THE INVESTMENT BANKING CHALLENGES OF THE 1990'S AND HOW MORGAN STANLEY SHOULD COMPETE

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(1987)

Submitted to the Sloan School of Management
in Partial Fulfillment of the Requirements of the Degree of
Master of Science in Management

at the

Massachusetts Institute of Technology
February, 1990

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ABSTRACT

The investment banking industry is changing dramatically in the next decade with the globalization of the markets and competitors, the increasing use of technology, and the continuing need for innovation. Faced with these unpredictable forces, investment banks have to learn how to manage change.

Broadly, this thesis addresses the issue of how to manage an investment bank for the 1990's. Specifically, it examines the firm, Morgan Stanley, and how it has approached this very issue. Historically, the firm has had an emergent strategy. Now the question is: given the trends of the future, is this emergent strategy still the optimal choice? Moreover, is an emergent strategy more appropriate for this industry than a formal strategy?

After examining the historical performance of Morgan Stanley and its traditional strengths in comparison with the nature of the challenges of the 90's and the characteristics of different strategies, it appears that an emergent strategy is the optimal choice. Moreover, this strategy is further examined with respect to the three broad trends of globalization, technology, and innovation.

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Acknowledgements

I would like to thank Professor Arnoldo C. Hax of the MIT Sloan School of Management for his guidance and valuable insights in completing this thesis. His wealth of knowledge in the field of strategy was extremely helpful.

In addition, I would like to thank Dr. William F. Pounds for his advice and for giving me the opportunity to examine this fascinating industry in the first place. Moreover, special thanks go to the firm of Morgan Stanley and their management team for allowing us to examine their firm in detail. Without their cooperation, the task would have been very difficult.

Finally, I would like to acknowledge Mr. George Shinn as the inspirational force behind this thesis and thank my colleagues and friends on the Morgan Stanley team, whose contributions were priceless.
1.1 Introduction

The world of investment banking is changing dramatically in the 1990's as technology and innovation combined with deregulation open new markets for a growing range of financial services. The challenge for investment banks is how to manage their firms given these dynamic forces. In broad terms, the task is to figure out how to manage change and to make sense out of the seemingly chaotic and unpredictable nature of this industry. Should the banks plan in order to keep up with the latest trend or should they just be opportunistic? Moreover, if you do plan for the future; is it through formal planning or more in terms of putting in place the infrastructure that will adapt to these unpredictable changes? If you ask those in the industry today, most will say that you need to be opportunistic. But, are there merits to formal planning that may be overlooked by them?

This thesis addresses the broad issue of how to manage change in the investment banking industry and focuses the analysis on one firm in particular, Morgan Stanley & Company. First, a historical analysis will be done to see how Morgan Stanley has traditionally competed in this industry. Then, the industry trends and challenges of the 90's will be examined as well as how these trends have affected the businesses of Morgan Stanley. Finally, after examining both Morgan Stanley's past strategy and performance as well as the future outlook for the industry, the question of how to best manage
change will be examined, both broadly in terms of strategy and specifically as it applies to the future challenges. In other words, for the 1990's, is the old strategy the best way to manage uncertainty? However, before we can answer that, we must first examine the old strategy.

1.2 Morgan Stanley & Company

Morgan Stanley is a major international securities firm. The firm is committed to providing superior financial services to its clients and customers around the world. Morgan Stanley believes that the integrity of the firm and its people is most important and the interests of the clients and customers are placed ahead of those of the firm. The history of Morgan Stanley can be divided into two periods. The first, lasting about 35 years, was traditional banking—raising capital for corporate and government issuers by managing public and private sales of securities. The firm also managed large secondary sales of securities and provided a range of financial advisory services, including advice on mergers and acquisitions. During this period, Morgan Stanley relied on large syndicates of securities firms to distribute the public offerings it managed and was not itself a significant factor in the sales and trading of securities. In 1971, the firm concluded that in order to maintain its leadership in the securities markets and become an important distributor to the institutional marketplace, it needed to be in sales and trading. These decisions led to the second period of expansion and diversification which followed.
Today the firm is well positioned to meet the requirements of its clients and customers around the world. The firm has presence in the major securities, currency and commodity markets. In addition, it is an active participant in the real estate market and has a major position as a manager of financial assets. Morgan Stanley has large, diversified offices in London and Tokyo with investment banking and multiple-currency market-making capabilities. They are increasing their involvement in issuing and trading securities and other financial instruments in world markets as geographical barriers for users and suppliers of capital are being broken down by information technology, new financial products and deregulation. They continue to invest heavily in new product research and analytics and in the systems necessary to process complex transactions. While the pace of change is great, Morgan Stanley continually believes in quality of its services over quantity. ¹

1.3 History of the Firm

From a brief glimpse at its history, its seems that Morgan Stanley is well positioned to meet the challenges of the 1990's. Their strategy seems to have worked in the past, so why tamper with a good formula? It seems that they have been able to use their strengths to compete well in the industry. But, what exactly has been its strategy in the past and what were these strengths? To answer this question entails examining its history in more detail to

¹ Morgan Stanley's 50th Anniversary Review.
understand how the firm has traditionally competed and what has contributed to its success in the past. Was it the strategy or was it the market conditions they capitalized on that led to their success?

1933-36

Like its closest competitor back then, Brown Brothers Harriman, Morgan Stanley broke off from J.P. Morgan into investment banking as a result of the Banking Act of 1933, to carry on underwriting and wholesaling of securities. Morgan Stanley opened business with seven officers and a staff of thirteen. Harold Stanley led the new firm. His background prior to Morgan Stanley was with Morgan Guaranty Company of New York and later with J.P. Morgan. Henry Morgan, grandson of the senior J.P. Morgan, also left the firm of his father to join Harold Stanley. Mr. Morgan set an example of personal integrity and ethical standards that dominated business decisions and molded the character of the firm he helped found.

From the beginning the old venerable tradition of J.P. Morgan was the main influence on Morgan Stanley and some of that is still evident today. The founders were schooled in the Ivy League. Moreover, much of the customer base of Morgan Stanley was from Morgan. Employee retention was good and they were able to initially sponsor more than any other investment bank as a start-up (478 million in issues). In 1936, the firm's first full year of operation, Morgan Stanley managed or co-managed $1.1 billion of public offerings and private placements. It was considered the "Cadillac of
the Fleet", the banker for the big industrial corporations. Its strength in industrial issues had to do with its history with J.P. Morgan. The ties with clients like GM, U.S. Steel, GE came from Morgan and clients identified with the Morgan name. Early on, they wanted to keep their firm small and proud. Along with its impressive client list, it was this tradition that was the strength of Morgan Stanley in its early years.

1937-55

Morgan Stanley was extremely strong from 1935-39 and was responsible for 32% of the registered bond issues of the top 38 investment banks, all the 1st grade transportation and communication companies issues and 74% of all other issues. However, because of competitive bidding, the practice of auctioning securities to the highest bidder, becoming law in April 1941, the firm decided at this time to broaden the scope of its business. The corporation was dissolved and a partnership was formed. The reason why they wanted to dissolve into a partnership was because they felt it would be more effective. Morgan Stanley wanted to broaden activities to include trading and became active in retail security distribution. This also enabled the firm to qualify for membership on the NYSE (which would not accept corporate members at the time). In addition, one other reason for becoming private was to get away from SEC regulations. The firm immediately became involved in bidding for utility and other new securities sold at competitive
bidding. Morgan Stanley also became active in arranging private placements of securities.

During WWII the securities business virtually ceased to function, and Morgan Stanley and other investment firms relied on brokerage commissions, advisory services, and a limited number of private placements to provide income. After the war, Morgan Stanley began to rebuild its business relationships with industrial and government clients, and a program of business development was initiated. In 1951 Perry Hall became managing director and during this period the firm prospered and enjoyed steady growth. Perry Hall was also from an Ivy institution, Princeton, and was a great salesman. Morgan Stanley was able to put through more than 300 million equity issues of GM in '54. By '55 there were a total of 19 partners at the firm and that was the same year that Harold Stanley retired.

1956-70

Morgan Stanley continued to prosper through the 60's. There was a close group of competitors that was in underwriting, acted as advisors to major business concerns and performed an entire range of banking functions and Morgan Stanley was one of them. They competed ferociously but they did take each other into their syndicates. Morgan Stanley was unique because it was identified as doing only the most important undertakings in the U.S. It was always at the pulse of American business and industrialization. The client structure was the blue-chip companies. The other investment
banks have not done the same. For example, Lehman Brothers closely identified itself with the most aggressively managed exploration companies in oil and mining.

Morgan Stanley has from the beginning been active in providing investment banking services and arranging financing in the international capital markets for corporate and government clients throughout the world. Morgan & Cie International, a joint venture of Morgan Stanley and Morgan Guaranty Trust, commenced operations in Paris in 1967, continuing the international investment banking tradition of both firms. In 1975, Morgan Stanley acquired Morgan Stanley International Inc. in London as the successor to Morgan & Cie International. Morgan Stanley increased its capabilities in real estate through acquiring a majority interest in Brooks, Harvey & Co. Inc. Morgan Stanley showed foresight and planning during this period in establishing international operations early and in diversifying into real estate.

1971-79

In the 70's Morgan Stanley could no longer be what it used to be: an olympian business limited to counseling and borrowing for the mighty. The trend was that businesses were looking more for capital, the institutional investor was gaining power, and more and more of the business was being done by fewer investment banks. Morgan Stanley had to come up with more wrinkles on traditional products to keep their clients happy. The investment bank that could do just one or two things was giving way to the investment
bank that did everything. It was not enough to be just rich and distinguished but the banks had to be skillful and versatile.

Consequently, in 1970 Morgan Stanley began a reorganization of its corporate structure in order to provide for better management of the risks and growth opportunities of its businesses. The corporate entity, Morgan Stanley was established in 1970 and Frank Petito served as Morgan Stanley's chairman from 1975 to 1979. During this period, Robert Baldwin was president and later chairman, until retiring and heading the Morgan Stanley Advisory Board, a group of business and financial leaders who advise the firm on key issues of importance to the firm and its clients on a worldwide basis.

The way this planning was done was that early in 1970 the firm undertook a review of its basic business strategy, and a planning conference was held to assess the firm's marketing activities and its prospects for growth. The conference concluded that Morgan Stanley needed to expand substantially its business activities with institutional investors. It was determined that expansion of the firm's marketing activities would begin with the establishment of a secondary corporate bond trading and sales capability. Richard Fisher was a part of the planning and strategy effort, led by William Black, that preceded the firm's active entry into the capital markets. The decision was to earn day-to-day relationships with the suppliers as well as the users of capital.  

In 1972 Mergers & Acquisitions was formed by Robert Greenhill, a Yale and Harvard man. Moreover, as planned, in 1974

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2 Morgan Stanley's 50th Anniversary Review.
Morgan Stanley consciously got closer to the institutional market by entering the bond trading market and then to the equities market. Trading allowed Morgan Stanley to understand what institutions were doing with their funds. Trading also gave them a better feel for the market. However, it was difficult to infuse a trading culture into a firm that was not traditionally salesman-like. They had to accept the fact that Morgan Stanley could be wrong sometimes because they were now in trading. Morgan Stanley had become a much tougher firm in order to compete. More and more the Morgan Stanley people were younger and represented a new breed.

At this point, all 49 partners still participated in policy decisions and consensus building. Morgan Stanley still liked to be the sole manager of its clients and was fiercely competitive about them. The infusion of people in the 70's and the rewarding of people much earlier in their career were all new though. Takeovers blossomed in the late 70's and Baldwin was the man on the Street because people cared about his opinion. The 60's were a slow time and the industry was antiquated. However, in the 70's the commission rates were unfixed and free enterprise increased and investment banks prospered. Baldwin saw that Morgan Stanley needed to change and he knew it was difficult to change but he brought in key people and placed them in positions of influence. This selection and placement of key leaders within the firm was crucial to changing the course of the firm. Therefore, the major change during this period was that the traditional culture of Morgan Stanley had to give way to a more aggressive trading culture. The firm saw the changes in the industry and was able to capitalize on
them. The firm had to rely on the financial expertise of its people, not just on its prestige.

Since the implementation of that strategy, Morgan Stanley has continued to expand the scope of its activities. Product line gaps have been filled by the addition of such nontraditional businesses as commercial paper, mortgage-backed securities, and municipal finance. Also, Asset Management began in 1975 under the leadership of Barton M. Biggs and has grown since its inception into one of the firm's major business units with assets in excess of $10 billion. The division's equity management group, which has 15 portfolio managers, handles accounts for a broad range of clients, ranging from individuals to foreign governments and the pension funds of major companies. It is at the top 20% of all investment management firms. Morgan Stanley Asset Management acted as the investment office, making asset allocation decisions and designing the tactics of implementation.

1980-85

As competition changed the face of Morgan Stanley, young professionals, ambitious MBAs entered the firm. Morgan Stanley was peeling its WASPish image and becoming more aggressive. The shocks to Morgan Stanley have been the entrance into trading in the 70's and the infusion of younger professionals in the 80's. Gradually, it has given up its sole lead management policy. In 1982 it realigned to stress trading and sales and overseas financing. S. Parker Gilbert was elected President in 1983 and Richard Fisher President in 1984.
In 1985 it created an international research department. Furthermore, in the 80's Morgan Stanley moved into merchant banking and opened offices in Sydney and Melbourne; Frankfurt, Zurich, Hong Kong, and Milan. They had also become members of the London, Tokyo, Frankfurt, Osaka, and Hong Kong exchanges.

1986-89

In 1988 it established its own international custody and settlement business, moving into the commercial banking area, taking the concept of full service one step further. Morgan Stanley Global Securities Services offers institutional investors trade execution, clearance settlement, and custody services in principal markets worldwide. They have developed an automated communication system with agents in 22 countries that allows them to eliminate the countless manual steps that are predominant in the industry and as a result make the process much less labor intensive. Throughout its history, Morgan Stanley has been opportunistic and have not played the market share game. Morgan Stanley has made efforts to forward-think, especially in the 80's and establish businesses here and abroad that would capitalize on future trends in technology and international expansion. In 1989 they were first in international research. 3

1.4 Analysis of History

3 Maher, Institutional Investor.
The firm today has a total of 6400 employees and has major offices in New York, Chicago, Los Angeles, San Francisco, Toronto, London, and Tokyo. Other offices are in Zurich, Frankfurt, Milan, and Hong Kong. Why has the firm been successful in the past? Some may say that it was due to its early positioning in the international arena or because of the blue-chip client list of the Morgan Bank. Early on, Morgan Stanley's strengths were its client list and its opportunistic strategy. However, later in the 70's and throughout the 80's, they made a conscious effort to invest in the infrastructure of the firm by building up the necessary systems and finding the key people to lead their businesses. It is this investment which is their strength and which has allowed them to be flexible in order to react successfully to the dynamic forces in the industry.

Moreover, these investments are in adherence with its strategic priorities. These priorities of Morgan Stanley were client service and profitability that prevailed over market share; cost control and efficient financial resource allocation; maximization of human resources; competition based primarily in high value-added businesses where the firm had a competitive advantage (M&A, merchant banking); focus on selected businesses rather than providing a panoply of financial services; and setting the highest standards of professional, if somewhat conservative management. 4

Morgan Stanley was seldom first in the market, rather it was usually second and entered very cautiously. Although they had

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4 Chang, Goh, Heflin, Junker, Kenney, Presentation.
strategic priorities, their strategy was basically an emergent one as opposed to planned. Throughout its history they were very good at capitalizing on trends in the industry, entering businesses that had high value-added. It had done some extensive planning, especially in the 70's, but overall it was an organization that formally planned for a very short horizon. The 70's was an extraordinary time in Morgan Stanley's history. It went through some explosive changes and has not repeated this change since. What they have done in terms of planning and which is also the underlying key to their success is the investment in the infrastructure of the firm.

Therefore, Morgan Stanley has been successful in the past because they have benefitted from extremely favorable market conditions like in the 1980's -- the bull market, corporate restructuring, and new products. They made smart business mix decisions -- moved into sales and trading and overseas expansion and capitalized on M&A expertise with merchant banking. And, finally, they created a supportive infrastructure -- compensation, placement, decentralization, and information systems to enable it to capitalize on these opportunities.

