Horida Stock Exchange



NEEDS ASSESSMENTS FOR A FLORIDA STOCK EXCHANGE



HOUSE COMMITTEE ON FINANCIAL SERVICES REPRESENTATIVE LARRY CROW, CHAIR

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Executive Summary

In 1994, the House Committee on Tourism and Economic Development reported that establishing a financial exchange presence in the state was a viable concept. Florida's infrastructure, the report noted, "provides the base for the growth of a number of market exchange entities" whether the entity take the form of a stock exchange, a commodity exchange, a computerized clearing exchange, or a countertrade exchange. This issue resurfaced again, near the end of the 1999 Regular Session. An initial meeting with the Director for Securities at the Department of Banking and Finance (DBF), revealed that this idea has been circulating for well over a decade, and was initially presented as an exchange which sponsored only foreign companies.

According to proponents of the concept, a securities exchange physically located in south Florida (probably Miami) would create possibly hundreds of full-time employment positions for Florida citizens. In addition, due to the steady traffic of foreign nationals, specifically from the South American continent, interest and confidence in investing might be generated by physically locating an exchange in the area.

In order to evaluate the viability of establishing an exchange in Florida, research was conducted via the Internet regarding the stock market in general, each of the traditional and regional stock exchanges, and on-line brokerages. In addition, exchange representatives, finance entrepreneurs, and state and federal regulatory agency representatives were interviewed to provide a hands-on perspective. The complied data has been integrated into the text of this report with detailed expanded information provided in the appendices where noted. The report also updates issues presented in the 1994 committee report, and addresses current issues, such as:

- What the state has done to promote investment in Florida businesses;
- How the stock market has been affected by Internet technology;
- How on-line trading has effected the way some people use the stock market; and
- How the federal government is addressing the regulation of these new trading systems.

Several impediments to the creation of an exchange, which were listed in the 1994 report, are still a factor today: lack of development of a potential market niche and uncertainty about support from the public and private sector. In addition, the steadily evolving technology that seems to be pulling the stock market into the new millennium has resulted in alliances between the biggest and most powerful electronic firms and brokerages. Whether an exchange in Florida could thrive is still an unanswered question, but given the connectivity of financial centers through the Internet, actual location is becoming less and less of an issue.

Assessing the Need For An Exchange

At the close of the 1999 Regular Session, the issue of establishing a stock exchange presence in Florida was presented by interested parties to the Chairman of the Financial Services Committee. This issue was researched previously in 1994, by the House Committee on Tourism and Economic Development. In 1994, few people, if anyone traded stock over the Internet. This report was written to provide Members with information regarding the dramatic developments affecting the stock market due to Internet technology.

When this issue has presented previously:

In 1994, the House Committee on Tourism and Economic Development reported that establishing a financial exchange presence in the state was a viable concept. Florida's infrastructure, the report noted, "provides the base for the growth of a number of market exchange entities" whether the entity take the form of a stock exchange, a commodity exchange, a computerized clearing exchange, or a countertrade exchange. A copy of the report may be found at Appendix A. This report highlights three basic issues that need to be addressed prior to establishing an exchange, namely:

- Determining the state's role, if any;
- Identifying a market niche; and
- Deciding upon an organizational structure.

Impediments to the creation of a financial exchange:

- * Lack of development of a potential market niche
- * Uncertainty about support from the public and private sector

The report also mentions two attempts in the early to mid-1980's to create exchange-type entities in Florida. One was closed due to concerns with fraud and securities violations. The other attempt failed due to lack of enthusiasm in the private sector (i.e., lack of start-up capital). The report noted several impediments to the creation of a financial exchange, some of which are still a factor today: the lack of development of a potential market niche, and uncertainty about support from the public and private sector.¹

¹While public support for an exchange was uncertain, the number of registered brokers and securities firms has steadily increased in the years since the 1994 report was filed. The number of registered securities dealers/agents/associated persons has jumped from 140,000 to 165,000, while the number of registered broker/dealer firms in the state has jumped from 3,000 to 5, 500.

From 1994 to the present -- What the state has done to promote investment in Florida businesses:

A stock exchange is only one of several formats designed to bring businesses and investors together. Florida has responded to that goal with a number of legislative initiatives. For instance:

- Enterprise Florida is a not-for-profit public/private partnership established to guide the economic development activities of the state and provides a forum for venture capital investment;
- The Certified Capital Company Act ("CAPCO") program plans to use venture capital, through insurance premium tax credits, to infuse investment dollars into qualified businesses in the state;
- The state securities statutes provide expedited guidelines for small businesses to raise capital by selling to small groups of investors, and provide for a simplified offering circular for use by corporations seeking to raise \$5 million or less (the Small Corporate Offering Registration program, or SCOR); and
- The Information Service Technology Development Task Force in the Department of Management Services was created for the purpose of developing policy recommendations that will foster free-market development and beneficial use of advanced communications networks and information technologies within Florida over the next two years.

A more detailed explanation of the business oriented initiatives passed by the state since the committee's 1994 report may be found at Appendix B.

How the stock market has been affected by Internet technology:

In the years following the committee's 1994 report, the boom of on-line trading through Electronic Communications Networks (ECNs)² has dramatically changed the scope and focus of stock trading and investing. According to the SEC Chairman, Arthur Levitt, no one traded stocks over the Internet in 1994, however, on-line

By the end of 1999, the number of on-line brokerage accounts is expected to exceed 10 million.

brokerage accounts now account for approximately 25 percent of all retail stock trades. Also, by the

²An Electronic Communications Network is simply a private trading system maintained separately from the public markets such as Nasdaq and the NYSE. ECNs compete with traditional stock exchanges and often stay open longer. The new electronic trading systems, which may be no more than a basement full of regular personal computers, match buy and sell stock orders for half a cent to a couple of pennies a share. The easy clicking of a mouse to complete a trade contrasts with the high-cost infrastructure of a traditional exchange trading floor teeming with brokers. The list of ECNs is growing rapidly. Some of the larger ECNs include The Island, Archipelago, MarketXT, and Instinet.

end of 1999, the number of on-line brokerage accounts is expected to exceed 10 million. An increasing number of mergers and buy-outs within the electronic communications and securities market industries has all but completely urbanized a once thinly-charted landscape. The initial question, however, remains unanswered - if the impediments of public support were surmounted, could a Florida-domiciled stock exchange thrive in the current market?

Stock trading systems: the old, the new, the electronic:

Stock exchanges compete with each other for liquidity - a critical mass of investors who choose to use one system over another. If an exchange was created in Florida, it would be competing with two traditional exchanges (including the Nasdaq, which owns the American Stock Exchange), five regional exchanges, on-line brokerages, and ever-increasing number of ECNs that operate much like exchanges. In fact, at least one such electronic trading system (the result of a merger of two ECNs, Archipelago and Instinet), was seeking approval from the Securities and Exchange Commission to be an exchange. A current "snapshot" of the existing stock exchanges (traditional, regional, hybrid, and electronic), and approximate costs for annual maintenance of several exchanges, may be found at Appendix C.

In theory, therefore, a personal computer in a basement could serve as an exchange, provided one either received regulatory approval, or an exemption, by the Securities and Exchange

Commission (the "SEC"). In contrast, one could spend upwards to \$50 million to create a state-of-the-art electronic exchange. In order to succeed in either scenario, however, one needs to capture market fluidity - a critical mass of investors that choose to use your system over another system already in

One could spend upwards to \$50 million to create a state-of-theart electronic exchange.

existence. To paraphrase the president of one electronic exchange stated in an interview with staff, in today's market even if you build it, they may not come.

How on-line trading has effected the way some people utilize the stock market:

The perceived ease and immediacy of on-line trading has resulted in a shift of perception, by some, of the stock market as a system of *trading* rather than a system of *investment*. The results of "day trading," as it is called, may be dramatic -- winning big or losing everything -- all at the touch of a key. The term "day trading," as commonly used within the industry, generally refers to the trading activities of the "professional day trader," that is, an individual who conducts intra-day trading in a focused and consistent manner with the primary goal of earning a living through the profits derived from this trading strategy. This form of day trading requires aggressive and frequent securities trading and, as a result, generally requires a significant amount of capital, a sophisticated understanding of securities markets and trading techniques, and high risk tolerance.

Consequently, the growth in day-trading activities has raised unique investor protection issues and concerns. Testifying before the Permanent Subcommittee on Investigations Senate

Committee on Governmental Affairs regarding the Securities Day Trading Industry, Mary L. Schapiro, President NASD Regulation, Inc., described day trading as a risky, speculative activity, and even the most experienced day traders may suffer severe and unexpected financial losses, even beyond their initial investment. At a minimum, day trading requires sufficient capital and a sophisticated understanding of the markets and market dynamics. It also requires an expertise in identifying securities to trade and in accurately timing purchases and sales.

Given these risks, the NASD, SEC and state securities regulators worked together to address the investor protection concerns in this area. The approach has been three-pronged, relying upon: (1) the dissemination of advisories and other information to NASD member firms reminding them of their obligations under existing rules; (2) focused examinations, investigations and follow-up enforcement actions; and (3) the institution of rulemaking initiatives. Specifically, the proposed rules would require firms that promote day-trading strategies to (I) determine the appropriateness of day trading for a customer; and (ii) disclose to customers the risks associated with this type of trading. A copy of Mary Shapiro's testimony may be found at Appendix D.

According to Ronald Johnson, an Investment Consultant located in Palm Harbor, Florida, 85 percent of the population of day traders should not be trading in this fashion. According to Mr.

Johnson's report, entitled Day Trading, An Analysis of Public Day Trading at a Retail Trading Firm, 70 percent of the accounts lost money and were traded in a manner that realized a Risk of Ruin at 100 percent. While 30 percent of the accounts were profitable, only 11.5 percent of the accounts evidenced a low probability of ruin required for successful

"85 percent of the population of day traders should not be trading in this fashion." Ronald Johnson

speculative trading. More importantly, the report stated, the performance of each of these accounts is highly dependent on just one trade. A copy of the aforementioned analysis may be found at Appendix E.

How the federal government is addressing the regulation of these new trading systems:

The current regulatory framework, which was designed more than six decades ago, did not envision many of these trading and business functions. According to the SEC, this creates disparities that affect investor protection and the operation of the markets as a whole. In December of 1998, the SEC adopted new rules and rule amendments to allow alternative trading systems to choose whether to register as national securities exchanges, or to register as broker-dealers and comply with additional requirements under Regulation ATS, depending on their activities and trading volume. A more detailed explanation of Regulation ATS may be found at Appendix F.

How the federal government is addressing its role in the expanding global market:

As acknowledged in the 1994 financial exchange report, the federal government has played an ongoing role in emphasizing the need for capital market stability and liberalization in the Americas (especially Latin America) through its continual involvement in the Summit of the Americas. In 1994, the United States drafted a plan of action which called for individual governments in the Americas to:

- Take concrete steps to accelerate capital markets liberalization.
- Negotiate a hemispheric capital movements code that provides for a standstill on capital restrictions and for the progressive liberalization of these barriers.
- Form a committee on hemispheric capital markets, comprised of financial officials, to meet in 1995, to initiate negotiation of the code and to meet semiannually thereafter to facilitate progressive liberalization of capital movements.

As of this writing, there were no available updates regarding these issues and the progress in meeting these goals. Those interested in monitoring this process may log on to http://www.summit-americas.org periodically to check for updated information.

Options.

Regarding policy options for Members, in light of this research, and through discussions with the securities regulatory agency, there does not appear to be any specific legislative action that is necessary at this time. The Department of Banking and Finance has identified certain rule amendments to the SCOR program that it believes may make the program more accessible to the business community, however, the department already has statutory authority to make those changes.

Regarding possible action by the private sector, however, a central theme continues to be finding and establishing a niche in a rapidly evolving market that is saturated with players. A recurring thought expressed by both governmental agencies and entrepreneurs consisted of an alliance between investors in Florida with an existing company (with an established niche) that is interested in expanding into the Florida or the southeast United States market.

For illustration purposes, the Arizona Stock Exchange, which operates the only electronic call auction, proposes to use its system to offer a company's Initial Public Offering (IPO) to the public directly. This innovation may capture the interest of the trading public because it is a novel approach to IPOs. The traditional method for an IPO usually involves the company (the issuer) and its underwriter presenting the company's offering to institutional investors in what is called a "road show." As sometimes occurs, the underwriter may underprice the stock in order to sell it to the institutional investors who, in turn, sell it to the public for bigger profit.³

³To date, there are only two companies in the country which offer this service: the Arizona Stock Exchange, which is proposing to use its same electronic call system to present IPOs of emerging companies to the public directly; and, WR Hambrecht, an on-line brokerage firm which already offers a similar, yet sealed-bid, auction for IPOs. Staff is not suggesting that either company is interested in forming a venture with Florida investors. The example was for illustration purposes only.

Conclusion

In 1994, the House Committee on Tourism and Economic Development reported that establishing a financial exchange presence in the state was a viable concept. The report identified several core issues that needed resolution at that time, and listed several obstacles that impeded progress toward creating a financial center. Since that time, the core issues are still unresolved, and the obstacles are apparently still in place. What has changed, however, is the stock market itself. In 1994, very few people, if anyone, traded stocks over the Internet. By the end of 1999, the number of on-line accounts is estimated to top 10 million. Alliances between brokerage firms and telecommunication networks compete with others for liquidity in a global market. In a very real sense, the core function of the Internet itself has rendered the issue of physical location for an exchange somewhat moot.



1994

FLORIDA FINANCIAL EXCHANGE REPORT

Prepared by: Michael L. Rubin Staff Attorney

November, 1994

Florida Financial Exchange

Exploring the Viability of a Financial Exchange in Florida And Potential Role of the State in the Creation of an Exchange

Introduction

International trade is one of Florida's major economic foundations. To understand the impact of international trade on Florida, the Committee on Tourism and Economic Development began a comprehensive review of international trade in Florida after the 1994 Regular Session. As part of this review, Chair Alzo J. Reddick outlined five principals to guide the committee in its review process.

- Expand Florida's international and regional trade;
- Broaden Florida's international and national financial markets;
- Bolster Florida's position as the "gateway to Latin America;"
- Promote the capability of Latin American firms, and other trading partners with Florida to become profitable and active trading partners with Florida; and
- Generate high-wage jobs for Floridians.

One of the initial suggestions received by the Committee during its review was the creation of a financial market exchange in Florida. Due to the interest generated over this suggestion, the Committee took steps to research this topic separately from the international trade study.¹

Background

The primary U.S. equity markets are the New York Stock Exchange (NYSE) and the American Stock Exchange (AMEX). There are approximately 2,900 stocks listed on exchanges in the U.S. Companies on the NYSE account for 97 percent of the market value of listed companies; Amex companies account for 2 percent; and

¹ Meetings were held in Tallahassee and Miami with interested professionals. A listing of those professionals and some recommendations garnered at those meetings is attached.



regional exchanges' companies account for under 1 percent. The five regional stock exchanges (the Boston, Chicago, Cincinnati, Pacific, and Philadelphia Stock Exchanges) compete for order flow with the NYSE and AMEX. The overwhelming percentage of regional stock exchange business is in NYSE and AMEX securities that the regional exchanges trade pursuant to grants of unlisted trading privileges (UTP) from the Securities and Exchange Commission (SEC). The grant of a UTP allows a market to trade a particular security, even though the issuer is not listed on that market.

The evolution of computer technology has led to the creation of the so-called "third market," over-the-counter trading of exchange-listed securities. The growth in this market is primarily due to trading on the NASDAQ market. NASDAQ is an interdealer quotations system operated by the National Association of Securities Dealers, a national securities association registered with the SEC. NASDAQ has been in operation since 1971, and now electronically links market makers around the country for over 4,000 issues. In 1992, NASDAQ trading represented 42 percent of share volume and 29.2 percent of dollar volume of the U.S. equity markets.

In addition to trading U.S. securities, these markets also trade a minimal amount of foreign owned issues. Due to federal and state regulations, and differences in accounting principles, the amount of foreign owned issues being traded at these markets is small. A number of foreign businesses have accessed these markets using American Depositor Receipts (ADRs). ADRs represent an ownership interest in a specified number of securities of a foreign issuer. ADRs are issued by a U.S. depository in exchange for the deposit of the foreign securities by their owner. A custodian holds the underlying shares that have been deposited. Although the use of ADRs has increased, actual trading of ADRs represents less than 5 percent of securities traded at any U.S. securities market.

Based on concerns over stiff competition from foreign markets, the Division of Market Regulation of the United States Securities and Exchange Commission (SEC) recently undertook an examination of current equity market development (Market 2000). In the Market 2000 report the SEC noted that four trends will continue to drive evolving market dynamics:

- Institutional investors will continue to account for a majority of trading volume. Alternative markets are likely to continue to emerge to serve institutions' specialized needs.
- Global trading will continue to grow. The SEC noted that U.S. equity markets will face stronger competition as the leading international financial marketplace. The SEC predicted that foreign markets may compete by setting differing regulatory standards that offer market participants the opportunity to avoid U.S. regulatory requirements.

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- The derivatives market will continue to grow. Derivative products allow users to recreate synthetically virtually any asset or trading strategy, allowing users to avoid regulations that would apply if they had transacted directly in the equity market.
- Technology will continue to drive the evolution of the equity markets. Technology has made it possible for exchanges to establish terminals outside their home country to facilitate foreign investor access to their markets. The SEC noted that they need to explore ways to accommodate foreign exchange access to U.S. markets without sacrificing the standards underlying U.S. securities regulation.

The emergence of Latin American markets, and markets in Asia, Europe and the Caribbean has increased the demand for international sources of capital. Businesses in these emerging markets are not limiting their search for capital to the shores of their home countries. The trading of U.S. securities alone on foreign markets amounts to several million shares a day.

The Latin American equity markets have always been of particular concern to Florida investors and brokers. These markets have long had a history of volatility. However, recent stability in these countries has led to a reexamination of equity markets in these countries. In particular, Inter-American Development Bank member countries are currently seeking ways to stabilize their equity markets. The Association of Central American Stock Exchanges (BOLCEN) recently sent a request for proposals for consulting firms interested in the "Harmonization of Capital Markets for the Central American Region." The proposal calls for the creation of a regional securities exchange entity capable of harmonizing current markets in operation in Central American countries.

The U.S. government is also stressing the need for capital market stability and liberalization in the Americas. The U.S. government has prepared a draft plan of action to be agreed upon by heads of state and government attending the Summit of the Americas 1994. The plan of action calls for individual governments in the Americas to:

- Take concrete steps to accelerate capital markets liberalization.
- Negotiate a hemispheric capital movements code that provides for a standstill on capital restrictions and for the progressive liberalization of these barriers.
- Form a committee on hemispheric capital markets, comprised of financial officials, to meet in 1995 to initiate negotiation of the code and to meet

semiannually thereafter to facilitate progressive liberalization of capital movements.

These trends could provide some unique opportunities for the growth of capital markets in Florida. There are approximately 70 to 80 foreign banks in Florida with assets of \$12 to \$15 billion. In addition to providing traditional banking services for their foreign investors, these banks conduct a significant amount of offsheet activity for these investors, including brokerage services. In fact, Florida has the largest number of registered broker/dealers of any state (100,000 to 140,000), and approximately 3,000 registered broker/dealer firms in the state.

Financial Market Exchange Entities

As stated above, Florida's infrastructure provides the base for the growth of a number of market exchange entities. Although a market exchange entity can entail any number of possible types of financial transactions, there are essentially four types of market exchange entities.

Stock Exchange. This is the standard type of auction market with listed securities and broker/dealers trading on their own account and for outside investors. Most of the professionals interviewed for this report agreed that the creation of a standard regional type stock exchange in Florida is not a viable idea. However, interest was expressed in researching the possibility of creating a Regional/Hemispheric stock exchange wherein U.S., Canada and Latin American securities could be bought and traded.

