INSTITUTO TECNOLÓGICO Y DE ESTUDIOS SUPERIORES DE MONTERREY

in collaboration with

THE COLLEGE AND GRADUATE SCHOOL OF BUSINESS

THE UNIVERSITY OF TEXAS AT AUSTIN

February, 1997

STRATEGIC ALLIANCES IN MEXICO. EFFECTS ON THE VALUE OF THE FIRMS

by

Jesus Esteban Macías, MAE

DOCTORAL RESEARCH REPORT

Presented to the Instituto Tecnologico y de
Estudios Superiores de Monterrey

in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Philosophy

THE UNIVERSITY OF TEXAS AT AUSTIN

February, 1997

ABSTRACT

STRATEGIC ALLIANCES IN MEXICO. EFFECTS ON THE VALUE OF THE FIRMS

This research lists the most important Mexican strategic alliances during the 1989-1996 period, principally the ones who issue at the Mexican Stock Exchange. The study looks for consistency with other studies regarding causes and effects of strategic alliances on firm value. It is based on an event study on stock returns of the acquiring firms finding a significant jump close to the merging announcement, called day zero. The first test using the event study method was done by Fama, Fisher, Jensen, and Roll in the International Economic Review, February 1969. This method, either (explicitly or implicitly) assume that markets are informationally efficient or they explicitly test for the informational efficiency (Starks, Laura 1993).The study proved that stockholders of Mexican merging companies experienced on average 4.5% increase in abnormal returns around the announcement day established at -4+8 days period consistent with other studies in empirical evidences. The Mexican market was found to react efficiently to alliance announcements. Reasons for the abnormal return effect were looked to come from previous undervaluation of stocks, financial performance, and synergy coming from assets and organizational restructuring. The event study was complemented by a Discriminant Model finding that debt burden, cash flow, and missvaluation of assets and debt were found to be significant in explaining differences among abnormal returns of the allying firms. The economic environment prevalent during 1989-1994 period was found to be acting as a mood variable stimulating number of alliances and abnormal returns. This was related to financial globalization and emergent markets where alliance events have increasingly occurred.

STRATEGIC ALLIANCES IN MEXICO
EFFECTS ON THE VALUE OF THE FIRMS
TABLE OF CONTENTS

INTRODUCTION

In the last twenty years important economic changes were applied in Mexico. This was thought to respond the higher international competition accelerated with the telecommunications recent revolution.Trade and investment went into liberalization policies that accelerated the need for modernization. Firms took shorter positions to investment opportunities in a lack of capital market. Orthodox and heterodox measures tried to stop capital outflows, mainly through increasing rates of interest, privatizing economic activity, adjusting for foreign exchange, and restructuring external debt.

Strategic alliances were observed to increase, particularly during the 1982, 1987, and 1994 debt crises. Each of these unstable periods were followed by periods of hyperinflation, deep recession, and lack of external capital to support growth.

Privatization and merger expansion contributed very much to the consolidation of new huge industrial and financial groups in México, many of them coming from higher foreign participation in the new path of internationalization of Mexican firms.

Consistently, monopoly regulation changed rapidly claiming social welfare (Oficial Newspaper Dec-28-1992). However, this antitrust government behavior did not imped mergers and other kind of alliances, to be able to compete with foreigners.

Mergers in Mexico do not concentrate in specific areas. They cover a wide range of activities forming huge industrial and financial groups. As an example, the Telmex reprivatization, on December 20, 1989, stimulated mergers between the strong Mexican financial group -Inbursa- and some domestic and foreign companies. Carso group merged with France Cable&Radio, and with South Western Bell, with 20.4% of controlling stock. Carso - Inbursa group covers a wide range of economic activities restaurants, communications, construction, industry, and some others.

How the financial community has interpreted these merging events is the main question in this study. For instance, during the Telmex privatization - merger event, a [redacted] revenues was reported in 1990 and 21.3%; 17.5%; and 14.5% [redacted] stock value rose steady 32.2% in real terms, from 1989 to 1993 (Grubman, J. 1993).

In a recent date Telmex announced a new alliance with the strong mass media private group Televisa, to share its cable net for integral communication -phone, electronic data interchange, fund transmissions, etc. After this announcement, Telmex [redacted] price over the 3 days following the announcement, an amount approximately 2.2% higher than the market return over that period,

Simply stated, mergers mean the formation of one or more economic units from two or more previous ones. They can be horizontal, vertical, conglomerate, financial, managerial, concentric, etc. Some estimations have been provided regarding the rate of increase in merging events, worldwide, and for instance Gobbelies (1995) found that this rate has almost doubled in the nineties as compared to the eighties.

Several theories have been proposed to explain the merger strategy, an old business practice, dating from 1895 in the US.

Mergers seem to vary consistently with some economic, managerial and financial processes, for instance the product life cycle (Porter, Michael 1985). Following this theory, in incipient industries, merging becomes attractive to share growth opportunities for financial or distributional fulfillment. On maturity, vertical and concentric merging may appear attractive to increase economies of scale in research, marketing, production, and financial opportunities. This is especially important when profitability growth begins to slow down as competition increases. At the decline stage, horizontal merging may seem attractive for conglomerates to protect market positions and to create new entry barriers.

Depending on the specific circumstances and processes in which a merger occurs, a "win to win" situation may or may not emerge. Some research has shown - [redacted] mergers benefit stockholders of both the acquiring and [redacted] emphasizing a bigger effect on target firms, measured as stock prices increase as well as better accounting performance. For example, Franks, Harns and Tirman (1991) in an examination of 399 acquisitions show that stockholders of the target firms have larger gains around the announcement.

Possible explanations of this "value creation" have been grouped into three [redacted] emerges from the union, as firms' resources are better allocated. Also these firms tend to reduce costs and/or to increase future income. Second, previous undervaluation of assets existed prior to the merger, and this situation is recognized and corrected for the market. Third, a redistribution of benefits arises from stakeholders to target stockholders and from these to acquiring stockholders through control processes.

Whatever the explanation, what seems important is that new stake-stock holder relationships emerge creating interesting agency considerations. The mechanisms through which this value creation or distribution occurs possibly distort asset pricing practices, as well as formal or informal leasing contracts or direct and indirect asset transfers. This may increase stock return abnormally.

Previous research has indicated that the size of the stock gains at the merger announcement depends on several factors. These factors are: the form in which the merger occurs, the amount of leverage, the merging mechanism used, the financial and contracting cost process announced for accomplishing the merger, the characteristics of the management teams and the board of directors, and the specific bargaining power the firms have. This signaled through the financial and organizational mechanisms employed, principally those related to financial complementary assets valuation (accountability), and press news.

The task of this research is to look for consistent evidence in the Mexican experience, to look for robust increases in the acquiring firms' stock returns and in the [redacted]mpanies. Evidence will be examined before and/or after [redacted]e stock returns reaction for value creation or distribution in the Mexican merger experience. After statistical tests the second step is to determine what financial situations may be explaining synergy, if any, i.e. value creation, distribution, signaling, etc.

Another question in this work is to review if the Mexican experience in [redacted] mergers has been primarily the case of combining of assets bringing revaluation or the case of a tax-treatment. Also of interest is whether these mergers may have been a transfer of benefits from combined stakeholders to merging stockholders. If so, some tests will be performed looking for evidence regarding how the tax system and Monopoly regulation in Mexico encourages or discourages firm concentration and/or restructuring.

Also important in this work, is whether there exists private information asymmetry creating hubris expectations, sentiment biases and/or noise reactions, as well as other expectations.

Another question that leads this research is to estimate the bargaining power effect in the abnormal returns merger event. For instance, the effect of a new kind of government protection to the merger firms creating monopoly earnings, overvalued prices or better leverage. Thus a Discriminant model is specified to look for this bargaining power as in Telmex, Fertimex, petrochemichal plants, and banks.

Besides employing the event study methodology to test for abnormal returns, financial ratios are utilized to look for market undervaluation due to rapid inflationary periods and -or- former public ownership. Similarly, a Discriminant model is performed to control for size and financial performance as well as to look for monopoly considerations or greater market control in the merging firms. Thus, the

research employs a combination of statistical event study method with financial models based on Discriminant analysis that gives us a way to account for qualitative differences in the merging firms as well as to estimate their importance in explaining the Mexican merging process.

Summarizing the description of this work, I considered important to resume the main theories that explain causes and effects of establishing strategic alliances such as mergers, acquisitions, joint ventures, etc. This was done in chapter 1. From this theory review the main hypotheses were obtained. Also important was to review what has been happening in other countries regarding strategic alliances, to infer some specific circumstances, methodology and data collection and processing. This was done on chapter 2. On chapter 3, the methodology was explained and justified, marking its limitations and possibilities. In chapter 4 a review what has been happening in Mexico regarding strategic alliances while in chapter 5 the results were presented. On the overall development of the work two things were followed, mainly if there was a satisfactory response in the Mexican stock market to strategic alliance announcements and what were the circumstances that can help to explain high abnormal effect comparing to low abnormal effect. This obviously would have implications for financial restructuring schemas as well as portfolio selection and financial regulation based on perfect market behavior in Mexico.

CHAPTER I
OVERVIEW OF STRATEGIC ALLIANCES

I.1 International strategic alliances: key to success or a new failure.

Some researchers affirm to have found enough empirical evidence in interpreting different kinds of corporate restructuring as a value creation process. Most studies base their conclusions studying how stock returns increase significantly after a corporate restructuring is announced. These reasonings and evidences contributed to the idea that value creation is realized in the stock market and it is interpreted as a successful event if, in the short run, stock prices increase by more than the market index or whatever benchmark is employed.

Not only mergers and acquisitions fall within the concept of corporate restructuring. Also included are spinning off divisions into independent status, repurchasing shares or arranging leveraged buyouts, forming out new firms to partially owned subsidiaries, and some other. Empirical evidence indicates that these restructurings create value because they are contributing to a better resource allocation among firms.

However, other researchers doubt this value creation process always take place because some of the restructurings may be followed by value destruction processes instead of value creation processes. For instance, some restructurings are proceeded by high interest debt issuance and/or sales of assets that destroy value and reduce employment opportunities. In the US "...during the 1980s, 557 publicly held firms of all sizes went private through leveraged buyouts or buybacks. The total amount that changed hands was nearly $170 billion, much of it raised through the issuing of high-interest debt, or junk bonds. The outcome is often similar to the outcome of a hostile takeover -in order to pay down the debt, substantial sales of assets occur-" (Martin, John. 1993).

Success in corporate restructuring is thus not an easy question to answer. In this work success is interpreted in the short run as value creation processes realized by the stock market performance or 69 operating performance. More recently a greater focus is given to the long run effects of these restructurings and not only to the short run effects (see for instance Kothari, Warner, 1995).

Some researchers affirm that alliance success depends on the reasons to why the firms ally, the circumstances in which the alliances occur, and the managers' skills dealing with economic and regulatory risks as well as the characteristics of the merging firms.

Guidelines for successful alliances in empirical studies have concluded that corporate restructurings have to increase competitive advantage of firms as *a si ne qua non* condition for a successful restructuring. Focusing more on unique strengths than correcting weaknesses, financial, manufacturing or technological transfer may spread to both engaged firms. Very general conditions have been formulated to forecast when an alliance can be successful or non successful.

This lack of predictability may be overcome by the market in some way. If not, the question is why the stock market reacts to these announcements. Reasons may be, sentiment, speculative behavior, managers' maniqueism, portfolio selection bias (market imperfections), and/or information signaling plus rational behavior.

One key issue is to know how the alliance will improve the allocation of the resources as well as to how the alliance could make managers to perform to greater competitiveness or to reinforce bargaining power.

It is accepted that management skills explain much of the success of the firms, detecting opportunities and managing risks. Most of the empirical evidence and theory agrees to conclude that success of most alliances derives from managerial skills.

For instance, Mexico is seen internationally as an investment opportunity for developing successful strategic alliances principally in supplying technology and investment capital. "Companies can sell to Mexico by licensing technology, exporting, forming a joint venture or acquiring a company. As companies will become more vertically integrated in the Mexican market, their involvement and control will increase, but so may their business risk. (Fraser, Dave 1992 p: 86-93).

However, management skills are not easily transferable from one business to another. Could we believe that in an alliance, this management transfer occurs more evenly? But, is this true? Is it necessarily true? So why stocks anticipate very much to a possible value creation process if this process besides their difficulties.

Gundlach, Gregory T. and Mohr, Jakki J. 1992, found that competitors are increasingly relying on collaborative relationships guided by intermediate forms of governance (strategic alliances, hybrids, networks) to find and maintain competitive advantages. Such alliances contrast with what government antitrust legislation intends.

Malott, R. H. 1992 found that in any business relationship, it is important to understand one another objectives and to adhere to one's own. Malott gives evidence for FMC Corp. He calculated that over the past 2 decades, the proportion of FMC's revenues generated overseas has risen from 14%-43%. Alliances have helped FMC create worldwide scale in production, marketing, or distribution.

Among the causes of alliance failure are the absence of common or complementary objectives, overestimated synergies, and organizations that have incompatible philosophies and values.

Roberts, Roger F. (1992) concluded that if a business is subject to international competition, it cannot afford to take a go-it-alone strategy. Managers often get involved in a technology sharing situation that is accompanied financial risk. Roberts

says that combining managers and other firm capabilities accelerates firm's development, principally in the international operations.

Savona, Dave (1992) provides evidence on alliance failure. He recommends a study prior to merge and to have prepared a contingency plan in case of failure. Managers capability on managing corporate styles and cultures is also stated to be a key to success for international alliances.

Bronder, Christopher and Pritzl, Rudolf (1992) affirm that understanding the development process of the alliance is critical to predicting success. A "structured procedure" for developing strategic alliances is presented in 4 critical phases. First: it is a strategic decision which includes situation analysis, identification of strategic cooperation potential, and evaluation of shareholder value potential. Second, configuration of a strategic alliance, includes deciding on the field of the cooperation and the intensity of the cooperation as well as an analysis of opportunities for multiplication. Third: partner selection, includes fundamental, strategic, and cultural fit. Fourth: managing a strategic alliance, includes contract negotiations, coordination interface, and learning, adaptation, and review.

Lorange, Roos, Johan, and Bronn, (1992) found that answering questions regarding the broad benefits of the alliance, how the two parties can complement each other, and the managerial capacity of the firms is key for success. In the more intensive phase of the formation process, the prospective partners should address questions concerning market potential, key competitors, worst-case scenarios, and competitive advantages of the alliance. Additionally, they mention to also look at political considerations in forming strategic alliances. The support of internal and external stakeholders must be lined up early on. In the intensive phase, managers and others who might be active in the alliance are the key people to consider.

These findings are becoming highly mentioned in similar studies on forecasting the effects of a corporate or organizational restructuring. Most of the

empirical studies agree that selection of the right partner is fundamental. Senior management commitment and clear communication between partners are critical paths to success. Overly optimistic expectations, poor communications, and lack of shared benefits are among the reasons for alliance disintegration.

Magee, John F. (1992) found that while there are a number of risks involved in formulating an strategic alliance, technology gains overcomes very much the risks absorbed with technology improvement can cut costs, increase the bottom line, forge synergies, and secure a competitive advantage. Alliances may be the fastest and most cost-effective way to gain technological competence. Also he remarked that the problems rose among partners involves control, the shifting balance of power and the fear of losing competitive advantage. Among the major causes why some US alliances did not succeed were a lack of careful management and not extracting all the advantages from the agreement.

Levinthal, Martinez, Quelch, and Ganitsky, (1993) found key to success for Latin American company mergers the external causes around it. They mentioned the recent political events, the economic policies, true reforms, regional integration, geopolitical forces, and Latin American firm's characteristics. They also subscribe that the mode of entry will anticipate success or failure. Some ways to enter the Latin American market they mentioned are: exporting, doing strategic alliances, creating in-bond assembly plants, acquisitions, and green-field investments.

Flanagan, Patrick (1993) concluded from an interview with Jose A. Collazo, chairman and CEO of Infonet Services Corp., that a strategic alliance should not be a quick-fix to a problem; the strategy should be based on the benefits that the alliance brings to both parties. Therefore during the alliance negotiations, the most important aspect is to retain the ability to walk away from the deal.

Collazo distinguished many reasons for establishing strategic alliances:

- fill in gaps in the current market and in the technological availability of each firm.
- turn excess manufacturing capacity into profits.

- reduce risk and entry costs into new markets.
- accelerate product introductions.
- overcome legal and trade barriers.
- extend the scope of existing operations.
- cut exit costs when divesting operation.
- economies of scale.

Valigra, Lori (1993), also interviewed Mobuo Mii, general manager of IBM's Entry Systems Technology business unit. They talked about the future of PC development. He believed that Japanese companies are not that loyal to stockholders. New technology needs more than a one-company investment, and therefore this faster technology diffusion means that strategic alliances and joint ventures will become more frequent. For example, IBM is in an alliance with Toshiba for small, flash memories and flat displays and with Toshiba and Siemens for dynamic RAM chips. Based on this interview Valigra concluded that technology transfer could be a good predictor for alliance success.

Wood, Freddie (1993), studied the textile industry and concluded that over the past 4 decades, the textile industry has had a revolutionary change. In the 1990s, 2 trends forced change: globalization and consolidation.

Globalization entails free trade with Canada and Mexico, anticipating that succeeding textile firms will have 4 characteristics in common in which strategic alliances have predominance: appropriate strategies, world-class manufacturing, flexibility and speed, and information as a competitive weapon.

Silverman, Susann (1993), analyzed the strategy for The Continuum Co., a $124-million software maker, which has become the largest international provider of software for insurance companies. Silverman concluded that taking market opportunities is the key to predicting merger success, though the investment could be or not related to the main source of business. The Continuum most recent acquisition was in August 1993, when it paid $63 million in stock for the world's number three insurance software company, Paxus Corp. of Sydney, Australia. The purchase of

Paxus nearly doubles Continuum's size to $246 million. Continuum now gets some $200 million, or 81% of its sales, from foreign markets. Just two years before Continuum had made another key Australian acquisition, some $30 million with that 38% of sales, came from abroad.

Fahim-Nader and Vargas, (1993) provide evidence of how to improve diversified mergers within large firms foreign direct investment. Managing intercultural differences seemed to be the cue for success, as well as market opportunities.

Hunter, David (1993) gives empirical evidence of market share as an explanatory variable for merger success. He refers to manager Bolduc plan to expand Grace's water treatment business with Aquatec. According to Ian Priestnell, President of Grace Dearborn, the acquisition gave Grace just over 29% share in South America (excluding Mexico and Central America) and nearly 50% in Brazil.

Newell G. Roberto (1992), concluded that privatizations are a good source of strategic alliances, most of them successful in terms of abnormal returns. Opportunities for large profits were observed in the bidders of the telephone companies of countries moving to privatize their government-owned telephone companies. In 1990 Ameritech and Bell Atlantic bought Telecom New Zealand for $2.46 billion. In July 1991, they offered 725 million shares to the public, which brought the companies a profit of $150 million before underwriting costs. The investment gave 22% return in the first year.

Mirchandani, Dilip K (1992), cites adequate diversification as the main reason to succeed in generating stock profits. This is done by combining product lines and consolidating physical facilities as well as expanding the international market. For instance in the last 6 months, there has been a major push into the Caribbean as countries, Mexico, and Eastern Europe expanding international operations..

Morris, Gregory (1992) studies related mergers to explain and to predict merger success. He studied The Westlake Group (Houston) which is the keystone of Chao Group International, This firm was founded in 1957 by Taiwanese entrepreneur T. Chao. Beyond its established regions, Westlake is investing in Mexico and wants to take part in the growing Asian markets as well. Currently, it operates businesses in conjunction with Himont, Mitsubishi Corp., for the petrochemical division. According with the author, the key seemed to be diversification, thus taking what the firm identifies as market or technological opportunity which has to be taken fast.

I.2 Theoretical background

Strategic alliances are different kinds of agreements, formal and/or informal that can be simple collaborative agreements to more formalized joint ventures, i.e. a merger[1] or an acquisition, where two or more firms join partially or completely, to accomplish some general or specific goals generally to increase competitiveness and create value.

Mergers and acquisitions, manufacturing contracts, distribution channel contracts, collaborative agreements, network agreements, international management contracts, and others, such as franchises and supplier agreements are different kinds of strategic alliances that integrate businesses processes to foster firms' financial, manufacturing, and/or marketing objectives.

[1] **Mergers and Acquisitions.**
The most common financial procedures used in mergers and acquisitions, are:
- Publicly traded limited partnerships
- Employee stock options plans
- Leveraged buyouts, named as LBO's
- Public offering of stocks which can be acquired, liquidated, and bankruptcy.
- Leveraged management buyouts
- Leveraged recapitalizations
- Selloffs and Spinoffs

Financial restructuring and organizational restructuring.

Financial restructuring alters the composition of the firm's asset portfolio or the claims against those assets. It takes a variety of forms, which fall into broad categories: mergers or reverse mergers, the latter including divestitures, spinoffs, splitups, stock repurchases, partial public offerings, and leveraged buyouts.

Organizational restructuring includes changes that are not only related to cost reductions but to a better use of available resources. Among the important organizational changes most repeated are the change in the board of directors, the change in the CEO, the change in the managers compensation policies, a relative downsizing and optimization of the firm operations, and so on.

Some other difficulties regarding the characterization of strategic alliances arise the new with complexity of the financial instruments. For instance, a swap agreement can establish a future interchange of assets or liabilities between two firms; This agreement could not be accounted in the financial statements and thus, not realized by the investor community as an alliance.

After the financial restructuring takes place in a swap agreement, the firm can take advantage of tax allowances, cash flow stabilization, and assets expansion. The firm is not longer the same because we ignore the future compromises the firm has to fulfill in some sense they have allowed their financial statements.

For instance, when doing off-balance agreements, like a swap contract, we said that financial information is no longer valid. It lacks of consistency in showing profitability and risk in the valuation. This situation may arise measurement errors and create some important biases principally if the off balance practices become a common practice without an adequate rule for disclosure.

Value creation in strategic alliances?

There is controversy about how of value creation takes place in a restructuring process. Some people argue that value creation is a si ne qua non condition in a strategic alliance, insisting that value creation is the primary objective when undergoing a restructuring. Others, however, insist that accounting and tax practices that make value creation tacit and thus a problem in the long run. This value created is not easy to sustain often the alliance

For the U.S. financial market one study has estimated a total of $400 billion in mergers and acquisitions from 1977 to 1986 (Jensen, 1991). The author concluded that this big wealth effect resulted in more efficient utilization of corporate assets.

However, some mergers such as those that occurred in forceable or hostile circumstances, could result in value destruction rather than value creation. Peter Drucker (1986), for example, contends: "There can be absolutely not doubt that hostile takeovers are exceedingly bad for the economy". Acquired companies, he says, are so burdened with debt as to severely impair the company's potential for economic performance. He states that takeovers precipitate the sell off of the most valuable parts of the acquired businesses, destroying synergies that previously existed.

Further, "The Business Roundable", comprised of the chief executives of America's 200 largest corporations, has agreed with Drucker, contending that hostile takeovers "create no new wealth, but merely shift ownership and replace equity with large amounts of debt". The concern is that short-sighted institutional investors undervalue companies whose current earnings have been temporarily depressed by efforts to invest for the long run. (Martin, John 1993).

Where does value creation come from?

Research has shown that mergers can benefit stockholders of both, the acquiring and target firms (Dodd and Ruback, 1977). In fact, mergers were known during the

sixties and seventies as "the 2 + 2 = 5" effect, a form of synergy creation. Explanations about where this value comes from are related to different theories (Weston, Fred. 1990).

The possible explanations can be grouped into three major explanations:

I.-some synergy emerges from the union, because firms' resources are better allocated.

II.- previous undervaluation of assets existed prior to the merger

III.- there is some redistribution of benefits from stakeholders to target stockholders and from these to acquiring firms through control processes.

The reasons why value creation takes place with the alliance among the most mentioned are undervaluation, leveraging, and signaling.

Undervaluation in target stocks occurs as a result of large inflationary periods and long public ownership. This makes mergers a very profitable business for target firms, however the increased value is now shared with the acquirers.

Leveraging is referred to be explaining why target stocks increase the most. Leverage reduces dividend disbursements so favoring cash and increasing after tax return. Also, it stimulates managers performance.

Favorable signaling is referred to be present in explaining higher variation in the target stocks, because a low price is interpreted by investors before the merger process. Different reasons explain motives and results for mergers.

Combining assets and creating monopoly power in some restructuring countries has explained merger gains. Tests for market concentration have been performed to account for socially unfair distribution of benefits resulted in merger processes.

Protection from government in mergers is an additional source of value redistribution for its impact on monopoly creation, tariff protection, over regulation, and overpricing.

Tax advantages for mergers is other variable that has been specified to explain higher stock variations. However, as it will be seen in the next chapter, most studies have found this variable to be of low reliability and low significance.

In many countries the "noise" or sentiment theories hold that mergers create hubris expectations that exceeds value creation so a lower postevent stock performance would be observed correcting the announcement stock variation.

Downsizing is also in the "name of the game" for many mergers: spinning off divisions into independent status, repurchasing shares or establishing leveraged buyouts, forming out new owned subsidiaries and so on are part of the same process.

Some other important remaining theories for why mergers occur and they are said to create value are:

Efficiency theory; Agency theory; Managerialism theory; Winner's Curse - Hubris theory; Free Cash Flow theory; Market Power theory; Taxes theory; Redistribution of Wealth theory; Government Privatization theory, Cultural and Organizational Compatibility theory, and Financial Globalization theory,.

Efficiency theory[2] has several expressions. Among the most mentioned are: Differential Managerial; Inefficient Management; Operating Synergy; Financial Synergy; Pure Diversification; Strategic Realignment and Undervaluation theory.

Differential efficiency

This theory presumes that the acquiring firm is more efficient than the target one -or viceversa - in terms of management or operations, so there is an increase in social value from the merger that makes investors to raise their price expectations.

Inefficient management

[2] A capital market is efficient (1) if it does not neglectany information relevant to the determination of security prices, and (2) if it has rational expectations (Fama, 1976)

According to this theory, Mergers result from the idea that some other management group can run the business in a better way, due to cultural or geographical advantages. This theory proposed the idea of mergers between companies that are not distinctly related, but led by efficient managers temporarily will perform much better. This argument has been used to describe the period of government enterprises during the thirty years after the 1929 crisis.

Operating synergy

Economies of scale result as a consequence of indivisibility, complementary, and better utilization of capacities after merger. This theory applies to vertical and horizontal integration that increases communication and coordination while reducing bargaining costs and other wastes. The accepted Financial Wisdom (Doctrine) from Jensen (1984), refers to the company's increased productivity in achieving positive stock price changes, rather than from market power.

Pure diversification

Mergers increase value due to investor preferences for diversification, reputation, and tax advantages. Risk is said to be reduced, as a result of turnover and reorganization. So, it is expected that the overall measure of returns increases.

Financial synergy

In this theory, the cost of capital is reduced as a result of lower bankruptcy risks. This theory assumes that the cash flows between the two firms are not perfectly correlated, so the merger will benefit debt holders at the expense of shareholders (Higgins and Schall, 1975). Financial synergy, also describes the idea of excess cash flow in bidders and good growth potential in targets. Many successful mergers

appear to be related to this theory. For example, the merger between Phillip Morris and General Foods in 1987, allowed Phillip Morris to combine their cash flow (but low growth potential) with the high growth potential (low cash flow) of General Foods.

Strategic realignment

From a strategic point of view, changes in the environment call for rapid adjustments among firms to gain competitive advantages, or simply to survive. Merging suggests the idea that long run strategy is taking place and some other favorable announcements will be given. As a result the the market will create unexpected synergies. This long-run view contrasts greatly with the short run excess cash flow theories, where rapid adjustments occur in the market.

Undervaluation

Because of agency considerations, long term investments are undervalued by investors (prohibiting short term earnings), so they become attractive for raiders and when merged, result in stock increases. Also, as a result of long periods of inflation, replacement costs increase more rapidly than stock value, making it more profitable to merge than to build a new company. This theory may be highly valid in Mexico, where merging increased after short periods of three digit hyperinflation.

Information and signaling

An alliance conveys information to the market that it had not realized before. For instance that the merger will strength both companies. Thus, brands multiply for both companies, so the market anticipates value creation through brand synergy.

Recent theoretical research on market efficiency[17] links expectations with information, saying that the investors are able to gain some information from prices.

Therefore, rational expectations are essential to market efficiency so merger information is essential.

Agency problems and managerialism

When managers own a portion of the firm's equity, they may become more interested in merger possibilities than otherwise because of the potential increase in their stockholdings . Very often this theory anticipates low success from a merger due to inefficient alliance investments. Additionally, managers seek to protect their privileges, or even more to increase them, and they find mergers a good way of doing so; their salaries become adjusted to the size of the firm. Therefore, expenses grow and dividends may fall.

Winner's curse - hubris

Managers of some bidding firms may assess the target value higher than the true value for presumptuousness or hubris (Roll 1986), therefore, the bidders firm reputation increases due to a combination of psychological and informative imperfections. Market may react to this overestimation increasing hubris expectations. No value is created so it expects in the long run it will adjust downward.

The free cash flow hypothesis

Excess cash flow would usually be paid to the shareholders as dividends, but this would reduce the amount of resources that managers can control. Managers tend to prefer short term returns rather than long term returns.

Thus, managers tend to invest the free cash flow in mergers or to increase debt in exchange for stock (Jensen, Michael 1988) which conflicts principals in the short run. while it promises higher long term returns. Thus, the mechanism utilized to ally will anticipate higher stock returns.

Market power

Alliances may increases market share for the acquiring firm, whether or not this be necessarily good. If the new combined companies'market share is higher than the one allowed by the government, there may be more problems than advantages (antitrust regulation). Economies of scale and power considerations are more important to stimulate mergers if cartels are allowed or tolerated. If this is not the case, too concentrated market power may discourage consumers in buying in such a market. Competition means to consumers an attraction regarding quality and fair price; this may increase international demand and the perspectives of the firm become favored.

Tax shields

Theory affirms that mergers may be tax induced only if there are no other forms of obtaining the tax deductions. Mexican legislation does not allow the transfer of tax credits between separate firms, although managers can find some other ways for transferring legal allowances. According to this theory, taxes may affect mergers rate to take advantage of tax allowances (Smirlock. Beatty, and Majd. H. 1986). This theory indicates that target stockholders will be taxed higher because of capital gains. Nevertheless although tax allowances may influence the decision to merge, they are not the important factor.

A legitimate business must exist apart from the tax advantage. Otherwise the merger is undesirable. regardless the availability of tax credit. For instance recapture of depreciation allowances due to mergers mitigates the incentives. Similarly, good will. which is not tax deductible, stimulates mergers, and can be much more important than tax shields in the long run.

Jones and Taggart (1984) combined the tax theory with the theory of the life cycle and reach interesting conclusions. They say that young firms find merger with high taxed firms, favorable because the former has more expenses than income. When the younger firm grows, it becomes more attractive to sell it to a corporation. Afterwards the organization will be better off in the hands of low tax firms such as a royalty trust or another younger firm.

This theory seems appropriate for small and medium enterprises technologically advanced, such as computer components, software, specialized services and so on, where economies of scale exists.

Redistribution of wealth

In a merger some redistribution occurs among stakeholders. Value may shift from bondholders to stockholders and from labor to stockholders or consumers (Asquith and Kim 1982; Dennis and McConnell 1986). For instance, when leveraging, the firm cash flow increases, managers compensations increase and possibly consumers' welfare reduce as prices go up.

Cultural and organizational compatibility

One of the most important new paradigms that are leading the expansion and development of alliances worldwide is that cooperation has to be combined appropriately with competition in order to compete successfully. Speed and pace in strategy implementation orients critical decisions in a world of superior products and internationalization. Today's decision maker needs not only to function in a competitive and hostile environment but also to be able to cooperate with other companies, perhaps even with one that, in other respects, is his competitor.

For many multinational firms, strategic alliances have become increasingly important tools for ensuring speed and flexibility in carrying out their businesses

strategies. Firms engaging in alliances, it was recognized save resources, time, and energy by combining projects, resources, clients, etc.

For instance, Fiat-Geotech saw the need to change its strategy to one of cooperation with others. To avoid an anticipated increase in European protectionism and to attempt to enlarge its market share, HCM began to search actively for a joint venture partner in Europe. This resulted in 1987 in Fiat-Hitachi Excavators SPA with in a 51/49% joint venture to manufacture and the market a new line of hydraulic excavators in Europe.

Mergers under agency theory.

Several explanations regarding reasons to ally are derived from agency theory. According to these explanations tax shields, managers bonus-oriented behavior, of the lack of adequate monitoring of managers create a tendency for some firms to establish strategic alliances. These explanations are based on the belief that managers controlling more companies should earn more. This stimulates alliances and if managers are owners there will be a tendency to look for undervalued companies, to buy them and to take advantage of stock appreciation as well as tax shields increasing debt/equity ratios.

Financial globalization.

Among the theories that explain the causes and circumstances under which alliances occur, the one related with the internationalization of capital has particular relevance for this study. Lower international entry regulations, trade liberalization, as well as the expansion of information systems shortened the international product life cycle so creating the need to rapidly cover wider markets..

Changes in the international financial market accelerated the international capital mobility with that volatility went up. This, however, has permitted developing

economies to receive big inflows of capital, not only to the bond market but also to the stock market. Alliances in this process, increased consistently with the higher international share in stock trading -and issuance- by foreign institutional investors.

Financial globalization is defined as the generation of a market structure characterized by the flows of capital at world level by international and national agents who induce a greater diversification and expansion of the sources and uses of financial funds (Mexican Stock Warehouse, 1994).

Financial globalization has changed portfolio management looking for higher returns. This stimulated higher volatility interest rate during the eighties. Thus investors found in alliances high expected returns.

In this context, Mexico went into the world economic integration. Its inclusion in the General Agreement on Tariffs and Trade (GATT) and the recent decision to form part of the trilateral Free Trade Agreement with the United States and Canada, accelerated Mexico s is financial and trading globalization process.

Different sources of funds emerged altogether with LDC[2/] debt problem. The greater mobilization of international funds shrank world interest rates, exchange rates and inflation rates. This changed the ways firms used to make businesses. Finance oriented corporations looked for a reduction in their financial costs from traditional banking to other self-financing methods such as mergers.

The internationalization of Mexican sources of funds increased the issuance of convertible bonds, options, and ADR 's on Mexican shares in other countries.

There new financial instruments enabled alliances principally the ones related to the securitization of assets. The sale and trading of bank loans with securitized stock as collateral and the issuance of securities that act as substitutes for loans (such as commercial paper, floating rate promissory notes and europromissory notes) as well as their sale in the secondary market helped foreign firms to approach each other signalling the market to stimulate alliances.

The development of financial markets supported the idea of firms risk sharing. This stimulated the expansion of international capital flows, specially since 1985. This flow went from $444 billion dollars in 1985 to $5.1 trillion dollars in 1995. The decline in financing for developing countries was offset by a higher leveraging of banks and private firms from emergent bond markets

Issuance of bonds from emergent markets grew considerably. Total issues rose from $38 billion dollars in 1980 to $256 billion dollars in 1989, and $800 billion in 1994, an increase of more than 1000% in the period.

Some money came to developing countries as investments but most on securities based collaterized loans. In the 1983-94 period there was a net reduction of funds for LDC countries increasing capital expansion through banking, directly to company, and through the market system, which opened an increasing process of international strategic alliances, principally mergers and acquisitions.

The greater foreign participation in developing countries' stock markets was concentrated principally by institutions such as pension funds, insurance companies, investment funds, and for big companies and big investors. These assets grew at an annual rate of 18% from 1987/1994. The argentine market grew 250%, Mexico 260%, South Korea 85% and Taiwan 310%, while the developed markets grew only 13%.

Price/earnings and price/book value ratios were lower on average in LDC countries relative to developed countries. This financial expansion accelerated mergers, acquisitions, and other strategic alliances in Mexico.

CHAPTER II

MEXICAN STRATEGIC ALLIANCES: 1989-1996

In the last few years there have been a number of important strategic alliances in Mexico. A review of few most recent ones is presented here.

According to a study from The First Boston Corporation. mergers and acquisitions, including privatization in Mexico, totaled $7.2 billion in 1992. In addition and Mexican companies issued $4.3 billion in equity on New York stock exchanges. This feature was similar throughout the early 1990's. For example Telefonos de Mexico alone amounted to $1.76 billion from the privatization in 1990 and the subsequent equity offerings.

On September 1992, there was announced a $520 million investment of Bell Atlantic in Grupo Iusacell, the national cellular carrier in Mexico that competes with Telmex. This merger opened a strong competition in a previously monopolized market.

Rodrigo Calderón, from Siemens- Alcatel, announced the acquisition of Teletra Industrial SA de CV with presence in Italy, Spain, Brazil and México. Another strengthening in Alcatel operations was the merger with Rotwell Inc. Besides it is targeting Italcable and Stet, with operations in Italy.

Northern Telecom initiated joint ventures with Matra from France and STC from England, to build submarine cable for Mexican-European communication. Also important is its association with Motorola to form the firm Motorola Nortel to expand the production and service through networks. Also important was the agreement with Nippon Telegraph and Telephone Corporation. With these alliances, competition in telecommunication services has been growing in México.

McCarthy, Joseph (1993) studied the most important cement company in Mexico, Cementos Mexicanos, (Cemex). This company shelled out $800 million in

1989 to acquire cement companies in Mexico, Texas, and California and another $1.9 billion last year for majority holdings in 2 Spanish cement companies, as well as investments in Nicaragua and Venezuela. The acquisitions made Cemex the largest cement company in North America and the 4th-largest in the world.

However, McCarthy says Cemex disappointed shareholders, who worried that the company was no longer the monopoly in the Mexican construction market. Investors, particularly U.S. investors, have questioned the amount of debt needed to finance Cemex the transactions and has expressed doubts regarding whether If the company has sufficient international management expertise.

Moody's Investors Service placed Cemex's senior debt rating on review after the Spanish purchases, although the company maintained its Ba-2 designation. For the year ended December 31, 1992, Cemex sales jumped 29% to $2.2 billion while net income rose 24% to $548 million, including $8.5 million from the Spanish companies.

Is the telecommunication industry, Telecommunications Inc. agreed to acquire Grupo Televisa while Grupo Azteca (Channel 13 on Television), his competitor, formed an alliance with NBC.

Peagam, Norman; Marray, Michael (May 1993 p: 133-134) studied Mexico's Grupo Televisa which grew as the dominant media empire in the Spanish-speaking world, involved in network and cable television, radio, the music business, and magazine publishing throughout its home markets - Spain, the US, and Latin America.

Televisa dominates the Mexican television market, with an estimated 93% of the audience. In 1992, sales grew by 33.5% to N$4.231 billion ($1.108 billion), 65% accounted from television revenues. Operating profits grew 57% to N$643 million.

Nafta increased the potential for advertising in Spanish so Televisa increased value evenly since 1990. Besides television high market share, in July 1992, Televisa became the biggest publisher of Spanish-language magazines in the world as a result of its $130-million acquisition of the Latin American and US businesses of America Publishing Group. The high speed of expansion is being matched in Latin America, with some other joint ventures or acquisitions in Peru, Chile, Venezuela, Argentina, and Mexico itself.

Hartshorn, David, (1993) reviewed the joint venture of PanAmSat with Televisa in 1994. Grupo Televisa SA agreed to invest an aggregate amount of $200 million for a 50% senior equity position in PanAmSat's global satellite communications system. The backing equips Anselmo has to compete more extensively against Intelsat; The alliance also enables Grupo Televisa to establish a stronger presence internationally linking key Latin American markets with the world.

The researcher said that Grupo Televisa's investment, along with other financing obtained from PanAmSat, will be used to build, launch, and insure 3 additional satellites that PanAmSat has contracted to purchase from Hughes Aircraft Co. With the existing PAS-1 satellite, the new satellites will cover the Atlantic, Pacific, and Indian ocean regions, creating the world's only privately-owned global satellite communications network.

