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MIDWESTERN BUSINESS AND ECONOMIC REVIEW

NUMBER 26 FALL 1998

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Yoshi Fukasawa, Professor of Economics and Director of the College of Business Administration

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LATIN-AMERICAN CULTURE AND INTERNATIONAL BUSINESS: SOME IMPLICATIONS FOR TEXAS' MANAGERS
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A BRIEF INTRODUCTION TO THE GLOBALIZATION OF MONEY AND CAPITAL
Mark Frost, Department of Political Economy, University of Texas at Dallas

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

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THE ECONOMIC IMPACT OF THE ALLRED PRISON UNIT ON WICHITA COUNTY, TEXAS

LOUIS J. RODRIGUEZ, President and Professor of Economics, Midwestern State University
YOSHI FUKASAWA, Professor of Economics and Director of College of Business Administration

INTRODUCTION

Consideration of locating prison units in a community generally tends to bring strong positive and negative emotions toward such a development. On the negative side are heightened fears related to the presence of criminals in the community. Concerns are often raised as to the types of individuals who will come to visit prison inmates. Overall apprehension is felt by many in terms of what will happen to law and order in their immediate area as a result of the facility.

From a positive perspective, prisons are generally presented as being safe from a crime point of view. Furthermore, they are expected to have a positive economic impact on the region of their location. Typically the case is made that these facilities should be evaluated as an industry. The case is made that prisons contribute to the economic well-being of the community in which they are situated.

The purposes of this study are: 1) to briefly review the crime rate in the state of Texas for the last twenty years and 2) to evaluate the economic impact of the James V. Allred State Unit on Wichita County, Texas. Specific areas examined will be: initial investment; payroll; utility purchases; supplies acquisitions; and expenditures by visitors to the facility. Data for this study was obtained from the Texas Department of Corrections as well as from the administration of the Allred Unit.

CRIME HISTORY OF TEXAS

Crime has lately become one of the major concerns of the American public. This may reflect rising crime rates in our country. In the governor's race of 1994,Texans were more concerned about crime in the State than any other issue.[1] Table 1 reveals the history of crime in the United States and Texas using crime index rates reported by the Crime Information Bureau of the Texas Department of Public Safety. Crime rates average 5,500 offenses per 100,000 inhabitants in the United States for the last twenty years. In Texas the crime rate has been higher than that of the United States, especially during the 1980s and early 1990s. This higher crime rate in Texas may be due to the tremendous economic hardship caused by the collapse of the oil industry, the faltering of the real estate and banking industries, and the resultant rise in unemployment in Texas in the 1980s. The crime rate in Texas peaked in 1988 with 8,020 per 100,000 inhabitants and has continued to decline since that time. Nationwide, the crime rate has also shown a declining trend for the last five years.

The Federal Bureau of Investigation reports the crime rate using seven major offenses. These include murder, rape, robbery, aggravated assault, burglary, larceny theft, and motor vehicle theft. Table 2 shows the distribution of the various crimes in Texas and the U.S. in 1995. The distributions of the crimes for Texas and the U.S. appear to be broadly similar.

A high rate of crime, and the public attitude to get tough on criminals, places an increasing demand for correctional facilities. With the recent streak of expansion the Texas prison system has become the largest in the nation.[2] The Texas Department of Criminal Justice (TDCJ) has compiled some overall statistics on inmates in the state system in 1994: forty-four percent of inmates have committed a violet offense. Thirty percent are in prison for property offense. The average IQ of Texas inmates is 92 and the average education level is ninth grade. The average age of inmates is 33 years old. Black make up 47 percent of the state prison population, white 28 percent, and Hispanics, 25 percent. Most Texas criminals come from metropolitan areas. Twenty-three percent of state inmates are from the Houston area and 20 percent are from the Dallas area. More than half – 53 percent – of the inmates have been in Texas prisons before and 71 percent have been on probation before. Ninety-four percent of Texas inmates are males and 6 percent are females.

JAMES V. ALLRED UNIT

To respond to the increasing rate of incarceration in Texas, the Texas Department of Criminal Justice began an aggressive $1.5 billion expansion program to increase the capacity of state prisons in 1992. Today, there are approximately 117 prison units with some 140,000 inmates in Texas prisons and state jails. The James V. Allred Unit located in Wichita Falls, Texas, accounts for 2,882 inmates.[3] The unit is home to four classifications of prisoners: minimum security, medium security, close custody, and maximum security. The classification is determined

by their in-prison behavior and not on the crime they committed. Sixty percent of the inmates in the Allred Unit are in minimum security, 15 percent in medium and close custody, and 25 percent in maximum security.[4]

Table 1
Crime Rate of Texas and the U.S. (per 100,000 inhabitants, 1976-1995)

Year	Texas	U.S.
1976	5,556.8	5,287.3
1977	5911.7	5,077.6
1978	6,135.7	5,140.3
1979	6,042.4	5,565.5
1980	6,297.5	5,950.5
1981	5,907.1	5,858.2
1982	6,297.5	5,603.6
1983	5,907.1	5,175.0
1984	6,029.2	5,031.3
1985	6,570.9	5,207.1
1986	7408.2	5,480.4
1987	7,724.3	5,550.0
1988	8,019.6	5,664.2
1989	7,926.8	5,741.0
1990	7,825.9	5,820.3
1991	7,818.0	5,897.8
1992	7,056.5	5,660.2
1993	6,438.5	5,484.4
1994	5,873.0	5,373.5
1995	5,684.5	5,277.6
1996	5,708.3	

Source: For the U.S. data, see U.S. Department of Justice, Bureau of Justice Statistics, *Source Book of Criminal Justice Statistics 1996*, p. 306. For Texas data, see Crime Information Bureau, Texas Department of Public Safety, *Crime in Texas*, December 1996, p. 14.

The Allred Unit, named after the former Governor of Texas from Wichita Falls, was built north of the city in Wichita County, Texas. The unit is one of 10 modern 'maximum security' prison units built by the Texas Department of Criminal Justice during the mid-1990s. Wichita County was notified of its selection as a site for a new maximum prison by TDCJ on April 11, 1992.[5] The construction contract of the Allred Unit was awarded to Hensel-Phelps Co. of Austin in September 1993.[6] Some 500 workers were employed at the height of a two-year construction project. The prison was open to receive inmates on June 23, 1995.

Initial investment expenditures for the construction of James V. Allred Unit totaled $78,700,000. The prison is located on a 320-acre tract at FM 369 and Reilly Road, north of Wichita Falls. The prison was built to last 100 years with only minor repairs. There are twenty buildings in the prison occupying 719,000 square feet on a fenced 75-acre ground.[7] Prison buildings include three guard towers, indoor recreation buildings, a warden's residence, and four general population buildings. Each of the general population facilities has 216 cells and each cell houses two inmates. As planned, expansions beginning in 1998 included an additional 1,330-bed high security facility with approximately 240 correctional officers.[8] Information about the number of non-security personnel and their cost is not currently available.

Table 2 Offenses in Texas and the U.S.1995		
	Texas	U.S.
Murder	0.2%	0.2%
Rape	0.8	0.7
Robbery	3.2	4.2
Assault	7.6	7.9
Burglar	19.0	18.7
Theft	59.4	57.7
MV Theft	9.7	10.6
Total	99.9*	100.0

Note: Does not add to 100 percent due to rounding errors

Source: For the U.S. data, see U. S. Department of Justice, Bureau of Justice Statistics, Source Book of Criminal Justice Statistics 1996, p. 306. For Texas data, see Crime Information Bureau, Texas Department of Public Safety, *Crime History*, December 1996, p. 14.

There are a total of 789 employees at the Allred Unit, which include 596 security staff and 193 non-security personnel. All the correctional officers, or guards, are a graduate of a Texas Department of Criminal Justice Training Academy. Along with the correctional officers, the prison employs medical personnel, administrators, teachers, food service personnel, maintenance workers, social workers, postal workers, clerks, counselors, chaplains, purchasing agents, and secretaries. Approximately half of the total employees were hired locally.[9]

The amount of annual payroll is estimated to be $20.4 million. The average pay ranges from $11,976 to $38,544 per year, except for the salary of the warden. Correctional officers with experience make about $24,000 a year.

The estimated yearly utility expenditures are $1.7 million. The prison needs about 12 to 13 million kilowatt hours of electricity and 125 to 140 million gallons of water a year for its upkeep.[10] In addition, the unit is expected to spend approximately $150,000 on maintenance materials and $420,000 for general supplies per year.

According to L. W. Woods, Senior Warden of the Allred Unit, an estimated 13,000 visitors come to the unit annually.[11] Those include inmate visitors and the staff of the Texas Department of Criminal Justice. Assuming conservatively that each visitor spends $100 per visit, the total expenditures by the visitors are estimated to be $1.3 million. Thus, the total expenditure including the initial construction costs for the Allred unit is $102,670,000.

The income multiplier for state government enterprises including a prison is estimated to be 2.0798.[12] An increase in the government expenditures will produce a cumulative, multiple increase in the income of the area. The prison with its employees and visitors will have an expansionary effect on the business activities of the area including real estate sales, auto dealers, auto repair shops, gas stations, hotels, grocery stores, restaurants, and clothing stores, just to name a few. Because of the multiplier effect, therefore, the total initial economic impact is estimated to be $213,533,060. This represents approximately 9.3 percent of the total personal income of Wichita County in 1995.[13]

As mentioned earlier, the Allred Unit employs 789 security and non-security personnel. This makes the prison one of the largest employers in Wichita County. Using employment multiplier of 2.7626, the unit is expected to produce 2,180 jobs in the area. This represents approximately four percent of the total employment in the Wichita Falls MSA.[14]

CONCLUDING REMARKS

Facing a rising crime rate and the resultant increase in demand for incarceration, Texas began an ambitious expansion program of its prison system in the 1990s. The Allred Unit in Wichita County, Texas, was built in the midst of this expansion and was open to inmates on June 23, 1995. Although there are some negative aspects of a prison to many citizens, the economic impact that a current 'maximum security' prison brings to the host community is significant. The economic impact of Allred prison including construction costs is expected to be approximately 9 percent of the total personal income of Wichita County. With 789 employees the prison is also one of the largest employers in the County.

Table 3 Economic Impact of James V. Allred Unit	
Wages and Salaries	$20,400,000
Utilities	1,700,000
Materials and supplies	570,000
Visitors (13,000 x $100)	1,300,000
Capital Expenditures (Initial)	78,700,000
Total Expenditures	$102,670,000
x Multiplier	2.0798
Total Impact	$213,533,060
Source: The expenditures estimates were provided by L. W. Woods, Senior Warden, James V. Allred Unit, Iowa Park, Texas	

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1. See *The Dallas Morning News*, November 9. 1994, p. 17A.
2. The total budget for the Texas Department of Criminal Justice in 1994 was $1.9 billion. The 1992 prison expansion plan was budgeted for $1.5 billion to increase the total number of beds in the state prison system to 150,000.
3. The original plan for the Allred Unit called for a 2,250-bed maximum security prison. The plan was modified to increase the number of beds by 632 in 1993 to bring the total population to 2,882. See "Area Backed Push for Prison," *Wichita Falls Times Record News*, June 8, 1995, p. 5E.
4. "Prison Plans," *Wichita Falls Times Record News*, February 5, 1995, p. I.
5. "Area Backed Push for Prison," *Wichita Falls Times Record News*, June 8, 1995, 5E.
6. Ibid
7. "Prison Unit Constructed to Stand Test of Time," *Wichita Falls Times Record News*, June 8, 1995, p. 20E.
8. A telephone conversation with Mr. Bill Barry, Huntsville Correctional Facilities, Texas Department of Criminal Justice.
9. "Prison's Pay May Start Economic Chain Reaction," *Wichita Falls Times Record News*, January 7, 1995. p. 1.
10. "Power Supply Sufficient to Keep Unit Up, Running," *Wichita Falls Times Record News*, June 8, 1995, p. 24E.
11. A letter addressed to Dr. Louis J. Rodriguez by Mr. L. W. Woods, Senior Warden, James V. Allred Unit, dated January 12, 1996.
12. U. S. Department of Commerce, "Regional Multipliers: North Texas Service Area", Table 4, RIMS II README.DOC.
13. The personal income of Wichita County in 1996 was $2,305,123,000. See *U.S. Department of Commerce, County Data 1996*, General Profile. Note that the figure of 9.3 percent represents the total initial one-time impact and not the annual impact.
14. The total employment in the Wichita Falls MSA was 56,050 in 1995. The figure can be found in the various issues of Texas Workforce Commission, *Texas Labor Market Review*. The figure represents the initial one-time impact rather than the annual impact.

THE PHARMACEUTICAL INDUSTRY: ETHICAL ISSUES AND FUTURE TRENDS

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EXECUTIVE SUMMARY

This paper focuses on the ethical dilemmas facing the pharmaceutical industry concerning marketing. There is a fine line between creating demand for your product, "buying" demand for your product, or other possibly questionable practices. This paper is divided into two parts: marketing practices, both current and future trends, and the ethical problems surrounding them.

The discussion begins by focusing on the background of the industry and the strategies involved in current practices. The four missions of building, holding, harvesting, and divesting are discussed with regards to product lines. Also, the keys to building a successful drug portfolio are discussed in detail.

Next, the paper focuses on the current trends that rely heavily on the people involved in the process of pharmaceutical marketing. Some interviews were conducted to give a broad-spectrum understanding of the underlying relationships involved in the process.

Questions about possible improper or unethical influences on doctors, as well as patients are discussed. The risks involved with value-added programs like disease management is explained. Additionally, cases of how the industry is policed are examined. Steps are also given to ensure that the customer stays the number one focus of the doctor and others involved in health care delivery within ethical guidelines.

INTRODUCTION

For most people the idea of "pushing drugs" conjures visions of criminals hunkering over piles of cash and illegal white, powdery substances. But drug pushing-the legal kind-happens every day in a medical world that's invisible to patients.[1] One seventh of the United States Gross Domestic Product (GNP) comes from the various health care industries. This is only one reason for the concern over ethics in the marketing of pharmaceutical products. "There is a qualitative difference when we discuss the ethics of marketing...prescription drugs compared to sneakers or shaving cream."[2] This paper will describe current marketing techniques, future-marketing trends and discuss the ethical ramifications of these practices.

