS POTENTIAL IMPACT ON RETIREES' BENEFITS 19
Jerry G. Kreuze, Associate Professor of Accounting, Western Michigan University
Sheldon A. Langsam, Assistant Professor of Accounting, Western Michigan University
Gale E. Newell, Professor of Accounting, Western Michigan University

AIDS IN THE WORKPLACE: THE DIFFERING APPROACHES OF LARGE AND SMALL BUSINESSES IN TEXAS 25
Geralyn McClure Franklin, Associate Professor of Management, Stephen F. Austin State University
Alicia Briney Gresham, Assistant Professor of Marketing, Houston Baptist University
Robert Solomon, Professor of Marketing, Stephen F. Austin State University
Gwen F. Fontenot, Dallas, Texas

AUDITOR LIABILITY: RESPONSIBILITIES AND DEFENSE 29
K.R. Tilker, Assistant Professor of Business, Midwestern State University
Benny R. Zachry, Associate Professor of Accounting, Midwestern State University

REAL ESTATE LENDING ACTIVITY BY CREDIT UNIONS 35
James E. Larsen, Assistant Professor of Finance, Wright State University
Daniel J. Kaufman, Associate Professor and Chairman of Finance, Wright State University
Joseph W. Coleman, Assistant Professor of Management Science, Wright State University

Midwestern State University
Louis J. Rodriguez, President
Jesse W. Rogers, Vice President for Academic Affairs

Division of Business Administration
Charles D. McCullough, Director

Bureau of Business and Government Research
Yoshi Fukasawa, Director
Warren E. Moeller, Editor

Editorial Review Board
Neil J. Dikeman, University of Oklahoma
Yoshi Fukasawa, Midwestern State University
Sam Gould, University of Texas, San Antonio
Jerry Olson, Johnson and Olson, Austin

FOREWORD

Warren E. Moeller, Editor
Bureau of Business and Government Research
Midwestern State University

This issue of the Review gives our readers a wide variety of articles covering a diversity of topics. We are also proud of the broad geographical dispersion of our authors so that we can present to our readers many viewpoints. Our articles include:

Dr. Anthony Greco analyzes resale price maintenance in New Zealand and allows us to compare our system to theirs.

Dr. Garland Hadley and Cynthia Barfield brings us up to date on the earnings gap between men and women.

Professors Aby, Graham, and Putman tell us about early warning signals of cash management problems.

Dr. Kreuze, Dr. Langsam and Dr. Newell address an important change in accounting for health care benefits to retired employees. These changes will alter the way we view financial statements in the future.

Professors Franklin, Gresham, Soloman and Gwen F. Fontenot report on how small businesses in Texas are handling **AIDS** in the workplace.

Dr. Tilker and Dr. Zachry give us insights into the legal liability of independent auditors and suggest some precautions to reduce litigation.

Professors Larsen, Kaufman and Coleman analyze the real estate lending activities of credit unions. This analysis should be of interest to all who have accounts with credit unions.

COMMUNITY ADVISORY COUNCIL

Bureau of Business and Government Research
Midwestern State Universityy

The Community Advisory Council operates as an intermediary between the Bureau and the community. The Council advises the Bureau of the research projects and seminars of interest to the community and ways to improve the utility of the Bureau effort by the community.

MEMBERS

Mr. James Berzina
City Manager
City of Wichita Falls

Mr. Dennis Wilde
Executive Director
Nortex Regional Planning Commission

Ms. Sallie Ford
Vice President
Parker Square Bank

Mr. David Kimbell
President
Burk Royalty Company

Mr. Ron Mertens
President
Board of Commerce and Industry

Mr. M. C. McGee
Regional Manager, External Affairs
Southwestern Bell Telephone Company

Mr. Joe Parker, Jr.
Assistant Vice-President
First National Bank of Byers

Mr. Herb Smith
President
Herbert R. Smith, Inc.

Mr. H. Cecil Streich
President
Gibson's Products, Inc.

Mr. David Wolverton
Chairman and Chief Executive Officer
Bank One - Wichita Falls

THE LEGAL STATUS OF RESALE PRICE MAINTENANCE IN NEW ZEALAND

ANTHONY J. GRECO, Professor of Economics, University of Southwestern Louisiana

Introduction

Resale price maintenance is the practice whereby manufacturers of brand-name or trademark goods stipulate and seek to enforce minimum, maximum, or actual wholesale and retail prices of those goods as they progress through the distribution chain to consumers. The practice, which has purported advantages, has had varying levels of success in various countries over the years. It has been and remains legalistically treated in a number of different ways by different countries. Some countries, such as the United States, have traditionally lumped it into a group of trade practices to which general antitrust laws are applied. Other countries, such as Australia, Canada, New Zealand, and South Korea have statutory prohibitions specifically geared toward resale price maintenance. This paper examines the evolution of the law relative to resale price maintenance in New Zealand with particular emphasis on treatment of this practice under this country's most recent competition-related statute: The New Zealand Commerce Act of 1986.

Legislative History of Resale Price Maintenance in New Zealand[1]

New Zealand initiated legislation promotive of competition in 1908 with the passage of the Monopoly Prevention Act. However, this was an anti-dumping Act which consolidated a number of specific Acts which had been passed to protect various agricultural markets in New Zealand. The country's first general antitrust statute was the Commercial Trusts Act of 1910 which was apparently based upon the Australian Industries Preservation Act of 1906 which, itself, was closely patterned after the Sherman Act of 1890. As such, this New Zealand statute did prohibit certain restrictive practices; but its scope was limited to certain specified goods. Its impact upon commercial activities in New Zealand has been adjudged to have been relatively minor, and it was subsequently repealed.

The Board of Trade Act of 1919 authorized the Governor General in Council, by regulation, to make provisions deemed promotive of the public interest for a number of different purposes. One of these essentially dealt with resale price maintenance. Specifically the Act referred to the establishment of fixed or maximum or minimum prices or rates for any classes of goods or services. While the Act did not prohibit this practice, it left its treatment to the discretion of the Governor General in Council. Over time, this Act was significantly hindered by several challenges to the validity of regulations issued under it. The Trade Industry Act, passed in 1956, repealed the Board of Trade Act. Similar to its predecessor, the Act vested discretionary regulatory powers in the Governor General in Council. However, this Act was significantly weakened in scope by subsequent amendments.

In 1958, the New Zealand Legislature embarked upon its first modern-day effort to regulate trade practices with its passage of the Trade Practices Act. This Act established regulatory tribunals which were given considerable discretion and jurisdiction. In 1975, the Legislature attempted to regulate the majority of competition-related trade practices under the umbrella of the Commerce Act which repealed the Trade Practices Act of 1958 and other previous competition-related legislation. The Act established the Commerce Commission and the office of Examiner of Commercial Practices, the latter of which is no longer in existence. Three categories of trade practices were created under the Act: (1) illegal trade practices, (2) practices requiring advance clearance, and (3) examinable practices. Practices lumped under the second category were presumptively unlawful unless the Commission or Examiner had granted approval prior to their implementation. Included under this category were individual resale price agreements.

In regard to this, the Act prohibited any person to be a party to any agreement or arrangement between a wholesaler and a retailer by which the wholesaler agrees to sell goods to the retailer on the conditions that the retailer adheres to the prices and conditions of sale stipulated by the wholesaler unless said agreement or arrangement had been approved by the Commerce Commission. This prohibition was to apply to any such agreements carried on in New Zealand even if one or more of the parties involved did not conduct business in New Zealand. It did not apply, however, to such agreements affixing maximum prices only and in which the retailers involved has been expressly informed in writing that they could charge lower prices without fear of penalty.

Further, the Act's prohibition against resale price maintenance agreements also did not apply to those agreements wherein the wholesaler had given particulars of the agreement to the Examiner and had notified him that he

(the wholesaler) accepted certain stipulations of the Act concerning (1) said notification, (2) his (the wholesaler's) willingness to accept whatever conditions the Commerce Commission might impose with respect to the proposed increase or variation in price, as well as, (3) his willingness to comply with any requirement imposed by the Examiner for the promulgation of the maximum recommended resale price of all or any of the goods affected by the agreement. The Act empowered the Commerce Commission, at any time after conducting an inquiry following a report of the Examiner, to make an order regarding the agreement if it determined that the agreement was or was likely to be against the public interest.

Any party, such as a wholesaler, who was carrying on or intending to carry on resale price agreements was allowed, under the Act, to apply to the Commerce Commission for approval of its agreement. The Commission would grant its approval if it felt that the agreement involved was not and was not likely to be contrary to the public interest. Other specifications of the approval process are discussed in the Act.[2]

Eventually, the Commerce Act of 1975 was repealed by the passage of the Commerce Act of 1986. This Act sought to fulfill the perceived need to assimilate the New Zealand trade practices legislation to similar legislation in Australia, a need which was fostered by the Australia New Zealand Closer Economics Trade Agreement executed in March 1984. Consequently, this Act is based upon the Australian Trade Practices Act of 1974 and, as in that Act, the New Zealand law addresses restrictive trade practices, inclusive of resale price maintenance agreements, as well as mergers and acquisitions. It also provides for authorizations and for enforcement, remedies, and appeals.

Resale Price Maintenance Under the Commerce Act of 1986

Resale price maintenance is prohibited by Sections 37 and 38 of the 1986 Commerce Act of New Zealand, an Act which is designed to promote competition in markets within the country and to repeal the Commerce Act of 1975. Section 37 forbids suppliers from engaging in this practice and stipulates that a supplier perpetrates such a practice if he does any of the following acts: (1) makes it known to another that he will not supply goods to him unless he agrees not to sell the good(s) in question at less than specified prices; (2) induces or attempts to induce another person not to sell at prices less than those specified by the supplier goods supplied to this person either by the supplier or by a third person who has directly or indirectly obtained the goods from the supplier; (3) enters into or offers to enter into an agreement for the supply of goods to another person wherein the latter is required not to sell the goods at less than prices stipulated by or that would be stipulated by the supplier; (4) withholds the supply of goods to another either because the latter has not agreed to sell the goods at the prices stipulated by the seller or because the other person has already sold or is likely to sell such goods for less than the seller's stipulated prices; and (5) withholds the supply of goods to another because a third person who has obtained the goods or wishes to do so either has not agreed to sell these goods at the stipulated prices or has sold or is likely to sell goods supplied to it by the other person at prices below those stipulated by the supplier. Essentially, these stipulations follow those used to define the practice of resale price maintenance in Section 96(3) of the Australian Trade Practices Act of 1974.

In delineating what constitutes price specification by suppliers, the Act includes the following under the umbrella of such specification: (1) where the supplier makes it known that the stipulated price he is employing is a price specified by another person for the good at hand or for a good of like description; (2) where a set form, method, or formula, which is specified by the supplier or on his behalf, may be used to determine a specified price; (3) where the supplier openly reveals that the stipulated price he is employing was ascertained by calculation from or by reference to a set form, method, or formula specified by another either for the goods in question or for the goods of like description; and (4) where the supplier states to another person a price that is likely to be understood by that person as the price below which goods are not to be undersold. The Act further provides that anything done by a person acting on behalf of or by arrangement with the supplier shall be viewed to have been done by the supplier.[3]

Section 38 of the Act prohibits resale price maintenance by persons other than suppliers. It forbids such a person, referred to as the "third party", to: (1) announce to another person that he (the third party) proposes to engage in conduct, either unilaterally or in concert with someone else, that will interfere with the supply of goods to, or the acquisition of goods from, that person unless said person agrees to sell the goods at stipulated prices; and (2) engage in conduct, whether alone or with others, that will interfere with similar supply and acquisition of goods relative to another person in order to induce that person to adhere strictly to prices specified by the third party. The same four acts stipulated in Section 37 as constituting price specification by the supplier are reiterated in Section 38 as indicative of price specification by someone other than the supplier (the "third party").[4]

Under the Act, suppliers are permitted to apply or use a statement of price in relation to his goods or to apply such a price statement to a covering, label, reel, or thing if this statement is preceded by the words "recommended price". Alternatively, a supplier may recommend prices through written notification to others as long as this notification clearly states that the price is a recommended price only and that there is no obligation to comply with it.[5] These stipulations emulate those found in Section 97 of the Australian Trade Practices Act of 1974.

With reference to its aforementioned Section 37, which prohibits suppliers from engaging in resale price maintenance, the Act details the circumstances under which suppliers would be deemed to have withheld the supply of goods to another. In particular, a supplier would be ruled to have withheld goods if (a) he refuses or fails to supply those goods, as requested, by another person; (b) he refuses to supply those goods except on terms that are disadvantageous to the other person; (c) in supplying those goods to another, he treats that buyer less favorably in terms of time, method,

or place of delivery, or otherwise, than he treats other buyers of the same or similar goods; or (d) he causes or procures a person to act in relation to the supply of goods in any or all of the ways previously specified.[6] The model for these stipulations was Section 98 of the Australian Trade Practices Act of 1974. Similar stipulations are provided in conjunction with the prohibition of the practice of resale price maintenance by others as provided in Section 38 of the Act. These stipulations delineate what constitutes the prevention of the supply of goods, as well as, what defines the prevention of the acquisition of goods.[7]

Section 42 of the Act contains special evidentiary provisions with respect to proving that a supplier engaged in the withholding of goods to other persons. Specifically it provides that, where it is proved under proceedings of the Act relative to supplier withholding, the supplier had, indeed, withheld the supply of goods to others, and that this same supplier has previously been supplying such goods either to the same people or to someone carrying on a business similar to these people, and that during a period of six months before the supplier began his withholding activity, he became aware of a circumstance that prompted him to engage in such withholding, it shall be presumed, in the absence of contrary evidence, that the supplier so acted on account of that circumstance. The circumstances alluded to here refer to the reasons mentioned above relative to a supplier's decision to withhold goods from others.[8] To review, the withholding is done, first, because of the failure of these others or third parties who wish to obtain the goods from these others to agree to sell the goods at the prices stipulated by the supplier. Second, the goods are withheld because these two groups have already sold, or are likely to sell, goods supplied by the supplier at prices below those specified by this supplier. These special evidentiary provisions were molded after Section 100 (1) and (2) of the aforementioned Australian legislation.

A number of exceptions to the Act's prohibition against resale price maintenance are provided in Section 44. These include: (1) arrangements or the like between unincorporated partners insofar as these deal with the terms of the partnership or conduct of its business or with competition between the partnership and a party to said arrangement while that party is or after that party ceases to be a partner; (2) contracts or the like which find and potentially benefit only interconnected corporate bodies; (3) contracts of services or the provision of services insofar as these contain provisions by which noncorporate entitles agree to accept restrictions as to the work in which they may engage during or after the termination of the contract; (4) contracts or covenants in connection with the sale of a business or shares in the capital of a corporate body that contain provisions intended to protect purchasers in terms of the goodwill of businesses; (5) contracts or the like obligating one to comply with or apply standards of dimension, design, quality, or performance prepared or approved by the Standards Association of New Zealand or any other authorized body; (6) arrangements containing provisions relating to remuneration and other conditions of employment; (7) contracts and such containing provisions that relate exclusively to the export of goods from New Zealand or to the supply of services wholly outside New Zealand if full and accurate information on these provisions were furnished to the Commission within fifteen working days of the making of the contract or sixty working days after the commencement of the Act, whichever is the later; (8) acts done, otherwise than in trade, in concert by users of goods and services against the suppliers of such; (9) acts due to give effect of provisions of contracts or the like of the aforesaid varieties; and (10) contracts or other arrangements containing provisions exclusively for the carriage of goods by sea from anywhere in New Zealand to anywhere outside New Zealand or from somewhere without to a place within the country.[9]

In these exceptions the Act borrowed freely from the Australian Trade Practices Act, namely Section 51 (2) and (2a). Finally, contracts or arrangements containing provisions which provide for the acquisition or disposition of shares in any company or the whole or any portion of the capital or assets of any business, together with any acts due to effect such provisions, are exempted from the Act.[10]

An Assessment of the Act's Treatment of Resale Price Maintenance

Despite these exceptions, the Commerce Act of 1986 treats resale price maintenance more harshly than had the Commerce Act of 1975. Under the 1986 Act, resale price maintenance is treated as a per se violation. However, under the 1975 legislation, this practice was only presumptively illegal, that is, arrangements implementing such a practice were viewed as unlawful unless they had received prior approval by the Commerce Commission or the Examiner. No such approval is provided for under the 1986 Act. Further, as seen above, the 1986 Act is much more inclusive than the 1975 Act with regard to what constitutes the practice of resale price maintenance. It also takes great pain to prohibit the practice to both suppliers and to others (the "third parties").

Due to the fact that this Act is based predominantly upon the 1974 Australian legislation, the New Zealand courts have recognized that they can find considerable assistance by referring to the Australian courts' experience with their country's legislation. Further, because of the recent nature of the New Zealand Act, virtually no cases involving its treatment of resale price maintenance have been decided in the New Zealand courts. In fact, in the only decision by the New Zealand courts dealing with this practice, the High Court Auckland ruled that maximum resale price maintenance schemes come under the more general provision of the 1986 Commerce Act because Sections 37 and 38 of the Act, as we have seen, proscribe minimum resale price maintenance alone.[11]

However, relying on the experience of the Australian courts alluded to above, one can draw inferences relative to the New Zealand statute. For example, the making known of a refusal to supply, as stipulated in Section 37 (3a) of the Act, does not require an actual refusal to supply. The words of this subsection are to be interpreted literally. What is of most importance is the giving of the ultimatum, rather than the ultimate action which is prohibited.[12] The inducement or attempts to induce one not to sell below stipulated prices,

which is prohibited under Section 37 (3b) of the Act, has also been interpreted literally, so much so that an attempt to induce a retailer to sell at a specified price does not constitute an attempt to induce said retailer not to sell as less than a specified price. In Australia, a number of things have been determined to be in violation of this provision, such as visits by representatives suggesting that prices were much too low and threats to cut off advertising allowances if recommended prices are not observed.[13]

Further, though there have been no cases decided in New Zealand courts relative to Section 40 of the Act which delineates what constitutes unlawful withholding of supplies, delays to deliveries, unfavorable terms of trade, and the application of stricter credit limits have been found to constitute withholding of supplies by Australian authorities applying Australia's equivalent section. Finally, in regard to manners of payment and security discussed under Section 42 (2) of the New Zealand statute, it has been held in Australia that a simple refusal to supply unaccompanied by intimation of the supplier's reason for the refusal does not constitute a violation of the Act.[14]

Summary and Conclusions

Resale price maintenance is, as seen above, prohibited by the 1986 New Zealand legislation. Under this statute, suppliers are, in effect, not permitted to suggest prices and refuse to deal with price cutters as their counterparts have been allowed to do in the United States since the Colgate decision of 1919. New Zealand suppliers can only recommend prices under rather limited conditions which do not permit them to enforce these prices. Further, suppliers are not given a statutory defense of using resale price maintenance schemes to prevent loss-leader selling of their products as their counterparts are in Canada.