Conger, Lucy (1993) rated the privatization of the Mexican financial system as one of the world's most successful privatization programs where the more salient feature was the overvalue paid to the government, as well as the formation of corporate financial groups within the Mexican financial system. Of the 18 banks that the government sold off, 12 were bought by brokerages, having paid 2.5 to 5.3 times book value for their banks

The main characteristic in the privatization of the banking system was the clash between the brokerages and the banks to form these Financial Groups. Santillan, Roberto (1995) also studied the privatization process of the Mexican Banks, concluding that significant value creation took place.

Concentration of financial power has been supported by the Mexican Government (recall from 60 to 19 institutions). Mexico's 1990 Financial Groups Law provides the legal framework for a universal banking system. The government hopes that a few dominant institutions will be both easier to regulate and more internationally competitive.

Profits in the financial groups have been huge, but in the 1995 debt crisis these institutions claimed higher government support via Fobaproa, a former trust from Central Bank, Banxico. Fobaproa banking capitalization objective is giving rapid results. The capitalization process increased bankers resources and at the same time more government support. However, the magnitude of the crisis woke mergers and strategic alliances to be formed to exchange new capital -mostly foreign- for debt, overcoming capitalization problems in the short run. Within the most recent strategic alliances and mergers regarding the banking system have been the following:

In February 1995, Banamex entered into a joint venture with American Express to issue Gold Cards to Mexican consumers. With deposits of $25 billion, Banamex controls almost 25% of the country's deposit base, including 50% of Mexico City.

Banoro and Bancreser merged to position number 8 in the financial system. Banco Union (who had restructured BCH bank) merged with Cremi, a former mine specialized bank. Months later, Banca Cremi and Banco del Centro joined together and formed an alliance with Banco Santander (Spain) in 1996.

Grupo Inverlat-Comermex merged with Bank of Montreal in 1995 while Grupo Financiero Bancomer (the second largest bank in México) formed alliance with Bank of Toronto in 1996.

Other institutions are looking for partners as well as some foreigners are targeting other Mexican financial survivors, as Banco Internacional who formed an alliance with Portuguese institutions as well as Banco Central Hispano in 1995.

Following its globalization objectives, and after expanding operations to UK, Spain, Taiwan and South Korea, Metropolitan Life has acquired 24.5% interest in Seguro Genesis, a Mexican carrier. Madrid-based Banco Santander joined Met with a matching 24.5% holding. The remaining 51% is held by Mexican investors. Seguro Genesis began issuing life and pension products August 14, 1992. with Met providing administrative support and advice.

The insurance broker Johnson & Higgins (J&H) is forging ahead with plans for increased trade between the US and Mexico by acquiring 25% of the largest broker in Mexico, Brockman y Schuh.

Besides the financial institution, Wood Andrew detected information regarding the 1993 acquisition of ABS by General Electric Plastics Mexico. GE acquired the commercial acrylonitrile butadiene styrene (ABS) operation of Industries Resistol SA (IRSA), part of the Mexican conglomerate DESC. This conglomerate issues in the Mexican brokerage house as well as it has issued debt paper and ADR s in USA.

Humder and Alperwicz (1993) provides information regarding the red iron oxide pigments business. New entrant Laporte, bought Silo, the 3rd largest producer worldwide in January 1993 for $9 million. With this acquisition, Laporte is competing with Bayer, the leader and the number 2 worldwide producer Harcros. This latter bought Pfizer's iron oxide business in 1990 and Northern Pigments, the sole Canadian producer, in 1991.

Laporte entered the business in early 1992 with its USD $60 million acquisition of formulator Rockwood. In Mexico, the number 2 producer, Hako, a subsidiary of holding company Gerlo, bought the number one producer De Mato from Fero in 1992.

A very mentioned Mexican merger has been the $477 million acquisition of Grupo Modelo by Anheuser-Busch Cos. Inc. who agreed to acquire approximately 18% of Grupo Modelo SA de CV. The investment agreement, gives Anheuser-Busch an option to purchase up to 49% of Grupo Modelo over the next 4 years. However, the investment agreement does not include new distribution arrangements.

Grupo Modelo will invest half of the proceeds from the sale in expansion, including a brewery in the state of Zacatecas. The remainder will be divided among the existing partners, who have continued controlling the company.

Hidrosina S.A.de C.V., a group of private Mexican investors led by 3 entrepreneurs, purchased 30 gasoline stations in Mexico City from Petroleos Mexicanos (Pemex), the state-run monopoly. The historic move could signal future joint ventures with foreign marketers.

The Pemex divestiture could create some important companies as well as stimulates some interesting mergers. For instance, distribution of liquid gas for domestic use was privatized in the State of Mexico and Querétaro. Also, Pemex had announced the creation of two new firms that will merge to Grupo PMI Comercio Internacional (PMI Holdings North América, Inc. and PMI Norteamérica, SA de CV).

Currently other firms that are subsidiaries of PMI outside the country are PMI Holdings NV, in Curazao, Antillas Holandesas; PMI Holdings BV, in Amsterdan, Holland, and PMI Services BV, also in Holland. Also, PMI Services North America INC. with a branch in Houston, PMI Services Europe, LTD, in London. England;

Pemex Internacional España, SA, in Madrid, Spain, and PMI Trading LTD, in Dublin, Republic of Ireland.

Alperowicz, Natasha (Nov. 1992), studies new trends in the engineering and construction industry. She mentions two important new paths: the acquisition of proprietary technology and the drive to get more international business, usually through an acquisition or alliance with a regional partner. Another trend is achieving preferred contractor status. Researcher Alperowicz found in The North American Free Trade Agreement an upper interest in Canada and Mexico for strategic alliances. Therefore, in November 1992, Fluor Daniel Inc., (Irvine, California) announced an exclusive association with ICA Industrial (Mexico City).

Other interesting recent alliances in Mexico have been the one of Empresas La Moderna with Asgrow Seed Co (USA) on November 7, 1994, Banacci (Mex) with MCI (US) on October 17, 1994; Wall-Mart and Cifra and Dillard Department Stores (US) on October 14, 1994; GF Bancomer and VISA (Mex) with-GTE Corp (US) on September 27, 1994; Refmex of Industrias Penoles (Mex) with Indresco (US) on August 16, 1994.

Also interesting have been the alliances between Baja Celular of Grupo Protexa (Mex) with Motorola (US) on June 23, 1994, joint venture; Parker Lafarge (US) with Cementos Mexicanos (CEMEX) on May 18, 1994 to sell a cement plant in New Braunfels, Texas; Consorcio G. Grupo Dina S.A. de C.V (Mex) with Motor Coach Industries International, Inc. on January 28, 1994, merger agreement.

Kayser-Roth Corp (US) allied with Grupo Synkro (Mex) on November 23, 1993; Grupo Mexico (MEX) with ASARCO (USA) on November 13, 1993; Rodman & Renshaw Capital (US) with Abaco Casa de Bolsa (Mex) on November 1993; Compañia Industrial de Parras (Mex) with Cone Mills Corp. (US) on March, 1993.

Fomento Economico Mexicano (Femsa) with Coca-Cola Co (US) on March 25, 1993; Fomento Economico Mexicano (Femsa) with Philip Morris (US) on December 3, 1992; Geo New York Life (Mex) with New York Life Worldwide Developments on September 23, 1994.

Valves and Pipe Fittings, NEC (Mex) with Kitz Corp of America on July 14, 1994 "plan joint venture"(in negotiation); Del Monte Foods Corp (US) with Group of Investors on June 27, 1994; Mobilon with Nextel Communications June 6, 1994; AXA's (Mex) subsidiary Alimentos with Lee (Sara) Corp/ AXA on March 2, 1994.

A Group Led by Carlos Cabal Had Agreed to Buy PPI Del Monte Fresh Produce. Backed by the Mexican government, the Cabal group will purchase PPI Del Monte from Polly Peck International PLC for $500 million. The move by Grupo Cabal represented a bid by Mexican agribusiness interests to become bigger players in the world fruit market by acquiring one of the big names. Unfortunately, this alliance had problems to succeed for judicial problems of Mr. Cabal.

Technology Corp (USA) on November 20, 1993 established a "Joint-Venture" Grupo Azteca (Mex) with National Broadcasting Co (NBC) November 16, 1993, "plans to acquire interest in". Ford Motor Company's Favesa S.A. de C.V. with Lear Seating Corporation, a subsidiary of Lear Holdings, on November 1993 completed the previously announced purchase of most of shares. Electroforjados Nacionales SA de CV with Harsco Corp. on November, 1993. Tapetes Automotrices Mexicanos SA de CV Tamex with Collins & Aikman Corp (Doblin Textiles) on November 1, 1993.

Virmar Telecomunicaciones SA de CV with American Telephone & Telegraph Co ATT on September 23 1993. Pacific Star de Occident (Mex) with Pillsbury Co (The) on September 3, 1993 "agrees to acquire interest in". Aceros Fortuna, S.A. de C.V (Mex) with Carpenter Technology Corporation on July 29,

1993 "agreed to acquire equity". Kennedy Agentes de Seguros (Mex) with Alexander & Alexander Services July 26, 1993 "acquired majority".

Novaquim S.A. de C.V. (Mex) with Uniroyal Chemical Co on July 26, 1993, joint venture. Brockman & Schuh (Mex) with Johnson & Higgins on May 24, 1993 "agreed to acquire interest in". Arancia SA (Mex) with CPC International on October 31, 1994 "joint venture". Altos Hornos de Mexico SA with Inland Steel Industries Inc. October 17, 1994 joint venture. Auto Todo of Mexico with Genuine Parts Co September 8, 1994 joint venture.

Grupo Iusacell SA (Mex) with Sprint Corp on July 26, 1994 "joint venture". Ispat Mexicana with Wheeling Pittsburgh Corp's steel, July 6, 1994 joint venture. Grupo VideoVisa (Mex) with Handleman Co on June 2, 1994, "joint venture". Grupo Industrial Alfa SA de CV with Shaw Industries Inc. on May 31, 1994 "joint venture".

Grupo Financiero Bancomer SA with NationsBank Corp.on April 15, 1994 "joint venture". FINSA Grupo Arguelles of Mexico with Morrison Knudsen Corp. on March 1, 1994 "joint venture". Transportes de Nuevo Laredo, Mexico with Roadway Services Inc June 1, 1993, "joint venture".

Consorcio Larmo (Mex) with Durakon Industries Inc on March 23, 199 "joint venture". Grupo Industrial Durango with Temple-Inland Inc on January 6, 1993 "joint venture". El Puerto de Liverpool (Mex) with Kmart Corp on January 4, 1993 "joint venture" Compute with Acer on Jun 14, 1994 "joint venture".

Also important is the 50/50 merger between Holiday Inn Worldwide and Grupo Situr in at least 10 hotels Holiday Inn Express in Mexico.

Other firms that have made press announcements regarding interests in allying with other national or international collaborators or competitors are (Marcela Ojeda Castilla, Jul 1993): Bimbo, Celanese Mexicana, Cementos Mexicanos, Cerveceria

Modelo, Cifra, Comercial Mexicana, Compania Industrial de Parras, Cydsa, Dina, Femsa, Gigante, ICA.

Also important were Liverpool, Nacional de Drogas, Pemex, Sigma Alimentos, Situr, Spicer, Telmex, Televisa, Transportación Marítima Mexicana, Tubos de Acero de México y Vitro, among others. Ojeda detected as a characteristic in these firms before the alliance, the cost reduction and employment adjustments policies.

Other interesting alliances that should be recalled are the one from Wall Street Journal and the mexican newspaper El Norte, from Monterrey City to create another communication instrument. Also important is the strategic alliance between Multivisión and NBC to expand its operations in the Mexican market.

Alfa merged Desarrollo Inmobiliario Privado SA; Apasco to Industrial Apasco SA de CV; Accel SA de CV to Grupo Chihuahua; Femsa, Fomento Económico Mexicano to all subsidiaries; GCarso to Corporación Ponder SA de CV; Ekco SA de CV to Voit SA de CV; Ponderosa Industrial SA to Serponder; GF Inver Grupo Financiero Inverméxico to Banco Mexicano Somex; Cifra SA de CV strategic alliance with Wall Mart Stores; Grupo Embotelladoras Unidas (Geupec) to Pepsico (Inscription).

Ecko to Grupo Industrial Invasa SA de CV; Banacci, Grupo Financiero Banamex Accival SA to Organizaciones Banamex; Grupo Situr SA de CV to Astidek SA de CV; Valores de Monterrey SA to Fomento Proa SA de CV; Grupo Financiero Serfin to Organizaciones Serfin; Empresas La Moderna SA to Desarrollo Integral de Negocios SA de CV;

More recently, Ggemex Grupo Embotellador (Geupec) de Mexico with Grupo Seser SA; Elektra to Grupo Empresarial Fenix SA; Elektra SA de CV to Silver Star Exports Inc.; Empresas La Moderna to Asgrow Seed Co; MCI (US) joint venture with Banamex in telephone services; Dillards Department Stores (US) joint venture

with Wall Mart and Cifra; GIE Corp (US) joint venture with GF Bancomer; Inderco (USA) with Industrias Peñoles; Household International (US) with Grupo Financiero InverMexico, joint venture; Motorola (US) with Grupo Protexa.

Cementos Mexicanos (CEMEX) with Parker Lafarge (US); MotorCoach merge with Consorcio G Grupo Dina SA de CV; Grupo Synkro agreed bid for Kayser- Roth Corp (US); Asarco (US) acquire interest in Grupo México; Abaco Casa de Bolsa agreed to acquire majority interest in Rodman & Renshaw Capital (US).

Some other important companies that have experimented joint venture or agree to acquire interest in, are Compañia Industrial de Parras; Femsa with CocaCola and Phillip Morris; Geo New York Life; Valves and Pipe Fitting; Mobilcom; AXAs de Mexico; Cima de Mexico.

Ford Motor Company de Mexico; Electroforjados Nacionales SA de CV; Grupo Iusacell with Bell Atlantic; Virmar Telecomunicaciones SA de CV; Pacifi Star de Occidente; Aceros Fortuna SA de CV; Novaquim; Arancia SA; Grupo Iusacell with Sprint Corp; Grupo Videovisa; Grupo Financieor Bancomer SA; Finsa; Grupo Arguelles; Grupo Industrial Durango; El Puerto de Liverpool with Kmart Corp (US) and Computec with Acer; among the most important ones.

Concentrations:

Up to December 1994, the Federal Competence Commission reported 86 alliances from which 34 were classified as concentrations, 18 administrative restructurings and 34 participations in biddings for the desincorporation of public companies. The FCC only established conditioning covenants in 5 of these alliances. Among the most important cases regarding Mexican mergers, acquisitions and alliances that the Federal Commision of Competence registered up to 1994 were:

Notification date	Firms Bidders and Targets	Kind of Strategic alliance	Completion Date	Resolution
19-jul-93	promocion y fomento de negocios,s.a.de c.v., desarrollo integral de negocios s.a., de c.v. y empresas la moderna, s.a. de c.v.	acquisition of shares	06-ago-93	no objetada
23-jul-93	grupo situr, s.a. de c.v. y turistica situr, s.a. de c.v.	acquisition of shares	21-sep-93	no objetada
03-ago-93	seguros la comercial, s.a. y seguros la comercial de chihuahua, s.a.	merger	06-sep-93	no objetada
30-ago-93	grupo iusacell, s.a. de c.v. y bell atlantic, inc. y otros	acquisition of shares	18-nov-93	no objetada
01-sep-93	seguros america, s.a. y seguros la comercial, s.a.	merger	13-Oct-93	no objetada
15-sep-93	grupo financiero bancrecer, s.a. de c.v. y banoro, s.a.	acquisition of shares	29-oct-93	no objetada
15-sep-93	grupo financiero cremi, s.a. de c.v. carlos cabal peniche y otros	acquisition of shares	29-oct-93	no objetada
21-sep-93	xabre, s.a. de c.v. y otros y consorcio integral de empresas, s.a. de c.v.	acquisition of shares	12-nov-93	condicionada
27-sep-93	desc.sociedad de fomento industrial s.a. de c.v., unik, s.a. de c.v. y spicer, s.a. de c.v.	acquisition of shares	01-oct-93	no objetada
12-oct-93	constructoras ica, s.a. de c.v., ica servicios, s.a. de c.v., e industrias ica, s.a. de c.v.	merger	03-nov-93	no objetada
25-oct-93	grupo financiero serfin, s.a. de c.v. y aseguradora insurgentes s.a.	acquisition of shares	15-nov-93	no objetada
25-oct-93	equipos de construccion e industria, s.a. de c.v. y maquinaria, panamericana, s.a. de c.v.	merger	15-nov-93	no objetada
28-oct-93	quan, s.a. de c.v. y grupo industrial bimbo, s.a. de c.v.	acquisition of shares	12-nov-93	no objetada
05-nov-93	vitrocrisa cristaleria, s.a. de c.v. y vitrocrisa crimesa, s.a. de c.v.	merger	12-nov-93	no objetada
10-nov-93	almacenes aurrera, s.a. de c.v. y operadora de superamas, s.a. de c.v.	merger	19-nov-93	no objetada
19-nov-93	grupo televisa, s.a. y grupo t.v. america, s.a. de c.v.	merger	24-nov-93	no objetada
25-nov-93	grupo anahuac, s.a. de c.v. y comcem.	acquisition of shares	01-dic-93	no objetada

	s.a. de c.v.			
25-nov-93	procter and gamble de mexico, s.a. de c.v. y richardson-vicks, s.a. de c.v.	acquisition of shares	01-dic-93	no objetada
02-dic-93	grupo industrial durango, s.a. de c.v. y empaques de carton titan, s.a.	acquisition of shares	04-mar-94	no objetada
03-dic-93	corporacion industrial sigma, s.a. de c.v. y otras sociedades	transferencia de activos	05-ene-94	no objetada
5-dic-93	consorcio g grupo dina, s.a. de c.v. y motor coach industries international inc.	merger	11-feb-94	no objetada
03-ene-94	grupo iusacell, s.a. de c.v. y domos corporacion s.a. de c.v.	acquisition of shares	25-mar-94	no objetada
06-ene-94	grupo embotellador de mexico, s.a. de c.v. y señores segovia serrano respecto de acciones de grupo seser, s.a. de c.v.	acquisition of shares	14-feb-94	no objetada
11-ene-94	turismo cemex, s.a. de c.v. e inmobiliaria cemex distrito federal, s.a. de c.v.	acquisition of shares	28-ene-94	no objetada
20-ene-94	compañia industrial de parras, s.a. de c.v.,textiles kamel nacif, s.a. de c.v. e inmuebles kamel, s.a. de c.v.	acquisition of assets	29-mar-94	condicionada
02-feb-94	vitro, s.a. y vitro corning, s.a. de c.v.	acquisition of shares	04-mar-94	no objetada
03-feb-94	grupo financiero bancomer, s.a. de c.v. y subsidiarias	merger	04-mar-94	no objetada
10-feb-94	panamerican beverages inc. e inversiones azteca, s.a. de c.v.	acquisition of shares	18-mar-94	no objetada
17-feb-94	axa, s.a. de c.v. y sara lee co.	acquisition of shares	04-mar-94	no objetada
17-feb-94	grupo bursatil mexicano, s.a. de c.v., casa de bolsa, grupo financiero gbm atlantico y videoprima, s.a. de c.v.	acquisition of shares	07-abr-94	no objetada
18-feb-94	baja celular mexicana, s.a. de c.v., tamcel, s.a. de c.v., movitel del noroeste, s.a. de c.v., movicelular, s.a. de c.v. y moviservicios, s.a. de c.v.	acquisition of shares	30-mar-94	condicionada
25-feb-94	grupo condumex, s.a. de c.v. conductores latincasa, s.a. de c.v.	acquisition of shares	19-may-94	condicionada
28-feb-94	grupo financiero prime internacional, s.a. de c.v.banco central hispanoamericano, s.a.	acquisition of shares	28-abr-94	no objetada
01-mar-94	cifra s.a. de c.v. y subsidiarias	merger	24-mar-94	no objetada
10-mar-94	valores monterrey, s.a. de c.v. y aetna international inc. ae five inc. aetna internacional de mexico, s.a. de c.v.	acquisition of shares	13-abr-94	no objetada

15-mar-94	grupo financiero gmb atlantico, s.a. de c.v. y accionistas	acquisition of shares	20-may-94	no objetada
18-mar-94	grupo financiero cremi, s.a. de c.v. y banco union, s.a.	acquisition of shares	13.abr-94	no objetada
18-mar-94	ge lighting, s.a. de c.v.focos, s.a. y materiales de precision, s.a. de c.v.	acquisition of shares	20-may-94	condicionada
22-mar-94	pedro domecq mexico, s.a. de c.v. y allied lyons europe, bv.	acquisition of shares	12-may-94	no objetada
24-mar-94	preconcreto, s.a. de c.v. y concretos de alta resistencia. s.a. de c.v.	acquisition of shares	18-abr-94	no objetada
25-mar-94	agrobios, s.a. de c.v.univasa, s.a. de c.v. conagra holdings de mexico, s.a de c.v.	acquisition of shares	19-may-94	no objetada
28-mar-94	corporacion industrial cycsa, s.a. de c.v. fanal, s.a.	merger	31-may-94	no objetada
15-abr-94	concretos y precolados, s.a. de c.v. y concretos guadalajara, s.a. de c.v.	merger	20-may-94	no objetada
10-may-94	controladora general motors, s.a. de c.v. y ca-le de tlaxcala, s.a. de c.v.	acquisition of shares	31-may-94	no objetada
16-may-94	spicer, s.a. de c.v. y tremec s.a. de c.v.	acquisition of shares	16-jun-94	no objetada
29-may-94	petroleos mexicanos y aeroservicios especializados, s.a. de c.v.	asset transfer	16-jun-94	no objetada

Source: Federal Competence Commission

Reprivatizations of Former Public Firms.

Many mergers, acquisitions, consolidations and joint ventures emerged when government privatized some of his firms. The Federal Competence Commission took care that the privatization would not increase the monopolistic position of bidders. Following this review of the Mexican evidences on strategic alliances a summarization of privatizations is found by the FCC (in parenthesis appears the privatized firm).

Notification Date	Firms participating in the strategic alliances from privatization bidders / targets	Completion date	Resolution
27-jul-93	radiotelevisora del centro, s.a. de c.v.(paquete de comunicaciones)	26-nov-93	no objetada
28-jul-93	grupo maicero mexicano, s.a. de c.v. (miconsa)	27-sep-93	no objetada
11-ago-93	santos, bimbo del norte y archer daniels midland, co. (miconsa)	27-sep-93	no objetada
16-ago-93	cargill de mexico, s.a. de c.v. (miconsa)	29-sep-93	no objetada
18-ago-93	banca promex, s.a. de c.v. (miconsa)	28-sep-93	no objetada
27-ago-93	agroindustrias integradas del norte, s.a. de c.v. (miconsa)	27-sep-93	no objetada

30-ago-93	estrategias y planeacion avanzadas, s.a. de c.v. (miconsa)	29-sep-93	no objetada
30-ago-93	promotora empresarial de occidente, s.a. de c.v. (miconsa)	27-sep-93	no objetada
30-ago-93	jugos del valle, s.a. de c.v. (miconsa)	27-sep-93	no objetada
30-ago-93	fideicomiso molinero (fidemol) (miconsa)	27-sep-93	no objetada
31-ago-93	grupo tortimex, s.a. (miconsa)	29-sep-93	no objetada
19-oct-93	tubacero, s.a. de c.v. (procarsa)	24-nov-93	condicionada
20-oct-93	tubesa, s.a. de c.v. (procarsa)	24-nov-93	no objetada
27-oct-93	lamina y placa de monterrey, s.a. de c.v. (procarsa)	24-nov-93	no objetada
28-oct-93	industrias ch, s.a. de c.v. (procarsa)	24-nov-93	no objetada
29-oct-93	productora potosina de papel, s.a. de c.v. (pronapade y otras papeleria)	01-dic-93	no objetada
29-oct-93	empresas asociadas l. y z., s.a. de c.v. (pronapade y otras)	01-dic-93	no objetada
29-oct-93	organizacion editorial mexicana, s.a. de c.v. (pronapade y otras)	01-dic-93	no objetada
29-oct-93	fletcher challenge, ltd. (pronapade y otras)	01-dic-93	se retiro
29-oct-93	potential industries, inc. (pronapade y otras)	01-dic-93	se retiro
03-nov-93	ingenieria financiera bancomer, s.a. (pronapade y otras)	01-dic-93	se retiro
08-nov-93	general de tubos y aceros, s.a. de c.v. (procarsa)	24-nov-93	no objetada
19-nov-93	lic. ricardo humberto cavazos galvan y otros. (el nacional)	17-dic-93	no objetada
19-nov-93	grupo mexicano de editores, s.a. de c.v. (el nacional)	17-dic-93	no objetada
19-nov-93	corporativo am. s.a. de c.v. (el nacional)	17-dic-93	no objetada
19-nov-93	luis f. gomez v. (el nacional unidad guanajuato,gto.)	17-dic-93	no objetada
19-nov-93	luis capin flores y/o alejandro capdevielle flores y otros. (el nacional unidad hermosillo,son.)	17-dic-93	no objetada
02-dic-93	efrain davalos padilla y otros (el nacional unidad guanajuato, gto.)	17-dic-93	no objetada
06-dic-93	rolando andrade mendoza, ventura barajs aldapa y jose pastor carrillo (el nacional unidad hermosillo, son.)	17-dic-93	no objetada
08-dic-93	victor herrero otero, carlos bustamante anchondo y grupo bustamante ((el nacional unidad de tijuana, b.c.n.)	17-dic-93	no objetada
08-dic-93	jorge villagomez , magdalena guevara ruiz y pe- dro gonzalez vidargas (unidad de tijuana b.c.n.)	17-dic-93	no objetada
09-mar-94	infquim s.a de c.v.licitacion p/adquisicion de "ex- portadores asociados, s.a de c.v." (ocean garden products, inc.sierra refrigerating co.,compass transportation co.)	19-abr-94	no objetada
18-mar-94	dr.william karam licitacion p/adquisicion de "ex- portadores asociados, s.a de c.v."(ocean garden products,inc.;sierra refrigerating co.;compass transportation co.)	22-abr-94	no objetada
04-abr-94	copamex industrias s.a. de c.v. (mexicana de papel periodico, s.a.)	19-may-94	no objetada

Source: Federal Competence Commission

The Federal Commission imposed to some strategic alliances sanctions analyzed case by case in a 27 days period to approve or to reject the merger, acquisition or concentration. the principal ones were: Grupo Video Visa, S.A. de C.V. with

Videoprima, S.A. de C.V.; Grupo Financiero Prime Internacional, S.A. de C.V. with Banco Central Hispanoamericano, S.A.; Afin Grupo Financiero, S.A. de C.V. with Banco Mercantil del Norte, S.A.; Corporación Noticias de México, S.A. de C.V. with Corporación Alvel, S.A. de C.V. Consorcio Integral de Empresas with Xafra S.A.

Some of these alliances were discussed in the FCC as some illegal concentration was presumed. For instance, Consorcio Integral de Empresas acquired 94% of Xafra, controlling with this nine sugar locations and thus becoming the most important sugar producer in the country, amounting 22% of the production and 49% of the refined sugar. Compromises of substituting standard sugar for refined, besides the cheapening of imported corn would stimulate fructuose based corn. The merger was approved.

Also, Grupo Iusacell with Telecomunicaciones del Golfo and others, was discussed in the FCC. The reason the FCC gave in authorizing this alliance was that although Grupo Iusacel increased its concentration in regions 3, 5 and 6, to reduce the high market power of Telefonos de México, and also the regional competition between the two companies. The merger between Iusacel and companies of regions 3, 5 and 6 were considered por competitive.

Other resolutions considered by the FCC that finally accepted the integration between companies were:

Compañía Industrial de Parras, S.A. de C.V. con Textiles Kamel Nacif, S.A. de C.V. e Inmuebles Kamel, S.A. de C.V., concentration in mezclilla production. no impugned because the open market of this product in México.

Banco Unión and Grupo Financiero Cremi was accepted for the same reason as in other banking cases, for existing other authorizations of new groups and new banks in the country, as well as the increasing competition of foreign banks.

The insurance industry, for instance, Seguros La Comercial (third in the market) with Seguros América (fifth in the market) was also accepted for the existence of 42

insurance companies when the merger was authorized. With the merger, the new firm constituted the new leader in the market, followed by Nacional Provincial and Seguros Monterrey. For the same reasons given to the telephone industry, the merger was completed without impediment.

Procarsa, SA de CV in 1993 was privatized. The *licitation* was won for Industrias CH overcoming five competitors in the metal tubes production, Tubesa, Tubacero, General Tubos, and Aceros SA de CV.

Grupo Condumex SA de CV acquired from Ericsson the 51.7% of Conductores Latincasa. With this acquisition Condumex would absorbe the 70% of the sales of telephonic cable. The acquisition was acepted as trade liberalization was taking place stimulating imports of this product with a tax reduction of 13.5% to a rate of zero percent in 9 years plus 6% of transport costs. As we can see in the precedent paragraphs, many concentrations created mergers, acquisitions and strategic alliances.

Summarizing, the main causes for the acceleration of strategic alliances seemed to be the Nafta agreement, the privatization process, and the financial globalization that brought more competitors as well as more investors in the Mexican market. The financial and economic conditions of the country acted as a mood variable, stimulating or destimulating alliance proposals.

CHAPTER III
METHODOLOGY

Five objectives have been followed when designing the methodology:

1.- To study stock price responses to merger announcements, being able to distinguish between firms with high abnormal performance and firms with medium or low abnormal performance.

2.- To determine the possible determinants of any abnormal performance detected during the merger announcements. That is, to estimate if there is any statistical association between abnormal returns and some potential explanatory variables such as the size of the firms, accounting performance, growth expectations, previous stock undervaluation, and signaling of managers'efficiency.

3.-To forecast short run stock abnormal performance for different kinds of performers, differentiating in high, medium and low performers and finding some similarities and differences among them.

4.-To forecas the period of time in which an expected merger event can occur if the conditions encountered in the sample prevail.

5.- To infer which could be the causes motivating some kind of alliances, i.e. to solve debt problems, to expand growth opportunities, to take advantage of price distortions, or some other.

Hypotheses.

In this paper, the magnitude of the synergy is estimated using the stocks market valuation of the acquiring firm. That is the target firm's value creation is not included in this research.

It is recognized it would be better to examine the combined value of the target + the acquiring firms returns, most of the Mexican firms were acquired in the 1989 -

1994 period did not have publicly traded shares. Therefore, this research provides only a lower bond on the stock price effects of mergers.

This is important because some of the effects of the alliances benefit more to the acquirer and some others to the target firms. This regards to policies with respect to distribution of gains adopted during the control process, maximizing tax shields, managerial and labor rights as well as other stakeholders rights. For instance some wealth may be hidden for tax purposes and/or other obligations.

In this context the specific hypotheses in this research are:

H1: Stock returns of merging firms in México have a significant change as a result of strategic alliance announcements.

The first hypothesis tests for a direct relationship between merging and the firm's stock prices. To reduce statistical noise and due to important macroeconomics events, principally the foreign currency devaluation or announcements different as alliances, such as country debt problems or so forth, made us to select the May 1989 to September 1994 period. The tests would also have to control for other factors that can affect stock prices, such as dividends or reprivatization announcements.

The first hypothesis is used to estimate what should be the expected increase in the Mexican stocks compared to international experience. This latter has been calculated in approximately an abnormal performance of 3 to 7% in a six days event period, summing up both merger effects, the bidders and the askers effect.

To perform an abnormal return test for the days previous the announcement is of great interest because of the insights for private information distorting the market. A test on the volume is also included to determine if there was abnormal trading associated with the merger announcement.

H2: The increase in returns is not due to the size of the firms but to the value creation market signaling

The second hypothesis (H_2), tests whether the most important factors that could be explaining the higher merger returns are most related with the synergy theory than

to anyother theory. This calls for evaluating synergy as an aggregated value of excess return over the tendency value and/or over the normal average market variation. Here, we are interested in knowing the size, direction, and significance of the total synergy creation occurring in a merger, such as managerial synergy, expenses reduction (principally labor costs) and/or distribution of merger benefits.

H3: Significant differences exist between the firms doing alliances and the ones not doing alliances. These differences account for information asymmetry, synergy, and market signalling

H4: Significant postmerger returns exist across firms depending on their financial characteristics before doing the alliance.

The third hypothesis is for validation purposes regarding alliance effects. It is designed as a face validity test and the fourth hypotheses looks to determine the specific financial and nonfinancial characteristics of the firms that could explain why some firms are expected to perform better in an alliance than others, as well as the variables that could help to predict which classes of firms are expected to perform better if the characteristics and conditions of the sample remain.

H5: Stock prices of some of the acquiring firms increase more than others due to some market undervaluation previous to the merger announcement.

The fifth hypothesis, related to the undervaluation theory, seeks to differentiate those firms that may have some undervaluation in their stock prices before the merger. Undervaluation is measured using a proxy of the Tobin´s q ratio, in three moments of the firms: a quarter before, a quarter during, and a quarter after the event. A generalization is provided regarding the Tobin´s q showed in the last year previous to the merger announcement.

A test for undervaluation hypothesis is performed different from the one that uses the Tobin´s q ratio to measure the market valuation compared with the

replacement costs. In the Tobin´s q ratio lower than 1 an undervaluation could be happening. This ratio thus, assumes that the market works well in evaluating future firm performance so a difference with the book value could illustrate stock opportunities.[1]

The reason for not using the Tobin´s q ratio directly is that some researchers alert that in Mexico exists a wider accounting criteria for actualizing the values of the assets as compared to what the USGAAP recommends. Also, the higher volatility in the Mexican stock values could mean less reliable valuation estimators.

Therefore, a similar test will be performed based on an average cumulative market to book values for the firms showing cumulative abnormal returns and compared with what a random hold out sample gets.

This test would provide some further evidence to the undervaluation theory that states that stocks with lower market prices relative to their book values tend to increase more during the merger events, not because higher synergy but because higher premerger price distortion.

H6: Inside trading existed in the Mexican merger experience

The sixth hypothesis attempts to give some evidence about the characteristics of the Mexican stock market during the 1989-1994 period. These characteristics are related to market efficiency theories. Tests to use will be based on descriptive statistical analysis checking for normality and autocorrelation: press announcements before the official announcement; tests on cumulative abnormal return before the official announcement; tests on volume during the preannouncement period; and time

---

Defining "q" as the ratio of the market value of the firm shares to the replacement costs making attractive to merge with industries engaged in natural resources, i.e. steel, or in public services, as banking.

$$\text{Tobin's q ratio} = \frac{\text{market value of firm*}}{\text{Replacement cost of assets**}} > 1 \text{ if potential debt}$$

* includes intangible assets

** physical value of assets Tq = 1 + growth potential/replacement cost.

discriminating differences -significative- among clusters of firms and abnormal return.

Regarding inside information examined using press news previous to the merger announcement, this will be complemented with the analysis of the specific characteristics of the abnormal returns previous to the announcement and information diffusion theories checking for institutional participation in the market..

Monopoly regulation in Mexico and the legal procedures that oblige firms to inform to investors about important corporate changes, such as mergers or some other kinds of strategic alliances are therefore considered in the analysis

Also related with testing for inside information is a test for whether was any information manipulation, previous to the announcement. For instance, to test if undervaluation of stock prices could be working in a negative direction to stockholders (block stockholders relative to the public in general). This test is performed by observing the behavior of the abnormal performance prior to the announcement compared with other countries abnormal performance prior to the announcement.

Also, a discrimination of the results will be given regarding the kind of governance in the merging firms, i.e. if they are family governed or proffessional.

For instance, a decreasing abnormal performance before the announcement could be related to a bigger volume so lowering prices abnormally. However, it is expected that this test would be unsignificant in proffessional firms and significant in family governed. For this latter, after the merger announcement, an increase in the abnormal performance and a change in the direction of abnormal returns would be expected. Can managers in a market with asymmetric information benefit from these events or are the institutional investors such as the investment funds the ones who realize this higher portfolio performance? If this situation exists, considerations of agency costs will be looked for.

What the regulators do and what are the benefits of this regulation is tested by comparing abnormal performance in other events before and after the regulation used to. Thus, resolutions from the Federal Competence Commission will be reviewed looking for the regulatory procedures used for allying firms..

Using also the Tobin´q ratio one can infer if there were some important price distortions before the official announcements. The difficulty to know if the accounting prices really reflect market opportunities gives space for asymmetric information, in the sense that managers knowing the valuation procedures can infer more properly if the prices reflect or not the company opportunities. Also, a more dubious reasoning raises: that the managers could be missignalling the market intentionally.

To consider this possibility, cumulative market value is preferred so, instead of the one moment measurement, a dynamic measurement will be applied. This is performed by geometrically averaging the q ratio for the four previous quarters and forwarding it in an cumulative index which is used as a predictor of abnormal returns. If the cumulative q ratio can explain some abnormal performance this test would give some more evidence about the efficiency of the Mexican stock market regarding undervaluation of stocks, the efficiency of the accounting practices with respect to asymmetric information, and the value of information to the market.

Also to increase validity of the tests, it will be reviewed the consideration if the Mexican market tends to overestimate the relevant information -a kind of sentiment theory in opposition to the asymmetric information theory-. An investor can see merger announcements as good news, over reacting to true value creation possibilities and thus increasing returns in the short run but decreasing them afterwards.

Managers of merging firms could be signaling to the market an strong interest in solving some strategic problems or limitations in their firms or even more, enhancing their growth opportunities and this new situation is "prized" by the market with a higher return.

The previous situation seems to be consistent with the hypothesis that a merger announcement signals information about the plans and the competitive advantage of firms so creating an environment where the investor tend sto over react in the short run, as recent information weighs more than past information or than the future prospects of the companies.

The assumption that the one moment market to book value could be mislead but not the average accumulative market to book value rests on the finding that in the long run the stock prices tend to behave normally and consistently with the risk return models. This assumption is consistent to the market efficiency hypothesis.

For instance, from 1989 to 1994 the mergers´ stock market returns included in the sample increased 37% more than the risk free rate of interest and very similar to the rate of increase in the book assets value. This supports our believe that the cumulative market to book value may overcome temporal inconsistencies and valuation practices or in market returns performance.

Some implications of this adjusted q measurement could change some conclusions based on financial multiples. For instance, regarding the valuation practices utilized in the reprivatization processes based on book value multiples could not be holding.

What is expected still be holding is that information provided in the merger process signals information that the firm is doing important strategic changes that may create value. If not why overperforming managers would do it? Of course, this signalling has to be confronted with facts and consistent aftermerger announcements days after the merger announcement.

Spurious market returns would be expected more in a overreacting market than in a market where expectations are built more rationally. Therefore, the signalling hypothesis seems very appropriate to be performed for the Mexican case where there is some belief that the Mexican market lacks of efficiency, so noise can be created relatively easier than in a strong market, creating asymmetries and private gains.

Some important implications would be inferred for the accounting associations with respect to their role in forcing companies to disvest the true securities value and their true expected returns in their valuation practices. Their power in enforcing and monitoring reliable information would claim to be improved.

Signalling of monopoly power in the Mexican mergers is really important in explaining some possible overreaction of stock prices during a merger announcement. This is so although merger regulation has been actualized recently to reflect more accurately the current conditions of market power that not always can be benefiting consumers and society. This is specially important after the Nafta agreement took place as the gains in the stocks of the merging firms more than creating value could be decreasing value as competition is increasing in the marketplace.

For instance, Telmex was set to be a monopoly protected until 1996, without limitation of profits, so prices were allowed to vary inmediately the announcement was made and to adjust for inflation plus an initial prize.

The higher profitability that was planned to be gained up to 1997, through rate rebalancing, special pricing for 1991 (situation that continued to 1993) caused some protests from the industrial and commercial businessmen organizations. For this considerations, the abnormal performance tests will not include these firms observations considering them as outliers (however, these firms are included in a posterior test to allow for the presence of monoploy power that could be explaining higher abnormal returns in the mexican stock exchange).