CURRENT PRACTICES BACKGROUND

In a speech given by George Poste, President of Research and Development for SmithKline Beecham, insight is given on the past efforts of the pharmaceutical industry. Poste states, "The rapid evolution in the 1980's of a new buoyant, entrepreneurial sector called the biotechnology industry occurred because most executives in the "big Pharma" were asleep at the switch! Few saw the importance of molecular biology and thus allowed a dynamic new sector to emerge as direct competitors." Expensive suppliers of new technologies are now being forced to pay a high price for their failure to sustain technical competencies in the drug discovery.[3] "In turn, in the 1900's most biotechnology companies had come to believe their own rhetoric of being the new mammals scampering among the doomed dinosaurs of big Pharma."[4]

Poste believes that most pharmaceutical companies did not concentrate on the payer, but rather on the physician, as their customer.[5] Now, according to Poste, "the market has changed forever.... The adoptions of new technologies at every part of the value chain, from discovery to the marketplace, will be affected by heightened barriers set by new customers who demand greater innovation plus evidence that our products confer clinical and economics value. The mantra for every discovery organization now becomes: pioneer, pioneer, pioneer!"[6] Poste also states, "The proactive identification and capture of new technologies ahead of competitors is at the core of competitive strategy.... The rise of genomics, combinatorial chemistry, automated and bioinformatics have completely re-engineered the drug discovery process in less than five years, bestowing vital competitive advantage on companies who captured these skills ahead of others."[71]

Pharmaceutical companies have been among the most profitable in the world in the past 15 years, and they defend high profits by claiming it is needed to attract sufficient capital to maintain research and development activities.[8] However, according to recent academic studies and government hearings...the profits are excessive.[9] Accordingly, companies in the industry are facing heightened public scrutiny, and they are being blamed for a very visible portion of the skyrocketing costs of health care. At the same time, businesses and governments are stemming the growth in health care costs by supporting alternative health are delivery systems that build in cost controls and shift fiscal responsibility to the health care providers. Large purchasing groups are forcing dramatic changes in the marketing practices of pharmaceutical companies. And, marketing costs as shown later in this paper, are certainly a significant factor in the industry. It has been estimated that the costs of promotion can be 30 to 50 per cent greater than the costs to research and develop the drug.[10]

STRATEGIES

There are several factors that can play key roles in the strategic efforts of pharmaceutical companies. "Strategic cost analysis can help companies identify the implicit strategies they are carrying out among four common types of missions for their businesses and product lines. These four missions are: '*build, hold, harvest* or *divest*'. A *build* mission implies a goal of an increased market share without regard for short-run profits. *Hold* is a strategy to maintain market share by selectively managing prices to hold customers. *Harvest* as a mission suggests going after a short-run profit and cash flow with little regard for market share. A *divest* mission implies positioning the company or company products or segments to be sold."[11]

Management accountants, particularly in the pharmaceutical industry, can analyze the relationships of market share, relative market share, price, profit, and cash flows for the companies' product line and provide assessments of the strategies currently used for the products. Benchmarking can reveal a wealth of information to support a company's strategic reaction to the stormy changes occurring in the market place. Once a company has successfully identified the current strategies to be employed for its product line, it can then begin to position itself to achieve new or revised missions.[12]

Mike Precopio, of Summers Laboratories, Inc., was interviewed for his thoughts and opinions on certain database marketing efforts. Mr. Precopio was asked, do journal ads work for your company? [13] Mike replied, "They might be beneficial over several years, but the most prestigious journals are read for articles only."[14] Another question was asked with regard to marketers erring in using their database.[15] The answer was, "Large companies will take the prescribing habits of doctors related to several competitive products and or therapeutic categories and create matrices that represent the best prospects. But too often, unless that data is in the hands of the individual rep, it's wasted."[162]

LONG-RANGE-PLANNING

Today's more complex healthcare environment requires that pharmaceutical companies change the way they regard product development and marketing and focus on drug "portfolios" rather than single drugs.[17] According to Alberto Paz, "...pharmaceutical companies must devise long-range strategies for developing and marketing products that revolve around the treatment of a disease or around a body system, rather than being single-product driven."[18]

In this industry an effective long-range strategy starts with the introduction of a new lead compound. While the patent life is still protected, researchers should develop an incremental improvement. Before a generic or competing product is introduced, the company should be first to introduce an enhanced product (e.g., once-a-day formulation or differing doses) and then replace it with a second-generation drug that represents a significant improvement.[19]

There are several steps in the process of defining target areas to concentrate research and development efforts, and to systematically plan for the next 10 to 15 years. Company must first define the therapeutic categories in which it wants to focus. There may be a large market for the drugs in that category and a particular level of dissatisfaction with the current treatments. Ideally, the company should have some expertise in research and development in that area. Second, a company must develop a portfolio of products that will attack a disease through a variety of routes or be specific to a particular physiologic system. Next, the company should be prepared with an aggressive licensing program in order to enter the marketplace ahead of the competition. Being first on the market is extremely important, not just the first time but each time. It may even be advisable for a company to get in the door fast with a less than stellar product, but with a succession plan that will allow the company to enhance the original compound and identify additional compounds to improve market share and always stay ahead of competition. Last, the company must establish an aggressive product development program to derive the greater benefit from each new product through line extensions and new indications.[20]

CURRENT TRENDS

"The range of choices available to marketers today to influence their growing audience is much broader than it was even five years ago," says Susan Dietrich. Technological advances, availability of targeting information, a philosophy of getting close to each customer, and the heightened competitive and cost containment pressures of recent years have resulted in many creative and innovative approaches to reach a lengthening list of customers. Given the options, it appears that traditional approaches remain the foundation.[21] In the case of examining the current trends of pharmaceutical marketing, it is important to look at things such as personal selling, mass marketing, marketing to managed care facilities, disease management systems, comparisons to other systems, and the ethical questions involved.

PERSONAL SELLING

Personal selling is the most important aspect of pharmaceutical marketing and still holds the largest promotional budget component at 61 percent today.[22] The most important person the pharmaceutical representative has to deal with is the doctor who they are trying to influence. It is extremely important for the pharmaceutical representative to keep the doctors informed and happy. Physician-directed activities absorb a small, but still the major portion of the marketing budget, which is why it is so vital to keep the physician happy.[23]

INFLUENCE ON THE DOCTOR

The amount of influence a pharmaceutical representative has over a doctor depends on how well the doctor knows the representative and how much faith the doctor has in what the representative says. If a doctor likes the representative, then a doctor might be more easily persuaded to try out a certain kind of medicine that the representative is trying to push.

A pharmaceutical representative is always giving a doctor samples so that he can test out different medications. The doctor sometimes may even request samples that he or she may want.[28] Sampling is here to stay. It has a solid medical purpose--to start the patient on medication immediately and to test for tolerance before filling a prescription.[24]

To keep the doctor, and the customer, happy, the pharmaceutical representative usually gives them what they want. Sometimes this may even lead to the giving of certain items that might qualify as gifts.[25]

MASS MARKETING

Medical journal and consumer magazine advertising seem to be the largest component of the media budget.[26] Institutional healthcare providers spent $856 million on advertising in 1994 according to Quality Expectations, a healthcare market research and consulting firm. Spending by pharmaceutical companies on advertising has been up an average of 5 percent per year over the last few years, according to an industry newsletter. This trend can be expected to continue, as the industry braces itself for increased competition and as patients take on the role of active and informed consumers.[27] Many pharmaceutical companies are creating their own web sites, which is a very exciting idea to the majority of them. A representative for Roche said that the first step in the creation of the site was to figure out how their company could achieve market share value with their customers and consumers.[28]

Another online presence is the Health Response Ability Systems, which is a health and medical information service. Health Response Ability Systems has accessible information available for patients who need facts as they make considered decisions about their own healthcare. This system includes advertising, partnerships with pharmaceutical and health product manufacturers, and a web site.[29] Supplying information to the pharmaceutical world is no easy task. There are many target markets for a pharmaceutical company's message: consumers, physicians, nurses, and pharmacists just to name a few. Pharmaceutical companies have to make sure that the information that is provided is accurate and approved by the trade.[30]

MARKETING TO MANAGED CARE FACILITIES

As managed care has evolved, the large purchasing groups now act as intermediaries and negotiate directly with drug companies to set prices for prescription drugs for their members. These managed-care groups also restrict the choices physicians can make in prescribing drugs by setting drug formularies. A drug formulary is a list of drugs from which participating physicians are expected to prescribe. The formulary automatically includes all patented drugs, those drugs with proven value but no therapeutic equivalents. However, drugs with therapeutic equivalents are subject to bid by competitive drug companies. These may be patented drugs or generic equivalents. The formularies serve to effectively limit the physicians' choices and detail representatives are not as effective in directly influencing the physicians' prescribing behavior. Instead, drug companies must negotiate with purchasing groups.[31]

DISEASE MANAGEMENT SYSTEMS

Disease management systems focus on drug therapy effects on total health care costs. This new area presumes that the prescribing of the proper products and improved compliance results in a near term economic benefit, usually through reduced utilization of emergency services, hospital admissions, or inpatient days. The operating theory is that proper pharmaceutical care reduces costly increases in disease or postpones morbidity.[32]

COMPARING THE UNITED STATES TO THE UNITED KINGDOM: An Example

In the United Kingdom, the promotion of pharmaceutical products is the third largest user of conferences and events because of the restrictive legislation on pharmaceutical marketing. Pharmaceutical manufacturers are only allowed to talk to the public about the benefits of a particular class of drugs as part of a disease awareness campaign. Unlike the United States where pharmaceutical representatives can speak to doctors when the doctor permits, the United Kingdom system is more "mass marketing." Even the amount of money which manufacturers of ethical drugs can spend on marketing is restricted by a complicated code of practice governed by the United Kingdom's Department of Health and the Association of the British Pharmaceutical Industry.[33]

FUTURE TRENDS AND ETHICAL CONSIDERATIONS

The pharmaceutical industry must change continuously just to keep pace with the changes in society at large. Historically, a company could ethically sit on a drug for the life of the 20-year patent. In today's accelerated economy, however, a pharmaceutical company must continuously develop new drugs and drug therapies just to keep pace similar to the Red Queen Syndrome. The life expectancy of a drug has fallen dramatically due to the increasingly short product development times. Due to changes in the laws governing approval of generic drugs, new drugs only have a patent life of three to seven years before generic competition can be introduced.[34]

To cope with this acceleration in the industry, drug companies look to new strategies. Pharmaceutical companies are exploring every avenue that can possibly be exploited to market their drugs. The increases in different promotion methods have caused a shift in the allocation of dollars used to market the drugs. Doctors remain a critical link in the marketing chain, but patients and managed care organizations are growing in importance.[32] To exploit these paths effectively, pharmaceutical marketers are looking into other forms of promotion that have not been used, whether by regulation or convention, in the industry. Over the last few years, spending on advertisements has grown at an average rate of 5%.[36] More extensive use of the media, in terms of television, direct mail, and magazine advertisements directly to the customer/patient, is becoming commonplace and is going to continue to increase. Medical journals and consumer magazine advertising remain the largest component of the media budget, but the emphasis is changing.[37] A drop in advertising expenditures to professional journals is to be expected over the next five years. As this happens, direct consumer advertising is expected to more than double.[38]

This cannot obscure the need for an increased sales force. The fact remains that doctors write the prescriptions and have many options from which to choose. The additional problem of new product introductions all but insures a continued expansion in the size of sale forces like that seen at Bristol-Myers Squibb, Pfizer, and others. Sampling serves a legitimate purpose and will still be one of the top techniques used by pharmaceutical representatives. It helps to start the patient on medication quickly and allows the doctor to test for toleration before prescribing. These programs are costly and will force companies to turn to other creative solutions such as couponing to increase the efficiency of their sampling programs.[36]

Personal selling and sampling will remain prominent factors in the promotion, but value-added programs will rise from 11% to 17%. Many of these programs center on educational activities. The activities range from compliance to proper use of the drug to complete disease management systems. The importance of these programs will grow as consumers are increasingly expecting value-added products. These are not techniques to be used in lieu of giving a lower price.[40]

The current trend of direct to consumer marketing is growing and health and medical information services are increasing their presence on the Internet. As patients are taking on the role of active consumers when it comes to their healthcare, the industry braces itself for increased competition.[41] It became clear that this was another communications tool for the healthcare industry, claims Rob Partridge of Rhone-Polenc Rohr. According to him, more and more consumers are reading medical magazines, watching televised medical reports or special cable segments on certain therapeutic areas, or even searching the Internet for information. The customer/patients then walk into their physician's office armed with information about their condition or about the drugs they feel might be appropriate for them.[42] All of these items could cause potential ethical considerations if not followed appropriately.

ETHICAL DILEMMAS

With these marketing strategies come many ethical questions to which there are no easy answers. The safety of the consumer must be at the forefront of everyone's mind. To be able to continue to research and develop new drugs, the pharmaceutical companies must be able to make a profit and create demand for their products. The distinction between creating demand for a needed product and merely "pushing" drugs is a fine one.