Consignment selling, a device often used to circumvent restrictions on resale price maintenance arrangements in places such as the United States, is not expressly dealt with in the New Zealand legislation. Such selling agreements were brought under the coverage of the Canadian legislation in 1976 and has, since then, been a reviewable practice by the Canadian Restrictive Trade Practices Commission. Although mention of consignment selling is absent from the New Zealand legislation and no cases have arisen in the New Zealand courts dealing with this issue, it would seem that this practice would be covered by Section 37 (3c) of the Act which prohibits a supplier from entering or offering to enter into an agreement for the supply of goods to another where one of the terms would be that the other person would not be allowed to sell the goods in question at less than prices that were or would be specified by the supplier. In fact, at least two other provisions of the Act may also be applicable to consignment selling.

Hence, the New Zealand Act is very strict with regard to resale price maintenance. It prohibits its direct implementation by suppliers, as well as, its indirect implementation by others (third parties). As noted above, the Act specifies in considerable detail what constitutes such a practice, each of the forms in which this practice can be manifested, and when each of these forms, such as refusals to deal, withholding and prevention of the supply of goods, and inducing others not to sell at below specified prices, are put into effect. It does allow for some exceptions, but does not permit suppliers to avail themselves of the prevention of the loss-leader selling defense. In addition, it apparently would not allow circumvention of its prohibitions through the device of consignment selling. It will be interesting to observe how the Act is interpreted and applied by the New Zealand Courts in future litigation.

NOTES

1. Much of the information in this section is derived from "New Zealand," by Peter B. Hinton in Competition Laws of the Pacific Rim Countries, Julian O. von Kalinowski, Gen. Ed., Matthew Bender and Co., Inc., New York, 1988-1989.
2. See Section 28, Public Act. No. 113, The Statutes of New Zealand, 1975.
3. Public Act. No. 5, New Zealand, 1986, Section 37.
4. Ibid, Section 38.
5. Ibid, Section 39.
6. Ibid, Section 40.
7. Ibid, Section 41.
8. Ibid, Section 42.
9. Ibid, Section 44.
10. Ibid, Section 46.
11. Tru Tone Limited et. al. v. Festival Records Retail Marketing Limited, 7 February 1988, High Court Auckland, C.L. 31/87, as referred to in Hinton, "New Zealand," NZ 6-17.
12. Ibid, Hinton, "New Zealand", NZ 6-18.
13. Ibid, NZ 6-20.
14. Ibid, NZ 6-21.

IS THE MALE-FEMALE EARNINGS GAP NARROWING?

GARLAND HADLEY, Professor of Economics, Midwestern State University
CYNTHIA BARFIELD, MBA Student, Midwestern State University

The fact that women earn less than men has been well documented. Historically, women's average earnings have been about 60 percent of what men earned. However, recent data suggest that this ratio has begun to change and that the male-female earnings gap is beginning to narrow. In 1985, women's earnings had increased to 63 percent of what men earned; and by 1988 women were earning, on the average, 65 percent of what men earned on the average.

The purpose of this article is to review the existing literature dealing with the male-female earnings gap in a effort to determine how much of the gap could appropriately be attributed to market forces (such as differences in productivity and occupational choice) and how much, if any, to sex-based discrimination. Based upon the results of this analysis, we will attempt to determine whether or not this perceived narrowing of the earnings gap will continue.

THE CHANGING ROLE OF WOMEN IN THE WORKPLACE

Traditionally society has viewed the male and female in different roles. The man was to be the breadwinner, and the woman was responsible for the domestic chores of homemaking and child rearing. We were well into the nineteenth century before society began to accept the idea of women working outside the home. In the mid-1800s, American educators like Horace Mann began to advocate teaching as a acceptable career for women.[1] In the decades that followed, young women began to enter the teaching profession in large numbers. However, women were still banned from many occupations. For example, in 1872, the Supreme Court upheld the refusal of the State of Illinois to allow women to practice law. The Court said:

> The natural and proper timidity and delicacy which belongs to the female sex evidently unfits it for many occupations of civil life . . .
> The paramount destiny and mission of women are to fulfill the noble and benign offices of wife and mother.[2]

In a pattern that repeated itself several times in this country's history, as men were called upon to serve their country in the military, women filled positions in what had previously been male-dominated areas of work. During the Civil War even more women entered the teaching profession, and they began working in office and sales jobs in increasing numbers. It was also during this period that nursing was established as a bona fide profession.

During the twentieth century, women continued to come forth and assume jobs that had traditionally been held by men. During World War I, a large number of women worked in the production of war materials.[3] The percentage of women in the labor force declined following WWI, but once again, as the outbreak of World War II demanded greater output of war-related materials, women stepped in to supply the needed labor, and in so doing established themselves in an ever growing number of traditionally male-dominated professions. For example, the week before Pearl Harbor was attacked ,there were fewer than 4,000 women working in the aircraft industry in this country, but by June of 1943, there were over 300,000 women at work making aircraft.[4]

It was during the Second World War that women's attitudes toward work began to change dramatically. Polls showed that at the beginning of the war, only 5 percent of the women workers polled said they wanted to continue working after the war. By the end of the war, that percentage had risen to 75 percent. Of those wanting to remain in the labor force, 86 percent wanted to keep the same kind of job they had held during the war. However, those in jobs previously reserved for men were fired at the end of the war. Some protested by picketing, but to no avail.[5]

Undoubtedly, the single most important development in the labor market since World War II has been the growth in the number of women who are either working or seeking work. As women's attitudes about work have changed, they have joined the work force in ever increasing numbers. As Table 1 shows, the number of women participating in the labor force has increased dramatically. This trend has not been true just for younger women; women of all ages have entered the labor force in increasing numbers.

However, despite these dramatic changes, the labor force participation rates of women are still far below those of men in the same age categories. Why? The reason can be found in society's attitudes about roles and responsibilities. The wife is generally expected to bear most of the burden for household maintenance and child care. Because of these attitudes, historically women have tended to receive less formal education, have frequently had employment

opportunities limited to jobs that are less interesting and challenging than those offered men, and, in general, have tended to be paid less than men.[6]

Table 1
FEMALE LABOR FORCE PARTICIPATION, 1955-1982, WOMEN AGE 20-55

Year	Age			
	20-24	25-34	35-44	45-55
1955	45.9	34.9	41.6	43.8
1960	46.1	36.0	43.4	49.8
1965	49.9	38.5	46.1	50.9
1970	57.7	45.0	51.1	54.4
1975	64.1	54.6	55.8	54.6
1980	69.0	65.4	65.5	59.9
1982	69.8	68.0	68.0	61.6

Source: Employment and Training Report of the President, 1981, Table A-5; and Employment and Earnings, January 1983, p. 145.

THE CURSE OF LEVITICUS

For many years the ratio of women's pay to men's in the United States has kept fairly steady at about 60 percent. Several economists have half-jokingly referred to this persistent inequality in pay as the Curse of Leviticus because of a reference in the Book of Leviticus to the effect that the value of maidservants should be three-fifths the value of manservants.[7]

Recent data suggest that after several decades, the male-female earnings gap may be narrowing. Nevertheless, a significant inequality between men's and women's earnings still exists. This wage gap raises several questions: Why does this difference exist? To what extent can this difference be accounted for by market forces (such as differences in productivity or occupational choice), and how much should be attributed to sex discrimination? And, how much is the gap likely to narrow?

ARE MEN MORE PRODUCTIVE THAN WOMEN?

In the 1950s, Gary Becker went to great lengths to develop a theory of discrimination that suggests that substantial discrimination cannot exist for a significant period of time.[8] His principle argument was that if equally productive blacks or women were available to work at lower wages than white men, then a competing firm would hire the blacks or women, producing goods or services at lower costs, and thus driving the discriminating firm out of business. This reasoning implies that differences in pay between men and women must be based upon differences in productivity rather than discrimination per se.

If differences in productivity can be shown to fully account for the differences in earnings between men and women, then there will be nothing left to explain by the sex of the worker, and the discrimination hypothesis can be rejected. Possible differences in productivity may arise from differences in education, experience, on-the-job training, and occupational choice. Each of these will be examined one at a time.

Educational Attainment

The educational attainment of men and women in the United States is essentially the same. As shown in Table 2, the median years of school completed by those participating in the labor force is nearly identical for males and females. It is unlikely that qualitative differences exist since men and women are taught in the same classroom by the same teachers and receive almost identical grades. The only sex difference in educational attainment is that women are more likely to complete high school and men are more likely to hold college degrees.[9] Thus, while it is possible that some human capital differences exist because of differences in education, it seems unlikely that these differences alone account for the differences in earnings.

Table 2
Median Years of School Completed by the Civilian Labor Force, Selected Dates, 1952 to 1980

	Both Sexes	Male	Female
October 1952[a]	10.9	10.4	12.0
March 1962[a]	12.1	12.0	12.2
March 1972[b]	12.4	12.4	12.4
March 1980[b]	12.7	12.7	12.6

Notes: [a]Data relate to people 18 years and older.
[b]Data relate to people 16 years and older.

Source: Employment and Training Report of the President, 1981, Table B-14.

Experience, Job Tenure, and Absenteeism

Because women's careers are more likely to be interrupted by child-rearing or disrupted by family moves (frequently to accommodate a husband's career), women are likely to have less job-related experience than men of the same age. Furthermore, when a child is sick, it is usually the mother that stays home or takes the child to the doctor. Thus, differences in experience, absenteeism, and job changes may account for part or all of the wage gap. Table 3 presents data from a study comparing the wages of men and women who have attained the same level of education and identical years of job-related experience. They also have almost identical

absenteeism rates and work in the same labor market. The data in this sample show that when wages are adjusted for these factors that the wage gap has narrowed appreciably. The ratio of women's hourly wage to that of the men is 0.82. Thus, these data imply that about one-half the difference in wages between men and women might be explained by differences in experience, job tenure, and absenteeism.[10]

Table 3
Hourly Wages by Tenure and Experience, White Men and Women, 1975

Years on Current Job	No Prior Experience		Ten Years Experience	
	Men	Women	Men	Women
0	$4.24	$3.25	$4.74	$3.64
5	4.79	3.67	5.35	4.11
10	5.40	4.15	6.04	4.65
15	6.10	4.69	6.81	5.25
20	6.88	5.30	7.69	5.93

These data are based upon a sample of employees all who have 12 years of education, non-South, average days of absenteeism, and no interruptions between jobs or between school and work. All live and work in the same city of 500,000.

Source: Mary Corcoran, "The Structure of Female Wages," American Economic Association, Proceedings of the Annual Meeting, 1978

On-The-Job Training

It is possible that the productivity of men and women with the same education, experience, and job tenure might vary because of on-the-job training. It appears that on the average, men have almost twice as much on-the-job training as women. If so, such differences would justify paying men higher wages than women.

On-the-job training can be viewed as a firm investing in the improvement of its human resources; and it is usually the employer, rather than the employee, who controls the opportunity to benefit from this type of investment. Employers who feel that a woman is less likely than a man to stay with the firm will be less willing to invest in her firm-specific training. This reluctance over time will itself contribute to raising the productivity of men relative to women and consequently contribute to women, even with equal education and experience, being paid lower wages. The question here is: Does the employer's reluctance to afford women the same opportunity for on-the-job training represent a realistic response to the circumstances the firm faces or is this a form of sex discrimination? To try to answer this question we will examine quit rates.

It is true that men average more tenure in their current jobs than women. For example, according to the Bureau of Labor Statistics the median job tenure for a female manager is five years as compared to seven for men. However, it is not clear that this is because of sex-related characteristics. While conventional wisdom holds that women are less dependable as employees because they have the option to quit and stay home, statistical data does not support this view. A recent study conducted by Wick and Company, a consulting firm, found that few women actually quit to become homemakers. Only 7 percent quit to stay home. Like men, most women quit to advance their careers or to start their own firms.[11]

Several recent studies suggest that women's higher quit rates, to a large extent, are a consequence of lower pay and limited opportunities for advancement.[12] This creates something of a chicken and egg dilemma, and it is difficult to tell which came first. Many firms are reluctant to invest heavily in on-the-job training for women because women are more likely to leave the firm than men; and women are more likely to leave the firm because the lack of on-the-job training frequently relegates them to lower paying jobs and limits their changes for promotion.

From these data, it is obvious that differences in on-the-job training exist and that these differences could explain a portion of the remaining wage gap between men and women; however, this whole issue is clouded by the debate concerning the motivation behind employers' decisions to invest more in on-the-job training for male employees than female workers. Is this a rational, market-motivated decision or simply another form of sex-based discrimination? At the present time, we do not know the answer to this question.

Occupational Choice

Another possible explanation of why men are paid more than women, even with similar education and experience, is that men and women tend to choose different occupations. For example, women have historically entered the fields of teaching, nursing, and clerical work in large numbers, while men have dominated professions such as accounting, law, medicine, and engineering. Assuming that the supply of labor available in occupations chosen by women is relatively high and supply of labor is relatively low in occupations men choose, it is only natural that the average earnings of women would be less than those of men.

As was alluded to earlier, the ear marking of jobs by sex has its origins in ancient social systems that generally considered women's productive capabilities inferior to men's and later in beliefs about differences in aptitude and abilities. As a result, over the years women have been relegated to occupations in which the skill requirements are less, or at least valued less, than those in jobs dominated by men. The result has been that women are disproportionately represented in certain occupations and jobs that tend to pay less than jobs that are male-dominated.

The effect of this "occupational crowding" upon earnings has been a popular subject of research during the past few years. A review of these studies reveals a general tendency for the effect of this specific variable to decline as additional factors have been added to the regression analyses. For

example, one of the earlier studies by Ferber and Lowry concluded that between 30 and 42 percent of the male-female pay gap was explained by occupational segregation.[13] However, their research only included two variables--gender composition and education.

A study conducted by researchers at the U.S. Bureau of the Census, including a much larger number of variables, found that the crowding effect accounted for about 29 percent of the pay gap between men and women who had only completed high school, but only 17 percent of the difference of college graduates.[14] In a more recent study, Blau and Beller concluded that 17 percent of the overall male-female earnings gap could be attributed to occupational crowding[15]--a figure even smaller than the Census study.

This reduction in the effect of occupational choice over time undoubtedly reflects a refinement of research techniques as more relevant variables are added, but it is also possible that the effect of occupational choice upon earnings may be declining as occupational segregation lessens. Additional research is needed to clarify this issue.

Table 4
Proportion of Male-Female Earnings Differential Accounted for by Differences in Other Characteristic

Characteristic	Not H.S. Graduate	H.S. Graduate	College Graduate
Experience & Job Tenure	.139	.222	.226
Schooling	(na)	.008	.127
Skilled Trades[1]	.129	(na)	(na)
Occupational Structure[2]	.303	.300	.174
Other Characteristics[3]	.024	.071	.128
All Characteristics	.595	.601	.655
Residual	.405	.399	.345

[1]Whether in precision production, craft, or repair occupation

[2]Percent of persons in occupation who are female

[3]Marital status, type of geographical area, union status, size of firm, class of worker, race, health, and presence of children

Source: Male-Female Differences in Work Experience, Occupation, and Earnings, 1984, Current Population Reports, Series P-70, No. 10, (Washington: U.S. Department of Commerce, 1987) Table K, p. 10

Proportion of the Earnings Gap Collectively Accounted for by Different Factors Affecting Productivity

A recent comprehensive study by John McNeil and Enrique Lamas of the Bureau of the Census included the analysis of data from 20,000 households in the United States. The data were analyzed in detail in an effort to identify and estimate the effect of various factors that might account for the earnings gap between men and women in the United States. Their findings tend to validate and verify the findings of the other studies cited in this article. Their principle findings are summarized in Table 4. As these data show, adjustments for experience, job tenure, educational attainment, occupational choice and other characteristics that might affect earnings account for 60 to 66 percent of the male-female earnings differential, depending upon educational level. This means that approximately 40 percent of the earnings gap was not explained by male-female differences included in the study. This unexplained 40 percent may result from yet unidentified productivity-related characteristics[16]...or it may represent, at least in part, sex-based discrimination in pay.

SEX-BASED DISCRIMINATION

Becker's theory that substantial discrimination cannot exist for a significant period of time seems to ignore history. Competition has never been strong enough to rid India of its case system, nor was it strong enough to purge the American South of racial discrimination prior to the civil rights legislation of the 1960s. It also appears doubtful that competition has eliminated discrimination between men and women in the United States.

Nearly 150 years ago, John Stuart Mill warned us that we should be careful not to overestimate the effect of competition and underestimate the power of custom.[17] As Kenneth Boulding has pointed out, society's acceptance of prejudice allows the exercise of a form of monopoly power to the extent that some class of identifiable persons may be excluded from certain occupations or activities by artificial means such as race or sex. Barring these classes of people from certain occupations, allows others to realize monetary or other benefits that they would not receive without the ability to exclude the first group.[18] This means that it is profitable, or otherwise beneficial, for people gaining from prejudice to perpetuate the custom. In order for competition to eliminate such prejudice, it is necessary for a number of people who are benefiting from the custom to openly violate social norms and risk alienating others in their own class who also benefit. Here the people who may consider violating the social customs find themselves facing a benefit-cost decision, and it is not altogether clear that the decision, based upon both monetary and non-monetary considerations, will always result in increasing competition. It seems at least plausible that sex-based discrimination can exist for long periods of time, provided that it is condoned by society.

A considerable amount of anecdotal evidence has been gathered to support the notion that substantial sex-based discrimination does exist. Segregation by job title is one method used to accomplish this. As an example, sociologists Bielby and Barron studied 373 work establishments in 1984. They found that in 60 percent of the firms men and women were perfectly segregated by job title--this is to say that there was not a single job type in these establishments to which the employer assigned workers of both sexes. In addition,

they found substantial segregation in many of the other firms.[19]

Another study by Francine Blau showed similar results. Even when both men and women were available for the job title, many firms tended to discriminate on the basis of sex in employment practices. She discovered that the pay of workers was set relatively high if the firm had decided to hire men and relatively low if it intended to hire women in the position. She concluded that the majority of the firms she studied did not follow the practice of hiring the best worker who applies for an opening regardless of sex. Instead if the firm wanted to hire a man for a particular job the firm would offer a man's standard pay and would fill the position with a man. If the firm was willing to settle for a woman, they offered a lower wage.[20]

In addition to these studies, a considerable amount of evidence attesting to the existence of sex-based discrimination has been written up as a result of law suits under the anti-discrimination statutes. AT&T and the Hertz Corporation are good examples.[21]

The fact that sex-based discrimination exists also seems to be confirmed by the results of a recent study by Michael Robinson and Phanindra Wunnava. These researchers used stochastic techniques to estimate directly the effect of pay discrimination against women.[22] Their estimates, based upon 1983 CPS data, indicate that full-time female hourly earnings would be about 25 percent higher in the absence of direct discrimination. This means that 30 to 40 percent of the male-female earnings gap is a direct result of sex-based discrimination and that if all sex-based discrimination were eliminated that female earnings would be in the neighborhood of 75 to 80 percent of male earnings.