Commodity Exchange. This market is similar to the stock exchange above; however, only a limited range of commodities (i.e. sugar, currency) are sold by broker/dealers.

• Computerized Clearing Exchange. NASDAQ type exchanges. In this market, an unlimited number of buyers and sellers can purchase or sell a limited number of equity products.

Countertrade Exchange. This is a unique type of market exchange for a wide range of goods and services. In this market, buyers and sellers can enter into non-uniform transactions on such goods and services.

Creation of a Financial Market Exchange in Florida

Based on all available information gathered and two preliminary meetings in Tallahassee and Miami, the creation of a unique financial market entity in Florida

seems to be a viable concept. The creation of new and unique security markets has been accomplished in the past. The Chicago Board Options Exchange (CBOE), which revolutionized options trading by creating standardized, listed stock options, was founded in 1973. Prior to that time, options were traded on an unregulated basis and were not confined to any regulatory style market. Since its inception in 1973, the CBOE has become the second largest securities exchange in the U.S. and the world's largest options exchange. The question is can a new and unique financial market similar to the CBOE be created in Florida, and if it can, why hasn't it happened yet?²

Much of the infrastructure needed for the creation of such an entity already exists in Florida. Florida's ranking as an international financial center ranks second only to New York. The Florida securities industry boasts the largest number of registered broker/dealers in the U.S. Florida also provides a base for a number of offices providing financial services to Latin American investors. This Latin American service sector should continue to grow as more markets emerge in Latin America. These factors, coupled with Florida's geographic proximity and cultural ties to Latin America provide a cultural comfort in Florida for many Latin American investors.

When considered in the terms of the principles laid down by Chair Reddick, a Florida financial market could have enormous economic benefits.

Expand Florida's international and regional trade

The location of an active and viable international/regional financial market exchange in Florida should foster new markets for Florida products, and should promote additional exports and imports to and from Florida.

Broaden Florida's international and national financial markets

The location of an active and viable market exchange in Florida should create additional capital for Florida businesses as well as international and regional businesses. Access to capital remains the number one need of Florida businesses.

² There have been some early attempts at creating exchange-type entities in Florida. The International Countertrade and Currency Exchange, Inc. was created in 1987 as a non-profit corporation, but has yet to conduct acutal operations due to lack of adequate captial for physical structures and initial operating costs. The Insurance Exchange of the Americas was created in the early 1980s, but subsequently closed due to concerns over fraud and other securities violations.



Bolster Florida's position as the "gateway to Latin America"

The location of an active and viable market exchange in Florida provides another reason for international and regional firms to conduct business, trade, and find adequate transportation in Florida rather than in another market.

Promote the capability of Latin American firms, and other trading partners with Florida to become profitable and active trading partners with Florida

An international financial market exchange in Florida would provide Latin American companies with a stable marketplace and access to capital. The passage of NAFTA and GATT may lead to an even greater need by such companies for capital to access new marketplaces.

Generate high-wage jobs for Floridians

The location of an active and viable market exchange in Florida will provide Floridians with jobs associated with the exchange, and with international and regional businesses benefitting from the exchange. The types of jobs created by a financial market exchange tend to earn more than the average wage.

The level of interest generated by this concept, and the potential for growth for Florida raises the question -- why has the private sector not created such an entity? Potential impediments uncovered in our initial examinations include lack of start-up capital; lack of development of potential market niche for a financial market entity in Florida; a federal and state regulatory environment that is not conducive to the creation of such an entity, and uncertainty about support from the public and private sector.

Conclusion

The demands of the global marketplace have increased the needs for international sources of capital. The financial needs of countries in Latin America, Asia and the Carribbean simply cannot be met by financial institutions in those countries. Traditional capital markets are searching for new, competitive means to invest and provide services to these emerging markets. The creation of a financial market exchange in Florida could be a way for Florida to capitalize on this need and expand the current international financial markets that currently exist in Florida.

The economic benefits that would accrue to Florida through the creation of a financial market entity could be unlimited. However, there are a number of issues that need to be addressed by individuals with security, financial and international expertise. The creation of a panel of experts, including members from the securities and financial

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industries, as well as members from Florida's universities, could provide some answers to the following issues:

■ Market Niche. This is the primary issue that must be resolved before any of the other issues concerning the creation of a financial market are addressed. Identifying potential market niches for a financial exchange in Florida is the key to creating a viable exchange in Florida. Viability will depend largely on the particular niche pursued.

Initial discussions have centered around some type of regional/international stock exchange, investment banking center, counter-trade/barter center, general trade center, and/or some hybrid form of all of these markets.³ Particular concerns in the development of these markets, such as currency exchange, and regulatory and tax issues, need to be examined in more detail.

Organizational Structure. A viable organizational structure must be decided upon. The role of ownership of the entity -- private, public, inter-American or international -- needs to be delineated. In addition, the panel should address the issue of whether the entity should be structured as a non-profit or profit corporation.

State role. The role of the state in the creation of a financial market exchange needs to be clarified and established. Early discussions on potential roles for the state include: creation of an enabling regulatory environment (perhaps as part of a financial "free trade zone");⁴ support for infrastructure for the creation and stability of an exchange -- including financial assistance for physical structures or operations; and promotion and marketing of the exchange.

The one point that became clear during our research of a Florida financial exchange was that Florida was a prime location for international capital markets. The level of interest this project generated in both the private and public sectors was high. The existence of similar research and projects being conducted by federal and international sources is also encouraging. The issue before Florida now is, will we follow the path taken by Chicago when they created the CBOE, and create the next innovative financial market. If it could happen in Chicago, why not in Florida?

³ One example of a hybrid type financial exchange is the International Financial Services Centre (IFSC) in Dublin, Ireland. Through the use of regulatory and tax incentives, the IFSC has secured a firm niche for itself in the global financial services sector. The world's leading banks and financial institutions, as well as numerous experienced lawyers, accountants and tax advisers, have established operations in Dublin to provide a myriad of financial services.

⁴ Using the International Financial Services Centre (IFSC) in Dublin, Ireland as an example of the type of regulatory and tax environment that could be created.

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| Type of Entity | Assets Traded | Trading Process | Contract Format | Price Determination | Market Depth | Members | Revenues |
|---------------------------------------|--|---|-----------------------------------|---|--|-------------------------------------|---|
| Stock Exchange | Listed Stock Certificates | Continuous flow of buy/sell orders based on auction style trading | Standard contract formats | Unique price determined at any given time | Consists of member brokers trading on their own account and for outside investors | Limited number of brokers | Fixed commissions and fees charged by brokers and by the exchange |
| Commodity Exchange | Limited range of commodities | Continuous flow of buy/sell orders based on auction style trading | Standard contract formats | Unique price determined at any given time | Consists of member brokers trading on their own account and for outside investors | Limited number of brokers | Fixed commissions and fees charged by brokers and by the exchange |
| Computerized Clearing Exchange | Finite range of goods and services | Discrete flow of buy/sell orders based on credit/debit procedure | Standard contract formats | Non-unique prices determined by negotiations | Consists of pool of member buyers and sellers | Unlimited and open membership | Fixed commission charged by exchange |
| Countertrade Exchange ¹ | Wide range of goods and services | Sporadic deals based on one- on-one negotiations | Nonuniform contract formats | Non-unique prices determined by negotiations | Consists of buyer and seller | Unlimited and open membership | Fixed commission charged by exchange |

Potential Financial Market Entities

¹ The International Countertrade and Currency Exchange, Inc. was created in 1987 as a non-profit organization. The exchange corporation still exists; however, actual operations have not occured due to lack of adequate capital for physical structures and initial operating costs.

Other types of exchanges that have been created, or are attempting to initiate operations in Florida include the Insurance exchange of the Americas (ceased operations due to concerns over fraud and other securities violations), and the Latin American Stock Exchange, Inc. (currently seeking funds to assist in feasibility and legal studies – exchange is a for-profit corporation).

Financial Market Exchange Meeting August 19, 1994 -- Tallahassee Florida

The following is a brief overview of some of the initial suggestions and ideas gamered from this meeting:

Background

* As a general note, Secretary Dusseau noted the need for more background information. Attendees of the meeting promised to gather information on their respective specialties.

* Approximately 70 to 80 foreign banks in Florida with assets of \$12 to \$15 billion. These banks conduct a lot of offsheet activity as well, including investment advice. A lot of investment and services not conducted in Florida.

* Florida has the largest number of registered broker/dealers of any state (100,000 to 140,000), and approximately 3000 registered broker/dealer firms in the state.

* Given these assets and Florida's tremendous advantage in location to new emerging markets, why hasn't Florida been able to take advantage.

Suggestions

* Wilbert Bascom noted that there was a small industrial infrastructure in Florida. Dr. Bascom also noted that the question of why the private sector has not responded to a need for a financial market exchange needs to be addressed.

* Dr. Bascom noted that an indepth study needs to be done to define what the appropriate niche is for a financial market exchange in Florida. Using Chicago as an example -- why was an exchange developed in Chicago?

* Nino Lucio suggested that there were four potential parts of a financial market exchange that could be pulled together:

- 1. Type of stock exchange
- 2. Investment banking center
- 3. Counter trade/barter center
- 4. General trade center

* Nino Lucio also suggested there were three roles for the state to play:

- 1. Regulatory changes -- make climate amenable to foreign industry groups.
- 2. Financial assistance -- financing for physical structures, etc.

3. Promotion and marketing of the entity.

* Don Saxon and Bill Jordan noted that the current securities market was saturated. The prospects for creating an exchange similar to those in Chicago, New York and California was slim to none.

Closing Remarks

* Setting up a meeting in Miami during September was suggested by Secretary Dusseau. Attendees noted that they would research existing infrastructure in Florida to provide background information.

Attendees--8/19/94 Tallahassee Meeting

| NAME | FIRM/AGENCY | PHONE NUMBER |
|--|---|--------------------|
| O'Bannon Cook | Florida Securities Dealers Ass'n | 561-0473 |
| AI Latimer | Florida Chamber of Commerce | 425-1200 |
| Allison Tant | Holland & Knight Representing the Securities Industry Ass'n | 224-7000 |
| Rich Null | Florida Int'l Affairs Commission | 922-0355 |
| Bill Jordan | Securities Industry Ass'n | (212) 618-0533 |
| Stu Bevis | Department of Commerce Division of Int'l Trade | 922-8830 |
| Wilbert O. Bascom | Comptroller's Office Div. of Int'l Banking | 488-9755 |
| Charles Dusseau | Department of Commerce | 488-3104 |
| Don Saxon | Department of Banking & Finance Division of Securities | æ 488-9805 |
| Stephen Hogge | House Tourism & Eco. Dev. | 488-9406 |
| Michael Rubin | House Tourism & Eco. Dev. | 488-9406 |
| Tim Watson | House Commerce | 488-7024 |
| Nino Lucio (attended by phone) | Countertrade & Currency Exchange | nge (305) 579-0012 |
| Andrew McIntosh (attended by phone) | Holland & Knight | (813) 227-6482 |

Financial Market Exchange Meeting September 9, 1994 -- Miami Florida

The following is a brief overview of some of the suggestions and ideas garnered from this meeting:

Suggestions:

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- * Generally, the concept of creating a financial market exchange was well received. The exact structure and niche of the exchange needs to be defined to determine whether it is viable.
- * Niches such as information databases and capital marketplaces were discussed as possible areas that could be addressed by an exchange.
- * Replication of financial and security services provide by offshore banks and the markets already located in New York would be difficult due to the stiff competition from these established institutions.
- * The group discussed capital market transactions with emerging markets, and how the state could help increase these transactions in Florida.
- * The example of the international financial zone in Ireland was discussed as a model that should be researched. There was general consensus by the group that a "financial free trade zone" was an idea that should be researched as a possible niche for the exchange.
- * The issue of the market/regulatory structure that would enhance the formation of a financial market exchange was also discussed. As a general rule, there are three broad issues that need to be addressed: (1) Anonymity, (2) Taxation, and (3) Regulation.

Closing Remarks

* James Whisenand noted that the chairman of the Sao Paulo Stock Exchange and the President of the Brazilian SEC would be in Miami in November. In addition, Miami would be the subject of an article in "Investor Quarterly" on international financial markets. House Committee staff stated that they would research the possibility of holding a House Tourism & Economic Development Committee meeting in Miami in November or December.

Attendees---9/9/94 Miami Meeting

| NAME | FIRM/AGENCY | PHONE NUMBER |
|----------------------|------------------------------|----------------|
| Charles Dusseau | Department of Commerce | (904) 488-3104 |
| John Geraci | Banque House | (305) 374-4433 |
| Tom Noonan | Fenicia Overseas | (305) 375-0065 |
| John Harriman | I.B.J. Schroder | (305) 530-2570 |
| Al Latimer | Florida Chamber of Commerce | (904) 425-1200 |
| Javier Martinez | Socimer | (305) 371-4848 |
| Silvana I. Carmelino | Socimer | (305) 371-4848 |
| Steve Phillips | E.D. \$ F. Man | (305) 539-9700 |
| Wilbert O. Bascom | Dept. of Banking and Finance | (904) 488-9755 |
| James D. Whisenand | Whisenand & Turner | (305) 375-8484 |

APPENDIX B

Options for Businesses to Procure Start-up or Expansion Capital - The Government's Role

Depending upon the size and economic liquidity of the company, a Florida business seeking capital from investors may take advantage of nation-wide and/or localized, state sanctioned options by going public; offering ownership rights to investors by selling shares of the company. In addition to going public, companies have the ability to acquire operating capital through venture capital firms. Venture capital is the long-term equity capital invested in new or rapidly expanding enterprises with an expectation of substantial capital gain. The most visible venture capital money comes from professionally- managed venture capital firms. These firms usually are funded by an informal network of investors that include: pension funds, insurance companies, endowment funds, foundations, bank holding companies and their affiliates, corporations, wealthy individuals, foreign investors and the venture capital professionals. Insurance companies, historically, have participated in the state's venture capital pool. However, they have chosen less risky investments, and avoided investing in businesses in the early stages of development.

(a) State Initiatives

Since the committee published its report in 1994, the Legislature has passed laws which strived to achieve the dual purposes of regulating certain industries, and promoting a "business friendly" environment. Two examples of these initiatives include Enterprise Florida and the Certified Capital Company (CAPCO) Act. In addition to these, the state securities statutes provide for private offerings and the SCOR (Small Corporate Offering Registration) program. Finally, in 1999 the Legislature created an Internet Task Force to develop policy recommendations to foster free-market development and beneficial use of advanced communications networks and information technologies in the state.

1. Enterprise Florida

Enterprise Florida is a not-for-profit public/private partnership established to guide the economic development activities of the state. While not a state agency, Enterprise Florida receives ninety-five percent of its funding from the state through a contract with the Office of Trade, Tourism, and Economic Development, which amount to approximately \$25/23 million per year. Enterprise Florida's performance measures relate mainly to recruitment, retention and expansion of companies, which is measured by jobs created/retained and investments in the state.

The Capital Development program provides financial services to the small business marketplace by matching business with the financial product provided by the appropriate financial service organization. Through referrals or direct program management, Capital Development provides Florida high growth businesses access to debt financing and venture capital resources to insure that these businesses have access to appropriate forms of capital to finance their growth. The goal, according to its website, is to develop Florida's financial

infrastructure to eliminate gaps in the marketplace and to deliver products in a seamless fashion via partnerships with Florida's economic development organizations.

2. The Certified Capital Company Act

In 1998, the Florida Legislature passed the Certified Capital Company Act (Chapter 98-257, LOF), to "...stimulate a substantial increase in venture capital investments in this state which ... will make investments in new businesses or in expanding businesses ... to contribute to employment growth, create jobs which exceed the average wage for the county in which the jobs are created, and expand or diversify the economic base of the state."¹ Under the act, corporations, partnerships, or limited liability companies were invited to file for certification as a certified capital company (CAPCO) under the bill. CAPCOs certified by the Department of Banking and Finance could receive contributions of capital from insurers, who in turn would receive a credit against state premium taxes for each dollar contributed to a CAPCO. The aggregate amount of premium tax credits which may be allocated for the life of this program is capped at \$150,000,000. The total amount of tax credits which may be utilized by certified investors under the act shall not exceed \$15,000,000 annually. Investors who contribute to a CAPCO may utilize premium tax credits at a rate not to exceed 10 percent annually if the CAPCO invests at least 20 percent of its certified capital in qualified businesses beginning with premium tax filings for calendar year 2000. CAPCOs must make qualified investments within the following guidelines:

(a) By December 31, 2000, at least 20 percent of original certified capital must be invested in qualified businesses;

(b) By December 31, 2001, at least 30 percent of original certified capital must be invested in qualified businesses;

(c) By December 31, 2002, at least 40 percent of original certified capital must be invested in qualified businesses;

(d) By December 31, 2003, at least 50 percent of original certified capital must be invested in qualified businesses, and at least 50 percent of these qualified investments must be invested in early stage technology businesses. If these investment benchmarks are not met the CAPCO would risk decertification. Decertification could result in the forfeiture or recapture of some, or all, of the premium tax credits earned by insurers.

Three separate firms were certified by the DBF to operate as CAPCOs,² and they each have until December 31, 2000, in which to invest at least 20 percent of their certified capital in qualified businesses to remain certified. At this early stage there is no reliable data available to suggest how Florida businesses will benefit from this new program. One CAPCO, Advantage Capital, which has \$82 million in capital and must invest at least \$16 million by December 31, 2000, reported that it plans to focus on deals in the \$1 million to \$4 million range.

²The three firms are: Advantage Capital Florida Partners, LP, in Tampa; BOCF, LLC (Bank One Capital Florida), also in Tampa; and, Wilshire Partners, LLC, in Miami.

¹Section 288.99(2), F.S. (1998 Supp)

3. State Securities Statutes

a. Private Offering

Pursuant to s. 517.061(11), F.S., an issuer may sell its own securities without registration to the DBF provided:

- There are no more than 35 purchasers;
- General advertising is not used to promote the sale;
- The issuer discloses, or offer to disclose, to each purchaser all material information;
- No one is paid a commission for the sale; and,
- Each purchase is voidable within three days of the transaction.
 - b. Small Corporate Offering Registration (SCOR)

Pursuant to s. 517.081(2), F.S., the DBF adopted a simplified offering circular for use by corporations seeking to raise \$5 million or less. Although the statute is not specific, it is the opinion of the DBF that either a broker/dealer, or an issuer/dealer, may sell the securities proposed under the offering.

The use of the simplified form is not permitted when the issuer is subject to disqualification under Regulation A or has committed certain acts related to fraudulent behavior, or the form would not provide full and fair disclosure of material information, such as when the specific business cannot be described. Those corporations electing to use the simplified offering circular will be required to report certain financial information to the Department of Banking and Finance for a period of 5 years.

Over forty states accept a simplified form called the Small Corporate Offering Registration (SCOR) Form or U-7. This form was designed in 1989 by the North American Securities Administrators Association, Inc. The SCOR Form is in a question and answer format for the purpose of disclosing to the investors specific information that is important in small offerings.

4. The Information Service Technology Development Task Force

According to the *Cyberstates Update*, compiled by the American Electronics Association, high tech industry is already having a profound effect on the economy in Florida. Based on 1996 data, Florida ranks sixth in high tech employment with 184,456 jobs, 6,517 businesses, a payroll of \$7.8 billion, and an average wage of \$42,148 (68% higher than the average private sector wage in Florida of \$25,045). Thirty-five of every one thousand private sector workers in Florida are employed by high tech firms. Significantly more people are employed by high tech industries in Florida than are employed in agriculture. High tech exports account for 46% of Florida's total exports (\$12.7 billion of \$27.6 billion total).