IMPROPER INFLUENCE

Drug industry critics have produced some evidence suggesting that drug marketing has combined with other factors to prompt doctors into sometimes prescribing useless or even harmful drugs. Research also suggests that doctors also can be influenced by patient requests for certain drugs.[43]

The courtship of doctors by drug companies starts early. "While in medical school, students on tight budgets are frequently invited to lunches or dinners sponsored by drug companies. Many receive their first stethoscope, neurological hammer, penlight and doctor's black bag from a drug firm."[44] While doctors are quick to deny that this pandering has little effect on their prescribing patterns, a 1982 study of 85 physicians in the Boston area pointed out that it may have a much stronger influence than the doctors believe. Dr. Jerry Avorn of the Department on Social Medicine and Health Policy at Harvard Medical School "found that the vast majority of doctors surveyed said drug ads and marketing efforts were 'minimally important' factors influencing their prescribing habits." This study showed that two heavily marketed drugs were believed to be effective treatments for senile dementia and certain kinds of pain by the majority of the doctors studied. The clinical literature, however, showed that they are not useful for these indications. This study was originally published in the American Journal of Medicine.[45]

Perhaps the most controversial way that companies market to doctors is through sponsoring or underwriting of seminars that the doctors must attend to maintain their licenses. These medical education seminars offer Continuing Medical Education Credits (CMECs) which doctors must amass to maintain their licenses. These seminars are often held in tempting locations such as Florida, and Colorado. Some of the wealthier companies even pay for airfare and accommodations of doctors who are thought to be major influencers of purchases. In addition to these influences on doctors, pharmaceutical representatives offer a more overt marketing ploy. They inundate a doctor's office with every type of promotional item that will fit on the doctor's desktop. Personalized prescription pads, pens, and paperweights along with other "reminder items" all come from the sales representative or detail people as they are called. The detail people also leave behind medical literature, free drug samples and patient-educational leaflets or take office personnel to lunch.[46]

Increasingly, pharmaceutical companies are offering free services rather than gifts to sell their products. Value-added programs such as disease management are supposed to standardize treatment through protocols that improve outcomes. The risks here are that the systems recommended by a company have their products as key components. These programs do not necessarily incorporate the most effective or cost conscious drugs, rather they promote the company's offering. To realize the benefits of true disease management, a company would have to design a multifaceted approach. This is more than most prepackaged programs can do. According to Dr. Stan Bernard, this may be "another form of sales and promotion masquerading as disease management."[47]

At the other end of the spectrum are the consumers/patients. Many have little knowledge of the products at the doctor's disposal, about the chemistry involved, the side effects, or any of the other items that the doctor must take into consideration when he or she is treating a patient. This lack of buyer knowledge raises the question of the ethics regarding the mass marketing that drug companies have begun to embrace. It is clear that a consumer/patient simply does not have the knowledge, facilities, or expertise to evaluate the products that are advertised in consumer magazines, on television or in direct mail. Under these conditions, it is absolutely necessary that marketers take greater care in their efforts, even practicing restraint, than they do in marketing other consumer goods.[48]

POLICING THE INDUSTRY

In such a volatile and responsibility laden industry, who regulates these companies? Several different groups actually work to keep these marketing problems from getting out of hand. Insurance companies, doctors, and even the patients themselves help to control the industry in different ways. Insurance companies have policies for dealing with both doctors and pharmacies. In this way, they can control the number of times drugs are sold to consumers. Both doctors and pharmacies have utilization reviews. In these reviews, both groups must answer questions about utilization patterns. Doctors are also questioned about dispensing patterns if the insurance company detects some irregularities from the norm. Doctors should help to regulate the drug industry by keeping abreast of the new developments and by making prescription decisions based on the patients best interest, not on which sales person is the friendliest or gives the best "perks". The American Medical Association had, until 1992, opposed direct-to-consumer marketing. Now, however, with the growing importance of the managed healthcare model, the opposition has softened.[49]

Patients help control the industry by being more informed. There is a "hunger for information as the baby boomers reach an age where they need to make more healthcare decisions. Seeing this trend, drug companies have discovered what other consumer marketers have known for a long time–nothing is more important than building consumer brand loyalty.[50]

CONCLUSION

Buyers and sellers are supposed to come together in the marketplace with equal footing. But this is impossible in the prescription drug industry, because the patient *must* rely on the physician for professional advice. [51] The sales pitch of the pharmaceutical representative can be neutralized by a process called "academic-detailing" in that a doctor learns about drugs through an expert from a university with no ties to a drug company. This can be even more effective when used in conjunction with "unadvertisements", which points out a medication's, side effects as well as its benefits.[52]

There are five other items necessary to maintain high ethical standards in the industry. First, pharmaceutical companies must practice restraint in their marketing of drugs. Second, doctors must reject unreasonable incentives and constantly act as advocate for the patient. Third, insurance companies must hold constant vigil over doctors' prescription patterns, not only to hold costs down, but to ensure fairness as well. Fourth, the increasing flood of information gives the patient an advantage previously unknown, allowing them to question their doctor about different treatment options. Finally, the government must continue to have some control in cases where the buyer-seller relationship does not work adequately.[53]

As stated in this paper, expense-paid junkets and similar incentives should be going the way of the house call. Were the movie "The Fugitive" remade today, it's a good bet the lavish scene of doctors being feted at a drug-company-sponsored gala would be cut.

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LATIN-AMERICAN CULTURE AND INTERNATIONAL BUSINESS: SOME IMPLICATIONS FOR TEXAS' MANAGERS

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ABSTRACT

This paper compares Latin American culture with North American culture using Hall's (1959) seminal framework and reviews Latin American culture within a business context. In light of the recent growth and magnitude of Texas exports to Latin America, cultural implications and differences for Texas' managers operating in Latin America are explored.

Key words are: Latin America, Culture, International Business, and Texas

INTRODUCTION

Latin America represents the major market for Texas exporters. In sum, Texas firms exported $86.9 billion in goods and services in 1998 of which just over $36 billion was destined for Mexico (BIDC website, 1999). Exports to Mexico account for 58.2% of all Texas exports and Texas exports to Mexico alone are estimated to have created nearly 612,000 jobs in Texas. Overall, Texas ships 45.9% of total U.S. exports ($79.0 billion) to Mexico (BIDC website, 1999). It comes as no surprise that NAFTA (the North American Free Trade Agreement) has ushered in a new era of international economic relations between the US and in particular Texas with Mexico (see Table 1) and Latin America more generally.

Table 1
Texas Exports to Mexico, 1991-1998

Year	Dollar Value of Exports (in Billions)	Percent Increase/Decrease
1998	36.3	16.3
1997	31.2	15.6
1996	27.0	23.3
1995	21.9	8.0
1994	23.8	16.7
1993	20.4	8.5
1992	18.8	21.3
1991	15.5	----

Source: The International Trade Administration (http://www.ita.doc.gov)

Indeed, Texans trade with 44 countries and/or dependencies in Latin America and the Caribbean (ITA website, 1999). Texas trade with Mexico dominates Texas' overall trade with Latin America with nearly three-fourths of all Latin American merchandise trade going to Mexico (see Table 2). Additionally, Texas is the nation's number two exporter just behind California ($105 billion in exports) and if current 1998 trends persist, Texas will become the nation's leading exporter in the year 2001 (BIDC website, 1999).

Table 2
Texas Merchandise Trade to Latin America and the Caribbean, by Rank (1997)

Latin American Rank (Overall Rank)	Country	Dollar Amount	Percent of Total
1 (1)	Mexico	18,864,123,580	74.6
2 (6)	Venezuela	1,375,515,699	5.4
3 (9)	Brazil	1,230,485,058	4.9
4 (16)	Colombia	782,300,038	3.1
5 (21)	Argentina	504,867,657	2.0
6 (22)	Trinidad & Tobago	461,996,206	1.8
7 (25)	Chile	378,176,914	1.5
8 (31)	Ecuador	256,535,958	1.0
9 (37)	Guatemala	202,983,150	1<
10 (39)	Peru	179,181, 150	1<
11 (41)	Dominican Republic	156,930,663	1<
12 (44)	Costa Rica	135,765,456	1<
13 (45)	Honduras	130,886, 078	1<
14 (46)	Panama	114,578, 369	1<
15 (52)	El Salvador	84, 821, 213	1<
16 (55)	Aruba	71, 226, 364	1<
17 (58)	Bolivia	60,393,279	1<
18 (62)	Bahamas	41,679, 839	1<
19 (64)	The Netherlands Antilles	39,819,988	1<
20 (65)	Jamaica	39,709,597	1<
21 (72)	Uruguay	33,248,385	1<
22 (82)	Haiti	23,447,688	1<
23 (84)	Guyana	18,727,748	1<
24 (85)	Nicaragua	18,515,890	1<

However, in order to continue to ride the crest of this expansion as a result of free markets and trade liberalization throughout the Western Hemisphere, a greater understanding of Latin Americans is necessary for Texas' exporters to establish and maintain long term business relationships. This paper seeks to: 1) describe Latin American culture; 2) discuss Latin American culture within the business (management) context; and 3) conclude with some implications for Texas' managers operating within Latin American cultural framework.[1] Indeed, the contribution of this paper is the synthesis of the international business literature concerning Latin American culture. Additionally, as the audience for this paper is primarily based in the U.S. and Texas, the U.S. will serve as the focal point of comparison vis-à-vis Latin America.

LATIN-AMERICAN CULTURE

Victor Alba (1969, p. 4) suggests that "Latin America does exist as a unity. Indeed, no other continent presents so high a degree of unity." That is, there is much about Latin America that binds it together, making it a viable unit of study (Haire, Ghiselli & Porter, 1966, Hofstede, 1980, Ronen, 1986, Ronen & Kraut, 1977, Ronen & Shenkar, 1988, Sirota & Greenwood, 1971). Although the international business literature has yet to arrive at a definitive definition of culture (Nasif, Al-Daeaj, Ebrahimi & Thibodeaux, 1991), Hofstede (1980, 25-26) offers the following view: "culture could be defined as the integrative aggregate of common characteristics that influence a human group's response to its environment. Culture determines the identity of a human group in the same way as personality determines the identity of an individual." Culture then is the sights, sounds, smells, touch and tastes of a society so hard to explain, but self-evident to those within the community. Culture is a learned, shared, and interrelated set of specialized behavior patterns, understandings and adaptations of a like group of people.

Hall (1959), in his seminal essay on cultural differences, outlined five areas of comparison or cultural dimensions: 1) the language of time; 2) the language of space; 3) the language of things; 4) the language of friendship; and 5) the language of agreements. Following Hall (1959), these five cultural dimensions will be used to highlight Latin America culture (see Table 3). As a point of reference, U.S. culture will be compared against Latin American culture within Halls' (1959) cultural dimensions.

Table 3
Cultural Dimensions

Cultural Dimensions	Definitions
The language of time	Refers to how one spends time.
The language of space	Includes physical distance one feels comfortable with relative to others (e.g., conversation distance) as well as the size and orderliness of surroundings.
The language of things	Refers to material possessions.
The language of friendship	Determines the nature and make-up of friends.
The language of agreements	Refers to commitments agreed upon.

The language of time simply refers to how one spends time. In the US, time is scheduled, in Latin America, time is malleable (Harris & Moran, 1996). For example, an appointment to meet with someone in the U.S. is typically set, hard and fast (see Table 4). In Latin America, time is approximate and appointments are general targets to get together. A further distinction can be made as far as the sequence of the use of time. Monochronic cultures, like the US, prefer to do things in order with little interruption—one thing at a time; whereas polychronic cultures, such as that of Latin America, set out to do many things simultaneously while permitting many interruptions—many things at the same time (Bluedorn, Kaufman & Lane, 1992).

Table 4 Latin America & U.S. Culture Compared		
Cultural Contrasts	Latin America	United States
The language of time	variable, polychronic	scheduled, monochromic
The language of space	public, high-density	private, low-density
The language of things	personal status	material status
The language of friendship	a few long lasting friendships with many obligations	many flexible friendships with few obligations
The language of agreements	Relationships more important than contracts, low context	contracts more important than relationships, high context

Additionally, cultures may view historical time differently. Latin Americans trace their roots back thousands of years and extol the virtues of the great pre-Hispanic civilizations such as the Maya, the Inca and the Aztec (Condon, 1985). Many Latin Americans view their best days as past and lament the role that the U.S. has played in diminished Latin American power. For example, Texas' fight for independence (1836) and the Mexican-American War (1846-1848), left Mexico with half her former territory. It is commonplace for Mexican schoolbooks and museums to exhibit maps showing the grandeur that was once Mexico; nevertheless, the territorial beneficiary of these wars was the United States. On the other hand, North Americans[2] view the founding of Jamestown (1607 AD) as ancient history and take the perspective that the United States' best days are still to come (Wallin, 1976).

The language of space includes the physical distance one feels comfortable with relative to others (e.g., conversation distance) as well as the size and orderliness of surroundings. For Latin Americans, space is public belonging to all. North Americans perceive space as private, to be owned, mastered and put in order (Adler, 1997, Kluckholn & Strodtbeck, 1961). Normal conversation distance for North Americans may be three feet apart while Latin Americans may feel comfortable only inches from one another (Hall, 1959, Hall & Hall, 1990). Additionally, Latin Americans are more collectivist and group centered (Hofstede, 1983). In contrast, North Americans are more individualistic as result of the rugged individualism formed from the frontier experience (Wallin, 1976).

The language of things refers to material possessions. North Americans often times judge themselves based on their material possessions (Cavanaugh, 1990). In comparison, Latin Americans seek high personal status more so than material wealth (Kras, 1989). The language of friendship determines the nature and make-up of friends. Hall (1959) suggests that North Americans find their friends next door and at work. Friendships are formed and abandoned easily with very few obligations attached. On the other hand, in Latin America "family and friends around the world represent a sort of social insurance," where reciprocity is the norm (Hall 1959, p. 91). Although deep friendships take a long time to forge for Latin Americans, once established, friendships may endure for life.

The language of agreements refers to commitments agreed upon. In Latin America, the development of relationships lead to the development of agreements– that is, relationships built on a legacy of trust, honor and dignity are more important than mere written agreements (Stephens & Greer, 1995, Harris & Moran, 1996). The language within the agreement is less important than the individuals responsible for the agreement that parlays nicely into what Hall and Hall (1990) described as a high context culture. For North Americans, the written contract becomes the objective which signals the end of the negotiation and closure of the business deal (Hall, 1959). The text of the agreement becomes the bonding agent between parties, which exemplifies a low context culture (Hall & Hall, 1990).

In describing context more fully, Hall and Hall (1990, p. 6) indicate that "context is the information that surrounds an event; it is inextricably bound up in the meaning of that event." Hence, a low context culture exhibits reticent personal information networks and a high context culture manifests extensive personal information networks. For example, in the U.S., information flow is static and must begin anew each time people meet. On the other hand, for Latin Americans, information flow is dynamic, constantly flowing between people. A simple business application will suffice. During meetings North Americans seek to find solutions to problems introduced at the meeting, while Latin Americans would view the meeting as an opportunity to reaffirm the solution to the problem solved before the meeting and use the meeting time to strengthen personal relationships among the group.

