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**UKRAINE
OVER-THE-COUNTER
MARKET DEVELOPMENT PROJECT
PHASE III**

FINAL REPORT

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Submitted by

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TABLE OF CONTENTS

Final Report

Appendices

- Appendix 1 The Securities Trading System PFTS**
- Appendix 2 Depository Development Conference**
- Appendix 3 PFTS Training and Development Assessment**
- Appendix 4 Information Exchange Utility**
- Appendix 5 Back Office Standards of PFTS Member Companies**
- Appendix 6 Interim Back Office Principles and Procedures for PFTS Association Members**
- Appendix 7 Ukrainian Depository System Observations & Comments**

FINAL REPORT
Over-the-Counter Market Development Project in Ukraine, Phase III

I INTRODUCTION

The purpose of this report is to review the work performed by Barents Group LLC under Phase III of the Ukrainian Over-the-Counter Trading System Project that commenced on June 1, 1997 and ended October 30, 1998

The report will review the project in terms of the following topics

- 1 Project Background and Objectives
- 2 Project Tasks
- 3 Project Implementation
- 4 External Factors
- 5 Observations and Lessons Learned

II PROJECT BACKGROUND AND OBJECTIVES

The OTC Trading System Project Phase III was a continuation of the Project initiated by Barents Group in September 1995. In Phases I and II of this Project, Barents created the Ukrainian Over-the-Counter Trading System, known as PFTS. At the beginning of this Phase of the Project, PFTS represented the only secondary market trading venue for Ukrainian corporate securities, accounting for 95% of all reported trades and approximately 30 % of total trading volume. By the end of the project in October 1998, PFTS accounted for nearly 98% of all secondary market trading in equities, and approximately 90% of total trading volume in Ukraine (when taking into account non-equity instruments and primary cash auction sales). PFTS is comprised of an Association of licensed broker/dealers and banks. The Association also owns and operates the PFTS Technical Center, which is licensed as a Trading Information System under Ukrainian law and manages the entire electronic trading information network and provides all technical support and training to PFTS members.

Phase III of the OTC Trading System Project was initiated June 1, 1997 in order to

- ◆ Strengthen the private ownership and operation of the OTC Trading System PFTS,
- ◆ Strengthen the Self-Regulatory functions of key capital markets participants,
- ◆ Enhance public trading of issuer securities and shares created under Ukraine's Mass Privatization Program (MPP)

In order to accomplish this, the Project concentrated on four primary activities

A Support for the Ukrainian OTC Trading System “PFTS”

The key objective was to support PFTS by continuing to develop its trading system, increase the number of PFTS Association members, increase the number of listed securities traded on the system and the volume of trades registered, strengthen its self-regulatory role and insure that it become self-financing

B Support for the Inter-regional Stock Union (MFS)

The objective was to enhance trade in issuer securities by simplifying trading procedures, accelerating trade settlement, reducing transaction risks and ensuring the safekeeping of shares by assisting MFS to develop rudimentary re-registration, clearance, settlement and depository procedures for PFTS-traded shares

C Support for the Professional Association of Registrars and Depositories (PARD)

The primary objective was to reduce the paperwork and the cost involved in effecting re-registration of shares by working with PARD-member registrars to develop an electronic re-registration system for PFTS traded shares among select member registrars

D Draft a Depository Development Strategy and initiate a Pilot Depository Project

The objective was to initiate the building of the market infrastructure institutions that would safeguard the share ownership of Ukraine’s 20 million citizen shareholders and support increasing volumes of capital market transactions

E Training for members of PFTS, MFS and PARD

The objective was to provide regular training for members of PFTS, MFS and PARD in clearing, settlement and depository systems, structures, and issues

III. PROJECT IMPLEMENTATION AND TASKS

A Support for PFTS

The main objective of the task order was to develop and maintain the OTC Trading System PFTS by increasing the number of Association members, increasing the number of listed issues, expanding the number and types of securities traded, expanding the capacity of the system to handle ever-increasing volumes, and ensuring a self-financing PFTS

With these tasks in mind, Barents focused its assistance to PFTS on the following primary activities

- 1 Expanding and enhancing systems capabilities and increasing access to the system
- 2 Developing SRO capabilities
- 3 Developing and enhancing association rules, regulations and procedures
- 4 Improving and expanding marketing and public relations
- 5 Increasing the number and type of securities traded

1. Systems

Improved Trading System

Very early in the project it was clear that the original Trading System software was limited in capacity and reliability and would not support the ever-increasing volumes being realized in mid-1997. The original software, based on the NASDAQ Portal system, was designed for a maximum capacity of about 125 traders. Therefore, Barents' first task was to begin working with PFTS programmers on the design of a new Trading System and a new interface based on the more reliable Windows NT platform that would better serve the needs of its members and be able to accommodate increasing volumes and users.