While it appears safe to conclude that sex-based discrimination is real, there is still some disagreement as to how prevalent it is and the magnitude of its economic impact. Based upon information currently available, it seems most likely that sex-based discrimination probably accounts for at least 20 percent but not more than 40 percent of the male-female earnings gap.

Of course, as Boulding has pointed out, changing attitudes and/or legislation prohibiting discrimination, in conjunction with competition, can eliminate or lessen the effect of discrimination over time. In the case of sex-based pay discrimination per se, it does appear that changing attitudes and recent legislation to combat discrimination are beginning to narrow the male-female earnings gap.

EVIDENCE THAT THE MALE-FEMALE EARNINGS GAP IS NARROWING

Recent data on earnings suggest that the Curse of Leviticus is slowly lifting from American women. Table 5 shows the ratio of female-to-male median earnings during odd years from 1979 through 1987. The ratios in the first column are based upon census data for all year-round full-time workers and show that the radio of female-to-male median earnings increased from 0.60 in 1979 to 0.65 in 1987. However, there is a problem with interpretation of these data. The Bureau of Labor Statistics defines a year-round, full-time worker as one who worked 50 weeks or more during the year and usually worked 35 or more hours per week; however, the BLS definition permits individuals who have worked as many as 25 weeks part-time to be classified as a year-round full-time worker. The second and third columns are data that have been adjusted to take into account the fact that women, on the average, tend to work shorter weeks and fewer weeks during the year.[23] When these data are corrected to reflect true year-round full-time workers, the gap narrows. Furthermore, the ratio of implicit hourly earnings of true year-round full-time workers shows that the actual pay rates of women, relative to men, are improving. In other words, the improvement in women's pay relative to men's is not a result of women working longer weeks and more weeks during the year, but improvements in wages per se.

Table 5
Ratio of Female-to-Male Median Earnings by Alternative Measures of Earnings, 1979 through 1980

	All Year-Round Full-Time Workers	True Year-Round Full-Time Workers[1]	
Year	Ratio of Annual Earnings	Ratio of Annual Earnings	Ratio of Implicit Hourly Earnings
1979	.60	.60	.64
1981	.60	.60	.65
1983	.63	.62	.66
1985	.63	.63	.66
1987	.65	.65	.69

[1]True year-round full-time workers reflects data that have been adjusted for the fact that women tend to work shorter hours and fewer weeks than men. These data compare the earnings of men and women assuming they work the same number of hours during the week and same number of weeks per year.

Source: Monthly Labor Review, July 1990, p. 13.

Changing attitudes about women in the workplace and resulting legislation account for this narrowing of the male-female wage gap. As was mentioned earlier, women's preference for work changed significantly during World War II, and a large number chose to remain in the work force at the end of the war. Improved home appliances lessened the burden of housework and wide-spread practice of birth control reduced the number of children, freeing more women for work outside the home.

In addition, two other realities of the late twentieth century pressured more women into jobs. First, the rising divorce rate made homemaking a poorer form of economic security. Increasingly, women recognized that the acquisition of marketable job skills and careers provided an insurance against the uncertainties of marriage and housekeeping.

Additionally, during the late 1970s and early 1980s as real family incomes fell, many families opted for dual careers and two incomes in order to maintain the standard of living that most American families had come to expect.[24]

As a part of the "Women's Movement" of the 1960s, women demanded equality in the workplace. Several states and the Federal Government passed laws to help stop discrimination against women in places of employment. The Equal Pay Act of 1963 made it illegal for an employer to discriminate between employees by paying different wages to men and women doing the same job,[25] and Title VII of the Civil Rights Act of 1964 prohibited ear-marking jobs for males or females. These laws have had a significant impact on employers in the United States. Most changed employment and pay practices (increasing female wages) in order to comply with the provisions of these laws. Accordingly, this legislation is credited with helping reduce the male-female earnings gap.[26]

Additionally, during the past two decades, women have made dramatic inroads into occupations previously reserved for men. For example, nearly 18 percent of all medical doctors are now women, as are 22 percent of lawyers, 32 percent of computer systems analysts and nearly half of all accountants.[27] Furthermore, over the next several years, women will make up the majority of all the new skilled and educated workers in the work force.

This new labor market fact of life has not escaped the notice of business and industry. A number of companies searching for talent are already courting women. They are re-examining their personnel policies in order to open new opportunities to females. What is important to note with respect to these efforts is that these companies are not doing this to avoid legal actions or to be noble. These efforts are clearly pragmatic. As George Harvey, President of Pitney Bowes, put it:

> It doesn't make sense to cut yourself off from half of the talented people in the world. If we're known as a good place to work, more good people will want to work here. These people [females] will help make us more competitive, which means more sales and higher stock prices.[28]

Last July Fortune pointed out that in the highest echelons of corporate managers, fewer than one-half of one percent are female.[29] Because of numbers such as these, many women feel that they have also been discriminated against in promotions. They refer to this as the "glass ceiling," and it too appears to be cracking.

In considerations for advancement, women who have historically been discounted or ignored, are getting re-newed attention. As a result of these efforts, women are making dramatic inroads into the key management positions. Pitney Bowes which had almost no female top executives ten years ago, now has nearly 20 percent of its top jobs filled by women. At Colgate-Palmolive, about 25 percent of its managers are women--up from 9 percent in 1986. Six years ago, Denver-based US West had nearly all-male senior management. Now 77 of its 350 top managers are women. These, and other examples, seem to suggest that even the glass ceiling is being shattered.[30]

SUMMARY AND CONCLUSIONS

Historically, women;s earnings have been about 60 percent of what men earned; however, recent data suggest that this ratio has been changing and the male-female earnings gap is narrowing. Recent data, when corrected for the tendency for women to work fewer weeks in the year and fewer hours during the week, show that women's earnings, on the average, are now nearly 70 percent of men's earnings on the average.

Since World War II, women's attitudes toward work have changed dramatically. Women have been entering the labor force in ever increasing numbers, and it is estimated that shortly after the year 2000 women will make up more than one-half of the United States labor force.

As women's attitudes about work have changed, they have pressured Congress and state legislatures for laws to help stop discrimination against women in the workplace. Laws such as the Equal Pay Act of 1963 and Title VII of the Civil Rights Act of 1964 have played a significant role is lessening sex-based pay discrimination and sex-based job segregation.

While significant human capital differences still appear to exist, these too seem to be narrowing as more women complete college and opt for careers in what have previously been men-dominated professions; and more employers are taking steps to eliminate sex-based discrimination in hiring and promotion practices.

It is anticipated that these trends will continue for the next decade or so, and as they do, the male-female earnings gap should continue to narrow.

NOTES

1. Mary Huff Stevenson, Determinants of Low Wages for Women, (New York: Praeger Publishers, 1984), p. 19.

2. Bardwell vs. Illinois, 83 U.S. (16 Wall.) 130, 141 (1872).

3. Op. cit., Stevenson, pp. 20-21.

4. Karen Anderson, Wartime Women: Sex Roles, Family Relations and the Status of Women During World War II, (Westport (Cn.): Greenwood Press, 1981.

5. Anderson, op. cit.

6. Daniel S. Hamermesh and Albert Rees, The Economics of Work and Pay, 3rd. Ed., (New York: Harper & Row, 1984), pp. 11-13.

7. One of the latest references was by Victor R. Fuchs in "Sex Differences in Economic Well-Being," Science, April 1986, pp. 459-464.

8. Gary S. Becker, The Economics of Discrimination, (Chicago: University of Chicago Press, 1957).

9. Hamermesh and Rees, op. cit., p. 327.

10. It is interesting to note that on-the-job training was not considered in this study. See the section that follows for information concerning on-the-job training. Some of the effects of differences resulting from on-the-job may have inadvertently been credited to one of the other factors included in the Corcoran study.

11. As reported in "Women: The Road Ahead," Time, Special Issue, Fall 1990, p. 52.

12. See W. Kip Viscusi, "Sex Differences in Quitting," Review of Economics and Statistics, August 1980, pp. 388-398; Sheldon Haber, Enrique Lamas, and Gordon Green, "A New Method of Estimating Job Separations by Race and Sex," Monthly Labor Review, June 1983, pp. 20-27; and Rueben Gronau, "Sex-Related Wage Differentials and Women's Interrupted Labor Careers--The Chicken or the Egg," Paper No. 1002, National Bureau of Economic Research, Cambridge, Mass, 1982.

13. Marianne Ferber and Helen M. Lowry, "The Sex Differential in Earnings: A Reappraisal," Industrial and Labor Relations Review, Vol. 29, 1976, pp. 377-87.

14. Male-Female Differences in Work Experience, Occupation, and Earnings, 1984, Current Population Reports, Series P-70, No. 10, (Washington: U.S. Department of Commerce, 1987).

15. Francine D. Blau and Andrea H. Beller, "Trends in Earnings Differentials by Gender, 1971-1981," Industrial Labor Relations Review, Vol. 77, 1987, pp. 513-29.

16. Recently Becker has turned his attention to differences in the division of labor between men and women as a possible source of differences in earnings. See Gary S. Becker, "Human Capital, Effort, and the Sexual Division of Labor," Journal of Labor Economics, January 1985, 33-58.

17. Mill, John Stuart, Principles of Political Economy, 1848.

18. Kenneth Boulding, "Toward a Theory of Discrimination," in Equal Employment Opportunity and the AT&T Case, Phyllis Wallace, ed., (Cambridge, Mass.: The MIT Press, 1976).

19. William Bielby and James Barron, "A Woman's Place is With Other Women," in Barbara Reskin, ed., Sex Segregation in the Workplace, (Washington, D.C.: National Academy Press, 1984), pp. 27-55.

20. Francine Blau, Equal Pay in the Office, (Lexington: D.C. Heath and Company, 1977).

21. Phyllis Wallace, Equal Employment Opportunity and the AT&T Case, (Cambridge: The MIT Press, 1976).

22. Michael D. Robinson and Phanindra V. Wunnava, "Measuring Direct Discrimination in Labor Markets Using a Frontier Approach: Evidence from CPS Female Earnings Data," Southern Economic Journal, July 1989, pp. 212-18.

23. Michael W. Horrigan and James P. Markey, "Recent Gains in Women's Earnings: Better Pay or Longer Hours?" Monthly Labor Review, July 1990, pp. 11-17.

24. Garland R. Hadley, "Have Real Incomes Been Declining?" Midwestern Business and Economic Review, Spring 1984.

25. The Equal Pay Act of 1963 was introduced and passed by Congress as an amendment to the Fair Labor Standards Act. Discussion of the legislation and implementation can be found in Mark Aldrich and Robert Buchele, The Economics of Comparable Worth, Cambridge, Mass.: Ballinger Publishing Co., 1986, and Alice Cook, Comparable Worth: A Case Book, (Hawaii: University of Hawaii at Manoa, 1985).

26. A summary of these studies can be found in Morley Gunderson, "Male-Female Wage Differentials and Policy Responses," Journal of Economic Literature, March 1989, pp. 46-72.

27. Janice Castro, "Get Set: Here They Come!", Time: Women: The Road Ahead, Special Issue, Fall 1990, pp. 50-52.

28. Castro, op. cit.

29. Fortune, July 1990.

30. Castro, op. cit.

EARLY WARNING SIGNALS FOR GROWTH COMPANIES WITH CASH MANAGEMENT PROBLEMS

CARROLL D. ABY, JR., Hardy M. Graham Distinguished Professor of Finance, University of Tennessee at Martin
ROBERT L. PUTMAN, Associate Professor of Accounting, University of Tennessee at Martin

INTRODUCTION

In 1987, The Financial Accounting Standards Board (FASB) issued Statement Number 95. This pronouncement requires business entitles to define funds as cash and cash equivalents in the Statement of Changes in Financial Position (SCFP). Technically speaking, FASB 95 changed the SCFP name to the Statement of Cash Flows (SCF). Both academicians and practitioners heralded this standard as a vast improvement in current financial reporting. This paper investigates the effects on and the implications for more effective cash management in light of the new report format. Considering the record numbers of bankruptcies and corporate reorganizations occurring today, cash management appears to be a topic of extreme importance to corporate management.

REVIEW OF THE SELECTED LITERATURE

Post-FASB Statement #95 literature emphasized the explanation and mechanics of the new standard (O'Leary, May 1988; Krehbiel, March 1990; and Sandhi, et al., Nov.-Dec. 1988). The superseded Committee on Accounting Procedures initially identified the financial report as an optional Sources and Uses of Funds Statement. The Accounting Principles Board (APB) amended the name to Statement of Changes in Financial Position (SCFP) and made it a mandatory part of the financial reporting package in 1971.

The APB gave firms wide latitudes in its acceptable definition of the term "funds." Such interpretations ranged from the most narrow view of cash to the broad definition of working capital. Most publicly held companies employed the working capital approach when reporting their changes in financial position. By issuing statement #95, the FASB refined the definition of funds to exclude such items as inventories and receivables. In the final analysis, a firm's value is measured by its ability to generate future cash flows. Statement #95 appears more closely attuned to the financial reporting needs required in today's heavily-laden credit economy.

Some of the major changes in the new SCF format adopted by the FASB are as follows:

	APB #19	FASB #95
Definition of funds	Cash/Working Capital	Cash and Cash Equivalents
Categories of reporting activities	1. Operations 2. All other	1. Operating 2. Investing 3. Financing
Method of presenting cash flows	Indirect	Indirect or direct[1]

[1]The direct approach to presenting cash flows requires the entity to report gross cash flows from operations according to major classifications such as customers, suppliers, and personnel. The indirect approach begins with net income operating income and adjusts to net cash flow from operating activities. If the direct method is used, there must be a separate schedule of net operating income reconciled to net cash flows from operating activities.

Firms with fiscal years beginning after July 15, 1988, must comply with FASB Statement Number 95. Accordingly, very little empirical research exists regarding financial reporting successes or improvements emanating from the standard.

Advantages of the New Reporting Method

Most scholars espouse the new standard as a more effective way to provide financial information on a firm to lenders, financial analysts, and other external users of such information. Lending institutions lead the way in touting advantages offered by the new version of the financial statement (Emmanuel, June 1988, and Ginzl, July 1988). Before promulgation and issuance of Statement #95, bankers realized the evaluation importance of a business entity's ability to generate future cash flows. Emmanuel (June, 1988) noted that a primary disadvantage of the traditional SCFP is its failure to inform users about the firm's ability to service its indebtedness.

O'Leary acknowledges that the new SCF provides better and more pertinent financial information for lending

institutions. However, she criticizes the new statement for failure to provide a more detailed analysis of sources and uses of cash from operating activities. The requirement of a reconciliation of net income with cash flows from operating activity offsets some of O'Leary's criticism, although it requires some additional computations by the user.

An impressive argument emerges from the viewpoint that the new SCF format improves analysis of corporate performance (Gia comino and Mielke, May 1988). The writers believe the analysis of changes in cash flow assists bankers, other lenders, and analysts in evaluating more effectively a firm's quality of earnings. The authors define quality of earnings as the adequacy of funds provided from operations to support the current level of operations as well as the ability to generate future earnings. Furthermore, they acknowledge that financial management performance can be quickly and accurately reviewed. Analysts can conclude whether the entity is increasing or reducing its debt or equity.

Additionally, Giacomino and Mielke propose that availability of cash from operating activity may be classified into mandatory and discretionary funds. Mandatory funds service interest, debt payments, and normal dividend payments. Discretionary funds maintain capital investment, expansion of the firm, and provide for additional dividend payments. Another study (Weaver and Marshall, Feb. 1990) supports the belief that cash flow analysis provides useful information to financial analysts in assessing firm risk.

A cash study (Robinson and Lambke, Sept. 1989) describes an SEC regulated company with increasing accrual basis net income reported over the period 1981-83. However, the company filed for bankruptcy under Chapter 11 in 1984. A review of the working capital for the three-year period indicates a decline of 58.99% from 1981 to 1982, and another 10.72% decline from 1982 to 1983. Cash flow from operations reflected more drastic declines of 40.39% and 186.21% respectively. Robinson and Lambke concluded that the reporting of cash flows vastly improves financial reporting. The area of risk assessment seems to be the principal beneficiary. British accountants (Adams, Nov. 1988) believe financial reporting should contain information about a firm's sources and uses of cash. Adams states that U.K. analysts will see more of the SCF from increasing numbers of expansionist British companies in the U.S. takeover market.

Criticisms of the New Format

Although first reports of FASB 95 implementation appear to embrace more pros than cons, several financial reporting pitfalls must be considered. First, some writers (Benoit, Sept. 1988) believe net profit from the income statement will lose its meaning, because investors may perceive the SCF as the most important component in the financial statement package. The income statement became the most important financial statement at the beginning of the twentieth century. Growth in the corporate form of business and increased separation of owners (investors) from management accounted for increased emphasis on profits and losses. Most authoritative accounting pronouncements seek to maintain the importance of the income statement in financial reporting.

Secondly, corporations can experience cash flow problems and still be viable and financially sound. However, when investors rely too heavily on the SCF and ignore the income statement in evaluating company potential, such misplaced analytical emphasis can thwart investment opportunities and preclude attractive returns.

Finally, like other statements in the financial package, the SCF is historical. Analysis focuses on where a business has been. On the other hand, investors and creditors must concentrate on the future. The ability of a firm to generate future cash flows is of more interest than historical information.

CASE ANALYSIS OF A GROWTH COMPANY

Most cash flow problems in today's economic setting are experienced by rapid-growth firms with low equity to debt ratios. Accrual basis income in a growth firm in generally ahead of cash flows from such operations by as much as two years. Consequently, many firms experience critical cash shortages at a time when they are at their maximum potential in terms of return on investment (ROI). Accordingly, such growth companies must contract their operations and possibly sell off assets or discontinue divisions to meet current cash demands.

For purposes of illustration, Exhibits 1, 2, and 3 present the traditional financial statements of Acme Motel Chain, Acme experienced growth in both earnings and equity over a four-year period. Some quick observations may be made by analyzing each financial statement.

The Balance Sheets

The balance sheets in Exhibit 1 reveal rapid growth for the firm. Debt issues financed all of the growth. Dividends represent 12% of the capital stock balance at the end of the previous year and are declared and paid in the same year. Additionally, interest expenses amounts to 12% on the balance of long-term debt at the end of the preceding year. Other assumptions include long-term debt repayment requirements in the amount of 10% of the balance at the end of the preceding year and depreciation of 10% of the balance of plant assets at the end of the preceding year.

Exhibit 1 suggests that Acme Motel Chain continues to display progress. Total owners' equity increased from $500,000 to $1,133,000 over the four-year period. Total assets expanded by approximately $1.8 million, while the company's working capital grew from $400,000 to $1,036,000. The cash balances increased from $100,000 to $381,000.

The Income Statements

Exhibit 2 income statements reflect positive growth in sales and earnings. Quality earnings are indicated by steady growth in assets. Improvement in working capital results from greater increases in accounts receivable and inventories than accounts payable.