With respect to the Banking system, reprivatized in a worldwide record (one and a half year) the similar can be said. After a period of successive merging of banks, from 1982 to 1989 the number of Banks reduced from 60 to 18 via mergers and acquisitions, before the reprivatization took place. Why these concentrations were allowed for the FCC will be explained relying this on higher foreign competition and new Mexican banks coming soon.

Reprivatization produced 8.7 billion (17% of total domestic debt or 100% of agricultural GDP) The current market value of CAPS (the certificates for capital acceptances in banks) was set at less than 1/3 the Banking assets, while assets increased 1.4% and liabilities 2.5%. Branches just increased from 4438 to 4489 due to the rationalization of branch operations established since the end of 1985.

For these considerations similarly to Telmex, reprivatization of the Banking system is not included in the sample (For reviewing what happened with the abnormal returns in the Mexican banking privatization see Santillan, Roberto. 1994).

Methodology explanation:

In this research the effect of the merger process on stock values of the acquiring firms is estimated looking for significant jumps close to the merging announcement, called day zero. This is known as the "event study method".

The first test using the event study methodology was done by Fama, Fisher, Jensen, and Roll in the International Economic Review, February 1969.

Event studies either (explicitly or implicitly) assume that markets are informationally efficient or they explicitly test for the informational efficiency (Starks, Laura 1993).

The announcement period is set at 60 days before the announcement. The "clean period" covers from day -300 to day -60 for each firm included in the sample.
The measurement period in which the synergy hypothesis will be tested is set at 6 days before the announcement and 6 days afterwards.

Definition of synergy

Theory says that new opportunities are created in a merger to be accounted for the target and acquiring firms creating a "combined" higher value than before (Bradley, Desai, and Kim. 1982). The word "combined" underlines the sum of the value of the merging firm to the value of the target firm. This sum compared on a basis of before to after situation.

A synergy is said to appear in the merger, accruing to new demand, technological innovations, and/or larger investments by the bidding firms, and better allocation of resources, managerial, customers, suppliers, distribution channels, creditors, and so on.

The value creation in the companies may result from more efficient management, economies of scale, improved production techniques, the best combination of complementary resources, the redeployment of assets to more profitable uses, the exploitation of market power, or any number of value-creating mechanisms that fall under the general rubric of corporate synergy. At this moment the possible causes are not explored with detail. This will be done when using a multidiscriminant model looking for differences in abnormal returns.

From Kim and Bradley (1988):

$$dII = dWT + dWA$$

where: dII = *total synergistic gain*

dWT=*change in target firm shareholders wealth,*

and dWA=*change in acquiring-firm stockholders wealth.*

The model for estimating the predicted returns, is the market model. The reason for this preference is that other altrnatives such as the MARM (calculated as the mean of the daily return for the clean period) may overerestimate the tendency for the Mexican market during the 1994 economic slowdown.

Model for calculating abnormal returns:

I.- From the Market Model:

$$Ri = a + bi\,Rm + ei$$

Which indicates that the cost of equity capital equals the risk free rate plus the average market price of risk multiplied by the systematic risk measure. We Obtain the abnormal returns in the market model, using the error term as a proxy of the unexplained returns:

$$AR\,it = ei = Rit - ai - bi\,Rmt$$

error = Realized - estimated

(abnormal return using 240 days (-300; -60)

$$and: \quad SARit = SAR \qquad \sum_{i=-6}^{n=+6}$$

ARit = Abnormal return to firm i on day t (+) (-) 6 days

SAR = Sum of unexplained errors or abnormal returns accrued to the merging firms, for a sample of 40 merging firms; ordered around the day of the announcement (day zero)

Rit = realized return to firm i on day t

a,b = estimated parameters using the MM for a long and clean period of data (before the merging process).

Rmt = Realized return in the mexican stock index (non-equally weighted index for the event study period. It is called market return

i = firm *t = daily observations at close.*

Justification of the Model

Assuming multivariate normality (From Bradley and Kim, 1988) in order to be able to construct sample tests and confidence intervals:

$$dII = dWT + dWA$$

where:

dII=total synergistic gain

dWT=change in target firm shareholders wealth, and

dWA=change in acquiring-firm stockholders' wealth.

W = Market value of the combined equity on 6 days before the merger, and 6 days afterwards, based on private offer date for interfirm i.

Wt = Market value of the targeted equity

WA = Market value of the acquiring firm

$dWt = Wt * MSARt$

$dWA = WA * MSA$

MSAR = Sum of the mean of the abnormal returns for a sample of acquiring firms for the Mexican Stock Index over an estimation period equation of 1989 to 1994 .

d = becomes for variation from unmerged "status" firms to merged firms (when they merge).

This concludes that the total synergy effect of the mergers should include the abnormal returns of the merging and the target firms. However, as most firms in

México during 1989 to 1994 went through consolidations and acquisitions of firms not issuing at the BMV, the value of *"d"* calculated in this model considers only the sum of the abnormal returns in the acquiring firms.

Empirical evidence has suggested that shareholders of target firms realize large positive abnormal returns in completed mergers, takeovers, leverage buyouts and other kind of alliances. Although, in Consolidations, as the bidder and the target become a more integrated firm, the separation of the gains makes no much sense. Synergy could be realized in any of the two firms.

The explanation given to this empirical behavior rests on two facts: accounting and assets perfect market assumption.

The accounting explanation says that the sum of the cash paid to the shareholders of the target firm equals the value of the acquired assets, thus value out equals value in, making no sense that the value of the merging firm increase with the merger.

The asset perfect market assumption says that no arbitrage could exist in the merger acquisition as competition makes prices to reflect the trueir value, so reinforcing the accounting explanation.

The researcher thinks that both hypotheses hold well in countries where strong markets and information behave perfect in a strong form. The absence of arbitrage would be one of their characteristics, as well as the asymmetry of information between the managers of the acquiring firm, the investors community, and the managers or shareholders of the acquired firm.

This would create possible sources of imperfections:

First, agency considerations between the managers and shareholders of the target firm. The hypothesis that the managers not always behave in the best shareholders interests (Jensen, 1983; Asquith, 1983; Fama, 1984; and others) has increased adepts without conclusive results. Asymmetry tend to vary regarding the composition of the Board of Directors, the stock market regulation, the role of

blockholders, the generalized accounting practices and the power of the accountant associations, and the monitoring that the market does to the managers work be trough the efficiency of the managers labor markets and the influence of bank creditors in the monitoring of the firms.

These considerations create no advantages for the merging firm realizables in the stock market. But, what could be expected in developing countries where the precedent assumptions can or can not hold, and thus, some arbitrage opportunities can be created in a merging process.

Summarizing, three circumstances made us to select the kind of methodology we did: One, that most of the firms in official announcements in Mexico during 1989 to 1994 were Consolidations where the separation of the merging and the target firms makes no sense; Two, that most of the acquired firms do not issue at the stock market for being smaller or related to a holding firm that is already issuing at the BMV; and three, that some market imperfections are presumed to exist in the Mexican merging experience that can be creating arbitrage opportunities and information asymmetries that allows merging firms to take advantage of a lack of competitiveness in the assets market as well as asymmetric information.

This justification does not denies the probability that some other gains are created in the process, accruing to the target firms which are assumed to have been much higher than the ones measured in this work, pertaining to the acquiring firms.

Assumptions

Probably the main assumption in this work is that the Mexican market reacts to the introduction of new information in a strong form. This does not mean that the market is assumed to be perfect in a strong form as the size of the market, the low number of issuers, and the importance of some of the issuers in signaling the market, are cited for some weaknesses in the market. Although this is not the main topic in this work some considerations will be extracted from a theoretical and empirical review.

The standard assumptions of the market model are:

1.- *The expected value of the error term is zero,* $E(e_{it})=0$
2.- *There is no homoscedasticity,* $Var(e_{it})$ *is constant.*
3.- *There is no relationship between the error term and the return on the market,* $Cov(e_{it},R_{mt})=0$
4.- *The error terms are not serially correlated,* $Cov(eit,eit-1)=0$
5.- *One firm's error terms is not correlated with any other firm's error term* $Cov(e_{it},e_{jt})=0$

Stone 1993 II. A Brief Literature Survey.

The general functional relationships developed in the literature on mergers and acquisitions are listed below according to the dependent variable and the author who discusses the relationship.

Discrimination between high versus medium and low performers.

This section describes the results of discriminant analysis for three quarters, relative to the merger event, using direct method and prior probability equal to three groups:1 quarter before, the merger quarter, and 1 quarter after, which is the discriminating variable and 4 predictor variables:

AR: average abnormal return within each quarter
LEV: total liabilities/total assets
LIBR: (net worth/shares outstanding)/market price
PU: stock price / stock earning
FP: financial performance
T: time of the alliance as a proxy of the economic environment
K: kind of alliance; i.e. if a merger, a consolidation, a joint venture.
G: governance of the firm; i.e. if family oriented orcapital disbursed
S: Size of the firm measured as the actual value of total assets

Short run performance:

Subsamples of each group, high, medium, and low performers, will be gotten and included in a multitime multidiscriminant model. The long run period of time will be selected for firms with no more important events after the initial merger announcement and testing for significant differences across groups and across time.

Higher validity for synergy hypothesis is expected if the firms continue becoming more alike (they keep in the same discriminant group) or they change if other significant events occur. If the firms become more similar as mergers occurs, their similarities would signal managerial intention of continuous performance.

From this, one could infer that managers relying more on corporate restructuring strategies such as a merger tend to take more value creating strategies, though riskier. Accounting for differences reduction through time among merger and non merger firms would imply that merger is irrelevant in the short run.

In this research we are proposing to measure the short time effects of the merging process on stock values of the acquiring and not on the target firms, looking for a notable jump around the merging announcement, called day zero. This is known as the "event study method" (Martin, J.1993).

A census of merger firms issuing at the Mexican stock exchange is gotten from the board of directors bulletins that merger firms are obligued to communicate to the public. From this census a sample of firms is taken for the period of 1989 to 1994.

The announcement period is set at 60 days before the announcement, though the measurement period in which the synergy hypothesis will be tested is set at 6 days before the announcement and 6 days afterwards. The hypotheses are comparing the abnormal returns in the announcement period with the behavior of the stocks during the so called "clean period" (the one in which the related enterprises neither think in merging nor in complementing assets or projects).

The "clean or estimation period" covers from day -300 to day -60 for each firm included in the sample. The estimation period is established at 300 days, ending 60 days before the announcement, consistently with other similar studies across countries.

This estimated value is deducted from the real values observed for the merging firms during the announcement period which in this research is set in 12 days around the official day. The difference between the estimated value and the real value (called

residual term) is a proxy of the abnormal returns due to the merging. The sum of the errors or the abnormal returns, would give an overall measure of the merging synergy effects on target and acquiring firms during a period called event period which in this case we said is 6 days before the announcement and 6 days afterwards.

Thintrading.

Nonsynchroneity or when securities are thinly traded, ordinary least squares regression may result in biased beta estimators due to the correlation between the thinly-traded security's return at time t and the index return at time t-1 (Starks, Laura. 1993). Some techniques have been developed to mitigate this bias by using leading and lagging values of the index market model (Scholes and Williams, JFE, 1977 or Fowler and Rorke, 1983). These techniques will be applied to the mexican merger sample as the following thintrading has been detected in the period of 1989-1994 for 8 out of 40 stocks with thin trading:

Thintrading in Mexican Merging firms

	# of trading days	# of non trading days	thin trading index
Subsample of Thin trading merger stocks	205	55	.067

A Discriminant Model will be used to test for differences between two or more groups of cases. These "groups" are defined looking for diferences in the performance of the firms during and after the announcement is made.

This helps to answer the question if there exist some circumstances previous to the event that may be explaining some possible after merger returns obtained during the days of the announcement, and to see if these differences continue after the announcement or they changed significantly compared with the previous firms characteristics.

This could explain different after merging performance in terms of some predefined variables. In this research is intended to distinguish the firm´s financial situation relative to the merge event, one trimester before, during and one after.

To distinguish between the groups, the researcher selects a collection of *discriminating variables* that measure the characteristics on wich the groups are expected to differ. In this case is supossed that the financial situation is affected by the merger event and, if so, how much and in what direction for every group.

The mathematical objective of this discriminant analysis is to weight and linearly combine the discriminant variables in some fashion that the groups are forced to be as statistically distinct as possible. Discriminant analysis attempts to do this by forming one or more linear combination of the discriminant variables. These "discriminant functions" are of the form:

$$D_i = d_{i1}Z_1 + d_{i2}Z_2 + ... + d_{ip}Z_p$$

Where D_i is the score on discriminant function i, the d's are the weighting coefficients, and the Z's are the standardized values of the p discriminant variables used in the analysis. The maximum number of functions which can be derived is either one minus the number of groups or equal to the number of discriminant variables, if there are more groups than variables. Ideally, the discriminant scores (*D*'s) for the cases within a particular group will be fairly similar.

The discriminant functions can be thought of as the axes of a geometric space, they can be used to study the spatial relationships among the groups. The weighting coefficients can be interpreted much as in multiple regression or factor analysis. In this respect, they serve to identify the variables which contribute most to differentiation along the respective dimensions (functions).

Once a set of variables is found to provides satisfactory discrimination power for objects with known group memberships, a set of classification functions is derived to permit the classification of new objects with unknown memberships.

In this investigation, membership allows to distinguish between good performers, regular and bad performers. This membership is tested before, during and after the merger event.

The importance of the number of groups stems from basic principles. In general, two points in space define a line, three define a plane, four define a three-dimensional space, etc; the maximum number of dimensions needed to completely describe a set of points is one minus the number of points.

In discriminant analysis, each group (as measured by its centroid) is treated as a point and each discriminant function is treated as a unique (orthogonal) dimension describing the location of that group relative to the others. Two functions maybe quite adequate for describing four groups, as is the case in this research, the first two functions explain (uncommonly) 100% of the variance.

There are two measures for judging the importance of the discriminant functions. One of these is the *relative percentage* of the eigenvalue associated with the function. The *eigenvalue* is a special measure computed in the process of deriving the discriminant functions. It is a measure of the *relative* importance of the function. The sum of the eigenvalues is a measure of the total variance existing in the discriminating variables.

A further aid in judging the importance of the discriminant function will be its associated canonical correlation. The canonical correlation is a measure of association between the single discriminant function and the set of (g - 1) dummy variables which define the g group memberships, in this case g is the -1, 0, 1 quarters relative to the merge event. It will tells us how closely the function and the "group variable" will be related i.e. which is a measure of the function's ability to discriminate among the groups. If we reverse the logic somewhat, we can interpret the canonical correlation *squared* as the proportion of variance in the discriminant function explained by the groups.

Lambda is an inverse measure of the discriminating power in the original variables which has not yet been removed by the discriminant functions-the *larger* lambda is, the *less* information remaining. Lambda can be transformed into a chi-square statistic for an easy test of statistical significance.

The discriminant function coefficients have to be derived in such a way that the discriminant scores produced are in standard form. There will be a separate score for each firm in each function. This single score represents the number of standard deviations each firm is away from the mean for all cases on the given discriminant function. The means on all the functions are referred to as the *group centroid*.

A comparison of the group means on each function tells us how far apart the groups are along that dimension. With this, we can get differences between the groups as well as differences among the groups.

If this procedure is repeated trough time, you can get differences between and among groups through time, so you can test for long run differences and see if an event, in this case a merger event gives a higher differentiation between or among the groups or not.

This difference is said to be explaining different abnormal or extraordinary performance to an event announcement, short and long run. However, this thesis only tests for short run differences leaving the long run differences for a posterior research that can give more signaling for managers doing a correct job in creating value or not.

The standardized discriminant function coefficients are of great analytic importance in interpreting the differences between and among groups. When the sign is ignored, each coefficient represents the relative contribution of its associated variable to that function.

The sign merely denotes whether the variable is making a positive or negative contribution. The interpretation is analogous to the interpretation of beta weights in multiple regression. As in factor analysis, these coeffcients can be used to "name" the functions by identifying the dominant characteristics they measure.

The classification of cases or objects is meant as the process of identifying the likelyhood of each group membership when the only information known is "z" value on the discriminating variables. Thus, instead of classifying the firms ex ante for size or another variable, one lets Statistics to speak of everyone´s differences.

As far as one divides the total sample and one works with half the sample for estimating the discriminant functions, one uses the other half of the sample for validation purposes. Classifying the objects to derive the functions in the former sample and comparing predicted group memberships with actual group membership, in the latter, one can empirically measure the success in discriminating the groups by observing the proportion of correct classifications.

Statistical tests on the Market Model.

For the Market Model conventional regression tests will be utilized to evaluate the significance of the alpha and beta estimators. R-squared tests will be performed on each firm market model, as an overall reliability of each returns predictor model, using the F-distribution tests. On each estimator, as well as on the sum of errors, or abnormal returns, the "t" test seems appropriate following similar investigations in which statistical validation is performed.

Testing significance in abnormal returns

Null hypothesis:

The hypotesis of no reaction in abnormal returns to a merger announcement is formulated and has to be tested.

Alternative hypothesis:

The event is presumed to be relevant to the returns of the merger firms compared with the precedent values under consideration. Thus, the event is presumed to have either a positive or a negative effect on returns of the merging firms.

As there was no previous study with respect to merger effects, a one-tailed versus two-tailed test was prefered. This allows for the returns during the event to be positive or negative, implying a two-tailed test.

A "t" test statistic for abnormal returns was performed as the merger events under analysis are assumed to happen in a cross-sectional independence i.e. the events happen at different times for different firms. Also assumes the error term follows a stationary normal process. Comparison periods return t statistic (From Mausulis, JFE 1980. Taken from Starks, Laura, 1993).

Testing $Ho: CAR(-4, +8) = 0$

$$\text{"t"-statistic} = \frac{CAR(-4, +8)}{S_{car(-4,+8)} / \sqrt{n}}$$

OLS market model t stastistic

$$t = CAAR(t1,t2)/[\sum_t Var(CAAR(t1,t2))]^{1/2}$$

where $Var(CAAR(T1,T2))$ *=Variance of estimation period AR.*

Another "t" test that could be performed is:

$$t = AR_{it}/\{[T_1-1)s_1^2+(T_2-1)s_2^2]/[T_1+T_2-2]\}^{1/2} * \{1/T_1+1/T_2\}^{1/2}$$

where:

T_1 *=#of daily returns in comparison (estimation) period*

T_2 *=# of daily returns in announcement (test) period*

s_1 *=standard deviation of comparison period mean return*

s_2 *=standard deviation of announcement period mean return*

Note that this statitics assumes that the true standard deviations of the comparison and announcements periods are equal.

Autocorrelation of errors in the merging period is expected, although not during the clean period. this is very important because it can come about the presence of omitted variables that are associated with target and/or acquiring stocks altogether: for instance tax obligations.

Positive correlation is expected during the merger period because of fast spreading of information. Durbin-Watson tests will be useful to test for correlation problem when this be necessary. Partial correlations tests will also be used to estimate the magnitude of the autocorrelation.

A Ruback's Technique is utilized for adjusting for first-order autocorrelation in abnormal returns (Ruback JFE 1982).

Variance of CAAR $(t_1,t2) = T^{*}var\ (AAR_t) + 2(T-1)cov\ (AAR_t, AAR_{t-1})$

where $T = T2-T1+1$

M=number of days during the estimation period

$Avg(AAR_t)=[1/M]\ \Sigma_t\ AARt$

$Var\ (AAR_t)=[1/M]\ \Sigma_t\ [AAR_t-Avg\ (AAR_t)]^2$

$Cov(AAR_t,AAR_{t+i})=[1/M]\ \Sigma_t\ [AAR_t-Avg(AAR_t)][AAR_{t+1}-Avg(AAR_t)]$

The variance and the first-order autocovariance of abnormalreturns are estimated over the estimation period.

Test on size effect.

Size is a variable that could be associated with the error term so creating some correlation disturbances. A test based on dummy variables seemed to be able to give us some insights on this problem.

The market model can be rewritten to allow for a dummy variable which switches "on" during the time period of interest (Starks, Laura. 1993). For example, with the market model :

$$AR = R_{it} - (a_i + {}_iR_{mit} + w_{it}\ Event_{it})$$

where $Event_{it}$ is one during the relevant time period and zero otherwise and corresponds to size o the firms measured by total assets in constant terms of 1994.

The test is performed with quarterly dummies-one for the quarter in the test period). Tests based on the coefficient w_i are equivalent to a test on the estimated error terms in the market line equation. Thus, the w_i give information about the sign

and the magnitude of the firm's response to the event at date t, -6, +6 around day 0.

A very interesting procedure that can be used for testing the distribution of wealth theory, may be a test for efficiency of the estimators near the merging announcement. Hypotheses are made of non-constant and unequal variance in the merging period and dummy variables for controlling some other exogenous factors that may be influencing the process, such as undervaluation of assets, technology creation, government protection and monopoly power. It is expected that the estimators for these variables be non significant in the merger announcement period.

This test is based on the measurement of the variance of the estimators in the clean period compared to the event period, and constructing a X-squared test for these variance differences to test for reliable differences.

Looking for non constant variations of disturbances over time, and instead, a heteroscedastic behavior is looked during the merging period. This increases significantly the size of the variance offering new supporting data (statistical significance) that, during the merging process, the stock market loose randomity and instead, it enlights information and signaling that new expectations are borning, so variance increases correlated trough time.

Industry effects.

Similar considerations as with the size effect are raised with respect to industry effects. These could exist if during the event period the industry, not the merger firm itself observed abnormal returns due to growth announcements, protection, regulation or other factors affeting the same to every firm in the industry.

Grinold, Rudd and Stefek study (1989) give techniques dealing with this situation. These rest on calculating excess returns (in local currency) as a function of local market return industry returns (BMV classifications). Common factor returns are normalized by industry residual return. What is expected is that the proportion of the variance of quarterly returns explained by local market plus industry factors give

higher explained variance without lowering the t statistical significance of market returns as a predictor of merging firm returns.

Also, the "simulation sample" as it is replicating the same industrial sectors as the merging sample allows us to distinguish the importance of the industry effect.

Industry and Firm Concentration

Herfindahl Index of Concentration for sector j, firms y:

$H_j = \sum_i (w_{ij})^2$

where wij = the market value proportion to sector j's index represented by stocks in industry y with respect to the gross domestic product of the respective sector. These Herfindahl indexes are calculated by the Federal Competence Commision (Comisión Ferderal de Competencia or FCC) and are used to asses if they could be explaining abnormal returns during the merger event.

For instance, Roll (1987) ran a regression of the monthly standard deviation of the index returns against several concentration measures. He found that more concentrated stock markets, whether concentration is measured either by the Herfindahl index or by the number of constituent stocks, display higher returns. Further he found that the results using the Herfindahl concentration index were more significant than the results using the number of stocks as a concentration measure.

Therefore, t-statistics will be used to measure the significance of the various industries characteristics in explaining abnormal returns. A high t indicating the higher relative importance of that industry to the total index. The size of the "t" statistics also indicate the degree of ahigher importance of the industry concentration to abnormal returns explanation. More over, remember that firms that were enjoying of high monopoly power such as Telmex were not considered neither in the merger sample nor in the simulated sample..

A double face validity test is included in this research to deal with problems of overestimation of abnormal returns in small samples as well as some problems that emerge from thin trading.

Data.

Firms alliances sample:

A sample of 40 firms was taken from the 1989-1994 period where accounting information was available one year before and six months after the official merger announcement was made. The official date is taken as the Bulletin of the Board of Stockholders registers for each firm as there is no an electronic database for merger events.

Stock prices are taken from Indet database, electronic archival from the Mexican Brokerage Warehouse using daily prices for the stocks selected in the bulletin research corresponding to -300 days before the announcement and 60 days after the event..

Financial statements were taken also from the Mexican Brokerage Warehouse and completed when necessary with electronic supply of data from Dow Jones. Economatica and information gathered by the Center for Computational Finance using real time requests to suppliers of information.

Prices provided by Indet database already are adjusted by splitts and dividends. The market model was built using the unequally weighted IPC as other researchs have found high consistencies with other specialized equally weighted indexes such as the INMEX for the banking institutions.

All the information was worked in SPSS statistical package, principally the discriminant model where bigger data manipulation is required.

Archival research based on Infosel database was performed to review the press information on strategic alliances and merger news.

Reports from the Competence Comission were also consulted looking for some more alliance or merger announcements, as well as documenting the regulation regarding merger or allying authorizations. The similar search was done for the banking system where the reports of the Comisión Nacional Bancaria y de Valores

was consulted to get information about the authorizations regarding banks and brokerage warehouses.

Holdout sample.

A sample of 40 firms was replicated randomly within the same industrial groups as the true merger firms and same event dates were simulated for these firms replicating the true event announcements in the merger sample. To this sample the name of "simulated merger sample" was refered.

The "simulated merger sample" was built to perform validity tests on abnormal returns and on standard deviations of expected returns. A descriptive statistical analysis was performed looking for consistencies in their distributions during the clean period and differences in the estimation period.

Similar analysis was performed regarding the multidiscriminant analysis of the abnormal returns of the merger firms compared with the ones obtained by the "simulated merger firms".

As the methodology states, descriptive statistics were performed where differences and similarities between the "simulated merger sample" and the true mergers sample were analyzed.

Also the true merger sample was divided into two subsamples. These were called the "analysis sample" and the "holdout sample" for testing the discriminatory power of the multidiscriminant model.

Specific characteristics of the firms included in the merger sample were summarized in Annex 1. The results are presented in Chapter V.

Some researchers assess the likelihood that a methodology lead to a Type I error -rejecting the null hypothesis of no abnormal returns when is true, and a Type II error - failing to reject the null hypothesis of no abnormal performance when is false-. The important issue is, thus, the power of the various methodologies. Power is the probability, for a given level of Type II error and a given level of abnormal

performance, that the hypothesis of no abnormal performance be rejected erroneously.

Test's power indicates a stronger presence of abnormal performance, thus keeping constant all other things, a more powerful test would be preferred.

There are several peculiarities to increase the test power. For instance, securities should not, on average, exhibit any abnormal performance previous to the event announcement.

CHAPTER IV
EMPIRICAL EVIDENCE REVIEW

Most studies on mergers, acquisitions, spinoffs, leverage buyouts, and takeovers, deal with the estimation of the merger effect on the firm value. Most of them have based their methodological elaborations on the concept of abnormal or extraordinary returns while some others have based their reasonings on path models, simulation models and more recently, clinical studies (Parrino, Robert. 1995). These other methods use complex mathematical algorithms, event simulations, and/or real time neural models and expert systems running out the merger effects on firm value.

Event studies base their analysis on a direct arrangement of data around day zero, graphing the observations and taking averages on 5 to 10 days around the event date. Event study methods help to measure the impact of specific types of firm decisions on the financial or organizational results of the firm or other related firms. In most investigations, stock returns are employed to measure security price performance, as a proxy of the results caused by the event or its announcement. This suggests at least two important things: that the security price performance represents the true expected return in a firm -as investors compare it with some other assets- and that the event can be isolated as a direct cause to measure the stock price variations.

Most studies use the Market Model under a wide variety of conditions. This model is refered to as one valuation model that adjusts prices for risk. Some other researchers, use simpler methods which do not explicitly adjust for marketwide factors or for risk performance. However, as seen in the empirical review, these simpler models can estimate expected returns no much worse than the market model (Brown Stephen J. April 1980).

The main objective in event studies has been to estimate the size and direction to which security price -or some other variable- varies as a result of an announcement. The important issue when using these models is to determine if this abnormal

behavior comes from the announcement of that event or from other simultaneous causes. In other words, to be able to decide to some extent if abnormal security performance is different from that which would have been occurred in abscence of the event.

Researchers utilizing this methodology accepted several implications. For instance, a direct relationship between the selected firm prices and the market prices under efficient market behavior. Some other assumptions regarding the behavior of returns, are time correlation, expected variance, and so on. The following paragraphs show how some other studies have dealt with these considerations and what have they found regarding important alliance events.

Systemathic non-zero abnormal security returns after a particular event would be inconsistent with the hypotesis that security prices performance adjust quickly to reflect new information as perfect markets assumes. The event is or must be unanticipaded, thus, the magnitud of abnormal performance at the time of the event is a measure of the impact of that type of event on stockholders claims. More specifically, abnormal performance is consistent with market efficiency as information is diffusing consistently in the market.

In most papers, observed stock returns -and not stock prices- are employed to examine various methodologies which are based on event study method to measure security price performance.

Jensen and Ruback (1983) reviewed 13 studies of mergers in the 70's obtaining a 20 percent increase in target stocks and mixed results on bidders. They were able to differentiate the stock effects if the mergers succeed compared to the returns showed when the alliance does not succeed. Success is determined there when the announcement really ends with the merger, without reversal. Surprisely, he found in unsuccessful mergers a 30 percent loss in returns of targets and more than 10% loss in bidders. Moreover, significant decreases accompany long periods of successive price falls following unsuccesful mergers.

What makes bidders to gain abnormal returns if the merger succeed but to losse if they do not remained merged? This for some authors is controversial.

Jarrell, Brickley, and Netter (1988) summarized results for 663 tender offers from 1962 to 1985, obtaining an average of 30 % increase in target stocks on 1980-1985 mergers. They found 3.5% gains in bidders, with low significance.

Bradley, Desai and Kim (1988) found a 35 % increase for a sample of 721 mergers occurring during 1981-1984. They studied the combined effects of the mergers on the bidders and on the targets and they tested for the combined effect instead of the effect on each separately. Using the market model, they found 3.2% abnormal returns around the announcement period.

In most studies, the extraordinary increase in target returns controls for accounting practices, related regulation when the events occur, businesses practices and the adopted strategy for the forthcoming months.

Different results emerge in the event studies depending on the circumstances in which the alliance occur, or the kind of the alliance. For instance, compared to acquiring firms' behavior, target firms develop legal defenses to protect against stakeholders' rights, so becoming better positioned for own investors and thus, creating a different stock behavior.

Bidders are found in most of the empirical evidences as the ones who obtain a higher positive abnormal return. Jensen, Brickley, Bradley, Netter, Roll, and Wasley (1983) found negative or very low but "not significant" returns to acquiring firms, and positive less than 15% "significant" returns to bidders on average.

Some other tests on the mean returns applied to target and acquiring firms show patterns that support the theory that both firms gain from the merger, but legislation, principally tax legislation, favors more the acquired, so it becomes more profitable to benefit financially and organizationally (though acquiring firm managers benefit the most).

The synergy hypothesis is tested in Kim, Bradley, Desai (1979); Roll, Eckbo, Stillman (1982). They found combined returns higher than the simple added average for the clean period, set by most of them at more than 90 days before the announcement. For these authors, increased market power and organizational complementarity between the two organizations were the most important factors in explaining synergy creation and the size of this synergy.

Consistent with this, a study examined the effects of mechanisms commonly used in the various event periods of a merger or acquisition (Smith, Virgil Orin. 1994). This author looked for knowing if some mechanisms that are available for a bidding firm, are more effective than others in bringing about a merger and sustaining it. Also, he looked if there exist some integration mechanisms that are more effective than others in preventing an early dissolution of the alliance. The mechanisms examined were those based on cooperative interpersonal relations between the top management teams of the original two entities, and those which rely upon coercive influences.

To examine these questions, Virgil Smith, took a sample of 213 merger attempts, and 83 completed mergers. He applied an analysis of secondary textual sources. He concluded that the chances of successfully completing the merger, and of creating a merger that does not end in early divestiture, are related to the mechanisms used. Smith concluded hat coercive mechanisms existent in the market for corporate control, are not as effective as mechanisms based on interpersonal relationships between the top management teams of the two firms (Smith, Virgil Orin. 1994).

Some other researchers have found a different but consistent evidence. For instance, Dennis and McConnell (1986) found positive correlation between buyer and seller returns, accruing to synergy theory most of the results. They also found a positive increasing serial correlation approaching the announcement day between both kind of firms rejecting the null hypothesis of zero abnormal returns during the event.

Dennis and McConnell based his study on a sample period of 1962-80 and an event period of -15 to +12. They found no abnormal returns neither for the acquiring firms nor for the bidders. This result is also reported in other studies, so critizising the abnormal returns method and refering it as a part of the specification error.

Cook and Martin did found abnormal returns in a 1970-86 sample although negative, studying 63 firms in an event period of -24, to +25. The average abnormal return for the event period was found to be equal to -1.21%. This result was probably some noise in the highest strata of the sample (firms with leverage greater than 50%). For that part of the sample regarding firms with 25% lower leverage, the cumulative abnormal return resulted in 4.84% (Martin,J. 1993).

Mergers and leverage buyouts in event studies seem to account more for abnormal returns than any other kind of strategic alliances. They have concluded that hypotheses based on transfer of wealth were not explaining the higher stocks variations. For instance, Lehn and Poulsen (1987), Travlos and Millon (1987); Marais, Schipper and Smith (1989). Martin and Cook (in Martin, 1993), and Warga and Welsh (1989). All of them found negative cumulative abnormal returns in the bidding returns, low significant.

Neither Managerialism theory nor Monopolist or Concentration - Collusion theories have been found significant in explaining abnormal returns. Some explanations to why this occurrs are refered to rivals reactions what create simultaneity problems in the testing procedure. Contrarily, Undervaluation theory has been very successful in explaining value creation in natural resources kind of mergers, but not in others.

Tax Advantage, Managerial Compatibility, as well as Labor Savings theories have been found significant though accompanied by other important moderator variables that help to explain the wealth creation process near the merging dates. Some of these moderator variables are: market share, redistribution of benefits, and some hubris processes.

Adjusting for marketwide factors explaining stock reaction, Brown (1983) examined several alternatives. These included a one-factor market model for abnormal returns; a two-factor model utilizing Fama-MacBeth residuals, and a control portfolio technique in which the return on a portfolio of sample securities was compared to that of another portfolio with the same estimated systematic risk.

Inclusion of irrelevant vaiables or omission of relevant ones when estimating returns, seems to be two of the most important problems in explaining abnormal returns. Also, the problem of heterogenous samples makes difficult to generalize the results to other alliances (external validity).

According to the free cash flow theory proposed by Jensen (1986), excess cash available to bidders may be able to explain the motives of mergers and the market's reaction at the announcement of an acquisition. As we saw in the first part of this paper, Free Cash Flow theory proposes that firms who have excess cash and who do not distribute it to their shareholders, tend to expend their money on acquisitions which are mostly low or negative performers. This creates an opportunity for higher returns in the bidder firms.

Rahim Niazur study (1983) analyzed the reactions on the stock prices of the bidding firms around the announcement day by stratifying the samples depending their method of financing, type of merger, and the level of free cash. He hound significant abnormal returns when cash flow was significant and the firms seemed not having problems in financing.

However, other empirical evidence show that stockholders of bidding firms lose when leveraged mergers are announced even if the bidders had high cash flow. Lower abnormal returns are gotten when leverage is higher than when it is not.

Sankaran, Kizhekepat (1993) did a study to show that firm performance during the merger announcement depend upon the level of synergy pursued by the firm; Regarding performance differences across diversification archetypes, the results

suggested the need to pursue innovative strategic alliances that call for the highest complementarity among the bidder and the target firms.

Other common hypotheses in most studies include agency/governance, managerial characteristics and resource availability. Operating performance and total diversification are taken as control variables. Logistic regressions and path analysis techniques are some of the most employed techniques to evaluate the data. In addition to performance and diversification, other significant predictors have been ownership concentration, managerial experience and firm age (Smart, Dennis Lee, 1993).

Financial Post-Merger Performance:

Ramaswamy examines the long-term financial operating performance of the combined firm resulting from mergers and acquisitions (M&A) and some factors associated with such performance (Ramaswamy, Kadandoge Padmanabhan, 1993). The overall effect of M&A on the long term financial operating performance of the combined firm is estimated using cash flow measures such as the *cash flow return on assets*, computed for each combined firm for each of the five years, both before and after the year of merger.

Ramaswamy utilized regression analysis, t-tests and the non-parametric Wilcoxon signed rank test, to examine the post-merger operating performance of the combined firm in relation to the pre-merger period. The study found that the post-merger operating performance is, in general, an improvement over that of the pre-merger period.

Ramaswamy examines the association of the relative performance of M&A with a number of factors such as: the type of managerial compensation plans, the type of the payment to targets' shareholders, the type of acquisition, the standardized cumulative abnormal returns on the two days surrounding the announcement of the merger, the percentage of ownership by managers, the difference in the debt ratios of the acquiring firm minus the target firm, the difference in the market to book ratios of

the acquiring firm minus the target firm, the ratio of asset sales to total assets during the post-merger period of the combined firm, and the overlap between the businesses cycle and the period of acquisition

Ramaswamy study shows performance of M&A associated positively with the difference in the market to book ratios of the acquiring firm minus the target firm and is associated negatively with the ratio of asset sales to total assets during the post-merger period of the combined firm, the difference in the debt ratios of the acquiring firm minus the target firm, the period of acquisition, the standardized cumulative abnormal returns on the two days surrounding the announcement of the merger and the percentage of ownership by managers (Ramaswamy, Kadandoge Pakmanabhan. 1993).

Surendran, Sunil (Kent State University, Phd 1994), studied controversies about causes and consequences of LBOs. Theory states that, in public corporations, managers are wasteful and risk avoiders because of the separation of ownership and control. An LBO aligns ownership and control so the firm may become better managed. The new managers-acting as owners also closely monitored by investors would enhance efficiency.

Critics on LBOs claim they are wealth destructive in the long run, since the LBOs tend to reduce R&D and capital expenditures. In the short run, however, LBOs managers tend to eliminate organizational waste and inefficiency because of their increased stake when they become owners.

To test this, firm accounting variables were correlated to market behavior through linear regression, logistic regression and Wilcoxon testing. The results indicate that the market reaction is correlated to operating efficiency ratios supporting the idea that LBOs generally involve targets that were inefficiently managed as public corporations and become better managed when taken private (Surendran, Sunil. 1994).

John D. Martin and John W. Kensinger in Exploring the Controversy over Corporate Restructuring (1993) made an excellent review of the essence of the restructuring controversy and the methods to test it. Using an interesting stakeholder model they give evidence regarding changes in the firm's asset portafolio, changes in the firm's final structure, changes in organizational form, and changes in the corporate charter and their effect on the stock returns.

Among their main conclusions they mention the growing power of institutional investors in discriminating different stocks returns of the merging and target firms.

Martin found that acquisitions tend to substantially increase the debt burden on the target firm´s operations, and be followed by asset sales and elimination of duplicate functions that, on average, take shareholders to gain an immediate 3 percent increase in value in a spinoff.

Opportunism explaining gains.

The managerial opportunism hypothesis is tested to determine if factors such as the proportion of outside directors on an acquiring firm's board, directors' compensation plans, and percentage of own firm stockholding, influence management's decision to participate in merger activity (Colie, Dennis George. 1994).

An important contribution of this research is the econometric method that explicitly recognizes that firms voluntarily engage in merger activity. The importance of recognizing this self-selectivity (which has been largely ignored by previous researchers) is that the process may lead to a non-random sample and, consequently, biased parameter estimates.

Therefore, the research provides a direct test for self-selection bias. The self-selection bias test admits a distinction between two estimates of expected abnormal return on acquiring firms' common stock around a merger announcement. One estimate is the unconditional expected abnormal return for a randomly selected firm,

were its management announce a merger proposal that is eventually completed. The other estimate is the conditional expected abnormal return for firms which select themselves into the sample by actually announcing a merger proposal that is eventually completed.

The conditional return results higher than the unconditional return. For the author, this implies that acquiring firms tend to undertake mergers with lower prospects than the average for maximizing their equity values. Such finding is consistent with the managerial opportunism hypothesis.