The general comparison of Latin American and North American culture outlined above underscores the more specific discussion of culture within the Latin American business context offered in the next section.

LATIN-AMERICAN CULTURE WITHIN THE BUSINESS CONTEXT

Traditionally management has been subdivided into five broad areas: leading (directing), staffing, planning, organizing and controlling (Boone & Kurtz, 1995). These near universal managerial activities have been observed from Mexico (Kras, 1990) to Africa (Ahiauzu, 1989, Lubatkin, Ndiaye & Vengroff, 1997) to modern day Russia (Luthans, Welsh & Rosenkrantz, 1993).

Briefly defined, leading involves guiding and motivating workers to accomplish organizational objectives; staffing involves the process of finding, placing, and developing people in jobs; and, planning involves anticipating the future and determining the best course(s) of action to achieve company objectives; organizing is the process of blending human and material resources through the design of a formal structure of tasks and authority; and controlling is evaluating the company's performance to determine whether it is accomplishing its objectives (Boone & Kurtz, 1995, Ivancevich & Matteson, 1993). These five broad areas of managerial responsibility will be reviewed within the Latin American context (see Table 5).

Latin American managers, in general, are more apt to be paternalistic and make autocratic decisions (Stephens & Greer, 1995). Subordinates are directed as to which work is to be done and in what order. The manager resembles a "jefe maximo" or "cacique" (that is, the ultimate leader). Along the paternalistic path, the Latin American manager is responsible for the outcome of the group (organization). In so doing, the manager (gerente) forms an affiliation with the group and an intense sense of belonging by the employees reinforces the collective notion. Furthermore, leading requires maintenance of respect, integrity and dignity (Condon, 1985). In return for staff respect, the leader genuinely cares for others, secures a friendly work environment, operates in cooperation with others, provides employment security as well as aspires to create a greater quality of life and solidarity for the whole organization (Kras, 1989). Typically, leadership positions are granted as a result of loyalty to superiors as well as task-achievement (Moran & Abbott, 1994).

Table 5
Latin American Management Style

Management Area	Latin American Management Style
Leading	paternalistic; autocratic; honest; demands respect and dignity
Staffing	nepotism encouraged; loyalty of staff of paramount concern
Planning	short-term focused; centralized and often capricious decision-making
Organizing	organizational activities are ritualized, codified and formalized; power tied to position
Controlling	business practices typically go unchecked to preserve organizational harmony

Since such a high value is placed on loyalty and trustworthiness within the Latin American business culture, staffing decisions based on the hiring of family and friends are the norm (Kras, 1989). Presumably family and friends will be more loyal than non-family members. This may invite the widespread usage of nepotism in Latin American firms. As such, family ties may even take precedence over clearly evident work needs (O'Grady, 1995). Additionally, the training and development of staff within the human resource function, where available, tends to be highly theoretical with few structured programs (Kras, 1989).

Planning is difficult under the severe economic boom and bust environment found in Latin America. A deeply rooted belief in fatalism hastens the Latin American desire to get rich quick and live and plan primarily for the present (Harris & Moran, 1996). However, what limited short term planning that is undertaken is done in a centralized (Stephens & Greer, 1995) and often capricious fashion (Fisher, 1980).

The norms for organizational activities are ritualized, codified and formalized. This formal structure and hierarchy forms the basis for organizational operation. "It is written, therefore it must be true" is the mantra of the manager. This ensures that there is a place for everything and everybody and everything and everybody knows their place, signifying a high uncertainty avoidance (Hofstede, 1983) and a highly stratified society (Alba, 1969). This may lead to power being tied to the position more so than the individual. Hence, a large power distance (Hofstede, 1983) exists between levels within the organization which may foster an abuse of positional authority (Moran & Abbott, 1994).

Evaluation of business practices through the control function is very difficult for Latin Americans. Latin Americans feel obligated to preserve harmony and to maintain face even in the most dire of situations (Fisher, 1980). Bad news is avoided (Stephens & Greer, 1995, Gomez, n.d.). Documentation is seen as an impediment to harmonious work relations– documentation only obscures the understanding of general principles (Fisher, 1980). Typically only positive feedback is provided (Kras, 1989). This leads to the purposeful aversion of conflict and criticism. Hence, the potential for discord in such practices as performance appraisals are avoided simply with the absence (non-existence) of written performance appraisals (O'Grady, 1995). Furthermore, employees perceive close supervision as being checked upon and unwarranted (Kras, 1989).

In summary, the traditional Latin American management style reflects a paternalistic boss who staffs his department and business with loyal friends and/or trust-worthy relatives. Employees defer to the power and authority of the boss even though many of his decisions may seem capricious or near-sighted. The maintenance of personal and organizational harmony cuts short opportune employee feedback; in its place is established a formal organizational culture.

CONCLUSION

To navigate within the Latin American business environment, it is critical to understand the tenets of Latin American culture and business. The enormous opportunity for Texans to operate and further penetrate Latin American markets will continue well into the 21st century. This paper has provided a framework in which to better understand Latin Americans using the five point cultural framework developed by Hall (1959) utilizing the U.S. as a benchmark. Hence, this framework should serve a useful tool for Texas' managers in their continued and expanding contacts with Latin America.

ENDNOTES

1. It should be noted that the information presented in this paper is generalized and runs the risk of oversimplification. Therefore, it is not necessarily representative of all factions or individuals within each culture; however, the paucity of knowledge in the U.S. concerning Latin America and the benefits of increased understanding of Latin American culture and business outweigh the potential pitfalls of over generalization.

2. The term North Americans is used synonymously with people from the United States.

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SHAREHOLDER WEALTH EFFECTS OF LIMITED DIRECTOR LIABILITY AND DIRECTOR INDEMNIFICATION PROPOSALS

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ABSTRACT

Many corporations adopted "limited director liability" or "director indemnification" charter amendments in 1986 and 1987. Management argued these amendments were necessary to recruit and retain the best-qualified directors. However, an alternative view is that when directors are protected from shareholder suits, they may be less diligent in performing their fiduciary responsibility. This study examines investors' perceptions of these amendments by analyzing market returns following the proxy mailing. Results show that following release of the proxy, shareholder wealth declined 0.7 percent (t=-1.917). This is consistent with the view that reducing directors' liability may result in reduced diligence in performing their fiduciary responsibility.

INTRODUCTION

Historically, corporate boards of directors have been held accountable for their actions regarding the governance of the firm. Boards or individual directors faced the possibility of legal action if shareholders believed directors failed to fulfill their fiduciary responsibility. Many director-liability suits were precipitated by the takeover craze in the early 1980s. The best-qualified board candidates would not accept a position unless the corporation provided liability insurance. But suits were so numerous that the cost of director liability insurance skyrocketed. In 1986 and 1987, several state legislatures intervened by amending their incorporation statutes to allow firms to adopt "limited director liability" or "director indemnification" charter amendments. Many corporations quickly took advantage of the new statutes by amending their charters.

However, it is not clear how shareholders perceive these charter amendments. The view espoused by the firm is that the new amendments allow the recruitment and retention of the very best qualified directors which translates into increased shareholder wealth through improved asset management. An alternative view is that because directors are protected from shareholder suits, they are less diligent in performing their fiduciary responsibility thereby reducing shareholder wealth.

The purpose of this study is to determine how shareholders perceive the adoption of limited director liability and director indemnification amendments by analyzing stock prices in the days following the proxy statement mailing. This project is the first to examine this issue. The results show that in the days following the release of the proxy statement, shareholder wealth declines by 0.7 percent (t=-1.917). This is consistent with the view that reducing directors' liability also may lead to a reduction in their diligence in performing their fiduciary responsibility. It appears that the statutory intervention to assist corporations to obtain director liability insurance at a reasonable cost by limiting director liability actually reduced shareholders' wealth.

LIMITING DIRECTOR LIABILITY

Historically, corporate boards or individual directors have faced legal action if shareholders believed directors failed to fulfill their fiduciary responsibility regarding governance of the firm. The takeover craze of the early 1980s precipitated many director-liability suits. Because the personal liability was too great, the best-qualified board candidates would not accept a position unless the corporation furnished liability insurance. A problem arose for many corporations, however, because the cost of director liability insurance skyrocketed to the point it was not affordable.

In 1986 and 1987, several state legislatures succumbed to pressure from their constituent corporations and amended their incorporation statutes to allow firms to adopt "limited director liability" or "director indemnification" charter amendments. The objective of the limited director liability provision was to limit the exposure of corporate officers and directors to shareholder suits. The director indemnification provision made the corporation liable for reimbursing directors and officers for any covered expenses incurred in defending themselves against legal actions. Many corporations quickly amended their charters to include director indemnification and/or limited director liability amendments.

How shareholders perceive charter amendments that limit directors' personal liability is not clear, however. Management argues that the new amendments are necessary to recruit and retain the very best qualified directors that should result in increased shareholder wealth through improved asset management. An alternative view is that with directors largely protected from shareholder suits, they will be less diligent in performing their fiduciary responsibility resulting in choices that reduce shareholder wealth. The purpose of this study is to determine how shareholders perceive the adoption of limited director liability and director indemnification amendments by analyzing the impact on shareholder wealth.

Many prior studies in finance have used the impact on shareholder wealth as a measure of investor sentiment. For example, Bhagat[1], Bhagat and Brickley[2], DeAngelo and Rice[3], Jarrell and Poulsen[4], Linn and McConnell[5], and Malatesta and Walkling[6] examine the shareholder wealth effects resulting from the adoption of various corporate charter amendments with anti-takeover properties. However, this project will be the first to examine how shareholders react to proposals of limited director liability and director indemnification amendments.

The results of this project will shed new light on whether statutory intervention was actually perceived by shareholders as enhancing wealth by enabling corporations to attract the best-qualified candidates for the board of directors? Or whether the limitation of "director liability" in matters of corporate governance was viewed as an opportunity for directors to shirk their fiduciary responsibilities with little fear of shareholder action? The answer will be important with regard to future attempts by government to modify shareholder oversight of the board of directors.

SAMPLE SELECTION

The Investor Responsibility Research Center[7] (IRRC) publishes annual reports listing proposals submitted for shareholder approval by 1200 to 1500 large U. S. corporations. The observations examined in the present study are all firms indicated by the IRRC to have proposed an amendment to limit director liability or indemnify directors. Many firms had other proposals included in the proxy for shareholder consideration. Those considered ordinary, e.g., election of directors, ratification of compensation agreements, or authorization to increase the number of common shares, are included in the study. Firms with proposals such as authorization of blank check preferred stock or classification of the board of directors that could confound the analysis are not included.

The gross sample contains 415 observations. Observations are deleted from the gross sample if the proxy statement announcing the proposed limited director liability or director indemnification is not in the Q-file or if the stock returns in the Center for Research in Security Prices (CRSP) database are inadequate to calculate abnormal returns. The Q-file database contains annual reports and proxy statements (on microfiche) for many publicly traded corporations. Observations also are screened for confounding events occurring around the event date, e.g., the announcement of a pending takeover. Such an event would "confound" the daily stock returns used to measure investor sentiment regarding limited director liability and director indemnification. After all the above conditions are met, 231 observations remain.

METHODOLOGY

This project employs standard event study methodology using statistical techniques to analyze the pattern of stock prices when a special event takes place. Investor sentiment is determined by examining abnormal returns on the firm's common stock on the days after the proxy statement containing the proposal for limited director liability or director indemnification was first sent to shareholders. The market model is used to estimate this abnormal response. This model assumes that realized returns are represented by the following linear relationship:

$$R_{i,t} = \alpha_i + B_i R_{m,t} + \varepsilon_{i,t} \quad (1)$$

where,

$R_{i,t}$ = The rate of return on security (i) on day (t);

$R_{m,t}$ = The rate of return on the equally-weighted market index on day (t);

α_i = The intercept of the linear relationship for security (i) and is given by $E(R_i) - B_i E(R_m)$;

B_i = The slope of the linear relationship between the return on security (i) and the return on the market index; and

$\varepsilon_{i,t}$ = The unsystematic component of security (i)'s returns on day (t).

Estimates of α_i and B_i are obtained by regressing the daily returns for security (i) on the daily returns for an equally-weighted market index over the 130 day period from t-250 through t-121. The expected return for security (i) on day (t) based on the actual market return on day (t) is given by the following equation (a hat denotes an estimated variable):

$$\hat{R}_{i,t} = \hat{\alpha}_i + \hat{B}_i R_{m,t} \quad (2)$$

where, $\hat{\alpha}$ and $\hat{B}$ are estimates of α_i and B_i .

The abnormal return for each security (i) at time (t) is found by subtracting the expected return from the actual return as shown in the following equation:

$$AR_{i,t} = R_{i,t} - \hat{R}_{i,t} \quad (3)$$

where,

$AR_{i,t}$ = the abnormal return for security (i) on day (t).

The market model is applied to all firms in the sample and abnormal returns are calculated for each day in the announcement period t-20 to t+20 centered on the proxy mailing date (t0). The average daily abnormal return for the sample of N firms is given by:

$$AAR_t = \frac{1}{N} \sum_{i=1}^{n} AR_{i,t} \quad (4)$$

where,
t = t-20 ... t+20.

The AAR_t are summed over event time to obtain a cumulative average abnormal return ($CAAR_t$) for various intervals in the 41-day announcement period. A t-test is employed to evaluate the statistical significance of abnormal performance over these intervals. The variance of the cumulative average abnormal return is calculated from t-120 through t-21. The following formula is used to adjust for any possible first-order serial dependence in the abnormal returns:

$$Var(CAAR_{t1,t2}) = (T)\, Var(AAR_t) + 2\,(T-1)\, Cov(AAR_t, AAR_{t+1})$$

where
$T = t_2 - t_1 + 1$,

$$Var(AAR_t) = \sum_{t-120}^{t-21} (AAR_t - \overline{AAR})^2 / 99,$$

$$\overline{AAR} = \sum_{t-120}^{t-21} AAR_t / 100,$$

and

$$Cov(AAR_t, AAR_{t+1}) = \sum_{t-120}^{t-21} (AAR_t - \overline{AAR})(AAR_{t+1} - \overline{AAR}) / 99$$

The t-statistic for the CAAR over various intervals from t1 to t2 is:

$$t = CAAR_{t1,t2} / \sigma_{(CAAR\ t1,t2)} . \quad (5)$$

If t1 = t2, $t_{(CAAR\ t1,\ t2)}$ is equivalent to the t-statistic for AAR_t. A positive and statistically significant cumulative average abnormal return is interpreted as support for the view espoused by management that recruitment and retention of the best-qualified directors will enhance shareholders' wealth. A negative and statistically significant cumulative average abnormal return will be interpreted as support for the alternative view that because directors are protected from legal action by shareholders, they are less diligent in performing their fiduciary responsibility.