In 1999, the Legislature passed House Bill 2123 (Chapter 99-354, Laws of Florida),

which established an Information Service Technology Development Task Force ("task force") in the Department of Management Services for two years for the purpose of developing policy recommendations that will foster free-market development and beneficial use of advanced communications networks and information technologies within Florida. The task force will:

- develop overarching principles to guide state policy decisions with respect to the free-market development and the beneficial use of advanced communications networks and information technologies in Florida
- identify factors that will affect whether Internet-related technologies will flourish in Florida
- develop policy recommendations for each factor identified by the task force.

The task force is directed to report to the Governor, the President of the Senate and the Speaker of the House by February 14, 2000, and 2001 outlining principles, policy recommendations, and any suggested legislation. The task force may develop and publish other documents throughout the year.³

Despite the importance of the technologies, Florida, like most states, has not yet taken a comprehensive approach to promoting the free-market development and use of advanced communications networks and information technologies. However, Florida is a leader in making governmental information available on the web and development of web-based delivery of governmental services is ongoing in the state.

³The task force will be constituted as follows: the Attorney General; the Executive Director of the Florida Department of Law Enforcement; the Chancellor of the State University System; the Commissioner of Education; the Executive Director of the State Board of Community Colleges; the Director of the Office of Tourism, Trade and Economic Development; the Executive Director of the Department of Revenue; a representative of the Florida Council of American Electronics Association; a representative of the Florida Internet Providers Association; a representative of the United States Internet Council; the Chair of the State Technology Council; the Secretary of the Department of Management Services; and appointees by the Senate President, the Speaker of the House, the Minority Offices of both Houses, and the Governor.

APPENDIX C

Before the question of whether Florida could benefit from a physical exchange in the state can be addressed, it is necessary to examine the current (i.e., as of this particular writing) state of the market and its myriad of delivery systems; finding a niche¹.

(a) The "Traditional" and "Hybrid" Stock Exchanges

Traditionally, the two primary national stock exchanges are the New York Stock Exchange (NYSE) and the American Stock Exchange (AMEX). The NYSE, which is also known as the Big Board or The Exchange, is the second oldest in the United States, founded in 1792. It is located on Wall Street in New York City and is famous for its still active "trading floor." The AMEX was purchased by NASD, or the National Association of Securities Dealers, the parent company of the Nasdaq, in November of 1998. The Nasdaq is an electronic quotation system that provides price quotations to market participants about the more actively traded common stock issues in the Over-the-Counter (OTC) market. Until recently, trading activity on The Nasdaq Stock Market was quotation-driven: Nasdaq Market Makers competed for investor orders by displaying their quotations - or offers to buy and sell stock - on screen, and dealers can act on their own behalf ahead of their customer's orders. In addition, dealers are not assembled in one central location but instead work from offices located all over the country. Using phone lines and PCS, dealers conduct their transactions from a trading desk as opposed to the open floor market. On more traditional markets, trading activity is likely to be order-driven, instituted by the flow of incoming orders to buy and sell stock. Nasdaq is now both quotation- and orderdriven, and has evolved to incorporate features of what is sometimes referred to as a "hybrid" market.

There are five regional stock exchanges: the Chicago, Pacific, Philadelphia, Boston, and Cincinnati Exchanges. Historically, the regional exchanges were "niche markets" and helped fill the investing needs not satisfied by the New York exchanges. The smaller, regional markets were able to provide a central place for local businesses to raise capital and trade their shares. Today, regional exchanges still trade companies located within their geographic area, but most of their trading involves stocks listed on the primary exchanges.

Table 1 outlines and compares the primary, and the regional exchanges, located in the

¹Barron's Finance and Investment Handbook (5th Ed.), defines "niche" as a particular specialty in which a firm has garnered a large market share. Often, the market will be small enough so that the firm will not attract very much attention. Stock analysts frequently favor such companies, since their profit margins can often be wider than those of firms facing more competition.

| Table 1 compares the primary, and the regional exchanges, located in the country, by exchange type, location, trading, volume, and listing requirements | | | | | | | | |
|---|--|---|------------------------------|------------------------------------|---|--|--|--|
| Name of Entity | Type of Exchange | Location and date of origin | Physical Trading Floor | Electronic Trading Available | # of Exchange Employees | Volume - in Equities | Minimum listing requirements (separate tiers are designated as I and II) and miscellaneous information volunteered by reps. | |
| New York Stock Exchange | Agency Auction Market | NY, NY 1792 | Yes | Yes | Between 1,500 and 1,600 | The NYSE has 3,000 companies listing more than 176 billion shares of stock, valued at over 7 trillion dollars | 2,000 round-lot holders (holders of a unit of trading – generally 100 shares) or a total of 2,200 Shareholders; Market value of public shares: I: \$60 million; or, II: \$100 million | |
| American Stock Exchange | Agency Auction Market | NY, NY Between 1860 to 1920. The AMEX has been at its present location since 1921 | Yes | Yes | 200 - This number is liquid due to the purchase of AMEX by NASDAQ in November, 1998. | Average daily volume for 1999 (as of 6/30/99): 32 million shares Average daily volume for 1998: 29 million shares Total AMEX market value (on 7/19/99): \$130 billion | \$4 million in stockholder equity plus \$750,000 pre-tax income previous 2 years | |
| NASDAQ | Hybrid of an Agency Auction Market and a Dealer Market ³ | NY, NY, 1971 | No | Yes | 1044 | Average daily volume for 1999 (as of 6/30/99): 909 million shares; Average daily volume for 1998: 801 million shares; Total Nasdaq market value (on 7/19/99): \$3 trillion Total Nasdaq trades (on 7/19/99): 1.3 million | I: \$6 m net tangible assets; \$1 million net earnings for previous 2 years; II: \$18 million net tangible assets | |

country, by exchange type, location, trading, volume, and listing requirements.²

³The Nasdaq website describes itself as an electronic screen exchange with Market Makers, which are individual dealers who commit capital and openly compete with one another for investors' buy and sell orders, and with Electronic Communications Networks (ECNs), which are trading systems which bring additional customer orders into Nasdaq. According to Nasdaq, it's trading information is simultaneously broadcast to more than 500,000 computer terminals worldwide. This allows all Nasdaq participants equal access to the market and to market information through a simultaneous broadcast of quotes and orders.

²The minimum listing requirements for companies is covered in a very superficial manner in the chart. Most exchanges have qualitative, as well as quantitative requirements prior to listing with the exchange. Such requirements include minimum number of public shares, a minimum stock price and market value, a minimum number of stockholders, working capital requirements and minimum years in operation. Among the benefits received by listing with an exchange, a company's securities are automatically exempted from blue sky requirements in other states. For instance, listing with the NYSE exempts a company from filing for exemption in all 50 states. The Boston Exchange provides for an exemption in 13 states.

| Name of Entity | Type of Exchange | Location and date of origin | Physical Trading Floor | Electronic Trading Available | # of Exchange Employees | Volume - in Equities | Minimum listing requirements (separate tiers are designated I and II) and miscellaneous information volunteered by reps. |
|-----------------------------------|--|---|--|------------------------------------|-------------------------------------|--|---|
| Boston Stock Exchange | Agency Auction Market | Boston 1834 (two locations) and NY, NY | Yes w/ 100 floor brokers | Yes, through brokers | Approx 100 | The BSE currently trades approximately 2,000 listed equities. BSE trades on average 16 million shares daily through an average of 2,000 trades. In 1998, 2.679 billion shares valued at \$113 billion were traded. | \$3 m net tangible assets; \$100,000 net earnings previous years or \$2 million net tangible assets The BSE used to specialize in trading New England companie only but now 95% of its listings are NYSE listed companies |
| Chicago Stock Exchange | Agency Auction Market | Chicago 1882 | Yes | Yes, through brokers | 200 | The CSX has more than 4000 issues available for trading. In 1998 over 9 billion shares traded and 16 million trades executed at a value estimated over \$298 billion. The CHX averages approximately 89,908 trades representing 39,379,236 shares valued at approx. \$1.5 billion daily. | I - \$4 net tangible assets plus\$400,000 net income in previous 2 years. II - \$2 million tangible net asset plus "demonstrated ability to produce adequate net earnings." The CHX offers more than 4,00 NYSE, AMEX, and NASDAQ listings. Only floor based aucti that trades NASDAQ |
| Philadelphia Stock Exchange | Agency Auction Market | 1790, Philadelphia The oldest in America | yes - 3 floors equity, equity and index options, and foreign currency | No | 362 | The PHLX lists 45 companies. The exchange trades on average 5.7 million shares valued at \$230 million. In 1998, the PHLX traded 1.4 billion shares with a value estimated at %58 billion. | I - net assets from \$4 million (a to \$12 million (b), net income o at least \$750,000 in previous year. II - net assets of \$1.5 million (a) to \$2 million (b), net income of least \$100,000 in last 3 or 4 yea The PSE trades local companies and some NYSE as well as NASDAQ companies |
| Pacific Stock Exchange | Agency Auction | 1882, San Francisco, CA. The PCX also has an office in Los Angeles | Yes. Equities floors in SF and LA, options floor in SF. | Yes, through brokers | SF 390 <u>LA 90</u> Total 480 | The PCX trades more than 2,600 issues, including common and preferred stocks, corporate bonds, warrants, and American Depositary Receipts (ADRs). In 1998, the PCX traded 3.8 billion shares valued at \$ 144 billion The PCX trades on average 15 million shares daily. | I - Net worth of \$4 million (a) o \$12 million (b) with net income of \$400,000. II - \$2 million net tangible asset with \$100,000 net income or a to worth of \$8 million ************************************ |
| Cincinnati Stock Exchange | Exchange membership is limited to registered broker/dealers. | Cincinnati 1885. Today, the Exchange is headquartere d in Chicago, IL | Originally, yes. Replaced with electronic trading in 1975 | Yes | 25 | Average daily, 1998 shares traded - 7.1 million 13,132 average daily trades | This exchange does not list stor- instead, specialists recommen issues for trading. Multiple specialist can be a market make in any one given issue. |

(b) Electronic/Internet Exchanges

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⁴Only broker/dealer members and their associated persons are eligible to execute trades on the CSE. No other individuals, businesses or corporations can apply for membership or use the Exchange to execute trades.

In addition to the primary traditional, hybrid, and regional exchanges, on-line trading through brokerage-sponsored websites located on the Internet has quickly filled an electronic "niche" in the investment landscape. A statement made by Chairman Arthur Levitt, Securities and Exchange Commission, on January 27, 1999, offers this projection for the future of on-line brokering:

"Every day, more and more Americans are investing in the stock market, and many of them are doing so through the Internet. On-line brokerage accounts account for approximately 25 percent of all retail stock trades. And, the number of on-line brokerage accounts is expected to exceed 10 million by the end of the year."

How many Americans are taking advantage of this technology? The SEC Chairman, Arthur Levitt, offered this estimate on May 4, 1999, before the National Press Club:

"By one account, more than seven million Americans trade on-line -- comprising 25 percent of all trades made by individual investors. In 1994, not one person traded over the Internet. In the next few years, the number of on-line brokerage accounts will roughly equal the metropolitan populations of Seattle, San Francisco, Boston, Dallas, Denver, Miami, Atlanta and Chicago, combined."

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In addition to the services offered by exchanges and brokerage firms in this country, individuals have the opportunity to investigate investments in other countries by visiting foreign exchange-sponsored websites via the Internet.⁵ Keeping up with the demands of the market that is fueled by technological innovation may be the ultimate challenge for exchange/brokerage survival. Of late, competing companies searching for a way to capture dwindling market share in this environment are responding much like the financial institutions in the 1990's, with consolidation and buy-outs. For instance, in July of 1999, Goldman Sachs Group Inc., bought an electronic stock-trading company, Hull Group Inc., a Chicago-based company that buys and sells futures, options and stocks electronically on 28 exchanges in nine countries.

Also occurring in July, E*Trade, one of many competing Web Brokers, indicated an intent to purchase TIR Holdings Limited, which holds seats on multiple stock exchanges around the world. E*Trade reports that its TIR purchase would put them into the game for equity, fixed income and currency markets in more than 35 countries.⁶

At the close of the month of July, Instinet Corporation, the world's largest agency

⁵The website www.latinvestor.com, for instance, provides 11 separate links to exchanges in seven Latin American countries. The search engine *Yahoo*! displays an impressive list of 107 separate stock exchange websites, from Alberta, Canada, to Zimbabwe.

⁶Source: Company Release from PR NewsWire, http://biz.yahoo.com/prnews/990713/ca_e_trade_1.html

brokerage firm which trades in over 40 global markets daily and is a member of 18 exchanges in North America, Europe, and Asia, took a 16.4 percent stake in Archipelago, a two-year old, privately held group that runs a computer matching system for stock orders. It plans to seek regulatory approval to become a full-fledged stock exchange.

1. The Electronic Call Auction

Actually a subset category for electronic exchange options, the Arizona Stock Exchange (AZX),⁷ formed in 1990, was the first to modernize the concept of a traditional call market by connecting all participants to a centrally-located computer. The AZX uses telecommunication and computer technology to overcome the crowding problem inherent with physical call auctions. Bringing everyone together electronically not only makes potentially huge call auctions possible, but enables an equal application of auction rules, regardless of how many participants there are or how physically far they are from the "auctioneer."

The AZX is an example of the importance of discovering a securities "niche" that has not yet been filled by existing systems, but that alone is not a formula for success. Although the Exchange has been operational for over eight years, has not yet shown a profit for its operations despite its success in establishing market share for its calls. One reason for this, according to its president, is the fact the SEC prohibited the Exchange from staging calls during regular trading hours (when the NYSE was open). The Exchange recently received permission to stage three electronic calls daily during regular trading hours.⁸

(c) After-hours Trading

Regular trading hours for the NYSE and the Nasdaq is 9:30 a.m., to 4:00 p.m., EST. On the West Coast, the daily close of regular trading comes at 1:00 p.m. Between 20 to 25 percent of all online trades by individual investors are placed after normal trading hours. To meet the demand for after-hours trading, Discover Brokerage and Dreyfus Brokerage Services started offering an extended session Monday through Thursday, from 6:00 p.m. to 8:00 p.m. Eastern time -- or 3:00 p.m. to 6 p.m., Pacific time, on an ECN named MarketXT. MarketXT trading sessions begin after end-of-day corporate announcements, and trading may take place only on the Internet -- no phone orders will be taken.

⁷The AZX has a total of 8 employees/officers, with 4 part-time programmers/system developers spread between three offices in Phoeniz, AZ, San Francisco, CA, and New York, NY. The exchange transacts approximately 100,000 to 500,000 shares daily, with the highest, one-day volume of 2.5 million shares. The AZX website may be found at: http://www.azx.com/

⁸According Steve Wunsch, AZX's president, fixed-time call markets operate very differently from the prevalent continuous markets. AZX spent an inordinate amount of time seeking authority to operate, while regulators decided whether their operations could be or needed to be made consistent with the rules that were designed for continuous markets.

The E*Trade Group also offers trading from 4:00 p.m. to 6:30 p.m., through Instinet. Reacting to this development, officials at the NYSE and Nasdaq announced that they too, would offer after-hour trading sometime next year.

(d) The Cost of Establishing⁹ and Maintaining an Exchange

In theory, a personal computer in a basement could serve as an exchange, provided one received regulatory approval, or exemption, by the SEC. In contrast, one could spend upwards to \$50 million to create a state-of-the-art electronic exchange. In order to succeed in either scenario, however, one needs to capture market fluidity - a critical mass of investors that choose to use your system over another system already in existence. According to Steve Wunsch, president of the Arizona Stock Exchange, in today's market even if you build it, they may not come.

According to the NYSE, self-regulation accounts for much of an exchange's annual maintenance costs. For example, the NYSE utilizes a computerized system called "Stock Watch" that automatically flags unusual volume or price changes in any listed stock, helping the Exchange guard against manipulation and insider trading. In addition, the NYSE protects customer accounts by monitoring the financial and operational integrity of its member firms. To ensure that the member firms have sufficient operating capital, the NYSE performs an annual audit, as well as several other examinations throughout the year. In addition, member firms must file a monthly report and a detailed quarterly analysis on its financial and operating activities. These submissions are performed via an automated financial surveillance system, which permits constant evaluation and attempts to identify unusual trends and patterns within the firm. While this particular information is available to anyone, the actual cost of these services is not available for dissemination to the public.

The costs of maintaining stock exchanges vary with each exchange, and only a few exchanges posted their 1998 annual report on their websites. Exchanges that did not post their annual report were unable to provide figures for annual maintenance costs when interviewed by staff. Table 2 compares the annual expenses incurred by the Chicago, New York, Pacific, and Philadelphaia Exchanges, for 1998.

| Table 2. Comparing the 1998 annual expenses for the Chicago, New York, Pacific, and Philadelphaia Exchanges. | | | | | |
|--|--------------------------|--|--|--|--|
| Exchange | Annual expenses for 1998 | | | | |
| Chicago Stock Exchange | \$ 38.7 million | | | | |

⁹Not one stock exchange contacted by staff had any information regarding the "start-up" costs of the particular exchange. Reasons included a lack of documentation for exchanges that started proffered reasons included a lack of records documenting initial costs, and the fact that the exchanges grew over time. The best information was expense costs gleaned from annual reports.

| Table 2. Comparing the 1998 annual expenses for the Chicago, New York, Pacific, and Philadelphaia Exchanges. | | | | | |
|--|--------------------------|--|--|--|--|
| Exchange | Annual expenses for 1998 | | | | |
| New York Stock Exchange | \$550 million | | | | |
| Pacific Stock Exchange | \$ 75.9 million | | | | |
| Philadelphia Stock Exchange | \$ 39.1 million | | | | |

Testimony of Mary L. Schapiro President NASD Regulation, Inc.

before the

Permanent Subcommittee on Investigations Senate Committee on Governmental Affairs

on the

Securities Day Trading Industry

September 16, 1999

I am Mary L. Schapiro, President of NASD Regulation, Inc. NASD Regulation, Inc. and our parent, the National Association of Securities Dealers, Inc. (NASD®), would like to thank the Subcommittee for this opportunity to testify on the securities day-trading industry. My testimony today will address the issues that you identified in your invitation letter to this hearing. Those issues deal with the general characteristics of day trading, risks involved, our examination findings, our recent rule proposals, and any needed legislation. By way of summary, NASD Regulation believes that day trading is a legitimate trading strategy, and to the extent it is conducted by individuals capable of understanding and assuming the risks involved with such a strategy, we do not intend to discourage such activities. However, with that said, NASD Regulation sees day trading as a highly risky form of trading that deserves close investigation and study by regulators. We have been addressing the risks that we have seen through a combination of continued dissemination of information to our members and investors, focused examination and enforcement efforts, and the development of new NASD rules and other policy initiatives. Given our current experience, we do not now see a need for new legislative initiatives, but we intend to continue to work together with the SEC and the states on these important issues, and will promise to inform you if we perceive a need for new legislation to protect investors and our markets.

The NASD

Let me briefly outline the role of the NASD in the regulation and operation of our securities markets. Established under authority granted by the 1938 Maloney Act Amendments to the Securities Exchange Act of 1934, the NASD is the largest self-regulatory organization for the securities industry in the world. Virtually every broker-dealer in the U.S. that conducts a securities business with the public is required by law to be a member of the NASD. The NASD's membership comprises 5,600 securities firms that operate in excess of 75,000 branch offices and employ more than 600,000 registered securities professionals. The NASD is the parent company of NASD Regulation, Inc. (NASDR), the Nasdaq Stock
Market, Inc. and the American Stock Exchange (AMEX). NASDR and Nasdaq operate under delegated authority from the parent, which retains overall responsibility for ensuring that the organization's statutory and self-regulatory functions and obligations are fulfilled. The NASD is governed by a 27-member Board of Governors, a majority of whom are non-securities industry affiliated. The NASDR subsidiary is governed by a 10 member Board of Directors, balanced between securities industry and non-industry members. Board members are drawn from leaders of industry, academia, and the public. Among many other responsibilities, the boards, through a series of standing and select committees, monitor trends in the industry and promulgate rules, guidelines, and policies to protect investors and ensure market integrity.