In November 1997, Barents purchased and installed a Tandem CS 150 computer to develop and test the new design. It was originally intended to eventually serve as a "front-end" communications server for the new system and its more traffic intensive functions (such as Market Minder) and be able to offer expanded services to traders such as messaging and e-mail. The Portal Software on the Stratus computer would then become a "back-end" server handling database functions.

At the same time, PFTS was in negotiation with the State Property Fund of Ukraine in hopes of directing a portion of its privatization cash auctions to PFTS. PFTS' participation in these auctions is discussed in more detail later, but in preparation Barents encouraged PFTS programmers to build a separate module into the new Trading System to permit State Property Fund Cash Sales to take place on PFTS independent of the trading system software.

The improved capabilities of the new Trading System also required the design of a new Trading System Terminal that would provide a vastly improved interface to the Trading System. The development of the system interface continued into 1998 and was unveiled at a PFTS Market Development Conference in Foros, Crimea in August 1998. Some of the features built into the new terminal include

- ◆ an expanded series of fields that added the names of participants and issuers in Cyrillic lettering and more detailed information on trades,

- ◆ multiple portfolio management
- ◆ automatic display of all information on uncompleted trades,
- ◆ improved message exchange system that allows messaging between groups and categories of participants rather than individual participants,
- ◆ enhanced security functions for all levels of the system,
- ◆ system performance capable of handling up to 100 transactions per minute

The new Trading System is presently being site-tested at select trading locations throughout Kiev. Its full implementation will depend largely on the state of the securities market over the next several months. The near absence of trading in the last several months has taken a heavy financial toll on every PFTS member and, as such, the new interface is likely to remain in the testing phase for the near term. These modifications increased the capacity and performance of the Trading System by over 50%.

Access to the Trading System

Access to the Trading System continued to increase throughout the project through the installation of leased lines in all the cities. PFTS maintained trading stations. As of June 1997 there were 58 leased lines installed. Barents oversaw the installation of another 50 project-funded lines throughout the remainder of 1997 and 1998. The installation and maintenance of leased lines, however, is costly and often beyond the reach of prospective PFTS members. For that reason, Barents and PFTS concluded agreements with several major internet service providers to allow members to connect directly to the Trading System through the local internet provider of their choice. This not only eliminated the need for a separate trading station to be established in each city but also created new possibilities for increasing PFTS membership. As of October 31, 1998, 55 PFTS members were connected to the trading system directly through their internet service providers.

To further enhance access to the Trading System, Barents and PFTS continued converting connections to a TCP/IP protocol from the previous X.25. The primary engine driving the shift to TCP/IP is cost. TCP/IP as the standard internet protocol is more efficient, more flexible, and significantly less expensive. Compared to X.25, the X.25 protocol requires more bytes to transmit a given unit of data – hence data communication costs are significantly higher. By the end of the project all but three PFTS members were connected to the Trading System and its services through a TCP/IP protocol.

2 SRO functions

One of the broader objectives of the Task Order was to strengthen the Self Regulatory functions of the PFTS Association and help it achieve SRO status. Since the concept of the Self Regulatory Organization was new to Ukraine, Barents, PFTS and other USAID contractors worked closely with the Ukrainian Securities Commission (SSMSC) to define

delegated SRO activities and responsibilities such as broker-dealer licensing and the development of a standardized broker-dealer compliance program and to get PFTS designated as an SRO PFTS was designated a Self Regulatory Organization (SRO) on October 31, 1997 by the SSMSCurities Commission

Barents also prepared, as one of its principal deliverables, an assessment of the training and professional development needed by PFTS and its staff to enable it to respond to developments in the capital markets, to implement new regulations and to increase its capacity to properly function as an SRO Some of the more critical recommendations were in the areas of Supervision and Compliance, Enforcement and Arbitration, where PFTS was seen to be understaffed and under qualified to fully monitor the conduct and activities of its members and respond accordingly