Empirical Results

1. Event Study

The subjects of most event studies provide definitive event dates for analysis. For example, the announcement of a pending takeover occurs on a specific date and is published in *The Wall Street Journal* on the next publication date. The market response occurs when the announcement is made public if during trading hours or the next trading day if after hours. These studies typically examine excess returns on the publication date and the prior date to test the shareholder wealth impact of the announcement. Such widespread publication on a definitive date is not available for the release of information in the proxy statement, however, because proxy information is rarely published in *The Wall Street Journal*.

Proxy statements describing all items to be considered at a meeting are sent to shareholders between the record date and the meeting date. The mailing date is assumed to be the proxy date (printed on the front of the proxy statement) unless a different mailing date is stated in the proxy. The information contained in the proxy statement is made public when shareholders receive their copy. This could occur in a day or two when shares are recorded in the name of the beneficial owner, or possibly could take weeks in the case of stock held in "street name." Because the wealth effects of proxy proposals may be spread over several days due to slow delivery, there is a bias against finding significant results.

When the impact of an event under study may be spread over several days, abnormal returns may be cumulated and tested for significance over a multi-day interval. In this study, abnormal returns are cumulated over a six day period beginning the first day following the mailing date (t+1) through the sixth day (t+6) to test shareholder sentiment regarding proposed limited director liability and director indemnification. Owners of a large number of shares should receive their proxy statements during this interval.

Table 1 contains the daily average abnormal returns from twenty days before through twenty days after the proxy mailing date. Also shown are the associated t-statistics and the percentage of all firms having positive returns on each date. It is interesting to note the large number of negative returns on days, t+3 through t+6. For those four days, the percent negative ranges from 59.31 percent to 61.47 percent. These are some of the largest negative percentages during the study period. This may mean that many proxies are received and decisions made regarding the disposition of these shares during this four-day period. If so, it appears that investors may not agree with management that these proposals are in their best interests. More may be revealed in the cumulative analysis.

Table 1

Daily average abnormal returns (AARs), t-statistics, and percent positive for 41 trading days centered on the proxy Mailing date for 231 firms proposing to limit director liability or indemnify directors in the 1986-1987 proxy season

Day	AAR (percent)	t-statistic	Percent positive	Day	AAR (percent)	t-statistic	Percent positive
-20	-0.22216	-1.862	43.72	1	0.12049	0.957	48.48
-19	0.10922	0.816	48.05	2	-0.11920	-0.856	44.59
-18	0.00864	0.067	45.42	3	-0.22285	-1.719	40.69
-17	-0.00735	-0.063	46.32	4	-0.00889	-0.070	40.26
-16	-0.05533	-0.543	44.59	5	-0.22981	-1.814	38.53
-15	-0.27095	-2.555	42.42	6	-0.24680	-2.140	40.69
-14	0.01873	1.155	49.35	7	0.16749	1.342	51.95
-13	-0.11973	-1.090	43.29	8	0.08597	0.704	48.92
-12	-0.00986	-0.080	42.42	9	-0.15936	-1.334	41.99
-11	0.02646	0.211	49.78	10	-0.10917	-0.881	45.89
-10	-0.00196	-0.016	45.02	11	-0.00070	-0.006	48.92
-9	-0.05716	-0.471	44.59	12	0.10051	0.779	50.22
-8	-0.15631	-1.230	40.26	13	-0.04562	-0.283	45.02
-7	-0.11629	-0.975	42.86	14	-0.04334	-0.327	45.89
-6	-0.12754	-1.168	42.42	15	-0.00784	-0.059	45.89
-5	-0.11516	-0.967	42.86	16	-0.20277	1.533	53.68
-4	0.01641	0.131	45.45	17	0.00449	0.033	45.89
-3	-0.18187	-1.779	41.56	18	0.01510	0.104	48.05
-2	-0.04816	-0.372	40.26	19	0.14343	0.932	48.48
-1	-0.15340	-1.260	46.75	20	0.13150	0.861	48.05
0	0.16103	1.283	50.65				

The cumulative average abnormal returns (CAARs) for various intervals and their associated t-statistics are shown in Table 2. The CAAR for the six-day period following the mailing date is -0.70708 percent (t=-1.917) indicating investors are concerned that limited director liability and director indemnification proposals are not in their best interests. This is consistent with the view that because directors are protected from many shareholder suits, they are less diligent in performing their fiduciary duties thereby resulting in declining firm value. Shareholders recognize their ability to discipline directors is being reduced and react by redirecting their investment.

Table 2
Cumulative average abnormal returns (CAARs) and t-statistics for various intervals relative to the proxy mailing date for 231 firms proposing to limit director liability or indemnify directors in the 1986-1987 proxy season.

Return interval	CAAR (percent)	t-statistic
t-20 through t-2	-1.31036	-1.981
t+2 through t+20	-0.34233	-0.517
t-1 through t+1	0.12811	0.497
t-5 through t+5	-0.78141	-1.556
t-20 through t+20	-1.52458	-1.566
t+2 through t+6	-0.82756	-2.464

2. Cross Sectional Analysis

The question remains whether the characteristics of some firms are systematically related to the abnormal returns associated with proposed limited director liability or director indemnification. The characteristics examined include:

(1) the percentage of outstanding shares held by management and inside directors
(2) the percentage of outstanding shares held by outside directors
(3) the presence of a classified board of directors
(4) a history of merger activity,
(5) the membership in an industry deemed high risk by director and officer insurance underwriters
(6) the presence on the proxy statement of a proposal to indemnify directors for covered expenses, and
(7) the size of the firm as measured by the market value of equity

These characteristics are hypothesized to affect the cumulative abnormal returns as described below.

Investor perception of proposed director liability and director indemnification is expected to be affected by the percentages of outstanding shares held by management and inside directors as well as that held by outside directors. Outside directors are defined as non-employees with no obvious affiliation with the firm. It is hypothesized that the percentage of outstanding shares held by each group should be positively related to abnormal returns. This is because as the percentage held increases, so should the alignment of interests of the management and directors with the other shareholders. Therefore, a direct (positive) relationship is hypothesized between abnormal returns and percentage of outstanding shares held by each of these groups.

Company with a classified board has previously taken steps to counter the possibility of shareholders disciplining management by organizing a proxy contest to replace the board of directors. The presence of a classified board could also mean that management has (or had) reason to believe the firm has the potential to become a takeover target. A classified board can make a hostile takeover by proxy contest more difficult if not impossible. If the presence of a classified board is meant to avoid shareholder discipline or avoid a hostile takeover, it is hypothesized that a classified board should be associated with a negative impact on abnormal returns because shareholders' ability to discipline management and directors is being further reduced.

According to the Risk and Insurance Management Society, insurance companies that write liability insurance for directors and officers are interested in firm characteristics that may be associated with a high-risk exposure. One such characteristic is firm involvement in merger or takeover activity. Apparently, boards of firms that have been active in making acquisitions or that have been the subject of a takeover attempt are at greater risk of legal actions. In these situations, shareholders often believe their interests were not well served by the board of directors and file suit for alleged damages. If a limited director liability or director indemnification amendment reduces shareholders' opportunity to collect such damages, then it is hypothesized that a negative wealth effect will be associated with firms that have experienced merger or takeover activity within the past year.

A firm's industry is another risk factor identified by insurance companies. Firms such as airlines, computer hardware and software manufacturers, large financial institutions, and utilities reportedly are more prone to shareholder actions than those in other industries. Any proposal that reduces shareholders' ability to discipline management is expected to reduce shareholders' wealth. Therefore, it is hypothesized that a negative relation exists between membership in these industries and cumulative abnormal returns when limited director liability and director indemnification amendments are proposed.

The presence of a proposal to indemnify directors may be associated with different wealth effects than a proposal that simply limits director liability. Director indemnification means that directors will be reimbursed for all claims and expenses incurred as the result of a covered action. This reimbursement is assured by the firm even if director and officer insurance does not cover the claim. Director indemnification thereby obligates the firm to uncertain future financial claims that negatively impact shareholder wealth. Therefore, it is hypothesized that proposal of director indemnification is associated with negative abnormal returns when compared to observations proposing only limited director liability.

A difference in abnormal returns may also be related to firm size. Smaller firms may have better relations with and greater responsiveness to their shareholders while larger firms (due to their market value and number of shareholders) are often considered to be immune to takeover attempts and proxy contests thus leaving legal action the only form of shareholder discipline available. However, limited director liability and director indemnification effectively limits much legal action, further reducing the effectiveness of shareholder oversight. Because of this, abnormal returns are hypothesized to be 'negatively-related' to the size of the firm as represented by the market value of equity.

The results of the cross-sectional analysis are shown in Table 3 below. The model is significant with an F-value of 4.064 and an R-square of 11.31 percent. The dependent variable is the cumulative average abnormal return (CAAR) over the interval t+1 through t+6 relative to the proxy mailing date. As expected, the coefficient of the percentage of outstanding shares held by management and inside directors is positive and is significant at the ten percent level (t=1.781). This result is consistent with the belief that greater share ownership by management aligns their interests with those of shareholders. Shareholders are not as worried about management failing to act in their best interests when management has a larger equity position and therefore are less disturbed by limited director liability and director indemnification proposals.

The result for outside directors is puzzling, however. The coefficient for the percentage of outstanding shares held by outside directors is negative and is nearly significant at the five percent level (t=-1.930). The relationship was expected to be positive like that for management and inside directors. It is obvious that investors believe that higher levels of share ownership by outside directors coupled with limited director liability or director indemnification are not consistent with maximizing shareholder wealth. However, the reason is not so obvious.

The presence of a classified board is represented by a dummy variable. Of 231 firms included in the final sample, 131 have a classified board of directors. Typically, the board is divided into three classes with one class elected each year. The coefficient for the classified board variable is negative as expected, but insignificant (t=-1.529). This is consistent (although insignificant) with the expectation that investors disapprove of further limitation of their ability to discipline management in firms that already have enacted provisions that tend to prohibit proxy contests for control of the board of directors.

A dummy variable also is used to denote the presence of merger or takeover activity in the previous year. Of the 231 firms in the study, 28 observations were found to have participated in merger or takeover activity. Such activity is reported to be a risk factor for director liability insurance and is therefore expected to be associated with a negative abnormal return for proposals that would limit shareholders' ability to discipline management. However, the coefficient for the merger variable is positive and is significant at the ten percent level (t=1.748). This means that investors see a positive relation between merger and takeover activity and proposal of limited director liability and director indemnification. The cause for this reaction is uncertain. It is possible that removal of the threat of shareholder action for firms involved in such activity may enable directors to pursue additional mergers and takeovers thereby increasing the potential value of the firm.

Memberships in certain industries that are reported to be high risk for director and officer liability insurance is also indicated by a dummy variable. These industries include airlines, computer hardware and software manufacturers, large financial institutions, and utilities. The final sample contains 56 firms that are in those industries. The coefficient of the industry indicator variable is negative as expected but is not significant (t=-1.528). Shareholders of firms in high-risk industries tend to suffer negative (although insignificant) wealth effects relative to other firms' shareholders because adoption of limited director liability and director indemnification proposals limit shareholders' ability to effectively discipline directors.

Table 3
Cross-sectional analysis of cumulative average abnormal returns (CAAR) for the six-day interval beginning the day following the proxy mailing date for 231 firms proposing to limit director liability or indemnify directors in the 1986-1987 proxy season.

Dependent variable is CAAR t+1 through t+6

Independent Variable	Estimated Coefficient	t-statistic
Intercept	13.1352	2.270**
PMGTSHR	0.053	1.781*
POUTDIRSHR	-0.2028	-1.930*
CLSBOARD	-0.9528	-1.529
MERGER	1.6282	1.748*
INDUSTRY	-1.1323	-1.528
INDEMNIF	-0.9605	-1.515
LMKTVAL	-0.6191	-2.303**

Model F-value	4.064
Prob>F	0.0003
R-square	0.1131

PMGTSHR =Percentage of outstanding shares held by management and inside directors
POUTDIRSHR =Percentage of outstanding shares held by outside directors
CLSBOARD =Dummy variable equal to one if the board of directors is classified
MERGER =Dummy variable equal to one if the firm has been involved in merger/takeover activity in the prior year
INDUSTRY =Dummy variable equal to one if the firm is a member of an industry deemed to be high risk by director and officer insurance underwriters
INDEMNIF =Dummy variable equal to one if the proxy statement contains a proposal to indemnify directors
LMKTVAL =Natural logarithm of the market value of equity on the proxy mailing date

*Denotes significance at the 0.1 level
**Denotes significance at the 0.05 level

Another characteristic represented by an indicator variable is the presence of a director indemnification proposal in the proxy statement. Because director indemnification obligates the firm to reimburse directors for all covered expenses resulting from legal action, it is expected that the presence of an indemnification proposal will be associated with negative abnormal returns. Director indemnification was proposed either separately or in combination with limited director liability proposals by 139 firms while 92 firms proposed only limiting director liability. The coefficient of the indemnification dummy variable is negative as expected but is not significant (t=-1.515). This result indicates that the potential obligations under this proposal are likely to reduce the value of the firm, but are not recognized as being great enough to produce significance.

Finally, the size of the firm as represented by the market value of equity is expected to be negatively related to the CAAR. The coefficient for the size variable is negative and is significant at the five percent level (t=-2.303). The market response to these proposals for larger firms is consistent with the reduced availability of the only shareholder discipline effectively available for larger firms. Limiting the use of legal action to discipline management and directors may reduce the diligence of directors in fulfilling their fiduciary responsibility thereby reducing the value of the firm.