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NASD Regulation

NASD Regulation is responsible for the registration, education, testing, and examination of member firms and their employees. In addition, we oversee and regulate trading on Nasdaq and the over-the-counter markets.

The 1,600 member staff of NASDR is devoted exclusively to carrying out the NASD's regulatory and enforcement responsibilities. NASDR carries out its mandate from its Washington headquarters and 14 district offices located in major cities throughout the country. Through close cooperation with federal and state authorities and other self-regulators, overlap and duplication is minimized, freeing governmental resources to focus on other areas of securities regulation.

NASDR Enforcement brings cases against members and their associated persons based on information developed internally by periodic examination of member firms, broker terminations for cause, market surveillance, and referrals from our arbitration, corporate financing, and advertising programs. It also uses external sources, including federal and state agencies, customer complaints, news media, and anonymous tips. Enforcement investigations gather information through on-site examinations, document requests, trading activity analysis, and customer and member interviews. If cases are not settled, they go to formal hearings for disposition, and may be appealed to the NASD's National Adjudicatory Council, the Securities and Exchange Commission (SEC), and the US Courts of Appeals. In 1998 alone, NASDR initiated more than a thousand disciplinary cases and suspended or barred more than 650 individuals from the industry.

While our regulatory jurisdiction is limited to our broker-dealer member firms and their associated persons, our examinations, surveillance, and regulatory intelligence alert us to illegal conduct outside of our jurisdiction. We routinely refer such findings to the SEC, the states and criminal prosecutors for their action. In recognition of the resources we were devoting to assisting prosecutors in bringing securities cases, we formed a Criminal Prosecution Assistance Group in April 1998. Since the beginning of this program, we have provided assistance in more than 100 criminal investigations and prosecutions around the country.

NASDR is responsible for developing rules that govern the conduct of the brokerage industry in areas as diverse as sales practices, advertising, trading and underwriting. Rulemaking

is a widely participatory process with broad input from industry members, trade associations, other regulators, and the public. By the requirements of the Securities Exchange Act of 1934, NASDR rules do not become final until they are approved by the SEC.

NASDR has examination responsibilities for all of its 5,600 members. In addition to special cause investigations that address customer complaints and terminations of brokers for regulatory reasons or other cause, NASDR has established a comprehensive routine cycle examination program. This program is carried out through a regulatory plan that focuses each District's examination efforts on the firms, individuals, issues and practices that present the greatest regulatory challenges and concerns. Annual on-site inspections are conducted of high priority areas. In addition, NASDR has established an examination frequency cycle for all of its members, which is based upon the type of business conducted by the member, the scope of that business, the extent of customer exposure, method of operation, past regulatory history, and other factors. During 1998, 2,606 main office routine examinations were completed and 5,671 customer complaints and 3,535 terminations for cause were investigated.

NASDR shares responsibility for developing and administering qualifications testing for securities professionals. All sales and supervisory persons associated with NASD member firms must demonstrate a requisite understanding of the products offered by their firms, as well as regulatory requirements. Individuals acting in a management capacity must pass the appropriate principal's examination, while sales personnel must demonstrate specific understanding of the products they intend to sell and the regulations that govern those products. In 1998, NASDR administered 267,000 examinations for 29 different qualification areas.

The Nasdaq Stock Market

The Nasdaq Stock Market, Inc., develops, operates, and regulates a variety of marketplace systems and services. Nasdaq is the largest electronic, screen-based stock market in the world, capable of handling trading volume in excess of one billion shares a day. Today, more than one-half of all equity shares traded in the United States each day are traded on Nasdaq.

The American Stock Exchange

The American Stock Exchange is the nation's second largest floor-based securities exchange and is the only U.S. securities exchange that is both a primary market for listed equity securities as well as a market for equity options, index options, and equity derivatives.

Day Trading and On-Line Trading

A recent outgrowth of technological advances in the securities industry has been the increase in popularity of day trading. The term "day trading" refers to a trading strategy where an individual buys and sells the same security in an attempt to profit from very small movements in the price of a security over a short period of time. Although the term is commonly used to refer to aggressively buying and selling a group of securities in a single day (or selling short and then buying to cover the short position), there are varying degrees of day trading currently being

employed. For example, some individuals "day trade" in that they execute purchase and sale (i.e., "round-trip") transactions in a single day; however, they limit such activities to only one or two round-trip transactions in a day, and only on an occasional basis. These individuals typically do not rely on their day-trading activities as their primary source of income and may conduct such activities from computers located at their places of regular employment or their homes. In addition, although as a practical matter, day trading typically requires electronic delivery of orders, day trading can include orders transmitted by non-electronic means, such as by telephone.

However, the term "day trading," as commonly used within the industry, generally refers to the trading activities of the "professional day trader," that is an individual who conducts intra-day trading in a focused and consistent manner, with the primary goal of earning a living through the profits derived from this trading strategy. This form of day trading requires aggressive and frequent securities trading and, as a result, generally requires a significant amount of capital, a sophisticated understanding of securities markets and trading techniques, and high risk tolerance. Day traders typically have a relationship with a brokerage firm that provides them with more direct access to the markets as well as access to real-time trading and related information.

Another outgrowth of technological advances in the securities industry has been on-line trading. Only a few years ago, most individuals had little or no exposure to on-line trading. Individuals with on-line accounts were more likely to work in the financial or securities industries or to have engineering or other technological backgrounds. Recent reports, however, indicate that there are several million on-line trading accounts in the United States. Access to on-line trading resources has enabled investors to be better informed about their own portfolios, as well as specific trends or news in the markets.

While there are differing opinions of what constitutes "on-line trading," the term generally refers to accessing and using securities trading resources via the Internet. On-line trading activities can range from occasionally buying or selling securities on-line, to aggressively day trading on location at a brokerage firm. As requested, my testimony today focuses on issues relating to day trading specifically, rather than on-line trading generally. Day-Trading Firms

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While many factors have contributed to the increase in day trading, one significant factor is recent rapid advances in technology, including the widespread availability of the Internet. The Internet has provided individuals with quick, easy, inexpensive access to the securities markets and information and this, in turn, has encouraged greater participation in the markets by individuals not employed in the securities industry. As a result, individuals have been trading their accounts far more actively than in the past.

Over the past few years, brokerage firms began to consider how best to incorporate technological advances that could impact customer trading activities into their own business model. Certain brokerage firms began to focus primarily, or even exclusively, on promoting day-trading strategies to individuals. These firms generally advertise on the Internet and elsewhere as "day-trading" firms or otherwise promote their execution and other services as

desirable for "serious" or "professional" traders. These firms often provide reduced transaction costs through lower commissions and other margin-related costs. In addition, many of these firms offer training on day-trading techniques, as well as provide computer facilities, high speed access lines and software packages specifically designed to support and accommodate day trading. Although day trading can be conducted using the facilities of any brokerage firm, most day trading occurs at these types of firms due, in part, to their programs that offer more direct access to the markets, relatively favorable transaction costs and access to lenders for margin purposes.

The Use of Margin by Day Traders

Day traders often use margin to leverage their trading activity. Day traders typically do not carry securities positions overnight and therefore do not face standard maintenance margin requirements. However, they are subject to special margin requirements under NASD rules that are calculated based on the largest open position held by the day trader during the day. For example, assume that a trader starts the day with \$50,000 cash, makes 20 buys and sells, and ends the day flat (neither long or short the stock) with \$50,000 cash. During the day, the largest open position at any given time held by the trader was 4,000 shares of a \$25 stock, and 1,000 shares of a \$50 stock (\$150,000). Even though the day trader ends the day flat, he will receive a margin call for 50% of the \$150,000, less the equity in his account, or \$25,000.

The use of margin by day traders can result in financial losses beyond their initial investment. For example, assume that a day trader begins the day with \$50,000 cash in her account. She purchases 5,000 shares of a \$20 stock (\$100,000) and has therefore received a margin loan of \$50,000. The stock price drops to \$9 per share. The day trader sells the stock and receives the proceeds from the sale of \$45,000. As a result, she has lost her initial \$50,000 investment and owes an additional \$5,000.

Regulatory Response to Day Trading

The growth in day-trading activities has raised unique investor protection issues and concerns. Day trading is a risky, speculative activity, and even the most experienced day traders may suffer severe and unexpected financial losses, even beyond their initial investment. At a minimum, day trading requires sufficient capital and a sophisticated understanding of the markets and market dynamics. It also requires an expertise in identifying securities to trade and in accurately timing purchases and sales.

Given these risks, the NASD, SEC and state securities regulators have worked together to address the investor protection concerns in this area. Our approach has been three-pronged, relying upon: (1) the dissemination of advisories and other information to NASD member firms reminding them of their obligations under existing rules; (2) focused examinations, investigations and follow-up enforcement actions; and (3) the institution of rulemaking initiatives.

(1) Advisories Concerning Obligations under Existing Rules

In response to the increase in day-trading and other on-line trading activities, the NASD has published the following Notice to Members (copies of which are attached, along with any related NASDR press release):

Notice to Members 99-33, NASD Regulation Advises Members about Maintenance Margin Requirements for Certain Volatile Stocks and Solicits Comment on Margin Practices (April 1999)

This Notice provides members and investors with information about current margin requirements and steps taken by the industry to increase maintenance margin requirements for certain volatile stocks. It also solicits comment on issues relating to the use of margin during volatile market conditions, as well as the use of margin by individuals engaging in day-trading activities. It warns that a sudden change in the market value of a security may result in an unexpected margin call, and a customer's failure to meet the call may cause the firm to liquidate the securities in the account.

The Notice also discusses issues regarding investor protection and disclosure practices arising as firms become involved in the extension of credit between customers. It notes that in certain instances, customers loan funds to other customers to finance securities trades, or guarantee each other's margin accounts. Member firms sometimes arrange for these loans or guarantees between customers or arrange loans for customers from other sources. The Notice also advises that customers incur additional finance charges when credit is arranged, and they face additional credit risks when extending credit to other customers.

NASD Notice to Members 99-12, NASD Regulation Issues Guidance Concerning the Operation of Automated Order Execution Systems during Turbulent Market Conditions (February 1999)

In light of the recent intra-day volatility and significant surges in trading volume with respect to certain issues, particularly Internet-based issues, this Notice was issued to provide members guidance concerning the operation of their order execution systems and procedures during extreme market conditions. It describes factors that members should consider in evaluating whether modifications to their order execution algorithms or procedures during turbulent market conditions are consistent with their duties of best execution.

NASD Notice to Members 99-11, NASD Regulation Issues Guidance Regarding Stock Volatility (February 1999)

This Notice recommends that firms provide adequate, clear disclosure to customers about the risks arising out of evolving volatility and volume concerns and any related constraints on firms' ability to process orders in a timely and orderly manner. Specifically, it recommends that firms consider disclosing that high volumes of trading at the market opening or intra-day may cause delays in execution and executions at prices

significantly away from the market price quoted or displayed at the time the order was entered. It further notes that firms should consider explaining in detail the difference between market and limit orders and the benefits and risks of each. It also advises that firms consider alerting customers that they may suffer market losses during periods of volatility in the price and volume of a particular stock when systems problems result in the inability to place buy or sell orders. In particular, it notes that customers trading on-line may have difficulty accessing their accounts due to high Internet traffic or because of systems capacity limitations.

The Notice also summarizes current practices that certain on-line firms have implemented in response to the recent market volatility. These practices include: (i) restrictions on on-line trading during initial public offerings; (ii) increased margin requirements for certain volatile stocks; (iii) enhanced investor education on market volatility; and (iv) the use of pop-up or splash screens (i.e., pages that a customer must view when entering a firm's web site) to disseminate important information to customers.

Although the discussion in this Notice relates primarily to on-line trading activities, many of the risks outlined are relevant to day-trading activities, particularly when a day-trading strategy is implemented through an on-line brokerage account.

NASD Notice To Members 98-102, Calculating Margin for Day-Trading and Cross-Guaranteed Accounts (December 1998)

This Notice discusses margin requirements under Regulation T and NASD Rule 25202 for day-trading and cross-guaranteed accounts. The Notice addresses some of the more frequently asked questions regarding the application of Regulation T and Rule 2520 to these types of accounts and provides guidance on common scenarios and questions relating to marginable equity securities.

(2) Examination and Enforcement Activities

NASD Regulation is engaged in a cooperative day-trading examination initiative with the SEC. Beginning last Spring, the staffs of NASDR and the SEC launched a broad-based, coordinated examination program of day-trading firms. As part of that effort, NASDR examined 22 day-trading firms that varied significantly in size and makeup. Fifty-five NASDR examiners received special training in the intricacies of day trading. Customized examination modules were developed and used to implement this special program. The two largest firms examined had 1,500 or more day-trading accounts, while at six of the firms, fewer than 20 of its customers were day trading. At about half of the firms examined, day-trading activity accounted for nearly all of the firm's business.

During these specialized examinations, several potential problem areas surfaced, including advertising, Regulation T and margin lending, registration of individuals, short sales, and supervision. We are currently reviewing the results of those examinations and completing the investigations growing out of them. To the extent that these investigations indicate that violations of our rules or the federal securities laws have taken place, formal enforcement actions will be instituted.

Advertising

NASD Rule 2210 governs "Communications with the Public." The Rule applies to "advertisements" and "sales literature" and prohibits "exaggerated, unwarranted or misleading statements or claims." Generally, electronic advertising such as those found on the Internet, are treated no differently from hard copy advertising and marketing materials.

Nearly 80 percent of the day-trading firms examined had potentially problematic advertisements that have been referred to our Advertising Regulation Department for further review. The problem areas noted in these advertisements range from allegations of immediate execution to statements of profits that can be generated from day trading. One practice under review is the dissemination -- through websites, training materials, and public statements -- of what may be materially misleading and unwarranted information regarding the "success rate" of their customers. The staff is reviewing whether the firms' claims of customer success rates in their marketing and communications with the public can be substantiated as our rules require. Other materials reviewed from day-trading firms have contained unsubstantiated claims regarding "profit potential," "lowest commissions," "trading for a living," or "industry leader in day trading" without corresponding risk disclosure or qualifying language. In addition, day-trading websites and other communications with the public have indicated that losses can be controlled or minimized through the use of certain strategies or techniques. In short, at least some day-trading firms appear to have failed to provide investors with a sound basis for evaluating the services being offered and contain exaggerated statements rendering the promotion or presentation misleading.

We have already filed one formal disciplinary action against a day-trading firm for violations of our advertising rules. On June 10, 1999, a complaint (attached) was filed against Lakeside Trading, a Metairie, Louisiana day-trading firm, and its president and principal. In addition to alleged margin violations and improper use of customer funds, the complaint alleged that the firm's Internet website contained:

- Misleading statements that implied that individuals accessing the firm's trading systems online had direct access to the markets;
- Statements that exaggerated customers' ability to access the markets;
- Material that failed to disclose that customers' transactions were subject to market fluctuation risks, and that trades may not be executed at all; and
- Material that failed to provide a balanced and complete presentation by omitting disclosure concerning the risks associated with day trading.

Regulation T and Margin Lending

Our day-trading examinations have revealed that at some day-trading firms, principals and employees arrange for credit to be extended from customers who have some equity in their accounts to those who require funds to cover margin calls. Absent these infusions of capital, many of the recipients of the loans would be unable to continue to trade.

Approximately half of the firms examined facilitate the lending of money between customers. At one firm, all the lending was done by one customer. In other instances, the firm works with its clearing firm to identify customers with credit balances who could be lenders. NASDR is investigating potentially violative activity relating to loans made by and between customers that are arranged by the firm or one of its employees for the purpose of meeting initial and maintenance margin requirements. We are reviewing the role of the member in arranging these loans and what, if any, representations are made to the lending customers concerning the risks associated with making the loans.

Registration

NASD rules prohibit equity traders from trading in the Nasdaq and over-the-counter markets without first passing a qualification examination for trading (the Series 55 examination) and registering with NASD Regulation. The Series 55 registration rule, which became effective in April 1998, applies to market makers, agency traders, proprietary traders, and persons who supervise these activities. The rule was developed in response to concerns about rule violations by traders conducting market-making and principal trading functions in both the Nasdaq and over-the-counter markets.

We have found instances where persons engaging in day trading for a firm's proprietary account are not Series 55 registered. One disciplinary action has already been concluded in this area. On July 7, 1999, NASD Regulation censured and fined On-Site Trading, Inc., a Great Neck, NY day-trading firm, \$25,000 for failure to properly qualify and register 14 individuals. (AWC and press release are attached.) These individuals effected approximately 3,700 trades in 250 Nasdaq securities on behalf of the firm's proprietary accounts. Without admitting or denying the allegations, On-Site consented to findings that it lacked adequate oversight to ensure proper registration of its traders, and agreed to implement new compliance procedures to prevent future violations. Relatedly, we have also found instances in which individuals entering orders on behalf of customers were not Series 55 registered.

Short Sales

We have found short selling practices at some day-trading firms that appear to violate our rules and the federal securities laws. Specifically, our rules require that firms mark all sales as either "long" or "short" and that the firm determine if it can obtain shares of the security sold short to deliver to the buyer. We have seen practices at some day-trading firms that facilitate short sales by customers when the short sales are not marked as such and when no determination has been made that shares can be delivered to the buyer. We have also seen potential violations of our rules prohibiting customer short sales on what is commonly known as a "downtick." Rule 3350 (the "Short Sale Rule") prohibits member firms from effecting short sales at or below the

current inside bid as disseminated by Nasdaq whenever that bid is lower than the previous inside bid.

The staff of the Market Regulation Department of NASDR reviews and investigates short sale activity. Among other activities, the staff utilizes an electronic surveillance program to conduct sweeps of reported short sale activities. These sweeps review trading by all firms that report short sales and objectively identify those trades that appear to violate the Short Sale Rule. Since initiating these sweeps in 1998, more than one-third of these reviews by the staff have involved day-trading firms.3 Overall, the staff has found a significant number of violations of short sale rules and believes that day-trading firms too frequently lack adequate supervisory procedures to detect and deter such violations. Where appropriate, we intend to initiate disciplinary action against the member firms and associated persons involved. We are also reviewing short selling by customers of day-trading firms of hot IPOs in the immediate aftermarket. We are investigating whether some of these activities violate our rule requiring a firm effecting a short sale for a customer to determine if the shares being sold can be located and delivered to the buyer.

Supervision

Adequate supervision and the development and compliance with supervisory procedures are important issues at all broker-dealers, including day-trading firms. NASD Conduct Rule 3010 requires each of our member firms to "establish and maintain a system to supervise the activities of each registered representative and associated person that is reasonably designed to achieve compliance with applicable securities laws and regulations" and NASD Rules. Day-trading firms have initiated new sales and marketing practices outside the traditional broker-client relationship. They have built a business niche around new technology and new software. These innovations require new supervisory techniques. Yet, at some of the firms we have examined, written supervisory procedures have not adequately addressed many aspects of their core day-trading business. Areas of potentially deficient supervision include procedures in the following areas:

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- Loans and lending arrangements between customers;
- Review of advertising, marketing, and training materials;
- Short-selling compliance, such as affirmative determination, selling on "downticks," marking of order tickets long or short; and
- Cancellation of transactions and use of the firm error account.

NASDR is taking the necessary steps through disciplinary action to ensure that these potential deficiencies are addressed.