To put it another way, Morgan Stanley has exploited market opportunities and capitalized on their reputation and the franchise. They have also moved to generally higher risk businesses for the high margins and have entered businesses rapidly once they were proven by others to be viable. Furthermore, they have built the necessary infrastructure. Therefore, it has been a combination of the market conditions and what the firm has consciously done that has contributed to its past success. However, although the investment in
the infrastructure may not have been the most important aspect of Morgan Stanley's past success, it will be the one that will be critical to its long-term performance. Because in order to respond and capitalize on future trends quickly and effectively, you must have the capabilities and resources to do so. The future holds increased competition through continued integration of world capital markets and changes in the domestic demand—perhaps more transactional banking, a flattening of the bull market and reduced trading volume, and a possible fading of the restructuring boom.

Are the strategic priorities listed above the same ones that will carry Morgan Stanley into the 1990's? Yes, these priorities are still important since Morgan Stanley must continue to choose its businesses carefully. However, more so now than ever before, it must plan to invest in its assets: the people and the systems to capture these goals.
2.1 Trends in the Investment Banking Industry

Given Morgan Stanley's traditional strengths, what is ahead for the industry in the 90's? The investment banking business is viewed as dynamic and the products are continuously changing. The broad trends for the 1990's are the continued internationalization of the market through deregulation and the globalization of competitors, the rise of technology, and the continuing need for innovation. There is significant overcapacity in the industry now, both here in the U.S. as well as abroad, as in the U.K. There are too many analysts, too many people. With equities, people are trading portfolios as opposed to stock and they are not paying for investment banking services as much anymore. The volume for full service is dropping by as much as 35% and firms are pulling out. In the U.K. there is excess capacity in fixed income. Morgan Stanley has always focused on ROE as opposed to share. However, new entrants and competitors entering due to the repeal of Glass-Steagall will create competition much more driven by share. Moreover, some businesses, like domestic underwriting, Morgan Stanley's traditional strength, has become essentially break-even.

To be effective, Morgan Stanley, like other investment banks, need distribution and technology expertise (risk management), especially in those businesses that rely on transactional ability like equity and fixed income. In addition, relationship banking will come back and the contraction of expertise and relationships in corporate
finance will be important so the firm must also continue to invest in the people resources, the financial expertise. A good example of where both these emphases have been successful for Morgan Stanley is Japan. Japan is a difficult environment to work in. Yet, Morgan Stanley is the lowest cost producer on the Tokyo Stock Exchange due mainly to the application of technology. They have been able to improve productivity in Tokyo through automated settlement. Moreover, Article 65, which is the Japanese counterpart to our Glass-Steagall, will change with developments in the U.S. Therefore, the technology edge along with the established relationship that Morgan Stanley has in Japan will help it compete in that eventual deregulated environment. Derivatives and M&A are the high value businesses and these are the ones that Morgan Stanley will try to capitalize on overseas.

For those that have the resources there will be tremendous opportunities for all markets not just the U.S. Investors will want to hold more assets in non-U.S. currencies. The key is not only to look for upscale, value-added products, but to invest heavily in the people and the infrastructure to take advantage of these opportunities both here and abroad. Institutions like Morgan Stanley have begun to invest in their infrastructure to deal with this internationalization. Furthermore, the international business will be at least as profitable as the domestic. Cross-border operations will tilt towards Europe and businesses like Real Estate will become more international. Moreover, firms like Morgan Stanley are investing more in other countries: Morgan Stanley just became a member of the Nagoya Stock Exchange late last year. Although there exists excess
competition in the U.K. and in Japan, there are exciting markets to crack, for instance, in Germany.

Tension has built-up as a result of deregulation. The trend is much less to customer orientation than to proprietary orientation. The clients have become the competitors. Right now there is deregulation of the financial services industry, but will this continue or will reregulation occur and how do you plan for both? It seems that the only choice is to have an organization that is flexible to adapt to either situation. Therefore, the banks should get as much automation as possible so that it will be in place if regulation comes out. In terms of competition, the investment banking needs of companies have become internalized and commercial banks are invading the territory of the investment banks. Yet, Morgan Stanley's long-run ROE of 25% will be maintained. Morgan Stanley continues to see those returns on their businesses and the pipeline has not dried up.

Even though Morgan Stanley has not been excited about Glass-Steagall since more competition will come as a result, the firm has been running on the basis that Glass Steagall will fall. Deregulation will bring pressure on margins. There are local market competitions, but Morgan Stanley's worry really lies with the global competitors. The competition will come from the other investment banks mostly in the high margin businesses. In addition, they will come from the Japanese firms who have capitalized through sales and trading and is now looking intently at M&A. Moreover, where do competitors like Reuters fit in all this? Morgan Stanley paid Reuters a lot to use its data services. Could these costs be internalized? (See Appendix 2)
Furthermore, there will be consolidations and permutations in the industry and industrial companies acquiring investment banks.

Investment banks have embraced technology more now and Morgan Stanley has built a business on the back of technology (global custody). Morgan Stanley Global Securities (MSGS) is expanding the marketplace. Unlike most businesses that investment banks are in, where it is a zero-sum game, this business is actually creating a larger market. Asset Management has become the beneficiary of the technology trend as well. The worldwide phenomenon is that asset management has become extremely important. Technology is present in the proprietary businesses and in the back offices, where investment banks are building their businesses. Moreover, the automated brokerage environment will become reality in the near future and this will change the fixed income and equity businesses (See Appendix 2 for details on Automated Brokerage). The overcapacity in the industry has caused some firms to pull out or reduce some of their businesses, so liquidity in the market has suffered. The key question has been how to get more liquidity -- it could come from technology and a more automated environment. The goal is to increase liquidity in the capital markets. Further reasons for investing in technology is that cost will become an important factor. Also, there will be a move out of commodities and trading will center primarily with derivatives (futures, options).

The rate of change has been magnified by technology. Automated brokerage will come in 5 years. In the future, people will have to do business with institutions that look like Morgan Stanley. Therefore, this will create high barriers to entry.
Competitors are spending a lot of money to replicate Morgan Stanley's trading system (See Appendix 4 for details on TAPS). People think of hardware as technology but it is also the software. It is the purchasing of data from a third party and the data processing. It has been seen dramatically in the trading area in the ability to clear and sell securities. Morgan Stanley's cost in terms of settlement are 30% lower than their competitors and its quality is higher. They are also ahead of them in automation.

The other major trend is managing people in the industry. In an industry that depends so much on its people as the driving force for competitive advantage, it is not surprising that this is one of the key concerns for investment banks in the 90's. Part of Morgan Stanley's strategy for tackling this issue is having their people retain ownership, but the worry is about providing opportunities of interest to these talented people. The people that work in this industry are becoming more and more generalized as opposed to specialized and international experience has become very important. The business is extremely cyclical so firms have to remain flexible by keeping their people mobile, interested, and skilled.

The people who manage the equity business believe that equity will come back. Moreover, merchant banking and junk bonds will not disappear. LBO funds that Morgan Stanley have are well situated to do transactions. They have stood on the sideline lately because of margins. The firm is well positioned and want to see this expertise exported abroad. There is a lot of inefficiency in merchant banking and they are patient and will wait. Cross-border M&A, security custody and asset management efforts and non-dollar fixed
Income trading are expected to be important in the 1990's as well. The firm is prepared to capitalize on these business trends. International equities represents an excellent growth area for the firm. Equity operations in Japan are also extremely profitable.  

As we have seen, Morgan Stanley seems uniquely positioned to meet the challenges ahead. These same trends that are so crucial for the 90's were also the ones that the firm had already invested in early in its history. Is their strategy basically correct for the future? Before answering this question, we will examine in more detail how these trends have and will impact the core divisions at Morgan Stanley. The purpose is not to do a competitive analysis of each of the business units, but to see how crucial these trends are to the future of these businesses.

3.1 Morgan Stanley's Businesses

Morgan Stanley is comprised of five divisions: Equity, Fixed Income, Investment Banking, Finance, Administration and Operations, and Asset Management (See Appendix 1 for a more detailed description of the divisions).

3.2 Equity Analysis

The equity division is responsible for all equity cash products and any derivative products around the world. The equity division

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5 Managing Directors Discussion.
is the most international in numbers of people and products so it is the most globalized. 45% of the people in the business are in the U.S and two-thirds of the business are in non-U.S. products. So the vast majority comes from outside U.S. operations. The cash market in the U.S. has become sufficiently commoditized so that no one is making any money. Even though business has become so bad that no one is making any money, Morgan Stanley won't get out because they are a major investment bank and need the distribution to deliver the products. They can't just acquire a sales force whenever and they can't get away with not being in these businesses if they want to be the corporation's investment bank. In order to compete successfully in this business, Morgan Stanley has minimized its risks in this division by not playing the market share game. They are in institutional options, index futures, program trading, convertible bonds, and other peripheral businesses.

In terms of the domestic market, there is substantial overcapacity (30%). But, people will exit slowly because everyone believes that they will survive. However, there is not another global competitor that has put in the capabilities like Morgan Stanley. Morgan Stanley has the secondary market capabilities. They have been able to do this because it was the firm's objective in the 70's. The natural market to get in first is through the cash market and then into the peripheral market. In other words, first you do research and then options. In 1985 they acquired the capital international indexes and it gave them a commitment internationally. It gave them the data base so that they didn't have to have research around the world (although they do). Presently, their priorities
abroad are: Tokyo, U.K., Canada (not in there yet), Hong Kong, and Australia. The success in the business has been that they have relied on themselves. They are self-funded and if the cash business is unprofitable in the U.S., then they see how they can do it in non-U.S. countries. Morgan Stanley believes that cross-border investing will grow explosively, and no one will have the technological, capital, and settlement abilities to do what it can do.

With the exception of Japan where they have fixed rates, Morgan Stanley has contained losses. So they are essentially breaking-even in the international business. Who are the competition: those people that can do serious business like DeutscheBank. However, DeutscheBank is not full-service. If you talk about international flows, then the competition is Goldman, Salomon, Nomura, and Warburgs. You have to look at firms that are in all three markets. Nomura is the chief competitor around the world. In the Far East, the products are fee based while in the U.S., it is non-commission based. The growth of the business is in cross-border activities. However, they can make it in the local market too. If they are a local competitor, then it gives them a serious advantage to sell to international competitors. Morgan Stanley does not go to Japan and expect to beat them. They try to play on the firm's strength in derivatives. Rather, they carve out a niche. Morgan Stanley believes that you need to find that niche.

The clients for cross-border activities in Europe are everybody. In the U.S. it has been a slower process. The Japanese are bringing every major competitor to their market. Sooner or later they will have a major market. The natural traffic will force their people and
business to be international. They do research in Spain and they are in the Spanish market. The Japanese have the lowest cost of capital. Morgan Stanley makes money in Japan because of fixed rates, but it needs to find a niche there. They have a small research department there and have the trading capabilities. With derivative products, which were invented here in the U.S., Morgan Stanley has to educate the Japanese.

With equities, it is not so much innovation that concerns Morgan Stanley, but more how to deal with the globalization of the market and also of the competitors. The key to making this work is how to raise money for multinationals. Morgan Stanley is not the only non-local investment bank around. Furthermore, the number of multinationals are not so many. There are many global issues that trade everywhere already. However, there are regulatory boundaries right now so you are unable to do so with everything, but these regulations will disappear. Besides being concerned with high volume cross-border products, this division as well as the fixed income division is concerned with automated brokerage (See Appendix 2).

3.3 Fixed Income Analysis

No major changes are planned for this business, but as more and more people drop out of the business the better it will be. Some people were selling things too cheaply. They were shoestring operations during the 80's in the bull market. But now it is very difficult to be that type of operation. Morgan Stanley does very little
retail business, unlike Shearson, Merrill, and others because it doesn't have the distribution network. Theirs is mostly an institutional market. Most institutions used to have a quality aspect to their portfolios that prevented them from buying low grade investments. Since then, junk bonds have become more popular for institutional investors. Junk bonds are very much like equities because they have equity returns. (14 to 15%). Likewise, a while ago pension funds didn't want to buy foreign products, but slowly they were able and willing to invest in equities and fixed income products outside the U.S.

Competitors are different from product to product in fixed income. Although being number one is good, as the top competitor you are probably not maximizing your returns. Morgan Stanley wants to be in the game but not necessarily at the top. Unlike Salomon, they don't exit businesses when they are bad. They are willing to stay in with the expectation that things will become better. They would like to see the government bond market more profitable, but since it is a core market, Morgan Stanley will not exit it. The U.S. bond market drives the rest of the world's bond markets. Other companies do leave because they don't have the other pieces, the other businesses, and can't make a living doing business only in these products.

There is always the temptation to give away the piece that is not making money. Morgan Stanley has never done that because there is a relationship that is crucial with the investment banking division. Debt financing is very important to that division. Morgan Stanley could wholesale the package, but they would also lose the
margins. Fixed Income splits the revenue with Investment Banking. The sharing of revenues is basically how fixed income relates to investment banking and other divisions. Fixed Income in terms of return on equity has been lower than investment banking in the recent past. This division is facing tough competition, but it will change with cyclicality.

Internationally, Morgan Stanley can't compete in Germany as a distributor there. They can't distribute in Japan as well as the Japanese domestic firms. If they want to try they would have to triple in size. These markets are very similar, especially the bond markets. Morgan Stanley makes money through positions. If they are on the wrong side in a market move than they will be killed. The firm doesn't look at the international markets to improve margins. The Eurobond market is becoming more profitable because of fixed priced issues. They are not doing any changes and are in all the bond markets that they want and are not exiting any. Lots of things feed upon each other. The markets that are not doing well doesn't mean that it will not revive later on. So they must remain in the main markets. On the contrary, the Swiss Franc market is a domestic market and the 3 Swiss banks control most of this, so there is no need to do it.

The need for information has become very important. The ability to gage market trends is crucial. They need relative information worldwide. The markets are interlinked so that the German Treasury market determines the U.S. market. Morgan Stanley can't clone the New York operation and put it elsewhere. Language and cultural barriers are real and Morgan Stanley has built
a Tokyo office with only three non-Japanese -- all product experts. In Europe, they have the same type of staff -- locals. Taking the trading perspective, Morgan Stanley has a team focus and a single profit center. With respect to currency risks, market risk, and liquidity risk, their policy is not to bet the ranch. They are not huge speculators. The overall goal is to mobilize resources to areas where there is high growth. The interest rate swap is the area now and the foreign market is the key.

Furthermore, managing new products is quite difficult. The creativity trend, which drove this division, has really tapered off. The last new invention was swaps, which have been around since 1981. The creativity trend is behind us now and investors are asking for the plain vanilla. Mortgage-Backed are a good example where the demand now is for the plain vanilla. It has become too technical and investors don't want it. It is an educational process for investment bankers to convince the institutional market of these new products. The mortgage area has changed from rapid growth to leveling off. Moreover, many of the products trade on a commodity level. Nevertheless, innovation is not to be discounted since the cycles of a market do repeat.

The automated brokerage trend is on the horizon and will affect this division. Morgan Stanley is concerned about the data transmission people like Reuters. Commodity market trading in the future will be done on a machine. Customers will have direct access to these markets. There is an argument that portfolio managers want to talk to traders and have dialogues with people. So if the world is still waiting for automated trading, it is because of human
psychology. Automated trading works well with products like mortgage backed; products with no bid-ask offer spread. The junk bond market is a long way from automated trading.

The crucial question is what is the impact of technology to fixed income in the next 5 years. Technology makes sense in terms of reducing cost and in improving risk management, but what about client acceptance? The other question is what is the future of the junk bond market? In spite of many things, the junk is still successful. There has been some contraction in the business, but a healthy contraction. With regards to the use of technology, clients are very important because the traders need to be in touch with the market through other traders and the clients. Because Morgan Stanley has a strong presence in Japan and Europe and was in contact with their clients, they were able to prevent themselves from losing too much there. Not having major customer influence is detrimental because you need to understand their needs.  