Exhibit 1 - Acme Motel Chain
Balance Sheets
(In Thousands of Dollars)

	12-31-86	12-31-87	12-31-88	12-31-89	12-31-90
Cash	100	141	217	319	381
Accts. Rec.	400	500	550	650	705
Inventory	600	650	730	765	850
Current Assets	1100	1291	1497	1734	1936
Plant Assets	1000	1250	1455	1670	1946
Total Assets	**2100**	**2541**	**2952**	**3404**	**3882**
Current Liab.	700	725	770	850	900
Long-Term Liab.	900	1160	1369	1582	1849
Total Liab.	1600	1885	2139	2432	2749
Capital Stock	300	300	300	300	300
Retained Earnings	200	356	513	672	833
Total Equity	500	656	813	972	1133
Total Liab. & Eq.	**2100**	**2541**	**2952**	**3404**	**3882**

Exhibit 2 - Acme Motel Chain
Income Statements
(In Thousands of Dollars)

	1987	1988	1989	1990
Sales	1000	1130	1235	1349
Expenses (OTDI)*	600	678	741	804
Depreciation	100	120	135	149
Interest	108	139	164	190
Total Expenses	808	937	1040	1143
Net Income	**192**	**193**	**195**	**197**

*Other than depreciation and interest

Exhibit 3 - Acme Motel Chain
Statements of Cash Flows
(In Thousands of Dollars)

	1987	1988	1989	1990
Net Income	192	193	195	197
AR/Inventory Increases	-150	-130	-135	-140
Depreciation	100	120	135	149
Accts. Pay Increases	25	45	80	50
Operating Activities	**167**	**228**	**275**	**256**
Investing Activities	-350	-325	-350	-425
Financing Activities	260	209	213	267
Dividends Paid	-36	-36	-36	-36
Cash Increase (Decr.)	**41**	**76**	**102**	**62**

The Statements of Cash Flows

Cash Flow Statements in Exhibit 3 indicate cash increases of $41,000, 76,000, 102,000, and 62,000 respectively in years 1987, 1988, 1989, and 1990. Likewise, cash flows from operating activities reflect increases each year. Investing activities consisted entirely of plant asset acquisitions. Financing activities represented long-term debt increases to acquire plant assets less repayments of debit in each year.

Notice the traditional financial statement examples appear to be ideally suited for lending decisions. Steady growth in sales, earnings, and owners equity do not appear to overtax the company's dividend payment rate of 12% of capital stock. Stockholders should remain content.

Additional Analysis of SCFs

One could say that Acme Motel Chain presents a favorable investment and lending opportunity when only the traditional financial statements are considered. The new SCF improved financial reporting by isolating cash flows into operating, investing, and financing activities. Also, the SCF enhanced one's ability to track cash increases and decreases from the three categories. However, managers still require more analysis to assure the ability to generate adequate future cash flows remains intact.

Albeit the new SCF indicates an improvement upon the old SCFP which defined funds as net working capital, room for improvement still exists. The new format has been criticized for including interest payments as cash outflows of operating activities and dividends as financing activities. Both dividend and debt service payments constitute costs of financing (debt and equity) and perhaps should be classified as mandatory cash outflows from operating activities. The net difference between total cash provided from operating activities and the mandatory cash outflows (i.e., dividends, principal, and interest payments) can be identified as discretionary cash.

The authors believe management should adjust Statements of Cash Flows to reflect trends in discretionary cash. Such trends should readily forecast future cash shortages. To illustrate, cash flows from operating activities in the preceding examples were adjusted by adding back the interest payments to arrive at cash flows from operations before interest payments. The resulting figure can be termed as Available Cash From Operations. Mandatory financing payments (both debt service and dividends) should be deducted from available cash from operations to yield cash available from company expansion, repayment of debt, and additional dividends beyond normal dividend payments. This figure is discretionary cash. Computations are presented in Exhibit 4. Because all financing in this example is considered mandatory, these figures are the same as net increases in cash shown on the SCFs. However, this would rarely be true in actuality.

The most meaningful cash flow analysis which management can make from year-to-year in a growth firm is net cash flow from operating activities. This figure can then be compared to the end-of-year cash balances to see if they are moving in the same direction. This is illustrated graphically

in Figure 1. Notice in the preceding example that, although cash balances increased, net cash flows from operating activities declined in 1990. Cash flow problems surfaced at a time when the company experienced its highest cash balances. Obviously, cash flows from operating activities declined as a result of large growth in plant assets financed entirely by debt issues.

Asset expansion permitted healthy earnings growth over the four-year period, but the decline in cash flows from operating activities signals the beginning of a cash shortfall. Had the company financed more growth with equity, its financial position company's returns on investment.

Exhibit 4
Acme Motel Chain
Discretionary Cash Analysis
(In Thousands of Dollars)

	1987	1988	1989	1990
Available Cash From Operations	275	367	439	446
Less Principal Payments	-90	-116	-137	-158
Less Interest Payments	-108	-139	-164	-190
Less Dividend Payments	-36	-36	-36	-36
Discretionary Cash	41	76	102	62

Acme Motel Chain experienced good growth in sales, earnings, and equity in all years. Assume the company had a poor year with no growth. The manager is able to detect some potential problems from the adjusted SCF. In Exhibit 5, suppose sales remain the same as the last year of the preceding example. This generates a $2,000 cash decrease during 1991. Even though there was a slight decline in cash, Acme continues to reflect a good cash position as of December 31, 1991. An illusionary "all is well" condition results when one looks only at the traditional financial statements. However, a closer look at the cash flows from operating activities reveals a decline of $37,000 from the preceding year (from $256,000 to 219,000). If managers utilize the SCF by concentrating on cash flows from operating activities, they can detect reversals in cash flows earlier than by simply relying on the unadjusted Statement of Cash Flows.

The Acme Motel Chain seems destined to experience a cash flow shortfall in the near future. Rapid growth in plant assets, exclusively debt financing, and payment of generous dividends can better be sustained in periods of prosperity. Economic downturns often provide formidable challenges to the discretionary cash position of highly leveraged firms.

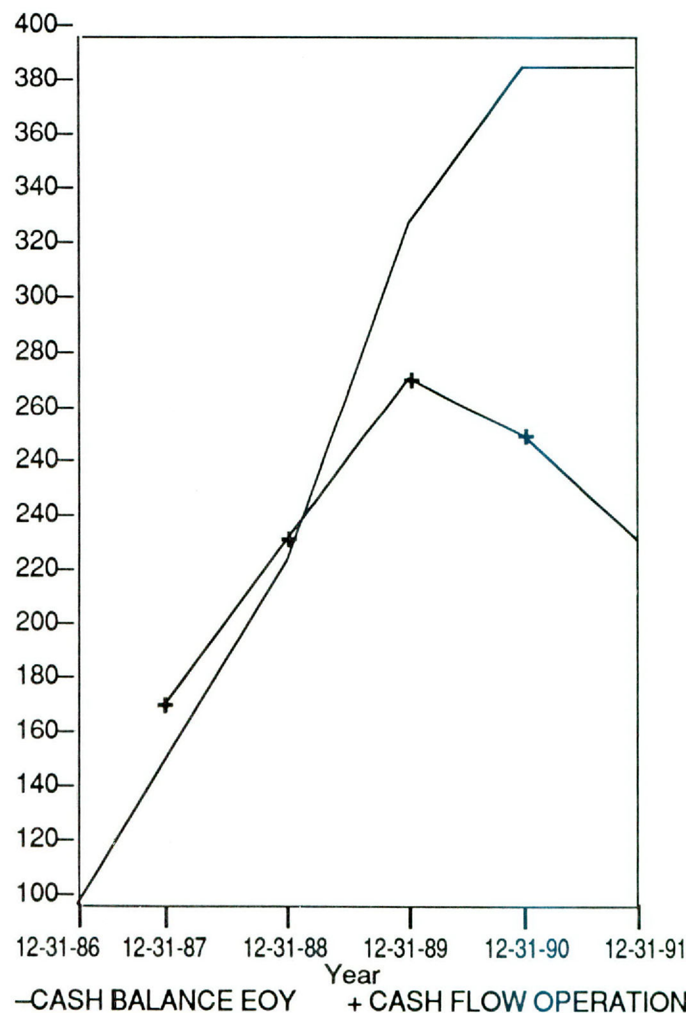
Exhibit 5
Acme Motel Chain
Financial Statements
Year 1991 (In Thousands of Dollars)

Income Statement	
Sales	1340
Expenses	-804
Depreciation	-169
Interest	-222
Net Income	**145**

Statement of Cash Flows	
Net Income	145
AR/Inventory	-145
Depreciation	169
AP Increase	50
Cash/Operating	219
Investing	-450
Financing	265
Dividends	-36
Cash Increase	2

Balance Sheet	
Cash	379
Accts Rec	775
Inventory	925
Total Current	2079
Plant Assets	2227
Total Assets	**4306**
Current Liabilities	950
Long-Term Liab.	2114
Total Liabilities	3064
Capital Stock	300
Retained Earnings	942
Total Equity	1242
Total Liabilities & SH Equity	**4306**

Figure 1
Cash/Cash Flow From Operations



SUMMARY

In issuing Statement #95, the Financial Accounting Standards Board greatly improved financial reporting from the perspective of accountants, analysts, and lenders. Managers likewise benefited. With just a few adjustments, however, the new Statement of Cash Flows can be a useful tool in predicting future cash flow shortages and surpluses. By determining discretionary cash available for payment of plant expansion, debt, and equity costs, cash flow evolves as a better predictive tool for managers. Additionally, excess discretionary funds may be used to make capital investments, repay long-term debt issues, or even pay additional dividends above normal. Also, when decreases in cash flows from operating activities appear, consideration should be given to cutting capital expenditures and dividends. Management should be particularly aware of declining trends in cash flows from operating activities which should precede actual declines in cash balances of a growing company. Upon closer analysis of discretionary cash balances and declines in operating cash flows, the manager can project cash flow problems much earlier than by relying entirely on traditional financial statements.

NOTES

Roger Adams, "Cash Flow Statements: The Transatlantic Effect," Accountancy, Vol: 102, n. 1143, Nov. 1988, pp. 110-113.

Ellen Benoit, "Real Money," Financial World, Vol: 157, n. 20, Sep. 20, 1988, pp. 46-47.

Christine B. Emmanuel, "Cash Flow Reporting, Part 2: Importance of Cash Flow Data in Credit Analysis," Journal of Commercial Bank Lending, Vol: 70, n. 10, June 1988, pp. 16-28.

FASB, SFAS 95, "Statement of Cash Flows," (Stamford: FASB, 1987).

Don E. Giacomino and David E. Mielke, "Corporate Performance," Management Accounting, Vol: 69, n.11, May 1988, pp. 54-57.

David J. Ginzl, "Cash Flow Reporting, Part 3: Getting--and Using--Quality Financial Information," Journal of Commercial Bank Lending, Vol. 70, n. 11, July 1988, pp. 17-21.

Vernon Kam, Accounting Theory, 2nd. ed., John Wiley & Sons, New York, 1990, pp. 67-78.

Susan J. Krehbiel, "Part 1: A Worksheet Approach to the Direct Method Statement of Cash Flows," The Practical Accountant, Vol: 23, n. 3, March 1990, pp. 39-47.

Carolyn D. O'Leary, "Cash Flow Reporting, Part 1: An Overview of SFAS 95," Journal of Commercial Bank Lending, Vol: 70, n. 9, May 1988, pp. 22-27.

Michael L. Robinson and Jeanne Lambke, "Analyzing Cash Flow: A Case Study," National Public Accountant, Vol: 34, n. 9, Sept. 1989, pp. 26-30.

Ashwinpaul C. Sandhi, George H. Sorter, and Gerald I. White, "Cash Flow Redefined: FAS 95 and Security Analysis," Financial Analysts Journal, Vol: 44, n. 6, Nov./Dec. 1988, pp. 19-20.

Carl G. K. Weaver and Marshall S. Brooks, "Cash Flows Statements and Risk Evaluation," Public Utilities Fortnightly, Vol: 125, n. 4, Feb. 15, 1990, pp. 16-20.

THE RECOGNITION OF INCREASING POSTRETIREMENT HEALTH CARE COSTS AND ITS POTENTIAL IMPACT ON RETIREES' BENEFITS

JERRY G. KREUZE, Associate Professor of Accounting, Western Michigan University
SHELDON A. LANGSAM, Assistant Professor of Accounting, Western Michigan University
GALE E. NEWELL, Professor of Accounting, Western Michigan University

INTRODUCTION

Many businesses and non-profit entities currently provide health care benefits to retired employees. When these postretirement benefits were first offered, costs were relatively small. However, an increase in health care costs, change in retiree/worker mix, and a reduction in medicare reimbursements have made it much more costly for employers to provide postretirement health care benefits. An accounting standard (effective in 1993 for most employers and in 1995 for the remainder) requiring employers to report expected future postretirement costs as liabilities in their financial statements may have an impact on health care benefits offered to retirees. This paper has three primary purposes. The first purpose is to provide a summary of FASB Statement No. 106. Secondly, to examine the potential impact of this new accounting standard along with several other factors on current and future health care benefits offered to retirees. And lastly, to present options that can help contain postretirement health care costs for organizations.

SUMMARY OF FASB STATEMENT NO. 106

The Financial Accounting Standards Board (FASB), in December 1990, issued Statement of Financial Accounting Standards No. 106, "Employers' Accounting For Postretirement Benefits Other Than Pensions." The Statement requires accrual accounting for all postretirement benefits expected to be provided by an employer to current and former employees, their beneficiaries and covered dependents. Postretirement benefits are broadly defined to include, but are not limited to, postretirement health care; life insurance provided outside a pension plan to retirees; and other welfare benefits such as tuition assistance, day care, legal services, and housing subsidies provided after retirement. Although this statement applies to various types of postretirement benefits, its primary emphasis is on postretirement health care benefits.

The Statement is generally effective for fiscal years beginning after December 15, 1992. However, for nonpublic employers with plans having 500 or fewer plan participants and for non-U.S. plans, the Statement is effective for fiscal years beginning after December 31, 1994.

The Statement significantly changes the current pay-as-you-go (cash) basis of accounting for postretirement health care benefits. It requires that the cost of providing postretirement benefits be attributed to the periods of employee service rendered to the enterprise in exchange for those future benefits. An equal amount of the expected future costs should be attributed to each year of service. Similar to pension accounting, the Statement adopts three fundamental aspects: delayed recognition of some events, reporting net costs, and offsetting liabilities and related assets. These three aspects become integral components in the computational requirements for net periodic postretirement benefits cost. The net periodic postretirement benefit cost recognized for a period includes six components: service cost, interest cost, actual return on plan assets, gain or loss, amortization of unrecognized prior service cost, and amortization on the unrecognized transition obligation or asset. Explanations of these components are presented in Figure 1.

Figure 1

Explanations of Components of Net Periodic Postretirement Benefit Cost

<u>Service cost</u> - the portion of the expected postretirement benefit obligation attributed to employee service during a period.

<u>Interest cost</u> - the accrual of interest on the accumulated postretirement benefit obligation due to the passage of time.

<u>Actual return on plan assets</u> - the change in the fair value of the plan's assets for a period including the decrease due to expenses incurred during the period, adjusted for contributions and benefit payments during the period. Plan investments, real estate, or other, should be measured by the market price. Plan assets used in plan operations, however, should be measured at cost less accumulated depreciation or amortization.

<u>Gain or loss</u> - consists of the sum of three components: (1) the difference between the actual and the expected return on plan assets; and (2) any gain or loss immediately recognized

or the amortization of the unrecognized net gain or loss from previous periods; and (3) any amount immediately recognized because of a decision to temporarily deviate from the substantive plan.

Amortization of unrecognized prior service cost - the systematic recognition of the portion of prior service cost that has not been recognized as a part of net periodic postretirement benefit costs, as a reduction of the effects of a negative plan amendment, or as part of the accounting for the effects of a curtailment.

Amortization of unrecognized transition obligation or asset - the systematic recognition of the portion of the transition obligation or asset that has not been recognized either immediately as a cumulative effect of a change in accounting principle or on a delayed basis as a part of net periodic postretirement benefit cost, as an offset to certain gains or losses, or as a part of accounting for the effects of a settlement or a curtailment.

Service Cost

The service cost component is the actuarial present value of the benefits attributed to service rendered by employees during the period. That is, it is the portion of the expected postretirement benefit obligation attributed to the current period's employee service. The expected postretirement benefit obligation is defined as the actuarial present value as of the measurement date of the postretirement benefits expected to be paid by the employer's plan to or for employees, their beneficiaries and any covered dependents pursuant to the terms of the plan. The expected postretirement benefit obligation is based on the expected amount and timing of future benefits.

In measuring the net periodic postretirement benefit cost, explicit assumptions must be used. Principal actuarial assumptions include: the assumed discount rate (the time value of money); participation rates (for contributory plans); retirement age; factors affecting the amount and timing of future benefit payments (past and present per capita claim cost by age, health care cost trend rates, and Medicare reimbursement rates); salary progression (for pay-related plans); and the probability of payment (turnover, dependency status, mortality, and so forth).

Interest Cost

The interest cost component recognized in a period is the increase in the accumulated postretirement benefit obligation to recognize the effects of the passage of time. The accumulated postretirement benefit obligation is the actuarial present value of all future benefits attributable to an employee's service rendered to the measurement date, assuming the plan continues in effect and that all assumptions about future events are fulfilled. On an after the date on which an employee attains full eligibility, the accumulated postretirement benefit obligation and the expected postretirement benefit obligation are the same. Prior to the full eligibility date, the accumulated postretirement benefit obligation is a portion of the expected postretirement benefit obligation.

Actual Return on Plan Assets

The actual return on plan assets should be based on the fair value of plan assets at the beginning and end of the period, adjusted for contributions and benefit payments. Fair value for plan investments, real estate, or other, should be measured by the market price. If a market price is not available, a forecast of expected cash flows, discounted at an appropriate rate, may aid in estimating fair value. Plan assets used in plan operations should be measured at cost less accumulated depreciation or amortization.

For taxable entities holding plan assets, the actual return on plan assets should reflect the tax expense or benefit. Otherwise no provision for taxes should be provided.

Amortization of Unrecognized Prior Service Cost

Prior service cost should be equally assigned to each remaining year of service to the full eligibility date of each plan participant at the date of the plan amendment. If all or almost all of a plan's participants are fully eligible, prior service cost alternatively can be amortized based on the remaining life expectancy of those plan participants.

Plan amendments that reduce the accumulated postretirement benefit obligation should be used first to reduce any existing unrecognized prior service cost, then to reduce any remaining unrecognized transition obligation. Any excess should be amortized on the same basis as specified in the previous paragraph. Immediate recognition of the excess is not permitted.