(3) Rulemaking Initiatives

Disclosure and Appropriateness Determinations

To effectively address the unique investor protection concerns associated with day trading, the NASD determined that rulemaking in this area was necessary to supplement existing rules and regulations. On April 15, 1999, the NASD issued Special Notice to Members 99-32, seeking comment on proposed rules addressing approval procedures for day-trading accounts including appropriateness determinations and disclosure of risks of day-trading activities. The staff received 39 comment letters in response to the Notice, 16 of which were from individuals and 23 from firms or other organizations. The majority of the commenters generally supported the NASD's efforts to address the investor protection concerns raised by individual's engaging in day-trading activities. However, commenters also raised varied suggestions on how best to regulate day-trading activities and presented disparate views on the scope of activities that should be covered by the rules. Based on its review and consideration of the comment letters, the staff made certain revisions to the proposed rules. The proposed rules, as revised, were approved by the Board of Directors of NASDR at its meeting on July 28, 1999.

On August 20, 1999, the NASD filed the proposed rules with the SEC. (Rule filing and press release are attached.) Specifically, the proposed rules would require firms that promote day-trading strategies to (i) determine the appropriateness of day trading for a customer; and (ii) disclose to customers the risks associated with this type of trading. In order for a firm to approve an account for day trading, the firm would be required to have reasonable grounds for believing that a day-trading strategy is appropriate for a customer. In making this determination, the firm would be required to exercise reasonable diligence to ascertain the essential facts relative to the customer, including his or her financial situation, tax status, prior investment and trading experience, and investment objectives. The firm also would be required to prepare a record setting forth the basis on which the firm has approved the customer's account. A firm need not make this determination if it obtained from the customer a written representation that the customer did not intend to use the account for day-trading purposes. If a firm later discovered that a customer who provided this written representation was using the account for day trading, the firm would be required to approve the account for day trading within 10 days of the date of discovery.

In addition, the proposed rules would require a firm that is promoting a day-trading strategy to deliver a risk disclosure statement to a customer prior to opening an account for the customer that provides the following:

Day trading can be extremely risky. Day trading generally is not appropriate for someone of limited resources and limited investment or trading experience and low risk tolerance. You should be prepared to lose all of the funds that you use for day trading. In particular, you should not fund day-trading activities with retirement savings, student loans, second mortgages, emergency funds, funds set aside for purposes such as education or home ownership, or funds required to meet your living expenses.

Be cautious of claims of large profits from day trading. You should be wary of advertisements or other statements that emphasize the potential for large profits in day

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trading. Day trading can also lead to large and immediate financial losses.

Day trading requires knowledge of securities markets. Day trading requires in-depth knowledge of the securities markets and trading techniques and strategies. In attempting to profit through day trading, you must compete with professional, licensed traders employed by securities firms. You should have appropriate experience before engaging in day trading.

Day trading requires knowledge of a firm's operations. You should be familiar with a securities firm's business practices, including the operation of the firm's order execution systems and procedures.

Day trading may result in your paying large commissions. Day trading may require you to trade your account aggressively, and you may pay commissions on each trade. The total daily commissions that you pay on your trades may add to your losses or significantly reduce your earnings.

Day trading on margin or short selling may result in losses beyond your initial investment. When you day trade with funds borrowed from a firm or someone else, you can lose more than the funds you originally placed at risk. A decline in the value of the securities that are purchased may require you to provide additional funds to the firm to avoid the forced sale of those securities or other securities in your account. Short selling as part of your day-trading strategy also may lead to extraordinary losses, because you may have to purchase a stock at a very high price in order to cover a short position.

Firms would be permitted to develop an alternative disclosure statement as long as it is substantially similar to the mandated statement and is approved by NASD Regulation's Advertising Department prior to use.

Margin and Customer Lending

We are continuing to consider whether changes to existing rules regarding margin and lending practices are desirable and have solicited comment on this issue. Concerns identified include:

- what levels of margin are appropriate for these types of activities;
- whether the timing of margin deposit requirements should be changed (current rules permit deposits for margin purposes within seven business days of the trade);
- whether minimum initial and maintenance cash deposits should be required; and
- what limitations should apply to firms that facilitate loans between customers or third parties and customers to cover margin calls.

We are still considering these issues and will determine whether further rulemaking in this area is necessary.

Conclusion

In conclusion, day trading is a highly risky form of trading that we are investigating and studying closely. We intend to continue to work together with the SEC and the states to address the issues in this area. At this time, we do not see a need for any new legislative initiatives, but believe that through a combination of continued dissemination of information to our members and investors, focused examination and enforcement efforts and the development of new NASD rules and other policy initiatives, we can effectively address the investor protection concerns associated with day trading.

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Day Trading

An Analysis of Public Day Trading at a Retail Day Trading Firm

The Purpose of The Analyses

Numerous market studies have concluded that accurate market timing is not possible, even for professional money managers. Day trading is the ultimate test of market timing in that the trade is opened and closed within the same day.

The emergence of the Internet and the availability of almost instantaneous real-time market data have increasing numbers of public investors interested in trading on a short-term or intraday basis. Retail brokerage firms concentrating on this speculative activity frequently claim that a high percentage of their retail public clients are profitable.

The purpose of this analysis was to analyze a statistically significant sample of public day trading experiences in order to determine whether public retail customers really have been successful day traders, and to identify and quantify the risks that public investors face as day or short-term traders.

How The Analysis Was Conducted

Step 1. The Project Group on Day Trading randomly chose thirty (30) short-term trading accounts for analysis from a retail day trading firm:

Thirty accounts were analyzed in order to provide a representative sample of public short-term trading activity. The accounts were chosen without knowing either the distribution of short-term trades within the account or the profitability of the trading conducted.

Step 2. A matched trading analysis, commission-to-equity analysis, and turnover analysis was conducted for each account by STZ Analytical Services.

A matched trading analysis matches opening trades with closing trades and was required to identify the profitability and duration of all trades in each account. A typical matched trading analysis conducted for this report is shown at Exhibit A-1.

Commission-to-equity and tumover analyses were conducted for each account to quantify the degree of activity and the costs associated with that activity in each account. Typical tumover and commission-to-equity analyses conducted for this report are shown at Exhibit A-2.

Step 3. This analysis addresses all of the trading as well as the day trading conducted in each account. Trading statistics were calculated and evaluated based on the matched trading results of Step 2. The typical set-up analyses conducted for this report is shown at Exhibit A-3.

The analysis established important selected trading statistics for each account (shown at the top of Exhibit A-3). The individual account statistics were calculated on the basis of matched trading record shown below the heading "QTY, DAYS HELD, P/L". (Exhibit A-3 includes only the first 26 trades, sorted by Days Held for illustration).

Account A7, for example, had four day trades (0), three two day trades (2), two three (3) day trades, etc. The majority of the accounts traded 1,000 share lots.

Most of the selected statistics are well known to professional traders and trading system developers and are used to evaluate trading and trading systems. The individual account statistics were used to evaluate the performance of each account and pinpoint areas where other analysis was required.

Speculative Trading Analyses

There are two main issues in any speculative trading account:

- Will the account consistently make money?
- Will the account lose all of its capital?

These issues are interrelated and concern the probability that the trading will be successful, the effectiveness of the trading in controlling losses and letting profits run, and the percentage of capital risked on each trade. All are important.

Because an account has a net profit at any point in time does not necessarily mean it is a successful way to trade. For example, it is quite possible that an account is temporarily profitable yet is trading in a manner that yields a high probability the account will lose all of its funds in the near future. Selected statistics focus on the underlying causes of performance or non-performance.

Accounts traded in a manner that produces a high payoff ratio, high reward/risk ratio, and a high percentage of profitable trades (without overtrading) will consistently produce large profits and a low risk of ruin. The analyses concentrated on quantifying this underlying capability.

Important trading statistics:

1) Average Trade. The average trade is an important measure of any trader or trading system. It is generally the first figure considered in evaluating trading effectiveness. It is an estimate of the expected return for each trade. In general, the larger the value of the average trade, the better.

While the average trade statistic will be less in day trading than in longer term trading, most traders wouldn't consider a day trading system that makes less than an average trade of \$200, or less than \$400 on a longer term basis.

Stock day traders face both market and stock specific risk. The day trader doesn't know if a stock takeover is going to occur and cause an immediate large loss in his or her short position or if a major market decline will result in a large loss in the trader's long position.

The largest day trading loss in this study was \$12,800. It takes 64 trades at an average trade of \$200 per trade to recover from such a loss. The largest 1,000 share loss was \$81,522.

- 2) Payoff Ratio. The ratio of the average winning trade to the average losing trade. The larger this ratio is, the better. It is difficult to be a successful trader with a payoff ratio under 1. The sign of an effective trader is the ability to let his or her profits run and cut his or her losses short.
- 3) Probability of Success. Probability is calculated by determining the percentage of profitable trades. It is an estimate of whether the next trade will be successful. If the probability of success is low, the payoff ratio must be high. In other words, if you have more losing trades than winning trades, the average winning trades must be large enough to more than offset the average losing trades or you'll eventually lose all capital.
- 4) Reward/Risk Ratio. (Also known as the Profit Factor) The ratio is calculated by dividing the gross profits by the gross losses. Most traders want at least \$2 of reward for every \$1 risked.
- 5) Percentage of Capital Risked. Overtrading or risking too much per trade is a certain way of losing all your capital. Any trader, no matter how good, increases his or her risk of ruin by increasing the capital placed at risk on each trade.
- 6) Risk of Ruin. The probability that a trader will lose all of his or her trading capital. Risk of Ruin is the probability that a trader will realize a series of losing trades that consumes all of his or her remaining trading capital.¹

If a trader has a 50 percent chance of winning/losing on a trade, his or her average winning trades must equal his or her average losing trades (Payoff Ratio of 1) or he or she will eventually lose all his or her capital. As the probability of success decreases the Payoff Ratio must increase to avoid ruin.

Risk of Ruin tables utilized to determine the Risk of Ruin calculations in this report are included in Exhibit B. The probability of Ruin (losing all capital) is displayed within the table as a number between 0.000 (0% chance of ruin) and 1.000 (100% chance of ruin). The four tables shown illustrate the effect of four money management strategies on a given trading capability.

This study will employ only Figure 4 of Exhibit B (10% of available capital at risk) since the accounts continuously risked more than 10% of their capital. In addition, if an account has a 100% Risk of Ruin at the 10% exposure level, it has at least that at all greater levels of exposure. Accordingly, all Risk of Ruin calculations will be taken or extrapolated from Figure 4 of Exhibit B.

¹ This study will utilize Risk of Ruin tables developed by Nauzer J. Balsara author of "Money Management Strategies for Futures Traders." Mr. Balsara was featured in a December 1992 article for *Technical Analysis of Stocks & Commodities*, from which the Tables were taken.

Account Performance (All Trading)

This initial analysis covered all trading conducted in the thirty accounts (4,339 trades), over trading periods of between 1-10 months. As expected, all of the accounts had extremely large turnovers and cost-to-equity ratios as outlined at Exhibit C. The average account was open 4 months, had an average turnover of 278, and a cost/equity ratio of 56%.

The annualized cost/equity ratio measures the amount of profit required on average equity just to pay transaction costs and break even. Few traders can absorb transaction costs of 56% per annum and be profitable on a consistent basis.

The quantitative analyses results of account performance are reported at Exhibit D for all trading.

Two individuals traded six of the trading accounts reported in Exhibit D. One individual traded A11 and A22. The other individual traded accounts A1, A5, A20 and A26. The accounts with the most trades (A22 and A20) were retained and the other accounts removed to avoid skewing the analysis. The 26-account analysis, representing 4,093 trades, is at Exhibit E reporting the Account Performance of all individual trades.

A comparison of the cumulative statistics between Exhibit D and Exhibit E shows that all the findings remain the same. In sum, removing the multiple account trading was statistically insignificant.

Losing Accounts

Eighteen (18) of the twenty-six accounts (70% of the accounts), lost money. More importantly, all 18 accounts were traded in a manner that realized a Risk of Ruin of 100%. That is, 70% of the accounts would almost certainly lose any and all funds put at risk in them.

Winning Accounts

Eight (8) of the twenty-six accounts, or 30% of the accounts, were profitable.

Despite being profitable, three of the accounts A2, A24, and A29, were traded in a manner that realized a high potential Risk of Ruin (A2 –74%, A24-24%, and A29-84%) and low average trades. More importantly, however, the performance of each of these accounts is highly dependent on just one trade.

The largest winning trade is a significant number as it relates to the net and gross profit. Trading (or a trading system) has a serious problem if a major portion of the profits comes from just one trade. The rule of thumb is that no more than 25% of the net profits should come from the largest trade.

For example, account A2's largest winning trade was \$7,649.58. The account made only \$609.10 on 99 trades without that one trade. One trade out of 100 made 93% of the profit. The largest winning trade in account A24 was \$39,003.48, representing 39% of the profit on one trade in 597. Removing the largest winning trade from account A29 (\$662) leaves the account with a loss. In like manner, the largest winning trade from Account A28 (\$5,635.95) represents 31% of the profit on one trade in 285. In addition, 70% (\$33,667.50) of account A13 profits of \$48,645.40 came from just one trade in 149 trades. The largest winning trade sensitivity analysis shows the underlying weakness in these accounts.

Only three (3) accounts, (11.5%) of the 26 analyzed, (accounts A8, A10, and A30) evidenced the profitability, reward/risk ratios, and low probability of ruin required for successful speculative trading. Account A8 was the best trader analyzed in this study (Account A8 held its positions for an average of 47 days with no day trades).

Conclusions (Short-term Trading)

If this analysis is representative of short-term public trading, the individual and cumulative results show that most public traders will lose money attempting to short-term trade. In fact, this study shows that 70% of the public traders analyzed will not only lose, but almost certainly lose everything they invest.

Only three accounts of the 26 analyzed (11.5% of the sample) illustrated trading results and techniques sufficient to profit from short-term speculation. In sum, based on these findings, the vast majority of retail public investors (88.5%) would be best advised to refrain from short-term speculative trading.

Account Performance (Day Trading)

Twenty-five (25) of the initial 30 accounts analyzed made at least one-day trade. The initial day trading analysis covering all day trading conducted in the 25 accounts (2,839 trades) is at Exhibit F.

This initial day trading analysis identified two major problems:

- 1) First, eight of the accounts had less than the 30 trades required for statistical significance. Five of these nine accounts had less than 5 day trades.
- 2) Second it is impossible to tell whether a trader opens a position as a day trade, and when it becomes a loss, just holds it. That of course removes the loss from the day trade statistics and skews the results in favor of day trading. In the extreme, a trader could appear very profitable as a day trader while losing all the funds in the account.

For example, the original A26 account had 3-day trades with all of them successful. The A26 trades are included at Exhibit G and illustrate the problem. Two of the three winning day trades were conducted utilizing INFO SEEK CORP on 4/24/98 for a \$648.74 gain. However, another INFO SEEK CORP trade opened on 4/24/98 was held 40 days for a \$13,863.30 loss. In fact, it is clear that the A26 trader is not an effective day trader, but just a poor trader who cannot take a loss.

Exhibit G shows that all of the trades held 3 days or less were profitable, while all trades held over three days were losses. Please note that all 10 long-term trades in the A26 account are losses and that A26 had a 100% risk of ruin when all trading was considered.

An effective day trading analysis must therefore consider both the day trading and non-day trading conducted in each account.

Accordingly, a second day trading analysis was conducted utilizing only those accounts with more than a statistically significant 30 day trades, and the evaluation considered day trading in conjunction with the overall account performance. This analysis is included as Exhibit H and includes 17 accounts and 2,754 trades.

A comparison of the cumulative statistics between Exhibit E (all day trades) and Exhibit G (all statistically significant day trades) shows that all the findings remain the same. In sum, removing the statistically insignificant trades loses nothing.

Losing Accounts

Eleven (11) of the seventeen (17) day trading accounts lost money. More importantly, *all* **11 accounts were traded in a manner that realized a Risk of Ruin of 100%.** That is, 65% of these accounts would almost certainly lose any and all funds put at risk in them.

Winning Accounts

Only six (6) of the seventeen (17) day trading accounts made a profit. Four of these six accounts realized a significant risk of ruin. Account A10- 27.6%, A18- 57.5%, A24-45.2%, and A28-45.2%. Clearly, accounts that have over a 25% chance of ruin are not successfully traded accounts.

In addition, five of the six accounts were highly dependent on just one trade. Forty-three percent (43%) of account A10 profits come from 1 trade in 118, 47% of account A18 profits come from 1 trade in 47, 70% of account A24 profits come from 1 trade in 282, 52% of account A28 profits come from 1 trade in 203, and 31% of account A30 profits come from 1 trade in 275.

Account A20, with the highest average return of \$242.05 per trade in the day trading analysis, realized a 100% Risk of Ruin when all trades in the account were considered. In short, account A20 day- traded for small profits but let large losing trades run.

The largest day trading loss in the study was \$12,800. Clearly A10, A18, A24 & A28 could be one trade away from major losses

Indeed, an analysis of all the trading conducted in all the accounts shows that the average losing trade was held twice as long (9.53 days), as the average winning trade (4.52 days). The average intraday trade was also a losing trade. In short, these public short-term traders were cutting their profits short and letting their losses run.

Clearly, no day trading account met all the criteria any experienced system trader would require before either buying a system or risking his or her capital. However, Account A30, with profitable performance in short-term and day trading, along with a good risk/reward and payoff ratio, was a consistent performer.

Conclusions (Day Trading)

There was only one successful day trading account in the 17 accounts analyzed.

Fifteen of the 17 accounts analyzed had a significant risk (probability of ruin over 27.6%) of losing all funds. Eleven of these 17 accounts had a 100% chance of ruin. That is, 65% of these accounts would almost certainly lose any and all funds put at risk in them.

Five of the six accounts, which realized net profits, were no more than marginally profitable and realized a large percentage of their profits from a single trade.

Speculative trading is volatile. Clearly, if a trader can make most of his or her profit on a single trade, he or she can lose it on one or two trades. Moreover, it should also be noted that any profitability evaluation must be conducted on a risk/reward basis. If you have 5 times the risk, you should require at least 5 times the reward.

The Sharpe Ratio compares the return from an investment with the risk incurred to earn the return. A risk/return analysis was conducted for account A30, the only account considered successful in both day and short-term trading. The Sharpe Ratio analysis (Exhibit I) clearly shows that although Account A30 was profitable, it did not produce a return commensurate with the risk to which it was exposed.

The Bottom Line

If this analysis is representative of public trading, it is abundantly clear that the average public investor should refrain from short-term trading. Only three (3) of twenty-six (26) accounts (11.5% of the sample) evidenced the ability to conduct profitable short-term trading

This study shows that 70% of the public traders will not only lose, but will almost certainly lose everything they invest.

Day trading is particularly risky. While the study found that three (3) accounts in twenty-six (26) could successfully conduct short-term trading, there was only one successful day trading account.

A Sharpe Ratio analysis of the only account considered successful in both shortterm and day trading showed the trading returns were not commensurate with the risks to which the account was exposed.

The most successful account in the study, A8, had limited short-term trades and no day trading.