3.4 Investment Banking Analysis

Investment Banking is comprised of six operating departments. Five are product areas -- real estate, M&A, debt capital markets, equity capital markets, and merchant banking (principal account). Merchant Banking is basically risk capital. For this, there is a fund which Morgan Stanley invests in for leveraged buyouts. The sales force in investment banking is the corporate finance department,

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which sells to the client base. There are some products that are managed in corporate finance and there is also a corporate restructuring group within corporate finance. Here in this division, most people are relationship bankers. They have an account list and they are evaluated based on how well they did with this list. Investment Banking has $1 billion in revenues with margins of 40 to 50% before tax. It is not capital intensive; the only capital necessary is for receivables and merchant banking investments. The breakdown in revenues is 30% for merchant banking and 40% for M&A and the rest for real estate and others.

Strategically the investment banking division at Morgan Stanley is trying to sell the most value added product and service. They want to give their clients the best corporate finance advice and charge them for it. They try to make sure that they don't get involved in transactions that they are not good at. They generally take a hard look at their clients and discriminate on clients so that they don't taint their reputation by taking on bad clients. The strategy is to focus on big deals where they can charge high fees. For clients that only need commodity type advice, Morgan Stanley can't charge high. Here as in the other divisions, they emphasize the global nature of their franchise. They believe in putting people in the local markets in the principal investment offices abroad: London, Tokyo, Hong Kong, Milan, Frankfurt. The real concentration, however, is in New York, London, and Tokyo. For instance, merchant banking will happen abroad probably in Europe more quickly than in Asia, and Morgan Stanley is positioned to capitalize.
Morgan Stanley in Japan has distribution capabilities and markets their sales and trading skills in that country, which is important to investment banking. There are liquidity and strategic advantages to being in Japan. Morgan Stanley assists the Japanese in acquiring property and are able to sell it to them as well. Moreover, there will be a lot of intra-European activity. Their strategy is to have an integrated network of global businesses so that the right resources move the right markets at the right time. If the U.K. market is dead then they want to be able to do France. Morgan Stanley doesn't have a way to separate revenue based on geography because they manage their products on a worldwide basis. Nevertheless, roughly a third of their business is related to Europe and another third is Asia and the rest is the U.S.

In terms of the client services business, Morgan Stanley has an oligopoly with Goldman, Shearson, Merrill, Wasserstein Perella, and Blackstone (the last two are not full service firms). As competitors in M&A, Morgan Stanley regards Goldman and Wasserstein Perella as equals. Morgan Stanley feels that they can get top talent from the local pool as well as from the MBA pool. People who want to be in investment banking want to be at Morgan Stanley. This is their strength. Moreover, firms like Goldman can't hire someone at the partnership level because they are private. There is a very narrow funnel to get to that level. On the other hand, Morgan Stanley does more lateral hiring because the firm thinks there should be a good balance between a single culture and many people with new ideas.

In Europe the competitors in the investment banking business are determined market by market. In the U.K. Warburgs is
competitive. In Europe as a whole, it is Morgan Stanley, Goldman, and Shearson. Within each market it is the foreign firms, but the U.S. firms are the global competitors. In underwriting it is market by market. In Debt, Morgan Stanley is fifth. In Equity, Morgan Stanley is tenth. The new issues businesses have gotten very competitive. Firms are bidding on a market share basis and Morgan Stanley is not interested in this. The commercials banks, however, will not be an immediate threat because when they come in, they won't have the people right away to do the underwriting. They need to have a sales force and to build a distribution base. Morgan Stanley focuses on the value added businesses. They have a franchise base that is well covered and these companies have established relationships with them. This will be difficult for commercial banks to obtain. It is the value-added service that the banks can't give these clients.

There is a great deal of restructuring and a lot from the Far East. The Japanese are interested in distributing equity abroad. Restructuring in Europe is also demanding equity issues. Therefore, equity sales are becoming more strategic. There is a group of international real estate financial people and the chief competitor is Goldman. Morgan Stanley is dominant in the hotel acquisition area. In the real estate business, it is the key is the sell side unlike in M&A where it is both buy and sell. The investment banking division is not very technically oriented. They do need a base load of market data but it is not very sophisticated. It is much more strategically and people driven. In underwriting it is very much information driven, but mostly it is ultimately your salesman who determines success.
Information as an asset is much more on the trading as opposed to the advice side.

The relaxation of restrictions has a definite effect on the business. Capital flows underlie what they do. Investment bankers just spot transactions and tell about the opportunities. The opportunities themselves come from the capital flows. Merchant Banking is very different from the other businesses. Morgan Stanley does not view this business as a league table business. It is a business where you have to be able to say no as well as yes. You are evaluated on your track record. The strategy is to be a major factor in LBO, that is, to be one of the firms like KKR and Forstmann-Little where when people want to be private, they come to you to get capital. Unlike KKR, which has a pension fund and many constraints, Morgan Stanley has a large fund which comes from private corporations and foreign investors. Morgan Stanley gives its LBOs a ten year time horizon, but five years is generally the rule of thumb. The criteria for how companies are chosen is that they have to have a good management in place and have to be in an industry that is relatively stable and not falling apart. At the firm, Parker Gilbert (President) makes the final decisions while Donald Brennan (Merchant Banking) has much discretion in terms of saying no because once he is convinced, he can usually sell it to Gilbert. The tendency for Morgan Stanley has been to focus on deals that were not so competitive. Moreover, Morgan Stanley does bidding in auctions as well.

The structure of the investment banking division consists of 800 professionals. One of the key questions that concerns this
division is what kind of investment do you have to make in the relationship coverage area to be successful with investment banking products? Wasserstein Perella, for instance, has product people doing the deals and Bruce Wasserstein finding the deals. Is the amount of money spent on coverage worthwhile? If Morgan Stanley abolished it, would it save money and do they need it? The Morgan Stanley model is like Goldman Sachs, which has a coverage operation that sells all products. It is like having a big machine but not knowing if you need it. The argument is that relationship banking will come back, not in the original form, but client contact and attention will still be important in the future so the investment is worthwhile. Furthermore, if the banks want their people to become generalists, then it is necessary for these people to know all products.

Cross-border M&A is already being done and Morgan Stanley hopes to keep having a substantial share of it. Goldman and Morgan Stanley have the best stands in M&A in Europe. Morgan Stanley's role in M&A will depend heavily on global M&A and one of the prime focuses of M&A is the financing. To what extent should Morgan Stanley be moving people out of the U.S. to do this? All the expertise could be in New York and the banks could send teams out as needed. The other option is to have indigenous people processing in every market in different places and thus diffusing the talent. Morgan Stanley has an intermediate, cluster of expertise located in London, New York, and Tokyo. How close do you need to be with your clients? Do you need corporate coverage as a separate discipline or should you have it in the product areas. Instead of a single force selling the products, you could have them more focused
on the products. These same questions apply in the international area and the answer is still yes because you need the kind of hybrid system existent at Morgan Stanley. You can't, however, just hire someone off the street, you have to have someone who has done 10 years of LBO and put him with a French guy to do the LBOs. The way to start an LBO market is by having traders over there to trade high yield bonds. Growth in investment banking is coming from international cross-border activities, real estate, and equity underwritings, particularly international. Presently, Morgan Stanley doesn't have enough people in Tokyo for investment banking. It is still small relative to Europe. 7

3.5 M&A and Merchant Banking Analysis

It is worth talking about these two areas in detail because some of Morgan Stanley's most crucial concerns lie in these areas. Moreover, the firm's move into these areas exemplify some of its greatest strengths as well as its greatest weaknesses. It hasn't always been this way, but now Morgan Stanley's core businesses merchant banking and M&A have become the firm's growth businesses. Morgan Stanley thinks merchant banking is a major business for U.S. securities firms. Morgan Stanley with its enviable list of clients, had for decades dominated corporate underwriting in the U.S. Scrapping for mandates simply wasn't necessary to stay on top; nor was diversifying beyond traditional investment banking.

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However, 1981 was the last year Morgan Stanley reigned as the undisputed No. 1 underwriter of corporate securities. The firm watched the rest of the Street parade past it with such new money makers as commercial paper, futures trading, foreign exchange, municipal finance, mortgage-backed, and LBOs. Morgan Stanley, on the other hand, was usually second.

Morgan Stanley in 1984 was ready to proclaim what everyone else already knew that it had become an underdog and that it needed to change. The firm's move in this direction has been both evolutionary and opportunistic, beginning in 1983 with a much publicized build-up of fixed-income trading operations. A clear decision to emphasize merchant banking was not made until early 1988 and it coincided with Morgan Stanley's first public offering. Moreover, by this point Morgan Stanley had in place two elements essential to its success in merchant banking: a well-respected government bond business and a solid high-yield capability which is vital to short-term bridge financing. 8

Decades of expertise in investment banking and M&A meant the firm was already well equipped for the new world of merchant banking. By contrast, a firm like Salomon which discovered merchant banking only recently as it retreated from municipal bonds and money markets has neither the M&A tradition nor the corporate client list. Morgan Stanley has long lived and died by M&A. Investment banking accounted for 45.5% of operating revenues. Robert Greenhill is credited for his tenacity in insisting that resources

8 McGoldrick, p.89.
continue to be devoted to M&A and investment banking even during the fixed income buildup of 1983 and 1984. Thus, Morgan Stanley was positioned to exploit the merchant banking opportunities. Greenhill established the junk bond business. The next step was the formation of the an LBO fund in partnership with insurance giant Cigna Corp. Then, Donald Brennan was brought over to form the merchant banking group.

Morgan Stanley's outlook for merchant banking deals is four to six years, some deals may take more, some less. There are three main ways out of their investments: selling to another LBO group, taking the company public, or selling off the company in pieces. Morgan Stanley could not have effected its concerted drive into principal activities had it not been for its fixed income capability (its high yield group in particular) and a substantial investment in technology. The firm spent five years and an estimated $60 million to design a comprehensive back-office operation unlike anything done before. It is called the Trade Analysis Processing System. Through this system each Morgan Stanley office around the world has direct access to information on the firm's inventory and risk exposure and portfolios can be priced in any major foreign currency (See Appendix 4 for details on TAPS).

Not everyone is delighted with Morgan Stanley's new direction. Some fear that Morgan Stanley has devoted so much of its resources to its own equity investments in LBOs, that it no longer places as much weight on customer service businesses like underwriting and M&A. This may damage Morgan Stanley's long-term franchise. The top three executives at Morgan Stanley, between them, own a
substantial share in the firm. Morgan Stanley has been the most consistently profitable firm in investment banking (See Exhibit 1). The EPS has rocketed from 2.55 in 1983 to 8.42 in 1986, and in 1988 was 15.39. Net income in 1988 was $394.6 million, up from $230.9 million the previous year. Its ROE has never fallen below 25%, whereas, rivals such as First Boston and Salomon hover around 10-15%. The market, however, puts a surprisingly low value on Morgan Stanley's share.

Morgan Stanley's phenomenal growth in profits has come from merchant banking -- taking equity stakes in companies bought in highly leveraged deals. The firm can expect a near monopoly of the corporate finance business of companies it part-owns-- from investments to the eventual sale or public offering. If you strip out M&A as well as the principal business, they would be at a loss. It is no longer one of the top five players in debt or equity underwriting, either in the U.S. or the Euromarkets. It has slipped badly in the M&A advisory business, where it was once preeminent. The firm was unable to devote the time and the high quality people to transactions that the clients demanded. This concentration on merchant banking has caused damaging frictions within Morgan Stanley as well. The M&A team has for many years been the elite of the firm. There is now a super elite -- the people in LBO. Morgan Stanley has become a very political organization.

There is tension between the businesses because of success and failure. If LBOs are the hot area, businesses such as underwriting are being left out in the cold. Coverage officers are told to sell M&A and de-emphasize financings. This means that they have contact with
the CEOs who call the shots where acquisitions are concerned, not executives in the finance area who make decisions on funding. And client coverage has become virtually a second M&A team. Some clients are suspicious that they are only being shown second-hand deals. The hefty workload also means that Morgan Stanley is often unable to service clients with sufficiently senior investment bankers until a transaction reaches quite a late stage.

The firm's strategic approach to the M&A business -- concentration on advising sellers has always been a problem. Representing on the sell side annoys the buyer who may someday be the seller. The firm is skewed to one end of the investment banking spectrum, which just happens to look good right now. If it is not careful, it will lose its cohesive entity. Now it's a lot of trains going in different directions. The main cause of the trouble is the power of the M&A and LBO people. When you command such big revenue flows, you start to demand a bigger part of the pie. Everybody in M&A is paid a premium, around 30% above the compensation of the rest of the firm. The LBO people have succeeded in negotiating a further premium above the M&A team. Most of this was due to Morgan Stanley turning public and thus being susceptible to people leaving the firm. Therefore, they had to compensate them well or else risk losing them. Most recently, Eric Gleacher, former head of M&A, left to start his own firm.

The politicization of Morgan Stanley began with Robert Baldwin. Bob Greenhill, the main impetus behind the firm's M&A efforts, and Richard Fisher, then head of the capital markets division, and Lewis Bernard, in particular, began to factionalize the firm.
Parker Gilbert is now little more than a figurehead. His biggest strength is his skill with people, says a former colleague. Fisher is the one running the firm. He believes in keeping everyone stressed and can manage in that sort of environment. Fisher seems to have been the moving force behind both taking the firm public and in pursuing the LBO strategy. In contrast, Greenhill is a deal maker, not a strategist. Others say that he is not a good manager, but he has tremendous influence over the firm's corporate finance activities.

Fisher and Lewis Bernard, head of FA&O, have a great rivalry. John Mack, head of fixed income, and Anson Beard, head of equity, have lost out in the power-struggle too, mainly because the proportion of revenues derived from their operations have also fallen. Donald Brennan, in charge of merchant banking, and Eric Gleacher, former head of M&A, were fighting it out for the next position on the Board. There are squabbles over which division gets credit for a deal, and the development of stars like Brennan, Gleacher and Greenhill did cause damage, particularly in comparison to a firm like Goldman. Goldman has a much longer view of its business. Morgan Stanley is run for no more than a year or two ahead. Others say Goldman can boast of many more loyal clients than Morgan Stanley. It also appears better diversified. Moreover, equity traders and salesmen in Tokyo and London are unhappy because, for calculating bonuses, their business is tied to equities in New York.

The Eurobond market where the Japanese have cut margins to the bone, and the U.K. gilts market are two examples of areas where Morgan Stanley won't pay to be No. 1. Besides diversification and discipline, trading at Morgan Stanley is governed by the firmwide
goal of attaining a 25 percent return on equity. Many believe that the firm's management committee does not intend to expand the firm's corporate finance or trading activities beyond what is needed to support merchant banking. Former partners say one compelling reason Morgan Stanley will eventually be sold is that members of the management committee are wearying of constant political infighting. Fisher and Greenhill in particular, fight over turf.9

Although the two areas they are placing greatest strategic emphasis on are M&A and merchant banking, they should not underestimate the importance of the equities and fixed income operations. These areas play an important role in the firm's future. The decision to enter merchant banking was a good business decision. M&A and merchant take very little capital whereas fixed income is a big user of capital. In new debt deals, the underwriters are required to buy the issue and then to sell them to the public. This means that the firm has to carry a very large inventory of fixed income securities which cost money to hold. However, the key question is how to manage the diverse talent existent at the firm. The firm has done many things correctly and is recognized as the best managed firm on the Street, but as we have seen it certainly has areas needing improvement. Besides investing in technology and capitalizing on globalization, Morgan Stanley needs to look critically at how it manages its people for innovation. This above all else may determine its future success.

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9 Euromoney, p.38.
Now that we have seen how the trends have affected the businesses, let's take a closer look at Morgan Stanley's strategy. Let's look at how Morgan Stanley has approached the challenges of globalization, technology, and people. Morgan Stanley manages profitability on a product by product basis, i.e., Morgan Stanley does not keep score on a geographical basis. Because its strategy is to manage its products globally, it has a structure that enforces this theme. The firm follows a global niche strategy. Moreover, their entry into the international business was not built overnight. They were ahead of their competitors in exporting expertise abroad and were well positioned for the globalization trend of the 80's. Morgan Stanley's approach is to say, here are our skills, who needs them. The only exception being Eurobonds where it was the opposite. Therefore, both domestically as well as internationally, Morgan Stanley is anticipatory and generally second. Since it is usually expensive to be first, their philosophy has been to follow.