The principal finding of Colie´s research is that stockholders of firms whose management decides to participate in merger activity and makes a successful offer can expect a two-day cumulative (conditional) abnormal loss around merger announcement of 1.8%. However, random selection to participate in merger activity would be expected to produce a two-day cumulative (unconditional) abnormal loss of 2.6%. Thus, stockholders of firms whose management voluntarily decides to participate in merger activity are better off (lose less) than if successful merger activity were governed by a random selection process. Other findings were:

-the higher the proportion of outside directors on a board, the less is the tendency to participate in merger activity

-the greater inside directors' and outside directors' fractional firm stockholding, the greater is the tendency to participate in merger activity

-the higher inside directors' cash compensation as a fraction of the market value of their stockholding, the greater is the tendency to participate in merger activity

Colie´s findings support previous evidence given by Kim and Schatzberg (1987) who studied the stock price reaction to 73 voluntary liquidations issuing at NYSE- and AMEX from 1963 through 1981. They found a three-day abnormal stock returns in the acquiring firms of 1.1 percent upon the announcement of the purchase although statistically non different from zero.

Also consistent with the previous paragraphs are the findings from Bradley, Desai, and Kim (1988) who reported cumulative abnormal returns by the bidding firms for the period beginning five days before the first offer and ending after the last offer, or received by the target firms with different announcement intervals. Kim et. al. estimated an average increase of 7.43 percent, in both the target and acquiring firms who volunarily announced the merger and were prepared for it.

Leveraged Recapitalizations

Cook and Martin (1989) refer to capital structure the explanation to negative stock returns. They calculated significant negative wealth effect only for those alliances where the financial leverage increased too much after the takeover. For firms experiencing an increase in financial leverage of 50 percent or more, a two-day event date excess return was -1.73 percent and the cumulative excess return spanning the period beginning 24 days before the announcement and ending 25 days after was -3.70 percent, both of which are statistically significant at 5% level.

A typical leveraged recapitalization involves a cash payout to shareholders that is generally financed through a debt issue.Takeover defense and corporate restructuring technique, was addressed by Handa and Radhakrishnan (1989). They observed that 42 firms resorted to the use of a leveraged recapitalization as a takeover defense. Their results indicate taht the announcement of leveraged share repurchases tends to observe a positive impact on share price for the mayority of the firms that have used it. For example, the average two-day abnormal return for all firms was 5.52 percent, with a maximum abnormal return of over 40 percent (Martin, 1993).

Michael Jensen (1986) offers an explanation to why leverage is preffered to other merging strategies. In his "free cash flow hypothesis", he observes that extreme use of debt brings with it a change in the processes by wich management actions are monitored, and alters the way managers are motivated. In essence, the increased use of debt forces cash to flow out of the firm. Greater leverage increases the likelihood

that the cash flows be reduced or eliminated and the stockholders get their money out of the firm so they can once again control its investment.

When leveraged recapitalizations occurr (or leveraged share repurchases) managers discretionary control is reduced or eliminated in terms of the firm's cash flows. This provides a similar result that would have occurred if the takeover and subsequent restructuring actually would have taken place, thus forcing management to take actions raiders. Jensen found that these effects are absorbed by the stock prices.

Kelly, Brian Daniel (1994) found consistently to Jensen that debt burden is as important as project scale in predicting gains from mergers. The choice of financial structure and the consequent behavior of a firm that takes more or less debt and depends of the structure of payments established.

Following Kelly´s arguments, the net present value in project evaluations changes as a result of the repayments outflows, bankruptcy risks and other uncertain demands.

One interesting implication regarding cash disbursements to loan repayments is that firms with different capital structures that makes different revenue expectations may realize a net gain by merging their cash streams. Kelly´s foundings suggest that firms will tend to diversify across cash flows in mergers and acquisitions. An empirical test of this proposition analyzes the relative cash flow characteristics of acquirers and their targets. Cash flows of acquirers are found to diverge prior to merger, but with unclear results concerning statistical significance (Kelly, Brian Daniel, 1994).

Leveraged Buyouts and Put Bonds: the Entrenchment Hypothesis

Two authors in an article examining the effect of issuing debt with and without "poison put" covenants on outstanding debt and equity claims for the period 1988 to 1989 shows that "poison put" covenants affect stockholders negatively and outstanding bondholders positively, while debt issued without such covenants has no

effect. The study found a negative relationship between stock and bond returns for firms issuing poison put covenants. This evidence is consistent with a "mutual interest hypothesis," which establishes that the poison put debt covenant protects managers and bondholders, but stockholders increase risk so getting worse off. (Douglas, O Cook and John C. Easterwood. 1994)

A contractual innovation, known as "poison put" or "super poison put", has been introduced in the corporate bond market in recent years. The two principal covenants are put options and coupon adjustments depending of the occurrence of "risk events" like hostile takeovers, acquisitions of large stakes in leveraged buyouts, and leveraged recapitalizations.

Reductions in bond value that sometimes occur concurrently with corporate control activity are controled depending of its effect on bondholders and stockholders position. Event risk covenants or "poison puts" could be included in corporate debt for three reasons. First, poison, as the name suggests, could be designed to make firms less attractive as takeover targets and thus provide an additional mechanism for strengthening managerial resistance to hostile bids. This view is called the by the author as "entrenchment hypothesis".

Jayaraman (1990) tests the entrenchment hypothesis by examing the impact on stockholder wealth of 25 poison put bond issuing during 1986-1988. The average abnormal stock return for his sample is -0.99 percent at the time of the announcement, and this estimation resulted significant statistically. Jayaraman reports that the average abnormal stock return for protected debt was statistically lower -negative- than the average return resulting from straight debt issuance reported by Eckbo (1986) for 1964 to 1981, but it is not different from the average return for straight debt issuance reported by Dann and Mikkelson (1984) for 1970 to 1979.

Crabbe (1991) found that including a moderate degree of event risk protection reduces the yield by 25 to 30 basis points. Fields, Kidwell, and Klein (1991) found that including event risk protection reduces bond yields by about 25 basis points for

bonds offered after the R. J. Reynolds/Nabisco (RJR) buyout. Prior to RJR, they found that the inclusion of a put or other event risk protection did not have a significant effect on bond yields. Consistently, Bae, Levy, and Wannemacher (1991), found that event risk protection has not significantly reduced bond yields, even after RJR (cited in Cook and Easterwood, 1994).

Regulators and academics have suggested that market value financial statements provide better information for evaluating financial institution insolvency. However, market value accounting's usefulness in predicting distress may be limited because financial statement values generated by the proposed system of market value accounting may not accurately portray future operating cash flows (OCF). This study (Catanach, Anthony Henry. 1994) argues that cash flow from operations is easily calculated and reflects the major risks inherent in banking, that negative OCF are associated with higher failure costs, and that declining OCF and increasing operating expense levels increase the probability of financial distress. Therefore, OCF provide a useful supplement to a system of market value accounting in the detection and measurement of financial distress in the financial services industry.

Regarding heterogeneity in valuation, empirical results are mixed. A positive relationship between dispersion of analysts' forecasts and premiums paid to targets shareholders is found only for firms contesting a takeover. The strongest influence of heterogeneity is found in target selection. Firms with greater dispersion of analysts' forecast are more likely to become targets than firms with lower dispersion (Fant. 1994).

Market Share Effect, Price Effect and Cost Effect.

An economics-based methodology is used to analyze the effects of mergers, where data for the firms involved in the mergers is analyzed both longitudinally and cross-sectionally comparing merged firm data with rivals firm data (Ivancevich, Susan Hermanson. 1994). The effects of the mergers are analyzed for the merged firms and their direct rivals in terms of changes in market share, product price, and production

costs in the post-merger versus the pre-merger period. The two mergers are analyzed both individually and in aggregate. The results of data analysis are consistent with the productive efficiency hypothesis. Hence, the results are consistent with the premise that megamergers predominantly resulted in increased efficiency within the market.

Ivancevich study analyzed the 1989 two accounting "megamergers". These two mergers (the merger between Ernst & Whinney and Arthur Young to form Ernst & Young, and the merger between Deloitte Haskins & Sells and Touche Ross to form Deloitte & Touche) are recognized as the most significant mergers in the recent history of the public accounting profession. The purpose of this study was to determine the net effect of the 1989 megamergers on the market for audit services. Specifically, three hypotheses were tested in this study: (1) that the net effect of the mergers was predominantly the creation of market power, (2) that the net effect of the mergers was predominantly the creation of productive efficiency gains, and (3) that the net effect of the mergers was some combination of these two effects, where neither effect was predominant (Ivancevich, Susan. 1994)

Recent theoretical work has revitalized the notion that vertical integration can harm welfare through the foreclosure of markets. Using a meaningful definition of foreclosure based on changes in the price of the intermediate good, this dissertation explores how changes in market structures caused by vertical merger can lead to injury to competitors, lessened competition, and reduced consumer welfare (Waldron, Randall E. 1994).

A model of successive oligopolies is employed, along with a game-theoretic approach to the merger process. In this model, firms have two incentives to integrate: a pro-efficiency incentive to reduce successive markups, and an anticompetitive incentive to foreclose a downstream rival by raising its costs. A variety of parametric settings and alternative game structures are used to show the different conditions leading to welfare improving and welfare reducing outcomes.

Foreclosure Mergers.

Integration becomes a means of competition, and the choice of merger partner is a strategic variable. Observable characteristics of various merger patterns are discussed in a investigation, suggesting that integration resulting purely in foreclosure will exhibit distinctly different attributes compared to multiple efficient mergers that lead to intensified competition.

Waldron Randall studies how foreclosure, for example, raises the prices of the final goods and increases the profits of the integrated and foreclosing firms, while multiple efficient mergers lower final goods prices by eliminating markups, and profits can rise or fall. The model is applied to the cement and concrete industries of the 1960's, where a number of vertical mergers were successfully challenged by the Federal Trade Commission as foreclosing markets. The application of the model suggests that the FTC policy was inappropriate for preventing foreclosure: the mergers most aggressively attacked were most likely desirable welfare improving mergers. By concentrating on markets where multiple efficient mergers were occurring. The FTC appears to have intervened to stop efficiency enhancing integration. To the extent that any mergers in these industries caused foreclosure, these were likely to be overlooked by the FTC because the misguided focus of investigation (Waldron, Randall E. 1994).

Related and Unrelated Mergers.

Little success has been reached in identifying what factors cause changes in the volume of merger activity. One weakness with past studies is that mergers between firms that supply similar products, or utilize similar production and distribution techniques, are not analyzed separately from mergers between firms that have no commonality. Aggregation may result in misleading conclusions since the economic

and institutional environment may affect related mergers differently than it influences unrelated mergers.

Flanagan, Dennis (1992) in his dissertation analyzes the effect of the economic and institutional environment on aggregate, related and unrelated merger activity. The author uses The Federal Trade Commission (FTC) Large Merger Series. The FTC series runs from 1950 through 1979. A new aggregate mergers and acquisitions data series, running from 1972 through 1990, is developed using the Compustat data base.

The author affirmed that cycles in the aggregate and related merger series are found to be positively correlated with cycles in gross national product (GNP), business investment and stock prices. Cycles in the unrelated merger series were also found to be positively correlated with cycles in GNP (Gross National Product). The hypothesis that aggregate corporate profits positively affect the aggregate, related and unrelated merger series was supported. The Tax Act of 1986 negatively affected unrelated merger activity. The Tax Act of 1986 was not found to affect related merger activity significantly. Changes in antitrust regimes were not found to affect the aggregate, related, or unrelated merger series (Flanagan, David Joseph. 1992).

Forward and Backward Integration. The Use of Moderators.

Although previous research has provided strategic managers with lists of advantages and disadvantages associated with vertical integration, it has also resulted in conflicting results regarding the vertical integration-firm performance relationship (Pray, Bevalee Burton. 1992). There may be a number of reasons why equivocal conclusions have been drawn from previous research. In this study two potential reasons are explored: (1) the impact of moderating variables and (2) the measure of firm performance.

This investigation explores two moderators in the vertical integration-firm performance relationship: first, whether the integration is forward or backward and second, whether the acquisition is related or unrelated. Second, it is argued that by

using market rather than accounting data to measure firm performance a more timely view of firm performance can be gained. This research tests the impact of two moderators, forward versus backward integration, and related or unrelated acquisitions, on returns to an acquiring firm's shareholders by utilizing the event-study methodology.

Results of the overall sample indicate that no abnormal returns are accruing to the acquiring firm during the announcement of a vertical acquisition. When the sample is tested for moderating variables, there does seem to be some weak evidence that unrelated vertical acquisitions outperform related vertical acquisitions. However, whether the integration was forward or backward is not supported as a moderator.

From these results the author concludes that whether the acquisition is related or unrelated may act as a moderator in the vertical integration-firm performance relationship (Pray, Bevalee Burton. 1992).

Acquiring Firms Gains and Ownership Concentration.

The effect of ownership concentration on abnormal returns to acquiring firms during mergers and acquisitions is examined using data compiled from merger listings, the ownership concentration study by Demsetz and Lehn (1985), and CRSP data.

Their overall results show that ownership concentration has a slightly negative impact on cumulative abnormal returns accruing to acquiring firms. The negativity is not monotonic, however, and comes mostly from firms with above average ownership concentration. Bidders with ownership concentration below what may be the effective level of control are not significantly affected by ownership concentration.

Individual and family holdings have a significantly negative impact on bidder returns whereas institutional holdings do not. Large institutional shareholders may counter the negative impact of family shareholders. Ownership concentration was also found to be negatively correlated to the change in the systematic risk of the acquiring

firm following the merger. The results provided evidence of agency problems between insiders and outsiders in the context of mergers, but do not provide evidence of similar agency problems between shareholders and management or between shareholder and bondholders (Choi Unghwan. 1992).

Joint Ventures.

Carter, Michael Wayne (1994) reviewed how joint venture and licensing agreements have emerged as popular substitutes for more traditional means of inter-corporate contracting such as mergers, acquisitions, and asset purchases. A feature which sets these two forms of contracting apart from the others is that firms retain an ownership interest in assets contributed to these activities. They differ from each other in that, with few exceptions, licensing contracts do not change the ownership of the targeted assets, while many joint ventures create shared ownership of the assets devoted to the ventures.

The favorable wealth effects associated with asset acquisitions, corporate combinations, and expansion into foreign markets have well established theoretical foundations in Finance. While theoretical models converge on the benefits which may be derived from using licensing and joint venture activities in domestic and foreign markets, the conclusions drawn from the related empirical investigations of joint ventures have not been consistent.

Studies by McConnell and Nantell (1985) and Lummer (1983) find that significant gains in stock prices are associated with the establishment of domestic and foreign joint ventures, respectively. Recent studies of foreign joint ventures have combined to yield the ambiguous result that this activity is either wealth-increasing, wealth-decreasing, or wealth neutral for the shareholders of participating firms. Additionally, some of the hypothesized benefits from licensing assets have not been subjected to empirical validation. This study focuses on the response of stock prices to announcements of joint ventures and licensings. The study includes an analysis of

the influences of insider ownership and firm size (market value) on the reaction of stock prices to both types of announcements. The results show that licensing agreements result in significant increases in the market values of participating firms.

Firm size exerts a positive influence on the market's reaction to licensing agreements, but it negatively affects stock prices when international joint ventures are created and when one member of a domestic venture is substantially larger than the other.

Mergers Efficiency Versus Market Power:Valuation Effects.

Market power studies have based its analysis exclusively on capital market data which could be considered ill-suited for market power tests. Also, antitrust policy creates a bias against mergers. (Singal, Vijay. 1992). The thesis develops hypotheses to evaluate the role of market power in mergers and tests them by investigating the effect of mergers on (i) the merging firms' airfares in the product market and on (ii) abnormal returns to merging firms in the stock market. Since exercise of market power affects other airline firms in the market, the analysis is extended to study the effect of mergers on (iii) rival firms' airfares and on (iv) abnormal returns to rival firms.

Concentration Power.

Merger market reaction could also be anticipating concentration power (Tomlin, Jonathan Truman. 1994). Tomlin reviews how many recent studies have attempted to determine the competitive consequences of horizontal mergers by examining how the announcement of these mergers affects the stock prices of competing firms. The common result obtained in each of these studies is that, on average, competitors experience positive abnormal stock returns upon the announcement of a merger in their industry. Explanations as to how the announcement of horizontal mergers affects the stock prices of competitors, however, have differed drastically. This dissertation

employs a recent data set of horizontal and non-horizontal mergers to provide evidence on this unsettled issue.

Previously proposed hypotheses are empirically examined. The hypothesis that horizontal mergers signal an increased probability that competitors will merge as well cannot explain the persistent finding of positive abnormal stock returns for competitors. Although rival returns tend to be higher in highly concentrated industries, concentration alone cannot explain the positive abnormal returns rivals experience. Horizontal mergers were found to affect rival returns through several channels.

The results of this study show that the method of payment in a takeover is shown to be an important determinant of rival returns. It is an empirical regularity that both of the direct participants in a takeover tend to experience lower abnormal stock returns when the method of payment is stock as opposed to cash. This study finds that rivals also tend to experience lower abnormal returns when a horizontal merger is financed through stock. These new findings suggest that examining rival stock reaction is capable of providing new evidence on the role of takeovers quite apart from their competitive consequences (Tomlin, Jonathan Truman, 1994).

Sheikh Hussin Ayman (1994) described a process for horizontal mergers and uses this process to draw conclusions as to the likelihood of mergers taking place in equilibrium. The theory utilizes concepts from the theory of games and strategic behavior. A major problem with such theory is that it assumes a significant level of sophistication on the part of economic agents.

Target Opposition and Size Effect.

A dissertation studies tender offer bids and the determinants of bidding firms' initial shareholdings of the target firms in tender offer bids toeholds (Asquith, Daniel. 1992). A zero toehold is less likely in offers that are opposed by target management. Toeholds decrease slightly with bid premia, but this decrease is not statistically or

economically significant. Positive toeholds often attracts competing bids, but the finding was not statistically significant.

There is a long standing debate whether takeovers are socially beneficial. Asquith argues that if, on balance, takeovers are socially beneficial, then value decreasing bidders may serve a positive role.

Takeover Regulation Effects on Multinational Mergers.

Literature on mergers and acquisitions has shown that the bidding firm's shareholders in domestic acquisitions obtain minimal or negative returns around the date of the announcement of an impending merger or tender offer. In domestic transactions target firm shareholders tend to reap the benefits in the form of positive returns. Restrictive U.S. takeover regulation in the form of the Williams Act of 1968 has been shown to have altered the U.S. environment for takeovers and altered the pattern of the parties' returns (Sudia, Joseph Andrew. 1992).

The basis of this study are the theories regarding efficient markets' mergers (synergy), portfolio theory (diversification), as well as considerations of capital market integration. Based on this, this paper establishes a link between the domestic policy enactments and the return patterns for U.S. multinational acquirers. Domestic disclosure costs due to a changing U.S. regulatory environment, influences synergistic value creation, differential regulatory environments around the world, and risk reduction through geographic diversification. An event time regression analysis for 323 firm announcements of foreign acquisitions by U.S. listed firms is run with changing U.S. regulatory environments of Canada, the United Kingdom, France, W. Germany, and the European Economic Community (EEC). Implications found by the author are that the results bolster the arguments for foreign diversification, international capital market efficiency and integration, and domestic policy spillover effects in the takeover market (Sudia, Joseph Andrew. 1992).

Rol of Taxation and Merger Success

Hayn (1989) provides evidence that tax considerations play an important role in explaining the abnormal returns to shareholders of both target and acquiring firms. The most prominent consideration in tax-free acquisitions involved the amount of net operating loss carry-forwards and tax credits due to expire. The study also found that obtaining tax-free status for the proposed acquisition tended to increase the likelihood of completion. Legislation is under consideration by the 101st U.S. Congress, however, to restrict acquiring firms from taking advantage of tax loss carry-back provisions. A tax code neutral regarding mergers is one of the main implications of this study.

The welfare effects of profit taxation and horizontal mergers policies are analyzed recently by Cheong, Kwang Soo (1994). A signalling model is utilized to investigate the consequences of corporate taxation in the presence of an adverse selection problem for equity-financing. Corporate taxes affect the signalling costs as well as the profitability of projects. The tax effects are analyzed for alternative depreciation schemes and loss-offset provisions. Due to the risk-absorption of taxes, firms actually bear lower risk with higher tax rates.

Also, Cheong examines the efficiency and incidence of a proportional tax on risky income in a general equilibrium model with occupational choice. As the high-productivity agents are more scarce, a stronger signal is necessary, but a lower wage is paid. The tax does not always discourage entrepreneurial activities, but when it does, workers share the tax-burden with firms.

Therefore, regarding horizontal mergers and antitrust policy his analysis showed that mergers are more likely to be profitable but less likely to enhance the consumer's surplus or the social welfare than previously expected. These anti-merger implications are further strengthened in the results of the dynamic model where he found that mergers of symmetric firms always obtain short-term excess gains during transition

periods. Cost-saving mergers may improve social welfare, and may even benefit consumers; however, outside firms lose whenever consumers gain.

Ghosh, Aloke (1994) uses a fundamental valuation process with financial and operational information to assess future earnings and risk to arrive at a conclusion on the pricing of a risky investment project. He shows that the market participants use this fundamental valuation process to assess the premium paid by acquirers to target firms following disciplinary takeovers. Using changes in Value Line forecasts before and after mergers announcements as a proxy for the investors' information about the fundamental values of the target firm, he showed that this valuation plays a significant role in the investors' assessment of the target shareholders premium following the takeover announcements.

Firms experience no direct cash flow consequences from the amortization since no tax shields to the firm are provided by the reduction in earnings (Hethcox, Kathleen Blackburn 1993). This research investigates the relation between goodwill and security prices by using standard event-time methodology to analyze common stock returns around three dates at which information on goodwill resulting from merger becomes publicly available. Employing a sample of 116 acquisitions occurring during the years 1984-1990, this study finds a negative association between increased goodwill from a purchase combination and abnormal stock returns of acquiring firms after controlling for method of payment, tax status, post-regulation time period, type of acquisition, size of acquisition, depreciation, and leverage.

The relationship between creating alliances and tax stimulus is strongest at the announced completion date of the acquisition and at the first quarterly earnings announcement after the combination of firms is effective for accounting purposes. The evidence supports the hypothesis that the market considers the increased goodwill when valuing firms involved in purchase combinations and responds negatively to that increase (Hethcox, Kathleen Blackburn, 1993).

However, different kinds of taxation problems arise from mergers. Due to the merging company no longer exists, it is important to determine how the transferred assets are handled for tax purposes. The question of an eventual merger difference (merger result) has to be solved. This difference exists when the net assets transferred through the merger are of bigger or smaller value than the price of the shares the receiving company has paid (Immonen, Raimo. 1992).

According to the present US rules merger profit can be taxable income under certain circumstances, the merger loss can be deductible in the business taxation. These kinds of tax consequences are problematic especially in case of so-called tax neutrality. If the taxation is neutral the decisions of the tax payers are not influenced by tax consequences. Both merger profits and merger losses can affect the decisions. When, for example, deductible merger losses can be used to benefit the receiving company the merger can be carried out even though the merger was not economically reasonable.

In Raimo´s research the merger taxation has been examined mainly through the neutrality hypothesis. Taxation will not become an obstacle to the company reorganizations through mergers but the tax effects of the merger result can direct the decisions of the companies. This kind of influence can be described as an unneutral feature. When compared internationally the tax treatment of the merger profits and merger losses is rather exceptional. Normally merger profits are not subject to taxation and merger losses are not tax deductible.

The tax merger regulations does not allow the tax burden always be anticipated, because part of the assets are valued at their market value, and in merger the property is not de facto sold. The price must therefore be estimated. Further, the regulation is complicated because some assets are added when the merger result is calculated. When the taxation procedure is concerned, the regulation establishes the companies be taxed separately until the merger is completed (Immonen, Raimo. 1992)

Tax incentives oriented mergers are studied by Moden, Karl-Markus (1993) He identifies asymmetries in the tax system, e.g., lack of loss offset and rules against share repurchases, as conducive for mergers. Other features, such as preferences for capital gains over dividends and taxation of capital gains only on realization, or so called "lock in effects", also bias the tax system in favor of mergers over new investments.

An empirical study of the Swedish manufacturing industry is performed. The direct tests give only weak support for a major importance of the tax motive for mergers. However, larger companies have been able to use their tax deductions more efficiently than smaller firms, and have therefore a lower cost of capital. This is an indication of a pro-merger bias of the Swedish tax system.

With respect to the role of tax incentives in the localization decision of multinational companies, if countries do not cooperate explicitly in tax rate setting, the result will be an inefficient allocation of the world's capital stock. Governments may engage in competition to attract foreign direct investments by lowering their effective tax rates. If countries are of unequal size the game may be one of follower-leader type, with the largest country being a leader.

The empirical results, on Swedish data, indicate that the Swedish effective corporate tax rate has adjusted quickly to changes in the average effective tax rates abroad. Some support for this hypothesis in the case of the U.S. is received. The U.S. is also identified as a leader of the tax setting game during the sample period (Moden, Karl-Markus, 1992).

Contagious Mergers.

In the acquisitions and mergers within the financial industry only occur with the approval of the Federal Reserve Board. The Federal Reserve Board utilizes econometric models in an attempt to predict what the changes these acquisitions and mergers will have on other banks (Flanegin, Frank Richard, 1993). Using information

from the Federal Deposit Insurance Corporation and the Federal Reserve Board Flanegin study empirically tests for the overall contagion effects caused by a acquisition or merger within the financial industry.

The study also tests for differences in the contagion effects based on whether the merger is present market expanding or new market penetration. The empirical results indicate that there are statistically significant negative contagion affects accruing to shareholders of present market expanding contagious banks, while no such affects exist for banks contagious to new market acquisitions.

Narayanan, Savithri L. (1994) found that the banking industry in the United States has undergone significant changes in recent years as a result of deregulation and interstate banking. Narayanan found that, after a state permitted interstate banking, and medium banks in that state altered the composition of their loans mainly by increasing the proportion of commercial loans and decreasing the proportion of loans to individuals.

Small and medium banks also decreased their holding of high-grade treasury securities and held more low-grade government-backed and corporate securities. Economists have argued that geographic restrictions on banking in the United States limit the effective diversification of bank portfolios, and liberalizing these restrictions would result in reduced risk and increased profitability. In the 1980s several states relaxed geographic restrictions on banking by allowing out of state banks to open branches in their states. The study suggests that failure and merger rates increased and profitability decreased for banks in the states that liberalized their branching restrictions.

Cost efficiencies, economies of scale and merger relatedness are studied in US commercial banking by Bisceglio, Anthony F. (1995). He found that when planning an intramarket merger, bank managers typically forecast savings of approximately 30% to 40% of the expenses of running the smaller bank within three years estimulating merger banking activity. However, many regulators and academic

economists argue that numerous empirical studies have failed to establish the existence of economies of scale in banking. This study provides evidence that bank mergers are cost-saving.

Utilizing standard methodologies, an analysis of the dispersion of costs, economies of scale and cost efficiencies are made for 495 northeast commercial banks. The merged banks were examined pre and post merger, to determine whether the mergers were likely to create efficiencies ex-ante and or ex-post. Bisceglio found no evidence for economies of scale. A wide dispersion of average costs was found for banks of similar size. Managerial efficiency differences were very large relative to scale efficiency differences. There can be merger-related cost if there is substantive variation in the cost structure. The evidence also suggests that interstate banking would not create very large banks with considerable cost advantages. Size alone does not guaranty cost advantages. The banking organizations that prospered in the interstate banking era will be those that are best at establishing and exporting management efficiencies, not necessarily the largest (Bisceglio, Anthony 1995).

An Ohio State University dissertation assesses the impact of the Chilean financial reforms, implemented gradually over 1974-81, on the cost structure of the Chilean banking system, by measuring the incidence and magnitude of economies of scale and of scope over the 1984-91 period (Nauriyal Bharat Bhushan. 1993). Based on duality theory, Chilean banking institutions are modelled as multi-product firms.

Utilizing monthly data on 37 financial institutions, a tanslogarithmic multi-product cost function is estimated and measures of economies of scale and economies of scope are derived for each of the eight years (1984-1991), as well as, for seven different groups into which the Chilean financial institutions can be classified. *Findings indicate persistent and significant economies of scale in the operations of Chilean financial institutions, though the findings on economies of scope are not as uniform and consistent.*

The small market size with limited possibilities for expansion, and the agressive competition for market shares, banks operating in Chile have relied on their ability to create and develop specialized market niches for their services. The low number of mergers current Central Bank policies to repurchase the non-performing portfolio obligations as well as the pattern of ownership of banks, and other regulatory policies concerning closure of branches or, current labor laws, are some factors which neutralizes the attractiveness for merging. A rehabilitation for the Chilean banking system will require changes on merging regulation (Nauriyal Bharat Bhushan, 1993).

Merger effect of Accounting Practices.

Evidence from the non-financial sector indicates that acquisition accounting methods (AAM), board composition (BC) and ownership structure (OS) have a significant impact on bidder returns. Since the operating and financial risks of financial firms differ significantly from those of nonfinancial firms, a study done by Murthy, Vijaya Subrahmanyam (1993), extends previous research by examining the effects of AAM, BC, and OS on bank acquisitions. He found that for banks involved in acquisitions, the abnormal returns to bidders associated with the pooling method are significant and negative, while those associated with purchase are insignificant.

This result is distinctly different from the results seen in the literature, where researchers in corporate finance find that returns associated with purchase are significant and those associated with pooling are not. Using Parkinson's test for stock return volatility, the author found that there is a greater volatility of returns associated with pooling than with purchase. He also found that the average tenure of independent directors is also inversely related to abnormal returns, perhaps indicating that directors with long tenures may be coopted by management to some extent. Last, he found a positive relation between abnormal returns and average ownership by outside directors, consistent with expectations (Murthy, Vijaya Subrahmanyam, 1993).

Predicting Mergers

Prediction of financial takeovers is tested in a very interesting study done in South Africa. The purpose of this study was to determine if acquisition candidates can be predicted a number of years before the takeover. Financial ratios and other financial variables were used in the construction of the model. A total of 114 companies were used in the study using only quoted industrial company data, period 1975-1993 (Schoeman, Willem Jacobus. 1994).

The financial ratios and other financial variables were firstly analyzed on a univariate basis to distinguish between target companies and non-target companies and between targets and raiders. Initially 79 variables were used and were reduced to 7 financial ratios and variables. On a univariate basis it was found that targets were smaller than non-targets, targets return on investment were less than their non-target counterparts, targets made more use of financial leverage than non-targets and that the growth rate of their assets were more or less the same.

A multidiscriminant analysis was employed to create a model which predicted a takeover target. The reason to use discriminant analysis is that it makes use of data that is normally distributed. Financial ratios are not normally distributed, so different models were developed in this study to predict takeover targets 75% correctly one year before takeover. The use of published financial statements and other financial information can be useful in the prediction of a takeover target (Schoeman, Willem Jacobus. 1994).

In another study, (Katsabekis, 1994) prospective M&A targets are identified on the basis of a classification profile that includes a specified set of "fundamental" factors and "market" indicators. A case-control methodology is implemented to obtain estimation and validation samples of matched targets (cases) and non-targets (controls). Control sampling is stratified for industry, beta-risk and event-announcement effects.

Two alternative approaches were followed in specifying model variables: common factors extraction and stepwise discrimination. Two specified models were tested which differ only in terms of the market indicators employed. Results were obtained with two multivariate statistical methods: discriminant and logistic analyses. The method between 41 and 45 targets from a total sample of 96 such firms. In addition, 21 other targets were not identified on time with 6 targets identified on announcement days. On average, target returns range between 22% and 39% over holding periods between 76 and 95 trading days, with a beta-risk profile that ranges between 0.90 and 1.10 against the sample population of New York and American Stock Exchange firms (Katsabekis, Dimitrios John. 1994).

Morale for Predicting Merger Success.

Despite widespread merger and acquisition activity, little empirical research exists exploring the processes involved and the factors contributing to ultimate success or failure of these unions (Overmyer Day, Leslie Erin. 1993). There is a lack of theoretical models describing organizational changes occurring during the alliance process.

Overmyer reviews the psychological aspects of mergers and acquisitions. He hypothesized that parent and target firms perceived merger and acquisitions processes and outcomes differently, based on their position in the business relationship and the degree of hostility present during the negotiation.

The models were tested using hierarchical multiple regression and support was found for a negative hostility-morale relationship among target member evaluations. Survey data was obtained from 76 publically traded, U.S. firms (40 parent, 36 target) that had participated in mergers and acquisitions during 1982-1983. Surveys were completed by senior executives (i.e., CEOs, senior managers, human resource managers) from both parent and target firms. Support was found for a difference among parent and target member evaluations of post merger and acquisitions morale

among target employees, with targets reporting lower morale than parents. No interaction was found between pre merger and acquisition organizational affiliation and hostility in influencing the merger and acquisition performance (Overmyer Day, Leslie Erin. 1993

Feils, Dorothee Josefine (1993) based on foreign direct investment theories which imply that the value of a multinational enterprise exceeds the value of a purely domestic firm, international acquisitions are predicted to (1) create wealth and (2) create more wealth than domestic acquisitions. To test these hypotheses, the shareholder wealth gains to the combined firms in international acquisitions, namely U.S. firms acquiring British firms and British firms acquiring U.S. firms, are estimated and compared to the shareholder wealth gains in U.S. domestic acquisitions..

No significant differences in the gains from domestic and international acquisitions are found after considering the impact of the number of bidders, form of payment, level of hostility, the relatedness of the businesses of the acquiring and target firms, and their relative size.

The gains to the combined firms are larger in multiple bidder acquisitions and positively related to the relative size of the target and the acquiring firms. Deviations from the average exchange rate and the relatedness of the businesses were found no to have explanatory power in the cross-sectional regression of international acquisitions for the combined, acquiring, and target firms. Thus, purchasing power parity imbalances, imperfections in the real sector or imperfections in the financial sector were not supported as sources of gains in international acquisitions.

Additional tests involving U.S., British, and German acquiring firms show that U.S. and German acquiring firms lose insignificantly, while British acquiring firms lose significantly in international acquisitions. This evidence supports a competitive international acquisitions market. U.S. target firms gain more when they are acquired by German firms than by U.S. firms and less when they are acquired by U.K. firms

than by U.S. firms. No significant difference between U.S. target and U.S. acquiring firms from domestic and international acquisitions was found (Feils, Dorothee J.1993).

To find those factors that contribute to success and failure during the process of a merger is looked for in a study about city-county school systems. The two merged school systems researched were the New Bern-Craven County School System and the Pitt County School System. The New Bern-Craven County System, with a merger date of July 1, 1981, originally comprised the New Bern City School System and the Craven County School System

A case study of the merger was conducted based on content analysis of documents and structured interviews. Documents and archival records examined were the following: charter plans; merger plans; surveys by the Division of School Planning, North Carolina State Department of Public Instruction; Statistical Profiles of North Carolina; newspaper articles; and memos from the State Board of Education and from others who played a part in their mergers.

Six criteria for determining success and failure were identified from the literature, such as, purpose, legal details, community groups, focus on goal, referendums, and school board decisions. The experience of each merger was evaluated in accordance with these six criteria. The study evaluated the six criteria and suggested a modification by the addition of three relevant criteria: role of superintendent, role of county commissioners, and the element of time. (Carrol, Nancy Lea, 1992).

The Endogeneity Problem in Predicting The Outcome of Tender Offers.

Charles A. Stone and Anne Zissu argue that previous econometric models designed to predict the outcome of tender offers have been estimated incorrectly. They illustrate that the source of estimation error comes from variables which are posited to explain the outcome of tender offers and treated as exogenous when in fact

they are endogeneous. Using the Nelson-Olson simultaneous equation model they theoretically would correct the endongencity problem but they looked for an alternative solution.

Rather than solving for the endogeneity problem with a simultaneous equation model they use instrumental variables to derive consistent and unbiased estimates of the regression coefficients. Stone and Zissu give a tender offer main model used to estimation purposes:

In Terms of the Outcome:

Walkling: Outcome = f (bid premium, mood, shares owned by the bidder solicitation fees, opposing offer)

Stultz: Outcome = f (shares owned by the target (voting power), bid premium).

Harris and Raviv: Outcome = f (capital structure, bid premium)

Dan and De Angelo: Outcome = f (panned restructuring)

Shleifer and Vishny: Outcome = f(shares owned by the bidder, bid premium)

Huang and Walklin: Outcome=f (bid premium, cash)

In Terms of the Bid Premium:

Shleifer and Vishny: Bid premium = f (shares owned by the bidder)

Stultz: Bid premium = f (shares owned by the target)

Brickley, Lease and Smith: Bid premium = f (anti-takeover amendments)

Harris and Raviv: Bid premium = f (capital structure)

Huang and Walkling: Bid premium = f (cash)

In Terms of Mood:

Baron: Mood = f (shares owned by the target, bid premium)

Walking and Long: Mood=f (shares owned by the target, bid premium.compensation, shares owned by bidder)

Morck, Shleifer and Vishny: Mood = f(firm´s characteristics, shares owned by target, bid premium, compensation, personal characteristic of the board of directors)

The results in each of the their models is that the variable BP (bid premium) is negatively correlated with : the outcome of friendly tender offers, the mood of tender offers, and the outcome of hostile tender offers.

CHAPTER V

RESULTS

This research focuses on important strategic alliances that occurred in México from 1989 to 1994 and how these events were interpreted by investors in the Mexican stock exchange (Bolsa Mexicana de Valores). More specifically, if these events were seen as value creation processes so increasing real returns higher than expected.

An archival review of the bulletins of the Council of Shareholders detected 47 official announcements of strategic alliances during that period. Although there were other joint venture announcements over this period, principally with foreign partners, they are not included in the sample because neither an official announcement was made to determine the date of the announcement, nor a stock or asset interchange was communicated.

Joint venture events were not included as they were not registered at the Council of Shareholders bulletins at the BMV. Thus, each year at least 4% of the number of firms issuing at the BMV and 10% in terms of their outstanding value, are consistently doing some kind of alliance. In terms of wealth invested, this would mean decisions involving assets worth more than USD 550 million approximately each year.

From the census of 47 strategic alliances, we kept a sample of 40 firms after eliminating joint ventures, firms with very inconsistent information or no data, reprivatizations, and Consortiums impeded by government regulation. From this, we got a sample size of 40 announcements for 26 firms as 14 firms made more than one announcement. These 40 firm announcements consisted of 23 consolidations, 5 acquisitions, 9 mergers, and 1 joint venture announcements. One joint venture was included because, as announced by the Council of Shareholders in their bulletins, a stock interchange took place.

The sample of strategic alliances was examined to determine the predominance of consolidations and mergers over other kinds of alliances in the 1989-1994 period. This was interpreted as some kind of firms' strategic movement that is consistent with the tradition, family orientation of the organizational structure and the characteristics of the economic performance in México during that period. It was found that 95% of the firms announced an alliance with some other firm that was not issuing at the BMV at the time of the announcement. This was referred as consolidation predominance period.

As consolidation was the most common practice in the 1989-94 period among the Mexican firms and as the target firms were not issuing at the BMV when they merged, we looked for the stocks' return reactions to the alliance announcements in the acquiring firms' stocks rather than the target firms' stocks as most previous studies have done.

Looking for afterannouncement effects of consolidations, mergers and acquisitions on the acquiring firms has been controversial and no conclusive results have been achieved (Ross, 1996). The results on the bidders return reactions appear to be mixed, but some studies have shown that the short run afterannouncement effect is very small compared to that of the target firms. Also important is that evidence from México lacks in both kind of firms, acquiring and acquired.

In Consolidations, as the bidder and the target become a more integrated firm, the separation of the gains in acquiring and acquired firms does not make much sense. Synergy could be realized in any of the two firms. That is not the case for mergers where, as it was said for U.S. and England, the main stock effect is found in the acquired firms (a review of the empirical evidence was provided in Chapter 5).

As this empirical evidence suggests that shareholders of target firms realize large positive abnormal returns in completed mergers, takeovers, leverage buyouts and other kind of alliances. However, in Consolidations, as the bidder and the target

become a more integrated firm, the separation of the gains is not really possible because synergy could be realized in either firm.

The explanation given in the merger empirical behavior where targets absorb more of the synergy effect, rests on two facts: accounting practices and on the assumption that assets markets work.