Exhibits

- A-1 Holding Period of Opening Transactions- Detail (Account A6)
- A-2 Activity Ratios (Account A6)
- A-3 Typical Account Worksheet
- **B** Risk of Ruin Tables
- C Account Facts/Summaries
- D Account Performance (All Trades)
- E Account Performance (All Individual Trades)
- F Account Performance (All Day Trades)
- G Holding Period of Opening Transactions- Detail (Account A26)
- H Account Performance (Day Trades > 30)
- I Returns versus Risk

HOLDING PERIOD OF OPENING TRANSACTIONS - DETAIL

| | | OPEN | ING TRA | NSACTIO | 15 | | CL | OSING TRAI | SACTION | S | | |
|----------------------------|------------|--------|---------|---------|--------------------|--------|-------|------------|---------|--------------------|--------------|----------------|
| SECURITY | DATE | СТІVІТ | άτγ | PRICE | CREDIT/ (DEBIT) | DATE | стілі | τ ατγ | PRICE | CREDIT/ (DEBIT) | DAYS HELD | TRADING P/L |
| , IPPLIED MATERIALS INC | 04/16/97 | Р | 1,000 | 50.75 | (50,775.00) | 04/16/ | 97 S | (1.000) | 51.00 | 50.973.30 | 0 | 198.30 |
| PPLIED MATERIALS INC | 04/16/97 | P | 1,000 | 50.38 | (50,400.00) | 04/16/ | 97 S | (1.000) | 50.38 | 50.348.32 | 0 | (51.68) |
| -CUBE MICROSYSTEMS INC | 04/16/97 | Р | 300 | 26.75 | (8,050.00) | 04/16/ | 97 S | (300) | 25.88 | 7,754.74 | 0 | (295.26) |
| -CUBE MICROSYSTEMS INC | 04/16/97 | Р | 700 | 26.88 | (18,812.50) | 04/16/ | 97 S | (700) | 25.88 | 18,094.39 | 0 | (718.11) |
| ISCO SYSTEMS INC | 04/16/97 | P | 1,000 | 52.00 | (52,025.00) | 04/16/ | 97 S | (1,000) | 51.38 | 51,348.28 | 0 | (676.72) |
| ELL COMPUTER CORP | 04/16/97 | Р | 1,000 | 71.25 | (71,275.00) | 04/16/ | 97 S | (1,000) | 71.50 | 71,472.61 | 0 | 197.61 |
| SATEWAY 2000 INC | 04/16/97 | Р | 500 | 59.88 | (29,962.50) | 04/16/ | 97 S | (500) | 59.25 | 29,599.01 | 0 | (363.49) |
| ITEL CORP | 04/16/97 | Р | 500 | 130.13 | (65,087.50) | 04/16/ | 97 S | (500) | 130.63 | 65,285.32 | 0 | 197.82 |
| ITEL CORP | · 04/16/97 | Р. | 500 | 130.88 | (65,462.50) | 04/16/ | 97 S | (500) | 131.00 | 65,472.81 | 0 | 10.31 |

OTAL TRADING LOSS

(1,501.22)

58

iotes:

ades were matched in generally the same order as reflected on the account statements.

Part of a larger transaction.

Purchased. S: Sold.

)

Exhibit A -1

Prepared by STZ Analytical Services. (07/04/99)

Account A6

ACTIVITY RATIOS

۰.

| ANNUALIZED TURNOVER | RATIO | | |
|----------------------|----------------------------|--------------|-----------|
| OPENING TRANSACTIONS | | \$411,850.00 | 12 MONTH8 |
| AVG EQUITY | # MONTHS IN TIME PERIOD | \$50,000.00 | 1 MONTHS |

ANNUALIZED COMMISSIONS-TO-EQUITY RATIO

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| COMMISSIONS | x | 12 MONTHS | - | \$413.72 | x | 12 MONTHS |
|-------------|---|-------------|---|-------------|---|-----------|
| AVG EQUITY | | # MONTHS IN | | \$50,000.00 | | 1 MONTHS |
| | | TIME PERIOD | | | | |

PARAMETERS:

| OPENING TRANSACTIONS | \$411,850.00 |
|--------------------------|--------------|
| AVERAGE EQUITY | \$50,000.00 |
| COMMISSIONS | \$413.72 |
| TIME PERIOD (April 1997) | 1 MONTH |

Note: Commissions include those from opening and closing transactions.

Prepared by STZ Analytical Services. (07/25/99)

Exhibit A-2

Account A6

98.84

9.93%

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Typical Account Worksheet

| | | A1 | | | A2 | | | A3 | | | A4 | | | A5 | | | A6 | | | , | A7 |
|---------------|---------|--------|-------------------|---------|----------|-----------------|-------|------|--------------------|-----------------------|--------|----------------|---------|------------|----------------------|---------|------|------------|---------|------|-------------|
| Results: | | | (214.19) | <u></u> | | (1,649.37) | | | (4,335.56) | | | 253.83 | | | (8,639.52) | | | (1,501.22) | | | (32,853.97) |
| # of Trades: | | • | 26 | | | 26 | | | 26 | | | 26 | | | 26 | | | 9 | l | | 23 |
| Avg Trd: | | | (8.24) | | | (63.44) | | | (166.75) | | | 9.76 | | | (332.29) | | | (166.80) | ł | | (1,428.43) |
| Win Trd: | | | 14 | | | 13 | | | 9 | | | 12 | | | 16 | | | 4 | | | 11 |
| Lose Trd: | | | 12 | | | 13 | | | 17 | | | 14 | | | 10 | | | 5 | 1 | | 12 |
| Gross Gains: | | | 9 189 64 | • | | 3.941.84 | | | 1.659.06 | | | 4.955.75 | | | 13.986.69 | | | 604 04 | ĺ | | 8.417.63 |
| Gross Loss: | | | (9 403 83) | | | (5 591 21) | | | (5 994 62) | | | (4 701 92) | | | (22 826 21) | | | (2 105 26) | | | (39 271 60) |
| Sum | | | (214 10) | | | (1 640 37) | | | (4 335 56) | | | 253.83 | | | (8 830 52) | | | (1 501 22) | l | | (32 853 07) |
| Ava Gain | | • | 659 40 | | | 303 22 | | • | 184 34 | | | 412.08 | | | 874 17 | | | 151.01 | 1 | • | (32,033.07) |
| Avg Loss | | | (700.00) | | | (420.00) | | | (252.02) | | | 12.00 | | | 10 000 001 | | | (404.05) | i · | | (0.070.00) |
| AVG LOSS: | | | (783.83) | | | (430.09) | | | (352.02) | | | (333.63) | | | (2,202.02) | | | (421.03) | 1 | | (3,272.03) |
| Prod Success: | | | 0.54 | | | 0.50 | | | 0.35 | | | 0.40 | | | 0.62 | | | 0.44 | l I | | U.48 |
| Payon Ratio: | | ALVA | 0.8 | | BAVA | 0.7 | | DAVO | 0.5 | | BAVA | 1.2 1040000 | | DAVA | 0.4 | | DAVO | 0.4 | | DAVA | 0.2 |
| | οτγ | HELD | P/L | άτγ | HELD | F/L | ΩΤΥ | HELD | P/L | Ω ΤΥ | HELD | P/L | άτγ | HELD | P/L | οτγ | HELD | P/L | QTY | HELD | P/L |
| | | | | | | | | | | - 11:11:17:15:142-450 | | | | | | | | | | | |
| | (1,000) | 0 | 697.25 | -1000 | 0 | 198.80 | 1,000 | 0 | (427.04) | (1,000) | 0 | (301.11) | (1,000) | 0 | 512.11 | (1,000) | 0 | 198.30 | (600) | 0 | 1,149.16 |
| | (1,000) | U Ó | (3 301 00) | -1000 | U O | (301 15) | 1,000 | 0 | (420.41) | 2,000 | 0 | 440.13 | (1,000) | <u>v</u> . | 030.20 | (1,000) | 0 | (205.26) | (4,000) | 0 | 2,199.23 |
| | (1.000) | ö | 573.66 | -1000 | o Ö | 73.80 | 1,000 | ŏ | (177.50) | 1,000 | 0 | 321.05 | (1.000) | 1 | 774.53 | (700) | 0 | (718.11) | (950) | 0 | 186 81 |
| | (400) | Ō | 364.59 | -1000 | 0 | 198.81 | 1,000 | 0 | (52.53) | 1,000 | Ō | 7.54 | (1,000) | 1 | 899.52 | (1,000) | Ō | (676.72) | (300) | 2 | 274.92 |
| (| (100) | 0 | 334.89 | -1000 | 0 | 11.32 | 1,000 | 0 | (677.58) | 1,000 | 0 | 445.05 | (1,000) | 2 | 761.76 | (1,000) | 0 | 197.61 | (500) | 2 | 454.03 |
| | (000) | 0 | 3,101.48 | -1000 | 0 | 558.81 | 1,000 | 0 | (52.60) | 1,000 | 0 | 895.52 | (1,000) | 2 | 593.75 | (500) | 0 | (363.49) | (100) | 2 | 89.56 |
| | (1,000) | 0 | (925.87) | -1000 | 0 | 11.31 | 1,000 | 0 | 322.48 | 1,000 | 0 | (304.94) | (1,000) | 2 | 593.75 | (500) | 0 | 197.82 | (1,000) | 3. | 699.34 |
| | (300) | 0 | 733 13 | -1000 | U 0 | (178 33) | 1,000 | 0 | (302.52) | 000,1 | 0 | (555.94) | 1 000 | - | /2 551 001 | (500) | U | 10.31 | (150) | 3 | (1,415.70) |
| 1 | (1,000) | ŏ | (425.76) | -1000 | o o | (51.33) | 1,000 | 0 | 72.50 | 900 | ŏ | (434.02) | (1,000) | 9 | (181.37) | | | | 220 | 11 | (8.691.93) |
| [| (1,000) | 1 | 323.87 | -1000 | 0 | 323.81 | 900 | 0 | (1,400.80) | 100 | 0 | (95.45) | (1,000) | 12 | (3,712.50) | | | | (100) | 12 | (1,781.62) |
| l | (1,000) | 1 | 574.09 | -1000 | 0 | 1,073,79 | 100 | 0 | (178.76) | 1,000 | O | 195.04 | (1,000) | 18 | 954.44 | | | | (325) | 16 | (18,067.56) |
| 0 | (1,000) | 3 | 1,198.83 | -1000 | 0 | (1,176.15) | 1,000 | 0 | (1,177.69) | 1,000 | 0 | 583.02 | (1,000) | 19 | 1,704.41 | | | | (500) | 18 | (593.75) |
| 0 | (1,000) | 4 | 323.85 | -1000 | 0 | (301.19) | 200 | 0 | 23.39 | 100 | 0 | (51.70) | (5,000) | 20 | (625.00) | | | | (40) | 18 | (335.00) |
| 1 | (200) | 5 | (2,150.37) | -1000 | ő | (676 19) | 500 | 0 | /154.05) | (1,000) | 0 | (242.43) | (5,000) | 20 | (7,212.50) 302 88 | | | | (500) | 10 | (2,000.53) |
| 1 | (2.000) | 11 | (0.41) | -1000 | ŏ | (1.176.13) | 500 | ŏ | (77.80) | (500) | õ | 225.38 | (800) | 24 | 1.558.52 | | | | (9) | 18 | 66.38 |
| Í. | (874) | 11 | (54.81) | -1000 | 0 | (176.24) | 1,000 | Ō | 69.94 | (200) | ō | (136.38) | (1,000) | 24 | 2,026.90 | | | | (45) | 16 | (255.94) |
| | (126) | 11 | (7.90) | -200 | 0 | (105.33) | 900 | 0 | (50.29) | (500) | 0 | (790.21) | (1,000) | 25 | (650.00) | | | | (120) | 35 | 339.59 |
| | (1,500) | 11 | (938.30) | -800 | 0 | (421.30) | 1,000 | 0 | (301.96) | (200) | 0 | (24.60) | (1,000) | 25 | (900.00) | | | | (260) | 38 | (1,919.21) |
| | (500) | 11 | (250.27) | -1000 | <u>o</u> | (176.70) | 500 | 0 | 11.58 | (100) | 0 | (112.80) | (1,000) | 25 | (681.25) | | | | (1,500) | 54 | (4,619.00) |
| | (1,000) | 14 | 37.29 | -1000 | 0 | (177.00) | 1,000 | 0 | 445.37 | (500) | 0 | 315.30 | (9.000) | 25 | (5,368.75) | | | | (125) | 55 | (259.42) |
| 1 | (1,000) | 14 | 37.28 (212 61) | .1000 | 0 | 5/2.83 72 02 | 1,000 | 0 | 5/U.36 (170 70) | (1,000) | U 0 | 1,134.23 | (1,000) | 20 | (/43./5) | | | | 1 | | |
| | (500) | 18 | (598.94) | -1000 | °, | 72.92 | 1,000 | ŏ | (304.80) | (500) | ŏ | (520.65) | (1,000) | 25 | 475.00 | | | | l | | |

Prepared by Ronald L. Johnson

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Exhibit A-3

THE POPER POPER DEPENDENCE FOR THE POPER P

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| PRO | KABILIT ESS | Y OF | | | | | PAYO | T RATIC |) | |
|------|----------------|-------|-------|-------|-------|-------|-------|---------|-------|-----|
| | 9.50 | 9.75 | 1 | 2 | 3 | 4 | 5 | 1 | 3 | 1 |
| 0.05 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.0 |
| 0.10 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.6 |
| 0.15 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.999 | 0.979 | 0.923 | 0.8 |
| 0.20 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.990 | 0.928 | 0.886 | 9.844 | 0.8 |
| 0.25 | 1.000 | 1.000 | 1.000 | 1.000 | 0.990 | 6.887 | 0.834 | 0.804 | 0.775 | 0.1 |
| 0.30 | 1.000 | 1.000 | 1.000 | 1.000 | 0.861 | 0.794 | 0.758 | 0.736 | 0.715 | 0.1 |
| 0.35 | 1.000 | 1.000 | 1.000 | 0.951 | 0.778 | 0.713 | 0.687 | 0.671 | 0.659 | 0.6 |
| 0.40 | 1.000 | 1.000 | 1.000 | 0.825 | 0.691 | 0.647 | 0.621 | 0.611 | 0.602 | 0. |
| 0.45 | 1.000 | 1.000 | 1.000 | 0.714 | 0.615 | 0.579 | 0.565 | 0.558 | 0.551 | 0.5 |
| 0.50 | 1.000 | 1.000 | 0.989 | 0.618 | 0.541 | 0.618 | 0.508 | 0.505 | 0.499 | 0.4 |
| 0.55 | 1.000 | 1.000 | 0.819 | 0.534 | 0.478 | 0.463 | 0.453 | 0.453 | 0.453 | 0.4 |
| 0.80 | 1.000 | 0.857 | 0.667 | 0.457 | 0.419 | 0.406 | 0.402 | 0.402 | 0.400 | 0.4 |
| 0.65 | 1.000 | 0.648 | 0.537 | 0.388 | 0.363 | 0.356 | 0.349 | 0.349 | 0.349 | 0.3 |
| Q.70 | 0.796 | 0.493 | 0.430 | 0.322 | 0.308 | 0.300 | 0.300 | 0.300 | 0.300 | 0.; |
| 0.75 | 0.557 | 0.365 | 0.335 | 0.266 | 0.252 | 0.252 | 0.252 | 0.252 | 0.249 | 0.2 |
| 0.80 | 0.375 | 0.263 | 0.251 | 0.205 | 0.201 | 0.201 | 0.198 | 0.198 | 0.198 | 0.1 |
| 0.85 | 0.242 | 0.181 | 0.175 | 0.153 | 0.151 | 0.151 | 0.150 | 0.150 | 0.150 | 0.1 |
| 0.90 | 0.135 | 0.111 | 0.110 | 0.101 | 0.101 | 0.101 | 0.101 | 0.101 | 0.100 | 0.1 |

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|------|---------------|-------|-------|-------|--------|-------|---------|-------|-------|------|
| | 9.59 | 9,75 | 1 | 2 | 3 | 4 | 1 | • | 8 | 10 |
| 9.05 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.00 |
| 0.10 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.92 |
| 0.15 | 1.000 | 1.000 | 1.000 | 1.000 | 1.008 | 1.000 | 1.008 | 0.936 | 0.727 | 0.63 |
| 0.20 | 1.900 | 1.909 | 1.006 | 1.000 | 1.000 | 0.090 | 8.734 | 0.612 | 0.503 | 8.45 |
| 0.25 | 1.000 | 1.000 | 1.008 | 1.800 | 0.991 | 8.520 | 0.487 | 6.422 | 0.358 | 8.33 |
| 0.30 | 1.000 | 1.000 | 1.000 | 1.000 | 8.598 | 0.359 | 0.327 | 8.290 | 0.260 | 0.25 |
| 0.35 | 1.000 | 1.506 | 1,000 | 8.828 | 9.344 | 9.244 | 0.222 | 9,201 | 0.187 | 0.18 |
| 6.40 | 1.000 | 1.000 | 1.000 | 8.458 | 8.229 | 0.174 | 0.152 | 8.142 | 0.133 | 6.13 |
| 0.45 | 1.000 | 1.808 | 1.000 | 0.258 | 0.142 | 0.111 | 0.102 | 0.097 | 0.052 | 8.09 |
| 4 14 | 1 600 | 1 608 | 0 000 | 4.147 | 4 0.64 | 6 672 | 8 647 | | 8 041 | 8.04 |
| 8 55 | 1 600 | 1 808 | 6 447 | 1 442 | 8 657 | 4 445 | 8 644 | 8 841 | 0.047 | 4.04 |
| 0.64 | 1.000 | 0.564 | 0.185 | 8.643 | 8.836 | 0.027 | 0.027 | 8.825 | 0.025 | 8.02 |
| 645 | 1 004 | | 8 043 | 6 673 | | | | 0.015 | 8.015 | |
| 0 76 | 0.431 | 8 687 | 8 038 | 0.011 | 8 808 | 8.008 | - | 0 004 | 0.004 | 8.04 |
| 0.75 | 0.112 | 0.022 | 0.013 | 0.005 | 0.004 | 8.064 | 0.004 | 0.004 | 0.004 | 1.00 |
| 0.66 | 4 474 | | 8 664 | 8.802 | 8 882 | 1 407 | 0 007 | 8 807 | 0.087 | 1.00 |
| 0.05 | 1.004 | 6.661 | 0.001 | 0.001 | 8.801 | 6.861 | 8 881 | 6 601 | 0.641 | |
| | | | | | | 8 000 | 8 668 | 8.666 | 8 864 | 4.04 |

| Phoi SUCC | HAULUT HEBB | r of | | | | | PAYOFI | F RATIO | | |
|--------------|----------------|-------|-------|-------|-------|-------|--------|---------|--------|-----|
| | 0.50 | 0.75 | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 1 |
| 0.05 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.0 |
| 0.10 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9 |
| 0.15 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.966 | 0.850 | 0.7 |
| 6.20 | 1.000 | 1.000 | 1.080 | 1.000 | 1.000 | 0.990 | 0.858 | ù.781 | ú.7 i4 | Ű.Ő |
| 0.25 | 1.000 | 1.000 | 1.000 | 1.000 | 0.991 | 0.780 | 0.695 | 0.645 | 0.001 | 0.5 |
| 0.30 | 1.000 | 1.000 | 1.000 | 1.000 | 0.773 | 0.631 | 0.572 | 0.541 | 0.511 | 0.5 |
| 0.35 | 1.000 | 1.000 | 1.000 | 0.905 | 0.606 | 0.511 | 0.470 | 0.451 | 0.433 | 0.4 |
| 0.40 | 1.000 | 1.000 | 1.000 | 0.678 | 0.479 | 0.416 | 0.392 | 0.377 | 0.365 | 0.3 |
| 0.45 | 1.000 | 1.000 | 1.000 | 0.505 | 0.378 | 0.337 | 0.321 | 0.312 | 0.305 | 0.3 |
| 0.50 | 1.000 | 1.000 | 0.990 | 0.362 | 0.296 | 0.269 | 0.260 | 0.253 | 0.251 | 0.2 |
| 0.55 | 1.000 | 1.000 | 0.672 | 0.289 | 0.229 | 0.212 | 0.208 | 0.205 | 0.203 | 0.2 |
| 0.60 | 1.000 | 0.743 | 0.443 | 0.208 | 0.174 | 0.166 | 0.181 | 0.181 | 0.161 | 0.1 |
| 0.65 | 1.000 | 0.434 | 0.269 | 0.151 | 0.130 | 0.125 | 0.125 | 0.125 | 0.123 | 0.1 |
| 0.70 | 0.645 | 0.250 | 0.185 | 0.106 | 0.083 | 0.090 | 0.090 | 0.090 | 0.090 | 0.0 |
| 0.75 | 0.321 | 0.137 | 0.112 | 0.071 | 0.064 | 0.063 | 0.063 | 0.063 | 0.063 | 0.0 |
| 0.80 | 0 146 | 0.071 | 0.063 | 0.044 | 0.042 | 0.040 | 0.040 | 0.040 | 0.040 | 00 |
| 0.85 | 0.061 | 0.033 | 0.032 | 0.023 | 0.023 | 0.023 | 0.023 | 0.023 | 0.023 | 00 |
| 0.90 | 0.019 | 0.012 | 0.012 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.0 |