Morgan Stanley's piece is the cross-border piece. In pursuant of this, they have been ahead in identifying locals for their international operations. Furthermore, they gave up their international departments and were willing to give local people more authority. Decisions are made by locals. The international bond market is run by an Englishmen. The firm has important people around the world and a system that enables them to link everyone together. So in essence, they have a matrix organization internationally; one that has products reporting back to New York,
but also allows a great deal of flexibility on the part of the local managers. Moreover, they have not tried to be everything to everybody internationally and have been cautious to find businesses they are good at. Morgan Stanley is a global firm but one that varies its product offerings in the different areas; not at the level of the divisions like Investment Banking, but at the level of M&A and Merchant Banking.

A good example of how Morgan Stanley manages international expansion is how Morgan Stanley eventually obtained a seat on the Tokyo Stock Exchange in 1986. They first went to Tokyo in the late 60's and began by establishing a research business there, to understand the market. Now they have over 600 employees there, from all types of backgrounds. David Phillips, who heads that operation, has been there from the start. He believes that they must apply more energy to M&A and of course, to their work as supplier of capital through commercial paper, stock and bonds. Because Fuji Bank and Sanwa Bank have been successful at supporting the acquisition of foreign companies, Morgan Stanley is also confident. Personally, he is interested in M&A in Japan's medical equipment and pharmaceutical industries. Phillips has autonomy to manage Morgan Stanley Japan because the firm recognizes that American and Japanese markets are different. It is not necessarily true that something that works in the U.S. will work well in Japan.

How deeply does Morgan Stanley want to extend into the domestic markets in the local countries is a tough question since it sees its mission as being in the cross-border business, e.g., in Europe and in M&A. The restructuring trend is worldwide and that should
stimulate their business. In Scandinavia and Italy, they have been involved in every major acquisition. They have the same strategy in the equity business -- not in-depth research on everything but to tie industry trends around the world. For investment banking-- real estate will become very international, and Morgan Stanley will be moving to Japanese markets and over in Asia for this. The real estate market is important. Trading Businesses will be mainly in derivatives and Morgan Stanley will be exporting it around the world. In Japan, the firm is part of the Tokyo, Osaka, and Nagoya exchanges. Also, Morgan Stanley is expanding its presence in Hong Kong, Switzerland, and Germany.

The other major strategic step that Morgan Stanley has made is in starting MSGS. Morgan Stanley Global Securities Services launched in 1987 is well established. Its global clearing, settlement, and custody services for institutional investors around the world are built upon Morgan Stanley's prominence in the international securities business, their comprehensive research capability, their proprietary data processing and settlement systems, their equity market database, and their long-standing links with clearing organizations and exchanges in the major market centers. In other words, MSGS capitalizes on Morgan Stanley's existing strengths. Global Custody has shocked others, especially banks. MSGS integrates advanced Morgan Stanley technology with a worldwide network of banks, clearing organizations and brokers to provide international settlements, safekeeping, record keeping and valuation services. Morgan Stanley can triple this business by using telecommunications equipment to expand. Their efficiency has
allowed them to get into settlement. There is also an opportunity to build this business up for their competitors. This is a fee based business and Morgan Stanley is always looking for ways to have a diversified revenue base.

The firm's mission is to manage change and maintain profitability. To achieve this, Morgan Stanley has to be extremely decentralized and do these three general things: diversify the revenue stream both here and abroad, become enormously flexible through positioning the people and the information systems, and thus increase the return for shareholders. They are a full-service investment bank but not as full service as some of their competitors. They have lost market share and have retreated from some of the low margin offerings.

They do not try to be everything to everybody. They are not in equity trading as much as others. They don't do huge bond trading. They are fairly well diversified between debt, equity, foreign and domestic, staying away from some of the lower margin products unless absolutely necessary for evaluating the returns in their businesses and setting return on equity standards. There is a strong emphasis on profitability and returns and a deemphasis on market share. The securities business today has become more cost-conscious and Morgan Stanley already possesses this quality.

There have been businesses that Morgan Stanley has left, like proprietary ones. The most difficult area is Equity because it is the distribution channel. Size however is important so although Morgan Stanley has not left these businesses, they have pared them down in size. They have cut back on these businesses but have not exited
them. Morgan Stanley is satisfied with the returns on their equity business, i.e., the institutional equity has been sized so that on the downside of the business, they break-even and on the upside, they do well. However, with the potential entrance of automated trading, this will be interesting.

In addition, over the years, it seems that management has critically analyzed the significant developments in this industry, preparing Morgan Stanley to capitalize on those trends without compromising or overextending the company's assets and resources. Diversification has been dynamic, but careful because expansion plans are subjected to thorough risk/reward criteria and executed with meticulous discipline. They focus on bottom line profitability. Their continued focus has made the real difference. They continue to pick businesses carefully and have kept costs down. Morgan Stanley has done better than its competition because of productivity and efficiency and better control over cost than Salomon and First Boston. They have stuck with M&A and merchant banking and much of its success is due to its concentration in the most profitable areas: M&A, corporate finance and money management. 10

The way to view the industry is that you have to be opportunistic, you can't set a course and steer by it. You must be fast, nimble, aggressive, and opportunistic. In that sense Morgan Stanley is short-term oriented and can only plan for the unexpected. So the thing to do is to invest in the infrastructure. Therefore, Morgan Stanley needs to find entrepreneurs for their vision. People

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who can create given many conditions. Morgan Stanley should identify the people and give them the tools -- the resources and the technology to create. This creativity or innovation is a high barrier to entry. People are the limiting resource and are the primary means for altering business mix. Capital and technology are the other two resources.

Managing innovation is a bottom-up process. More than any other industry, in managing innovation, the people assets of the firm, the ultimate influence is compensation. The compensation per employee at Morgan Stanley did exceed figures reported by competitors like Salomon and First Boston. Non-compensation expenses for First Boston have been significantly in excess of Morgan Stanley, however. Morgan Stanley views their asset as their people. The firm gives them the tools to perform well because they are the ones that really run the business. Many times decisions at the senior level are made with the consultation of those at more junior levels because the firm feels that those who know the business best should address the issues. Moreover, the senior managers do spend time thinking about succession planning, training, and developing their people. Training usually begins in the Corporate Finance area so that they are exposed to a general experience. They identify key people, give them the breadth of experience and hope they perform well. Investment banks and Morgan Stanley spend more time doing this than any other business.

We have spent a great deal of time talking about the strategy of Morgan Stanley, but what about the strategy process itself? Is it formalized or more emergent? It seems that in this industry if you
talk about a formalized vision of the future, it only consists of a couple of bullet points. In an industry that is constantly changing, formal planning loses its effectiveness. Judging from Morgan Stanley's performance and the unpredictable nature of the investment banking industry, opportunistic strategies seem to work best.

Basically, at Morgan Stanley the planning process consists of a budget that says the firm will provide the business units with the resources and they must meet the return requirements. Thus, Morgan Stanley manages the managers once a week to ensure that the resources match the margins. However, Morgan Stanley does ask its managers to look forward 3 years and say where their businesses will be then. Because most of the managing directors grew up in the business and were from the inside, there is a tendency for them to micromanage. It takes some self-control to give the business 2 or 3 years to work. There is a clear understanding that the business is managed by those who know best, the people in the divisions. Thus, the management committee (senior managers) manages the managers. The way it is structured is that the management committee consisting of essentially six people, meet regularly every week so that there is coordination at the senior level. Essentially, the management committee decides if the businesses are meeting the financial criteria.

At the helm of Morgan Stanley is Richard Fisher who is 53 and began his career at the firm. He joined the firm in 1962 rising through the ranks of investment banking to managing director, then head of the capital markets division. He became President in 1984
just as the firm was seeking to bounce back from a sudden slide. Fisher does well as the leader of the firm because he gives talented people enough open space to be creative and to try new ideas. He also realizes that the catch in the brokerage business is that you can't plan, that everything is a surprise and the only thing you can do is to be ready to react. 11

Given the unpredictable nature of the industry, Morgan Stanley can only prepare itself by putting in place the resources necessary to deal with these upcoming trends. Their resources are the people, clients, capital, and technology. The product life-cycle of a financial product is very short so Morgan Stanley needs to be innovative. It seems that in this industry, only emergent strategies dominate, commitment is transitory, and flexibility and responsiveness are key. Nothing is sustainable so you can only use the best management and put in the systems and expertise to deal with change.

5.1 Analysis of Strategy for the 90's

So how do you manage an investment bank for change? Do you remain opportunistic and not have a strategy or do you plan and set a course for the firm? Let's tackle the this question. Do you need a strategy? Well, what is strategy and what purpose does it serve? Strategy is a coherent, unifying, and integrative pattern of decisions that determines and reveals the organizational purpose in terms of long-term objectives, action programs, and resource allocation

11 Managing Directors Discussion.
priorities. Moreover, it selects the businesses the organization is in or is to be in and attempts to achieve a long term sustainable advantage in each of these businesses by responding properly to the opportunities and threats in the firm's environment, and the strengths and weaknesses of the organization. It engages all the hierarchical levels of the firm (corporate, business, and functional) and defines the nature of the economic and non-economic contributions it intends to make to its stakeholders. The essence of strategy thus becomes the purposeful management of change toward the achievement of competitive advantage in every business the firm is engaged.\textsuperscript{12} If this is the case, then Morgan Stanley does indeed have a strategy and it is entirely necessary. The firm competes in many businesses and is constantly learning to successfully deal with change. Now that we do need a strategy, how do we go about the process of strategy formation?

The traditional options of strategy formation are many. The choice is between a formal-analytical process and a power-behavioral approach. The formal approach sees strategy formation as a disciplined process leading to a well-defined, across organization effort aimed at the complete specification of corporate, business, and functional strategies. The other extreme is the power-behavioral approach which emphasizes multiple goal structures of organizations, the politics of strategic decisions, executive bargaining and negotiation, the role of coalitions in strategic management, and the practice of "muddling through".\textsuperscript{13} Through the analysis, it seems that

\textsuperscript{12} Hax, Concept of Strategy.
\textsuperscript{13} Hax, Strategy Formulation.
that Morgan Stanley fits in this second mode more than the first. Although the firm emphasizes the importance of integration of goals among the businesses, in reality the units are run very much on their own. The managing director of each unit is concerned more for the welfare of his business and there is a great deal of infighting as well as compromise at the level of coordination.

Also, there is the choice of strategy as a pattern of past actions versus forward-looking plan. Some people view strategy exclusively as the shaping of future directions for the firm, and strategy becomes the collection of objectives and action programs oriented at managing the future change of the organization. Others view it as a pattern in a stream of decisions and is seen as consistency in behavior, whether or not intended, observed in the past actions of the firm. However, strategy is actually both; formed with the realization of the past heritage of the firm, but at the same time, be forward-looking.

In other words, strategy is either deliberate when its realization matches the intended course of action, and emergent when the strategy is identified from the patterns or consistencies observed in past behavior with or without intention. The type of strategy is usually affected by the firm's environment, whether it is benign, controllable, and predictable. Emergent strategy implies learning what works -- taking one action at a time in search for that viable pattern or consistency. However, it is not chaos, but unintended order. It does not have to mean that management is out of control, only that it is open, flexible, and responsive and ready to learn. Moreover, the strategy formation process should be integrated with other administrative processes of the firm, particularly,
management control, information and reward systems, and with the organizational structure. Morgan Stanley's strategy has definitely been more of an emergent one because the firm competes in an industry that promotes unpredictability. Moreover, its management structure, control, and reward system promote this type of strategy.

There are merits to formal strategic planning, however. The planning process helps to unify corporate directions because it mobilizes all of the key managers to pursue agreed upon and shared objectives. In addition, the segmentation of the firm is greatly improved because it recognizes the various strategic focuses of attention -- corporate, business, and functional -- and its representation in the organizational structure. The process centers on seeking business autonomy oriented toward serving external markets and recognizing horizontal and vertical integration to fully realize the firm's potential. Furthermore, the process introduces a discipline for long-term thinking in the firm. By enforcing upon the organization a logical process of thinking, with a clearly defined sequence of tasks linked to a calendar, planning raises the vision of all key managers, encouraging them to reflect creatively upon the strategic direction of the businesses. Finally, the process is an educational device and is an opportunity for multiple personal interactions and negotiations at all levels. Perhaps the most important contribution of the planning process is the process itself. The engaging communications, the multiple interpersonal negotiations generated, the need to understand and articulate the primary factors affecting the business, and the required personal
involvement in the pursuit of constructive answers to the pressing business questions is important. 

Along with the benefits, there are limitations. There is the risk of excessive bureaucratization, lack of an integration with other formal management systems, grand design versus logical incrementalism, and formal planning versus opportunistic planning. Moreover, a calendar-driven planning process is not the only form of formal planning system, and hierarchies should not be an obstacle for the development of strategic capabilities.

So what are some of the characteristics of formal and opportunistic planning? Formal planning is a systematic process that follows a prescribed calendar, is corporate wide, and attempts to develop a coordinated and proactive adaptation and anticipation to changes in the external environment, while seeking internal effectiveness and efficiency. Opportunistic planning, on the other hand, responds to unexpected emergencies of opportunities and threats and is based on existing capabilities that permit slack and flexibility to respond to unplanned events.

With Morgan Stanley and other investment banks, it appears that opportunistic planning is the best choice. In an industry that thrives on capturing the opportunities before your competitors and treats time as a key factor to success, being able to respond quickly is crucial. With a flat organization and less formal planning, decisions move faster. Although you give up some of the seamlessness among businesses, this is the better choice. Being opportunistic doesn't

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14 Hax, Strategy Formulation.
15 Hax, Strategy Formulation.
mean that you don't plan; it just means that you don't formally plan. Instead, you invest in the capabilities that will allow you to respond to changes in the environment. Let's look at how to invest in the three capabilities that will carry Morgan Stanley and other investment banks forward in the 90's.

6.1 Managing Innovation

One of the critical challenges is how to manage innovation. That is, how do you manage the people resources of a firm like Morgan Stanley? It is an issue at the level of the Chief Executive Officer. The CEO in a service industry, such as investment banking, is different from that of a manufacturing firm. For him/her the key is the people. People concerns are it. The task is to orchestrate people to make it profitable for both the partners of the firm and the clients. Hiring and retaining good people is the biggest challenge for the CEO of an investment bank.

The three questions that a CEO should ask are: what business are we in, what is our market, and what are the assets needed to do business. The challenge of management is to take all these diverse interests and make them into one vision. For the 90's, the market is the global market, the business is providing the best financial services possible, and the assets are the people and the technology to mobilize that talent. Here we will discuss the people aspect.

Moreover, are we product oriented or relationship oriented? Historically, First Boston and Morgan Stanley were relationship bankers but First Boston was stronger in the product/transaction
orientation. First Boston had the stronger trading. But, over the years Morgan Stanley has become more transactional and product oriented. The relationship business dissipated about 10 years ago because of pluralism; no one customer relied on one supplier. Moreover, opposing views caused new products to develop and thus made the market much more product oriented.

Furthermore, there are two types of businesses at investment banks: one that is customer oriented and the other which is client oriented. The difference is that clients are return customers and rely on relationships. Businesses like Sales and Trading are customer oriented and Corporate Finance is more client oriented. The customer businesses, especially have become more product oriented. The problem is that products are based on taste like garments so they can be very transitory. Therefore, since the industry has become more transaction/product oriented, it has become critical for investment banks to continually come up with new and innovative ideas. Unfortunately, Morgan Stanley has not been as creative as First Boston and Salomon. They should, however, change that through investment in research and better management of people.