The accounting explanation says that the sum of the cash paid to the shareholders of the target firm equals the value of the acquired assets, thus value out equals value in, implying that the value of the merging firm can not increase with the merger.

The perfect market assumption says that no arbitrage exists when the acquisition takes place. Competition makes target prices reflect their true value. This assumption reinforces the accounting explanation.

Both hypotheses may hold well in countries where strong markets and information behave perfectly in a strong form. The absence of arbitrage would then be one of their characteristics. This would also imply information symmetry between the managers of the acquiring firm, the investor community, and the shareholders of the acquiring firm.

On the other hand, if information symmetry does not exist, this would create some possible sources of imperfections that would invalidate that the asset markets work perfectly, so making it possible to create synergy in the alliance process. These possible sources of imperfections are;

First. There are agency considerations between the managers and shareholders of the target firm. The hypothesis that managers do not always behave in the shareholders' interests (Jensen, 1983; Asquith, 1983; Fama, 1984; and others) has increased adepts. Asymmetry tend to vary depending the composition of the board of directors. the stock market regulation, the role of blockholders, the generalized accounting practices, the power of the accountant associations, and the monitoring that the market does to the managers work.

Monitoring of managers work is realized frequently through the labor market, the banking creditors influence in the board of directors, and the structure and behavior of the stock market.

Labor market acts in controlling managers behavior when managers turnover takes place, compensation levels (salary, bonuses, stocks, options, premiums, etc) and managers labor information works well. If they do not, labor market can not accomplish this role.

Regarding banking creditors influence on the boards of directors, this works through the setting of debt covenants and/or the debt rating monitoring. In México up to 1994, credit rating was uncommon except for international debt issuing.

Finally, the stock market also accomplishes a monitoring role through price reactions in the BMV and in the international markets where some Mexican companies are issuing bonds or ADR´s. The stock market can work in a weak, semi strong or strong way depending on the specific circumstances in which a market works. Regulation, number and characteristics of participant kind of information (quality and velocity), and political environment regarding the stock market are some of the most important factors.

These factors, when working properly impede the creation of advantages for managers of the merger firms realizables in the stock market. As obviously noted, these gains could pass to shareholders or to the well informed managers. In developing countries the precedent assumptions can or can not hold, and thus, some arbitrage opportunities can exist in merging process. This interrogation justified the adopted methodology based on merging gains event study.

Three circumstances caused us to select our methodology: One, most of the firms with official alliance announcements in Mexico during 1989 to 1994 were consolidations where it is not possible to separate the bidder and the target effect; Two, most of the acquired firms do not issue shares in the stock market because they are smaller or are related to a holding firm that is already issuing at the BMV; and

three, some market imperfections are presumed to exist in the Mexican merger experience that can be creating arbitrage opportunities and information asymmetries that allow merging firms to take advantage of a lack of competitiveness in the asset market as well as asymmetric information.

It should be noted, however, that some other gains are probably created in the process, accruing to the target firms which are assumed to have been much higher than the ones measured in this work, pertaining to the acquiring firms.

In order to calculate the impact of strategic alliances on stock returns as a proxy of the value creation that is assumed to take place, abnormal performance of the stocks of the acquiring firms was calculated. This was done by benchmarking the firm returns to the average market return or IPC using the security market line or Sharpe's model. Thus, firms with higher returns relative to what would be expected in a 300 trading days tendency would be characterized as firms having positive abnormal returns. These abnormal returns were averaged across firms and accumulated for testing purposes.

Common descriptive statistics were analyzed finding in most of the firms better results than expected in terms of normality, volatility and skewness. These results can be observed in the following table. From this table we can see that only 18 were outperforming the IPC and 22 were not. Also important to observe is the fact that firms outperforming the market before the alliance took place, were not the same as the firms that outperformed the market during the alliance announcement. As a whole, the merging firms showed a higher return and higher volatility compared to the IPC, compared to the acquired firms where measurement was possible. For the former, the sample average return was .14% while the IPC .11%.

Similarly, the sample standard deviation was .35% compared to .08% in the market (IPC). In terms of kurtosis and skewness, most firms approached to a Normal distribution, with some troubles in the stocks of GCREMIA and GCREMIB, MODERNA, VAMSA, and ACCELSA1.

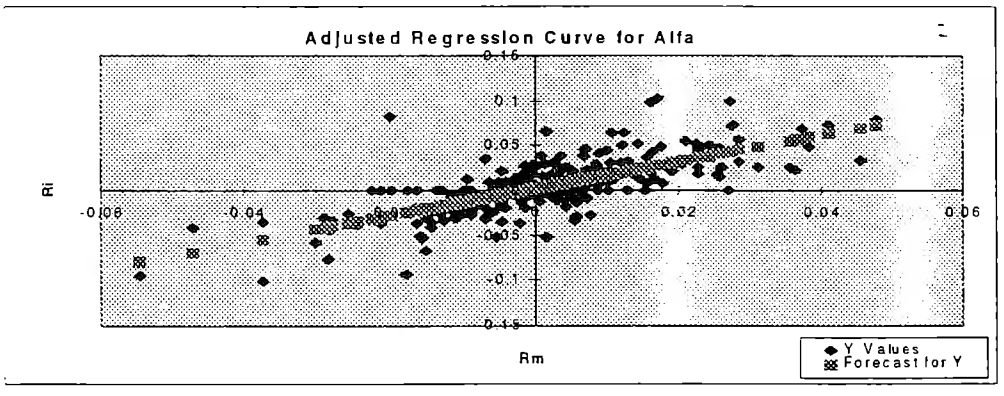
Table : Descriptive Statistics by Firm's Return and Market Return for the -300.60 Interval

	Mean	Std. Dev.	S.E. Mean	Variance	Kurtosis	Skewness	Range	Min.	Max.
ASAHOA	-0.000493	0.02107	0.0011105	0.00044	21.358	2.56178	0.2571	-0.15	0.105
MARKET	0.001796	0.01422	0.0007495	0.00002	1.3268	-0.06668	0.1077	-0.06	0.047
ASAHOB	-0.000471	0.02146	0.0011311	0.00046	25.193	-2.71246	0.2572	-0.18	0.096
MARKET	0.001796	0.01422	0.0007495	0.00002	1.3268	-0.06668	0.1077	-0.06	0.047
AMPELSA1	-0.0008	0.02124	0.0011197	0.00045	191.06	-12.0909	0.4182	-0.34	0.076
MARKET	0.002349	0.01434	0.0007556	0.00021	3.527	-0.12347	0.1271	-0.06	0.07
AMPELSA2	-0.000697	0.01694	0.0008929	0.00029	53.468	-4.87179	0.2974	-0.19	0.107
MARKET	0.002349	0.01434	0.0007556	0.00021	3.527	-0.12347	0.1271	-0.06	0.07
ALFA	0.004883	0.03008	0.0015855	0.00009	1.8111	0.01389	0.2127	-0.11	0.104
MARKET	0.002688	0.01482	0.0007811	0.00022	1.4776	-0.0362	0.1096	-0.05	0.055
APASCO	0.001655	0.01838	0.0009687	0.00034	8.9342	-0.45884	0.1962	-0.09	0.105
MARKET	0.001443	0.01384	0.0007297	0.00019	6.9987	-0.28266	0.1506	-0.08	0.07
BANACCIA	0.001262	0.02517	0.0013265	0.00063	2.1333	0.26002	0.1924	-0.1	0.094
MARKET	0.000592	0.01521	0.0008016	0.00023	0.9969	-0.18973	0.1077	-0.06	0.048
BANACCIR	0.001407	0.02413	0.0012718	0.00058	2.1472	0.01986	0.2	-0.1	0.103
MARKET	0.000592	0.01521	0.0008016	0.00023	0.9969	-0.18973	0.1077	-0.06	0.048
CEMFXA	0.00043	0.04295	0.0022636	0.00184	221.46	-13.1585	0.8223	-0.72	0.103
MARKET	0.001382	0.01586	0.0008357	0.00025	2.4035	0.02699	0.1278	-0.06	0.065
CEMFXB	0.002518	0.02044	0.0010775	0.00042	3.3796	0.63885	0.1719	-0.07	0.101
MARKET	0.001382	0.01586	0.0008357	0.00025	2.4035	0.02699	0.1278	-0.06	0.065
CIFRA A	0.002051	0.02151	0.0011339	0.00046	2.9415	0.41646	0.1941	-0.08	0.115
MARKET	0.001323	0.01517	0.0007993	0.00023	1.3737	-0.44123	0.1073	-0.06	0.048
CIFRA B	0.002192	0.02163	0.0011401	0.00047	3.7923	0.52576	0.2178	-0.1	0.122
MARKET	0.001323	0.01517	0.0007993	0.00023	1.3737	-0.44123	0.1073	-0.06	0.048
CIFRA C	0.001857	0.02108	0.0011112	0.00044	2.6033	0.59837	0.1705	-0.05	0.118
MARKET	0.001323	0.01517	0.0007993	0.00023	1.3737	-0.44123	0.1073	-0.06	0.048
ECHO 1	-0.000259	0.02206	0.0011625	0.00049	10.87	-1.18552	0.2262	-0.15	0.08
MARKET	0.001184	0.01507	0.0007944	0.00023	1.5558	-0.29379	0.1073	-0.06	0.048
ECHO 2	0.000498	0.02471	0.0013025	0.00061	4.663	0.16814	0.1961	-0.09	0.106
MARKET	0.001002	0.0158	0.0008325	0.00025	2.4207	0.03513	0.1278	-0.06	0.065
FEMSA	0.003282	0.02659	0.0014012	0.00071	2.0503	0.34755	0.2092	-0.1	0.104
MARKET	0.00336	0.01326	0.0006999	0.00018	2.5362	0.0806	0.1204	-0.05	0.069
GAFINA	0.000883	0.02216	0.001168	0.00049	17.011	2.45656	0.2347	-0.08	0.159
MARKET	0.001002	0.0158	0.0008325	0.00025	2.4208	0.03515	0.1278	-0.06	0.065
GAFINB	0.000936	0.01871	0.0009861	0.00035	7.987	0.4489	0.188	-0.1	0.09
MARKET	0.001002	0.0158	0.0008325	0.00025	2.4208	0.03515	0.1278	-0.06	0.065
GCARSO	0.004358	0.01723	0.000908	0.0003	4.4813	0.95425	0.1524	-0.05	0.103
MARKET	0.003302	0.01361	0.0007172	0.00019	2.4059	-0.04524	0.1294	-0.05	0.069

Table : Descriptive Statistics by Firm's Return and Market Return for the -300.60 Interval

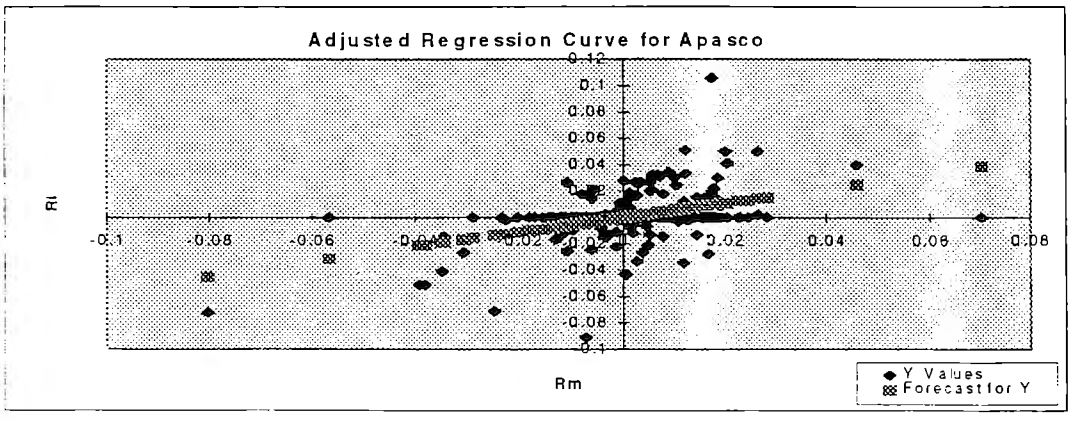
	Mean	Std. Dev.	S.E. Mean	Variance	Kurtosis	Skewness	Range	Min.	Max.
GCREMIA	0.001126	0.02088	0.0011003	0.00044	342.06	18.2599	0.4229	-0.03	0.391
MARKET	0.001477	0.01591	0.0008383	0.00025	2.3417	0.01044	0.1278	-0.06	0.065
GCREMIB	0.00116	0.02011	0.00106	0.0004	325.97	17.6201	0.4042	-0.03	0.372
MARKET	0.001477	0.01591	0.0008383	0.00025	2.3417	0.01044	0.1278	-0.06	0.065
GEUPEC	0.003422	0.02461	0.001297	0.00061	18.054	0.32331	0.3458	-0.18	0.161
MARKET	0.001138	0.01512	0.0007967	0.00023	1.3873	-0.34601	0.1073	-0.06	0.048
GFBA	0.0000169	0.02192	0.0011553	0.00048	3.3827	0.27796	0.1903	-0.1	0.092
MARKET	0.00151	0.01584	0.0008347	0.00025	2.4155	0.00375	0.1278	-0.06	0.065
GFBB	0.000162	0.02203	0.0011613	0.00049	3.1439	0.51167	0.2011	-0.1	0.104
MARKET	0.00151	0.01584	0.0008347	0.00025	2.4155	0.00375	0.1278	-0.06	0.065
GFINVERA	0.00133	0.01186	0.000625	0.00014	21.23	-1.13062	0.1573	-0.09	0.063
MARKET	0.00156	0.01591	0.0008385	0.00025	2.3375	0.00347	0.1278	-0.06	0.065
GFINVERB	0.001341	0.01272	0.0006703	0.00016	24.524	-1.27516	0.1773	-0.11	0.069
MARKET	0.00156	0.01591	0.0008385	0.00025	2.3375	0.00347	0.1278	-0.06	0.065
GFINVERC	0.001315	0.00802	0.0004229	6.4E-05	25.901	0.98156	0.1243	-0.06	0.062
MARKET	0.00156	0.01591	0.0008385	0.00025	2.3375	0.00347	0.1278	-0.06	0.065
GGEMEX	0.002358	0.02045	0.0010779	0.00042	4.001	0.16218	0.1844	-0.1	0.086
MARKET	-0.00146	0.04968	0.0026184	0.00247	302.71	-16.6724	0.956	-0.9	0.054
GSERFINA	0.000293	0.02603	0.001372	0.00068	12.615	-1.53295	0.2608	-0.15	0.109
MARKET	0.00018	0.01485	0.0007825	0.00022	1.1294	-0.16801	0.1073	-0.06	0.048
GSERFINB	0.000719	0.02859	0.0015068	0.00082	4.3318	0.29047	0.2794	-0.13	0.151
MARKET	0.00018	0.01485	0.0007825	0.00022	1.1294	-0.16801	0.1073	-0.06	0.048
IODERNA1	0.00163	0.04588	0.002418	0.0021	272.13	-15.2845	0.9123	-0.81	0.104
MARKET	0.001257	0.01388	0.0007316	0.00019	0.7162	0.22475	0.0891	-0.04	0.048
IODERNA2	-0.000808	0.05042	0.0026574	0.00254	183.92	-11.4066	0.9828	-0.81	0.175
MARKET	0.000296	0.01919	0.0010117	0.00037	3.3094	0.21425	0.1692	-0.07	0.103
PONDER1	9.35E-05	0.00935	0.0004926	8.7E-05	70.93	4.73608	0.1556	-0.06	0.1
MARKET	0.003421	0.01352	0.0007124	0.00018	2.4913	-0.04053	0.1204	-0.05	0.069
PONDER2	-0.000762	0.01248	0.0006578	0.00016	41.705	-0.84059	0.1985	-0.1	0.1
MARKET	0.002924	0.01443	0.0007606	0.00021	2.6135	-0.32401	0.1282	-0.06	0.069
EGCOAMA	0.004851	0.03069	0.0016177	0.00094	10.474	2.78699	0.2278	-0.06	0.169
MARKET	0.0000757	0.01801	0.0009492	0.00032	1.9165	-0.16413	0.1311	-0.07	0.065
SITUR	0.001215	0.02554	0.0013459	0.00065	3.1539	0.55382	0.2067	-0.1	0.11
MARKET	0.000734	0.0151	0.0007796	0.00023	1.0596	-0.19402	0.1073	-0.06	0.048
SYNKRO B	0.001955	0.01861	0.0009811	0.00035	17.388	1.55233	0.2482	-0.09	0.158
MARKET	0.002064	0.01389	0.0007321	0.00019	1.4145	-0.05312	0.1097	-0.06	0.047
SYNKRO C	0.000457	0.02514	0.0013252	0.00063	18.224	-1.88721	0.2903	-0.15	0.145
MARKET	0.002064	0.01389	0.0007321	0.00019	1.4145	-0.05312	0.1097	-0.06	0.047
VAMSA A	2.28E-05	0.01411	0.0007435	0.0002	60.727	-1.86798	0.2713	-0.14	0.128
MARKET	0.000338	0.01485	0.0007829	0.00022	1.1309	-0.18568	0.1073	-0.06	0.048
VAMSA B	-0.000121	0.01241	0.0006539	0.00015	82.443	-1.2805	0.2697	-0.14	0.128
MARKET	0.000338	0.01485	0.0007829	0.00022	1.1309	-0.18568	0.1073	-0.06	0.048

The market model regression results, for the 1989-1994 sample period are illustrated in the following graphs. They showed good fit to the market during the 300, -60 day period in the following stocks: Cemex, Banacci, GFB, Alfa, Femsa, Cifra, GGemex, GCarso, Situr, and Apasco. Some others adjusted lower to the market returns; among the most interesting that did not adjust to the market during the -300 - 60 days period are Serfin, Segcoam, Moderna, Situr, Synkro, and Vamsa. A higher volatility is a common factor in these stocks.

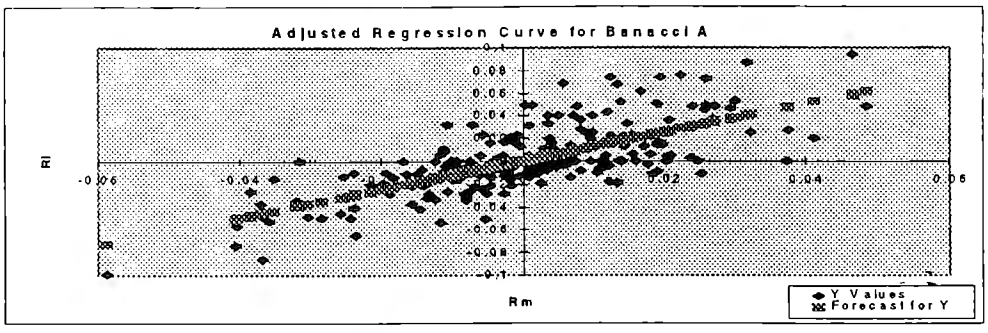


ALFA

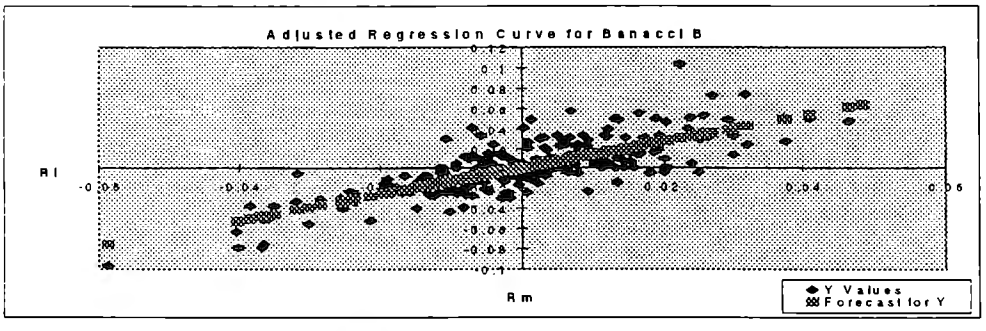
R Square	0.052311		Mean	Std.Dev.	
Std. Error	0.02171	ALFA.RI	0.004	0.031 Correlation	0.723
F.	261.07195	ALFA.RM	0.001	0.015 Significance	0
Significance	0				
T-Rm	16.158				
Significance	0				
Durbin-Wats	1.90969				
Alfa	0.00215				
Beta	1.51103				



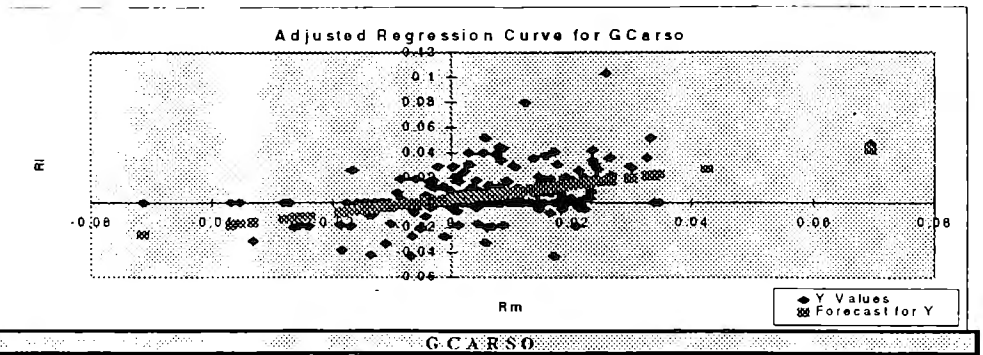
APASCO					
R Square	0.1932		Mean	Std.Dev.	
Std. Error	0.01605	APASC.RI	0.001	0.018 Correlation	0.44
F.	56.99354	APASC.RM	0.001	0.014 Significance	0
Significance	0				
T-Rm	7.549				
Significance	0				
Durbin-Wats	1.63849				
Alfa	0.00026885				
Beta	0.554355				



BANACCIA					
R Square	0.52346		Mean	Std.Dev.	
Std. Error	0.01987	BANA.RI	0.002	0.029 Correlation	0.724
F.	261.42846	BANA.RM	0.001	0.017 Significance	0
Significance	0				
T-Rm	16.169				
Significance	0				
Durbin-Wats	2.01581				
Alfa	0.00073787				
Beta	1.253922				



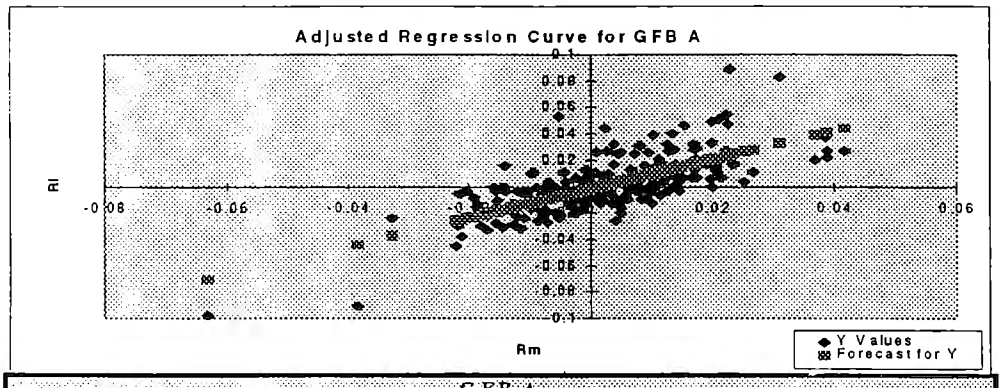
BANACCIB					
R Square	0.62322		Mean	Std.Dev.	
Std. Error	0.01686	BANB.RI	0.002	0.027 Correlation	0.033
F.	393.66511	BANB.RM	0.001	0.017 Significance	0.034
Significance	0				
T-Rm	19.841				
Significance	0				
Durbin-Wats	1.9216				
Alfa	0.00099094				
Beta	1.306199				



GCARSO

R Square	0.20664
Std. Error	0.01597
F.	61.99171
Significance	0
T-Rm	7.873
Significance	0
Durbin-Wats	1.83409
Alfa	0.003047
Beta	0.571491

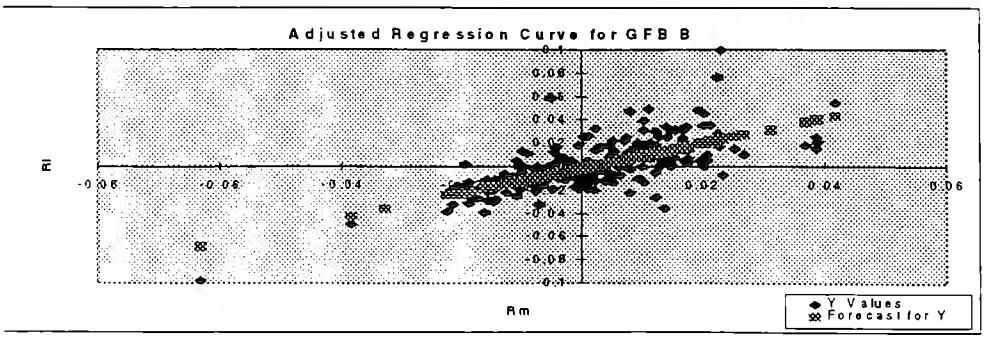
	Mean	Std.Dev.		
GCARS.RI	0.005	0.018	Correlation	0.455
GCARS.RM	0.004	0.014	Significance	0



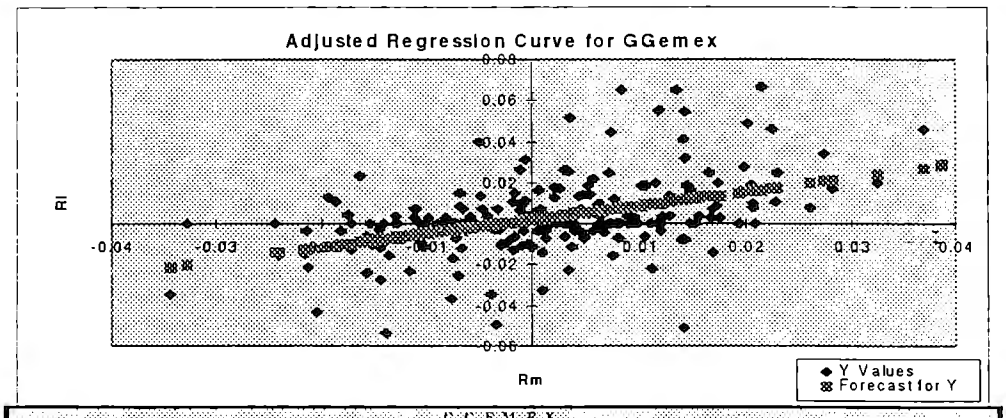
GFB A

R Square	0.51053
Std. Error	0.01461
F.	248.2395
Significance	0
T-Rm	15.756
Significance	0
Durbin-Wats	1.73343
Alfa	-0.001382
Beta	1.101016

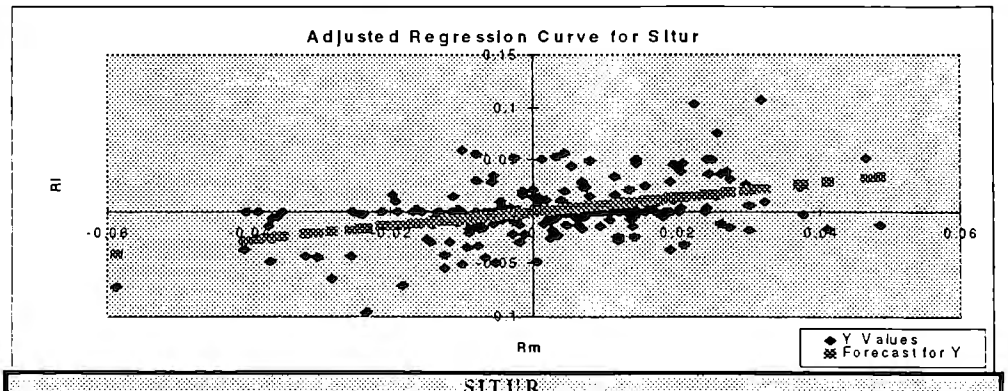
	Mean	Std.Dev.		
GFBA.RI	0.001	0.021	Correlation	0.715
GFBA.RM	0.003	0.014	Significance	0



GFBB					
R Square	0.49023		Mean	Std.Dev.	
Std. Error	0.01474	GFBB.RI	0.001	0.021	Correlation 0.715
F.	228.88087	GFBB.RM	0.003	0.014	Significance 0
Significance	0				
T-Rm	15.129				
Significance	0				
Durbin-Wats	1.8421				
Alfa	-0.001247				
Beta	1.066537				



GGEMEX					
R Square	0.20881		Mean	Std.Dev.	
Std. Error	0.01554	GGEME.RI	0.003	0.017	Correlation 0.457
F.	62.81262	GGEME.RM	0.001	0.012	Significance 0
Significance	0				
T-Rm	7.925				
Significance	0				
Durbin-Wats	1.74641				
Alfa	0.0021				
Beta	0.671531				

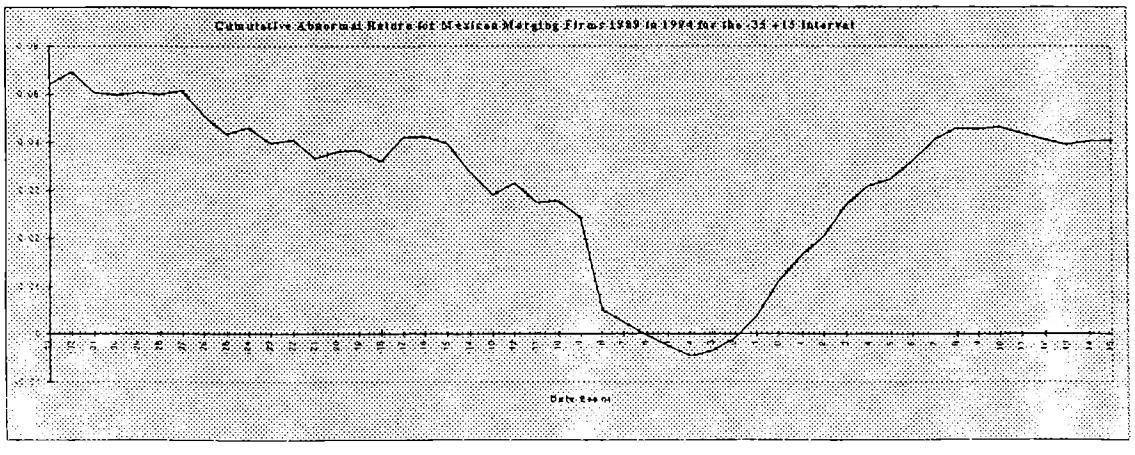


SITUR					
R Square	0.19782		Mean	Std.Dev.	
Std. Error	0.02293	SITUR.RI	0.001	0.026	Correlation 0.445
F.	58.69165	SITUR.RM	0.001	0.017	Significance 0
Significance	0				
T-Rm	7.661				
Significance	0				
Durbin-Wats	1.75487				
Alfa	0.0000036935				
Beta	0.687461				

On average, the acquiring firms in the sample showed a positive abnormal return of 3.4% at -6+6 days and of 4.5% during the announcement period, determined at -4, +8

days around the day of the official announcement, at the 1% significance level. This feature is consistent with the empirical evidence found in other studies of acquiring firms in other countries. A detailed description of these results is given in the following table and graph where a "U" shape abnormal returns behavior contrasts that of other countries such as US and England. We reject the null hypotheses of no abnormal returns

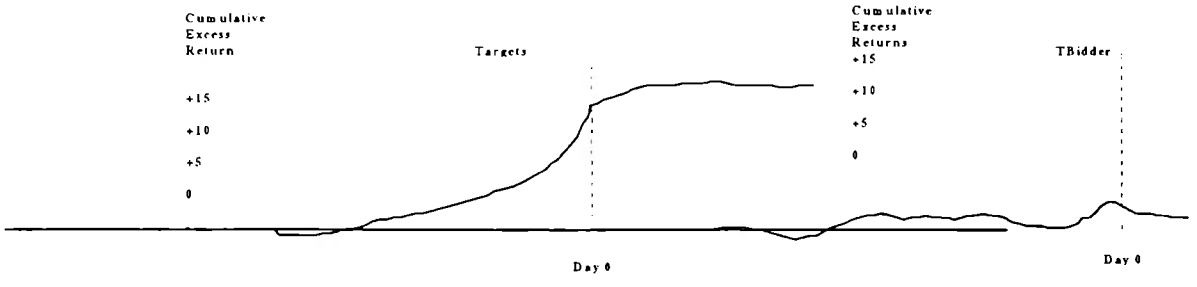
Interval	CAR	T-Value	Abs Tvalue	Significance	1-Signif	%
-60 -40	0.04365746	19.8816958	19.8816958	0.000000000	1.000000000	100.0000%
-39 -20	-0.00563416	-2.56580804	2.56580804	0.014145981	0.985854019	98.5854%
-19 -10	-0.01026816	-4.67613922	4.67613922	0.000033028	0.999966972	99.9967%
-10 +10	0.01575057	7.17284203	7.17284203	0.000000011	0.999999989	100.0000%
-9 -3	-0.03114511	-14.1835433	14.1835433	0.000000000	1.000000000	100.0000%
-6 +6	0.03356449	15.2853357	15.2853357	0.000000000	1.000000000	100.0000%
-2	0.00250295	1.13984633	1.13984633	0.261129996	0.738870004	73.8870%
-1	0.00476512	2.1700444	2.1700444	0.035999738	0.964000262	96.4000%
0	0.0071499	3.25608008	3.25608008	0.002304082	0.997695918	99.7696%
1	0.00545258	2.48311786	2.48311786	0.017315743	0.982684257	98.2684%
2	0.0038854	1.76942013	1.76942013	0.084447545	0.915552455	91.5552%
+3 +10	0.02274678	10.3589288	10.3589288	0.000000000	1.000000000	100.0000%
+11 +20	-0.00451821	-2.05760056	2.05760056	0.046187212	0.953812788	95.3813%
+21 +40	-0.01947547	-8.86916786	8.86916786	0.000000000	1.000000000	100.0000%
+41 +60	0.01248338	5.68495481	5.68495481	0.000001310	0.999998690	99.9999%
Std. Dev	0.01388785					



Eight things stand out from these results: first, the pattern of the average cumulative abnormal return curve near the announcement date; second, the generally favorable reaction of the market to these kind of announcements; third, the velocity at which the market reacts to the alliance announcement; fourth, the time taken by the market to absorb all the new information regarding the strategic alliance announcement; five, the total size of the positive reaction to the announcement, across firms; six, the reasons why firms get different CAR; seven, if the alliance event could be forecasted, and eight, what managerial implications can take from these results.

First, the behavior of the average cumulative abnormal return curve near the announcement date: the "U" form curve is different from other empirical evidences of similar studies in other countries. For instance, in the USA (Asquith, Paul. 1983):

Cumulative abnormal return for US bidders and targets firms.



Even summing up the two effects (as in Kim & Asquith 1987) we would not get a "U" shape curve in the abnormal returns around the announcement date in the USA experience. The lack of previous evidence in Mexico and in other emergent markets regarding strategic alliances prevents us from compare this result to other types of announcements.

There is just one antecedent of a "U" shape curve form in the Mexican market to an event reaction done by Santillan, Roberto (1994). He studied the privatization announcement effect on stock gains. Around day "0" he also detected a "U" shape curve in México. Several explanations could be concerning around this "U" curve:

A month before the alliance announcement, the bidders' stock prices began a diminishing returns tendency. Thus, the cumulative abnormal returns began decreasing from day -32 and up to day -3. At day -2 abnormal returns began a strong rising tendency up to day +8 validating our expectations. From day +9 and up to day +31 there is not a clear tendency in the bidders stocks returns.

What causes stock returns to reduce beginning a month before the official announcement?

Short run variations in stock returns a month before the official announcement could be caused by negative information signalling, higher trading volume, or price adjustments to previous overpricing regarding accounting information of the last quarter before the announcement (in México firms are required to disclose information to the market on a quarterly basis).

Negative information signalling could come from the credit information regarding that firms are requiring more money than they used to: or probably, that the firms are preparing themselves for some important changes, such as cost reductions with employee downsizing. These cost reductions could be however interpreted by the market and creditors as lack of cash flow or as having problems to pay outstanding debt. Other information that the market could be taking into consideration and depressing stock price before the alliance is the one that emerges as an overreaction to something that the market realizes. A strange movement is accompanied by managers silence. "Overreaction" is a new feature in explaining stock price large variations for protection purposes which fit very well in the traders strategies to manage uncertainty. Managers overreact to increasing uncertainty

Reviewing press news and day by day financial and trading reports prepared by banks and casas de bolsa (brokerage warehouses) to the public, we did not find any significant information, regarding firms preparing to the alliance that could be acting against the stock prices a month earlier.

It is important to realize the lack of consistent and significant press announcement information of true alliance events. In many cases there was information regarding alliance, but they misinformed the public regarding the causes partners and obviously the expected dates of the alliance. Also, most of the press announcements talk about events that never occur.

Seventeen out of 22 true events were pre announced by press news a month and a half before the alliance. Fifteen out of 22 during the second month before the alliance, and eleven out of 22 during the third month of the alliance and six out of 22 six months before the official announcement.

Credibility about these press announcements seems to be low, thus, they have to be accompanied by some other factors to cause stock prices to overreact. We can affirm that, there are some reasons to believe that the market is receiving some anticipated information that may affect the stock behavior in the preannouncement period. We can not affirm if this inside information influences traders to overreact with a month of anticipation toward a risk minimization behavior more than a profit maximization. Selling the stock may seem to be a good strategy if risk is perceived and the market lacks information and competition. Traders and analysts may advice clients to sell these stocks that look temporarily uncertain and thus riskier as prior to the alliance. As most Mexican merging firms increased their debt ratio, reduce cash flow (employee liquidation), reduce operations, and thus transmitted confuse information to the analysts, they probably sell the stocks.

Inside information may affect the validity of the results of this research in that we may be rejecting the null hypothesis more times than we should, thus rejecting that abnormal returns are not different from zero and thus accepting that the strategic alliance announcements may cause stock prices to increase significantly. We would be facing a type II error and thus decreasing the power of the test.

With respect to the influence of prior information on stock prices during restructuring processes, J Martin (1983) comments that "with 5% of higher abnormal

performance in month '0', rejection rates for a sample size of 50 were 100% for all of the methodologies. However, that result does not imply that an event study using monthly data will always pick up 5% or more abnormal performance using a sample size of 50: *if the researcher is unable to identify the specific time at which the abnormal performance would have occurred, the power of the tests for abnormal performance falls off dramatically"*

A test for volume was performed obtaining a significant higher volume 30 days before the announcement. This higher volume of allying stocks is very important in understanding why stock returns fall right before the official date.

The market reaction to strategic alliance announcements, the velocity at which the market reacts, and the time taken by the market to absorb all the new information, are some questions reviewed in this research and are related with the efficiency of the Mexican stock market. The answers provided here are very important as infer if there were some private maniqueism from the most informed or the most experienced traders, invalidating the hypothesis of efficient markets.

As a satisfactory result in this thesis was the finding that the Mexican stock market did responded efficiently to the 1989-1994 strategic alliance announcements. As these announcements changed the value of those firms engaging in an alliance, it was hypothesized that stock prices should react to this new information. Also, the velocity to which the market adjusted to this situation was important as gains should spread to many investors if no arbitrage is intended to exist (information should flow rapidly the more efficient the market is, so reducing the possibilities for persistent higher individuals gains).

Looking at the average CAR on page 89 one realizes that abnormal returns accelerated since the fourth day before the official alliance announcement. This anticipated price movement may be interpreted in that some private information was filtered out creating managerial opportunities. As it was anticipated in the methodological chapter, four days are many days for trading with advantage if the

open volume does not increase from its tendency, so well informed traders can get attractive returns. If this does not happen we can not affirm that private gains can be formed through anticipating the market (beat the market).

Underpricing of assets would mean that the asymmetric information works as managers can beat the market before other investors realize that the assets were worthing more than they thought. Therefore, some authors relate underpricing to an inefficient stock market which is not longer able to invalid the superior knowledge of the company for some managers so they are able to buy the company in the public capital market for a price that is below its value based upon their inside information.