Gain or Loss

As can be observed from Figure 1, the gain or loss component of net periodic postretirement benefit cost consists of the sum of three distinct parts. Part 2 relates to the amortization of the unrecognized net gain or loss from previous periods. Amortization of any unrecognized net gain or loss should be included if, as of the beginning of the year, that unrecognized net gain or loss exceeds 10 percent of the greater of the accumulated postretirement benefit obligation or the market value of plan assets. If amortization is required, the minimum amortization should be the excess unrecognized gain or loss divided by the average remaining service period of active plan participants. If all, or almost all, of a plan's participants are inactive, the average remaining life expectancy of the inactive participants should be used. A company may use an alternative method of amortization of unrecognized gains or losses provided that (a) the minimum amortization is recognized when greater than the alternative method, (b) the method is applied consistently, (c) the method is applied similarly to both gains and losses and (d) the method used is disclosed.

Amortization of Unrecognized Transition Obligation or Asset

As of the transition date (the beginning of the fiscal year in which this statement is first applied) the transition obligation or transition asset is computed as the difference between the amounts of (a) the accumulated postretirement benefit obligation and (b) the fair value of plan assets plus any recognized accrued postretirement benefit cost or less any recognized prepaid postretirement benefit cost. The transition obligation or asset may be recognized either immediately in net income (as a cumulative effect change in accounting principle) or on a delayed basis. If delayed recognition is elected, the transition obligation or asset should be amortized on a straight-line basis over the average remaining service period of active plan participants. If the average remaining service period is less than 20 years, however, a 20-year amortization period can be elected. If all, or almost all, of the plan participants are inactive, the employer should use the average remaining life expectancy of those plan participants.

Additional Requirements and Disclosures

To reduce the cost of applying the Ssatement, employers can use estimates, averages, or computational shortcuts, provided the results are reasonably expected not to be materially different from the results of a detailed application. The statement requires employers sponsoring one or more defined benefit postretirement plans to disclose the information items presented in Figure 2.

Figure 2

Postretirement Financial Statement Disclosure Requirements

1. A description of the postretirement benefit plan.

2. The amount of net periodic postretirement benefit cost, showing separately the six components.

3. A schedule reconciling the funded status of the plan(s) with amounts reported in the employer's statement of financial position, showing separately:

    a. The fair value of plan assets.
    b. The accumulated postretirement benefit obligation.
    c. The amount of unrecognized prior service cost.
    d. The amount of unrecognized net gain or loss.
    e. The amount of any remaining unrecognized transition obligation or transition asset.
    f. The amount of net postretirement benefit asset or liability recognized in the statement of financial position.

4. The health care cost trend rate(s), discount rate(s), of compensation increase, and expected return on plan assets assumed.

5. The effect of a one-percentage point increase in the assumed health care cost trend rates for each future year on (a) the aggregate of the service and interest cost components of net periodic postretirement health care benefit cost and (b) the accumulated postretirement benefit obligation.

6. The amounts and types of securities in plan assets and the approximate amount of future annual benefits of plan participants covered by insurance contacts issued by the employer and related parties.

7. Any alternative amortization method(s) used.

8. The amount of gain or loss recognized during the period for a plan settlement or curtailment.

9. The cost of providing special or contractual termination benefits recognized during the period.

EFFECT OF FASB STATEMENT NO. 106 ON RETIREES' HEALTHCARE BENEFITS

Due to the upcoming requirements of FASB Statement 106, the extent of the existing amount of unfunded retiree health benefits, and such factors as retiree/worker ratios, future reductions in medicare coverage, and a larger percentage of Americans over 65, companies offering postemployment health care benefits will find that expenses for these benefits will increase significantly during the next 20 years. Although requirements of FASB Statement No. 106 will have no effect on actual cash flows, the recognition of additional expenses will impact reported net income. The extent of the impact of postretirement health benefit costs on the reported income of a company will depend on several factors. Consideration of the factors discussed below will be necessary in order for companies to investigate options for reducing postemployment health care costs.

Extent of Unfunded Postemployment Healthcare Benefits

In 1989 a United States General Accounting Office (GAO) report estimated the amount of the unfunded retiree health care benefits to be approximately $227 billion (World, Spring 1989). This liability includes $100 billion for retired workers and $127 billion for health care benefits already earned by active workers. In addition, there is another approximately $175 billion of liability for currently active workers attributable to their future years of service (DH&S Review, July 31, 1989). The GAO estimate of $227 billion for unfunded retiree health care benefits may actually be conservative as a report of the House Select Committee on Aging puts the obligation for the 500 largest United States employers at approximately $2 trillion.

The implementation of the provisions of FASB Statement No. 106 will require companies to change from the pay-as-you-go (cash) basis to the accrual basis. The impact of the change on reported health care expenses can be staggering.

The Wall Street Journal (February 11, 1991) reported that the current cost of retiree health care costs would jump more than sevenfold for big companies if calculated under the new standard. One company, Energen Corporation which changed its accounting based on the 1989 Exposure Draft reported approximately three times the expense that it reported under the pay-as-you-go method.

The Wall Street Journal indicated that if the new rules had been in effect for 1990, the average cost per employee would have been $2,500 instead of $340 under current rules. This would have reduced the annual profit for a typical 10,000 employee firm by over $21 million.

Retiree/Worker Mix

The radio of retirees to active employees is increasing in the more mature industries. In 1974, the average Fortune 500 company had 12 active employees for every retiree. By 1990, these same companies had only 3 employees for every retiree.

This trend is also reflected in the rust-belt industry. In 1950, this industry had 14 employees to every retiree. By 1960, the ratio of active employees to retirees was only 5 to 1. By 2025, there will be only 2 employees to every retiree. In the rust-belt industry where the ratio of retirees to employers continues to increase, the recognition of postretirement health care benefits as expenses in accordance with FASB Statement No. 106 could conceivably eliminate all reported profits for many companies.

Other firms and industries, such as those in the electronics/ computer area, in general will not experience as significant an impact from the implementation of FASB Statement No. 106 requirements. For example, Sterling Software, Inc. is unconcerned with FASB requirements of Statement No. 106 as they have 18,000 employees and only seven retirees.

In terms of the general population, the Employee Benefits Research Institute reports (DH&S Review, June 3, 1991) that the increasing ratio of retirees to working individuals will contribute to an increase in the proportion of GNP spent on health care. It is estimated that Medicare expenditures will increase from approximately 2.0% of GNP in 1990 to 6.8% of GNP in the year 2060.

Impact on Early Retirement

During the last decade, more and more companies have implemented, and continue to implement, early retirement options. In addition, some companies forced early retirement on some older employees in order to stabilize their work force. Often accompanying this early retirement is a commitment to provide health insurance coverage until age 65 when Medicare becomes effective. This has proven to very costly to the affected companies and will be more costly in the future given the inflation rate for health care. The recognition of these expenses in accordance with the provisions of FASB Statement No. 106 may cause employers to reduce the medical coverage provided to early retirees.

Reduction in Medicare and an Aging Population

Medicare provides a substantial portion of the health care benefits provided to retirees. However, Medicare usually does not provide benefits until the retiree is 65 and in most cases does not provide complete, full coverage to retirees who are past 65 years of age.

Most employers provide some insurance coverage supplementary to Medicare for retirees past 65. Nearly 50% of the retired men and women over 55 have some health care coverage from their former employers. It is estimated that health care coverage is provided to about two-thirds of retirees who are between the ages of 55 and 65, however, only one-third of retirees over 65 years of age have such coverage (Wall Street Journal, January 3, 1990).

Given the continued pressure to reduce the Federal deficit, Medicare is a very likely source of reduction. Even a slight reduction in Medicare reimbursement rates has a significant effect on employers' costs. Arthur Andersen & Company has indicated that a 5% reduction in Medicare reimbursement rates could increase an employer's health care costs by 15%.

By the year 2021, it is estimated that 1 out of 3 Americans will be over 55. The increase in life expectancy will also increase postretirement health care costs. A study released in 1989 by Buck Consultants reported that a typical American male at age 65 may expect to live until age 82. The typical life span for a woman at 65 is just over 86 (Accounting Today, 1989). This report noted that the increase in life-span indicates funding problems for both social security and postemployment health care benefits.

Reduction of Postretirement Health Care Benefits

There is every indication that companies have already reduced their postretirement health care benefits. Consultant Hay Group reports that the percentage of companies providing medical coverage for retirees over 65 has dropped form 80% in 1987 to 71% in 1989. Currently, only 52% of companies pay for the full cost of coverage, down from 74% in 1983 (Wall Street Journal, July 18, 1989). One out of eight large companies has tightened eligibility requirements and another one out of four is considering similar measures. In addition, nearly 3% of companies have informed current employees they will not receive health care coverage when they retire.

OPTIONS FOR CONTROLLING POSTRETIREMENT HEALTH CARE COSTS

Health care costs continue to increase at a rate much higher than the cost of living. This increase has prompted many companies to initiate cost reduction efforts for health care costs. Controlling health care costs is essential for many companies if they are to continue to provide postretirement health care benefits and also to be profitable. In Figure 3, cost containment strategies have been grouped into seven (7) general categories. Some of the options suggested may have a detrimental effect on retirees' benefits. However, without the adoption of a cost containment strategy, related health insurance costs borne by a company will

continue to increase at a rate greater than the cost of living.

Figure 3

Strategies to Contain Postretirement Health Care Costs

1. Reducing retirees' needs for health care
   a. Wellness programs which include retirees
   b. Using a health maintenance organization (HMO) or a preferred provider organization (PPO) as an option for retirees

2. Closer monitoring of use of health care benefits
   a. Requiring a second opinion on certain types of diagnosis
   b. Pre-approvals for certain medical procedures

3. Discouraging early retirement until medicare benefits are available

4. Reduction in health care benefits/insurance coverage
   a. Co-payment insurance plans in which the covered retiree pays a certain amount of the hospital/doctor bill
   b. Deductible provisions in which retirees must incur a certain level of medical costs before they are reimbursed
   c. Insurance premium sharing for retiree medical coverage
   d. Limiting health care insurance fore retirees

5. Limiting health insurance coverage to retirees only and not to their beneficiaries and dependents

6. Investigate health care insurance options which maximize tax deductibility

7. Lobby legislators for implementation of national health care programs

The cost containment strategies presented above are not intended to be all inclusive but only suggestions which can be implemented to partially offset the requirements of FASB Statement No. 106 which will result in a reduction in reported profits for many companies.

SUMMARY

FASB Statement No. 106, "Employers' Accounting for Postretirement Benefits Other Than Pensions," will require substantial changes in the way companies account for retirees' health care benefits. Under provisions of this new accounting pronouncement companies must recognize and report their obligation for future health care costs to retirees. For many companies, this obligation will be extremely large. The effect will be to reduce reported profits during the next 20 years. Pressure to keep reported net income high will make it necessary for companies to consider options aimed at containing retiree health care costs. In all likelihood, this may result in a reduction in benefits offered to many retirees and future retirees.

The reduction in a company's commitment to provide retiree health care benefits is almost a certainty. The dramatic increase in health care costs, the increase in the number of retirees and the ratio of retirees to workers, and the implementation of FASB Statement No. 106 standards all point to an inevitable cutback in retiree health care benefits. In our opinion, as well as the opinion of several individuals sending comment letters to the FASB, the implementation of Statement No. 106 will result in more health care costs being pushed on retirees, creating additional problems for the aging population. It is likely that changes in accounting for postretirement benefits required by Statement No. 106 will affect the economic well-being of many citizens.

NOTES

"The Changing Picture in Retiree Economics," Statistical Bulletin, July-Sept. 1988, p. 4.

DH&S Review, June 3, 1991, p. 2.

DH&S Review, July 31, 1989, p. 1.

"Data Show Jump in Retiree Life Expectancy," Accounting Today, November 20, 1989.

"Labor Letter," The Wall Street Journal, July 18, 1989A-1.

The Wall Street Journal, January 3, 1990.

The Wall Street Journal, July 18, 1989.

World, Spring, 1989, 48.

Coopers and Lybrand, "Focusing on Retiree Health Benefits: A Preview of the FASB's Final Standard," Executive Briefing, December 1990.

Financial Accounting Standards Board (FASB), Statement of Financial Accounting Standards No. 106, "Employers' Accounting for Postretirement Benefits Other Than Pensions," (Norwalk, Conn: FASB 1990)

Solomon, Jolie, "Retirees, Companies Head for Showdown Over Moves to Reduce Health Coverage," The Wall Street Journal, May 17, 1990, B1.

AIDS IN THE WORKPLACE: THE DIFFERING APPROACHES OF LARGE AND SMALL BUSINESSES IN TEXAS

GERALYN McCLURE FRANKLIN, Associate Professor of Management, Stephen F. Austin State University
ALICIA BRINEY GRESHAM, Assistant Professor of Marketing, Houston Baptist University
ROBERT SOLOMON, Professor of Marketing, Stephen F. Austin State University
GWEN F. FONTENOT, Dallas, Texas

ABSTRACT

Societal concerns over the spread of Acquired Immune Deficiency Syndrome (AIDS) are continuing to impact the workplace. Some employers have chosen to ignore the threat while others have taken the initiative to formulate AIDS policies and education programs. The purpose of this article is to examine the approaches of a sample of Texas businesses in dealing with AIDS in the workplace.

INTRODUCTION

AIDS is an employee relations issue that will confront many employers in this country sooner than they may think. AIDS will have an impact on the premiums which businesses pay for the health care component of their employee benefit plans, especially as more individuals become infected with the disease and file insurance claims. There is also the threat of litigation by employees who feel that they are being unlawfully treated. Although AIDS victims have been afforded protection under the Vocational Rehabilitation Act of 1973 (29 U.S.C. 701, et seq.), the recent enactment of the Americans with Disabilities Act of 1990 (Congressional Record, July 12, 1990) will mean that even more employers will be required to treat victims of AIDS as "disabled" (or handicapped).

Aside from the implied economic and legal consequences attached to AIDS, there are also humanitarian and corporate responsibility concerns which confront employers. For example, does an employer have a moral obligation to develop policies which humanely treat employees who fall victim to catastrophic illnesses? When does the protection of the AIDS-afflicted exceed what is best for the business? The moral and ethical considerations are endless.

It is not the purpose of this article to assess the importance of economic or moral issues connected with AIDS in the workplace. This is strictly a matter which is best resolved on a case-by-case basis. What is intended is to inform the reader of the approaches that large and small businesses in Texas are taking in dealing with this crisis in the workplace. In order to familiarize the reader with the basics pertaining to AIDS in the workplace, a brief background discussion follows. In addition, prior research efforts are summarized.

BACKGROUND ON AIDS AND AIDS IN THE WORKPLACE

AIDS is the name given to a complex of health problems first discovered in the United States in 1981. Persons afflicted with the disease suffer a loss of natural immunity to fight off certain cancers and infections. This leaves these individuals vulnerable to other diseases that are normally not a threat to healthy persons.

AIDS is caused by a Human Immunodeficiency Virus (HIV) which renders the human immune system incapable of resisting infection (Frumkin and Leonard, 1987). The virus may be found in blood and other body fluids of infected individuals. A person may become infected with the virus through sexual relations, when handling blood or other body fluids, or when sharing a contaminated hypodermic needle. As such, the virus cannot be passed through the air. Sneezing, coughing, breathing, touching, hugging, and shaking hands do not spread the AIDS virus. Likewise, objects in the workplace, like public toilets, typewriters, pencils, pens, papers, and chairs, do not transmit the virus. The AIDS virus, and therefore AIDS, cannot be spread by "casual contact" that occurs in the normal work environment.

Since AIDS victims are protected by the Vocational Rehabilitation Act of 1973 (29 U.S.C. 701, et seq.), which applies to federal contractors that receive federal financial assistance, along with state and local handicap statutes, it is important legally that they are not discriminated against in the workplace. As long as employees with AIDS are able to perform their jobs and do not present a workplace hazard to themselves or others, they must be given the opportunity to work. This may require the employer to provide some form of "reasonable accommodation." Thus, the employer must make reasonable modifications to working conditions if such modifications would enable a handicapped employee or potential employee to perform the essential tasks of a job (Franklin and Robinson 1988).

Victims of AIDS have been afforded even greater protection as a result of the recent enactment of the Americans with Disabilities Act of 1990 (Congressional Record, July 12, 1990). The Act, which was signed into law by President

George Bush on July 26, 1990, protects the "disabled" (or handicapped) from discrimination in employment, public accommodations, transportation, and telecommunications. Under the employment provisions of the Act, businesses with 15 or more employees will be required to disregard handicaps (like AIDS) in employment decisions and make special accommodations for disabled employees at their own expense, unless cost is too burdensome. The Act follows current civil rights legislation in dealing with violators.

The Equal Employment Opportunity Commission is to issue regulations implementing the employment provisions of the Act by July 26, 1991. Enforcement will begin on July 26, 1992 for employers with 25 or more employees. Beginning on July 26, 1994, employers of 15 or more will be covered.

PRIOR RESEARCH

Even though the majority of AIDS-afflicted individuals are workers of working age, most businesses have yet to confront the disease with comprehensive human resource policies. Such policies should include health issues, legal implications, insurance coverage, and educational programs for all employees. A few companies on the West coast have launched ambitious AIDS education programs. These companies include Bank of America, Levi-Strauss, Pacific Telesis, and Wells Fargo (Naglieri, 1987). Unfortunately, national surveys have revealed that less than 10 percent of American companies have developed policies addressing AIDS in the workplace.

When the American Management Association surveyed the readers of its journal, Personnel, and 400 other human resource managers, they found that roughly four percent of the responding companies (5/124) had a formal policy pertaining to AIDS. Only 15 percent (19/124) reported that they had developed educational programs about AIDS (Levine, 1986). A survey by the American Society for Personnel Administration (now the Society for Human Resource Management) found that three percent of those responding (9/287) had written policies dealing with employees with AIDS ("Few Companies," 1986; Myers & Myers, 1987). A survey conducted by the Bureau of National Affairs discovered that only two (2) percent of the respondent organizations had an AIDS policy ("Few Companies," 1986). Finally, in the most comprehensive survey to date, Alexander and Alexander Consulting Group, Incorporated determined that 8.3 percent of those firms responding in a nationwide survey of over 2,000 organizations had written policies on AIDS. However, ten (10) percent indicated that they had employees with AIDS in their work force (Fritz, 1988). Although the problems surrounding the employment of victims of AIDS continue to mount, no studies dealing with whether or not organizations have AIDS policies and education programs have appeared in the literature since mid-1988.

The previously mentioned surveys provide conclusive evidence that the vast majority of businesses do not have policies or programs that deal with the AIDS dilemma. Unfortunately, the previous studies of AIDS in the workplace did not address an important issue: does the size of the business influence the development of a policy on AIDS or the implementation of an AIDS education program?

The remainder of this article will present the findings of a survey which explored differing approaches of large and small businesses in Texas when dealing with AIDS in the workplace. Implications of these approaches are also provided.

SAMPLE METHODOLOGY

The sample for this research was drawn from the membership of the Dallas Human Resource Management Association (DHRMA) and the Houston Human Resource Management Association (HHRMA). DHRMA and HHRMA were selected as the sampling frame because they endorsed the survey, indicating that AIDS is an employment problem in Dallas and Houston, Texas. Since AIDS is a recognized problem, businesses would be actively pursuing a solution and, consequently, be more likely to provide information to the researchers.