PFTS is further constrained by its relationship with the Securities Commission, which has often been difficult and strained This is not likely to change any time soon and the best PFTS can hope for is to work with all legislative bodies to ensure that securities legislation allow for the continued development of a free, largely self-regulated, securities market

3 Association rules, regulations and procedures

In the early stages of the project, Barents focused its efforts on advising PFTS and its members on how better to function as an association by developing new and improved rules, regulations and procedures for all members

Listing/Delisting Rules

PFTS received its license as a Trade and Information System (TIS) from the Securities Commission on June 10, 1997, the first such license issued in Ukraine As such, the need to establish its listing procedures became of paramount importance Barents supported PFTS development of issuer eligibility requirements, listing and delisting standards Certification procedures and testing standards for membership and traders (authorized persons) were also established, as were the requirements for authorization and for issuing and withdrawing certification The Listing and Delisting Rules of the Association were approved by the PFTS Board on June 29, 1997

One of the central features of the rules was the introduction of the concept of First, Second and Third Tier listings For instance, to earn a First Tier listing an issuer had to meet a minimum level of capitalization and agree through its registrar to limit re-registration fees to no more than 1% of the value of the transaction and to perform re-registration in at least 2 business days As an added advantage, First Tier stocks would trade in minimum blocks of shares This distinction helped create a class of Ukrainian "Blue Chip" stocks of more attractive, more liquid shares

Most of the listings that occurred after the rules took effect were done at the request of broker-dealers. As is common in the early stages of development of the capital market, very few issuers understand the potential benefits of having their shares listed on an exchange or trading system. The impetus usually comes from the traders in those securities who demand a certain amount of transparency and liquidity. Barents expects this to remain the rule until the number of tradable firms increases through an increase in privatization and those more attractive Ukrainian enterprises begin to seek international equity financing.

Most de-listings of shares were a result of a lack of trading in those shares. There was, however, one notable instance of suspended trading. This occurred in the high profile case of "Dniproshyna", Ukraine's largest tire manufacturer located in the industrial city of Dnipropetrovsk. In January 1998, Dniproshyna's managing board approved a share emission that was offered only to a group close to the company's management at a price well below the prevailing market price. The remaining shareholders, many of which were foreign companies, were left with severely diluted positions.

In response to the outcry from the broker-dealer community, the PFTS board agreed in February of that year to suspend trading in Dniproshyna shares pending an investigation into the legality of the emission. The Ukrainian Arbitration court eventually ruled that the emission was legal, which was a major setback for the market and for Ukraine's efforts to portray itself as an investor-friendly country. The case has since become a symbol of Ukraine's failure to protect shareholder rights.

The only positive aspect was PFTS' ability to react to the situation and address the needs of members. PFTS subsequently became a leading advocate for amendments to Ukrainian securities and corporate governance legislation.

Back Office Procedures

With the exception of local branch offices of foreign brokerage firms, most PFTS members had a poor concept of what constitutes a back office and how to ensure the proper handling of customer trades and accounts. Barents' objective was to bring Western standards of practice to the brokerage industry in Ukraine and set up clear and concise procedures for PFTS members. The first step was the creation of a Back Office Committee in June 1997, which would work closely with Barents experts to identify key back office issues and draft the rudimentary procedures.

In November 1997 Barents completed a recommended set of Back Office Standards to members of the PFTS board. The standards were the first attempt to establish general procedures for preparing and maintaining records that accurately reflected a broker/dealer's assets and liabilities relative to its customers as well as to other broker/dealers. The PFTS board approved the Back Office Standards on December 3, 1997 but only as recommended guidelines that ensure higher standards of commercial

conduct and equitable and ethical trade principles Today, the most active PFTS members in terms of trade volume employ these standards of practice

4 Marketing and Public Relations

One of the primary services PFTS provides its members is promoting their interests and the interests of the investment community at large Barents advised PFTS on a variety of marketing and public relations initiatives designed to increase membership, expand and improve the services available to its members and promote the investment potential of Ukraine and the accomplishments of PFTS

Media Agreements, Press Conferences, Other

Perhaps the easiest and least expensive method of promoting PFTS as the primary trading venue in Ukraine was concluding agreements with various media and information services, especially those with an international reach PFTS began this process in earnest in early 1997 and by the end of the project had agreements with 16 different media outlets, including Reuters, Bloomberg, Dow Jones and Interfax