CONCLUSIONS

Many director-liability suits resulted from the takeover craze in the early 1980s. Suits were so numerous that the cost of director liability insurance became prohibitive, but the best-qualified board candidates would not accept a directorship unless liability insurance was furnished. In 1986 and 1987, several state legislatures intervened by amending their incorporation statutes to allow firms to adopt "limited director liability" or "director indemnification" charter amendments. Many corporations quickly amended their charters to take advantage of the new statutes.

However, it is not clear how investors perceive the effect of these charter amendments. The view held by the firm is that the new amendments permit the recruitment and retention of the very best qualified directors which translates into increased shareholder wealth through improved asset management. An alternative view is that because directors are protected from many legal actions, they are less diligent in performing their fiduciary responsibility thereby reducing shareholder wealth.

This study examines investors' perceptions of proposed limited director liability and director indemnification amendments by analyzing stock prices in the days following the proxy statement mailing. The results show that in the six-day period following the release of the proxy statement, shareholder wealth declines by 0.7 percent (t=-1.917). This result is consistent with the hypothesis that reducing directors' liability also may lead to a reduction in their diligence in performing their fiduciary responsibility. It appears that the statutory intervention to assist corporations to obtain director liability insurance at a reasonable cost by limiting director liability actually reduced shareholders' wealth.

Analysis of the cumulative average abnormal returns (CAARs) yields some interesting results. As expected, CAARs are positively related to the percentage of outstanding shares held by management and inside directors. This indicates investors are not as worried about the consequences of limiting director liability or indemnifying directors when insiders hold larger equity positions. Unexpectedly, the result for outside directors is reversed. A negative relationship exists between CAARs and the percentage of outstanding shares held by outside directors indicating investors are less receptive to limiting director liability and indemnifying directors when outside directors hold larger equity positions. This result requires further study.

Presence of merger or takeover activity in the past year was expected to be associated with negative CAARs because these firms have a higher risk of shareholder suits and any proposal to limit shareholders' ability to bring legal actions was not expected to be well received. However, previous merger activity was found to be positively related to CAARs. A possible explanation is that removal of the threat of legal action may enable directors to pursue additional mergers and takeovers thereby increasing the potential value of the firm. Finally, firm size was found to be negatively related to abnormal returns indicating investors in larger firms are less receptive to the notion of limiting their opportunity to discipline directors.

The results of this study are consistent with the view that because directors are protected from many shareholder suits, they may be less diligent in performing their fiduciary duties thereby resulting in declining firm value. It appears that the legislative intervention to assist corporations obtain director liability insurance at a reasonable cost by limiting director liability actually reduced shareholders' wealth.

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WOMEN EXECUTIVES IN ECONOMIC DEVELOPMENT ORGANIZATIONS: A LONGITUDINAL ANALYSIS IN EIGHT STATES

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ABSTRACT

This study describes changes in women executives' participation in the major private sector economic development organizations (EDOs) in Texas and a group of Western and Southwestern states from 1988 to 1998. EDOs are federations of business leaders that work to improve the overall business climate in their domains. This research supports the hypothesis that as women increases their presence in business overall, they will also increase their contribution to EDOs. This study shows that during the last decade representation of women in EDOs in the region has increased, commensurate with their increased presence in business organizations nationally.

INTRODUCTION

A group of business leaders that seeks to improve the climate for business in its domain through such activities as the protection of existing industries, the attraction of new industries and companies, and the management of local infrastructures, is termed an economic development organization (EDO). EDOs constitute an important component of the interorganizational environment within which a public organization operates.[1] The EDOs are major government lobbyists that are among the most elite business networks in a region. Their membership is primarily from CEOs and owners of companies. Usually, the members have the support of a professional staff.

Many studies have investigated the extent of women's participation in positions of influence in the business community, including representation in the ranks of managers,[2, 3] memberships on corporate boards of directors,[4,5] officers of large corporations,[6] and leadership of small businesses.[7,8] However, studies on women in these important executive networks known as EDOs are comparatively rare.

Understanding patterns of women's integration into EDOs is important for several reasons.[9] First, women's participation at this level of meta-organization is one reflection of women's advancement through the business hierarchy. When women become leaders among leaders they have clearly achieved a new level of acceptance and influence in the business community. EDOs, like corporate boards, are somewhat like private clubs,[10] and the acceptance of women into such powerful voluntary associations has not yet been demonstrated. Second, just as women's careers and styles for networking differ from those of men, [11,12,13,14] so their values with respect to priorities for economic development may differ. To illustrate, in the public sector the increased representation of women in politics has led to more legislation affecting children, the elderly, health care, and the environment.[15] Anecdotal evidence suggests that women's economic development agenda may differ from that of men,[7] and in fact, that women's preferred agendas sometimes differ so significantly that women establish their own organizations in parallel to existing EDOs.[16]

This research analyzes both women and men's representation in Texas and a group of Western and Southwestern states at the state level. It investigates two research questions. First, it examines the premise that as women increase their overall presence in business, they will also increase their membership in EDOs. Second, it examines the extent to which women network among EDOs, e.g. whether individual women hold memberships in more than one organization. In the process of investigating these questions, the study also enumerates the major EDOs in the region, and the companies that have established the widest representation in the EDOs. This study presents data on representation in EDO's from the decade 1988 to 1998.

METHODOLOGY

The major private sector EDOs involved with state economic development in Texas and seven other states were targeted for this study. Because public sector versus private sector influence is a central concern in economic development, this study focused solely on those EDOs with membership predominantly from the private sector (more than fifty percent or more of the membership was corporate).

Nominations for inclusion in the study were collected in 1988 and again in 1998. In Phase One (1988), a three-tiered nomination process was employed. A master list of the state Chambers of Commerce for the eight states was obtained[17] and a public relations officer, president, or an officer of a similar level in each of these Chambers of Commerce was interviewed by telephone. These people were asked to identify the most influential organizations doing economic development in their state which are run primarily by the private sector or which have boards comprised of at least fifty-percent private sector members. Subsequently an officer in each of the nominated organizations was interviewed using the same standardized format to determine what additional EDOs they would nominate. Finally, these additional EDOs were also contacted and the same procedures followed. The final listing of EDOs included the state Chambers of Commerce themselves and all of the EDOs they and their nominees nominated. In Phase Two (1998), a new master list of the state Chambers of Commerce was obtained,[18] and an officer of each Chamber was contacted. The officer was presented with the list of organizations nominated in the first phase, and asked 1) whether these continued to be the most influential and 2) whether any newly influential organizations had emerged in the ensuing decade.

In each phase, a mission statement, the names of the EDO members, their positions, and their companies were obtained for each EDO. Up to 200 members, or organizational leadership groups which themselves had fewer than 200 members, were included for each EDO. Almost all of the board members were the CEOs, presidents, or chairpersons of their companies.

Using standard gender usage for first names, membership lists were coded. Where names could not be identified clearly with a particular gender, individuals were coded as not identifiable and were not included in the analysis.

RESULTS

The following response rates were obtained. In 1988 a total of 10 EDOs in the eight states were identified, and all 9 provided the requested data (Table 1): The Tucson Economic Development Organization declined to release the requested information. In 1998 a total of 9 EDOs were identified and 8 provided data: the Utah Chamber of Commerce declined to release the requested information.

Phase One identified 378 memberships in the region, with nine (2.4 percent) unidentifiable as to gender. Women held 42 memberships (11.3%).

Phase Two identified 414 memberships, of which 7 (1.7 percent) could not be characterized by gender. Of the 407 persons identifiable by gender in 1998, 71 (17.4%) were women.

The profile of EDO memberships by gender in each state is presented in Table 2. In the region overall, from 1988 to 1998 women's participation increased from 11.3 percent to 17.4 percent, a 6.1 percent increase. Women's participation increased in all states except Oklahoma, in which it decreased from 5.4 percent to 5.1 percent. It increased the most in Nevada (up 48.2 percent to 61.5 percent). It should be noted that the EDO in Nevada has a small membership to begin with (n=13). Another state in which representation grew significantly was California (15.3 percent.)

Table 3 lists the companies that, as of 1998, had the widest regional networks, e.g. those that had two or more memberships in EDOs in the eight states. The number of women representatives from these companies was 7, accounting for 16 percent of the total memberships for these widely networked companies. None of the individual men or women from these widely networked companies participated in two or more EDOs.

Data from a demographic study of EDOs in 1988 data showed that, among large companies nationwide, not one of 89 woman held a membership in more than one EDO, [9] whereas 2.2 percent of all memberships were multiple ones and were held by men. The regions with the highest concentrations of multiple memberships were the Northeast, Mid-Atlantic, and South Atlantic. In 1998 in the region targeted for this study no women or men sat on more than one EDO.

DISCUSSION

In the targeted states during the last decade, women's representation in EDOs has moved from 10.1 percent to 17.4 percent, a 72 percent increase. This increased representation in EDOs parallels women's increasing representation at executive levels in the business community. Nationally women hold only 3.8 percent (83 of 2184) of the highest officer positions, such as Chairman, vice chairman, CEO, president, COO, SEVP and EVP, in the Fortune 500. However, 11.2 percent of Fortune 500 corporate officers are women, up from 10.6 percent in 1997 and 10 percent in 1996. Moreover, executive women continue to advance onto corporate boards. For example, from 1994 to 1998 the number of Fortune 500 board seats held nationally by women was up by 23 percent; women held 11.1 percent of the board seats (671 of 6064). Twelve percent of board seats in the Standard and Poor 500 are held by women.6

Of course, while these numbers are suggestive of women's increased presence in business at high levels, it must also be emphasized that membership on an EDO is qualitatively different from membership on a corporate board. EDO memberships are overwhelmingly held by the top officer of a company, while corporate board membership does not even require a corporate background. Indeed, only about two-thirds of men serving on Fortune 500 boards, and one third of women, have corporate backgrounds.[7] Thus it can be argued that the women who sit on EDOs are an elite among the elite, and are certainly among the most powerful women in business in their region.

Our data are similar to related data on women, and particularly on women as corporate officers, nationwide. First, the pool of women in senior management is growing. At this time approximately 49 percent of the professional, managerial and administrative work force consists of women.[2] In a recent study of 1000 managers of American Management Association companies, on average 20.2 percent of senior managers were women.[19]

Second, Catalyst projects that based on the average rate of change since 1995 when corporate officer data was first collected by them, women will occupy 13 percent of Fortune 500 corporate officer positions in the year 2000 and 17 percent in the year 2005.[6]

In 1988 significant regional differences were found in women's EDO representation (André, 1995).[9] Notably, the Northeastern and Southeastern regions of the United States had lower rates of women's representation than did the West and Southwest regions. Preliminary analysis from a national data set collected in parallel with this Phase 2 data set suggests that in 1998 in the Pacific region, women's EDO representation was 14 percent, while in the Mountain region, it was 22 percent.

Women who sit on corporate boards tend to sit on more than one, partly due to companies' desire for a 'name-brand' women executive.[7] In 1996, 84 percent of all female directors serving on Fortune 500 boards held two Fortune 500 board seats, while 12 percent of these women held three seats, and 4 percent of them held more than three seats.[7] However, the profile of women in EDOs is different, with multiple memberships being the exception rather than the rule. Nationally, holding multiple EDO memberships has been rare for either men or women. Such networking has been most prevalent in New England, where business meetings tend to be centralized in Boston.[20] Thus, the extent of formal networking among women in EDOs is fairly limited. An interesting extension of this study would examine the combined number of boards and EDOs on which women and men participate, yielding a profile of the full extent of their influence and networking.

This study has several limitations. For one thing, representation does not translate directly into influence. It is not clear whether representation leads to influence in the economic development agenda of a community. Also, multiple EDO memberships among women are rare, thus limiting opportunities for formal networking among these elite businesswomen. Future research should determine whether contextual factors, such as the number of women in an EDO or the social identity of women in these organizations, [11] will attenuate the influence of even high level women. Typically, it is not until minority groups achieve a critical mass that their own agendas, should they have them, can be expected to influence the agendas of the EDOs and their communities. It also remains to be seen whether 'high-level' women will assert different agendas for economic development from that of 'high-level' men. Such factors as the size of their companies and the industries that they represent will be central in shaping their agendas, and the contribution of gender remains to be established.

Our study is also limited by its methodology, which may disproportionately discard some women who cannot be identified as such and which cannot account for presence and influence of such important subgroups as racial minorities.

In summary, this study identifies a key group of powerful women in business in the eight targeted states, and theorizes about their effect on the economic development agenda in the region. The findings support the notion that as women have increased their representation in high levels in business, so they have increased their representation in EDOs. Continued longitudinal analysis should be performed to track the advance of women into EDOs, and more research should follow as to their networks, agendas and influence.