During the Mid 70's, margins fell and there was a need to cut people; to cut fixed costs in investment banking. The challenge is how to cut down, how to move people, and how to manage them for innovation. Sometimes it becomes necessary to reduce the people. At other times you can move people from one area to another which is easier if they have been trained as generalist. To manage people, the banks should find a way to get their people not to take themselves too seriously. The superstars in a firm must be balanced.
with the people in the not-so-profitable areas of the firm. Also, it becomes the task of the senior management to be in contact frequently so as to promote a firmwide focus.

At investment banks decisions should be made bottom-up. At the business level is where new ideas emanate. Senior managers almost serve as the coordinators and are there to ensure key people are placed in positions of leadership. At Morgan Stanley there seems to be a consensus point of view, a democracy. The management team at the top of the firm is the Management Committee made up of essentially six people. The heads of the three major operating divisions are on the management committee. The larger decisions are made by the management committee. The management committee looks at the corporate decisions and must rely on consensus making to achieve them. The firm used to sit around as partners to make decisions. However, 160 managing directors cannot sit together and make decisions anymore. Much of the decision-making has been pushed downstream to the business units. Moreover, most of the decisions at the firm are made by committees. So much has to be done by consensus because of the peer structure existent at Morgan Stanley.

The management committee decides on what monitoring system to use to track performance of the businesses. The board and management committee also decide on the size of the resource pie and splits it up among the businesses. The commitment committee makes the decision on where capital should go. However, it is really the people at the business level that have the control because the managing directors of the businesses have the information and the
ability. The difference between the managing directors and the management committee lies in the committee's ability to focus on investing in infrastructure for future trends whereas the managing directors are more concerned with specific business issues. Any time you get into a new line of business, for instance, the management committee makes the key decisions. Decisions like: do we want to be in a major line of business; do we want to put the priority somewhere else. Opening up an office in Singapore would be an issue that the management committee has to deal with. Therefore, the business mix decisions are made at the corporate committee level. Week in and week out, however, the committee role is to review the businesses on their performance. Once a year budgets for the operating groups are also done.

The heavy emphasis on downstream decisions is good on a global basis because it gives autonomy to the local operations, but the negative is that you have different activities that are all very independent. So you give up some integration and coordination between businesses. Moreover, you create very powerful managing directors in each division, which may polarize the firm. Essentially these managing directors are still bankers and are still best at developing the businesses. They may not necessarily be the best managers, but they certainly know about their individual businesses. Is there a danger that the best bond trader at a firm may not be the best managing director of a division like fixed income? Of course there is, but in this industry, it becomes the management committee's job to oversee the overall development of its managers.
On the other hand this type of management structure generally works well in an investment banking environment because it is so flat and flexible. Morgan Stanley is a very horizontal organization. Decisions move quickly and the people who know the issues best are the ones that deal with them. It is not uncommon for the management committee to have people brought up from the business units to answer business concerns.

When it comes to compensation it is also brought up to the management committee. At Morgan Stanley the compensation scheme is the base salary and a bonus for associates and below. The evaluation is done by other people. You are given a tier ranking of Tier 1, 2, 3. Every team, including the analysts, fills out an evaluation of you. You are generally not judged on the deal, only the VPs are evaluated on the deals. People are judged against their peers and on how they contributed. So, there is competition within and individualistic effort is rewarded. How well the firm is doing and the development of the firm does determine the bonus, though. So there is also incentive to do well for the firm. Yet, people will be paid bonuses even if the firm is not profitable that year.

It is important to have smart, talented people and to be able to let them know that there are interesting jobs available for them. Occasionally, managing directors are asked to leave or to take time off. It should not be viewed as negative to rehire someone after they have spent time outside of the firm. There is valuable experience to be had outside that would contribute to their work at the firm. Morgan Stanley has allowed people to leave and go back to school.
Moreover, people should be paid whatever they are worth. Although it may seem unfair to pay the stars of a firm more than the rest, they must be motivated and thus compensated for their talents. In this way the growth businesses of a firm are cross-subsidized by the decline businesses, with the understanding that once these decline businesses begin to grow, they will in turn be subsidized.

The business has become more complex so people have become generalists so that they can be moved around. The management of people starts with recruiting and then the people are moved for overall exposure. Morgan Stanley possesses great people which is their greatest asset. When you deal with human beings as your asset and are in an industry that is fickle, it is a juggling act. The market for financial services has changed dramatically. Citicorp can do almost everything Morgan Stanley can do. They need to cross-train their people. One way is to find a department that has the most ability to deal with other departments; put people there and have good people run the department. Morgan Stanley uses the M&A department as the training ground. The department has exploded to a couple of hundred people. Morgan Stanley is good in London because they have good people. Their word is good over there.

The questions of what are my resources and where are the places to be are the same ones that the senior managers of Morgan Stanley have asked themselves. Their resources are the people and the infrastructure and the places they will be in are determined by their strategic priorities. Unfortunately, as discussed before there is no long planning horizons; even five years is hard to do. Thus, planning should be done but in a very loose basis. Yet, the CEO needs
to look ahead and anticipate future trends. The CEO has to look ahead but must also deal with current business decisions. As CEO Richard Fisher's role is to develop businesses through day-to-day dialogue. He is a relationship oriented man. 10% of his time is devoted to long-term strategic planning, 50% to operational issues, and 40% to clients.

At the firm some time has to be given on forward thinking and some on backward thinking. Usually this is done at the senior level and with the CEO. Obviously, the more involved the chairman the day-to-day business, the less he is able to forward think and to have knowledge of history. A good CEO of an investment bank and of any business, should know where he and the firm should be and where they are today. The basic job of a CEO is to plan and place resources, and also plan for succession. He is responsible to his employees, his community, as well as his employers. In short, he is concerned about his people assets.

How have other firms dealt with managing innovation for the future? At First Boston there is no planning department. Although they realize that operating departments do not have time to plan, First Boston has chosen to have off-site thinking sessions instead. First Boston also had think tanks. The CEO has to find a pool of intelligence from either his board or from within the firm. He must rotate his people around and occasionally attach a couple of bright guys and take them away from their work so that they can help plan for the firm. 16

16 Shinn, Discussion.
Likewise, Morgan Stanley seldom used consultants to deal with management issues. Groups are generally formed internally to solve issues like this. They, like most firms, have brought in consultants for compensation analysis. But, consultants should be used sparingly because you don't want to have your people thinking that the firm depends on them to function and also you don't want them to know too much about your business. This may leak to your competitors. The key is to develop internal sources of management expertise and creative ideas.

6.2 Managing Technology

In addition to the people issue is how to manage technology in building the necessary infrastructure. Why should investment banks be concerned with the application of technology in their business? There are two main reasons: technology reduces cost and improves risk management. At most Investment banking firms, the underlying concern is how to capture both these advantages. Unfortunately, the computer infrastructure existent at these firms have become an unmanageable archaic mess. Most of the investment banks are scrapping much of what they have and are devising ambitious new programs to guide their growth in the future. For example, Salomon expects to spend $150 million and five years transforming its current unwieldy amalgam of back-office trading and management information systems into an integrated, adaptable whole. And if a five-year project seems like a long shot in any
industry, trying to anticipate half a decade of developments in technology and finance today is practically impossible.

In essence that is exactly what the investment banks have to do because they are going to spend more than $100 million over five years for a system that will be implemented in an environment that is totally different than when the system was designed. Wall Street's technology experts are thus being forced to conceptualize and plan on a much greater scale than ever before. They are first designing an architecture--a set of policies and standards to govern how information moves between different systems and then a set of tools for building new applications in that setting. The goal of the architecture is to accommodate any new technology or new business line and link it into the existing systems. In other words, they have designed a system to build unpredictable systems. Few industries have attempted anything as technologically ambitious or as different from previous practice.

Traditionally, Wall Street bought computers for specific applications when there was a problem to be solved or money to be made. The street's first systems were big mainframes purchased to tame the trade explosion that crippled many firms back offices in the paper crisis of the late 1960's. The traders in the front office made do with outside data services such as Quotron and Telerate until the late 1970's, when systems for trading analytics were introduced. But the globalization of trading and the explosion of new products in the past few years have strained these traditional systems beyond their limits. Except for trade volume, firms have basically operated the
same from 1920's to 1970's. The amount of work required to accommodate each innovation, however, has increased.

Traditional fixed income systems were designed to be shut down overnight while they updated their account records. They could not run 24 hours a day to support global trading. Modifying the existing programs is enormously time-consuming and difficult. Handling multiple currencies requires making changes to literally thousands of programs. Teaching the old system new tricks sometimes leads to problems. Several firms had large losses in mortgage backed securities, in part because their computer systems did not accurately account for their positions. The alternative to patching new applications onto the old framework is to build them from scratch and run them separately. Individual departments often prefer to be free from the control of the central data-processing organization, but managing them is a headache. Salomon has 43 different types of systems in use and it can not link them together to find out what its combined trading positions are. Unsatisfied, some of the Street's biggest firms are now moving to replace their core computer systems (See Appendix 2 for the State of the Art on the Street).

Morgan Stanley acted early and in 1981 started developing what is still in many ways the most advanced firmwide computer system in the industry. However, Morgan Stanley has already had to revise its system substantially to handle the unexpectedly rapid growth of trading overseas. The questions of organizational philosophy and strategy are implicit in any system design. Morgan Stanley is a centralized environment with the equity and fixed
income businesses run globally. The computer system, therefore, is also centralized and with heavy management oversight. Salomon, by contrast, gives a lot of technological autonomy to the individual traders and line units.

There are risks with both strategies. Too decentralized an approach leads back to duplication and lack of control. Too much centralizing can reduce creativity. There is agreement among most firms, however, on what the new system should do. It should integrate all systems firmwide. Morgan Stanley's TAPS was the first major effort to combine the front and back offices into a single system to handle all functions for all products of the firm (See Appendix 4 on TAPS). A single terminal shows traders market data, analytics and their positions and the same system processes the settlement and management reporting. In most firms each of these functions is done by separate systems that are barely on speaking terms. Moreover, Morgan Stanley is pretty much the only large firm that can actually tally all of its positions worldwide in all products throughout the day. Also, it is much easier to develop applications for activities that combine information--trading Japanese equities in London which in other firms is handled by different systems. Although most of the newer systems projects want to duplicate the capability of TAPS, they also want a different technology. Morgan Stanley's architecture is monolithic. Every activity in the firm runs on a single IBM mainframe system in New York. The advantage is a centralized pool of data available for every application, but the disadvantage to many firms is the control over designing applications.
such as trading analytics. Morgan Stanley emphasizes central organization rather than closeness to the users.

Merrill and Salomon, on the other hand, plan to use powerful desktop computers known as work stations, which they figure are more cost-effective and more flexible than mainframes. Yet, they still want central control of information. So their systems will have a mainframe to keep a single firmwide data base but will allow smaller computers to access and update the data. It is an attractive idea, but a complicated and largely untested one. They want to operate around the world, around the clock. It sounds obvious, but it takes a substantial change in approach to accommodate 24 hour global trading.

Traditional systems have used batch processing which saves up all the transactions done during the day and posts them to the appropriate accounts overnight. Now that the sun never sets on the trading day, systems must be designed to handle the bookkeeping chores throughout the day. Shearson runs different versions of its trading program for each time zone simultaneously. So the New York system keeps trading while the London version starts its end of the day bookkeeping. Salomon plans to eliminate the overnight cycle, updating all of its records the instant a trade is entered, like an airline reservation system. Most firms find that it is not cost-effective to establish large foreign data centers. Both Merrill and Shearson have decided to close down their big London computer operations and run their systems from New York. However, everyone agrees that they should give more power to the users.
The challenge for Wall Street computer designers is to give users this sort of flexibility and control, while ensuring that central records are maintained and adequate controls provided. The key to pulling this off is the architecture with a central pool of data that is accessible by smaller computers. First Boston gives each user a personal computer that allows more flexible display of information than a traditional quote terminal. Most of First Boston's analytics are still performed on its mainframes though. Salomon and Merrill by contrast want most analysis to be performed by powerful workstations on the trading desks. With great power comes great responsibility. To realize this goal they need an educated workforce. Even Shearson, which has been the epitome of the centralized data shop, is moving toward an architecture that will let departments create their own analytical systems. Line units can install minicomputers--linked to the central mainframes--that will support trader workstations.

Investment Banks are replacing people with computers in the back room. As the business has become larger and more complex, firms are finally realizing that this haphazard approach is short-sighted and far more costly than an intelligent automation plan. At least a third of the human work in the back office consists of fixing mistakes made by other humans--miscued account numbers and the like. Some of the most advanced technologies, including artificial intelligence are especially useful for speeding these mundane tasks. But Wall Street has avoided even low-tech improvements in the back office. Pru-Bache Securities employs two people full time to enter symbols for new securities. The back office is right now mostly
paper flow and reports, but five years from now it will look like a trading floor. Firms like Morgan Stanley must invest in automating this area.

Somehow the technology will have to accommodate different technologies from multiple vendors. It takes longer for people to learn how to use new technology than it does for innovation to render that technology obsolete. Some sophisticated traders want to use workstations for complex analytics. In that market, IBM and DEC are several years behind some innovative upstarts, notably Sun Microsystems. Firms want to design a network with certain standards so that any machine can be hooked up to the central data base if it follows certain procedures. Most tantalizing is the movement among a wide range of computer manufacturers to develop standards so that different machines will be compatible. Much of this revolves around UNIX, an operating system that was originally developed for university computers by AT&T and is now becoming somewhat of a standard.

Salomon is still hopeful enough that UNIX will be able to link its various computers that it expects to use the system for its network of workstations. Goldman by contrast noting that it has 4000 IBM compatible personal computers installed has decided to use Microsoft's OS/2 for its workstations. The new system must also make it easier to write new programs quickly. The ability to develop systems to support such products is of great bottom-line significance. Morgan Stanley's system took a big step toward faster programming because it uses a so-called fourth generation language, which enables
programmers to focus more on what they want the computer to do and less on the mundane aspects of getting the computer to do it.

First Boston wanted to use an even more advanced approach called Computer Assisted Software Engineering, which further automates the programming process. The biggest advantage of First Boston's system is the fact that the CASE tool can generate programs for its mainframe, minicomputers and PCs -- which means that the programmers need only learn one system. The disadvantage is that if First Boston wants any improvements in the CASE tool-- say to adapt it to a new model computer-- the firm has to make the changes itself. There are few systems in any industry that combine real time transaction processing with live analysis of multiple data feeds in a heavily distributed environment. And certainly, there is no business where the stakes are higher.

The Morgan Stanley system (TAPS) has worked well and was a pioneer on the Street, but with the impending changes occurring at competitor firms, it needs to rethink its system as well. The workstation idea is worth investing in because of its benefits in giving the user much more autonomy. Firms like First Boston and Salomon have the right idea both with workstations as well as in system adaptability. Morgan Stanley needs to continue its investment in this area. Furthermore, in terms of the people resources in information technology, firms like Morgan Stanley have not been able to fully capitalize on their skills both technical and managerial. Technical people are generally hired and placed in isolation within the department and feel very detached from the rest of the firm. For those that wish to progress within the firm, they
need to enter a different area. Some thought should be given to why there is not a technical career at Morgan Stanley, a firm that depends so much on the technical foresight and brilliance of its people.

Investing in the infrastructure entails more than just investing in the hardware.

Finally, the very ambitious nature of these systems projects is their biggest risk. There is a great danger of failure of any project over $5 million. The efforts also require substantial commitment and even cultural adjustments from the rest of their organizations. In good times there is a tendency to ignore the plan in order to get any solution up as fast as possible. When things are slow, there is little interest in spending on overhead. Most investment banks would not be lucky enough to go from the beginning to the end of a project in a good period. They are starting a five-year effort in a market where a couple of months is a long time. They will break new ground, but only if they develop an overall vision. Ambitious as that sounds, they have to plan on there being no long range plan.17

6.3 Managing Globalization

The other important challenge is how to deal with the globalization of the competitors. Globalization of the market was a trend of the 80's, but few firms have approached it well. In the 90's this will become even more important due to increased deregulation and the globalization of competitors. Most respondents to the

17 Hansell, "The Moving Target".
question of why they went global will say that it was because of competition and not because of profits. They will say that firms must be all things to all people. However, being all things to all people seems to be a dream more than anything real. Although many Japanese banks see global as being everything to everyone, they are slowly seeing that this is impossible. Morgan Stanley is a firm that has not tried to be everything to everybody. There are products like Eurobonds and gilts in which a high league table standing is an expensive honor. On the other hand dropping a product just because there currently is no money in it can prove perilously short-sighted. Some of these products provide windows on the overall marketplace or serve as distribution channels for other businesses. Then, there is the fear that clients could take offense at holes in your product lineup and that your competitors might exploit these gaps.