DHRMA and HHRMA are organizations of human resource generalists and specialists. DHRMA has 794 member companies, and HHRMA has 381 member companies. Although an exact breakdown by number of employees is not available, it is estimated that 25-30 percent of the member companies of both associations have less than 250 employees. Member companies represent a diversity of industries within each area.

Questionnaires were mailed to one representative from 50 percent (397) of the Dallas organizations. One representative of each of the 381 Houston area organizations received a questionnaire. The questionnaire contained questions relating to: (1) a description of the organization's AIDS policy, if such a policy existed; (2) the structure of the AIDS education program, if such a program existed; (3) methods of handling AIDS-related problems in the work environment; and (4) demographic information.

The response rate from the mailing was 34.7 percent (270/778). Seventy-nine respondents (29.3 percent) represented small businesses (defined as less than 250 employees), while 191 (70.7 percent) represented large businesses (defined as more than 250 employees). The breakdown of small and large businesses responding to the survey by type of business is summarized in Table 1.

TABLE 1
TYPES OF BUSINESSES RESPONDING TO SURVEY

	Percentage of	
Type	Small	Large
Construction	3.8	1.0
Wholesale Trade	2.5	2.0
Professional Services	38.0	34.2
Transportation/Communication	17.7	11.9
Manufacturing	25.3	28.5
Retail	1.3	10.4
Public Administration	1.3	2.6
Other	10.1	9.4

RESEARCH RESULTS

The responses of the groups were tabulated and analyzed in order to compare the steps being taken by large and small businesses in dealing with AIDS in the workplace. A z-test of two sample proportions was conducted for each of the questions on the survey. The proportions included in the analysis were the percentages of small and large businesses responding positively to each of the questions. The results of the analysis are included in Table 2.

TABLE 2
PERCENTAGE OF SMALL AND LARGE BUSINESSES RESPONDING AFFIRMATIVELY TO EACH STATEMENT

Statement	Small Businesses (n=79)	Large Businesses (n=191)	P-Value
Has AIDS Policy	17.5	47.7	.000
Has AIDS Education Program	25.0	43.5	.01
Uses Brochures to Educate about AIDS	20.9	44.5	.000
Uses Question/Answer Sessions to Educate about AIDS	7.6	15.7	.05
Uses Outside Consultants to Educate about AIDS	6.3	6.8	N.S.
Uses Seminars to Educate about AIDS	11.4	18.8	N.S.
Uses Films to Educate about AIDS	7.5	19.9	.01
Uses Other Tools to Educate about AIDS	7.6	8.4	N.S.

Key: N.S. means "Not Significant."

Three variables, the use of outside consultants, the use of seminars, and the use of other tools in educating employees about AIDS, showed no significant difference between large and small businesses. The remaining variables demonstrated significantly higher percentages for large businesses.

IMPLICATIONS

It appears that many large businesses are taking the initiative to develop AIDS policies and education programs. On the other hand, most small businesses have yet to deal with the problems and issues involved with AIDS-afflicted employees in the workplace.

There were a number of reasons given by both large and small firms for not developing formal policies pertaining to employees with AIDS. Commonly cited reasons include: (1) AIDS is treated like any other life-threatening disease; consequently, a separate policy is not necessary; (2) issuing a policy statement may obligate the organization to a course of action that may prove unwise in the future; and (3) it is too early to prepare a policy on AIDS since the facts are continually changing.

Many small employers regard the threat of AIDS as highly unlikely in their places of business. However, no business is immune from the AIDS epidemic. In fact, many experts predict that every business in this country will eventually have to deal with an AIDS-afflicted employee. For some, it may come sooner than they think.

Since much of the controversy about AIDS arises from the fact that people do not know its causes, how it is transmitted, and how communicable it is, it would be in the best interest of employers to provide education programs for all of their employees. Related to this, it is interesting to note that more small businesses reported having AIDS education programs than AIDS policies (25.0 percent versus 17.5 percent). However, more large businesses indicated that they had AIDS policies rather than AIDS education programs (47.7 percent versus 43.5 percent). One can only surmise that small employers may feel that offering an education program is all that is necessary in dealing with the crisis. Large employers may feel that the development of a policy is sufficient in itself.

CONCLUDING REMARKS

Developing an employment policy pertaining to victims of AIDS is not difficult. The policy should be straightforward, stating that AIDS victims will be treated the same as anyone with a life-threatening disease. It is imperative, however, that employers consult knowledgeable legal counsel before finalizing such a human resource policy.

Although development of an AIDS policy rarely causes a dilemma, employers may experience difficulty in implementing the AIDS policy. Specifically, problems often arise when developing and adhering to specific policy procedures. Just one slight alteration in the procedures can cause problems for organizations, especially if employees are treated differently.

To allay employee fears about AIDS in the workplace, as well as to inform employees of how AIDS is contracted and spread, employers should think seriously about developing an AIDS education program. There are a number of education programs available from commercial vendors. One of these packages may be the most feasible, provided financial considerations are met. Otherwise, employers may want to develop their own education programs.

Since AIDS is not going to be one of those employment issues that, if ignored, will go away, employers should begin to address the issue now. This can be done by formulating a policy for dealing with employees with AIDS and offering some form of education program. Those who ignore the threat of AIDS in the work environment will no doubt find themselves at a disadvantage.

NOTES

Americans with Disabilities Act of 1990, Congressional Record, July 12, 1990.

Few companies have policies on aids, aspa survey shows.

(1986, February). Resource, pp. 1-2.

Franklin, G.M., and Robinson, R.K. (1988, April). AIDS and the law. Personnel Administrator, 33, 118-121.

Fritz, N.R. (1988, August). Writing the rules on aids. Personnel, 67, 13-14.

Frumkin, L.R., and Leonard, J.M. (1987). Questions and answers on aids. Oradell, NJ: Medical Economics Books.

Levine, H.Z. (1986, March). AIDS in the work place. Personnel, 63, 56-64.

Myers, P.S., and Myers, D.W. (1987, April). AIDS: Tackling a tough problem through policy. Personnel Administrator, 32, 95+.

Naglieri, T.J. (1987), June). Coping with aids on the job. Risk Management, 34, 36-40.

Vocational Rehabilitation Act of 1973, 29 U.S.C. 701, et seq.

AUDITOR LIABILITY: RESPONSIBILITIES AND DEFENSE

K. R. TILKER, Assistant Professor of Business, Midwestern State University
BENNY R. ZACHRY, Associate Professor of Accounting, Midwestern State University

In recent years, many sectors of the U.S. economy have been struggling to survive under a tort system that all too often encourages frivolous litigation. Such litigation operates on the premise that products made and services rendered are supposed to be fool proof and without error or risk. The pharmaceutical industry has lost ground to a point where newly developed drugs reportedly are not on the market because of the legal risks of producing these drugs. Makers of private airplanes have stopped manufacturing perfectly safe aircraft. The list is endless, and the rising tide of tort litigation has reached the accounting profession. The legal environment and the auditing environment have come into direct conflict in recent years.

The perceived financial health of businesses dramatically affects investor decisions. For many years, investors took auditors' reports at face value and accepted the idea that there were significant risks associated with any business investment no matter how rosy the audit report. Rarely were any suits filed against auditors when businesses failed. The few suits that were filed against auditors dealt mostly with situations of gross negligence or fraud.

In recent years, this ethic has died. Now investors who have lost money in a business venture look to auditors as deep pockets to cover their losses. The result has been dramatic for auditing firms. Some firms have even gone bankrupt because of auditor liability claims.

The major problem facing auditors is establishing the bounds of their legal liability. Auditors obviously have a legal responsibility to their clients, but how far should their legal liability extend to third parties? Courts have failed to address this question consistently, and responses vary from jurisdiction to jurisdiction. After providing a general overview of an independent auditor's legal responsibilities, this article explores factors contributing to the recent escalation of litigation and ways in which auditors can reduce the risk of being sued.

An Auditor's Legal Responsibility

An auditor is responsible for his examinations and reports, so he may incur liability to his client or to third parties who rely on the professional opinion contained in an audit report. The auditor's responsibilities can be divided into two areas: common law (established by legal precedence) and statutory law (established by legislative action).

Liability to the client under common law

An auditor may be liable to clients either for breach of contract or for a tort. Breach of contract results when an auditor fails to carry out a contract for services in accordance with the contract's specific terms. If an auditor materially breaches the contract with the client, the auditor will not be entitled to any compensation.

Tort liability is based on failure to carry out a common-law duty created by social policy. An auditor is liable to a client in tort theory for three degrees of improper performance: (1) ordinary negligence (hereafter referred to as negligence), (2) grow negligence, and (3) fraud. In some jurisdictions, the amount of damages may be increased for gross negligence or fraud as compared with damage amounts for negligence.

Negligence is the failure to exercise due professional care in discharging duties necessary under the circumstances. Although not expected to display extraordinary or unusual skill, an auditor must exercise a higher level of care than would an ordinary, nonprofessional, prudent person. This does not mean auditors are not liable when they practice the standards suggested by fellow professionals. For example, in the recent Oregon case Maduff Mortgage v. Deloitte, Haskins and Sells[1], that state's appellate court ruled that while the American Institute of CPA's (AICPA) standards are useful in determining an auditor's standards of care, the application of Generally Accepted Auditing Standards (GAAS) is not a complete defense to a lawsuit.

Even if an auditor exercises normal professional care and skill in conducting an audit and in rendering a report, there is no guarantee that false information may not exist in the financial statements. Under such circumstances, the auditor usually is not liable for damages that result from failure to detect false information. For negligence to exist, a client must prove that the auditor was negligent, that a loss was sustained, and that the auditor's negligence was the proximate cause of the loss.

Gross negligence to a client results when an auditor fails to exercise even slight care in the performance of the audit or when an auditor displays reckless disregard for the truth. In some jurisdictions, gross negligence may be called constructive fraud or technical fraud. At times, a client may

contribute to an auditor's negligence or gross negligence. If such contributory negligence causes an auditor to fail in his performance, the auditor has a valid defense and may be able to limit or bar recovery by the plaintiff client. An example of this is the recent Minnesota Supreme Court case Halla Nursery v. Baumann-Furie & Co.[2] The court ruled that a trial court may apply principles of comparative negligence broadly in determining relative fault between a business and its accounting firm. Additionally, in Fuller v. Wohlfeiler & Beck[3], the U.S. Court of Appeals applying Utah law held that comparative negligence of an investor in a failed business is a proper jury question when it can be shown the investor's conduct contributed to the auditor's failure to perform his duties or furnish accurate reports.

Fraud involves making a statement known to be untrue or without reasonable basis for believing it to be true, as well as the omission of a material fact that is necessary to convey the truth. For fraud to exist, the auditor must intend that another person (i.e., the client) act on the omission or misstatement of the material fact and be injured by doing so.

Liability to third parties under common law

Court systems constantly re-examine and redefine common-law liabilities of independent auditors to third parties (who are not third-party beneficiaries as discussed below). Discussion of auditors' liability to third parties should begin with Ultramares Corp. v. Touche[4]. This 1931 New York case established an early precedent that auditors could not be held liable to non-clients for negligence because there was no privity. For a third party to hold an auditor liable, he had to show gross negligence or fraud. Today about seven jurisdictions follow the privity requirement of the Ultramares case..

The fact that not all jurisdictions follow the privity precedent of the Ultramares case creates many inconsistencies from state to state. For example, in 1971, Texas auditors found their liability greatly extended in the case of Shatterproof Glass Corp. v. James[5]. Contrary to the Ultramares case, the ruling in Shatterproof held that auditors may be liable in negligence to third parties where no privity exists. This ruling was tempered by the 1986 case Blue Bell, Inc. v. Peat, Marwick, Mitchell & Co[6]. This case held that if an accountant preparing audited financial statements knows or should know that such statements will be relied upon by a limited class of third parties, the auditor may be liable for injuries to members of that class relying on his certification of the audited reports. The ruling in Blue Bell, Inc. was a step toward privity, but in reality such a foreseeability test (knew or should have known) excludes only a small number of third parties. The 1983 New Jersey case H. Rosenblum, Inc. v. Adler[7] and the 1986 California case International Mortgage Co. v. John P. Butler Accounting Corp.[8] establish the same foreseeability test for each of those respective states.

More states (approximately 15) have taken a compromise approach. They follow Section 552 of the Restatement (second) of Torts. Liability is extended to a known and intended class of beneficiaries. This is not a strict privity requirement but is far less reaching than the foreseeability test. Demonstrating that the auditor should have known a third party would rely on his opinion will not suffice. Some states that have recently follows this approach and the precedent cases include: Florida - First Florida Bank v. Max Mitchell and Company[9]; Michigan - Law Offices of L.J. Stockler P.C. v. Rose[10]; and Montana - Thayer v. Hicks[11].

While some states are moving away from the privity requirement, in recent cases in New York (such as Credit Alliance Corp. v. Arthur Anderson & Co.[12] and William Iselin & Co., Inc. v. Landau[13]) courts have reaffirmed the Ultramares ruling. In New York, auditors continue to be liable for negligence only to those parties with whom a relationship so close as to approach that of privity exists.

Auditors' legal liability to non-clients unfortunately varies from one jurisdiction to the next. About one-half of the states are undecided in which of the three standards they will follow. As time passes, auditors continue to hope most states will adopt the "strict privity" test of Ultramarers.

Liability to third-party beneficiaries under common law

Third-party beneficiaries are people or entities named in a contract who have rights and benefits even though they are not a party to the client-auditor contract. A classic example is the case of the financial institution designated to receive a copy of the audit report that a CPA firm prepares for a client. The American Law Institute's Second Restatement of Torts supports the view that auditors should be responsible only to people for whose benefit they are intending to provide the information[14]. Thus, auditors have responsibilities to these third-party beneficiaries even though they are not parties to the contract with the client.

To recover damages from an auditor, the third-party beneficiary needs only prove that the auditor was negligent, that a loss was sustained, and that the auditor's negligence was the proximate cause of the loss[15]. This standard is identical to the one required of the auditor to the contracting client; it should be so because the auditor is place on notice of the third-party beneficiaries' reliance from the date of the client-auditor contract.

Liability under statutory law

Unlike common law, which is comprised of previous legal decisions, statutory law is written, legislated law. Federal securities laws have expanded the auditor's liability to third parties beyond those established by common law. Unlike common law, the securities acts, when applicable, require the auditor to bear the burden of proof. The two statues of most concern to auditors are Section 11 of the Securities Act of 1933 and Section 10(b) of the 1934 Securities Exchange Act.

Section 11 of the 1933 act provides that an auditor can be liable to a person who is the initial purchaser of securities if a material error or omission exists in the Registration Statement for those securities in question. To recover a loss, the initial purchaser needs only prove that the financial statements were misleading and that a loss was suffered[16].

Compared with the 1933 act, the 1934 act significantly broadens the range of third parties to whom the auditor may

be held liable. The 1934 act applies to all purchase and sales of securities on national securities exchanges, in interstate commerce, or through the mail. In addition, under Section 10(b), any buyer or seller of such a security may initiate the suit. However, under this act, the defendant auditor is not liable if he proves that he acted in good faith and had no knowledge that such statement was false or misleading. Thus, an implication exists suggesting that under the 1934 act an auditor be held liable only to third parties for gross negligence or fraud.[17]

REASONS FOR THE INCREASE IN LIABILITY SUITS

More lawsuits have been brought against auditors in the last fifteen years than in the entire preceding history of the accounting profession in the United States[18]. Various factors contribute to this increase, but the biggest problem has been an "expectation gap." The expectation gap is the difference between an auditor's perception of what he is responsible for and what the public perceives his responsibilities to be[19].

Part of the expectation difference arises from the general public's ignorance of auditor terminology. For example, uniformed shareholders might mistakenly believe that because a report was prepared by a "certified" public accountant, it ensures that the financial statements are "certifiably" correct, or that an "audited" statement has been subjected to the same scrutiny afforded by an Internal Revenue Service audit and is therefore a perfect document[20].

Some of the litigation arises because our society has become litigation-prone. Many individuals seek insurance, not just assurance. Many financial statement users would prefer to do away with risk, honest human errors, and acts of God and replace them with lifetime warranties and bumper stickers that say, "Hit me, I need a new BMW"[21]. This alarming attitude has been reflected in the courts. In Rusch Factors, Inc. v. Levin[22], the court asked . . .

> Why should an innocent party be forced to carry the weighty burden of an accountant's professional malpractice? Isn't the risk of loss more easily distributed and fairly spread by imposing [sic] it on the accounting profession, which can pass the cost of insuring against the risk on to its customers, who can in turn pass the costs on to the entire consuming public?

Unfortunately, the courts have extended auditor liability under the assumption that auditors have little difficulty diluting this liability through increased fees and insurance coverage. In reality, auditors face heavy competition for clients, making it difficult to raise fees. Moreover, many auditors are unable to obtain reasonably priced insurance coverage.

The tremendous increase in the number of practicing attorneys may explain some of the increase in litigation against auditors. In the United States, the attorney population has more than doubled in the last fifteen years, from 300,000 to 700,000, or one attorney for every 354 people[23]. This, coupled with the emergence of class actions (grouping together all or many investors), which can create excessively large settlements, may help explain why attorneys have been fighting to increase auditors' liability and the courts' power in determining standards of proof and penalities[24].

An increase in business failures is another reason for the increase in lawsuits against auditors. When a company goes bankrupt, a disgruntled investor often tries to find a solvent party from whom he can recover damages. Often this is the independent accounting firm. Palmrose[25] found that approximately 50 percent of the litigation cases against auditors entailed financial failure or severe financial distress. Another factor working against the auditor is that the practical inconveniences of preparing for trial, involving the loss of countless hours of uninsured senior management time, incurred without any assurance that the defense will be good enough, forces many accounting firms to settle out of court. Thus, a "domino effect" serves to increase the incentive for individuals to file suit against auditors regardless of the strength of their case.

Some litigation attorneys blame sloppy work for auditors' liability malady, but the fact is that out of the millions of audits prepared each year, only about fifty are reported for investigation to the Securities and Exchange Commission. Of these fifty audits, fraud is detected in only about thirty[26].

STEPS THE AICPA IS TAKING TO REDUCE AUDITORS' LIABILITY

If the public's expectations of an audited financial statement go beyond the role of auditors, why have CPA's not changed their auditing standards to reflect what the public expects? This is what the AICPA Auditing Standards Board (ASB) hoped to accomplish when it approved nine new Statements on Auditing Standards (SAS's), which went into effect January, 1989.

Effect on new audit standards

By approving these new SAS's, the ASB hopes to "bring the auditor's responsibility and performance closer to public expectations"[27]. Proponents say that the new standards' issuance will ward off the possibility of regulation by entities (such as the SEC) outside the profession. However, opponents of the new standards fear their application will do more harm than good. Opponents argue that audit fees will be increased considerably to finance the new scope of services required, thus causing auditing services to be priced out of the reach of many small businesses. Also, many opponents feel that changing the standards will not necessarily increase the public's understanding of the audit report, nor decrease litigation[28].