The asymmetric information develops in long periods of significant increases in CAR. Although not all the firms´announcements were CAR increasing in the Mexican experience, the 4.5% CAR average in a -4,+ 8 days period had a rank of minus 12.96% to +33.64%. The rank help us to interpret differently the average abnormal performance of 4.5% which subtracting the bidding commission, would leave in Mexico 2.8% of net gains in approximately ten days.

The 4.5% average wealth effect in the -4,+8 days announcement period means more than 15 000 million pesos approximately in ten days (in constant 1994 terms). The reader should remember that this wealth effect must be summed up to the positive effect in the acquired firms that is hypothesized be larger than the one found in the acquiring firms.

Combining the reasoning that some private information was filtered out four days before the alliance to the decreasing performance noted -30 days before the alliance and explained at point 10, one can conclude that an average of 10.5% abnormal return (cumulative) could be created if managers maniqueism did existed. However, even if this maniqueism would exist it seems difficult to believe this could be captured by well informed investors given the rapid response of the market to events.

The gains were spread rapidly in the market as the highest increase in CAR occurred on day zero (a very strong efficient market); the other high increases were on days one, minus one and two in that order. This leaves small room for private appropriation of abnormal profits. Therefore, we can say, at least regarding these kind of announcements, that the Mexican market worked efficiently in a strong way, as it realized rapidly the new information regarding the changing value of the firms and sharing it with the rest of the market. This author appreciation of how the market distributed the extraordinary returns among investors corroborated the assumption that the Mexican market worked efficiently (for this wider concept of efficient markets see Fama, Eugene 1988 and Jensen, Michael 1988).

What remains unknown is who (investors) selected correctly the best stocks and who did not, and if there was some persistency in doing this from event to event. Information regarding the customers that buys stocks at what time of the sessions is not available, so we were not able to know if the institutional investors did better or not compared with the non institutional investors confronting maniqueism hypothesis.

Thus, it remains the doubt if the participants who did well in anticipating the alliances are the same as those who bought stagnant or even CAR decreasing stocks. If the fortunate participants are the same as the unfortunate ones, a 4.5% CAR would be the result, but if they are not the same, the winners can get a very much higher abnormal return. As it was said, this remains unknown.

The fifth behavior that was raised in the methodology to look for. (i.e. the total size and distribution of the CAR reaction to the merger announcement across firms), this research found that some firms outperformed others in terms of abnormal returns during the announcement period. Their performance was found to vary depending the characteristics of the firms, the moment and circumstances the announcements were made. the economic environment situation, and the kind of alliance involved.

The highest increase in the cumulative abnormal return (CAR) was 39% in Synkro A, 29% in Synkro B, and 19% in GAFIN while the lowest increase was found

in Segcoam, Ponder 2, and Accelsa with -. 13%, -. 12%, and -.10% respectively. It is interesting to imagine the effects that an investor could have had if in their portfolios included any of these securities. Being up or down, their effect is very high for only ten days of trading; this makes alliances interesting enough.

What made some stocks to increase their abnormal returns as much as 39% while others to reduce as much as - .13%? Some answers will be provided in the next paragraphs.

Cumulative Abnormal Return for Allying Firms -4,+8 days period
Mexican Firms, 1989-1994

Issuer	-4 +8	Issuer	-4 +8	Issuer	-4 +8
SEGCOAM	-0.12960034	ALFA	0.00618565	G CARSO	0.09156334
PONDER 2	-0.11677239	ECKO 1	0.01824328	ABACO A	0.0944693
ACCELSA 1	-0.10289611	GSERFIN B	0.02899795	ABACO B	0.09639614
FEMSA	-0.07065668	GCREMI A	0.03561427	VAMSA A	0.10010984
MODERNA 1	-0.06990318	GCREMI B	0.03561427	GFB B	0.11086009
GGEMEX	-0.04707237	CEMEX A	0.04358035	GFB A	0.12744001
CIFRA B	-0.03547902	CIFRA C	0.05775189	GAFIN B	0.15072081
APASCO	-0.03097248	BANACCI B	0.05778922	SITUR	0.16386961
GFINVER C	-0.01828076	CIFRA A	0.05859923	GAFIN A	0.18849273
ECKO 2	-0.00892155	ACCELSA 2	0.06330147	SYNKRO C	0.29212569
GFINVER B	-0.00307806	CEMEX B	0.06373511	SYNKRO B	0.33641855
GSERFIN A	-0.00266625	MODERNA 2	0.07237319		
PONDER 1	-0.00203125	BANACCI A	0.07314866	Mean	0.04533976
GFINVER A	-0.00020883	GEUPEC	0.08106605	Std. Deviatio	0.09651711
VAMSA B	0.00366313				

Arranging data for the economic sector each firm belongs, we observe that the highest cumulative abnormal return is obtained by the sector Financial Services with 5.9% CAR during -4, +8 days period. Afterwards, the sectors called Various, and Transformation got 4.9% and 4.4% respectively, being all these the best performers.

Cumulative Abnormal Return for Economic Sector in -4,+8 days period
Mexican allying firms 1989-1994

EcoSector	CAR	-4, +8	Max/Min	car	n
Sector 1	Mean	0.0585974	Max	0.1884927	19
Fin. Servs.	Std. Dev.	0.0766876	Min	0.1296003	
Sector 2	Mean	0.0254476	Max	0.0637351	4

Construc-tion	Std. Dev.	0.0498896 Min	0.0309724	
Sector 3	Mean	0.0440790 Max	0.3364185	11
Transfor-mation	Std. Dev.	0.1466624 Min	0.1167723	
Sector 4	Mean	0.0269573 Max	0.0585992	3
Commerce	Std. Dev.	0.0540731 Min	0.0354790	
Sector 5	Mean	0.0488744 Max	0.0915633	3
Various	Std. Dev.	0.0603711 Min	0.0061856	
Total	Mean	0.0453397		40

Also interesting is to observe that with the alliance, within each sector there are some firms that showed positive CAR and some others did not. This creates important considerations for portfolio selection as economic sector by itself does not seem to be a clear variable for portfolio selection. This lack of univariate determination is an important characteristic for predicting alliance events as well as CAR size -success or failure-. Therefore, a multidiscriminant model was run out for better predicting results.

Analyzing the CAR results for size of the firm, we note that the smallest firms got better cumulative abnormal return with 5.8%. Following to these. the biggest firms observed 5.2% and the big firms 3.6%.

Cumulative Abnormal Return for Size of the Firms in -4+8 days period

Mexican allying firms 1989-1994

Firm size	CAR MEAN	FOR -4 + 8	AND MAX &	MIN. VALUES
Size 1	Mean	0.05800928	Max	0.33641855
(Least Big)	Std. Dev.	0.15493075	Min	-0.116772394
Size 2	Mean	0.03583164	Max	0.188492733
(Big Firms)	Std. Dev.	0.08535016	Min	-0.129600338
Size 3	Mean	0.0522613	Max	0.127440013
(The Biggest)	Std. Dev.	0.05393533	Min	-0.070656682

A hypothesis in this research was that the year of the announcement anticipated the size of the cumulative abnormal return; This looked for higher CAR

values for those years where the undervaluation of the rate of interest was higher due to the undervaluation of the exchange rate. (recall that Mexico undervalued the dollar, in terms of the purchasing power parity theorem). This situation was hypothesized to distort the capital market and to stimulate the debt issuing in the international financial markets. As the hypothesis suggested we expected higher number of alliances and also higher values of CAR for the years closer to 1994 but not that year where uncertainty already distorted this stimulating behavior.

As we can see in the following table, there is a tendency for alliances to increases the closer to 1994, except in 1992 when devaluation of the exchange rate accelerated. Also, the number of alliances increased as well as the CAR results as it was hypothesized.

The higher average CAR was gotten in 1993 and in 1994 with 9.6% and 4.3% respectively. These two years were characterized by low rates of interest and high undervaluation of the exchange rate. This suggests that Mexican firms increased their debt claiming altogether with the relatively fixing of the peso. A common practice emerged: to issue debt in the international market and bring the money to Mexico to invest it in Cetes or Bolsa or probably to invest it in buying other companies for restructuring purposes (and reselling?).

For the purpose of this thesis, the distortions of the capital market created advantages for the Mexican Bolsa as liquidity was abundant. This favorable conditions for the Bolsa increased the sensitivity to overreact to announcements such as an Alliance or a Merger or Acquisition.

What this work is suggesting is that the high CAR values obtained in 1993 and 1994 to alliance events are not easy to replicate. It would be necessary the presence of abundant liquidity in the financial markets to allow participants to invest rapidly with an important announcement. This affirmative sentence will be validated for the following years after 1994 when weaker CAR effects are expected.

Año de Fusión	Emisora	Car -4 +8	# n...	Max/Min	Values
89	ALFA	0.00618565	1		
Año de Fusión	Emisora	Car -4 +8			
90	APASCO	-0.03097248	1		
Año de Fusion	Mean	-0.0016282	7	Max	0.09156
1991	Std. Dev.	0.068762		Min	-0.102896
1992	Mean	0.00903315	6	Max	0.081066
	Std. Dev.	0.083408		Min	-0.1167724
1993	Mean	0.095907	13	Max	0.336419
	Std. Dev.	0.113176		Min	-0.0699
1994	Mean	0.04290902	13	Max	0.18849273
	Std. Dev.	0.08693662		Min	-0.12960034
1989 - 1994	Mean	0.04533976	40		

As we can observe in the precedent table, not only the number of alliances but also the size of CAR and its significance is increased the closest to 1994. The best year for these attributes was 1993, may be the best year for the recent economic situation (in this year the rate of inflation had decreased to one digit, the economy was growing to a rate higher than 5%, the rate of interest set at only 9%. Nafta was a promising figure, Mexico applied for the OECD countries, and politically stable).

It is interesting to note that as we realized in the last part of the empirical review, the economic situation of the country works as a Mood variable, very important for predicting alliance cases and CAR results.

Regarding the kind of alliance and CAR effect, we can observe in the following table that Acquisitions got higher stock reactions compared to mergers and joint ventures. This was anticipated in the hypotheses as it was suggested that acquisitions absorbs not only the price effect on the bidding firms but also on the target, so several researchers have concluded their CAR effect is higher than the one that accounts only the effect on the target firms. This confirms what we anticipated in the hypotheses

Cumulative Abnormal Return by kind of Alliance -4,+8 days period

Kind of alliance	Mean/Std De	Car.	Max/Min	Car
Acquisition	Mean	0.076858	Max	0.336419
	Std. Dev.	0.11186892	Min	-0.1028961
Merger	Mean	0.0239521	Max	0.18849273
	Std. Dev.	0.08462416	Min	-0.1296
Joint Ventures	Mean	0.0269574	Max	0.058599
	Std. Dev.	0.05407315	Min	-0.035479

The results are also consistent with the paragraphs that related the economic situation to the number of alliances and to CAR size. What follows is to confirm if firms effectively were bringing money from outside at "distorted" rate of exchange and investing that money in buying undervalued companies. To do this, they would issue debt in undervalued dollars to buy undervalued assets expecting these to revalue with the alliance or acquisition.

Firms that did that -and did well, except for a lack of hedging-, must have two accompanied behaviors: lower tobin´s q ratios before the alliance compared to after the alliance and also lower debt ratios in a before/after alliance comparison. In both cases data shows a positive test: the average q ratio for a quarter before the alliance was 1.51 while debt to total assets 5.11. After the alliance, these two averages changed to 2.21 and 6.1 respectively.

Jensen (1986, 1988) argues that corporate assets were underutilized by the managers, and restructuring releases previously unrealized value by redeploying the assets to higher-valued uses. On the other hand, the efficient market hypothesis faithful point a finger at the firm's entrenched management. They hold that the reason a restructuring results in higher stock prices is management's inability or unwillingness to allocate the firm's resources to their highest-valued uses, which in many cases means paying higher dividends and reducing internal investments (Martin, John, 1991).

In the hypotheses, it was postulated that unrelated alliances (i.e. firms not necessarily complementary in their main economic activity) would get higher CAR than non related firms. The reasoning was not a higher synergy in terms of learning, clients, suppliers, employees, and so on, but deeper undervaluation of target assets, better leveraging conditions and higher cost reduction. The reasoning to hypothesize this was the theory supporting most of the Mexican alliances occurring during 1989 to 1994 (i.e. financial globalization plus peso overvaluation causing cheap availability of funds from external sources to direct them to buy other firms assets or stocks). Thus, the less related the firms were, the deeper the assets undervaluation could be present and thus the higher the abnormal performance after the alliance.

As the following table shows, unrelated firms performed on average, much higher CAR than related firms as the former got 11.2% CAR while the latter 2.9%. This big difference is valid for those years where liquidity seemed to be abundant and thus have low generalizability for other years as 1995 and 1996.

Cumulative Abnormal Return for Related and Unrelated Firms -4,+8 days period

Mexican Allying Firms 1989-1994

Kind of Firm		CAR	Max / Min	CAR
Related Firms	Mean	0.02868193	Max	0.18849273
	Std. Dev.	0.07511727	Min	-0.12960034
No Related Firms	Mean	0.11197112	Max	0.33641867
	Std. Dev.	0.14342168	Min	-0.06990318

Leveraging is probably one of the most important determining variables that explain the presence of alliance events and CAR behavior in Mexico for the period under analysis. As Rahim Niazur (1994) suggested, for the stocks of the high financed firms, data shows significant positive correlation between their cumulative abnormal return around the announcement day and the post merger accounting variables. For

the low financed firms this was not true. This implies that leveraging was most utilized for acquiring non related assets, undervalued, to overperform the market. In our sample of strategic alliances where the consolidations predominate over mergers and acquisitions, we validate the pattern provided by Niazur.

On average, financial accounting performance* of consolidations rises after the event. For merging firms the accounting performance improved after the announcement, but less than consolidations. Leverage in our sample increased significatively; for high leveraged firms if consolidations, accounting performance improved less than in low leverage firms.

[1]*financial accounting performance was a measure of several financial ratios such as P/E, Book/Mket value, D/V, AE t= -3,+1; etc.

This pattern seem to ratify that there was an expansion of some companies over other companies using diverse mechanisms such as high leverage to buy undervalued assets.

Higher leverage increased risk for the banks and other creditors, as well as employees and probably customers when the 1994 crisis came to the alliances and took from the market what it had anticipated. Cornell and Shapiro (1986) pointed out that short run profitability of firms going to restructuring programs increases if they move quickly cutting informal contracts. The shareholders' gains from that financial restructuring come at the direct expense of the firm´s creditors, or results from the breaking of implied contracts with employees, customers, or other stakeholders of the firm. Some empirical evidence, moreover, has been developed supporting the contention that bondholders often suffer from financial restructuring (Martin, John. 1991).

Horizontal or unrelated alliances were in the literature found to affect rival´ returns through several channels. The "bidder signaling" hypothesis is introduced here

---

[1] *financial accounting performance was a measure of several financial ratios such as P/E, Book/Mket value, D/V, AE t= -3,+1; etc.

to demonstrate that bid price signal information to investors regarding the quality of the bidding firm's management so considering plausible that this signal affect the stock prices of the bidding firm's competitors.

This was postulated in the methodology as a validating test, so a sample of 40 "competing" firms was selected randomly to analyze if there was on them some CAR effect when their main competitors were creating an alliance with someone else.

We got in this exercise a negative average CAR of -2.3% significant at the 1% level, so validating what it was hypothesized, that alliance events are accompanied by positive CAR in the merging firms and negative CAR in their competitors. However this does not allow to conclude that there exist some redirection of returns from the non allying firms to the allying ones.

Following Tomlin Jonathan Truman (1994) the precedent findings suggest that examining rival stock reaction is capable of providing new evidence on the role of alliances quite apart from their competitive consequences. This also recalls what Drucker observed regarding the differences between value creation and value distribution insinuating that alliance announcements, as other announcements, distribute more value than create it. 20.- In terms of their financial performance, higher abnormal returns were observed in: higher leveraged firms after the event; less profitable firms before the event; less growing firms, in terms of total assets growth, before the event; more undervalued firms (in terms of their Tobin´s q ratio) before the event; higher cash flow before the event; and better financial performance after the event.

Also interesting, the high CAR values corresponded to the firms with more press news before the announcement; the more successive strategic alliances the firm had; and the more family oriented their corporate control constituted.

The author thinks that these elements although interesting, are only descriptive of what happened in Mexico during 1989 to 1994 but have low forecasting power. For increasing this, the presence of the mood variables, i.e. the level of the interest

rate and the foreign exchange as well as the openness of the international financial market to the Mexican firms has to be present.

After two years of the alliance announcement, the firms that best outperformed during this announcement they no longer continued outperforming. This proved the hypothesis that stock returns during strategic alliance events draws a short run firm performance and not a long run performance. Thus, CAR results does not draw any picture of what could be the expected performance of those firms in the long run.

A multivariate statistical multidiscriminant model (MDM) was preferred for descriptive and predictive purposes by its large power in assessing the statistical differences between high performance firms to low performance ones. The MDM related CAR with financial performance attributes before, during, and after the merger, controlling for size and economic activity.

The multidiscriminant model showed the following results:

Among several variables that were used to discriminate in the sample, market to book value (a proxy of Tobin´s q) was significatively different and it worked well in discriminating the behavior of the Cumulative Abnormal Return. This is seen in the size and significance of the Wilks´Lamba statistic (.87367 and 95% significance). Other variables used were Price/earnings ratio, Debt/Value ratio, Size of the firm, Relatedness of the firm, Year of the announcement, Family orientation of the Çouncil of Shareholders, and Market concentration as a proxy of monopoly power.

Wilks' Lambda (U-statistic) and univariate F-ratio
with 2 and 44 degrees of freedom

Variable	Wilks' Lambda	F	Significance
CAR	.97352	.5983	.5541
LEV	.99775	.0496	.9516
LIBR	.87365	3.1816	.0512
PU	.98044	.4389	.6475
FP	.96669	.7581	.4746

CAR means cumulative abnormal return; LEV means leveraging; LIBR means market to book value; PU means price/earnings; FP means Financial Performance.

Market to book value (LIBR) was very significant in part due to its high association with other financial variables as most firms in Mexico keep book value actualized enough, principally for tax purposes and valuation objectives. However, this can also imply that the other vectors could be misspecified. (See the annex 2 for more detail).

Looking at the covariance matrix and the correlation matrix, it is notorious that CAR is highly associated with leverage and price earnings. Leverage, with market to book value and Financial Performance. Market to book value with price earnings and this latter with Financial Performance. The advantage of MDA is that it lets statistics to work by themselves in finding the best association measures as well as the best differentiating measures, obtaining a good map of how firms associate each other in terms of their data and not in a predetermined basis to explain success or failure in terms of the cumulative abnormal return. In this work this was done in three stages each for a quarter of a year, before, during, and after the alliance announcement.

POOLED WITHIN GROUPS COVARIANCE MATRIX

(with 44 degrees of freedom)

	CAR	LEV	LIBR	PU	FP
CAR	.1930				
LEV	.0337	.0557			
LIBR	.0202	.0342	.2831		
PU	-3.1655	-.3153	-5.7180	927.9772	
FP	-115944.2628	-185173.8715	-224774.6613	24322891.9882	6675499812449

CAR means cumulative abnormal return; LEV means leveraging; LIBR means market to book value; PU means price/earnings; FP means Financial Performance.

POOLED WITHIN GROUPS CORRELATION MATRIX

	CAR	LEV	LIBR	PU	FP
CAR	1.00000				
LEV	.32528	1.00000			
LIBR	.08653	.27281	1.00000		
PU	-.23656	-.04386	-.35278	1.00000	
FP	-.10216	-.30377	-.16351	.30903	1.00000

The MDA model found two canonical discriminate functions using the direct method of including all variables passing the tolerance test. From this, we got the Fisher's linear discriminate functions or classification coefficients in which LEV and LIBR absorb most of variance.

TRIMES	-1	0	1
CAR	- .0726528	- .5418889	-1.7303423
LEV	4.9108413	6.5130114	8.5992810
LIBR	3.3871115	2.1981306	8416221
PU	.0419260	.0327751	.0054510
FP	.0000001	.0000002	.0000004
(Constant)	3.8645465	3.3660079	3.2018500

Also, it is observed that the selected variables form a function that explains more variance than each variable by itself. The two main variables that explain more variance are LEV (leverage) and LIBR (market to book value). The theoretical relationship between these two variables is not easy to establish i.e. what happens to market value or to book value when leverage changes and viceversa. The interesting thing is that as firms approach to the allying event, they differentiate each other in terms of leverage or in terms of LIBR. Cash flow and price earnings keep related to

these last two, at least statistically. Thus, most variance can be accounted here by the two canonical functions if the Fishers coefficients are right.

Similarly to what Lehn and Poulsen (1989) found support for the Jensen (1986) free cash flow hypothesis in terms of the LBO formations -founding evidence of a significant relationship between undistributed cash flow and a firm's decision to go private-, this thesis found that there exist a significant relationship between leverage and LIBR associated with cash flow, and their signalling to the market depending to the moment and the economic environment when the decision is taken.

The theoretical relationship between the two variables was said to emerge from their combination and its signaling to the market. For instance, high leverage firms with low LIBR at time -1 (a quarter before the alliance) would be signalling positive growth perspectives as the higher debt prepares for the coming alliance at time 0 in which new assets are acquired and revalued. The low LIBR becomes the growth signal, a measure of undervaluation or a correction of a previous overinvestment in the allying firms. The canonical functions absorbs this behavior related with cash flow and price/earnings.

On the contrary, high leverage firms with high LIBR at time -1 are not seen as good market opportunities as they already have anticipated the price effects of leveraging and thus higher debt is not necessarily seen as good signal. Thus, there is no more growth opportunities, undervaluation. or previous overinvestment. So the alliance announcement gives lower CAR effects.

Consistently, low leverage firms with high LIBR gives higher positive CAR results as the alliance is seen as the proof that the low leverage firms are doing the appropriate thing with the acquisition and can expand. On the contrary, low leverage firms but with low LIBR (apparently a jewel for banquers and investors) is not necessarily seen as a good market opportunity because the low leverage can be signalling low growth opportunities and high risk. However, if low LEV and LIBR is

accompanied with high cash flow and not low P/U (price earnings), a good market opportunity is identified.

This corroborates what it was postulated in the hypotheses and in the theoretical framework, that stockholders of Mexican firms reacting to the 1988-1994 economic model, felt stimulated to increase debt burden to several possible things: rebuy shares to take his money out of the companies to buy another companies principally horizontal strategic alliances. This issue has much to do with the corporate governance of the firms, the expansion of the economic groups in the country, and the agency problem this expansion relates to .

This reminds the explanation given by Jensen Michael (1986) answering the question of why do stockholders want to increase the debt burden? "Although the conventional wisdom says that leverage is bad and sound financing equates with a substantial equity commitment, the evidence indicates otherwise...Michael Jensen (1986) offers an explanation, through his "free cash flow hypothesis." He observes that extreme use of debt substantially erodes management power over the deployment of cash flows generated by a firm's mature operations. His argument goes as follows: a dramatic increase in the firm's use of financial leverage, with the proceeds used to repurchase shares, leaves the firm with short position.

Not only shareholders are stimulated debt burden but also Managers who have a tendency to expand their operations as salary, compensations and bonuses increased altogether with power, experience, and social relations. Shareholders reduce managerial discretion over the reinvestment of the firm's free cash which is now monitored by bankers. Managers now administer more resources (Bankers') and stockholders get their money out of the firm enjoying to have initiated a business that now does not require his funds so they can invest them in other firms or uses.

Williamson (1988) offers a complementary argument, contending that "debt" and "equity" should not be viewed as financial instruments, but instead as governance structures. Thus, a leveraged recapitalization should not be viewed as a mere "paper-

shuffle" done for tax purposes...debt service impose significantly more restrictions upon management. When mature, fairly stable activities are involved. Williamson argues that investors prefer- and are willing to pay a premium to get- a governance structure based upon strict rules. This lessens the risk of surprises that might arise if the management continued to excercise substantial discretion (Martin, J. 1991).

The multidiscriminant analysis facilitates the combination of the quantitative and qualitative considerations regarding the motives and expected consequences of establishing a merger, acquisition, consolidation, joint venture or anyother alliance as they are absorbing the internal corporate control motives with the possibilities to do so in each moment the alliance is documented. External motives (macroeconomic) complement with internal (growth opportunities, financial performance, agency considerations and corporate control). This behavior is interpreted in terms of similarities and differences regarding the financial indicators, the industrial activity, the kind of the firm, its degree of relatedness and the other variables already exposed and get results wich can be associated by their variance in a multiunction basis, a combination of several variables everyone acting in a standardized way. The standardized canonical discriminant function coefficients which are shown in the next paragraphs will get the visual mapping of this natural association among firms by its effect on CAR and the use of the variables determinant in explaining their variance.

STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

	Func 1	Func 2
CAR	.50118	.29280
LEV	-.58210	.23581
LIBR	.90029	-.56413
PU	.76935	.60588
FP	-.50562	-.51930

The structure matrix shows a negative correlation between LEV and Func 1 differently to the positive correlation between LIBR and Func 1. The pooled within-

groups correlations between discriminating variables and canonical discriminant functions (variables ordered by size of correlation within function) exhibits the following results, altogether with the unstandardized canonical discriminant function coefficients. This ratifies what we were expecting in the hypotheses regarding the complementary between LEV and LIBR and its negative association in explaining CAR behavior (through the two canonical functions).

Canonical discriminant function coefficients and unstandardized canonical discriminant functions coefficients

	Function 1	Function 2	Function 1	Function 2
CAR	.25939*	.23042 CAR	1.140955	
LIBR	.59611	-.60330* LIBR	1.6920270	-1.0602488
PU	.20246	.56480* PU	.0252554	.0198892
FP	-.28944	-.34138* FP	-1.95695991E-07	-2.00992716E-07
LEV	- .05362	.30833* LEV	-2.4672165	.999495*

denotes largest absolute correlation between each variable and any discriminant function. It is interesting to note how the two canonical discriminant functions evaluated at group means (group centroids) changed in the event quarter, reducing strongly in terms of the function 1 and increasing in terms of the function 2. This effect is related with the abnormal returns. Their effect is absorbed by the centroids other than the variables forming the functions 1 and 2.

	Centroids	
Group	Function 1	Function 2
-1	.69094	-.09642
0	.13906	.14427
1	-.78681	-.05388

In the Annex 6 the graphs show the mapping of the centroids and the discrimation of the firms on space. One can see how the centroids were moving toward group 0 (which means quarter 0 or the quarter of the announcement) in terms of both functions to afterwards come back to the approximately the same value in terms of the function 2 but somehow far from the function 1 (composed by the

relationships absorbed by LIBR and the other variables). It labels function 1 as "opportunity growth" and the function 2 as "governance leverage".

The firms of the merging sample are distributed by the MDA in relation to their value in the two functions. The firms located to the left of the origin are not seen by the market as having growth opportunities. The ones to the right have growth opportunities. Similarly, the firms located to the left of the function 2 are not seen as having health leverage (in terms of debt equity ratio, price earnings. cash flow, and others such as year of the announcement, family composition in the council of shareholders, relatedness, monopoly power and so on). The ones to the right were seen by the market as doing good leverage (they are signalling the correct decision) as represented by the function of the composed index of the qualitative and quantitative variables included in the multidiscriminant model.

Dividends were excluded in the multidiscriminant model because consistently with Bagwell and Shoven (1989), as well as Shoven (1986), we neither found evidence concerning the relationship between dividends and cash flow. Instead, we found higher relationship between cash flow and leverage LEV so being absorbed by the canonical function 1. Following Shoven, dividends are not longer the dominant source of cash distributions to stockholders. In México low is the CAR effect to dividends payments thus, acquisitions and share repurchases take precedence. Bagwell and Shoven (1989), as well as Shoven (1986), provide evidence that over the period from 1970 through 1985, in the US the total cash received from acquisitions and share repurchases steadily grew, until it exceeded dividends. In México, a similar behavior is found so decreasing the importance of dividends in explaining cash flow utilization (Espinoza, Manuel. In progress).

Analyzing the data with the cumulative abnormal return as a discriminant variable (if high abnormal return, successful firms, and if low abnormal return unsuccessful firms) and the financial variables as independent variables, it is observed :

The discriminant analysis supports the conclusion that the key variable in explaining the differences on Cumulative Abnormal Return is found principally in the adequate management of the function 2, composed by the measurement of the price to book value of the firms during the alliance announcement.

Firms at the event that have a successful ratio of price per unit of earnings to leverage will tend to get higher cumulative abnormal return associated with a higher value of function 2. On the other side, firms with high price per unit of earnings to leverage during the event but low price to book value (function 2) will not get as much cumulative abnormal return as in the first case.

Function 2 represented by a measurement of the ratio of market price to book value is the most important variable in differentiating the results of the cumulative abnormal return of allying firms. Firms with high price per unit of profits and debt but with low Libr (low market price to book value) will tend to fail in getting cumulative abnormal return. This kind of firms show financial performance variables more homogenous among the firms of this group and very different from the other groups of high and medium cumulative abnormal return (See table 6.5).

Firms that reported medium cumulative abnormal return (Group 2, in the graph 6.5) are better discriminated by Libr (market to book value) but low significance regarding their differences in terms of price per unit of profit and leverage.

Firms with high cumulative abnormal return are very well differentiated by Function 2 (Libr) and they can take any value between the range of the price earnings per unit of leverage.

As we can see in table 6.5 groups with the lowest high cumulative abnormal return (Group 1) are very different from firms of group 2 and 3. This means that we can attempt to forecast easier which firms will fail during the announcement to get

good cumulative abnormal return. More difficult seems to be to discriminate between firms of medium cumulative abnormal return to firms with high cumulative abnormal return. The only significant difference seems to be the values on Libr or market to book ratio function 2 in the discriminant model.

Summarizing the difference between successful firms in alliance announcements and unsuccessful firms is that both show high price earnings per unit of leverage but the former with high market price to book value and the latter lower price to book ratio, and the ones with low market price to book value have medium success no matter which value has in price earnings per unit of leverage. This can be shown in the following table.

Table 6.6 Critical Factors to Success in Alliances

Mexican Strategic Alliances 1989-1994 CAR (-4+8 days period)

	High Libr	**Low Libr**
High P/E/L	Succesful	Medium Success
Low P/E/L	Unsuccesful	Medium Succes

High P/E/L high price earnings ratio by unit of leverage

Low P/E/L high price earnings ratio by unit of leverage

High Libr means high ratio of market to book values weighted by other financial performance

CONCLUSIONS

The Mexican Stock market reacted efficiently in a semi strong form to alliance announcements registered from 1989 to 1994. The results show that this market experienced a significant 4.5% increase in the cumulative abnormal return during the -4 +8 days event period. This result was found to be consistent with other studies regarding expected bidders effect. The stock prices of the allying firms reflected public available information -financial and market-. However, it was found some unexpected abnormal return behavior since thirty days before the official announcement depressing stock prices accompanied with a higher trading volume also significant. This behavior was considered to be representing the existence of some inside trading though this was considered small and more related to press news than to speculation. Lack of consistent information regarding the personality of the participants during those thirty days before the announcement, inhibit better results.

Firms that established an alliance -concentration, merger, acquisition- and in which an interchange of stocks was involved, showed a rank of extraordinary returns from -13% in Gafin to 39% in Synkro A. The differences between the high abnormal performers and the low abnormal performer was found in a combination of variables -financial and organizational as well as with respect to the market-. Some identified patterns were: financial firms experienced higher abnormal returns; less big firms also got higher abnormal returns; acquisitions and concentrations got higher abnormal returns than mergers and joint ventures; unrelated alliances performed better than related ones; levered alliances also did better than less levered firms; firms that were outperforming the others in terms of financial results got higher extraordinary returns during the announcement, and last, no significance was found regarding the shareholders - managers governance differences among firms.

The discriminant model allowed this research to conclude that there exist some financial differences accompanied with abnormal return that in some sense anticipate a merger event. However, the small sample size and its low significance level does not obtain conclusive results. What the discriminant analysis obtained was a good predictor of when an alliance announcement will end in higher abnormal performers compared with low abnormal performers. Success expects to firms with high Libr and high price earnings to leverage ratios. This result moderated by the economic situation of Mexico during 1989-94.

Table 1

World Flow of Resources

(in billions of dollars)

YEAR	TOTALBANK FLOW	TOTAL AMOUNT OF BONDS	TOTAL	FLOW TO UNDERDEVELOPED COUNTRIES
1983	170	77	247	31
1984	183	110	293	11
1985	276	168	444	3
1986	538	226	765	2
1987	803	181	984	21
1988	559	227	786	-9
1989	820	256	1076	5
1990	939	315	1254	7
1991	810	444	1411	10
1992	904	653	1557	11
1993	908	786	1694	13
1994	800	436	1236	11

Source: International Monetary Fund, International Capital Markets, Development and Prospects, Washington, D.C., May 1995.

Table 2

International Bond Issues*

(in million of dollars)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Foreign Bonds	31229	39359	40252	48273	42932	46907	50215	53860	59421	65278
Developed countries	19736	29161	30990	37111	31755	36316	44285	51935	57235	62531
Developing countries	1815	1790	1480	2185	1843	1373	1298	1428	1857	2745
Internaion alOrganiza tions	9350	8360	7461	8307	8172	8539	9287	11236	12835	13732
Others	327	48	320	670	1142	680	720	983	1167	1302
Eurobonds	136543	187747	140536	1788869	212853	181870	235934	248402	256314	263083
Developed countries	118194	172020	125293	161190	192653	152606	167934	173904	183641	192583
Developing countries	6681	2989	2459	4074	2871	3834	3878	4103	4428	4839
Internat Org anizations	8543	10488	11320	11393	13451	20541	28529	31296	35824	39044
Others	3124	2250	1463	2213	3878	4889	5725	5839	6172	7422
International Bonds	167772	227106	180786	227143	255785	228777	249360	263758	277444	290533
Developed countries	137931	201181	156283	198301	224428	188922	212849	284033	337587	391305
Developing countries	8497	4779	3939	6259	4714	5206	5730	6129	6528	7120
International Organization	17893	18848	18781	19700	21623	29083	31653	36385	42678	45832
Others	3450	2298	1783	2883	5020	5569	6015	6734	7354	8103

*By lender country-of-residence.