There are three options available to deal with this: persevere like firms such as Yamaichi and others and stay in all the businesses, eliminate the ones on your product list that are unprofitable, or stay dormant and reduce the size of the business until markets revitalize again. Those who take this strategy will typically price themselves out of the market and maintain only a token presence for the sake of image. Then when markets start to open up again and price becomes more attractive, they capitalize. This occurred with foreign exchange several years ago and will probably happen with the swaps market. Then, there are firms that are eliminating weak businesses and product positions and building up the areas they are strongest. Morgan Stanley is more of the first type where they pare down in a
business like equity for now until the market becomes favorable again, because they cannot afford not to be in this business.

Furthermore, investment banks sometimes believe that they have to be able to thrive outside their home market. In most cases, the foreign markets they enter already have strong local competitors that they have to contend with. On the contrary, firms should emphasize their nationality and home-market advantage. The future lies with American firms helping Swiss or German concerns buy the right manufacturer in America. Also, firms should not globalize in a hurry. Haste can lead to overstaffing, overbuilding, overpaying, and stretching management far beyond its capabilities and this has deeply affected the bottom line of many firms. Morgan Stanley has been cautious in expanding abroad. They have found niches in overseas markets and have proceeded cautiously.

Moreover, the whole question of being a global firm is not necessary. A firm need not be global to survive. Freed from the illusions that they must be all things to all people, the second and third tier investment banks can specialize. They can be like Lazard Freres and pick their niches carefully, furnish them well, staff them sparingly and then wait for the phone to ring. They can afford to be more selective and can achieve higher returns on equity. If anything the emergence of big players could hold even greater promise for the smaller firms. As the big players get bigger, it always leaves vacuums. Although some have speculated that Morgan Stanley could focus and become a merchant bank. The likely scenario and one that makes more sense is for Morgan Stanley to remain a full-service firm.
Firms also worry that globalization requires lots of capital. Capital is only one of the several key ingredients. If you do not have the capital, perhaps a local competitor or a partner firm does and an alliance can be formed. Moreover, capital itself is not the only determinant of success overseas. For instance, in Japan, foreign firms need to realize that they are there at the whims of the Japanese giants and to compete they have to be finesse bankers. That is, they need to establish long-term relationships and find a niche there. Furthermore, if globalization means that in the end everything trades all over the world, then in the present world, the foreign exchange markets are truly global, and the same can be said for U.S. Treasuries. However, the technology required to implement globalization is in some cases yet to be invented. The average age of data-processing equipment on Wall Street is 10 years and much has to change before globalization is truly possible for all products.\textsuperscript{18}

International rivals tend to admire Morgan Stanley for developing a first-tier international operation and for avoiding many of the pitfalls of global expansion. Few Wall Street firms had even considered opening branches in Europe like Morgan Stanley had in Paris. It was very nearly a tactical mistake because by the 1970's it had become clear that London, not Paris, would be the center of the surging Euromarket. So in 1977 the branch was moved to London, and Archibald Cox became the manager of about 25 professionals stationed there. Tokyo became the third side of Morgan Stanley's global triangle when the firm opened a representative office there.

\textsuperscript{18} Ipsen, p. 78.
under David Phillips in 1970 (see Exhibit 2). Its international
operations are integrated into the firm's major operating divisions
rather than managed as a separate division. In its effort to build an
equity infrastructure, Morgan Stanley is generally considered well
ahead of all its rivals, except for Credit Suisse First Boston.

The firm is also bolstering its international research. Morgan
Stanley has posted the largest market share of any of the six gaijin
firms dealing in Japanese equities. Morgan Stanley is one of only two
American firms that trade futures in Japan. The firm's TAPS
computer system is the core of that ability. Morgan Stanley has
stayed out of trouble in international expansion because it has
employed sophisticated technology that has enabled it both to
process multi-currency transactions and contain costs. It has
avoided low-margin commodity type businesses that other firms
embraced in their bid to become full service financial supermarkets.
For instance, it declined to join in gilts market making.

Morgan Stanley has expanded abroad well and have
established niches in the markets it serves. Moreover, their technical
capabilities have allowed them to perform these services more
efficiently and at a lower cost. Again, they have invested in the
infrastructure of the firm to deal with the unpredictable nature of
the global market. In addition, the firm is investing a great deal in
international research. First, let's examine the Japanese Market
further as an area of international expansion and then speak to the
issue of international research.

Deregulation of the Japanese Market
International expansion has seemingly become very important with regards to the Japanese market. Many investment banks are also concerned about the deregulation that will occur there. Deregulation has been moving fast in the Japanese capital market. However, the ministry of finance has its own priorities, which incline more towards extending control than releasing it. The Japanese city banks want to get into the securities field. The long term banks argue that they need to and the trust banks maintain that if they are to lose their monopoly on the trust business, the only just compensation is a securities license. However, it looks as if the securities firms will have the most to lose. The process of deciding who gets to do what to whom is essentially political, and recently things have been going the banks' way, much like in the U.S. They have won the right to deal in government bonds and futures, arrange private placements for corporate bonds and open securities subsidiaries overseas.

The balance of power seems to have shifted away from the securities firms, led by Nomura Securities Co., to the banks. The banks are flush with capital. Moreover, the position of the MOF's powerful administrative vice minister of finance is currently occupied by Saadaki Hirasawa, who is from the ministry's banking bureau. So it is a matter of when, not whether banks will be allowed at least partial admittance to the broker's business. What most people don't realize is that this means an end to the Chinese Wall around industries within the financial sector, not a beginning for a free market. Because until you have ease of entry for newcomers, there will not be any meaningful increase in competition.
Furthermore, some of the most fundamental problems of the system are not likely to be tackled any time soon. Take commissions. Although institutional commissions have been cut by as much as one third in the past several years, retail commissions remain fixed and high. The banks used to criticize this high level but now as they are about to enter this business, they no longer complain. Another fundamental problem is the lack of transparency, i.e., written law matters less than informal understandings. Many times information is very difficult to come by and often ambiguous. People there still equate success with size and market share. So, MOF officials are also weary and do not dismiss the risk that deregulation may lead to monopoly or oligarchy. 19

International Research

So how can investment banks deal with globalization and situations like the deregulation in Japan? Sparked by deregulation, the strong performance of stocks throughout the world and increasing interest in cross-border investing, the investment banks find it crucial that their research become more global in scope. Given the unreceptive environment of the late 80’s, a number of U.S. firms began to question whether it made sense to maintain expensive overseas staffs. But global research is still around. A number of firms believe they have no choice but to stay international, and even to increase their efforts. They point out that financial deregulation

19 Sender, p. 219.
and the dismantling of trade barriers in Europe in 1992, as well as the rise of the Tokyo stock market as the world’s largest will result in an increasing globalization of the financial services industry. Thus, it seems that the stronger firms are getting stronger and the weak are falling by the wayside.

Most U.S. firms have built their research departments around the economists, currency analysts, and portfolio strategists they have placed in London and Tokyo. Their broad pieces get the widest cross-border distribution. Industry coverage at most of these firms is selective, generally limited to established global industries such as chemicals, pharmaceuticals, electronics, banking and autos. Most also have consumer products and retail analysis in Tokyo and London, even when the consumer and retail companies they follow don’t have international operations. And lately, firms have begun to cover Europe using country generalists—usually natives of the country in question—to supplement their industry specialists.

Among those that are moving ahead is Morgan Stanley, which now has nineteen analysts in London and eleven in Tokyo, three in Hong Kong, and two in Australia. First Boston has a staff of eight in London and six in Japan. Merrill has fifteen in Tokyo and thirteen in London and ten in Hong Kong, Sydney, and Singapore. Goldman has 30 abroad. Shearson has 35 and seven in Japan. In London, no one foreign or local, is making money in equities right now due not only to the paltry commissions but also to the overbrokered and overresearched status of that market. The U.S. firms by changing its target audience from local to cross border investors can succeed there. Moreover, by distinguishing themselves from their British
counterparts, which boast strong domestic franchises, a number of U.S. firms are integrating their U.K. research with coverage of European companies in the same industries.

In Tokyo, Salomon topped the list by a wide margin. Its profits were more than four times those of its closest rival, Goldman. Undisputed, however, are the cultural differences and recruiting difficulties that U.S. firms encounter in Japan. Hiring continues to be hard, for example, Japanese analysts by and large remain reluctant to leave a safe environment and plunge into the unknown nature of a foreign firm. Beyond that, the Japanese and American analytical approaches are very different. The people that they do recruit from Japanese firms tend to be particularly entrepreneurial and also eager to stay in research -- rather than rotate into sales or investment banking as they would do at a Japanese firm. Foreign firms have an advantage in recruiting Japanese Women, however, because they face considerable barriers to advancement in local firms.

Another major hurdle is research style. While Japanese reports are key to building a local franchise, such reports are not aimed at the foreigners' cross-border readers. Many research directors insist that fundamentals eventually catch up with a stock -- even a Japanese stock -- and that Japanese portfolio managers are beginning to appreciate U.S. style fundamental research. What reports need, in their view, is a mix of both fundamental and technical indicators. As for Morgan Stanley, its analysts reports are written in English and then translated into Japanese, but they are also put into a shorter glossier Japanese format. A bottom-up fundamental approach is taken. They establish credibility in the local market and then
leverage the work as much as possible in other markets. Morgan Stanley has ranked No.1 among foreign firms in number of top analysts, finishing just ahead of the four leading Japanese brokers. Morgan Stanley has also been able to recruit several prominent Japanese analysts.

Morgan Stanley has really been successful in putting the pieces together while Goldman is lauded for its London research activities and Salomon for its Tokyo effort. First Boston and Merrill also come in for praise. On the other hand, U.S. firms are criticized for spending too much time making irrelevant comparisons between U.S. and foreign companies and too little time getting to know foreign managements. Globalization will not be a reality until analysts in different markets learn how to work together. Even though every firm can point to a joint report or instances in which analysts in one industry but based in different countries worked closely together, nowhere is it commonplace.

It is clear that only the largest American firms will have the ability to stick it out through bear markets and through the periodic pullback of cross-border investors to their local markets. Once the American firms have solved their organization problems, they will be the best. Yet there is a dark horse, the Japanese. Japanese firms have made little progress in either the U.K. or U.S. research markets. Nomura, for example, is back in operation for the third time in the U.S. after pulling out of U.S. equities earlier this year, and its vacillation has damaged its credibility.  

20 Lewis, p. 79.
8.1 Conclusion

How should an investment bank like Morgan Stanley compete strategically in this industry? Moreover, do they really need a strategy at all or can they survive just on an adhoc basis, being reactionary? Well, the process of strategy formation has always been contingent on the firm's particular situation, its objectives, its management style, its organizational culture, and its administrative structure. It seems that at Morgan Stanley, the objectives have been profit-oriented, the management style very loose, the organizational culture based on individual effort as opposed to firm-wide benefit, and the administrative structure rather flat. All these translate into a very reactionary firm with competition and profit margin driving the firm. Is this the best structure for an investment bank, let alone Morgan Stanley?

At first glance, this may seem to be the only solution. However, as we have seen both in terms of what Morgan Stanley's past strategy as well as its present course, being opportunistic doesn't mean no planning. On the contrary, it entails planning to invest in the infrastructure of the firm. The investment banking industry is undergoing rapid change and the future success is likely to depend on flexibility of the firms through technology, their innovative ability through their people, and their global reach through both deregulation and international presence. The challenge for management is to develop a vision of the firm's future and to
create an infrastructure that will enable it to succeed in this unpredictable environment.
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Appendix 1

Divisions of Morgan Stanley

Equity

Equity began in 1973 to develop more fully and by 1978 was ranked among the top competitors in the institutional equity business; a remarkable achievement following deregulation of fixed commission rates in 1975. In addition to the firm's prominence in the U.S. equity market, Morgan Stanley has become one of the largest traders of Dollar, Swiss Franc, and Yen convertible securities in the world. A major participant in the world's equity markets, the firm has established trading in London and Tokyo, enabling Morgan Stanley to trade around the clock. Other equity activities include over-the-counter trading, restricted stock brokerage transactions and options trading, as well as risk arbitrage and securities lending activities. Anson Beard heads up this division.

When Barton Biggs joined the firm in 1973, he was charged with the task of building a premier research department. Today, Morgan Stanley has 40 analysts in every major industry. The style of research has always been analytical and predictive rather than reportorial, and analysts have a wide latitude in expressing their own opinions. Today, the firm is expanding internationally, and the
research department is broadening its scope as well. Morgan Stanley expects to have international research departments of the same quality located in London and Tokyo.

The firm's Individual Investor Services Department, founded in 1977, by Anson Beard provides investment advice to high net-worth individual investors and smaller institutions. Moreover, Risk Arbitrage involves investing for the firm's own account in the securities of companies engaged in publicly disclosed corporate transactions in which Morgan Stanley is not acting as an agent. 21

**Fixed Income**

This division started as just the corporate bond department until it was formally formed in 1971 by Lewis Bernard. This key division has been responsible for most of the firm's expansion into new product areas. Corporate bonds, government securities, money market instruments, mortgage-backed securities, foreign exchange, commercial paper and commodities are all in this division. The reason that all these products are in the same group is because they all have active cash and forward markets, common credit concerns, and potentially similar trading strategies. All involve interest rates, either directly as in the case of governments and corporates, or indirectly, in the case of foreign exchange.

Over the past years, the division has expanded to a full product line: corporate and Eurobonds, government securities, money

markets, mortgage-backed, non-dollar securities and high-yield bonds. Morgan Stanley entered mortgage-backed in 1984. Today the firm is involved in every aspect of the mortgage securities business, including sales and distribution, origination and auction participation and mortgage brokering. A close link with Brooks Harvey presents extremely attractive opportunities in the financing of commercial projects. This division reports to John Mack.

The firm also deals in Foreign Exchange. It is a principal dealer in spot and forward markets in more than 25 foreign currencies on a 24 hour basis. Morgan Stanley's foreign exchange business continues to grow. In the U.S. Morgan Stanley deals actively in every major currency for its clients. This is true in London as well. Also, the firm plans to expand these capabilities into Asia. In Commodities, Morgan Stanley trades as a principal in a variety of commodities, including precious metals, crude oil and develops and executes hedging strategies as a result of its participation in these markets.

Morgan Stanley also has Research in three areas: Equity, Fixed Income, and Economic. Equity research and investment strategy are conducted on a global basis in New York, London, Tokyo, Hong Kong, and Sydney. Strategic coverage is provided in each of these locations with over 65 analysts supplying industry and company coverage. Fixed Income research is responsible for providing quantitative and credit analyses and domestic and international portfolio strategies in support of Morgan Stanley's Fixed Income businesses. The group consists of Quantitative Research, Mortgage-Backed Securities Research, and International Strategy. The Fixed Income Research provides groundbreaking analysis in new areas like futures, options,
high-yield securities, and computer-assisted trading. Economic Research provides ongoing analysis and forecasts of interest rates, inflation, GNP and corporate profits for the U.S. economy and similar analyses for major industrial nations. Also available are forecasts and analyses of exchange rates for the major currencies.

In 1985, the tax-exempt securities department was founded. The division is fully staffed and active in all aspects of municipal finance, providing complete services to public sector and to private entities authorized to borrow on tax-exempt basis. The firm is a principal dealer and underwriter in all sectors of the tax-exempt market. 22

**Investment Banking**

This has been the core of Morgan Stanley's business since 1935. Under the leadership of Robert Greenhill, the firm has maintained and developed close investment banking relationships with companies that can benefit from their services. Investment Banking is composed of closely related business units including corporate finance, underwriting, merchant banking, mergers and acquisitions, and realty. The units are separate enough so that there is specialization in products or industry. It is designed to encourage the entrepreneurial and innovative spirit that is crucial.