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Table 1 Important Economic Development Organizations at the State Level (1988-1998)		
	1988	1998
Arizona		
Arizona Chamber of Commerce	X	X
Greater Phoenix Partnership	X	
Tucson Economic Development Organization[1]	X	
California		
California Chamber of Commerce	X	X
Colorado		
Colorado Association of Commerce and Industry	X	X
Nevada		
Economic Development Authority of Western Nevada	X	
Nevada Chamber of Commerce		X
New Mexico		
Association of Commerce and Industry of New Mexico	X	X
New Mexico First	X	X
Oklahoma		
Oklahoma Association of Business and Industry	X	X
Texas		
Texas Association of Business and Chamber of Commerce	X	X
Utah		
Utah Chamber of Commerce[1]		X
Total Number of Participating EDOs	**9**	**8**

[1] Nominated as an influential EDO but declined to provide information

Table 2
Gender Representation in Economic Development Organizations (1988-1998)

	1998 Memberships				N as % of Known: 1998		Change in % of Total 1988-1998
	Men	Women	Unknown	Total Known	Men	Women	Women
Arizona	27	4	1	31	87.1%	12.9%	+3.3%
California	74	16	0	90	82.2%	17.8%	+15.3%
Colorado	25	3	0	28	89.3%	10.7%	+1.1%
Nevada	5	8	1	13	38.5%	61.5%	+48.2%
New Mexico	93	34	5	127	73.2%	26.8%	+7.4%
Oklahoma	88	5	0	93	94.6%	5.4%	-5.1%
Texas	24	1	0	25	96.0%	4.0%	+1.8%
Utah							
Total	**336**	**71**	**7**	**407**	**82.6%**	**17.4%**	**+7.3%**

Table 3
Companies with the Highest Regional Representation

Company	EDO Memberships	N	Men %of Total	N	Women %of Total	Men sitting on > 2 EDOs	Women sitting on > 2 EDOs
BlueCross/BlueShield	4	4	100%	0	0%	0	0
Intel	4	3	75%	1	25%	0	0
Motorola	3	2	67%	1	33%	0	0
US West	3	3	100%	0	0%	0	0
Wells Fargo Bank	3	1	33%	2	67%	0	0
AlliedSignal	2	2	100%	0	0%	0	0
AT&T	2	2	100%	0	0%	0	0
Bank of America	2	2	100%	0	0%	0	0
Boeing	2	2	100%	0	0%	0	0
Eastman Kodak	2	2	100%	0	0%	0	0
Honeywell	2	1	50%	1	50%	0	0
IBM	2	2	100%	0	0%	0	0
KPMG	2	2	100%	0	0%	0	0
Paine Webber	2	2	100%	0	0%	0	0
Sandia National Lab	2	2	100%	0	0%	0	0
Southwestern Bell	2	2	100%	0	0%	0	0
State Farm	2	2	100%	0	0%	0	0
US Bank	2	1	50%	1	50%	0	0
USAA Insurance	2	1	50%	1	50%	0	0
Summary	**45**	**38**	**84%**	**7**	**16%**	**0**	**0**

A BRIEF INTRODUCTION TO THE GLOBALIZATION OF MONEY AND CAPITAL

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INTRODUCTION

This article[1] chronicles the international flow of money and the institutions where this takes place. Its purpose is to provide the novice reader with an introductory knowledge of the global evolution of modern money and its resulting political economy. Hopefully it will make interesting and useful reading for any class dealing with money and its international institutional order.

Today's economy is an information economy[2] - meaning a global economy. With its literal flood of daily financial activity and innovation, money is no longer a tangible thing, but rather a system.[3] It is a series of binary code – ones and zeros – comprised of invisible electrons that now fill the coffers of society. This "electron" money has become almost perfectly mobile – and perfectly responsive – within the global arena of cyberspace where the "restraints" of location and distance no longer matter. Even human personality doesn't matter, and increasingly, neither do the high altars of economics – supply and demand. Old foundations of thought are quickly becoming anachronisms and in monetary economics, everything has begun anew. The Old World of money was governed by economics, and by 'so-called' rational logic; the 'new-world' of money is governed by the "odd logic of finance."[4] It is a new game with new rules.

Traditional liberal (neoclassical) thought continues to maintain faith in the production maximizing nature of equilibrating competitive markets despite arguments, even by some liberals, that perfect competition is a poor model with faulty assumptions such as zero transactions costs. As Joseph Schumpeter has said:

> First, this involves the creation of an entirely imaginary golden age of perfect competition that at some time somehow metamorphosed itself into the monopolistic age, whereas it is quite clear that perfect competition has at no time been more of a reality than it is at present.[5]

This raises many questions in light of our 'new-world' of money. What are the institutional differences between the old and new "worlds" of money? Does this 'new-world' give the liberal argument more credence? (I.e. by reducing transactions costs) Does the increasingly anarchistic nature of this new system preclude a role for the nation-state? In any event, what are the social ramifications of this new reality?

SOME BASIC MONETARY ECONOMICS

The Real and Monetary Economies

Generally, the real economy refers to that aspect of the economy for which actual quantities of goods and services are produced and traded. The word "real" originates with the reference to those aspects of economic life, which have true (real) effects upon the provisioning of society. Raw materials, labor, and capital are usually considered "real" factors by most economists. According to the World Bank, about 20-30 billion dollars per day of good and services are exchanged globally.[6]

The Monetary Economy, on the other hand, exchanges over 800 billion dollars per day and this figure is increasing. Monetary factors are not usually considered a "real" factor in liberal economic thought. Money, in this view, does not effect real factors of production; only the price level. In fact, it is considered "insignificant", as one godfather of neo-classical economics wrote:

> ...they [monetary factors] have no direct significance for economic welfare...take money away and, whatever else might follow, economic life would not become meaningless: there is nothing absurd about the conception of a self-sufficing family, or village group, without any money at all. In this sense, money clearly is a veil. It does not comprise any of the essentials of economic life.[7]

Almost all-liberal monetary theory whether neo-classical or Keynesian supports this view, at least in the long run.

All monetary theory is built around Ricardo's Equation of Exchange, MV=PY, where M is the money stock at a given moment, V is the velocity or turnover of that stock, P is the price level, and Y is real output (income). Of course, with some arithmetic, it can be rewritten as $M_d = PY / V$. Because of liberal economics propensity for faith in the competitive market model, Y is constant (because flexible wages and prices are assumed, likewise full employment). Furthermore, V is considered constant or at least stable in the short run since it, in essence, represents people's behavioral patterns of money usage. It is this last point which becomes especially problematic in the New World of money. So with the liberal assumptions in place, the dynamics of the equation means that the amount of money people desire to hold (M_d) equals the price level divided by how often they plan to utilize their money balances (V)[8] The key points to be derived from the math are:

- Money demand is proportionally related to nominal income.
- Interest rates do not effect money demand.
- The price level is directly proportional to the money supply.
- Velocity is constant or very stable in the short run.

This analysis is, in essence, the same one used by today's liberals in their argument for flexible exchange rates.[9] The policy implications are obvious. Under this model, the best policy is no policy since the forces of supply and demand will always work their magic and equilibrate money demand with money supply. At least, that is how it appeared to work in the old- world of money.

What Is Money?

The stock exchange is a poor substitute for the Holy Grail.[10]

The first known formal money was the Shekel, a bronze coin invented in the Temples of Sumer about 5000 years ago and mentioned throughout the book of Genesis of the Bible. It was redeemable for a Sumerian shay or a bushel of grain, hence its name "shekel." Since that time money remained pretty much the same in concept and theory until the 20th century. Names and materials changed but the essential feature of money was the same, it represented intrinsic value. Even when, as a convenience, non-intrinsic materials were used, they were for the most part representative of a money fully backed by its own intrinsic value. An IOU for a pound of gold from a reputable warehouse was as good as the gold itself. Then came August 15, 1971. On this day the last nail was hammered into the coffin of traditional money when then President Richard Nixon removed its only apparatus of life support remaining, Bretton Woods.

A Brief History of Banking Evolution

If government assumes tasks that are too extensive and complex to be effectively guided by majority decisions, it seems inevitable that effective powers will devolve into a bureaucratic apparatus increasingly independent of democratic control. It is therefore not unlikely that the abandonment of liberalism by democracy will in the long run also lead to the disappearance of democracy.[11]

Modern banking – and money – originated with two discoveries. The first when depositors discovered they could use their gold deposit receipts just as readily as the gold itself, but with greatly reduced transaction costs; the second, when goldsmiths figured out that they could write more receipts (lending) than they actually possessed in gold, thereby increasing profits. Such practices were the origin of the present fractional reserve banking system that today facilitates the process of money creation. Just like old goldsmiths created money by issuing receipts for which they technically had no gold, so too does the modern banker issue "receipts" over and beyond actual deposits. The "law of large numbers" says that a responsible over issue would remain safe since it would be very unlikely that all depositors would redeem their receipts for gold at the same time. Over time, they learned just how far they could safely go "writing receipts" and imposed limits on themselves by developing acceptable ratios between the amount of receipts issued and their gold stocks (reserve requirements). Thus, the amount of total receipts over and beyond the amount of actual gold stores was, in essence, "created" paper money. Likewise, today's bankers create money by lending up to their excess reserves established for them by their country's central bank – another anachronism because of financial innovation – and outside the democratic process.[12]

Money serves a society in three main ways: as a medium of exchange, a unit of account, and a store of wealth. The medium of exchange feature avoids what economists call a "double coincidence of wants" which simply means "the need to barter." Obviously, in this respect, a good candidate would be something fungible which has an intrinsic worth to as many people as possible, yet scarce. Gold, and to a lessor extent silver, has been the traditional medium of exchange in this regard although other metals and/or commodities have been used from time to time. The Unit of account is related to our first point in that the medium of exchange must be able to be "packaged" into a unit of account. Ice cream cones would not work particularly well but gold in specific quantities and quality would. Lastly, money is often a store of wealth that requires a durable and stable medium of exchange to exist. In a "market-based" economy, supply and demand considerations generally determine the price of a particular good or service, not its true value to society as a whole. For instance, water is obviously more valuable to any society than gold, but gold is valued much higher because its demand exceeds its supply. Therefore, a money which serves as a good store of

wealth must have a stable supply where the total stock can not easily be altered, either up or down. For instance dirt would not work well since anyone could just go dig up some new "money" and increase the total stock of money. The result would be inflation since the greater supply means a lower "price" and therefore a lower total buying power for others. Gold, on the other hand, is very expensive to mine and to process, and has rarely increased significantly relative to its total stock. It is these durability and stability features which made gold the chosen form of money throughout most of human history.

In one word, money is debt. Liberal theory emphasizes the medium of exchange function of money (a static stock) and how it relates to spending (a dynamic flow). In the information economy however, money has radically changed.

[Now] Money consists of the terms in which debts are written; it is the unit of account; it is the balance sheet item created as part of a forward contract. Thus money is a stock created to facilitate flows.... Money is privately created when one party goes into debt and another is willing to hold that debt. This money may then be circulated among third parties as a medium of exchange to the extent that it is universally recognized as such.[13]

Due to massive financial innovations over the last twenty years or so, the lion's share of money today is not currency or coin, but an electronic balance sheet entry indicating one party is to pay another.

RECENT FINANCIAL INNOVATIONS

Credit Cards, Home Equity, and other Lines of Credit

Without a doubt, credit cards and other "credit lines" are forms of money, for they satisfy our three conditions. However, they are different from checks and cash in that the assets that back their debt are not subject to reserve requirements. Increasingly, non-bank entities are entering the credit card business; an arena previously the sole providence of banks. Even the president of the St. Louis Fed (the very picture of the "establishment") has come to accept this.

While there is a natural tendency among both bankers and central bankers to want to maintain control over the payments system, I think it may be increasingly difficult to do so in the face of new technology. Certainly, it may be possible to maintain a regulatory framework that keeps some developments, such as the electronic "purse" within the banking system. However, consider the possibility that, in the future, both business and retail transactions may be carried out over computer networks that employ an electronic medium of exchange and in which settlement occurs on the books of a non-bank entity.[14]

Digital Banking

Electronic transactions have been with us for some time and are usually just traditional banking which have been computerized to reduce transaction costs and speed up transactions. Conceptually, these electronic transfers involve the same three agents as a normal checking transaction: buyer, seller, and intermediaries. The buyer initiates a transaction with the seller and the seller demands payment. The buyer then obtains a unique certification of payment (physically called a check) from the intermediary. This debits the buyer's account with the intermediary, the buyer then gives the certification to the seller and the seller gives the certification to the intermediary. This credits the seller's account with the intermediary. As mentioned earlier, this is a "conventional" checking transaction. But when it is conducted electronically, the certification is an electronic flow that is documented by the intermediary. Most important, the attainment of the certification, the transfer of the certification, and the debiting and crediting of the accounts occurs instantaneously. If the buyer and seller don't use the same intermediary, some standardized clearing house system between intermediaries is usually used. Since electronic checking is essentially checking, it can be analyzed as checking. Payments made via electronic checking would be conducted outside of cash and paper. Instead of sending a check or paying at a counter, the buyer would initiate an electronic checking certification. If this is done as a substitute for paying in cash, electronic checking could substantially reduce the transaction's demand for money. In essence, this is not electronic checking but electronic cash. But if it were a substitute for conventional checking, it would just increase the speed of the transaction. From the economic standpoint, there is no difference in the inherent dynamics than with normal checks.

Digital Cash

What makes cash different from other forms of money, say checking or credit cards? The answer is that cash is anonymous. It is difficult to trace and its user enjoys the freedom of stealth. For instance, VISA has developed a system of "rechargeable" point-of-sale cards that would offer the anonymity of cash with the convenience of a credit card. This is very similar to "copy" cards sold in many university libraries. Whoever has possession of the card gets the copies.

However, what will certainly be revolutionary is the development of true digital cash, or perhaps "hard-drive" cash. The technology now exists for the development of truly "digital" cash. In fact, it is currently being beta tested on the Internet and through the Mark Twain Bank and a software company called Digicash.[15] It is called eCash and represents a major breakthrough in mathematics and computer science. It works like this. The essential feature of cash, as we have already stated, is that it is relatively private. Nor is eCash an exception; and, it is very private thanks to its special algorithm. The Mark Twain Bank will of course maintain records for each eCash withdrawal and deposit. However, it is literally -- mathematically impossible, not merely difficult or improbable -- to trace any subsequent uses of withdrawn eCash. The bank will know that cash was withdrawn, but from that point forward, it will have no more knowledge of what was done with the eCash. Only its owner will know and of course anyone whom business is done with (just like regular paper cash). Ironically, since eCash is electronic, it can be copied over and over again. However, the beauty of the eCash protocol and algorithms is that, even though it can be copied infinitum, it can be used only once; and once used, the remaining copies are useless. Once again, it would be mathematically impossible to recover it. So if the owner's hard drive "crashes", or any other electronic catastrophe occurs, then any eCash that resided on it would be irreplaceably lost.

Obviously, this opens up an entirely different can of worms for government policy makers. As it is now, monetary authorities are unable to know or even estimate the money supply with any precision. With a New World of digital cash floating around, the task will become impossible. At least in the present system the Fed does control the amount of printed currency, however, in the future even that will be unavailable.

Digital Markets and the Explosion of the Money Economy

Certainly, the most remarkable innovation in money is, not merely its digitalization, but the digitalization of how it is valued, bought, and sold. An average of 800 billion dollars is bought and sold every single day. As mentioned in the introduction, money is no longer a thing, but rather a system. This system is a network of millions of computers through which the purchasing power of the world is moved. Inside this system, money takes up no physical space, yet it is everywhere. The amounts are astronomical. Every two weeks a given volume of electronic money (equal to the entire GDP of the world) passes through just one node[16] (New York City) of the network. Buried beneath its city streets, fiber optic cables carry patterns of ones and zeros to satellite transmitters that beam the substance of the money economy around the globe. In fact, it is easier and faster to move a billion dollars from New York to Tokyo than it is for a local vendor to deliver a pizza.