| Phot | ADILITI EBS | OF | | | | PAYOF | RATIO | | | |
|------|----------------|---------|--------|---------|-------|-------|-------|-------|-------|------|
| | 0.50 | 0.75 | 1 | 2 | 3 | 4 | 5 | 8 | 8 | 10 |
| 0.85 | 1.000 | 1.008 | 1.000 | 1.000 | 1.000 | 1.000 | 1.608 | 1.008 | 1.000 | 1.00 |
| 0.10 | 1.008 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.82 |
| 0.15 | 1.000 | 1.000 | 1.000 | 1.999 | 1.000 | 1.008 | 1.008 | 9.848 | 8.448 | 1.32 |
| 9.20 | 1.000 | 1.000 - | -1.020 | . 1.950 | 1.208 | 0.928 | 2.447 | 4 947 | . 178 | P 14 |
| 0.25 | 1.008 | 1.008 | 1.999 | 1.000 | 8.599 | 0.303 | 0.162 | 8.113 | 8 878 | |
| 0.38 | 1.000 | 1.008 | 1.000 | 1,000 | 0.277 | 9.192 | 8.006 | 0.045 | 0.034 | 6.01 |
| 0.35 | 1.000 | 1.000 | 1.000 | 0.640 | 6.002 | 6.634 | 8 823 | | | |
| 0.40 | 1.000 | 1.000 | 1.000 | 0.143 | 9.025 | 0.013 | 8.008 | 8.044 | 8 867 | 4.64 |
| 0.45 | 1.000 | 1.008 | 1.000 | 8.633 | 8.008 | 0.004 | 0.003 | 0.003 | 8.892 | 6.00 |
| 0.50 | 1.000 | 1.000 | 6.998 | 0.000 | 0.002 | 0.001 | 8.061 | 8.081 | | |
| 0.55 | 1.000 | 1.000 | 0.132 | 9.992 | 8.801 | 0.001 | 8 800 | | | |
| 8.60 | 1.000 | 0.248 | 0.017 | 0.000 | 8.800 | 0.000 | 5.660 | 8.080 | 0.000 | |
| 0.45 | 1.000 | 0.021 | 8.607 | 0 000 | 0 000 | 0.000 | | 4 644 | | 4.44 |
| 8.78 | 6.128 | 0.001 | 8.000 | 8 000 | 8 800 | 0.000 | 0.000 | | A 88A | 0.00 |
| 0.75 | 0.004 | 8.000 | 8.000 | 1.000 | 8.008 | 0.000 | 8.660 | 8.000 | 8.696 | 0.00 |
| 1.86 | 0.044 | | 6.606 | 0.004 | 4 404 | 0.000 | | | | 0.00 |
| 4.85 | 1.995 | 8 946 | 8 608 | | 1 556 | 1 104 | 0.000 | 0.000 | 0.000 | 9.99 |
| 0.90 | 0.004 | | 8 844 | 8.664 | 4.000 | A 644 | 0.000 | 0.000 | 1.460 | V.90 |

If your probability of execuses in 0.45 and your expected payoff rate is only twice, your charace of rule drops to 3.0.

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Exhibit B

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Account Facts /Summaries

| | | | | | · · · | | • | | | | ÷.,. | | 和書 | | <u>ELN</u> | | 刻麗 | |
|---|-----|-----------|-----------|------------|------------------------|----------|----------|----------|---------|------------|--|-----------|-----------------------|------------|------------|---------|---------|-----------|
| Account #: | A | | A2 | A 3 | A4 . | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 : | A13 | A14 : | A15 | A16 | A17 |
| Active Trd (Mos) | 2 | 2 | 4 | 2 | 3 | 1 | 1 | 3 | 1 | 9 | 10 | 2 | 1; | 2' | 3 | 3 | 10 | 6 |
| Avg Account Equity | 20, | 761 | 44,027 | 79 182 | 54,728 | 169,439 | 50,000 | 20,449 | 154,324 | 30,358 | 85,510 | 37500 | 94,552 | 49,052 | 12,685 | 95,592 | 42,359 | 33,610 |
| Annualized Turnover Annualzd Cost/Equity Ratio % | | 144 48 | 349 33 | 977 44 | 331 29 ¹ | 24 13 | 99 10 | 50 20 | 9 4 | 275 205 | 125 14 | 434 92 | 91 ¹ 41 | 383 92 | 281 46 | 91 9 | 18 2 | 578 71 |
| | | : | | | | | | 4 | 1 . | | an ar an | | | | | | | |

Prepared by Ronald L. Johnson

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Exhibit C- 1

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Account Facts /Summaries

| | | | 12 | | | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | | | | * HEAL | | | | |
|---|-------------|-------------|-------------|-------------|-------------|--|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Account #: | A18 | A19 | A20 | A21 | A22 | A23 | A24 | A25 | Å26 | A27 | A28 | A29 | A30 | Avg Account |
| Active Trd (Mos) Avg Account Equity | 7 58,532 | 2 40,161 | 1 69,586 | 2 28,901 | 3 29,965 | 1 40,651 | 10 213,394 | 4 21,325 | 1 40,785 | 5 35,780 | 3 51,116 | 1 85,454 | 6 73,743 | 61,471 |
| Annualized Turnover Annualized Cost/Equity Ratio % | 63 25 | 482 140 | 273 62 | 829 115 | 504 133 | 17 5 | 134 18 | 182 146 | 61 15 | 787 86 | 424 112 | 114 21 | 203 40 | 278 56% |
| A A A A A A A A A A A A A A A A A A A | | | | | | | | | | | | | 4.1.7. | |

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Exhibit C- 2

Account Performance (All Trades)

| Account: | A1 | A2 | A3 | A4 . | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | A14 | A15 | A16 |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|------------|-------------|------------|--------------|-------------|-------------|--------------|-------------|------------|--------------|------------|
| Results: | (17,559.67) | 8,258.68 | (24,210.42) | (24,318.94) | 8,550.22 | (1,501.22) | (32,853.97) | 113,985.74 | (86,732.97) | 91,127.56 | (18,339.79) | (62,965.02) | 48,645.40 | (4,863.60) | (101,255.49) | (34,945.36 |
| # of Trades: | 36 | 100 | 111 | 69 | 34 | 9 | 23 | 25 | 409 | 208 | 159 | 37 | 149 | 29 | 49 | i |
| Ava Trade: | (487.77) | 82.59 | (218.11) | (352.45) | 251.48 | (166.80) | (1,428.43) | 4,559.43 | (212.06) | 438.11 | (115.34) | (1,701.76) | 326.48 | (167.71) | (2,066.44) | (2,329.68 |
| # Win Trades: | 15 | 50 | 44 | 26 | 22 | 4 | 11 | 22 | 181 | 118 | 82 | 31 | 81 | 13 | 24 | : ! |
| #Lose Trades: | 21 | 50 | 67 | 43 | 10 | 5 | 12 | 3 | 228 | 90 | 77 | 6 | 68 | 16 | 25 | 1/ |
| Gross Gains: | 11.789.10 | 40,782.58 | 15,964.26 | 11,123.72 | 31,176.43 | 604.04 | 6,417.63 | 116,371.74 | 90,214.76 | 181,000.96 | 41,880.00 | 46,800.25 | 95,908.99 | 1,066.63 | 24,558.52 | 6,262.60 |
| Gross Loss: | (29.348.77) | (32,523,90) | (40.174.68) | (35,442.66) | (22,626.21) | (2,105.26) | (39,271.60) | (2,386.00) | (176,947.73) | (89,873.40) | (60,219.79) | (109,765.27) | (47,263.59) | (5,930.23) | (125,814.01) | (41,207.90 |
| Reward/Risk | 0.40 | 1.25 | 0.40 | 0.31 | 1.38 | 0.29 | 0.16 | 48.77 | 0.51 | 2.01 | 0.70 | 0.43 | 2.03 | 0.18 | 0.20 | 0.15 |
| Average Gain: | 785.94 | 815.65 | 362.82 | 427.84 | 1,417.11 | 151.01 | 583.42 | 5,289.62 | 498.42 | 1,533.91 | 510.73 | 1,509.69 | 1,184.06 | 82.05 | 1,023.27 | 1,252.52 |
| Average Loss: Probability of | (1,397.56) | (650.48) | (599.62) | (824.25) | (2,262.62) | (421.05) | (3,272.63) | (795.33) | (776.09) | (998.59) | (782.08) | (18,294.21) | (695.05) | (370.64) | (5,032.56) | (4,120.80 |
| Success: | 0.42 | 0.50 | 0.40 | 0.38 | 0.65 | 0.44 | 0.48 | 0.88 | 0.44 | 0.57 | 0.52 | 0.84 | 0.54 | 0.45 | 0.49 | 0.33 |
| Payoff Ratio: | 0.56 | 1.25 | 0.61 | 0.52 | 0.63 | 0.36 | 0.18 | 6.65 | 0.64 | 1.54 | 0.65 | 0.08 | 1.70 | 0.22 | 0.20 | 0.30 |
| Diek Duin ^{,**} | 100% | 74% | 100% | 100% | 51% | 100% | 100% | 0% | 100% | 4% | 100% | 100% | 1% | 100% | 100% | 1001 |

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Exhibit D-1

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Account Performance (All Trades)

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| Account: | A17 | A18 | A19 | A20 | A21 | A22 | A23 | A24 | A25 | A26 | A27 | A28 | A29 | A30 | Cumulative Results |
|---------------------------------|-------------|--------------|-------------|-------------|-------------|--------------|------------|--------------|-------------|-------------|---------------|--------------|------------|-------------|-----------------------|
| Results: | (21,612.50) | (76,610.25) | (12,505.72) | (29,526.34) | (22,282.66) | (71,366.53) | (435.27) | 99,511.57 | (36,238.34) | (49,128.96) | (30,936.99) | 18,135.53 | 434.13 | 40,268.28 | (331,272.89) |
| # of Trades: | 176 | 184 | 276 | 90 | 127 | 231 | 7 | 597 | 257 | 17 | 260 | 285 | 24 | 346 | 4339 |
| Avg Trade: | (122.80) | (416.36) | (45.31) | (328.07) | (175.45) | (308.95) | (62.18) | 166.69 | (141.01) | (2,889.94) | (118.99) | 63.63 | 18.09 | 116.38 | (76.35) |
| # will trades: | 120 | 97 | 186 | 30 | . 10 | 105 | 2 | 274 | 188 | , 10 | 185 | 124 | 12 | 145 | 2279 |
| Grose Gaine | 10 887 50 | 30 468 01 | 16 409 52 | 20 437 72 | 14 243 94 | 31 607 98 | 978 48 | 334 667 04 | 12 171 63 | 2 858 95 | 7 221 38 | 77 414 57 | 3 288 46 | 75.506 74 | 1.369.084.14 |
| Gross Loss | (32 500 00) | (116 078 26) | (28 Q15 24) | (49.964.06) | (36 526 60) | (102 974 51) | (1 413 75) | (235 155 47) | (48 409 97) | (51 987 91) | (38, 158, 37) | (59.279.04) | (2.854.33) | (35,238,46) | (1.700.357.03) |
| Reward/Risk | 0.34 | 0.34 | 0.57 | 0.41 | 0.39 | 0.31 | 0.69 | 1.42 | 0.25 | 0.05 | 0.19 | 1.31 | 1.15 | 2.14 | 0.81 |
| Average Gain: | 194.42 | 406.89 | 182.33 | 352.37 | 203.48 | 301.03 | 195.70 | 1,036.12 | 176.40 | 408.42 | 96.29 | 480.84 | 274.04 | 375.66 | 665.25 |
| Average Loss: Probability of | (270.83) | (1,334.23) | (155.46) | (1,561.38) | (640.82) | (817.26) | (706.88) | (858.23) | (257.50) | (5,198.79) | (206.26) | (478.06) | (237.86) | (243.02) | (746.10) |
| Success: | 0.32 | 0.53 | 0.33 | 0.64 | 0.55 | 0.45 | 0.71 | 0.54 | 0.27 | 0.41 | 0.29 | 0.56 | 0.50 | 0.58 | 0.47 |
| Payoff Ratio: | 0.72 | 0.30 | 1.17 | 0.23 | 0.32 | 0.37 | 0.28 | 1.21 | 0.69 | 0.08 | 0.47 | 1.01 | 1.15 | 1.55 | 0.89 |
| Risk Ruin:** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 24% | 100% | 100% | 100% | 11% | 84% | 3% | 100% |
| ** 10% account | | | | | | | · · · · | | | | | | | | |

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Prepared by Ronald L. Johnson

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Exhibit D-2

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Account Performance (All Individual Trades)

| Account: | A 1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 . | A10 | A11 | A12 | A13 | A14 | A15 | A16 |
|--------------------------------|------------|-------------|-------------|-------------|----|------------|-------------|------------|--------------|-------------|-----|--------------|-------------|------------|--------------|------------|
| Results: | | 8,258.68 | (24,210.42) | (24,318.94) | | (1,501.22) | (32,853.97) | 113,985.74 | (86,732.97) | 91,127.56 | | (62,965.02) | 48,645.40 | (4,863.60) | (101,255.49) | (34,945.3(|
| of Trades: | | 100 | 111 | 69 | | . 9 | 23 | 25 | 409 | 208 | | 37 | 149 | 29 | 49 | 1 |
| vg Trade: | | 82.59 | (218.11) | (352.45) | | (166.80) | (1,428.43) | 4,559.43 | (212.06) | 438.11 | | (1,701.76) | 326.48 | (167.71) | (2.066.44) | (2.329.6) |
| Win Trades: | | 50 | 44 | 26 | | 4 | 11 | 22 | 181 | 118 | | 31 | 81 | 13 | 24 | |
| Lose Trades: | | 50 | 67 | 43 | | . 5 | 12 | 3 | 228 | 90 | | 6 | 68 | 16 | 25 | 1 |
| Gross Gains: | | 40,782.58 | 15,964.26 | 11,123.72 | | 604.04 | 6,417.63 | 116,371.74 | 90,214.76 | 181,000.96 | | 46 800 25 | 95,908.99 | 1.066.63 | 24.558.52 | 6.262.6 |
| Gross Loss: | | (32,523,90) | (40,174.68) | (35,442.66) | | (2,105.26) | (39,271.60) | (2,386.00) | (176,947.73) | (89,873.40) | | (109,765.27) | (47,263.59) | (5.930.23) | (125.814.01) | (41.207.9 |
| Reward/Risk | | 1.25 | 0.40 | 0.31 | | 0.29 | 0.16 | 48.77 | 0.51 | 2.01 | | 0.43 | 2.03 | 0.18 | 0.20 | 0.1/ |
| verage Gain: | | 815.65 | 362.82 | 427.84 | | 151.01 | 583.42 | 5,289.62 | 498.42 | 1,533.91 | | 1,509.69 | 1,184.06 | 82.05 | 1,023.27 | 1,252.5 |
| verage Loss: Probability of | | (650.48) | (599.62) | (824.25) | | (421.05) | (3,272.63) | (795.33) | (776.09) | (998.59) | | (18,294.21) | (695.05) | (370.64) | (5,032.56) | (4,120.80 |
| Success: | | 0.50 | 0.40 | 0.38 | | 0.44 | 0.48 | 0.88 | 0.44 | 0.57 | | 0.84 | 0.54 | 0.45 | 0.49 | 0.35 |
| ayoff Ratio: | | 1.25 | 0.61 | 0.52 | | 0.36 | 0.18 | 6.65 | 0.64 | 1.54 | | 0.08 | 1.70 | 0.22 | 0.20 | 0.30 |
| Risk Ruin:** | | . 74% | 100% | 100% | | 100% | 100% | 0% | 100% | 4% | | 100% | 1% | 100% | 100% | 1001 |

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Exhibit E-1

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Account Performance (All Individual Trades)

| Account: | A17 | A18 | A19 | A20 | A21 | A22 | A23 | A24 | A25 | A26 | A27 | A28 | A29 | A30 | Cumulati Results |
|---------------------------------|-------------|--------------|-------------|-------------|-------------|--------------|------------|--------------|-------------|-----|--------------|-------------|------------|-------------|---------------------|
| Results: | (21,612.50) | (76,610.25) | (12,505.72) | (29,526.34) | (22,282.66) | (71,366.53) | (435.27) | 99,511.57 | (36,238.34) | • | (30,936.99) | 18,135.53 | 434.13 | 40,268.28 | (264,794. |
| # of Trades: | 176 | 184 | 276 | 90 | 127 | 231 | 7 | 597 | 257 | • | 260 | 285 | 24 | 346 | . j |
| Avg Trade: | (122.80) | (416.36) | (45.31) | (328.07) | (175.45) | (308.95) | (62.18) | 166.69 | (141.01) | | (118.99) | 63.63 | 18.09 | 116.38 | |
| # Win Trades: | 56 | 97 | 90 | 58 | 70 | 105 | 5 | 323 | 69 | | 75 | 161 | 12 | 201 | 1 |
| Lose Trades: | 120 | 87 | 186 | 32 | 57 | 126 | 2 | 274 | 188 | | 185 | 124 | 12 | 145 | 2 |
| Gross Gains: | 10,887.50 | 39,468.01 | 16,409.52 | 20,437.72 | 14,243.94 | 31,607.98 | 978.48 | 334,667.04 | 12,171.63 | | 7,221.38 | 77,414.57 | 3,288.46 | 75,506.74 | 1,281,379. |
| Gross Loss: | (32,500.00) | (116,078.26) | (28,915.24) | (49,964.06) | (36,526.60) | (102,974.51) | (1,413.75) | (235,155.47) | (48,409.97) | | (38, 158.37) | (59,279.04) | (2,854.33) | (35,238.46) | (1,536,174. |
| Reward/Risk | 0.34 | 0.34 | 0.57 | 0.41 | 0.39 | 0.31 | 0.69 | 1.42 | 0.25 | | 0.19 | 1.31 | 1.15 | 2.14 | |
| Average Gain: | 194.42 | 406.89 | 182.33 | 352.37 | 203.48 | 301.03 | 195.70 | 1,036.12 | 176.40 | | 96.29 | 480.84 | 274.04 | 375.66 | 663. |
| Average Loss: Probability of | (270.83) | (1,334.23) | (155.46) | (1,561.38) | (640.82) | (817.26) | (706.88) | (858.23) | (257.50) | | (206.26) | (478.06) | (237.86) | (243.02) | (710. |
| Success: | 0.32 | 0.53 | 0.33 | 0.64 | 0.55 | 0.45 | 0.71 | 0.54 | 0.27 | | 0.29 | 0.56 | 0.50 | 0.58 | 0. |
| Payoff Ratio: | 0.72 | 0.30 | 1.17 | 0.23 | 0.32 | 0.37 | 0.28 | 1.21 | 0.69 | | 0.47 | 1.01 | 1.15 | 1.55 | 0. |
| Risk Ruin:** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 24% | 100% | | 100% | 11% | 84% | 3% | 10 |