Since its formation in 1935, the firm has been managing, pricing and distributing public offerings of fixed income and equity

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securities. As their clients have become more international and their financing needs more complex, they have had to enhance their traditional underwriting strengths in a wide range of markets, currencies, and derivative products.

Morgan Stanley was the first major investment bank to organize a specialized group of M&A professionals. Since 1972, the firm has been a leader in M&A activity. The activities include the purchase and sale of independent companies or divisions of companies and assistance in responding to unilateral takeover proposals and various other types of strategic financial advice. Many of the assignments involve complex strategic competitive situations that require analytical skills and sound tactical advice: 1. the identification of acquisition candidates 2. valuation advice 3. recommendations related to the type and structure of financial consideration 4. tactical advice and negotiation strategy 5. an opinion as to the financial fairness of a proposed transaction. The department includes specialists in industries.

Merchant Banking includes organizing, financing, and investing in leveraged buyout transactions and venture capital opportunities. The key to success is the ability to arrange interim and long-term financing for these transactions, including the distribution of high-yield securities. Also, through its venture capital activities, Morgan Stanley has contributed capital and resources to assist entrepreneurs in the growth stage of their companies, mainly in the technology sector.

Corporate Finance is responsible for maintaining and developing most of the firm's investment banking relationships and
for marketing all of the division's products and services. Coverage officers within this group head client teams consisting of Morgan Stanley professionals who are experts in industry, product and market areas that are important to particular clients. The ability of Morgan Stanley industry specialists to relate to present and prospective clients on a strategic level has enabled the firm to provide effective advice over the long-term.

The Capital Market Services group as part of investment banking is responsible for bringing Morgan Stanley's capabilities and experience in the global fixed income and equity markets to the firm's clients and prospects. Capital Markets Services consists of Debt Capital Markets and Equity Capital Markets and acts as a bridge between Morgan Stanley's Investment Banking, Equity, and Fixed Income Divisions by managing and pricing public offerings of debt and equity securities. Services include advising on the structure and timing of the offering, forming an underwriting syndicate, and allocating securities among underwriters, as well as pricing and distribution. It also develops financing strategies for clients and prospective clients, provides advice on financing opportunities in the global capital markets, develops and markets new financing products.

Also, part of Investment Banking is Morgan Stanley Realty. It is a fully integrated unit. Morgan Stanley has focused on the high-end of the market in the U.S. and overseas-- large office buildings, shopping centers, hotels, industrial buildings, apartments. The firm emphasizes client service and customer relationships. Morgan Stanley also offers advisory services, including valuation of real
estate portfolios. In addition, the firm manages real estate portfolios, lease space, and develops both commercial and residential properties for clients and for its own account. 23

Every one of Morgan Stanley's divisions is managed on a worldwide basis. This has accelerated Morgan Stanley's growth into global markets. Each business manager is directly responsible for developing a worldwide view on the potential and requirements of the business. A senior group from within the firm participates with managers in this strategic process to ensure that the firm has a coordinated business approach.

**Finance, Administration and Operations**

FA&O integrates Morgan Stanley's operating departments and provides the framework for control essential to running the complex range of activities that make up the firm. It is responsible for the processing of all Morgan Stanley transactions, the implementation of cost-effective automation, and the financing of both the firm's inventories and its long-term funding requirements. It also encompasses internal and external financial reporting and control, human resources, legal, tax, and general services. Global Securities Services commenced operations in 1988. It offers integrated services in support of global investment strategies for both fixed income and equity securities.

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FA&O is responsible for processing, control, and support activities that are essential to the efficient functioning of the firm and its relationships with its customers. Its services range from basic administrative functions to the settlement of complex multi-currency transactions and include management information systems and trade processing. The firm has made substantial investments in computer and telecommunication systems in order to provide technological aids for decision making in an environment where complexity is norm and where speed and accuracy are essential. These expenditures are for activities ranging from operating systems that improve productivity in trade processing, to analytical and other computer applications designed to serve customers or create a proprietary information advantage. FA&O reports to Lewis Bernard.24

Asset Management

MSAM provides portfolio management and named fiduciary services to taxable and non-taxable institutions, foreign governments, international organizations and individuals in U.S. and international equities and fixed income securities. As investment advisors, they emphasize a global investment strategy which benefits from direct research coverage of equity opportunities in the U.S. and other major securities markets worldwide.

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Morgan Stanley has always prided itself on its ability to complete successfully very complex or unusual transactions and advisory assignments. In 1983, it was successful in raising $1.17 billion in a single public offering of common shares for AT&T. The firm's commitment to providing complex financial products and services will continue with attention from seasoned investment banking professionals that are responsible for the firm's coverage in these particular areas. As a leading international investment banking firm, Morgan Stanley serves governments, major corporations, emerging growth companies and financial institutions in principal overseas markets with the same breadth of skill and depth of service as the firm in the U.S.  

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Automated Brokerage

Around the world the financial markets are facing different problems but increasingly choosing the same solution -- electronic trading. The new sound of finance is the machine-gun clatter of fingers on a keyboard. Traders are finding that the rigid efficiencies of computers are profoundly changing the subtle and ambiguous relationships between people making a deal. So they must relearn how to understand the market, how to execute orders, how to deal with customers and how to make money from it all. More recently automated systems have been introduced to perform tasks that can't easily be accomplished in the traditional way -- trading baskets of securities, for example, and serving investors in other time zones overnight. Moreover, they have been found to be faster, cheaper, and effective for most large trades as well.

The age of the fully automated exchange started first with derivative markets such as Soffex and the Tokyo Stock Exchange's futures market. Information technology is the competitive weapon of the 1990's for exchanges. As deregulation and cross-border investing take over the world, exchanges that once had exclusive local franchises suddenly find themselves in competition with each other. Thus, markets are trying to obtain new customers or retain
their old ones by offering investors more convenient trading at lower cost, which means even more machines. Invariably, the automation of an exchange is accompanied by controversy and political strife. Trading is a war of information, and putting the market on a screen changes the balance of power between brokers, market makers and investors. Moreover, with capital flashing around the globe to the most accommodating environments, it becomes hard to hang on to profits form inefficiency. Changing the technology means changing the very architecture of a market, affecting its volatility, liquidity, and basic fairness.

So for what types of trading is automation appropriate? Brokers executing customer orders may prefer entering them into a machine, but a local working a futures market may prefer the immediacy of a pit. Trading is a poker game with bluffs and calls, in which players pay as much attention to the tone of a voice as to the words it speaks, so this may be a problem. Furthermore, the anonymous screen removed from the self-regulating community of the floor could foster highly disruptive styles of trading. Traders may be unwilling to commit to big bids because they are not dealing with someone they know and trust. Moreover, the visibility of market data may drive out market makers. Also, brokers may become redundant since investors could use an electronic exchange to trade directly with each other, cutting out the middleman. Furthermore, technology transcends existing legal structures and even borders, so new international regulations may be necessary.

The screen offers more precise information about the market than is disseminated from floor markets or even over-the-counter
telephone markets. Besides greater control over trading, computers eliminate the problems of clearing errors that typically occur when the two sides disagree about the details of a transaction. Also, automated exchanges are particularly suited to modern quantitative investment techniques. Some of these, like indexing, requires the execution of hundreds of orders simultaneously. For other types of trading, like government bonds, it may not be fast enough. The biggest risk to automation is that people will come to rely on it, and then the systems will break down. On most systems, traders complain that the system slows down when things get busy, which is precisely when they want to be trading quickly.

Automating the market changes the mood of the market. There is a loss of information on feelings when there is no eye contact. Trading on a machine, you don't know who's panicking. The designers of electronic exchanges attempt to compensate for the loss of floor chatter by displaying all sorts of information on the trading screen. Instinet, the U.S. equity-trading system, tries to convey the activity of the market by displaying on the screen the number of traders who have their terminals set to trade each stock. The most controversial issue among screen markets is whether to reveal the name of the trader entering each order. For example, with Globex, the planned 24 hour futures network sponsored by the Chicago Mercantile Exchange and Reuters, the traders are anonymous. Traders who use any of these screen markets say that they have begun to learn the nuances of the machines, but even the converted have an affection for the human side of trading. If automation brings great social change to markets, eliminating old kinds of
abuses, it also creates new ones. Automated trading makes it hard for the old-boy network to manipulate things. The basic problem is that screen traders act in the privacy of their own offices, without the floor officials around. On the other hand, in terms of the regulators, they say that the system allows them to get all the information they need right on the screen to better control abuses.

How to work a large order without disrupting the market is perhaps the most important skill of a trader. And how well a particular exchange facilitates large trades is the practical measure of its liquidity. You know you have a liquid market if you can buy a lot of whatever it is without driving the price up and then sell it without sending the price down. The most profound theoretical objection to screen markets is that they won't be liquid because they discourage large orders. Too much visibility also cuts market-maker profits by reducing the spread.

Much of brokerage is now a business in which price and efficiency rather than skill are paramount. Brokerage has become a commodity now, and you can't make money on that basis. The implication of this isn't that brokers will disappear, but that they will be paid only when they are needed -- for large trades. The plain vanilla daily flow can be done in a black box. The idea generation, the asset allocation, the customer problem solving, the renting out of balance sheet and things like that will still be handled by the salesmen, by the firm. In the future, these functions will be performed by different firms. The specialization of brokers will come very rapidly as the client looks for added value. There will be brokers specialized in large block trading with small back offices and
others who facilitate small orders for the banks with big back offices and automatic order-routing systems.

Technology transcends existing legal structures and borders. Exchanges allow only members access to a market, and they require those members to follow specific rules that embody a consensus as to what constitutes a fair marketplace. If Reuters owns the roads and the exchanges set the traffic laws, who has the real power? It will shortly be possible to call up a local salesman for Reuters and order an Instinet terminal to trade stocks, a Globex terminal for futures and a Reuters dealing terminal for currencies. What the information company is offering in each instance is a machine on which prices are displayed and orders are executed. And to Reuters, the business proposition is also the same: it rents terminals and charges transaction fees. In all three cases, Reuters is bringing buyer and seller together and performing the function of an exchange.

While the rise of screen trading means a diminished role for brokers and market makers, it offers many new opportunities for exchanges. It is easier to convince a firm to install a new terminal than to send an employee to stand full time on a traditional floor or pit. Because technology has made it easier to start an exchange, new entrants are competing to trade. Reuters officials point out that they have everything to gain by working with the existing exchanges and regulators. With Globex, Reuters' futures trading network, the company gains enormous credibility because it is working with the Chicago Mercantile Exchange and other exchanges. The more immediate threat to existing exchanges, however, comes not from information companies but from exchanges in other countries. The
most successful effort of this sort is that of ISE in London. In the near future, 24 hour trading will be made possible and there must be international regulations. Ultimately, it is not traders but investors who have the most power. The demand in the marketplace will be for more disclosure not less.

Technology is above all an amplifier. It allows a market to be more open or more secretive, it centralizes markets or fragments them, and it can impose rules or create a perfect level playing field. What will resolve these issues is simply what the traders are comfortable with, so the human factor. 26

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26 Hansell, "Wild Wired World of Electronic Exchanges".
Appendix 3

The State of the Art on the Street

First Boston Corporation

New system: High Performance System
Architecture: IBM mainframe database; Stratus minicomputer for transaction processing and market data; IBM PC for user interface
Key Innovation: Variety of processor types used; custom software-development tools
Status: Started end of 1984; now 50 percent written. Should be complete mid-1990. Licensed to Kidder Peabody, which will share First Boston's New Jersey data center but write its own retail system
Replaces: Traditional system, completed 1983
Cost: $50 million to $100 million (software only)

Salomon Brothers

New System: Fulcrum, after Archimedes
Architecture: Integrated front and back office with some data kept centrally on a mainframe; analytics, front end and some duty on workstations. Likely will use UNIX
Key Innovation: Using workstations to give the most power to users
Status: Planning begun summer 1987; management approval, fall 1988; test systems installed this year; complete 1992-1994
Replaces: IBM-based back-office system (circa 1973), plus 43 separate additional systems
Cost: Software development, $70 million to $90 million

Merrill Lynch

New System: Account Processing II
Architecture: Central back office on IBM mainframes running database software that will provide workstations with data access. New IBM PS/2 workstation for the retail and institutional sales force
Key Innovation: Integration of Merrill's far-flung systems
Replaces: Retail back office on IBM mainframe. Institutional back office fragmented on various minicomputers, which will be retained for trade support and linked to the new system
Cost: Back office software; $20 million to $30 million; hardware: $100 million

Shearson Lehman Hutton

New System: Shearson Security System
Architecture: A relatively traditional, back office only centralized mainframe system
Key Innovation: Parallel processing architecture allows several functions to use the same data simultaneously
Status: Begun 1984, now 90 percent complete. Still to be built are an international version and a new architecture to support workstations
Replaces: ADP back office software purchased in 1970, running on IBM mainframes
Cost: Back office: $30 million; international: $35 million

Morgan Stanley & Co.

New System: Trade Analysis and Processing System (TAPS)
Architecture: Central IBM mainframes running front and back office systems. Uses relational data base and fourth generation language
Key Innovation: First to integrate front and back office to give central control of data
Status: Begun 1981, completed 1985. Multi-currency capacity added 1987. Licensed to systems vendor EDS, which has remarkedet TAPS under the name of TradePro
Replaced: Traditional Flat File oriented system
Cost: Not available

Goldman Sachs & Co.

New System: A firmwide upgrade
Architecture: Back office on IBM mainframes and, for some applications, Stratus fault-tolerant minicomputers. Many back office applications real time. Intel 80386 IBM-compatible workstations running the new OS/2 operating system for front end
Key Innovation: Cooperative processing, where workstations perform some portions of a task locally and use relay on mainframes for others.

Status: Moving back office from Burroughs to IBM equipment for several years, now mostly complete. Trading workstations installed last year. Overall architecture planning begun last year. Back office systems will likely be upgraded again.

Replaced: Traditional back office system on Burroughs mainframes.

Cost: Not available.\(^{27}\)

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\(^{27}\) Hansell, "The Moving Target".
Appendix 4

TAPS -- Trade Analysis and Processing System

Morgan Stanley Attachments
II. OVERVIEW

Morgan Stanley's Trade Analysis and Processing System is a fully integrated trade processing system built with fourth generation software technology. It handles front and back office operations, multiple product lines, multiple currencies, and external communications links all within a single set of data structures. Full integration means labor savings, improved accuracy and better access to information.

Fourth generation software technology means greater reliability and flexibility. It also means that, in the development process, programmers are able to focus on addressing business issues rather than narrow technical issues. As a result, Morgan Stanley has been able to develop an exceptionally comprehensive, user-friendly and decision-oriented system.

FULL INTEGRATION

Labor Savings: In a non-integrated system, support personnel at every stage of the process spend time and money moving and reconciling information between departments. In an integrated system like TAPS, this type of activity is substantially reduced. With the TAPS system, Morgan Stanley has been able to reduce staffing in many back office departments while handling increased trade volume and improving accuracy. Also, time spent generating reports for analytic and control purposes is substantially reduced, because the system includes extensive management reporting capabilities.

Accuracy: Trades are entered only once, and then they flow through to settlement with no manual intervention in the routine case. Integration eliminates the multiple opportunities for manual error which are present in a segmented system.

Access To Information: Because TAPS is a single integrated system, it is possible to know the status of trades at any point in the system. Traders and account representatives can access up to the minute information on positions and balances. Operations personnel can track precisely the flow of trades through the back office to settlement. Same day settlement processing is possible through online transactions.

FOURTH GENERATION TECHNOLOGY

Reliability and Ease of Maintenance: TAPS was built using a complete database management system (DBMS). The DBMS provides a unified framework within which programmers can handle information. Programmers can focus on the logical structure of the data, e.g., trades or journal entries, rather than on the physical location of the data. The DBMS also provides a complete set of data protection tools.
Our fourth generation programming language further simplifies the manipulation of data. The programmer writes high level logical commands. The system handles the details of the processing. DBMS and fourth generation language technologies greatly reduce the costs of development and maintenance.