Among these new standards, SAS 59, The Auditor's Consideration of an Entity's Ability to Continue as a Going Concern may be interpreted to relieve the auditor of liability in the event the audited entity fails. SAS 59 requires the auditor to consider whether the cumulative results of audit procedures indicates there could be substantial doubt about the entity's ability to continue as a going concern for a reasonable period of time. In a survey of auditing practitioners and auditing faculty, Zachry[29] found that only 35 percent of the 48 responding practitioners and only 23 percent of the 74 responding auditing faculty believe that a "substantial doubt"

paragraph will be interpreted by users to relieve the auditor of liability.

Likewise, 71 percent of the practitioners and 72 percent of the faculty believe that absence of an explanatory paragraph in the audit report describing auditor doubt about continued existence will be interpreted by users as assurance of an entity's continued existence[30].

Tort Reform

The AICPA is also trying to reduce auditors' liability by lobbying for tort reform legislation through its Committee on Legal Liability (CLL) at the state and federal levels. The committee's program for tort reform focuses on two legal concepts: joint and several liability, and privity.

Under the joint and several liability standard (which holds all defendants "jointly" responsible for an entire judgement), auditors have been required to pay not only for losses caused by their negligence but also for those caused by bankrupt codefendants This law is obviously unfair to auditors because CPA firms normally are the defendants with the "deepest pockets" in the aftermath of a business failure. "Several liability" would be a better standard upon which to base auditor liability. Under this rule, an auditor would be liable only for his proportionate share of the damages.

In recent years, many state legislatures have judged the standard of joint and several liability as unfair and have modified their laws appropriately. In 1987 and 1988, twenty-four states, including Texas, modified their joint and several liability laws for accountants[31]. The CLL hopes to eventually introduce reforms in all states.

The second issue being addressed by the CLL is that of privity. At one time under the doctrine of privity, auditors were liable for negligence only to clients and third parties mentioned in the contract (third-party beneficiaries). As previously noted, this doctrine has been replaced in some jurisdictions with a broader definition that includes any foreseeable user. CLL Chairman Robert Medinick has noted that it is unfair to hold auditors responsible for negligence to a limitless class of potential plaintiffs. The committee feels that in states in which case law has not maintained privity, there is a clear need for legislation[32].

DEVELOPING A DEFENSIVE PRACTICE

The best protection from professional liability suits is a professional job. Because of the uncertainties surrounding auditor's liability, an auditor should further protect himself by implementing "safe audit" practices. Such practices include employment of client screening policies, use of an engagement letter, and maintenance of accurate work papers.

Client screening and retention policies

It is best to avoid accepting an engagement with a questionable client rather than being put in the awkward position of having to withdraw from the engagement later. Establishing client acceptance guidelines and enforcing them are the best ways to guard against such an event. Investigate potential clients before accepting an engagement! Likewise, existing clients should be evaluated annually as part of the firm's client retention policies. Client retention policies should be diligently practiced. An auditor should continually review his list of clients to determine whether any should be eliminated. An auditor also should discontinue a relationship with any client who exhibits a high propensity for leading the firm into a liability situation[33].

The best way to accomplish both client screening and retention policies is to complete an "Engagement Acceptance and Continuation Form" for all potential and recurring audit clients. Points covered on the typical form include:

1. Services to be performed by the firm.
2. Participation by other auditors on the engagement.
3. Concerns about management's integrity.
4. Ability of client to meet financial obligations.
5. Management's likelihood to take unreasonable or unnecessary business risk.
6. Concern about the reason for the change in auditors (if applicable).
7. Concerns about the intended use of financial statements.
8. Client-imposed scope restrictions.
9. Ability of the accounting system to allow the application of audit procedures.
10. Concerns regarding the firm's independence.
11. Cost/benefit of prospective engagement.

In addition to these guidelines, Miller[34] proposed additional client situations to avoid:

1. accepting a client who would constitute more than 40 percent of the auditor's gross billings (this could influence the opinion);
2. accepting a disreputable client because of the increased burden being placed on auditors to detect and report fraud and irregularities; and
3. accepting a client for an unreasonably low fee, because this may pressure the auditor to cut corners or lose money on the engagement.

The CPA firm should avoid conflicts of interest by strict adherence to Code of Conduct rules prohibiting investments in or with clients. Even the appearance of impropriety in these circumstances should be avoided. Neither should a firm accept an engagement that might arouse questions concerning firm objectivity or professional integrity.

The engagement letter

One of the most important protective measures that auditors can take is establishing the terms of the engagement with the client through an engagement letter. The scope of the services should be explicitly stated, and every client, no matter how "old and trusted," should be required to sign such an agreement[35]. The engagement letter is effectively the contract between the two parties. A new letter should be issued confirming additional tasks in every case in which a client asks for additional work to be performed that is beyond the scope of the original letter of engagement[36].

Accurate work papers

Good audit work papers can be invaluable in the courtroom. Likewise, a poor set of work papers can crucify an auditor. An auditor's work papers must document all audit procedures performed.

Work papers should be initialed by reviewers. Areas with the greatest risk for problems should be identified and emphasized in the audit program. Work papers should reveal areas in which tests were expanded because internal controls appeared weak. Work papers should also indicate the investigation of all material related to party transaction.

No matter how well an auditor has exercised proper professional judgement in arriving at his opinion, he will have difficulty proving it to a jury without adequate documentation[37].

CONCLUSION

The subject of the independent auditor's liability is a dynamic one. With the auditor's legal liability constantly being re-evaluated, especially with respect to third parties, it can be difficult to predict the related legal liability of the auditor in a particular jurisdiction before a decision is handed down. The scope of the independent auditor's legal liability also is expanding and will continue to be subject to judicial scrutiny.

Obviously an auditor should be concerned with, and it is in his best interest to become well-informed about his potential risk for legal liability. Auditors would be wise to practice all of the aforementioned precautions to reduce their exposure to these risks. However, fear of litigation should be put into perspective. Auditors need only remember that as long as they perform their services with due professional care, they have a complete defense against charges of negligence, and they need not fear being found liable to any party.

NOTES

1. 779 P. 2d 1083 (Ore. 1989)
2. 454 N.W. 2d 905 (Minn. 1990)
3. 905 F. 2d 1394 (10th Cir. 1990)
4. 174 N.E. 441 (N.Y. 1931)
5. 466 S.W. 2d 873 (Tx. 1971)
6. 715 S.W. 2d 408 (Tx. 1986)
7. 461 A. 2d 138 (N.J. 1983)
8. 223 Cal. Rptr. 218 (Cal. 1986)
9. 15 F 125 (Fla. 1990)
10. 436 N.W. 2d 70 (Mich. 1990)
11. 793 P. 2d 784 (Mont. 1990)
12. 483 N.E. 2d 110 (N.Y. 1985)
13. 522 N.E. 2d 21 (N.Y. 1988)
14. J. Matson. "New Case Limits Accountants' Liability to Non-clients for Negligence," The Practical Accountant, January 1986, 57.
15. Johnson, 308.
16. Ibid, 309.
17. Ibid, 311.
18. Parker, R.M. and W. J. Baliga, "Lessons From Liability Trends," New Accountant, January 1988, 36.
19. Woolf, E., "We Must Stem the Tide of Litigation," The Accountant, April 1985, 19.
20. Tan, A., "Legal Liability and Professional Responsibility--A Precarious Balance," The Accountants' Digest, June 1988, 27.
21. Ibid, 26.
22. 284 F. Supp. 85 (R.I. 1968)
23. Parker and Baliga, 33.
24. Tan, 28.
25. Palmrose, Z. "Litigation and Independent Auditors: The Role of Business Failures and Management Fraud," Auditing, Spring, 1987, 96.

26. Tan, 27.

27. Guy, D.M. and J.D. Sullivan. "The Expectation Gap Auditing Standards," The Journal of Accountancy, April 1988, 46.

28. Tan, 28.

29. Zachry, B.R. "Life After SAS 58 and 59: Auditing Practitioners and Audit Faculty Still Expect Users to Misunderstand Auditor Role and Responsibility," Unpublished, 1989, 5.

30. Ibid.

31. Miller, S.H. "Avoid Lawsuits," Journal of Accountancy, September 1988, 64.

32. Ibid, 65.

33. Goldwasser, D. "Accountants' Liability," The CPA Journal, November 1988, 73.

34. Miller, 57.

35. Parker and Baliga, 37.

36. Pugh, 19.

37. Miller, 62.

REAL ESTATE LENDING ACTIVITY BY CREDIT UNIONS

JAMES E. LARSEN, Assistant Professor of Finance, Wright State University
DANIEL J. KAUFMAN, Associate Professor and Chairman of Finance, Wright State University
JOSEPH W. COLEMAN, Assistant Professor of Management Science, Wright State University

ABSTRACT

This paper reports the results of a study of credit union real estate lending activity from 1984 through 1988. The proportion of real estate loans in credit union portfolios substantially increased over the study period, and likely increased the interest rate risk faced by the industry. Real estate lending activity was also found to be positively related to other non-interest rate risk measures and to profitability. Improvements in the regulator's call reports are warranted because the current reporting system prevents tests to judge the adequacy of earnings given the risk associated with the loans.

REAL ESTATE LENDING ACTIVITY BY CREDIT UNIONS

This paper reports the results of a study conducted to analyze credit union (CU) real estate lending activity. Using data secured from the National Credit Union Administration (NCUA), real estate lending activity for CUs is examined for the five year period 1984 through 1988.

Examination of the real estate lending activities of CUs is warranted for a number of reasons. Legislation dating from 1977 has allowed federally chartered CUs to enter areas from which they have traditionally been excluded. One of these areas is mortgage lending and, as is demonstrated in this paper, CUs have made a major investment in this area. It is clear from the experience of the savings and loan industry in the 1980s that heavy participation in this market can have dramatic effects on the risk of the firm. This concern has not gone unnoticed by the NCUA, which recently addressed a letter to members of each CU board of directors, that among other things, warned, "Policies, procedures and risks associated with real estate lending differ markedly from those related to typical consumer loans."[1] Several groups, therefore, should be interested in the mortgage loan activity of CUs. In particular, CU members, CU management, and the NCUA all have a vested interest in CUs financial health.

Given the small size of CUs compared to other financial institutions and their recent entry into the market, it is not surprising that CUs are relatively small players in the real estate loan market. In 1987, for example, they held slightly less than one percent of all mortgage loans outstanding.[2] They have, however, demonstrated an asset growth rate that exceeds that achieved by all other depository financial institutions. From 1970 through 1987, CU financial assets grew by an annual rate of 14.65 percent.[3] This high rate of growth has been attributed to a number of factors including relaxation of the common bond requirement and the presence of a "friendly" as opposed to an adversarial regulator. This growth rate, combined with increased investment in real estate loans, means that CUs will account for a greater share of the mortgage loan market in the future.

Our paper continues with nine sections. A brief literature review is presented in the first section. The data are discussed in the second section. First mortgage lending activity is examined in the third section. Observations about the effect of mortgage lending on CU risk are made in the fourth section. Second mortgage lending activity is examined in the fifth section. Variable interest rate loans are the subject of the sixth section. The dollar value of CU real estate loans are reviewed in the seventh section. Tests to determine differences in various risk measures and profitability between CUs that do and those that do not write various types of mortgage loans are reported in the eighth section. In the final section, we summarize our work.

1. Literature Review

While the effect of real estate lending activity on firm risk has been the subject of previous research for other types of financial institutions (see, for example, Corgel [2] and Vandell [7]), no previous studies have examined this relationship for CUs. Measuring the risk associated with CU real estate lending is complicated by the fact that the data collected by the NCUA is not as detailed as that collected by the regulators of commercial banks and savings and loan associations. However, previous published studies of other aspects of CUs do suggest observable measures of CU risk.

Clair [1] studied the response of federally chartered CUs to the implementation of deposit insurance. He analyzed three financial ratios designed to measure the firms exposure to risk. The capital-to-loan ratio was used to measure the CU's ability to absorb loan losses. The ratio of delinquent loans to total loans was used to measure exposure of the CU to credit (or default) risk. The ratio of loans to deposits was used to measure the CU's exposure to liquidity risk. He also

notes that, "Unfortunately, there is no data for measuring interest rate risk exposure" (p 5). This situation has not changed to date. (The likely impact of mortgage lending on CU interest rate risk is discussed in section four of the paper.) Clair found that the advent of deposit insurance significantly increased CU credit risk, and that while the introduction of deposit insurance had no significant effect on liquidity, it has declined significantly over his study period, 1948-1979.

Kharadia and Collins [3] (KC) developed a model to predict CU failures. Several of the variables included in their study, which covered 1956 through 1976, were identical, or similar, to those examined by Clair. KC found that both the delinquent loan ratio and the liquidity ratio were significant predictors of failure, but the capital ratio and an income ratio (like the one used in the present study) were not significant predictors.

2. Data

The data for this study came from computer tapes obtained from the NCUA.[4] The tape series covers the period 1984 through 1988. The financial information on the tapes is taken from the Year end Call Report submitted annually by each CU.

Table 1 contains information about the number of CUs operating during the study period and information about the number of firms used in the study. The total number of firms reporting each year is shown in the second column. The number of CUs varied, due to the net effect of closings, mergers, acquisitions and start-ups, over the study period. In the third column, the number of institutions used in the study is shown. Firms were eliminated from the population if they were extremely small or inactive.[5]

Table 1 - Credit Unions

Year	Number of Reporting Credit Unions	Number of Credit Unions in Study
1984	16,233	16,003
1985	16,757	16,577
1986	15,718	15,453
1987	15,143	14,848
1988	14,523	14,257

3. First Mortgage Lending

The first mortgage lending activity of CUs is summarized in Table 2. The figures in Table 2 pertain to only those firms making first mortgage loans. The year is identified in the first column of the table. Total asset-size classifications similar to those commonly used by the industry are shown in the second column. Subsequent columns show information about first mortgage originations, first mortgage year-end portfolio balances, and the number of firms within each classification.

CUs were required to report the dollar value of first lien real estate loan originations for only those loans with maturities in excess of twelve years. These originations, expressed as a percentage of the dollar value of total CU loan originations are reported in the third column of Table 2 for each year of the study except 1987. CUs were not required to report first mortgage originations separately in 1987, so column 3 is blank for that year. Originations of first mortgage loans with maturities of twelve years or less were not reported separately for any year. The cut-off of twelve years is arbitrary, but was obviously designed to identify loans that possess a high degree of interest rate risk.[6]

CUs were also required to report the dollar value of first mortgage real estate loans held in the portfolio at the end of the year. This value includes all first liens regardless of the original maturity of the loan. These balances expressed as a percentage of the total dollar value of CU loan portfolios are reported in the fourth column of Table 2. The number of firms holding first mortgage loans in each asset classification is shown in the fifth column. The percentage of all CUs within each asset class involved in first mortgage lending is shown in the sixth column.

Table 2 provides information which makes clear the increased participation of CUs in first mortgage lending. The number of CUs writing first mortgage loans increased by 76 percent, from 2,568 firms in 1984 to 4,537 in 1988.[7]

Table 2 offers interesting insights regarding first mortgage originations. It is apparent that first mortgage-lending CUs have, on average, undertaken significant first mortgage activity. For these CUs, first mortgage originations amounted to 13.49 percent of total loan originations in 1988, representing an 85 percent increase from 1984 when they accounted for 7.29 percent of total originations.

Table 2 also offers interesting insights regarding first mortgage loan warehousing.[8] For CUs holding first mortgages in 1988, first mortgage loans accounted for 23.63 percent of total loan portfolios which is an 85 percent increase from 1984, when they represented 12.77 percent. Note that the proportion of the loan portfolio held in the form of first mortgage loans is positively related to the size of the firm. Also note that the larger the firm, the greater the probability that it supplies first mortgages. For example, in 1988, 86.6 percent of all CUs with total assets in excess of $100 million held first mortgage loans in their portfolio. The comparable figure for firms with total assets of less than $1 million is 6.6 percent.

4. The Effect of Mortgage Lending on CU Risk

All mortgage originators are faced with two types of risk: default risk, and interest rate risk. CUs are not subject to the same degree of default risk that has currently placed the savings and loan industry in jeopardy because the only type of mortgage loan CUs offer is residential. The default rates on these tend to be much lower than on commercial mortgage loans. This does not mean, however, that residential loans are immune from severe default losses, as was demonstrated by the loss experience on such loans during the 1980s in the Southwest and Midwest.

The degree of interest rate risk faced by mortgage-originating CUs, however, is just as great, if not more so, than that faced by other mortgage originators. Permissive regulations enabled CUs to write substantial numbers of mortgages that did not qualify for secondary trading. These

mortgages, retained in the portfolios of CUs, expose CUs to the same interest rate risk that contributed to earlier problems in the savings and loan industry.

The risk associated with mortgage lending could be measured in several different ways; examination of the variability of CU earnings, examination of default rates on mortgage loans, or gap analysis could be performed to determine whether participation in this market has increased CU interest rate risk. With only five years of data available, the first measure is impractical. The manner in which data are collected prevents us from being able to calculate the second and third risk measures and, perhaps more importantly, also prevents the regulators from doing so.

The increased participation of CUs in the first mortgage loan business has quite likely increased their interest rate risk. That is, unless these firms either: (1) decreased the proportion of total assets held in the form of loans, and shortened the maturities of other assets, holding the maturity of their non real estate loans constant, or, (2) shortened the maturity of other loan types, or (3) lengthened the maturity of their liabilities. Available data prevents empirical tests to determine whether CUs have followed any of these strategies.

Regarding strategy (1), available data allows one to observe the proportion of total assets accounted for by loans. The ratio of total loans to total assets for CUs warehousing first mortgage loans did decrease over the study period. It was 65.2 percent in 1984. It declined to as low as 58.8 percent in 1986, but had recovered to 64.2 percent in 1988. But, due to reporting requirement inconsistencies, it is impossible to measure the direction of any change in non-loan asset maturities. Further, CUs are not required to disclose on the Call Report the maturity classifications in their largest asset category: loans. Therefore, it is impossible to ascertain whether the maturities of other loans remained constant over the study period.

Regarding strategy (2), the lack of loan maturity data prevents empirical testing of whether the maturity of other loan categories decreased. Intuitively, we know that the average maturity of automobile loans has likely increased over the study period. This is one of the largest loan categories for most CUs. Thus, it is unlikely that strategy (2) has been followed.

Regarding strategy (3), again, reporting requirement inconsistencies make empirical tests regarding liability maturity impossible. Meaningful analysis depends upon consistent and sufficiently detailed data collection. The NCUA has modified the Call Report every year. The 1988 Call Report represents a significant improvement over previous years, but additional improvement is needed in order to empirically test the above strategies.[9]

5. Other Real Estate Lending

In addition to first mortgage loans, CUs also make second mortgage loans. The only information collected in Call Reports regarding second mortgage loans was year-end portfolio balances, and these balances were not reported until 1986. Home equity lending increased dramatically in importance after the Tax Reform Act of 1986. The Act phased-out the deductibility of consumer interest while leaving intact the deductibility of interest on mortgage loans. As a result, many financial institutions began offering home equity loans as a vehicle for financing consumer durable goods.