Prepared by Ronald L. Johnson

Exhibit E-2

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Account Performance (All Day Trades)

| Account: Results: | A1 | A2 (3,708.67) | A3 (11,074.38) | A4 (12,383.55) | A5 | A6 (1,501.22) | A7 3,003.26 | A8 0.00 | A9 (22,314.67) | A10 6,210.65 | A11 | A12 (1,176.48) | A13 (6,419.59) | A14 (1,948.75) | A15 (4,611.92) | A16 (919.2 |
|---------------------------------|----|-------------------------|-------------------|-------------------|----|------------------|----------------|-------------------|--------------------------|------------------------|-----|-------------------|-------------------|-------------------|-------------------|---------------|
| f of Trades: | | 76 | 107 | 60 | | 9 | 4 | 0 | 282 | 118 | | 1 | 101 | 27 | 20 | ····· |
| Ävg Trade: | | (48.80) | (103.50) | (206.39) | | (166.80) | 750.82 | | (79.13) | 52.63 | | (1,176.48) | (63.56) | (72.18) | (230.60) | (459.6 |
| # Win Trades: | | 35 | 44 | 26 | | 4 | 3 | | 134 | 64 | | . 0 | 58 | 13 | 8 | |
| Lose Trades: | | 41 | 63 | 34 | | 5 | 1 | | 148 | 54 | | 1 | 43 | 14 | 12 | |
| Gross Gains: | | 9,340.76 | 15,964.26 | 11,123.72 | | 604.04 | 3,535.20 | | 42,461.55 | 27,878.33 | | 0.00 | 11,439.93 | 1,066.63 | 6,316.41 | 0.0 |
| Gross Loss: | | (13,049.43) | (27,038.64) | (23,507.27) | | (2,105.26) | (531.94) | | (64,776.22) | (21,667.68) | | (1,176.48) | (17,859.52) | (3,015.38) | (10,928.33) | (919.2 |
| Reward/Risk | | 0.72 | 0.59 | 0.47 | | 0.29 | 6.65 | | 0.66 | 1.29 | | 0.00 | 0.64 | 0.35 | 0.58 | 0.0 |
| Average Gain: | | 266.88 | 362.82 | 427.84 | | 151.01 | 1,178.40 | | 316.88 | 435.60 | | · . | 197.24 | 82.05 | 789.55 | |
| Average Loss: Probability of | | (318.28) | (429.18) | (691.39) | | (421.05) | (531.94) | | (437.68) | (401.25) | | (1,176.48) | (415.34) | (215.38) | (910.69) | (459.6 |
| Success: | | 0.46 | 0.41 | 0.43 | | 0.44 | 0.75 | | 0.48 | 0.54 | | 0.00 | 0.57 | 0.48 | 0.40 | 0.0 |
| Pavoff Ratio: | | 0.84 | 0.85 | 0.62 | | 0.36 | 2.22 | | 0.72 | 1.1 | | | 0.5 | 0.4 | 0.9 | Ó. |

Prepared by Ronald L. Johnson

Exhibit F-1

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Account Performance (All Day Trades)

| Account: | A17 | A18 | A19 | A20 | A21 | A22 | A23 | A24 | A25 | A26 | A27 | A28 | A29 | A30 | Cumulative |
|---------------------------------|-------------|------------|-------------|------------|-------------|-------------|--------|-------------|-------------|-----|-------------|-------------|------------|-------------|-------------|
| Results: | (21,850.00) | 1,472.57 | (16,146.42) | 9,439.97 | (1,581.74) | (14,425.99) | 372.57 | 4,885.56 | (8,055.41) | | (30,970.42) | 4,417.97 | (120.93) | 26,254.73 | (103,152.12 |
| # of Trades: | 172 | 47 | 262 | 39 | 117 | 160 | 3 | 282 | 197 | | 256 | 203 | 19 | 275 | 283 |
| Avg Trade: | (127.03) | 31.33 | (61.63) | 242.05 | (13.52) | (90.16) | 124.19 | 17.32 | (40.89) | | (120.98) | 21.76 | (6.36) | 95.47 | (36.33 |
| # Win Trades: | 54 | 24 | 81 | 32 | 66 | 83 | 3 | 163 | 45 | | 72 | 117 | 9 | 160 | 129 |
| #Lose Trades: | 118 | 23 | 181 | 7 | 51 | 77 | 0 | 119 | 152 | | 184 | 86 | 10 | 115 | 154 |
| Gross Gains: | 10,425.00 | 5,608.11 | 11,983.26 | 10,858.37 | 13,580.73 | 20,881.53 | 372.57 | 82,548.28 | 8,321.64 | | 6,887.95 | 34,027.29 | 1,841.15 | 42,525.46 | 379,592.18 |
| Gross Loss: | (32,275.00) | (4,135.54) | (28,129.68) | (1,418.40) | (15,162.47) | (35,307.52) | 0.00 | (77,662.73) | (16,377.04) | | (37,858.37) | (29,609.32) | (1,962.08) | (16,270.74) | (482,744.30 |
| Reward/Risk | 0.32 | 1.36 | 0.43 | 7.86 | 0.90 | 0.59 | | 1.08 | 0.51 | | 0.18 | 1.15 | 0.94 | 2.61 | 0.79 |
| Average Gain: | 193.06 | 233.67 | 147.94 | 339.32 | 205.77 | 251.58 | 124.19 | 506.43 | 184.93 | | 95.67 | 290.83 | 204.57 | 265.78 | 292.44 |
| Average Loss: Probability of | (273.52) | (179.81) | (155.41) | (202.63) | (297.30) | (458.54) | | (652.63) | (107.74) | | (205.75) | (344.29) | (196.21) | (141.48) | (313.27 |
| Success: | 0.31 | 0.51 | 0.31 | 0.82 | 0.56 | 0.52 | 1.00 | 0.58 | 0.23 | | 0.28 | 0.58 | 0.47 | 0.58 | 0.46 |
| Payoff Ratio: | 0.7 | 1.3 | 1.0 | 1.7 | 0.7 | 0.5 | | 0.8 | 1.7 | | 0.5 | 0.8 | 1.0 | 1.9 | . 0.9 |

Prepared by Ronald L. Johnson

Exhibit F-2

HOLDING PERIOD OF OPENING TRANSACTIONS - DETAIL

| | | OPENIN | <u>G TRAI</u> | SACTIO | NS | 1 | CLOSIN | IG TRAN | SACTIO | NS | 1 | |
|------------------------|----------|----------|---------------|--------|--------------------|----------|----------|---------|--------|--------------------|--------------|----------------|
| SECURITY | DATE | ACTIVITY | QTY | PRICE | CREDIT/ (DEBIT) | DATE | ACTIVITY | QTY | PRICE | CREDIT/ (DEBIT) | DAYS HELD | TRADING P/L |
| YBERSHOP INTL INC | 04/27/98 | Р | 500 | 24.00 | (12,025.00) | 04/27/98 | s | (500) | 26.50 | 13,224.55 | 0 | 1,199.55 |
| VFOSEEK CORP | 04/24/98 | Р | 200 | 37.00 | (7,400.00) | 04/24/98 | s٠ | (200) | 37.75 | 7,544.75 | 0 | 144.75 |
| VFOSEEK CORP | 04/24/98 | Р | 800 | 37.06 | (29,675.00) | 04/24/98 | s٠ | (800) | 37.75 | 30,178.99 | 0 | 503.99 |
| IOMECOM COMMUNICATIO | 04/24/98 | Р | 500 | 13.88 | (6,971.00) | 04/27/98 | S | (500) | 14.75 | 7,349.75 | 3 | 378.75 |
| IARKET GUIDE INC NEW | 04/24/98 | Р | 500 | 26.38 | (13,221.00) | 04/27/98 | s٠ | (500) | 26.75 | 13,362.05 | 3 | 141.05 |
| IARKET GUIDE INC NEW | 04/24/98 | Р | 25 | 25.63 | (667.63) | 04/27/98 | s٠ | (25) | 26.75 | 668.10 | 3 | 0.47 |
| IARKET GUIDE INC NEW | 04/24/98 | P | 475 | 25.69 | (12,203.56) | 04/27/98 | s٠ | (475) | 26.75 | 12,693.95 | 3 | 490.39 |
| VFOSEEK CORP | 04/24/98 | P | 1,000 | 37.81 | (37,837.50) | 06/03/98 | S | (1,000) | 24.00 | 23,974.20 | 40 | (13,863.30) |
| NFOSEEK CORP | 04/27/98 | Р | 900 | 33.75 | (30,375.00) | 06/11/98 | s٠ | (900) | 23.13 | 20,789.30 | 45 | (9,585.70) |
| VFOSEEK CORP | 04/27/98 | Р | 100 | 33.50 | (3,375.00) | 06/11/98 | s٠ | (100) | 23.13 | 2,309.92 | 45 | (1,065.08) |
| IOMECOM COMMUNICATIO | 04/24/98 | P | 500 | 10.25 | (5,126.25) | 06/11/98 | S | (500) | 4.56 | 2,256.17 | 48 | (2,870.08) |
| IOMECOM COMMUNICATIO | 04/24/98 | Р | 500 | 13.63 | (6,813.75) | 06/11/98 | s٠ | (500) | 4.56 | 2,268.67 | 48 | (4,545.08) |
| IOMECOM COMMUNICATIO | 04/24/98 | P | 500 | 10.44 | (5,245.00) | 06/11/98 | s٠ | (500) | 4.56 | 2,268.67 | 48 | (2,976.33) |
| ARKET GUIDE INC NEW | 04/24/98 | Р | 400 | 19.03 | (7,639.50) | 06/11/98 | s٠ | (400) | 6.69 | 2,660.62 | 48 | (4,978.88) |
| ARKET GUIDE INC NEW | 04/24/98 | P * | 300 | 23.72 | (7,131.83) | 06/11/98 | s٠ | (300) | 6.69 | 1,995.47 | 48 | (5,136.36). |
| ARKET GUIDE INC NEW | 04/24/98 | Р• | 200 | 23.72 | (4,754.55) | 06/11/98 | S | (200) | 6.69 | 1,312.45 | 48 | (3,442.10) |
| NTEGRATED CIRCUIT SYST | 04/24/98 | Р | 1,000 | 17.00 | (17,025.00) | 06/12/98 | D | (1.000) | 13.50 | 13,500.00 | 49 | (3,525.00) |

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TOTAL TRADING LOSS

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(49,128.96)

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rades were matched in generally the same order as reflected on the account statements. Part of a targer transaction.

D: Delivered. P: Purchased. S: Sold.

Prepared by STZ Analytical Services. (07/21/99)

Exhibit G

Account A26

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Account Performance (Day Trades > 30)

| Account: Results: | _ A1 | A2 (3,708-67) | A3 (11,074.38) | A4 (12,383.55) | A5 | A6 | A7 | A8 | A9 (22,314.67) | A10 6,210.65 | A11 | A12 | A13 (6,419.59) | A14 | A15 | A16 | A17 (21,850.00) | A18 1,472.57 | A19 (16,146.42 |
|---------------------------------|-------------|------------------|-------------------|-------------------|-----|----|----|----|--------------------------|-----------------|-----|-----|-------------------|------------|-----|-----|--------------------|-----------------|-------------------|
| # of Trades: | • | 76 | 107 | 60 | ••• | | | 0 | 282 | 118 | | | 101 | | | | 172 | 47 | 26 |
| Avg Trade: | | (48.80) | (103.50) | (206.39) | | | | | (79.13) | 52.63 | | | (63.56) | | | | (127.03) | 31.33 | (61.63 |
| # Win Trades: | | 35 | 44 | 26 | | | | | 134 | 64 | | | . 58 | i j | | | 54 | 24 | 8 |
| #Lose Trades: | | 41 | 63 | 34 | | | | | 148 | 54 | | | 43 | j j | | | 118 | 23 | 18 |
| Gross Gains: | | 9,340.76 | 15,964.28 | 11,123.72 | | | | | 42,461.55 | 27,878.33 | | | 11,439.93 | | | | 10,425.00 | 5,608.11 | 11,983.28 |
| Gross Loss: | | (13.049.43) | (27,038.64) | (23,507.27) | | | | | (64,776.22) | (21,667.68) | | | (17,859.52) |) | | | (32,275.00) | (4,135.54) | (28,129.68 |
| Reward/Risk | | 0.72 | 0.59 | 0.47 | | | | | 0.66 | 1.29 | | | 0.84 | , | | | 0.32 | 1.38 | 0.43 |
| Average Gain: | | 266.88 | 362.82 | 427.84 | | | | | 316.88 | 435.60 | | | 197.24 | • • | | | 193.06 | 233.67 | 147.94 |
| Average Loss: Probability of | • | (318.28) | (429.18) | (691.39) | | | | | (437.68) | (401.25) | | • | (415.34) |) | | | (273.52) | (179.81) | (155.41 |
| Success: | | 0.46 | 0.41 | 0.43 | | | | | 0.48 | 0.54 | | | 0.57 | | | | 0.31 | 0.51 | 0.31 |
| Payoff Ratio: | = | 0.84 | 0.85 | 0.62 | | | | | 0.72 | 1.1 | | | 0.8 | 5 | | | 0.7 | 1.3 | 1. |
| Risk of Ruin | | 100% | 100% | 100% | | | | | 100% | 28% | | | 100% | | | | 100% | 57% | 1007 |

Prepared by Ronald L. Johnson

Exhibit H-1

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Account Performance (Day Trades > 30)

| Account: | A20 | A21 | A22 | A23 | A24 | A25 | A26 | A27 | A28 | A29 | A30 | Cumulativ Result |
|---------------------------------|------------|-------------|-------------|-----|-------------|-------------|-----|-------------|-------------|-----|-------------|---------------------|
| Results: | 9,439.97 | (1,581.74) | (14,425.99) | | 4,885.56 | (8,055.41) | | (30,970.42) | 4,417.97 | | 26,254.73 | (96,249.4) |
| # of Trades: | 39 | 117 | 160 | • • | 282 | 197 | | 256 | 203 | | 275 | 275 |
| Avg Trade: | 242.05 | (13.52) | (90.16) | • • | . 17.32 | (40.89) | | (120.98) | 21.76 | | 95.47 | (34.9 |
| # Win Trades: | 32 | 66 | 83 | | 163 | 45 | | 72 | 117 | | 160 | 125 |
| Lose Trades: | 7 | 51 | 77 | | 119 | 152 | | 184 | 86 | | 115 | 149 |
| Gross Gains: | 10,858.37 | 13,580.73 | 20,881.53 | | 82,548.28 | 8,321.64 | | 6,887.95 | 34,027.29 | | 42,525.46 | 365.858.11 |
| Gross Loss: | (1,418.40) | (15,162.47) | (35,307.52) | | (77,662.73) | (16,377.04) | | (37,858.37) | (29.609.32) | | (16.270.74) | (462,105,5) |
| Reward/Risk | 7.66 | 0.90 | 0.59 | | 1.06 | 0.51 | | 0.18 | 1.15 | | 2.61 | 0.75 |
| Average Gain: | 339.32 | 205.77 | 251.58 | | 506.43 | 184.93 | | 95.67 | 290.83 | | 265.78 | 290.8 |
| Average Loss: Probability of | (202.63) | (297.30) | (458.54) | | (652.63) | (107.74) | | (205.75) | (344.29) | | (141.48) | (308.8 |
| Success: | 0.82 | 0.56 | 0.52 | | 0.58 | 0.23 | | 0.28 | 0.58 | | 0.58 | 0.4 |
| Payoff Ratio: | 1.7 | 0.7 | 0.5 | | 0.8 | 1.7 | | 0.5 | 0.8 | | 1.9 | 0. |
| Risk of Ruin | 0% | 100% | 100% | | 45% | 100% | | 100% | 45% | | 6% | 100 |

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Prepared by Ronald L. Johnson

Exhibit H-2
Returns versus Risk

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(Account A30)

| Date | Account . Equity | Monthly G/L All trading | %Return Total | Monthly G/L Day Trading | %Return Total |
|------------------------------------|---------------------|----------------------------|------------------|----------------------------|------------------|
| Jul-98 | 70,141.05 | 7,74 | 0.000 | 57.95 | 0.001 |
| Aug-98 | 57,736.68 | 1,737.17 | 0.030 | 1.039.15 | 0.018 |
| Sep-98 | 58,198.78 | (8,123.37) | -0.140 | 608.40 | 0.010 |
| Oct-98 | 73,678.97 | 10,307.18 | 0.140 | 1,903.71 | 0.026 |
| Nov-98 | 83,309.71 | 18,851.86 | 0.226 | 13,821.30 | 0.166 |
| Dec-98 | 99,389.82 | 17,487.70 | 0.176 | 8,824.22 | 0.089 |
| | | | | | |
| AVERAGE | 73,742.50 | 40,268.28 | 0.072 | 26,254.73 | 0.052 |
| Standard Deviation of the returns: | 0.19 | | | | |
| Annualized Expected Return: | 14.4% | | | | |
| Risk Free Return | 4.5% | | | | |
| Sharpe Ratio = | 0.52 ** | | | | |

Sharpe Ratio= (Expected return- Risk Free Return)/ Risk

A Sharpe Ratio less than 1 indicates the return is not proportional to the risk incurred to earn it.

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Exhibit I

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APPENDIX F

Organizational Structure and The Changing Face of Market Regulation - The Alternative Trading System¹

Stock market participants have incorporated technology into their businesses to provide investors with an increasing array of services, and to furnish these services more efficiently, and often at lower prices. The current regulatory framework, however, designed more than six decades ago, did not envision many of these trading and business functions. In particular, market participants have developed a variety of alternative trading systems that furnish services traditionally provided solely by registered exchanges.

Alternative trading systems now handle more than twenty percent of the orders in securities listed on Nasdaq and almost four percent of orders in exchange-listed securities. These systems operate markets similar to the registered exchanges and Nasdaq, yet these markets are private, available only to chosen subscribers, and are regulated as broker-dealers, not in the way registered exchanges and Nasdaq are regulated. This, according to the SEC, creates disparities that affect investor protection and the operation of the markets as a whole. Therefore, after soliciting comments from the industry and other governmental entities, on December 8, 1998, the SEC adopted new rules and rule amendments to allow alternative trading systems to choose whether to register as national securities exchanges, or to register as broker-dealers and comply with additional requirements under Regulation ATS, depending on their activities and trading volume.

Regulation ATS

According to the SEC, the purpose of Regulation ATS is to allow new markets to start, without disproportionate burdens. A system with less than five percent of the trading volume in all securities it trades is required only to:

- (1) file with the Commission a notice of operation and quarterly reports;
- (2) maintain records, including an audit trail of transactions; and,
- (3) refrain from using the words "exchange," "stock market," or similar terms in its name.

If, however, an alternative trading system with five percent or more of the trading volume in any national market system security chooses to register as a broker-dealer -- instead of as an exchange -- the Commission believes it is in the public interest to integrate its activities into the national market system. In addition to the requirements for smaller alternative trading systems,

¹The term "alternative trading system" is defined in Rule 300(a), 17 CFR 242.300(a). This term encompasses some systems that previous Commission releases called proprietary trading systems, broker-dealer trading systems, and electronic communication networks.

Regulation ATS requires alternative trading systems that trade five percent or more of the volume in national market system securities to be linked with a registered market in order to disseminate the best priced orders in those national market system securities displayed in their systems (including institutional orders) into the public quote stream.

The revised statutory definition of "exchange" now includes a "market place or facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange." Expressly excluded from the revised interpretation of "exchange" are:

- (1) systems that merely route orders to other facilities for execution;
- (2) systems operated by a single registered market maker to display its own bids and offers and the limit orders of its customers, and to execute trades against such orders; and,
- (3) systems that allow persons to enter orders for execution against the bids and offers of a single dealer.

The rule exempts most alternative trading systems from the definition of "exchange," and from the requirement to register as an exchange if they comply with Regulation ATS. Because self-regulatory activities in the securities markets must be subject to Commission oversight, however, any system exercising self-regulatory powers will not be permitted the option of registering as a broker-dealer.