As previously mentioned, about 20-30 billion dollars is necessary on a daily basis to fund the world's trade and about 800 billion moves through the money economy daily. This huge disparity represents the tail that wags the dog and is a relatively new phenomenon. Technically, according to Ricardo's exchange equation, this shouldn't happen. Once again, it's a New World of money that requires different tools of analysis.

Derivatives: Packaging and Marketing Risk

Options or futures contracts are simply a contract that obligates a supplier to make delivery of a particular good or service at a particular time to a particular buyer. They arise out of asymmetric (imperfect) nature of information inherent in capitalist markets. A rational individual could certainly utilize such contracts to spread risk, improve liquidity, and reduce transaction costs.[17] Well before computers, speculators figured out they could "gamble" as a result of this imperfect information between buyer and seller. (If buyers were willing to pay $1.01 and sellers only wanted 99¢, then there would be opportunity for successful arbitrage of a penny.) Arbitrage today however, would not be possible without computers. Even though technology has increased the efficiency of markets by reducing transaction costs, quickening exchanges, and delivering information, it has also permitted arbitrage of the smallest margins. Mathematicians (called "quants" within the industry) have successfully written highly complex programs that automate the process for maximum extraction. They do so by searching the nooks and crevices of cyberspace for marginal value – not necessarily intrinsically good investment prospects, only recurring patterns which happen to fit the patterns of the program's complex mathematical formulas.

They [the programs] are trying to find strings of numbers that resemble the descriptions programmed into them by the quants of the firm. They are looking for bonds yielding X percent over Y days to offset a broad-based portfolio of stocks selected for their alphas. They are trying to match preprogrammed descriptions of ideal portfolios with the numbers they see in the real world. They are trying to match the map with the terrain. But if you brought these ideal portfolios a bright new offering, they would not know what to do with it.[18]

This "program trading" has the effect of emphasizing the short term since marginal values are, by definition, short term in nature. And this doesn't just involve stocks and bonds, but anything "packagable" that can be mathematically charted and then systematically exchanged. All this activity forms a fallacy of composition: where rational profit maximizing activity by the individual harms society as a whole. For instance, in a recession, it is rational for people to "save for hard times" and be cautious about their expenditures. However, if everyone saves, economic activity will stagnate into a full depression. The same logic holds true for derivatives. If money is arbitrarily moved from market to market in an obsessive compulsion to reduce risk, then overall risk in the entire system will actually increase since the environment will become more and

more volatile. Time horizon's become so short that capital ceases to migrate into valid investment opportunities and therefore denies apportionment the most socially efficient of capital. Eventually this process, when taken to its limit, causes the entire economy to develop a purely short-term character, with the "balance" of portfolios taking a position of primacy over the quality of the stocks and bonds which comprise them.

The standard economic definition of derivatives is usually something like, "Financial derivatives are financial contracts whose value is based upon the value of other underlying financial assets such as stocks, bonds, mortgages, commodities, or foreign exchange."[19] In reality they are nothing but abstract, but highly complex, concepts not all that different from the kind sold by bookies in Las Vegas. Nothing real is exchanged. Nothing real is seldom delivered, if ever. Nothing is added to the real economy. What is "produced" is a sort of futures contract on a futures contract of a non-commodity such as stocks and interest rates. Especially bizarre are derivatives that create options contracts on interest rates – something which didn't exist until Citicorp invented them in the late 1970's. Nevertheless, they are excellent for harnessing massive amounts of buying power for transmission across cyberspace but they greatly amplify rewards and failure. Currently, there are over 4 trillion dollars of derivatives dancing through cyberspace.[20]

Eurodollars – An International Hybrid

Eurodollars are a truly amazing financial innovation. They began as American dollars parked off shore in European bank accounts but now consist of various currencies "residing" all over the world, not just Europe. The essential feature of the Eurodollar concept is that they are stored outside their respective governments and are therefore outside the domain of a Central Bank. Furthermore Eurodollars have never been "issued" and do not exist outside of cyberspace. They were indeed the first totally electron money.

By 1971, a total of about 300 billion American dollars had been infused into the European banking system, directly or indirectly, to fund U.S. cold war commitments abroad. Money multiplies fast in cyberspace and it is estimated that the Eurodollar stock by 1989 reached 4.9 trillion[21] and is now the primary unit of account between large international corporations. Where did this expansion of Eurodollars come from? The responsible parties are not, of course, the Central Bank printing presses; rather, they were created out of thin air – a characteristic of new money – by the mathematicians of cyberspace where all monetary activity is greatly amplified by a general lack of government regulation and its "zero reserve" environment. Eurodollars, in the physical sense, literally do not exist except in the imagination, and of course, in the abstract system of new money.

Wealth Accounts: The End of Long Term Illiquidity

Long before 2020, credit risks will be disaggregated into discrete attributes that will be readily traded, unbundled and rebundled. Intermediaries will manage a large book of diversified long and short positions in credit attributes. They will make markets in credit risk attributes and in bundles of attributes customized to serve the particular needs of their clients.... A key to the system will be "wealth accounts", in which companies and individuals will hold their assets and liabilities. These accounts will hold today's relatively illiquid assets such as buildings and vehicles as well as what we know today as stocks, bonds, other securities, and new types of financial claims.[22]

In the relatively near future, the whole concepts of value and wealth will change from intrinsically based utilitarian measures, to "disaggregated" particles bundled and traded based upon component risk attributes. Just think about it. A family sits down to dinner and during that time, the home they dine in and all its contents, is traded, or portions thereof, hundreds or perhaps thousands of times! Nothing is ever actually exchanged (except in rare catastrophe) though fortunes are won and lost in the process. Theoretically, everything will be liquid.

Exchange Risk Factored Transfer Pricing Models

Transfer pricing is the procedure by which multidivisional firms and especially multinationals set their prices for non-market transactions between divisions. Traditionally, transfer-pricing strategies have been used by multinationals to reduce tariff and income tax liabilities. However, since the demise of Bretton Woods, they are increasingly used as effective vehicles to minimize exchange rate risk and provide roundabout access to capital stores. All nations have an array of tax laws that try to force multinationals to sell between their own divisions at an approximated market, or when not possible, a marginal cost pricing structure. Since a market price is not always available or even existent for intra-firm trade, marginal cost has become the preferred method.[23] Obviously, the bottom line of a multinational can be greatly affected by the manner in which marginal cost is calculated and therefore its capital budgeting decisions become even less forgiving to the multinational firm. Insofar as firms successfully use transfer pricing to hedge against exchange rate risk, the power and national sovereignty of individual central banks is diminished.

EMPIRICAL RESEARCH AND METHODOLOGY

Empirical work in this area has been limited. In the narrow sense – correlation of digitalization of money with financial instability – it is nonexistent. Probably, this is due to the fact that financial markets are changing so rapidly that it is difficult to obtain non-biased trend data for any length of time. Not only so, but most research remains based on assumptions of "old world" money, is static, and simply ignores the internal dynamics of the new process. Nevertheless, some interesting literature does exist. J. Duca has shown that financial innovations have eliminated the monetary aggregates (M1, M2, M3, etc.) as successful indicators.[24] On the other hand, Chang and Zhang have recently found the opposite when utilizing different statistical strategy and conclude that the relation between state and monetary volatility is significant.[25] Also, some valuable insight can be derived from the domestic post-Keynesian studies of Randal Wray who argues that exogenous variables are meaningless in monetary policy models.[26] What is required is a new and fresh analysis. Specific data on the "globalization and digitalization" of capital would be impossible to obtain since the data itself changes almost randomly for reasons unknown. However, it is possible to "model within a model." [27] I propose to use the changes in capital velocity as a dependent variable for testing purposes that can, under the panacea of assumption, serve as a proxy for changes in digitalization. Other variables utilized will be: growth rate of derivatives, standard deviation of beta aggregates, level of state activity in the economy, technology and productivity levels, percentage of total GDP represented by finance activities, and others as opportunities present themselves.

INSTITUTIONAL EFFECTS

A great deal of space has been invested thus far in attempting disclose to the reader some of the revolutionary institutional changes taking place in world financial markets. What does this reality mean for society, or for government?

The Neo-classical Dream

Neo-classicals, like most theorists, argue that the goal of any clearing system for balance of payments settlement should be "stable exchange rates" which they believe to dictate flexible exchange systems.[28] Generally, they greeted the new world of money with great enthusiasm for a system, in theory at least, which moves money at the speed of light to wherever it is needed, promises a close proximity to the classical dream of perfectly competitive markets. Every buyer of capital with a legitimate investment opportunity would be perfectly matched with a seller of capital seeking productive investment. The invisible hand would pass over the globe accelerating growth and creating nirvana on earth as each nation basked in the fruits of their respective comparative advantages. In this view speculators are global heroes since, despite tremendous risk to themselves, through their arbitrage activities the world enjoys a steady equilibrium in currency markets. It is a dream of "rational expectations" which assumes people, and therefore the markets they comprise, are rational economic decision-makers. That this assumption is "frequently violated" is acknowledged by even the major actors themselves.[29] As Keynes observed in his General Theory, markets operate as much on "animal spirits" as they do on rational thought. Like most dreams, it is disappointing to wake up to reality.

Socially Inefficient

Exchange rates have certainly not been stable (see appendix A). Perhaps the information economy is too perfect. The entire weight of the neo-classical paradigm is supported by its faith in the efficiency of perfectly competitive markets. As Schumpeter[30] noted earlier, the truth is that perfect competition is as much a fantasy today as it was in the days of Adam Smith. And, if it ever truly became a reality, perfect entry would surely dictate that no one would ever enter. As we have seen, technological advances have produced new institutional structures trough which profits are systematically sought. It is not through investment in an intrinsically sound company or other projects, but rather through programmed trading of packaged patterns and profiles. Most dangerously, these patterns are marginal in nature and therefore investment is rapidly evolving into an exclusively short-term analysis and procedure.

> ...a floating exchange market is socially inefficient because private foreign exchange traders face a huge gap in relevant information: the relative future purchasing powers of national fiat monies, none of which has any intrinsic value, are highly uncertain. Thus the assessments of international investors of whether dollar, yen, or mark assets provide the best combination of yield and safety are unnecessarily volatile.[31]

The irony of this should not be lost upon the reader; because of its efficient transmission of data and information, cyberspace distributes capital in a socially inefficient manner. Such massive volumes of data with such small time frames for decision-making ensure that computers run the show. Socially optimal allocations require normative human value judgments; something the mathematicians have as of yet been unable to program into a computer.

Goodbye to the Nation State?

Traditional powers of nation states have been severely damaged by the information economy. The power to control money has always been monopolized in nearly every nation of history. However, as we have seen, the ability of governments to do so in the future looks grim indeed. Even the Central Bankers now admit this. In the new world of money where transactions take place literally at the speed of light, where addresses can change instantly, where there are no vaults nor need for them, governments would do well to even guess what their money supply is, much less control it.

Nevertheless, I feel it is premature to write the epitaph of government quite yet because governments, even if totally divorced from monetary affairs, place a crucial role in providing the institutional framework necessary for capitalist activity. Governments are the primary investors in the human capital used by corporations. A critical factor in the information economy that determines the location of industry is the trainability of the domestic work force. For most countries, it will not be enough in the future to merely grant access to domestic markets as a solicitation of capital. Rather the nation state must now be much more concerned with becoming and remaining competitive in information technologies that transform productive capacities.[32] Without government, it is doubtful capitalism could exist, at least not a form of it we like. In fact it would not be surprising to see a re-emergence of state owned corporate activity. Indeed, as Robert Gilpen has stated elsewhere, "It is paradoxical that governments have responded to the growth of global economic interdependence by enhancing their authority over economic activities."[33]

CONCLUSION

Classical theory, with its faith in perfectly competitive markets, stumbles in its explanation of international monetary activity. Far from being guided by the invisible hand, markets in the New World of money are characterized by volatile fluctuations and are guided by the invisible hand of mathematical programs. Because of this and other financial innovations, the monetary economy now dwarfs the real economy. The dog no longer wags his tail, but rather his tail wags the dog. These structural and institutional changes present both opportunities and perils. Though the role of governments has been substantially altered by the information economy, it is still an important and essential actor in the international political economy. There will be great temptation for states to delve into mercantilistic postures in an attempt to export its problems to others in beggar thy neighbor tactics. Nevertheless, the successful nations of tomorrow will be those where economics is not left to a dream of invisible hands – whatever the variety – but where a new and sincere cooperative synthesis is developed between economics and politics.

ENDNOTES

1. This is a condensed version of the authors' survey research without the math, time-series, and over-all research design of the larger work consisting of 70 pages.
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19. Brent McClintock, "International Financial Instability", *Journal of Economic Issues*, March 1996, 14.
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23. Wagdy M. Abdallah, "International Transfer Pricing Policies", (New York: Quorum Books, 1989) p. 7-8.
24. J. Duca, "Monitoring Money: Should Bond Funds Be Added To M2?" *Federal Reserve Bank of Dallas Southwest Economy*, June 93, 1-8.
25. Chih-Ping Chang and Huan Zhang, "The Stock Market and Monetary Policy: The Role of Macroeconomic States", *Federal Reserve Bank of Dallas Research Department Working Paper*, 95-16. In their analysis they use a non-linear model with layered lagged variables in an attempt to "catch" the delay between state and market. Like their linear cousins, however, all variables are assumed exogenous.
26. L. Randall Wray, "Money and Credit in Capitalist Economies", (Brookfield, VT: Edward Elgar Publishing, 1990).
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28. Milton Friedman, "A Case For Flexible Exchange Rates", from, Essays In *Positive Economics*, Chicago: University of Chicago Press, 1953) 161.
29. Charles S. Sanford, Jr., "Financial Markets in 2020", Changing Capital Markets: Implications For Monetary Policy, (Federal Reserve Bank of Kansas City, 1993) 236. [Mr. Sanford is CEO and Chairman of the Board for Bankers Trust].
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