Table 2
First Mortgage Lending by Credit Unions

Year	Asset Size*	First Mortgage Originations as Percent of Total Loan Orig.	First Mortgage Portfolio as Percent of Total Loan Port.	Number of CUs Writing First Mortgage Loans	First Mortgage Writing CUs as Percent of All CUs in Class
1984	all	7.29	12.77	2568	16.1
	<1	5.56	12.39	373	4.8
	1-10	6.97	11.37	1253	19.9
	10-50	7.94	12.47	707	45.8
	50-100	8.41	15.40	134	55.6
	>100	6.40	12.21	101	66.0
1985	all	9.77	14.72	3035	18.4
	<1	4.21	11.25	319	4.4
	1-10	6.67	12.34	1399	20.4
	10-50	8.80	14.57	955	48.9
	50-100	11.76	17.06	206	64.4
	>100	10.36	14.28	156	68.1
1986	all	17.65	19.12	3814	24.7
	<1	5.30	11.88	368	6.3
	1-10	10.90	15.00	1695	25.4
	10-50	15.90	18.60	1253	56.8
	50-100	19.56	21.37	277	74.9
	>100	19.27	19.24	221	78.4
1987	all	na	22.25	4291	28.9
	<1	na	13.28	358	7.0
	1-10	na	17.76	1906	28.7
	10-50	na	21.93	1451	62.2
	50-100	na	23.48	309	80.7
	>100	na	22.69	267	82.7
1988	all	13.49	23.63	4537	31.8
	<1	5.31	14.26	303	6.6
	1-10	8.45	18.36	1989	30.7
	10-50	7.21	22.27	1590	66.0
	50-100	12.33	23.82	345	86.0
	>100	15.41	25.12	310	86.6

*in millions of dollars

CU participation in the second mortgage market is summarized in Table 3. The format of this table is similar to Table 2. The dollar value of all non-first lien (traditional second mortgages and home equity) real estate loan balances expressed as a percentage of the dollar value of total CU loan portfolios are reported. Also reported in Table 3 is the proportion of total CU loan portfolios represented by all (first and second lien) real estate loan balances.

Table 3 demonstrates that when second mortgage loans are included, the level of CU participation in real estate lending is even greater than previously discussed. The number of CUs holding some type of real estate loan increased from 6,005 firms in 1986 to 6,899 in 1988. Again,

note, that the larger the firm, the greater the probability that it holds real estate loans in it's portfolio. For example, in 1988, 93.6 percent of all CUs with total assets in excess of $100 million held real estate loans in their portfolio. The comparable figure for firms with total assets of less than $1 million is 12.3 percent.

Table 3 also demonstrates that many of the observations already made for first mortgage loan warehousing also pertain to second mortgage loan warehousing. For mortgage-lending CUs, first and second mortgage loans accounted for 33 percent of total loan portfolios in 1988, up from 1986, when they represented 25.17 percent. Examination of Table 3 reveals that the proportion of CU loan portfolios held in the form of second mortgage loans is positively related to the size of the institution, as is the proportion of total loan portfolios held in the form of all real estate loans. For the largest CUs, the latter ratio reached 37.77 percent in 1988.

CUs are obviously devoting more of their resources to real estate credit. The financial health of these CUs is linked not only to the general health of the economy, but to the health of the residential real estate sector in particular.

Table 3
Total Mortgage Lending by Credit Unions

Year	Asset Size*	2nd Mortgage Portfolio as Percent of Total Loan Port.	Total Mortgage Portfolio as Percent of Total Loan Port.	Number of CUs Holding Mortgage Loans	Mortgage Holding CUs as Percent of All CUs in Class
1986	all	10.05	25.17	6005	38.9
	<1	6.53	13.97	614	10.4
	1-10	8.14	16.97	2954	44.2
	10-50	9.79	22.99	1831	83.0
	50-100	9.95	26.98	352	95.1
	>100	10.82	28.18	254	90.1
1987	all	11.45	29.65	6731	45.4
	<1	7.18	15.11	622	12.1
	1-10	10.06	20.39	3354	50.6
	10-50	11.18	27.31	2082	89.2
	50-100	11.63	31.51	376	98.2
	>100	11.90	32.89	297	92.0
1988	all	12.91	33.00	6899	48.4
	< 1	8.15	16.01	566	12.3
	1-10	10.73	21.70	3423	52.8
	10-50	12.46	29.47	2182	90.6
	50-100	12.65	33.91	393	98.0
	>100	13.86	37.77	335	93.6

* in millions of dollars

6. Variable Rate Loans

In 1987 and 1988, CUs were required to report the amount of all real estate loans that carried a variable interest rate. This information is summarized in Table 4, where the proportion of all real estate loans that carried a variable rate is reported along with the number of CUs that held variable interest rate real estate loans in their portfolio.

Table 4 offers information regarding the interest rate risk of real estate loans held by CUs. An important observation is that the ratio of variable rate loans to total real estate loans is positively related to the size of the firm. The smallest CUs, as of 1988, held variable rate loans equal to only 10.84 percent of their total real estate loan portfolio. Note also that the proportion of firms engaged in real estate lending that write variable rate loans within any of the asset classifications is also positively related to the size of the firm. In 1988, for example, while 41.7 percent (2874/6899) of all CUs held some variable rate real estate loans, only 8 percent (45/566) of CUs with total assets of less than $1 million did so.

Because of their size, small CUs are perhaps most vulnerable to losses caused by shifts in the yield curve. Variable rate loans allow for repricing at more frequent intervals than fixed rate loans, and ,hence, reduce interest rate risk. Yet, as the above paragraph and Table 4 make clear, the smaller the CU, the lower the employment of variable rate loans. This practice may go a long way in explaining the consolidation that has, and will likely continue, in the industry.

Also, because of their size, small CUs are more vulnerable to losses due to loan defaults. However, CUs, unlike commercial banks and savings and loans, are not financing the development of commercial real estate projects. Hence, loan defaults occur in smaller individual amounts.

Table 4
Variable Rate Mortgage Lending by Credit Unions

Year	Asset Size*	Variable Rate Loans as Percent of all Real Estate Loans	Number of CUs Writing Variable Rate Real Estate Loans
1987	all	34.12	2503
	<1	7.09	36
	1-10	21.07	929
	10-50	28.98	1043
	50-100	36.57	265
	>100	38.33	230
1988	all	42.51	2874
	<1	10.84	45
	1-10	24.39	1014
	10-50	34.17	1220
	50-100	41.38	305
	>100	49.95	290

* in millions of dollars

7. The Magnitude of Real Estate Lending by Credit Unions

The increasing ratios for both first mortgage originations and portfolio balances of first and second lien loans, presented in preceding sections, cannot be attributed to a contraction in either annual loan originations or size of CU portfolios. Total annual loan originations increased from $56.3 billion in 1984, to $92.3 billion in 1988. The dollar value of CU loan portfolios increased from $66.9 billion in 1984, to $116.8 billion in 1988.

Table 5 shows the dollar value of real estate loans made

by CUs. Inspection of Table 5 reveals several points. First, the dollar amount of annual first mortgage loan originations (with initial maturities of more than twelve years) increased by 291 percent over the study period. Second, over the same time period, the amount of first mortgages in CU portfolios increased fourfold. Finally, from 1986 through 1988, the dollar value of second mortgages in CU portfolios increased by 78 percent.

Table 5
Dollar Value of Credit Union Real Estate Loans
(in millions of dollars)

Year	First Mortgage Originations	First Mortgages in Portfolio	Second Mortgages In Portfolio
1984	1,884.1	4,260.7	NA
1985	3,197.1	6,792.9	NA
1986	7,399.4	11,573.6	7,693.3
1987	NA	17,081.7	10,711.1
1988	7,223.4	21,295.0	13,702.3

8. Real Estate Lending: Credit Union Risk and Profitability

In this section, we report the results of tests conducted to determine whether CU real estate lending is related to a variety of risk measures and profitability. Using the data from 1988, we first compare CUs that write real estate loans to those that write no real estate loans. A t-test is employed to determine whether there is a difference in the mean values for such firms with regard to either the loan delinquency ratio (DLER), the equity ratio (EQR), a measure of liquidity (LIQ), a risk measure which considers all of the preceding measures in combination (RISK), and a measure of current year profitability (ROA). DELR was calculated by dividing the dollar amount of loans that were at least 2 months overdue by the dollar amount of total loans. EQR was calculated by dividing the sum of required reserves, other reserves, and undivided earnings by total assets. LIQ was calculated by dividing total loans by total assets. In essence, LIQ is a measure of illiquidity. RISK was calculated after first determining the values of DELR, EQR, and LIQ for each CU, as well as the population quartile values for each variable. Each CU was then assigned a value based upon each of it's three variable values compared to the population; 1, if in the upper quartile; 2, if in the middle two quartiles; and 3, if in the lower quartile. The linear combination of these values results in the CU's RISK. For example, if a CU was in the upper quartile for each variable; it's RISK was 3 (low risk); if a CU was in the lowest quartile for all three variables it's RISK was 9 (high risk). In previous sections of this paper, it has been demonstrated that increased participation in real estate lending has likely increased the interest rate risk faced by CUs, but that this risk cannot be measured given current reporting requirements. However, if CUs wish to minimize total risk those with low liquidity, low levels of equity, and high delinquency rates may elect not to write mortgage loans.

Rational economic entities accept increased risk only if it is accompanied by increased expected returns. Because CUs are non-profit organizations, essentially owned by their depositors/shareholders, to test the relationship of real estate lending to profitability, a profit proxy, ROA, is used. (CUs, due to the nature of their ownership, refer to interest as dividends.) ROA is equal to income from operations less dividends, divided by total assets. Therefore, ROA is the equivalent of current year return on assets for a profit-seeking firm. It is asserted that there should be a positive relationship between ROA and mortgage loan portfolio levels. In an environment with no deposit insurance, such as assertion would be difficult to defend. With no deposit insurance, as a firm assumes added risk, suppliers of capital would boost their required rate of return, resulting in an indeterminate relationship between risk and return at the firm level. However, because nearly all CU funds come in the form of small insured amounts, CUs are not subject to this form of market discipline. Additional risk-related returns should be observable at the firm level.

The results of the t-tests are shown in the upper portion of Table 6. In general, they show that CUs that write real estate loans have more non-interest rate risk than CUs that do not write real estate loans. The p-values shown in the final column of Table 6 indicate that, for each variable, the group mean values were different at any reasonable level of significance. CUs with real estate loans in their portfolio have approximately 3.6 percent more ((68.6-66.2) / 66.2) of their total assets invested in loans making them less liquid; their EQR is approximately 27 percent lower ((7.7 - 10.5) / 10.5) providing them with a less protective cushion to cover loan losses and interest rate risk. On the positive side, CUs with real estate loans were found to have loan delinquency rates 40 percent lower than those without real estate loans ((4.5 - 2.7) / 4.5). This finding is consistent with numbers obtained from the NCUA (which began tracking delinquency rates by loan type in 1990) which reveal that the delinquency rate on real estate loans at year-end 1990 for NCUA Region 4 were 0.99 percent, lower than any other loan category.

It was also found that CUs writing mortgage loans earn approximately a tenth of a cent more per dollar of assets compared with those that do not engage in mortgage lending (1.19 cents vs. 1.07). This is heartening because, while we are not able to measure changes in interest rate risk, economic intuition would seem to suggest that holding real estate loans increases the risk of the firm. The additional earnings are available to cover possible defaults or losses brought on by shifts in the yield curve.

Using the same procedures and variables as above, we next test for differences between CUs that write (at least some) variable rate mortgages and those that write only fixed rate mortgage loans. A priori, we would hope that those that write only fixed rate loans have lower measures of other types of risk and higher earnings because of the greater interest rate risk associated with fixed rate loans. The results of the t-tests are shown in the lower section of Table 6. No significant difference was discovered between the groups for either the composite risk measure or liquidity. CUs writing no variable rate mortgage loans had a mean equity ratio approximately 22 percent higher than CUs that wrote both fixed and variable rate mortgage loans ((8.3 - 6.8) / 6.8). However, CUs originating fixed rate mortgage loans only

were found to have higher delinquency ratios and lower profitability. It appears that those CUs astute enough to recognize the benefits of, and write, variable rate mortgage loans were also more profitable than CUs that did not.

Table 6
Results of Differences of the Means Tests

Test	Variable	Mean (1)*	Mean (2)**	t-Value	p-Value
1	DELR	.045207	.027052	18.857	.0001
	LIQ	.662038	.686060	-7.873	.0001
	EQR	.105496	.077203	31.647	.0001
	RISK	5.74213	5.96985	-10.299	.0000
	ROA	.010713	.011980	-4.358	.0001
2	DELR	.032849	.018934	17.893	.0001
	LIQ	.686593	.685313	0.332	.7397
	EQR	.083442	.068466	15.769	.0001
	RISK	5.98236	5.95233	0.951	.3417
	ROA	.011690	.011924	-2.183	.0291

* For test 1: CUs that do not write real estate loans.
For test 2: CUs writing only fixed rate mortgage loans.

** For test 1: CUs that do write real estate loans.
For test 2: CUs that write some variable rate loans.

9. Summary and Conclusions

This paper reports the results of a study of CU real estate lending activity from 1984 through 1988. Over the study period, CUs substantially increased their participation in real estate lending. The degree of participation tends to be positively related to the size of the firm; the larger the CU, the higher the probability that it writes real estate loans, and the greater is the proportion of real estate loans in the loan portfolio.

Real estate lending likely increases the interest rate risk of CUs, although the manner in which the regulator collects data does not allow this risk to be measured. Small firms are particularly vulnerable to shifts in the yield curve, and in 1988, there were over 2400 CUs with total assets of less than $10 million holding first mortgage loans in their portfolio. On the positive side, a larger proportion of CU's real estate loans carried variable rates in 1988 than in 1987. Also, they are not involved in commercial real estate lending arrangements, which are riskier than residential loans. In addition, many CUs make mortgage loans with much shorter maturities than the traditional 25 to 30 years.

CUs have the potential to become a more important source of real estate credit, but the concerns raised in this paper must be addressed to help insure the financial health of these institutions. These concerns include the need for sufficient data so that the interest rate risk associated with mortgage loans can be measured. An additional concern is that CU real estate lending activity is positively related to other types of risk. CUs that write real estate loans tend to have lower liquidity and equity compared to CUs that do not write such loans, and CUs which write only fixed rate loans have higher delinquency rates and lower profitability compared to CUs that write variable rate mortgage loans. Finally, the proportion of real estate loans carrying a variable interest rate while increasing, is still fairly low. This last point is particularly acute for small CUs.

NOTES

1. NCUA Letter to Credit Unions, Letter No. 112, October, 20, 1989.
2. Statistical Abstract of the United States: 1989, page 488.
3. Ibid., page 487.
4. National Credit Union Administration, 1776 G Street N.W., Washington, D.C. 20456.
5. CUs with total assets of less than $10,000 were eliminated. Also eliminated was any firm that made no loans of any kind during the year or had no outstanding loans at year end.
6. Writing such loans on a variable rate basis would reduce this risk, but the tapes contain no information about the proportion of first mortgage loans with variable rates. Variable rate loans as a proportion of all real estate loans are examined in a subsequent section of the paper.
7. In 1984, 16 percent of sample held first mortgage real estate loans. In 1988, the percentage had increased to 33.3
8. The term mortgage warehousing is used differently by different parties. Some use it to refer to holding mortgages, long-term in one's own portfolio. Others use it to describe the practice of commercial banks making interim mortgage loans to non-bank lenders. Here, it is used in the former context.
9. In 1984 and 1985, no information about the maturity of assets or liabilities was required on the Call Reports. In1986 and 1987, investments and liabilities were segregated into two classes: one year or less to maturity, and more than one year to maturity. In 1988, the reported maturity classes changed to; less than one year, one to three years, and longer than three years. However, in no year was the maturity of CU's largest asset category, loans, separated into maturity classes.

REFERENCES

1. Clair, Robert T., "Deposit Insurance, Moral Hazard, and Credit Unions", Economic Review of the Federal Reserve Bank of Dallas, pp 1-12, July, 1984.
2. Corgel, John, "Do Thrifts Take Excessive Real Estate Risks?", Real Estate Review, pp 57-62, Fall, 1987.
3. Kharadia, V.C. and Robert A. Collins, "Forecasting Credit Union Failures", Journal of Economics and Business, pp 147-152, Winter, 1981.
4. SAS Institute Inc. SAS User's Guide: Basics, Version 5 edition. Cary, N.C.: SAS Institute Inc., 1985.
5. SAS Institute Inc. SAS User's Guide: Statistics, Version 5 edition. Cary, N.C.: SAS Institute Inc., 1985.
6. U.S. Bureau of the Census, Statistical Abstract of the United States: ; 1989 (109th edition.) Washington, D.C. 1989.
7. Vandell, Kerry D., "On the Assessment of Default Risk in Commercial Mortgage Lending", American Real Estate and Urban Economics Journal, pp 270-296, Fall, 1984.

MANUSCRIPT GUIDELINES

Midwestern Business and Economic Review invites the submission of original manuscripts and research reports by individuals in the public and private sector in the areas of economics and business administration. Of principle interest are topics dealing with issues relevant to Texas and the ?Southwestern United States. Each manuscript submitted is anonymously reviewed by members of the Editorial Review Board. To meet the interest of a broad spectrum of the academic and business community, readability and expository clarity are considered essential in the review process.

Manuscripts should be submitted under the following guidelines:

1. Three typed copies of the manuscript, double spaced on 8 1/2 x 11 paper.
   - 1" margins top, bottom, and both sides.
   - Length is not to exceed twenty pages, including tables, figures, and references.
   - First page should begin with an abstract not exceeding 100 words.
   - Tables, figures, and references should be on separate sheets for typesetting purposes. Tables and figures should be only used when they contribute significantly to an understanding of the text References are to be listed numerically at the end of the article, corresponding to the superscript numbers within the body of the manuscript.

2. A cover letter should be used and include the following information:
   - Title of the manuscript.
   - Name, position, and affiliation of each author.
   - Mailing address of each author.
   - Telephone and fax number of each author.
   - Brief biographical sketch in third person of each author.

3. It is preferred that each manuscript be accompanied by a copy of the manuscript on floppy disks (3 12 or 5 1/4 HD or DD disks) in one of the following DOS formats:
   - WordPerfect 5.0 or 5.1
   - DOS or ASCII text files.

4. Tables and figures may also be submitted, in addition to hard copies, on floppy disks provided that the author(s) provide the editor with the description of the format they are created in (i.e. Harvard Graphics, Lotus 1-2-3, etc.). This is voluntary and for convenience only.

Manuscripts should be submitted to:

Midwestern Business and Economic Review
Bureau of Business and Government Research
Midwestern State University
3400 Taft Blvd.
Wichita Falls, Texas 76308-2099

(817) 691-2216

Bureau of Business and Government Research
Midwestern State University
Wichita Falls, TX 76308-2099