**Flexibility:** Advanced technology makes it easier to customize TAPS to meet your needs. TAPS' Database Management System allows changes in the structure of files without changes in the programs that access those files. At the program level, TAPS' modular design makes it easy to change the system piece by piece. Where possible system rules are in tables that users can modify, rather than hard coded in programs. Finally, the fourth generation programming language reduces the total amount of programming necessary to accomplish any given task.

**Comprehensiveness:** Our reduced development costs using a fourth generation language have allowed us to build the most comprehensive trade processing system available today. From trade entry to delivery planning to clearance to settlement to management reporting, TAPS does more than any other trade processing system. TAPS also supports a wider variety of financial products than any other system. For each product and function, TAPS does more for the user.

**REAL TIME QUOTES**

Morgan Stanley has developed a real time quotes service which provides access to price information from most of the major financial markets. When coupled with TAPS, this system automates the marking of positions to market. The quotes system also provides sophisticated graphics and analytics. The quote service, RTQuotes, may be purchased separately from TAPS.
III. PRODUCTS

The TAPS system supports virtually every financial instrument actively traded today, including (1) the full range of equity securities including ADRs, Euros, domestic equities, equity options; (2) the full range of taxable fixed income securities, including corporates, agencies, bankers' acceptances, certificates of deposit, commercial paper, governments, repos and reverses, zeroes and strips, discount notes; (3) tax exempt securities; (4) specialty securities including foreign denominated securities, units and warrants.

The system may be configured to support exclusively fixed income securities, exclusively equity securities, or to support both. Trading in the following instruments is supported by optional specialized subsystems which are integrated with the basic system:

Commodities

This system allows tracking of commodities trading: trade entry; reporting for reconciliation of trades with exchange data; mark to market; online trade inquiries; settlement and clearance reports; profit and loss reports and all accounting. The system includes a special inventory control system for metals which provides traders with complete inventory information and provides operations with an automated system for tracking and allocating inventory for delivery.

Floating Rate Instruments

The floating rate securities system allows data entry for floating rate notes and CD's and produces reports which facilitate the tracking of floating rate payments. The system allows the entry of rate adjustment dates and formulae. Where possible, the system will calculate interest rates by the formulae, and, in every case, generates reports in advance of interest rate change dates alerting traders and account representatives.

Foreign Exchange

The ability to process foreign denominated securities is built into the entire system. The Foreign Exchange System provides specific support to the trading of foreign currency. The FX system gives traders online access to real-time positions, global exposure by counterparty and cash flow projections by currency and clearing bank. The system includes special input screens with audit features to prevent errors in settlement information input, and an automated interface for settlement with domestic and foreign banks.
Interest Rate Swaps

This system provides a sophisticated framework for the structuring, analysis and processing of interest rate swap transactions. The system allows traders to link swap terms and hedges. Online and batch reports allow hedge tracking, breakeven analysis, and accounting and trader profit and loss analysis. The system also provides extended "what if" and calculator capabilities online.

Mortgage Backed Securities

The Mortgage Backed Securities System supports the processing of trading in Mortgage Backed Securities. The special features it provides include pairing, allocation and pool inventory. The system displays real time analytic matrices for TBA and pool positions and profit and loss.

Futures and Options

Equity futures and options are processed in the base system. The functions in this specialized subsystem include basic trade entry, pairing and unpairing and group marking of non-equity futures and options. Special functions facilitate the analysis of profit and loss and trading strategies. The system supports all back office accounting functions and automates interfacing and balancing with exchanges. The system gives online position and profit and loss information by product for each trader.

TAPS for Japanese Branch Operations

Support for Yen denominated securities is provided as part of the basic system. This subsystem deals with (1) the date problems resulting from trading across the international date line; (2) the different trade figuracies and back office processing needs in the Japanese environment; (3) Ministry of Finance regulatory requirements in Japan.
IV. FUNCTIONAL SCOPE

A. TRANSACTION ENTRY

Trade Entry

Trade entry is the primary data entry point for the entire system. It supports all security types, providing specialized screens for many. On-line configurations and editing at the point of entry eliminate many breaks caused by traditional batch configurations. Trade entry produces a fully formatted record utilized by the rest of the processing system. This allows TAPS to provide real-time transaction, position and profit and loss information.

Floor Brokerage

The floor brokerage system allows the online entry of trades executed on the floors of the New York and American stock exchanges. It also tracks brokerage fee by type of broker and produce a set of management and control reports on floor activity and expenses.

B. FRONT OFFICE

Commission & Payout

The commissions subsystem provides online access to sales and revenue information by business unit, account, salesman, and product. It gives the ability to override established commission payout percentages and sales credits on a trade by trade basis. The system produces daily and monthly hard copy reports showing pertinent trade and payout information. These reports are produced for each registered rep and in several summary forms.

Position Reporting; Mark to Market; Profit and Loss

TAPS' advanced database technology allows it to access summary and detail data on a real time basis. The position reporting subsystems allow traders to access real time position data by account and security. Group marking and flexible defaults facilitate the determination of balances based on current market prices. When linked to the Real Time Quotes system, the position reporting system has the capability to automatically mark positions to market.

Sales Personnel Management System

The sales personnel management system is used to maintain and access basic information for registered representatives. This information is used by other systems to report and book revenue by organizational unit. Exchange and state approvals are tracked along with basic information. The online system includes convenient inquiry modules.
Sales Support -- New Issue Interest System

The new issue interest system is a sales support feature designed to track customer interest in new issues. It allows online inquiries and produces batch reports of interest in new issues by customer, salesman and branch.

Sales Support -- Offering Sheets

The offering sheets application allows traders to broadcast their bids and offers to sales staff throughout the head and branch offices. It facilitates sales and reduces the volume of information requests by sales staff to traders.

Trading Support -- Block List

The block list system aids traders in aggregating large groups of trades for bids or offers. The system allows online entry of and inquiry into listed blocks. A nightly batch job produces a hardcopy report of active blocks for each office of the firm.

Trading Support -- Deal Systems -- Governments and Equity

The deal systems allow traders to define a set of related trades (e.g., hedged trades), as a deal, and track profit and loss for the deal. The system produces reports which analyze specific strategies (e.g., reverse to maturity) as well as basic profit and loss reports by deal and at a summary level.

Trading Support -- Options Reporting

The options reporting subsystem gives OTC options traders and controllers a set of reports that enable them to manage positions to control risk. The reports detail and summarize high risk positions, identifying them by size and size vs. volume. An additional report allows traders to monitor their positions for compliance with exchange limits.

Trading Support -- Trade Data Retrieval System

The trade data retrieval system is an online inquiry system providing historical trading data: It displays trades by various categories, portfolio holdings, commission figurations and pricing history.

C. CUSTOMER RELATIONS

Autotelex

Autotelex is a facility which automatically sends trade confirms by telex to customers throughout the world in a fast and reliable manner.
Account Services

This subsystem of TAPS automates all aspects of account services. Account services are the services that the firm provides for customers relating to securities that it is holding for them: processing dividends and interest payments; forwarding proxy notifications; tax withholding; payment and collection of interest on accounts with cash balances; transfer; reorganizations. The system also allows easy online inquiry to answer questions regarding individual accounts.

Customer Credit Exposure

The customer credit exposure system produces daily exception reports showing when customers have exceeded exposure limits. Several different types of limits may be defined for each account and product line, including market exposure, settlement date volume and position totals. These limits may be specified in a short hand manner by assigning a rating (e.g., AAA) to a given account. The limit types are table defined for maximum flexibility.

Customer Holdings

The customer holdings system allows account representatives and traders to track the portfolios of customers. It is fully integrated with the trade processing system, so that trades executed by the firm are automatically reflected. The system also allows the entry of "hearsay" trades -- trades that the account representative learns have been executed for the customer by other firms.

Inquiry System -- Customer Service System

The customer service system is an online inquiry system which displays information for accounts including name and address, delivery instructions, account status, trade and journal activity, positions, balances, commissions and statements.

Labels/Mailing

This flexible system allows the organization of client mailing lists by department, registered representative, industry group and product of interest. It can produce reports of clients or produce heat or gum labels.

Portfolio Management System

The portfolio management system is a set of related tools. Equity, fixed income and balanced accounts are managed by the system. Accounting modules report on account holdings, dividends, and profit and loss both realized and unrealized. Portfolio managers can analyze account data to identify performance in different periods according to many analytic categories. Management and customer reports provide yield, duration and amortization analyses.
D. FINANCIAL CONTROL

Cash/Collateral System

The cash/collateral system allows daily analysis of the firm's sources and uses of cash and collateral. The user can categorize sources and uses through the use of an online table system. Daily reports detail firm and customer long and short securities; segregated securities; open fails; bank loans; excess customer securities; premiums on options.

Cost of Carry

The government and corporate cost of carry systems allow detailed monitoring of the net cost of carry of debt instruments. Daily reports of coupon financing net income and expense are produced for all positions by desk and division. The system calculates overnight pool financing rates by type of security, allowing accurate reflection of overnight financing rates in trading profit and loss reports.

Money Desk Reporting

The money desk reporting system includes a set of specialized reports designed to meet the needs of money desk traders including: Matched book reports; financing worksheets detailing repos by account and product delivery code; overnight inventory reports; overnight reports of repos terminating the following day.

Risk Exposure Reporting

The risk exposure reporting system is a specialized tool which allows fixed income traders to evaluate their risk. It displays net positions and equivalent risk by account and position. The system computes duration and the changes in risk which would follow from specified changes in market interest rates.

E. STATIC REFERENCE

Account Database

The account database allows the definition of accounts, and the maintenance of information on each account. The same subsystem maintains prospect, bank, employee and profit and loss accounts, as well as customer, firm and street accounts. Its specific features include: (a) tracking of prospect accounts; (b) maintenance of all basic information about each account; (c) definition of groups of related accounts; (d) definition of trading limits for individual accounts or groups of accounts. A wide variety of online searches and inquiries are available.
General Reference

The TAPS reference system allows the maintenance of online tables used by the TAPS system. These tables include control tables which allow users to configure the system to their precise requirements without rewriting any programs. In addition, the system includes tables used for the editing of data. The system allows entries to be activated or inactivated by date, and includes full audit controls.

Product Database

The product database allows the definition and maintenance of product descriptions. In addition to maintaining basic information about financial instruments, the system allows users to specify firm and exchange trading restrictions on the instruments. The system facilitates product definition by providing skeleton frameworks with defaults for each security type. The system also allows the specification of relationships among different instruments -- e.g. options on an instrument or convertibles to an instrument. Finally, the system allows maintenance of current prices and price history on all securities.

F. CLEARANCE

Purchases and Sales

The P&S market blotter function automates the familiar process of comparing and reconciling street side trades with customer orders. Direct online interfaces compare trades, and convenient online inquiries and batch reports facilitate the speedy resolution of uncompared trades.

Clearance

TAPS provides a complete system for clearing trades. It automates the interfaces between the firm and the clearing organizations. The clearing systems are fully integrated with the front office trade entry systems eliminating all duplicate data entry.

G. OPERATIONS

Cage Reports

The cage reporting system consists of an online inquiry system and a set of batch reports which facilitate delivery requirements analysis. They provide information on loan availability, bank loan firm collateral, clearing float, clearing efficiency and RVP/DVP exposure.
Delivery Requirements

This system gives online access to the current position in a security, the locations of the security, and outstanding deliveries to be made for the security. It automatically recalculates excess/deficit quantity of the security based on online bookings. Batch jobs automatically release bank loans to satisfy deficit and delivery requirements.

Margin

The margin system compares account positions and balances against firm and regulatory margin limits, and produces reports alerting the margin department and marketing personnel of items for attention. The system also includes online inquiry screens displaying positions and balances, account activity and other information on accounts helpful in the resolution of margin problems.

Segregation/Fluid Segregation

This sophisticated system automatically determines segregation requirements based on regulations. It automatically releases securities based on past and present outstanding deliveries, excess positions in bank loan and securities borrowed. It uses a linear programming model to optimize the use of excess securities to cover deficits and deliveries. Online screens allow operations personnel to change release priorities or control releases in special circumstances.

Settlement -- Stock Borrow/Loan

The stock borrow/loan system is a facility for tracking borrows and loans. It facilitates the daily mark to market of borrows and loans, generates journals and tickets automatically, and interfaces directly to DTC via its Computer-to-Computer-Facility (CCF). It also produces daily reports of exposure and of open borrow/loans and pre-borrows. It includes a convenient online inquiry facility.

Settlement -- DTC-CCF Interface

The DTC-CCF interface automates communications between the firm and DTC in both directions. It cleans up open items from the CCF transmission, and transmits ID trades to DTC. It automatically registers affirmed trades from DTC. It produces a reconciliation report on firm positions at DTC and weekly and monthly statistical reports by institutional and agent bank.
Settlement -- Open Items

The open items system speeds the handling of DVPs, RVPs, and fails. In addition to online aging, payoff and other inquiries for open items, the system offers automatic generation of journals and tickets for open items cleaned up. Same day delivers and cancel/corrects are reflected real time in the open item file.

Settlement -- Governments

TAPS includes all the systems necessary for the full automation of government settlement. Online Agent bank interfaces allow direct transmission of delivery instructions and funds transfers. Pledge securities are automatically selected and valued. Strict security is organized around both terminals and individuals.

Options Reconciliation

The options reconciliation system facilitates the comparison and settlement of equity options trades. It produces a set of reports that include all options positions and activity, OCC matched transfers, and positions and trades not matched by OCC. The system also reports on escrow receipt positions and activity.

Bookkeeping, Journal Entry

The bookkeeping for the brokerage and trading operations of the firm are fully integrated with the trading system, again eliminating all duplicative data entry, reducing personnel costs and reducing the probability of error. The journal entry systems allow for manual journal entries when necessary. The system includes a generalized automated interface to the firm's general ledger system.

Trade Date Profit and Loss

The trade date profit and loss subsystem tracks profit and loss on a FIFO taxlot basis for firm trading accounts. It provides profit and loss reporting both online in real time, and in hardcopy form. The system substantially simplifies year end processing and enables the firm to minimize tax liability on its trading profits.

H. FINAL REPORTING

Statements

The statements system produces customer statements in full detail with virtually no manual intervention. No manual data entry is necessary, because all of the activity and balance information was captured and calculated earlier in the flow through the system.
Brokerage Accounting

The brokerage accounting subsystem produces reports of financial condition both for internal control and for regulatory reporting. The system produces all reports and backup data required by the Securities Exchange Commission, the Federal Reserve Board, the National Association of Securities Dealers and the New York Stock Exchange. It produces daily, weekly and monthly reports of reserve requirements, facilitating the protection of firm and customer capital positions. Finally, the system performs revenue and expense reporting and profit and loss calculations and reporting. Online modules allow for manual adjustments to P&L, haircut processing and allocations.

I. TECHNICAL SUPPORT OPTIONS

ADABAS Operations Facility

The ADOP facility provides a wealth of online information about the status of ADABAS files, Natural Programs and batch jobs run in the system. It also allows the adjustment of various parameters governing online and batch sessions. It is heavily used at Morgan Stanley and makes system maintenance substantially easier.

Production Dependency Facility

The PDF facility automates the running of nightly, weekly and monthly batch jobs. It monitors dependencies in the job streams and substantially reduces both the amount of work that data center operators must perform and the probability of error.

Session Manager

Session Manager is a product which greatly enhances the productivity of both system users and programmers. It allows the user or programmer to run several sessions simultaneously on the computer, easily flipping between them. Without session manager, the user must either have several terminals or spend time frequently logging out of one application and into another.
Exhibit 1

SUPERIOR RETURNS ON EQUITY

PERCENT


Merrill
Shearson
Bear, Stearns
First Boston
Salomon
Morgan Stanley
Exhibit 2
MAJOR INTERNATIONAL MARKETS

London
New York
Tokyo