Source: World Economic and Financial Surveys, International Capital Markets, Development and Prospects, International Monetary Fund, February 1995

Table 3

International Markets Loans by most important instruments

(in percentages)

In strument	1990	1991	1992	1993	1994
Fixed-rate bonds	70.00	67.1	62.00	62.00	61.00
Floating-rate notes	16.10	13.20	22.40	24.80	25.00
Convertible bonds	13.40	16.4.80	11.80	10.20	11.80
Other bonds	00.50	3.4	4.70	3.00	3.20
Total	100.00	100.00	100.00	100.00	100.00

Source:World Economic and Financial Surveys, International Capital Markets, Developmnet and Prospects, International Monetary Fund, Washington, D.C., May 1995

Table 4. Net International Flows of Stock, 1991-1994 (in billions of dollars)

	1991	1992	1993	1994
INVESTOR				
United States	24.2	25.7	26.6	19.7
Japan	22.5	25.2	23.2	17.9
United Kingdom	35.7	37.4	41.2	19.8
Continental Europe	23.6	26.4	19.8	16.4
Rest of the world	4.5	2.3	2.8	1.40
ISSUER				
United States	26.8	32.5	34.6	21.5
Japan	4.7	2.4	4.5	3.0
United Kingdom	3.7	4.7	4.3	3.1
Continental Europe	51.2	57.8	63.0	42.1
Rest of the world	31.3	37.9	39.0	28.6
TOTAL	**117.7**	**135.3**	**139.2**	**98.3**

Source: World Economic and Financial Surveys, International Capital Markets, Development and Prospects, International Monetary Fund, Washington, D.C., May 1995.

nex 5.

ure 5.1

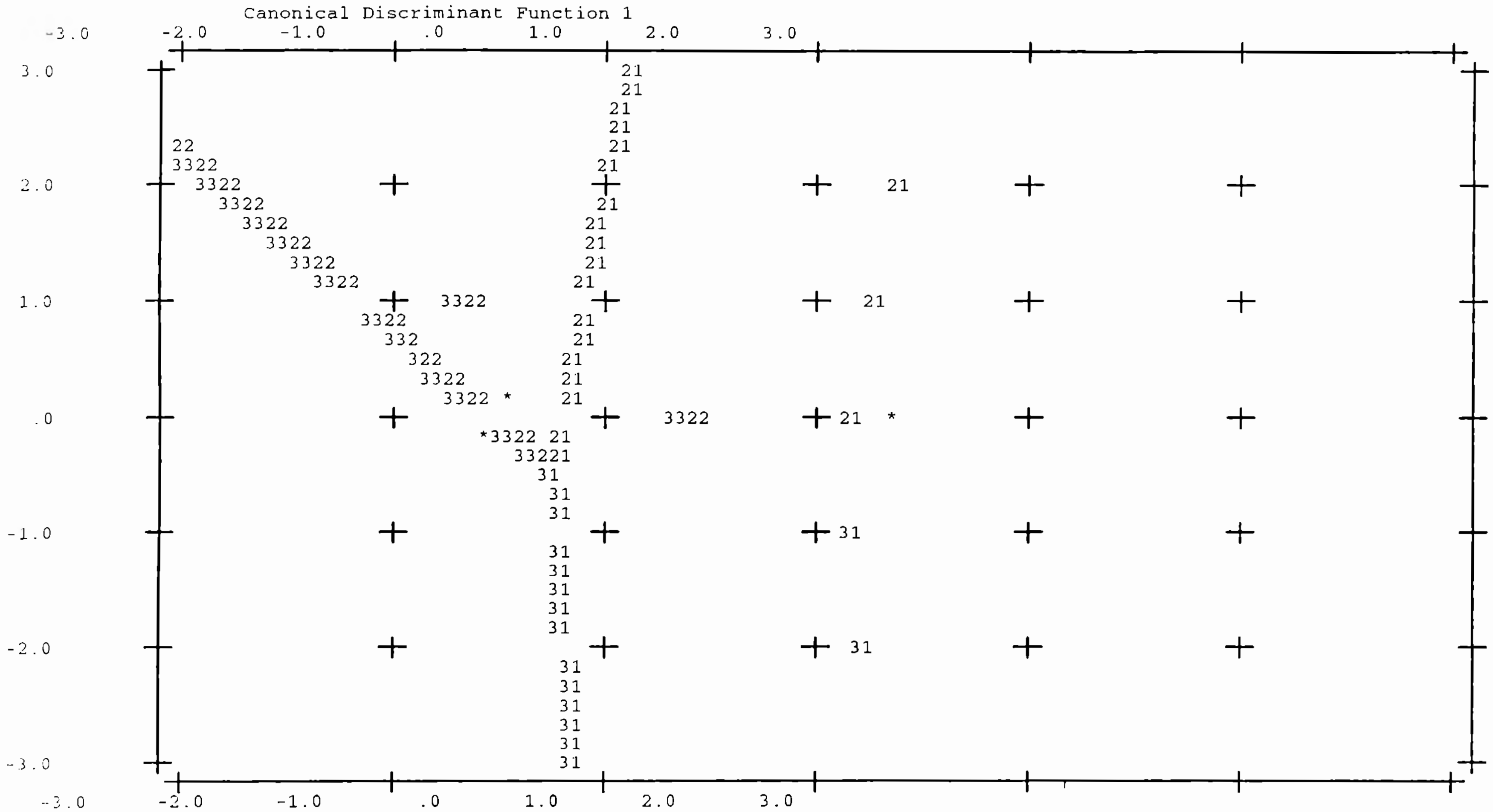

Canonical Discriminant Function 1
-3.0
-2.0
-1.0
.0
1.0
2.0
3.0
21
3322
22
31
*
-3.0
-2.0
-1.0
.0
1.0
2.0
3.0

Figure 5.2

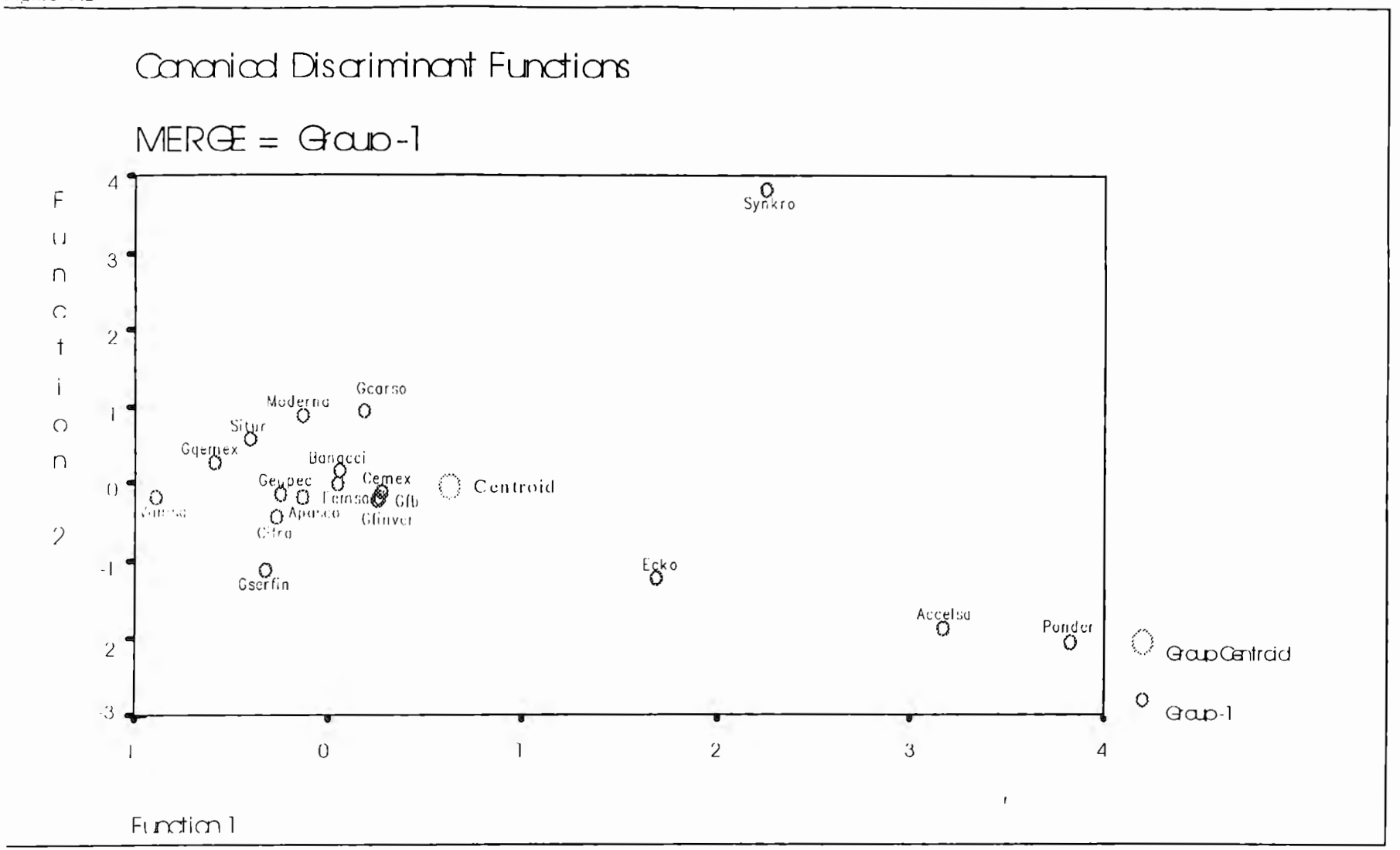

Canonical Discriminant Functions
MERGE = Group-1
Function 2
Function 1
Synkro
Moderna
Gcarso
Situr
Gcemex
Banacci
Gcmpec
Cemex
Tcmsa
Gfb
Apasco
Gfinver
Gfra
Gserfin
Ecko
Accelsa
Ponder
Centroid
Group Centroid
Group-1

Figure 5.3

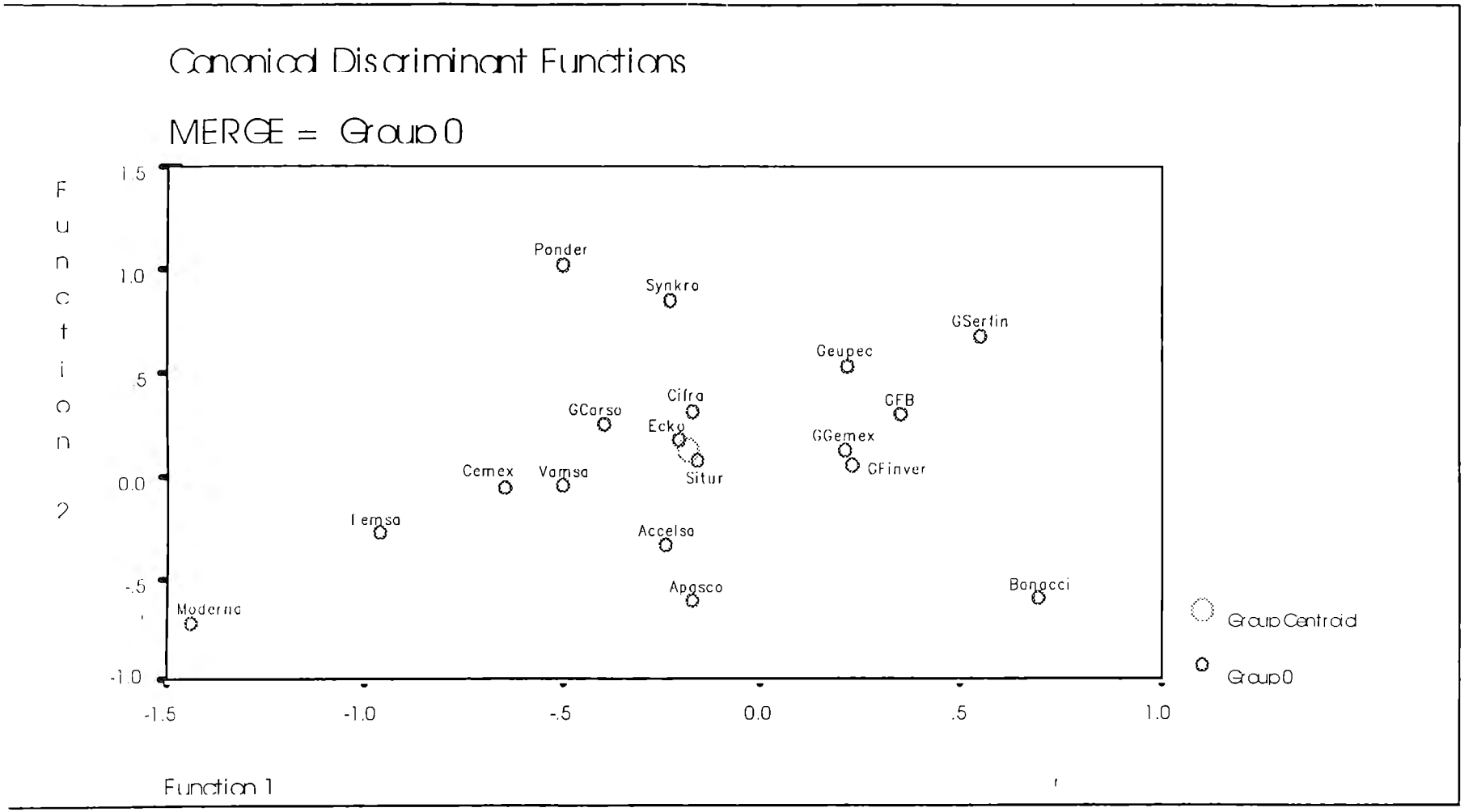
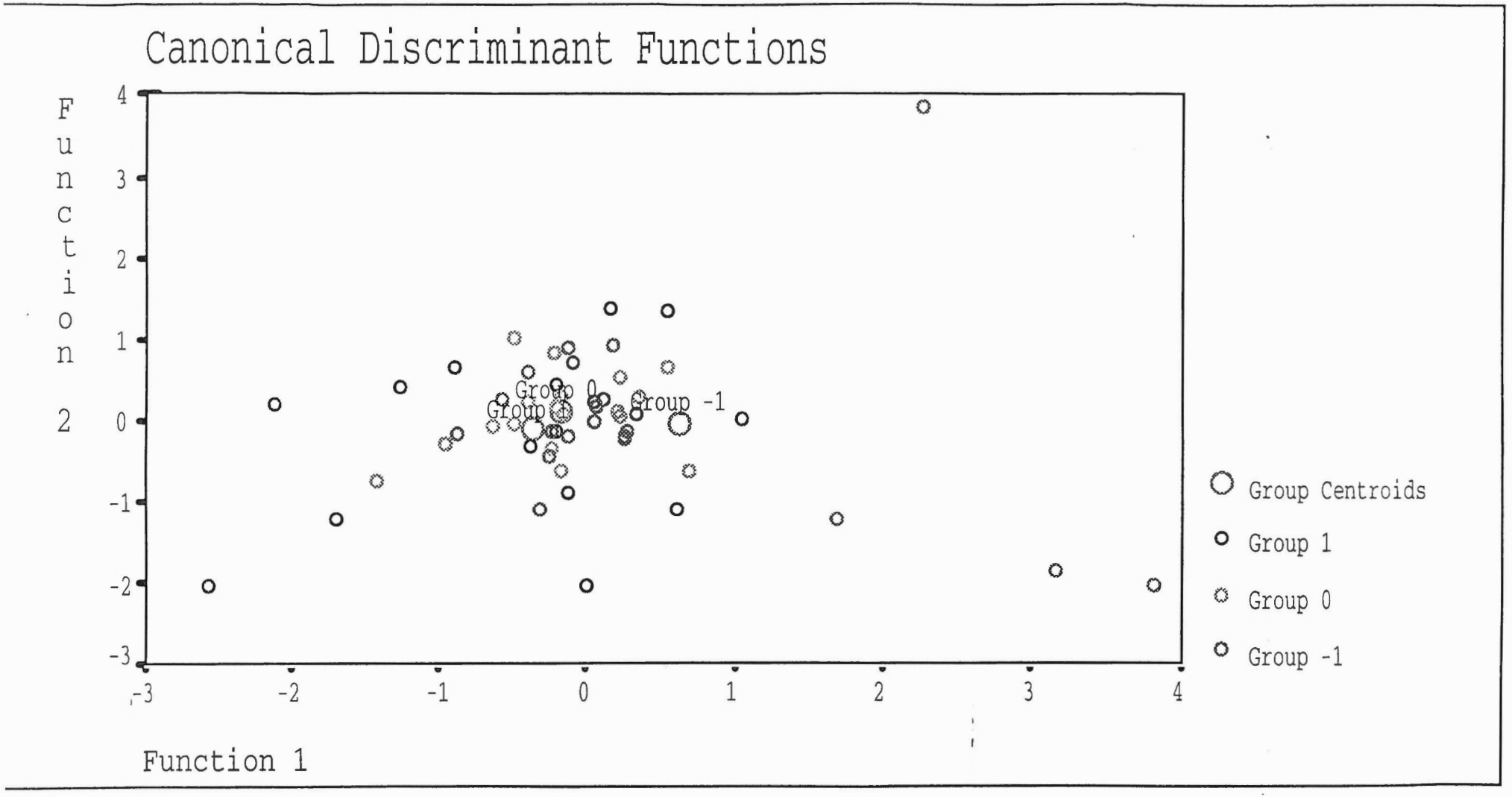
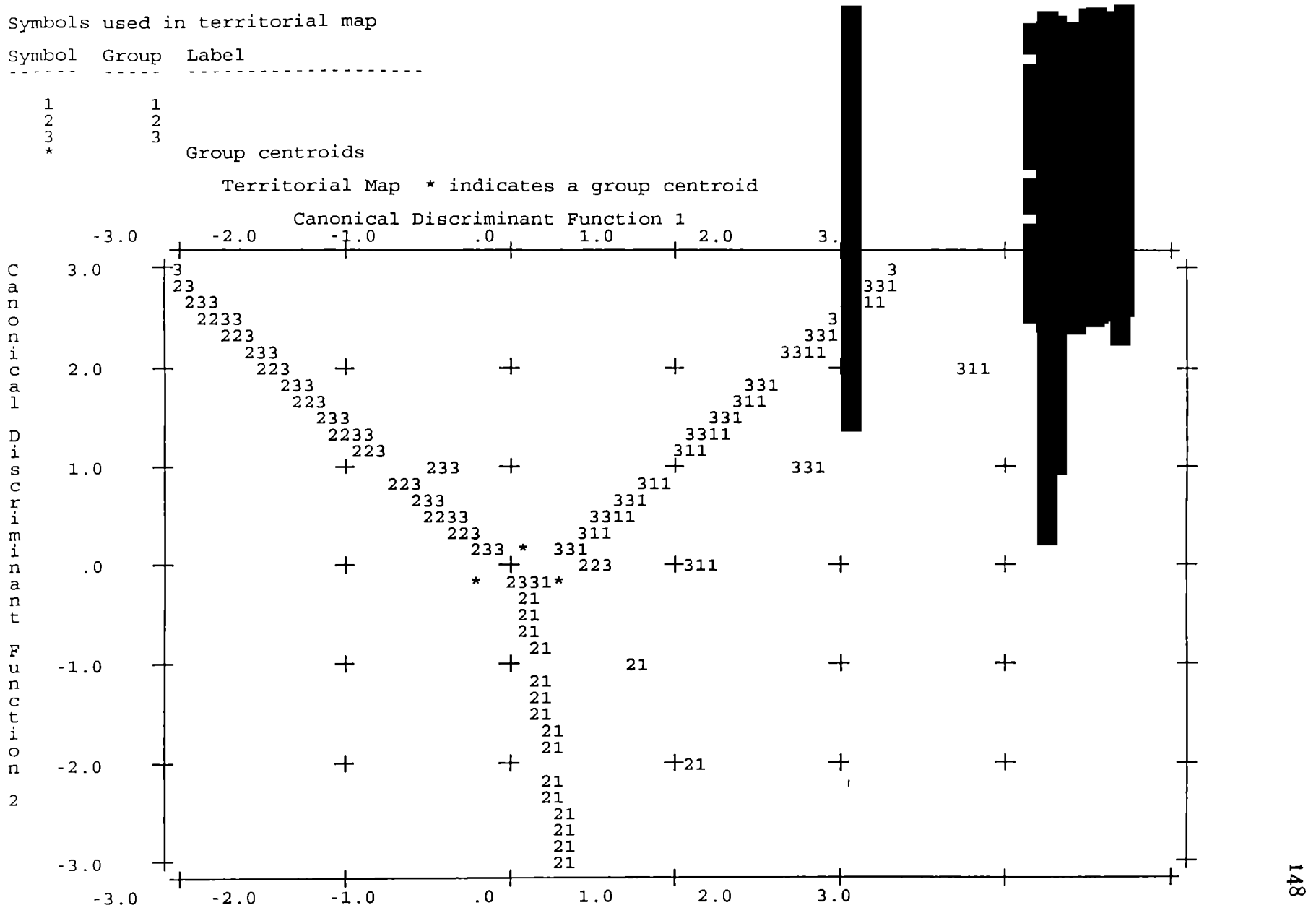

Canonical Discriminant Functions
MERGE = Group 0
Function 2
1.5
1.0
.5
0.0
-.5
-1.0
-1.5
-1.0
-.5
0.0
.5
1.0
Function 1
Ponder
Synkro
GSertin
Geupec
Cifra
GCarso
CFB
Ecko
GGemex
Cemex
Vamsa
Situr
CFinver
Temsa
Accelsa
Apasco
Bonacci
Moderna
Group Centroid
Group 0

Figure 5.4


Canonical Discriminant Functions
Function 2
4
3
2
1
0
-1
-2
-3
-3
-2
-1
0
1
2
3
4
Function 1
Group 0
Group 1
Group -1
Group Centroids
Group 1
Group 0
Group -1


Symbols used in territorial map
Symbol Group Label
1 1
2 2
3 3
* Group centroids
Territorial Map * indicates a group centroid
Canonical Discriminant Function 1
-3.0 -2.0 -1.0 .0 1.0 2.0 3.0
Canonical Discriminant Function 2
3.0
2.0
1.0
.0
-1.0
-2.0
-3.0

References

Alperowicz, Natasha "E&C Groups Hone Business Strategies in a Hard Market" Journal: Chemical Week [CEM] ISSN: 0009-272X Vol: 151 Iss: 20 Date: Nov 18, 1992 p: 36-38

Anonymous "Anheuser-Busch agrees to acquire 18% of Grupo Modelo for $477 mil". Journal: Corporate Growth Report [Weekly] [JBO] ISSN: 1050-320X Iss: 738 Date: Apr 5, 1993 p: 6578 Illus: Charts

Anonymous "Collaborating to Compete" Journal: Chief Executive (CHE) ISSN: 0160-4724 Iss: 81 Date: Nov/Dec 1992 p: 38-54

Anonymous "Pemex sells 30 stations in Mexico City to private group" Journal: NPN: National Petroleum News [NPN] ISSN: 0149-5267 Vol: 85 Iss: 2 Date: Feb 1993 p: 20-21

Asquith Daniel.: "Essays on Tender Offers". University of California, Los Angeles. 1992

Baird Philip Logan III.: "On the Motives for Merger: An Empirical Investigation of the Long Run Performance of Merging Firms and of Acquirers' Rivals". The University of Tennessee. 1992.

Baron. D.P "Tenders Offers and Management Resistance", Journal of Finance. Vol.38,pp 331-343 (1983). Cited by Stone and Zissu. 1993.

Billet Matthew Thayer.: "Leverage and the Takeover Market". University of Florida. 1993

Bisceglio, Anthony F. "Merger Related Cost Efficiencies of Scale in Commercial Banking". Fordham University. p.618. August 1995.

Blundel.R.W and R.J. Smith, (1989) "Estimation in a class of Simultaneus Equation Limited Dependent Variable Models", Review of Economic Studies, Vol.56,pp. 37-57. Cited by Stone and Zissu. 1993.

Bradford De Long J. , Andrei Schleifer , Lawrence H. Summers and Robert J. Waldmann in "Noise Trader Risk in Financial Markets" in Journal of Political Economy. Vol.98 Num. 4. 1990

Bradley, M.. (1980) "InterfirmTender Offers and the Market for Corporate Control", Journal of Business, vol. 53.pp345-376. Cited by Stone and Zissu. 1993.

Bradley.Michael; Anand Desai; and E. Han Kim: "Synergistic Gains from Corporate Acquisitions and their Division Between The Stockholders of Target and Acquiring Firms".Journal of Financial Economics 21 (1988) 3-40 North - Holland.

Brickley, J.A..R.C. Lease ,and C.W.Smith "Ownership Structure and Voting on Antitakeover Amendments", Journal of Financial Economics, Vol.20, pp.267-290. Cited by Stone and Zissu. 1993.

Bronder, Christoph; Pritzl, Rudolf "Developing Strategic Alliances: A Conceptual Framework for Successful Co-Operation" Journal: European Management Journal (EMJ) ISSN: 0263-2373 Vol: 10 Iss: 4 Date: Dec 1992 p: 412-421

Brown, Stephen J. "Measuring Security Price Performance". Bell Laboratories, Murray Hill NJ 07974, USA. April 1980

Butz, David A; Demsetz, Harold. "How Mergers Affect Competitors (Antitrust)". University of California, Los Angeles. March 1995.

Carrol Nancy Lea Harris.: "A Case Study of the Factors Influencing Success or Failure of Merger in Two Schools Systems". The University of North Carolina at Chapel Hill. 1992.

Carrol, Carolyn. "Two Essays on the Informational and Methodological Implications of The Non stationary of the Market Model Parameters". The University of Alabama. p. 267. Jul 1993.

Carter, Michael Wayne. "Domestic and International Joint Venture and Licensing Decisions: Effects of Location, Insider Ownership and Firm Size". Texas A&M University. April 1995

Catanach, Anthony Henry Jr. "A Causal Investigation of Risk, Cash Flow, and Solvency in the Savings and Loan Industry". Arizona State University. p. 1306. Nov. 1994.

Cheong, Kwang Soo. : "Welfare Consequences of Profit Taxation and Antitrust Policy: Implications of Government Intervention in Imperfect Markets". Stanford University. June 1994.

Chien Ming Che.: "An Analysis of the X-Efficiency and Total Factor Productivity in the United States Farm Credit System Using Longitudinal Data". Texas A&M University. 1993.

Choi Unghwan.: "Ownership Concentration and Gains to Acquiring Firms in Mergers and Acquisitions". University of California, Los Angeles. 1993.

Collie, Dennis George. "A Test for Managerial Opportunism as a Motive for Corporate Merger Activity: A Limited Dependent Variables Model Approach". University of South Florida. Nov. 1994.

Conger, Lucy "Land of the giants" Journal: Institutional Investor [IL] ISSN: 0020-3580 Vol: 27 Iss: 2 Date: Feb 1993 p: 117-122

Conn Robert L. and Karen E. Lahey and Michael Lahey: "A Deterministic Pricing Model Approach to Merger Analysis. in Mergers and Acquisitions": Theory and Practice. Edited by Chris Parkinson. Managerial Finance. Vol 17 Num. 6. 1991

Connell F. and R. L. Conn. "A preliminary Analysis of Shifts in Market Model Regression Parameters in International Mergers Betqeen US and British Firms: 1970-1980 in Mergers and Acquisitions" : Volume 2. Edited by Chris Parkinson in Managerial Finance.

Cook Douglas O. and John C. Easterwood.: "Poison Put Bonds: An Analysis of Their Economic Role". Edit. 199 .

Dann, L:Y andH.DeAngelo (1988) "Corporate Financial Policy and Corporate Control", Journal of Financial Economics, Vol.20 pp87-127. Cited by Stone and Zissu. 1993.

Declerck Francis.: "Financial and Managerial Implications of Mergers and Acquisitions in Food Industries in the 1980's". University of Illinois at Urbans Champaign. 1992.

Delaney, Lawrence Jr "Big deals?" Journal: World Trade [WLD] ISSN: 1054-8637 Vol: 6 Iss: 10 Date: Nov 1993 p: 72-76

Ding John Yong.:"The Impacts of Alternative Corporate Restructuring Strategies on the Structure and Performance of Food Manufacturing Firms". University of Massachusetts. 1993.

Dodd, P., and R. Rubarck ,(1977) "Tender Offers and Stockholders Returns: An Empirical Analysis", Journal of Financial Economics. Vol.5 pp.351-374. Cited by Stone and Zissu. 1993.

Fahim-Nader, Mahnaz; Bargas, Sylvia E "U.S. business enterprises acquired or established by foreign direct investors in 1992" Journal: Survey of Current Business [SCB] ISSN: 0039-6222 Vol: 73 Iss: 5 Date: May 1993 p: 113-123 Illus: Charts

Fant, Luther Franklin, Jr. "The Impact of Heterogeneous Valuation on Mergers and Acquisitions". The Florida State University. March 1995.

Feils Dorothe E Josefine.: "Shareholder Wealth Effects of International Mergers and Acquisitions: Evidence from the United Kingdom and Germany". University of South Carolina. 1993.

Flanagan David Joseph.: "A New Approach to Measuring and Explaining Merger Activity in the United States". Indiana University. 1992.

Flanagan, Patrick Mar 1993 p: 24-26

Flanegin Frank Richard.: "Bank Acquisitions and Contagion Effects: an Empirical Analysis". University of Central Florida. 1993.

Fraser, Dave "Down Mexico Way" Journal: Business Quarterly (BSQ) ISSN: 0007-6996 Vol: 57 Iss: 2 Date: Autumn 1992 p: 86-93

Ghosh Aloke.:"Valuation of Gains from Mergers: Sources and Estimation of These Gains from Disciplinary Takeovers and Different Tax- Related Issues". Tulane University. September 1994.

Grossman, S.J and O:D.Hart (1980) "Takeover Bids, the Free-Rider Problem, and the Theroy of Corporation" Bell Journal of Economics,Vol.11, pp42-64. Cited by Stone and Zissu. 1993.

Grubman, J. "Telephonos de Mexico-Company Report". IN Paine Webber Inc. November. 1991.Investext.

Gundlach, Gregory T.; Mohr, Jakki J. "Collaborative Relationships: Legal Limits and Antitrust Considerations" Journal: Journal of Public Policy & Marketing (JMP) ISSN: 0743-9156 Vol: 11 Iss: 2 Date: Fall 1992 p: 101-114

Hammer Peter Joseph.: "Mergers, Market Power and Competition: An Economic and Legal Evaluation of Hospital Mergers". The University of Michigan. 1993.

Harris, M and A. Raviv, "(1988) Corporate Control Contest and Capital Structure", Journal of Financial Economics, Vol .20 pp.55-86. Cited by Stone and Zissu. 1993.

Hartshorn, David "Grupo Televisa: PanAmSat's missing link?" Journal: Satellite Communications [SAC] ISSN: 0147-7439 Vol: 17 Iss: 2 Date: Feb 1993 p: 17

Heaney, Kathleen; Stockdale, Mark "Cement (domestic); Cement (international)" Journal: Institutional Investor [IL] ISSN: 0020-3580 Vol: 27 Iss: 6 Date: Jun 1993 p: SS14-SS15

Heckman, J.J (1978) "Dummy Endogeneus Variable in a Simultaneus Equations System" Econometrica, Vol.46, No,6.pp.931-959. Cited by Stone and Zissu. 1993.

Hethcox Kathleen Blackburn.: "Business Combinations Accounted for by the Purchase Method: An Empirical Analysis of the Magnitude of Goodwill and Acquiring Firms' Stock Return". 1993.

Higgins , R.C. and Lawrence D. Schall "Corporate Bankruptcy and Conglomerate Merger" . Journal of Finance, March 1975, pp 93-113

Hoffmeister, J.R and E:A Cyl (1981)•"Predecting Outcome of Cash Tender Offers", Financial Management, Vol. 10,pp 50-58. Cited by Stone and Zissu. 1993.

Huang, Y., and R:Walkling, (1987) "Target Abnormal Returns Associated With Acquisition Announcements", Journal of Financial Economics, Vol.19, pp. 329-349. Cited by Stone and Zissu. 1993.

Hunter, David "race buys Aquatec Quimica to boost water treatment stake" Journal: Chemical Week [CEM] ISSN: 0009-272X Vol: 152 Iss: 6 Date: Feb 17, 1993 p: 9

Hunter, David; Alperowicz, Natasha "In iron oxide pigments, the field gets even narrower" Journal: Chemical Week [CEM] ISSN: 0009-272X Vol: 152 Iss: 14 Date: Apr 14, 1993 p: 11

Hyman, L.S. "Telefonos de Mexico- Company Report". Merrill Lynch Capital Markets, Feb 4, 1993. Database : Investext.

Immonen Radmo.: "Taxation of Mergers". Turun Yliopis To Finland. 1993.

Ivancevich, Susan Hermanson. "An Analysis of the Market Power Versus Efficiency Effects of the 1989 Megamergers with the Accounting Profession". Texas A & M University. April 1995.

J. Grubman "Telephonos de Mexico", Company Report. And Hyman, L.S. Company Report from Merril Lynch Capital Markets, 1993).

Jarrell, Gregg A.; James A. Brickley, and Jeffry M. Netter. " The Market for Corporate Control: The Empirical Evidence Since 1980". Journal of Economic Perspectives, Vol. 2, Num. 1 Winter 1988.

Jensen, Michael "Agency Costs of Free Cash Flow, Corporate Finance and Free Takeovers". American Economic Review,76, May 1986, pp.323-329

Jensen, Michael C. , and Richard S. Ruback: " The Market for Corporate Control" Journal of Financial Economics 11 (1983) ps. 5-50

Jeong, Hyokyung Siella. "State Intervention In The Distribution System and Market Accessibility: Japan and the US" . Harvard University. February 1995.

Jones, E., and R. Taggart, "Taxes and Ownership Structure: Corporations, Partnerships and Royalty Trusts". NBER Sept. 1984.

Katsabekis, Dimitrios John. : "Mergers and Acquisitions: Market Efficiency in the Presence of Informed Outsider' Trading. Rutgers" The State University of New Jersey -Newark- August 1994

Kelly Brian Daniel. : "The Effects of Cash Flow Constraints on Investment and Competition Under Uncertainty". Harvard University. 1994.

Kochan, Nick "Mexico: Cemex's Mystery Deal" Journal: Euromoney [ERM] ISSN: 0014-2433 Date: Dec 1992 p: 20

Kothare, Meeta. "The Impact of Equity Issuance on Stock Liquidity: Rights versus PublicOffers". Research Paper College of Business Administration. University of Texas at Austin. April 1993

Lee, Charles M.C.;Andrei Schleifer, and Richard H. Thaler. "Investor Sentiment and the Closed-End Fund Puzzle".Journal of Finance, Vol XLVI No. 1 March 1991

Lee. L:F (1982)" Health and Wage:A Simulataneus Equation Model with Multiple Discrete Indicators", International Economic Review. Vol.23. No 1.pp 199-221. Cited by Stone and Zissu. 1993.

Lee. L:F., (1978) "unionims and Wage Rates: Asimultaneus Equations Model with Qualitative and Limited Depenmdent Variables", International Economic Review. Vol. 19, No.2 ,pp 415-433. Cited by Stone and Zissu. 1993.

Lee.L:F::G:S: Maddala and R:P.Trost (1980) "Asymptotic Covariance Matrices of Two-Satage Probit and Two-stage Tobin Methods for Simultaneus Equations Models with Selectivety" Econometrica. Vol 48. No.2. p. 491-503. Cited by Stone and Zissu. 1993.

Lehn. Kenneth:and Annette Poulsen. "Free cash flow and stockholder gains in going private transactions ". Journal of Finance. 1989. V. 44 ps.770.

Limmack. R. J. "Bidder Companies and Defended Bids: A test of Roll's Hubris Hypothesis in Mergers and Acquisitions" Vol 2. Edited by Chris Parkinson Managerial Finance. Vol 19 Number 1 1993

Lorange. Peter; Roos. Johan; Bronn. Peggy Simcic "Building successful strategic alliances" Journal: Long Range Planning (LRP) ISSN: 0024-6301 Vol: 25 Iss: 6 Date: Dec 1992 p: 10-17

Lorraine. J. "Successfull....The Journal of Business Strategy". January/February 1991.

Maddala. G:S (1986) "Limited- Depent Variables in Econometrics", Cambridge University Press. Cited by Stone and Zissu. 1993.

Magee. John F. "Strategic Alliances: Overcoming Barriers to Success" Journal: Chief Executive (CHE) ISSN: 0160-4724 Iss: 81 Date: Nov/Dec 1992 p: 56-61

Mallar, C:D (1977) "Notes and Cmments, The Estimation of Simultaneus Probability Models" Econometrica Vol. 45, No, 7, pp 1717-1722. Cited by Stone and Zissu. 1993.

Malott, R. H. "Managing the Global Enterprise" Journal: Executive Speeches (EXS) ISSN: 0888-4110 Vol: 7 Iss: 2 Date: Oct/Nov 1992 p: 6-10

Marais, Laurentius; Katherine Schipper; and Abbie Smith on "Welth Effects of Going Private For Senior Securities".Journal of Financial Economics, 1989 V.23.

Martin, John and Arthur J Keown. "Market reaction to the formation of Θne-Bank holding companies" in Journal of Banking and Finance. 1985 V.5

Masulis, Ronald W." The Effects of Capital Structure Change on Security Prices. A Study of Exchange Offers".Journal of Financial Economics 8 (1980) .

McCarthy, Joseph L "Lorenzo Zambrano" Journal: Chief Executive [CHE] ISSN: 0160-4724 Iss: 88 Date: Sep 1993 p: 27

Mirchandani, Dilip K "Better Methods Alexander Broadens Its Scope" Journal: Bobbin [BBN] ISSN: 0896-3991 Vol: 34 Iss: 2 Date: Oct 1992 p: 116-117

Misite Phyllis Annette.: "A Retrospective Examination of the Pros and Cons of a Successful College Merger".

Misite Phyllis Annette.: "A Retrospective Examination of the Pros and Cons of a Successful College Merger". Boston College. 1994

Moden Karl-Markus.: "Tax Incentives of Corporate Mergers and Foreign Direct Investments in Sweden". University of Pennsylvania. 1993.

Morck, R:;A:Shleifer, and R:W:Vishny (1988) "Charasteristic of Targets of Hostile and Friendly Takeovers", in A:J Auerbach, ed., Corporate Takeovers:Causes and consequeces" (University of Chicago Press, Chicago, IL) Cited by Stone and Zissu. 1993.

Morck, Randall and Bernard Yeung: " Foreign Acquisitions: When do They Make Sense? Mergers and Acquisitions: Theory and Practice". Managerial Finance Vol 17 Num. 6. 1991

Morck,R.,ASchleifer , and R:W:Vishny (1988) "Management Ownership and Market Valuation ", Journal of Financial Economics, Vol.20,pp 293-315. Cited by Stone and Zissu. 1993.

Morris, Gregory DL "Westlake Group Focuses on Growth and Integration" Journal: Chemical Week [CEM] ISSN: 0009-272X Vol: 151 Iss: 10 Date: Sep 16, 1992 p: 26-27

Murthy Vijaya Subrahmanyam.: "Acquisition Accounting Methods, Board Composition, Ownership Structure and Bidder Returns: The Case of Bank Mergers". Southern Illinois University at Carbondale. 1993.

Nachmann, Marc Otto. : "Essays on Financial Markets and Strategic Interactions". Harvard University. July 1995.

Nanda Sudhir.: "Asset Exchanges as a Restructuring Strategy: Motives and Valuation Effects". University of Massachusetts. 1993.

Narayanan, Savithri L. "The Evolution of United States Banking in the Eighties: An Empirical Analysis (Portfolio Composition, Interstate Banking)". University of California, Irvine. July 1995

Nauriyal Bharat Bhushan.: "An Assessment of Operational Efficiency in the Efficiency in the Chilean Banking System". The Ohio State University. 1993.

Nelson, F., and L.Olson, (1978) "Specification and Estimation of a simultaneus.-Equation Model with Limited Dependent Variables" International Economics Review, Vol.19, No3. pp 695-709. Cited by Stone and Zissu. 1993.

Newell G., Roberto "So You Want to Buy a Telco?" Journal: Telephony [TPH] ISSN: 0040-2656 Vol: 223 Iss: 15 Date: Oct 12, 1992 p: 16-24

Overmyer Day Leslie E Rin.: "Mergers and Acquisitions: A Multiple Predictor Empirical Investigation and Review f the Literature". George Mason University. 1993.

Parkinson, Chris and Matthew Ian Shaw ."The Pre-Bid Share Price Performance of Target Companies Involved in the Succesful and Unsuccesful Defence of a Hostile Takeover Bid. A Pilot Study. In Mergers and Acquisitions:Theory and Practice". Edited by Chris

Peagam, Norman; Marray, Michael "Televisa: A dominant force" Journal: Euromoney [ERM] ISSN: 0014-2433 Date: May 1993 p: 133-134

Porter, Michael E. " Capital Choices: Changing the Way America Invest in Industry" Journal of Applied Corporate Finance. Continental Bank. 1992.

Porter, Michael. "Competitive Advantage", New York: The Free Press, 1985.

Pound, John.in " Raiders, Targets, and Politics: The History and Future of American Corporate Control". Journal of Applied Corporate Finance. Continental Bank. 1992.

Pray Bevalee Burton.: "Types of Vertical Acquisitions and Returns to Acquiring Firms" Memphis State University. 1993.

Rahim Niazur.: "Study of Synergy In Corporate Mergers: Empirical Test of The Predictions of The Free Cash Flow Theory". Virginia Commonwealth University. 1994.

Ramaswamy Kadandoge Padmanabhan.: "Long-Term Performance Issues of Mergers and Acquisitions".University of Kansas. Nov. 1994.

Robert, Michel "The Do's and Don'ts of Strategic Alliances" Journal of Business Strategy (JST) ISSN: 0275-6668 Vol: 13 Iss: 2 Date: Mar/Apr 1992 p: 50-53

Roberts, Roger F. "Competition and Cooperation: The Role of Strategic Alliances" Journal: Executive Speeches (EXS) ISSN: 0888-4110 Vol: 7 Iss: 2 Date: Oct/Nov 1992 p: 13-15

Roll,Richard. "The hubris hypothesis of corporate takeovers", Journal of Business, April 1986, pp. 197-216

Ruback, R:S.,(1988) "An Overview of Takeover Defenses Economy, in A:J Auerbach, ed. Mergers and Acquisitions", (University of Chicago Press, Chicago, IL). Cited by Stone and Zissu. 1993.

Sankaran Kizhekepat.: "Synergy in Mergers and Acquisitions: Cluster Analytically Derived Diversification Strategy Archetypes and Performance Implications". Kent State University. 1993.

Savona, Dave "When Companies Divorce" Journal: International Business (NAI) ISSN: 1054-1748 Vol: 5 Iss: 11 Date: Nov 1992 p: 48-51

Schleifer, A. , and L. W. Summers, "Breach of Trust in Hstile Takeovers." Chapter 2 in Corporate Takeovers: Causes and consequences, A.J. Auerbach, ed. Chicago. 1988

Schleifer, A., ans R.Vishny (1986) "Large Shareholders and Corporate Control", Journal of Political Economy,Vol.94,pp461-489. Cited by Stone and Zissu. 1993.

Schmidt, P.,(1978) "Estimation of a Simultaneous Equations Model with Jointly Depedment Continous and Qualitative Variables:The Uniun -Earning Question Revisited", International Economic Review, Vol, 19, No.2,pp453-465. Cited by Stone and Zissu. 1993.

Schoeman, Willem Jacobs. : "The Prediction of Company Takeovers with Financial Ratios". University of of Pretoria (South Africa). Nov. 1994

Schwert William G. and Clifford W. Smith, Jr. "Empirical Research in Capital Markets. Advanced Topics in Finance and Accounting". Edit. Mc Graw Hill. 1992.

Sheikh Hussin Ayman. : "Market Structure and Anti Trust Policy". University of Houston. 1994.

Shin Hyukseung.: "Essays on the Theory of Cooperation Among Oligopolistic Firms". Harvard University. 1992.

Siegle, Candace "Acquisitive mood?" Journal: World Trade [WLD] ISSN: 1054-8637 Vol: 6 Iss: 5 Date: May 1993 p: 152-154 Illus: Charts

Silverman, Suzann D "Insuring success" Journal: International Business [NAI] ISSN: 1054-1748 Vol: 6 Iss: 10 Date: Oct 1993 p: 114-118

Singal Vijay.: "Efficiency Versus Market Power in Mergers: Evidence from the Airline Industry". The University of Michigan. 1992.

Smart Dennis Lee.: "Corporate Restructuring: an Investigation of Antecedents to Divestitures and Leveraged Buyouts". Texas A&M University. 1993.

Smirlock, Beatty, and Majd. : "Taxes and Mergers: A Survey, Monograph 1985-3 New York": Graduate School of Business Administration. New York University, 1986.

Smith Clifford W. Jr. "The Modern Theory of Corporate Finance". Edit. Mc Graw Hill Second Edition. 1990.

Smith. Geri "From the brink of default to a bonanza of deals" Journal: Business Week [BWE] ISSN: 0739-8395 Iss: 3343 Date: Nov 1, 1993 p: 108

Smith. Virgil Orin: "Antecedents to Merger and Time to Divestment (Corporate Control)" Texas Tech University. March 1995.

Snyder Christopher M. : "Buyers, Suppliers, Competitors: The Interaction Between a Firm' s Horizontal and Vertical Relationships". Massachusetts Institute of Technology. 1994.

Sourcemex. "Data prepared for the Latin America Studies" Library at the University of Texas at Austin. July 1993.