PFTS also holds a press conference every month in its offices for 10 local newspapers, four television companies and four information services to discuss the events and results of the prior month and any planned events The press conferences are also an excellent opportunity for PFTS to promote its membership and raise issues affecting the development of the securities market

As a testimony to the success of PFTS, the Ukrainian newspaper "Investytsiyna Gazeta" in January 1998 named PFTS the "Phenomenon of 1997", while the magazine "Business" named Irina Zarya, the president of PFTS, one of three people who had the strongest effect on the development of the stock market in Ukraine in 1997

Conferences and Training Programs

In order to educate the participants of the market – issuers, intermediaries and potential investors - and to raise the overall profile of the market, Barents assisted PFTS in developing a number of training programs and recommended PFTS' participation in several international conferences

The more significant of these were the following

- 1 PFTS-sponsored conference – "The Organized Stock Market – Development and Regulation" held October 30-31, 1997 in Kiev The conference was attended by representatives of 183 brokerage firms and 60 government officials from the Securities Commission, the State Property Fund and the President's Administration, among others and included over 30 speakers, including experts from Barents

- 2 Barents/USAID-sponsored U S training program on the Roles of Stock Exchanges, SRO Practices and Central Depository Development in June 1997 for the Board of Directors of PFTS
- 3 Two Euroforum conferences on “Investing in Ukraine” were held in Kiev, one in October 1997 and the other in May 1998 Irina Zarya, the president of PFTS, addressed the participants of both conferences on the development of PFTS and its role as a vehicle for attracting investment to the Ukrainian securities market Another Euroforum conference is scheduled for October 1998
- 4 PFTS/Barents-sponsored training program on Depository Procedures in May 1998 The course focused on internationally recognized depository accounting and internal control procedures and was attended by over 45 capital markets participants Barents experts conducted the training
- 6 PFTS-sponsored conference “The State of and the Outlook for the Ukrainian Stock Market”, September 1998 in Foros, Crimea The conference included nearly 40 speakers on topics ranging from the future of PFTS, brokers’ work with issuers, new technologies, depository development and legislative issues The conference concluded with an appeal by members of the private securities industry to the government of Ukraine to cooperate with each other in finding common solutions to the problems facing the industry

Barents is convinced that these conferences, training programs and other similar gatherings are an excellent way for PFTS to promote itself and its membership and also serve to reaffirm PFTS as a leader in the development of the securities market in Ukraine

Web Site

With assistance from Barents, PFTS launched its official web site - www.pfts.com – in September 1997 As a result, information on PFTS was made available to anyone with an internet connection anywhere in the world The site contains information on PFTS-listed shares, PFTS rules, regulations and procedures, special information for brokers and potential members of the PFTS Association and daily trade results (offered on a fee basis) The web site is written in both English and Ukrainian and can be found at [<www.pfts.com>](http://www.pfts.com)

Monthly, Annual, and Biannual Reports

PFTS also publishes a number of reports and provides a steady flow of information to its members and the public at large These include monthly reports to members and a biannual and annual report for general distribution The PFTS Technical Center also produces monthly reports of key statistics and indicators by industry and security and publishes monthly rankings of traders and securities based on trade volume

5 Expanding the Number and Type of Securities

At the beginning of Phase III in June 1997, only three types of securities were traded on PFTS – corporate securities, compensation certificates (certificates granted to citizens as compensation for lost savings during the years of hyperinflation) and drafts (Wechsels). In April 1997, PFTS introduced trading in the municipal bonds of Odessa. The only other securities being traded at the time were Privatization Certificates, which were not legally transferable, and thus could not be traded on the system, and Government Treasury Bills.

State Property Fund Cash Auctions

Together with Price Waterhouse, which was under contract with USAID to assist in Ukraine's Mass Privatization Program (MPP), Barents and PFTS began negotiating with the State Property Fund (SPF) in for the right to conduct cash auctions on PFTS. The ability to tap the primary market represented a potential coup for PFTS and would have made sense for the SPF as well. PFTS offered the SPF a network of almost 200 dealers in every major city in the country, which could represent any number of individuals and institutional investors - foreign and domestic. What's more, the whole process could be accomplished by a computer terminal hooked up to the trading system in the office of the SPF.