Starks. Laura "An Empirical Analysis of the Stock Price-Volume Relationship" Journal of Banking and Finance, 1988 V.12; ps.23-27

Starks. Laura and Pyung Sig Yoon: "Signalling, Investment Opportunities, and Dividend Announcements". University of Texas at Austin. 1993; ps.7-9 and tables 1 and 3.

Starks, Laura and Robert Jennings. "Earnings Announcements, Stock Price Adjustment and the Existence of Option Markets" Journal of Finance 1986 V 41: ps 10-16

Stone, C.A and A.Zissu, (1991) "Predecting of Outcome of Tender Offers:An Endogeneity Problem", Managerial Fiance,Vol. 17,No.6 1991. Cited by Stone and Zissu. 1993.

Stulz, R.M.,(1988) "Managerial Control of Voting Rights", Journal of Financial Economics, Vol.20,pp 25-54. Cited by Stone and Zissu. 1993.

Sudia Joseph Andrew.: "Valuation Effects of Takeover Regulation on Multinational Bidders". University of Colorado at Boulder. 1992.

Surendran, Sunil. Stock Market Reaction to the Initial Public Offer in Reverse LBOs: An Empirical Investigation of the Role of Some Firm Specific Variables in Leveraged Buyouts, Mergers, Acquisitions. Dissertation in Kent State University. p.1034 Oct 1994

Swartz. Lee Michael. : "The Impact of State Antitakeover Laws on Security Value". The University of Iowa. February, 1995.

Tiwari. Rajesh Xumar: "A Theory of the Role of Medium of Exchange in Mergers and Acquisitions". University of North Texas. Oct. 1994.

Valigra. Lori Feb 22. 1993 p: 42

Waldman, D:M.,(1981) "An Economic Interpretation of Parameters Constraints in a Simultaneus-equations Model with Limited Dependent Variables", International Economic Review, Vol.22, No.3.pp 731-739. Cited by Stone and Zissu. 1993.

Waldron Randall E. : "Market Foreclosure and Strategic Vertical Integration in Successive Oligopolies". Vanderbilt University. 1994.

Walkling, R:A (1985) "Predicting Tender Offer Sucess", Journal of Financial And Quantitative Analysis, Vol.20, pp.461-478. Cited by Stone and Zissu. 1993.

Walling, R.A and M:S Long(1984) "Agency Theory ,Managerial Welfare and Takeover Bid Resistance" The rand Journal of Economics, Vol,1,pp.54-68. Cited by Stone and Zissu. 1993.

Weston, Fred J.; Kwang S. Chung, and Susan E. Hoag. "Mergers Restructuring and Corporate Control". Edit. Prentice Halll. 1990

Whitcomb, David K. "Mergers and Acquisitions: Market Efficiency in the Presence of Informed Outsider Trading. Rutgers" The State University of New Jersey Newark. p. 340. Aug 1994.

White E Mark Voss.: "Abnormal Returns on Asset Exchanges". The University of Arizona. 1992.

Wood, Andrew "Mexico: GE acquires ABS business from IRSA" Journal: Chemical Week [CEM] ISSN: 0009-272X Vol: 152 Iss: 23 Date: Jun 16, 1993 p: 22

Wood, Freddie "Succeeding in textiles in the nineties". Journal: Textile World [TXW] ISSN: 0040-5213 Vol: 143 Iss: 9 Date: Sep 1993 p: 45-59 Illus: Charts

ABACO GRUPO FINANCIERO, S. A. DE C. V.

Authorization Date: Mar. 11, 1992
Authorization No.: 102-E-367-DGBM-III-912
Ticker Symbol: ABACO
[redacted]05 - 66260 - Garza García, N.L.
[redacted]

Background
Abaco Grupo Financiero was formed in 1992. Its main subsidiaries are Confia (multiple bank) and Abaco Casa de Bolsa (investment bank). The remaining subsidiaries provide services of foreign currency, factoring, financial leasing and insurance. In the last two years, the Group implemented its universal bank strategy and reinforced its international presence. In December, [redacted]ed 54% social capital of Rodman & Renshaw Capital Group, Inc., a financial company headquartered in Chicago.

Main Officers

Jorge Lankenau	Dir General
Eduardo Camarena	Intl Area
Reynelle Cornish	Branches
Jorge García	Legal
Francisco Quintanilla	Controller
Sergio Riojas	Systems & Communications
Fernando Valdés	Planning
Frederick Turner	Corporate Relations

No. of shares outstanding	**Dec 93**
Serie A	110,759,953
Serie B	41,501,739
Serie C	47,005,390
Total	**199,267,082**

Main Affiliated & Associated	**Business**
Confia (99.94%)	Banking
Abaco Casa de Bolsa (99.99%)	Stock Brokerage
Aba Divisas (99.99%)	Foreign Exchange
Aba Factor (99.86%)	Factoring
Aba Renda (97.57%)	Finance Leasing
Aba Seguros (99.83%)	Insurance

ALFA,S. A. DE C. V.

Established: 1974
Listing Date: Aug, 1978
Ticker Symbol: ALFA
Head Office: Ave. Gómez Morín, 1111 Sur- 66220 - Garza García N.L.
Chairman: Dionisio Garza Medina
[redacted]rhouse
[redacted]
[redacted]
References: [redacted]amex/ JP Morgan/Morgan Stanley

Background
Alfa dates back to the last century, when Monterrey Mexico began its industrialization. Building on this foundation, we have become a leading Mexican corporation with interests in steel, food, petrochemicals, synthetic fibers, autoparts, mattresses, carpets and others.

[redacted]
Main Markets & Competition
Alfa's companies are focused in domestica market such as: construction, textile and apparel, food, etc. In each one of the markets it serves Alfa has either the leading or the second position.

Main Raw Materials & Sources
Main raw materials are: iron ore, scrap iron, paraxylene, propylene, ethylene oxide, aluminun scrap, etc.

Main Officers

Dionisio GarzaMedina	Chairman & C.E.O.
Felipe Cortéz	President- Hylsamex
Armando Garza Sada	President- Sigma
José de Jesús Valdéz	President- Alpek
Roberto Garza Delgado	President- Versax
Peter T: Hutchison M.	V-P, Corp Fin & Plan
Leopoldo Marroquín M.	V-P, Corp Legal
Alejandro Guzmán G.	V-P, Corp Human Res
Juan B. Morales D.	V-P, Mexico City Off

No. of shares outstanding	**Dec 93**
Serie A	173,547,596
Total	**173,547,596**

Main Affiliated & Associated	**Business**
Hylsamex (100.00%)	Steel
Sigma (100.00%)	Food
Alpek (100.00%)	Petrochemical
Versax (100.00%)	Diversified products

APASCO, S. A. DE C. V.

Established: 1981
Listing Date: Dec, 1981
[redacted]piso 18 11560 México, D.F.
[redacted]sen & Co.
Nature of Control: Mexican Private
No. of Employees: 4060
References: Banamex/Bancomer/Citibank/E.M.O./D.E.C./Swiss Bank/IFC

Background
Grupo Apasco began operations in 1963 with a plant in Apaxco with an installed capacity of [redacted] six plants with an annual installed capacity of 7,600,000 tons, which was achieved in October 1993 with the start-up of the plant Tecoman, Colima, In May 1993 the Ramos Arizpe plant expanded production capacity of 200,000 tons with the installation of a roller press. In December 1993 the capacity of the Acapulco plant was increased by 120,000 tons. During 1993, 3 new distribution centers were opened in Monterrey, Toluca and Puebla reaching a total of 9 troughout the country. In the ready-mix concrete area, Apasco has a 28% of the domestic market share with 83 plants in Mexico's major cities.

Main Markets & Competition
Apasco's share in the domestic cement market is 22%, and main competitors are: Cemex, with 64% and Cementos Cruz Azul, with 12%. With its six cement plants, strategically located, Grupo Apasco has a national coverage.

Main Raw Materials & Sources
Apasco's share in the domestic cement market is 22% and main competitors are: Cemex, with 64% and Cementos Cruz Azul, with 12%. With its six cement plants, strategically located, Grupo Apasco has a national coverage.

Main Officers

Pierre Foidevaraux	President C.E.O.
Vincent Bichet	Vice Pres Marketing
Alejandro Borchers	Vice Pres Plan & Devel
Carlos Bühler	Vice Pres Fin & Adm
Gullermo García	Vice Pres Ready-Mix Cone
Francisco Glennie	Vice Pres Hum Resources
Anthon Nussbaumer	Vice Pres Operations

No. of shares outstanding	**Dec 93**
Serie A	141,980,339
Serie B	136,412,482
Total	**278,392,821**

Main Affiliated & Associated	**Business**
Cementos Apasco (99.90%)	Cement
Concretos Apasco (99.90%)	Ready-Mixed Concrete

BANCO NACIONAL DE MEXICO S.A.

Established: 1884
Listing Date: Feb. 1987
[redacted] 06089 - México, D.F.
[redacted]
Independent Auditor: KPMB - Cardenas dosal, S.C. Peat Marwick
Nature of Control: Mexican Private
No. of Employees: 33,327
No. of Branches: 686
Overseas: 12

Background

[redacted] exican Republic; 5 agencies, 7 representative offices and two subsidiary bank abroad. The bank structure has 6 business areas and 6 administrtive areas. In August, 1991 it was formed the Grupo Banamex Accival, S.A. de C.V., which has maintained the leadership as a financial group.

Main Officers

Alfredo Harp Helú	Chairman, Mgm Committee
José G. Aguilera Medrano	V- Chairman of the Board
Alejandro Betancourt Alpírez	V- Chairman of the Board
José Canasí Azar	Deputy President
Jacques Levy Seegall	Deputy President
Marcos A. Martínez Gavica	Deputy President
Manuel Medina Mora Escalante	Deputy President
Alberto Navarro Rodríguez	Deputy President
Carlos Nuñez Urquiza	Deputy President
Manuel Sánchez Lugo	Deputy President

No. of shares outstanding	**Dec 93**
Serie A	371,141,609
Serie B	360,134,204
Total	**731,275,813**

Main Affiliated & Associated	**Business**
Arrendora Banamex	Fin Leasing
Banamex USA Bancorp (100.00%)	Holding
Casa de Cambio Euromex	Foreign Exchange
Euroamerican Capital Corp (100.00%)	Banking Services

CEMEX , S. A. DE C. V.

Established: 1920
Listing Date: Feb, 1976
Ticker Symbol: CEMEX
Head Office: Av. Constitución, 444 Pte. -64000 - Monterrey, N.L.
[redacted]
No. of Employees: 22,865
References: Bancomer/ Banamex/Serfin/Citybank/ J.P. Morgan/ Bank of America / Chase Manhattan

Background
Cemex, S.A., along with a story started in 1906, succeeded as a worldwide cement leader, competing in international level and with multinational presence. Today, the group is constituted by several subsidiaries located in Mexico, Spain, Venezuela, and the United States. Presently, Cemex is the fourth most important cement producer at worldwide level and it has confirmed its position as the main cement organization in Amercan territory.

Main Officers

Lorenzo H. Zambrano Treviño	Dir., General
Gustavo A. Caballero Guerrero	Dir, Fin & Plan
Ernesto Rubio del Cueto	Dir Corp, Mexico
Luis Marinez Argüello	Dir Corp, Mktg
Laurence Amaya Díaz	Dir, Pacific Reg
Héctor Tamez González	Dir, North Reg
Héctor Valenzuela Loustaunau	Dir, Center South Reg
Alejandro Pérez Gorostieta	Dir, Concrete
José Domene Zambrano	Dir, International
Armando J. García Segovia	Dir, Br & Corp Serv

No. of shares outstanding	**Dec 93**
Serie A	201,300,000
Serie B	78,700,000
CPO	33,000,000
Total	**313,000,000**

Main Affiliated & Associated	**Business**
Cementos Monterrey (100.00%)	Cement/Concrete
Grupo Empresarial Maya (94.90%)	Cement/Concrete
Sunbelt Enterprises (94.43%)	Cement/Concrete
Tolmex (69.80%)	Cement/Concrete
Tursimo Cemex (100.00%)	Tourism

Main Market & Competition
Cemex's main markets are Mexico, Spain, Venezuela, South United States, and the Caribbean. In Mexico, its main competitor is Apasco (Holderbank)

Main Raw. Materials & Sources
Limestone and clay, which are extracted from deposits where Cemex has the aploitation concession. Other materials, such as iron oxide, are obtainde from external.

CIFRA, S. A. DE C. V.

Established: 1958
Listing Date: Oct, 1974
[redacted]0 - 05200 - México, D.F.
C[redacted]
Independent Auditor: Price Waterhouse
Nature of Control: Mexican Private
No. of Employees: 39,934
References: Bancomer/ Banamex/Serfin/Citybank/Morgan Guaranty Trust/ First National Bank of Chicago

Background
CIFRA is a holding company operating in the retail sector through 264 otulets in the fields of goods and services. The group consisted of the following chains at the end of 1993: 33 " Almacenes Aurrerá" self-service department stores selling clothing, general merchandise and supermarket goods; 45 " Bodega Aurrerá" discount warehouse stores; 37 supermarkets " Superama" ; 3 hypermarkets " Gran Bazar" and 2 " Wal-Mart supercenters" ; - 7 " Club Aurrerá-Sam's Club" memebers only wholesale otulets; 31 " Suburbia" department stores specializing in clothing; " Vips" , a chain of 106 restaurants (15 franchises) that serve the needs of the consumers with different types of foods. In order to better serve Mexican consumers Cifra has expanded its joint venture with Wal-Mart Stores, Inc. to involve all Cifra concepts. Of the total 264 otulets, 23 are part of this agreement: 2 " Almacenes Aurrerá" , 10 " Bodega Aurrerá", 2 "Superama"; 7 "Club Aurrerá-Sam's Club", 2 "Supercenter".

Main Officers

Henry Davis Singoret	President
Luis Minvielle Méndez	Dir, Almacenes Aurrera
Juan Manuel Márquez	Dir, Bodega Aurrerá
Cesáreo Fernández	Director Suburbia
Javier López Mancisidor	Director Vips
Antonio Rodríguez Cota	Dir, Real Estate Div
Gilberto Perezalonso Cifuentes	Dir, Gen Corp
José María García Pérez	Dir, Hum Res

No. of shares outstanding	**Dec 93**
Serie A & B	2,400,000,000
Serie C	800,000,000
Total	**3,200,000,000**

Main Affiliated & Associated	**Business**
Controladora de tiendas de Descuento (99.99%)	Retailing
Controladora Bodega Aurrerá (99.99%)	Retailing
Controladora de Superamas (99.99%)	Retailing
Controladora Suburbia (99.99%)	Retailing
Controladora Vips (99.99%)	Restaurants & Services
WMHC de Mexico (50.00%)	Retailing
Cifra-Mart (50.00%)	Retailing
Comercializadora Mexico-Americana (51.00%)	Trading

Main Market & Competition
78% of the commercial units are located in Mexico City and neighbouring areas, it also owns outlets in 20 other cities of the interior. Main competitors are Comercial Mexicana, Gigante, Soriana, some department stores and restaurants chains.

[redacted]rge variety of clothing articles, general foods, foodstuffs [redacted]12,700 suppliers.

[redacted]

COCA-COLA FEMSA S.A. DE C. V.

Established: 1991
Listing Date: Jun, 1993
Ticker Symbol: KOF
Head Office: Reforma 404 Piso 3 - México, D.F.
[redacted]
No. of Employees: 11,996
References: Bancomer/

Background
Coca-Cola FEMSA has its origin in Fomento Económico Mexicano, S.A. de C.V. (its holding company). In 1979, it acquired the control of its subsidiaries which today constitute the Coca-[redacted]production, trading adn distribution fo soft drinks in Mexico City, neighboring areas, southeast Mexico (Tabasco state and neighboring areas of Oaxaca, Chiapas and Veracruz states). Coca-Cola FEMSA was establisehd in October, 1991, as part of the FEMSA shareholding reestructuring process, to carry out strategic associations in its businesses. In June, 1993, FEMSA joined its soft drinks business with The Coca-Cola Company, which today owns 30% of Coca-Cola FEMSA capital and in September, 1993, FEMSA placed 19% in Mexico, New York and Europe markets.

Main Officers

Alfredo Martínez Urdal	Director General
Héctor Treviño Gutiérrez	Dir Fin & Adm
Rafael Suárez Olaguibel	Dir, Oper Valle de Mexico
Ernesto Torres Arriaga	Dir Technical
Hermilo Zuart Ruiz	Dir Administration
Martin Lara Espíritu	Dir Souteast Reg
Eduardo Ricaurte Quarz	Dir, Mktg
Guillermo Pérez Peniche	Dir Projects
Rosendo Pérez Pinzón	Dir Hum Res
Gustavo León Basurto	Dir, Devel
Simon fox	Dir Systems

No. of shares outstanding	**Dec 93**
Serie A	242,250,000
Serie D	142,500,000
Serie I	90,250,000
Total	**475,000,000**

Main Affiliated & Associated	**Business**
Industria Embotelladora de Mexico (99.90%)	Soft drinks Manuf
Embotelladora de Tlalnepantla (99.90%)	Soft drinks Manuf
Distr. de Bebidas Valle de Mexico (99.90%)	Soft drinks Distr
Embotelladora del Istmo (99.90%)	Soft drinks Manuf
Refrescos de Oaxaca (99.90%)	Soft drinks Manuf

Main Market & Competition

Coca-Cola FEMSA is leader in the markets which trades. During 1993, the share market were: 58.2% of Valle de Mexico against Pepsico and 38.8% in total industry, in the meantime in Southeast region the market share was 71.9% and 60.9% respectively.

[redacted]tes, whicha a great part is purchased by Compañía [redacted]otora Mexicana de Embotelladoras, S.A. [redacted]ance to the government permission; as well as bottling and packaging materials, with the majority of them purchased by FEMSA subsidiary.

[redacted]

GRUPO FINANCIERO BANORTE, S. A. DE C. V.

Authorization Date: Jun 30, 1992
Authorization No: 102-E-366-DGSV-1520
Head Office: Zaragoza, 920 Sur - Edificio Gran Plaza - 64000 - Monterrey N. L.
[redacted]
No. of Branches: 150

Background
Grupo Financiero Banorte has its origin through a merger between Banco Mercantil del Norte and Afin, Grupo Financiero. From September 20, 1993, it began to execute services of multiple bank, brokerage house, foreign exchange, financial leasing, factoring and warehousing, providing a high quality total and personalized service to satisfy the clients financial needs.

[redacted]

Assets Under Management	US$'000
Banco Mercantil del Norte	3,984
Afin, Casa de Bolsa	359
Afin, Arrendadora	13
A.F., Casa de Cambio	4
Others	-
Total	4,360

Main Officers

Francisco J. Patiño Leal	Dir, General
Francisco Gonzalez Martinez	Dir. Bank
Luis R, Seyffert Velarde	Dir, Fin & Oper
Jorge Colin Huerta	Dir, Plann
Alejandro Alvarez Figueroa	Dir, Bkge House
Gerardo Gomez	Dir, Leasing
Alejandro D. Martínez	Dir, Warehouse
Enrique Catalan G.	Dir, Factoring

No. of shares outstanding	Dec 93
Serie A	144,097,753
Serie B	52,706,248
Serie C	65,748,014
Total	**262,552,015**

Main Affiliated & Associated	Business
Banco	
Mercantil del Norte (97.75%)	Multiple Bank
Afin, Casa de Bolsa (100.00%)	Brokerage House
A.F. Casa de Cambio (100.00%)	Foreign Exchange

GRUPO CARSO, S. A. DE C. V.

Established: 1980
Listing Date: Jan, 1990
[redacted]65 Col. Lomas de Chapultepec - 11000 - México, D. F.
[redacted]
Independent Auditor: Ruiz Urquiza y Cía. S.C.
Nature of Control: Mexican Private
No. of Employees: 40,416
References: Bancomer/New York/Citibank/ Bancomer/Banamex/Serfin

Background

[redacted]der the denomination of Grupo Galas, S.A. Afeter several changes and reforms in its by-laws took place along varous years, in May 1990 it changed its denomination to Grupo Carso, S.A. de C.V. and, again, also changed its by-laws. GCARSO is a fullfledged holding, or controlling company and since its inception it has had an ascendent characteristic in the acquisition of companies.

Main Officers
Alejandro Escoto Cano Dir. Finance

No. of shares outstanding	**Dec 93**
Serie A	915,000,000
Total	**915,000,000**

Main Affiliated & Associated	**Business**
Cigarros la Tabacalera Mexicana (71.06%)	Tobacco
Sanborn Hermanos (77.42%)	Commercial
Industrias Nacore (99.54%)	Steel Production
Empresas Frisco (95.14%)	Extracting
Grupo Condumex (88.83%)	Holding

GRUPO EMBOTELLADORAS UNIDAS, S.A. DE C.V.

Established: 1986
Listing Date: Sep, 1987
Ticker Symbol: GEUPEC
Head Office: Severo Díaz No. 17 Ph 1 - Guadalajara, JAL
[redacted]
T[redacted]zano Marrón Lebrija
[redacted]
No. of Employees: [redacted]
References: Banamex/Mercantil de Mexico/ Banco Mexicano/ Chemical Bank

Background
The Company was established as a result of a merger between Grupo Trieme, S.A de C.V. and Grupo Embotelladoras unidas, S.A. de C.V. in 1987. The company has maintained a consistent growth and has been re-investing 100% of its profits which, combined to the modernization [redacted] project of its plan infrastructures, aims at facing the global market growth for soft drinks through new developments such as the liter and half returnable plastic bottle.

Main Officers

Virgilio Pérez Pascoe	President
Ildefonso Ochoa Martínez	V-P, Finance
Armando Puente Rincón	Dir, Fin & Contr
Gonzalo Guerrero Magaña	Dir, Plant
Joaquín Martínez Yepez	Dir, Plant
Dionisio Pozos Pérez	Dir, Plant
Gerardo Olaguíbel Medrano	Dir, Plant

No. of shares outstanding	**Dec 93**
A1- A2	28,452,668
B1- B2	27,336,877
Total	**55,789,545**

Main Affiliated & Associated	**Business**
Embotelladora de Occidente (100.00%)	Bottling
Bebidas Purificadas delCentro (100.00%)	Bottling
Bebidas Purificadas de Michoacan (100.00%)	Bottling
Bebidas Purificadas del Cupartitzio (100.00%)	Bottling

Main Market & Competition
The Company's distribution and sales are located in the states of Jalisco, Guanajuato, Michoacan and an area of Colima. Main competitors are the soft drinks bottling of Coca-Cola, Peñafiel and AGA products.

Main Raw Materials & Sources
Main raw materials and suppliers are: concentrates - Pepsicola Mexicana, S.A. de C.V.; sugar- Corporativo Azucarero Mexico; glass - Vidriera Guadalajara.

GRUPO FINANCIERO BANCOMER, S. A. DE C. V.

Authorization Date: Jan 27, 1992
Authorization No: 102-E-367-DGBM-111-A-243
Head Office: Av. Universidad 1200 - 03339 - México, D.F.
Chairman: Eugenio Garza Lagüera

[redacted]

Background

In January, 1992, the Treasury and Public Credit Department authorized Grupo Financiero Monterrey to change its name to Grupo Financiero Bancomer, S.A. de C.V., which was formed by the following institutions: Acciones Bursátiles, S.A. de C.V., (Casa de Bolsa Bancomer), Arrendadora Monterrey, Factor de Capitales, S.A. de C.V. and Bancomer, S.A. In September, 1993, the GFB began to operate its " Nuevo Modelo Estratégico" (New Strategic Model), with the purpose of foreseeing and satisfy the market needs [redacted]

Main Officers

Ricardo Guajardo Touche	Dir General
Carlos Aguilar Villalobos	Dep Dir, Gen Contr
Guillermo Acedo Romero	Dep Dir, Cred/Risk Control
Alfonso Gonzalez Mogoya	Dep Dir, Fin & Mgt Control
Francisco Javier Fernandez C	Dep Dir, Sys, Plan & Oper
Steven Saide Azar	Dep Dir, Hum Res & Comm
Adolfo Lagos Esponosa	Dep Dir, Gen Cons Bkg
Juan Carlos Braniff Hierro	Dep Dir, Gen Serv Bkg
Victor Borras Setien	Dep Dir, Mortgage Bkg
Hector Rangel Domene	Dep Dir, Gen Instl Bkg
Mario Laborin Gomez	Dep Dir, Gen Special Bkg

No. of shares outstanding	**Dec 93**
Serie A	1,687,680,912
Serie B	655,097,886
Serie C	1,034,400,642
Serie L	916,725,954
Total	**4,293,905,394**

Main Affiliated & Associated	**Business**
Bancomer (99.98%)	Bank
Casa de Bolsa Bancomer (99.98%)	Brokerage House
Arrendadora Monterrey (100.00%)	Leasing
Almacenadora Bancomer (63.81%)	Warehouse
Factor de Capitales (100.00%)	Financial Factoring

GRUPO FINANCIERO INVERMEXICO, S. A. DE C. V.

Established: 1991
Listing Date: May,1993
Ticker Synmbol: GFINVER
Head Office: Paseo de la Reforma, 211- piso 17- 06500 - México, D.F.
Chairman: Carlos Gomez y Gomez
[redacted] y Cia. S.C.
[redacted]
No. of Branches: 260
Overseas: New York/London/Cayman Islands

Background
On August 23,1991, S.H.C.P. authorized Grupo Financiero Invermexico, S.A. de C.V. to be constituted as a finance association in terms of finance association law. It was established in November, 1991 and has as its main activity to operate as a holding of financing companies [redacted]vestment banking, securities intermediation, leasing, factoring and purchase/sale of foreign exchange. In 1994, the Group acquired an insurance and a security broker and formed a warehouse in association with USCO Distribution Inc. to extend its range of rendering services.

Assets Under Management

Banco Mexicano	13,593,805
Finance Leasing Total Assets	443,361
Factoring Total assets	137,862
Foreign Exchange Total Assets	28,512
Brokerage House Total Assets	6,425,929
Real Estate	2,193
Total	**20,631,653**

Main Officers

Carlos Gomez y Gomez	President
Manuel Somoza Alonso	Dir. General
Enrique Castillo Sanchez Mejorada	V-P, Corp Bkg & Branches
Jose Manuel Gonzalez Sordo	V-P, Comm Bkg
Juan Marco Gutierrez Wanless	Dep Dir Gen, Adm & Fin
Adolfo Perez Borja Siegrist	Dept Dir Gen, Mon Mkt, Treas
Jose Ignacio de Abiega Pons	Dep Dir Gen, Intl
Antonio Cortina Icaza	Dir, Gen Brokerage House
Guillermo Mascareñas Milmo	Dir, Intl Oper

No. of shares outstanding	**Dec 93**
Serie A	369,495,380
Serie B	331,236,293
Serie C	23,769,071
Total	**724,500,744**

Main Affiliated & Associated	**Business**
Banco Mexicano (99.80%)	Bank & Credit
Invermexico (99.99%)	Securities Intermed
Arrendadora Financiera Invermexico(99.99%)	Leasing
Invermexico Casa de Cambio (99.99%)	Foreign Exchange
Factoring Invermexico (99.99%)	Factoring

GRUPO FINANCIERO SERFIN, S. A. DE C. V.

Established: 1989
Listing Date: Dec,1993
Ticker Synmbol: GSERFIN
Head Office: Insurgentes Sur, 1931- 01020- México, D.F.
[redacted]
[redacted] Cia. S.C.
[redacted]
[redacted]
No. of Branches: 591
Overseas: New York/Los Angeles/Tokyo/Toronto/Paris/London

Background
Grupo Financiero Serfin is one of the three largest financial groups in Mexico. The power base of the group lies in its wide share ownership base, with over 3,000 shareholders from all over the country which cover diverse economic activities and are represented by over 299 members integrating the regional boards. Grupo Financiero Serfin has adequate resources to develop an efficient and leading universal banking system to satisfy the financial needs of its clients.

On December 1993 the Group succesfully placed 69 million GFSerfin L Shares in the International Capital Markets and listed its shares on the New York Stock Exchange. This included 11 million ADS's each representing four L shares. This transaction was a first for a Mexican financial services group and contributed to the Group's financial consolidation. Of the total offering proceeds, N$ 307 million was applied to the Bank bringing its capitalization ratio above the minimum required level of 8% to 8.9%

NOTE: The following information is derived from financial statements prepared in accordance with Mexican regulatory principles and does not present financial positions, results of operations,or other information in accordance with US generally accepted accounting principles. The following information is not intended to present financial information in accordance with accounting principles generally accepted in the countries of users of financial statements outside Mexico.

Main Officers

Adrian Sada González	Chairman of the Board
Abelardo Morales	C.E.O.
José Ignacio Moreno	C.F.O.
Carlos Valenzuela	Capital Markets & Intl
Fernando García Cuellar	International
Eduardo García Lecuona	Financial Planning
Susan Prado	Investor Relations
0Edmund Belak	Georgeson & Company

No. of shares outstanding	**Dec 93**
"A"	209,661,000
"B"	191,386,307
"L"	97,792,152
Total	**498,839,459**

Main Affiliated & Associated	Business
Banca Serfin (99.07%)	Banking
Operadora de Bolsa Serfin (99.93%)	Brokerage House
Factoraje Serfin (51.99%)	Factoring
Afianzadora Insurgentes (99.99%)	Bonding
[redacted]	Leasing
[redacted]	Warehousing
[redacted]	Insurance

[redacted]

EMPRESAS LA MODERNA, S.A. DE C.V.

Established: 1971
Listing Date: Oct. 1971
Ticker Synmbol: MODERNA
Head Office: Av. Franciso I. Madero 2520 Pte- Monterrey, NL
Chairman: Alfonso Romo Garza
[redacted]
Independent Auditor: González Vilchis y Cia., S.C.
Nature of Control: Mexican Private
No. of Employees: 5,620
References: Bancomer/Banca Serfin/Banamex/First National Bank of Boston/Chase Manhattan Bank/Bank of New York

Background
Cigarrera La Moderna was established in 1936. It produces and sells more than 29,000 millions of cigarettes. It is the leader in Mexican Market with a participation of about 56%, and sells two out off three main cigarrette brands: Raleigh and Montana; and exports cigarrettes to several countries of the world. In 1982 it established Aluprint, which supplies several packing materials to Cigarrera La Moderna as well as to other clients users of flexible and folding packing.

Main Markets & Competition
The cigarette market is comprised by the adult population of Mexico, and the Company?s main competitor is Cigarros La Tabacalera Mexicana, S.A. de C.V.

Main Raw Materials & Sources
Tobacco, packing materials, and acetate wick, all of which are domestically produced. Main suppliers are: Aluprint, Kimberly Clark, Celanese Mexicana and direct harvesters, in the case of tobacco.

Main Officers

Alfonso Romo Garza	Chairman
Francisco Gonzalez Sebastia	Dir Gen Empr. La Moderna
Eugenio F. Najera Solorzano	Dir Gen Cig. La Moderna
Eugenio Clemente Solero González	Director, Mfr
Juan Jose Martínez Ramírez	Director, Fin
Omar Diaz Maza	Director, Comml
Oscar Javier Velasco Martínez	Director, Comml
Jose Antonio Casillas Gomez	Dir, Mktg
Jose Carlos Trujillo Vazquez	Dir, Hum Rel
Jose Luis Martínez González	Dir, Legal
Raul San Miguel Zamora	Dir, Systems, Plan & Log
Jose Manuel Garcia y Garcia	Dir, Gen Aluprint
Alejandro Rodríguez Graue	Dir, Gen Agroind. Moderna
Carlos Herrera Treviño	Dir, Gen Bionova

No. of shares outstanding	**Dec 93**
Serie A	410,900.000
Total	**410,900,498,839,459**

Main Affiliated & Associated	Business
Cigarrera La Moderna (99.99%)	Tobacco
Aluprint (99.99%)	Packing
Distribuidora Transitsmica (99.99%)	Tobacco
Comercializadora Moderna (99.99%)	Consumer Goods
Bionova (99.99%)	Agrobiotechnology
Agroindustrias Moderna (99.99%)	Cattle-raising

[redacted] AMERICA, S.A. DE C.V.

Established: 1936
Listing Date: Oct. 1936
Ticker Synmbol: SEGCOAM
Head Office: Insurgentes Sur no. 3900 - 0-1030 - México, D.F.
Chairman: Alfonso Romo Garza
[redacted]
Independent Auditor: Mancera Hermanos y Cia.
Nature of Control: Mexican Private
No. of Employees: 3,940
References: Multibanco Comermex/ Banamex / Citibank

Background
Seguros Comercial America, S.A. de C.V. is a merger of dtwo major insurers Seguro La Comercial and Seguros Amercia with a combined experience of more than 100 years. Belongs to pulsar international. Currently provides coverage in all the different insurance segment in the Mexican market, and is the larges insurance company in Mexico.

Main Markets & Competition
Largest insurance company in Mexico. It has a 21% total private market share with a balanced mix in life and property & casualty.

Main Officers	
Alfonso Romo Garza	Chairman
Adrian Paez Martínez	President
Jorge de la Maza Tellez	Exec, V - P Comm
Antonio Pozzi Pardo	Exec, V - P America
Ruben de la Torre Izquierdo	Exec, V - P
Jorge Guajardo Cruz	Senior, V - P Treasury
Eduardo García Gaspar	Senior, V - P Marketing
Ricardo Vazquez Cervantes	Senior, V - P Hum Res
Antonio Peña del Bosque	Senior, V - P E. D. P.
Jorge Campa Gallardo	Senior, V - P Finance

No. of shares outstanding	Dec 93
SEGCOAM "A"	1,530,000,000
SEGCOAM "B"	1,470,000,000
Total	**3,000,000,000**

Main Affiliated & Associated	Business
Servicios Inmobiliarios La Comercial (99.99%)	Real Estate

GRUPO SITUR, S.A. DE C.V.

Established: 1989
Listing Date: July, 1991
Ticker Synmbol: SITUR
Head Office: Circ. Agustin Yañez 2342 - 3o. piso - Guadalajara, Jal
Chairman: Jose Martínez Guitron
[redacted]
Independent Auditor: Galaz, Gomez Morfin, Chavero, Yamazaki
Nature of Control: Mexican Private
No. of Employees: 6,389
References: Banamex,/Bancomer/Serfin/Comermex/Midland Bank/Lazard Freres/Kiddek, Peabody/James Capel

Background
Situr activities are mainly engaged in the development of integrated resorts, ownership and operation of hotels, urban developments and service companies. Situr is Mexico's principal develper of integrated resorts. These resorts contain high quiality hotels, condominiums, and villas and include a variety of complementary resort facilities such as golf courses, marinas and shipping centers. Situr is also one of the country's leading hotel owners and operators and seller of timeshare units. situr recently has expanded its development activities to the planning, construction and marketing of residential and commercial developments located primarly in or near urban areas.

Main Markets & Competition
Integrated resorts: personal buyers and secondary developers. Practically no competition. Hotels: direct clients -45%; and trough sales agents -55%. Other hotel chains. Urban developments: personal buyers and secondary developers. Other real estate developers.

Main Raw Materials & Sources
Integrated resorts and urban developments: construction services provided by affiliated and other companies. Hotels food, beverages and operating equipments are provided by several suppliers.

Main Officers

Jose Martínez Guitron	Chairman
Kenneth Prysor Jones	Dir, General
Javier Madrigal Magaña	Dir, Corporate & Serv
Gabriel Ruiz Huerta	Dir, Integrated Resorts
Jose Manuel Gomez Gil	Dir Hotels
Alberto Leonel de Cervantes G	Dir, Urban Devel
Francisco Zinser Lopez	Dir Hotel Oper
Gerardo Ulate Carballo	Dir, Planning & D
Salvador Andalon García	Dir, Administration
Guillermo Martínez Conte	Dir, Finance

No. of shares outstanding	Dec 93
Serie A	365,359,437
Serie B	351,031,615
Total	**716,391,052**

Main Affiliated & Associated
Situr Desarrollos Turísticos (99.99%)
Sitinvest (99.99%)
Siturbe (99.99%)
Mega Land, Estratur, Sidektur (each one)(99.99%)

Business
Integrated Resorts
Hotels
Urban Development
Services

GRUPO SYNKRO, S.A. DE C.V.

Established: 1955
Listing Date: May, 1966
Ticker Synmbol: SYNKRO
Head Office: Blvd. Manuel Avila Camacho No 191 - México, D.F.
Chairman: Crescencio Ballesteros Ibarra
[redacted]
Independent Auditor: Ruiz Urquiza y Cía.
Nature of Control: Mexican Private
No. of Employees: 5,108
References: Banco Internacional / Banco Mexicano in Mexico & New York / Probursa in Mexico & New York

Background
Grupo Synkro is engaged in the manufacturing and distribution of high quality consumer products with trademark franchising in American markets. the main business is realted to socking, sockpants, hosiery. In the textile field, it participates through the companies: Cannon, Canofil, Arcoplus, Arcoplus Argentina it also participated in the acquisition of Kayser-Roth in the United States. The Group's aim is to consolidate its international leadership position in the hosiery business assuring through globalization process the competitive excelency of worldwide class.

Main Markets & Competition
The Group is leader in the hosiery market with 56% of the market; its main competitors are Mallorca 14%, Maquintex 5%, Royalmilch 4%. In the socks market its participation is of 15%, and the nearest competitor is Interpunto de Mexico. In plastic shoes, it holds 26% of the market and the nearest competitor is Sandak. In insecticide and cosmetics market it ranks third, being the leader in the segments Johnson and Max Factor respectively.

Main Raw Materials & Sources
Nylon and Lycra - Akra de Mexico and Celanese Mexicana (domestic and imported), Textiles Kaltex, Telas Especiales de Mexico, Plásticos Pola, Grupo Primex, Resina Polimeros de Mexico.

Main Officers

Crescencio Ballesteros Ibarra	Chairman
Jose Luis Ballesteros Franco	V-P Exec & Gen Dir
Javier De la Rosa Lima	Alt Dir, Gen Adm & Fin
Alberto Cabal Hermosillo	Dir, Mktg & Plann
Hector Zires Cataño	Dir, Corp & Legal
Tessie Picazo	Dir, Public Relations
Carlos Cummings Ibarra	Dir, Gen Textile Div
Eduardo Cordero Blanco	Alt Dir, Gen Textile Div
[redacted]	Dir, Gen Shoes Div
[redacted]	Dir, Gen Cosm & Home Care Prod

[redacted]

No. of shares outstanding	Dec 93
Serie A	42,520,670
Serie B	40,853,192
[redacted]	[redacted]419,476
[redacted]	**[redacted]1,793,383**

[redacted]

Main Affiliated & Associated	Business
Industrias Cannon Mills (100.00%)	Textile
Arcoplus (100.00%)	Textile
Canofil (100.00%)	Textile
Calzado Puma (100.00%)	Tennis & plastic shoes
Grupo Prolar (100.00%)	Insecticide & cosmetics

[redacted]

VALORES DE MONTERREY, S.A. DE C.V.

Established: 1980
[redacted]
[redacted]- 11588 México, D.F.
[redacted]
Independent Auditor: Mancera S.C.
Nature of Control: Mexican Private
No. of Employees: 2,810
References: Bancomer / Serfin

Background
[redacted]e denomination of Visa Pesca, and during this year VAMSA merged with Fomento Proa and joined to an American company Aetna International Inc. The company's objectives are to promote, constitute, organize, operate or take participation in the capital of mercantile and commercial companies.

Main Markets & Competition
In the insurance market the Company competes mainly with Grupo National Provincial S.A., Comercial Amercia and Segumex; in the surety sector the main competitor is Afianzadora Insurgentes.

Main Officers

Federico Reyes García	Dir, General
Charles F. Reis	Dir, Adm & Fin
Oscar Carrillo Chavez	Dir, Auditing

No. of shares outstanding	Dec 93
Serie A	21,496,126
Serie B	20,653,171
Serie L	10,514,128
Total	**52,663,425**

[redacted]

[redacted]ess	
Seguros Monterrey Aetna (99.99%)	Insurance
Fianzas Monterrey Aetna (99.99%)	Surety
Grupo VAMSA (99.99%)	Corporate Services

[redacted]