The concept of using the PFTS trading system in support of SPF privatization was first recommended by Barents in March 1996. While making the case for using PFTS was relatively easy and compelling, breaking the Ukrainian Stock Exchange's governmentally granted monopoly on primary cash auctions was not. It would not be until 18 months later, that PFTS would be granted permission to participate in SPF cash auctions. Sustained pressure from PFTS, its membership, USAID and other USAID contractors was required to open up the SPF auction system.

The procedures for carrying out cash auctions were approved by the SPF in December 1997 and the first auction took place a few weeks later. The auctions were so successful the SPF conducted two additional auctions in February and March 1998 for stakes in some of the most attractive electricity generating and distribution companies in Ukraine. In two days, the auctions resulted in sales of \$13 million.

Overall, we believe Barents' continued support of PFTS met the stated objectives of the project and has reaffirmed PFTS' position as the largest and best organized venue for secondary market trading in corporate and municipal securities in Ukraine, and one that is already self-financing. The table below illustrates the considerable growth in PFTS over the final phase of the project.

	June 1997	October 1998
PFTS Members	113	303
Members Connected to the Trading System	84	190
Listed Issues (net)	170	176
Types of Issues	CS, CC, D, MB	CS, CC, D, MB, TB, SPF Cash Auctions
Cumulative Transactions and Trade Volume	932, \$35 million	See Appendix

CS – Corporate Securities, CC – Compensation Certificates, D – Drafts
 MB- Municipal Bonds, TB – Treasury Bills

Future Directions

At the time of this report, Ukraine, as well as all emerging markets, has been adversely effected by the financial crisis in Asia and, most recently, Russia. PFTS trade volume has fallen steadily since October 1997 and precipitously since August of last year. As measured by the PFTS index the volume of trade has fallen from a high of about 106 in October 1997 to below 20 in October 1998 - a decline of over of 80%. This, however, is only the immediate effect of the current crisis. The impact this is likely to have on the Ukrainian economy and PFTS and its membership, in particular, remains to be seen.

In order to offset revenue losses from the trade in corporate securities and T-bills, PFTS in October 1998 developed a pilot trading system for drafts and promissory notes. The pilot involved trading in eight types of drafts but could easily be expanded. According to some estimates the market for trading in drafts and promissory notes could reach volumes as high as \$10 million per month. A separate Draft Trading Module is currently being developed for implementation if the pilot proves successful. This module could easily be implemented as part of the new trading system and is indicative of the system's versatility. PFTS is also studying the possibility of trade in derivatives such as options on securities, and forward and futures contracts for currency and key commodities such as sugar and wheat.

USAID's continued support for the development of a central clearing, settlement and depository system for Ukrainian corporate and municipal securities will necessitate the involvement of PFTS as the only active trading system in Ukraine. PFTS is already working closely with Price Waterhouse to continue the development of its electronic information exchange utility as the basis of an integrated clearance and settlement system and is taking a leadership role in the development of a securities depository.

Barents fully expects PFTS' membership to shrink over the coming months as a result of the lack of trading. At the time of this report a number of well established brokerage firms had already closed their trading operations in Ukraine and many will simply not have the financial resources to continue paying membership dues and trading system access fees. Notwithstanding the expected contraction in membership, Barents remains confident that PFTS has developed a sufficient "critical mass" of membership to permit it to weather the current crisis and remain self-sufficient. In great part, this was due to an early worst case assessment of the impact of the October 1997 Asian financial market crisis.

B Support for MFS

One of the primary tasks under Phase III of the OTC Project was to develop MFS as a re-registration, clearing, settlement and depository service provider for PFTS traded issues. Through hardware, software and technical assistance from Barents, MFS was to provide rudimentary re-registration, clearing and settlement and depository functions for at least 5 PFTS traded issues.

Background

MFS was founded in March 1997 by some of Ukraine's leading banks and financial intermediaries to perform clearing, settlement and depository activities in corporate securities. As of October 1998 MFS had 57 shareholders, nearly 80% of which were banks and 12% broker-dealers. The remainder was divided between other institutions and the National Bank of Ukraine, which holds about 4.5%. There were eight directors on the board of MFS, all but one represented Ukrainian state-owned and private banks, including the National Bank.

In October 1997, after nearly five months of stalling on the part of MFS, Barents specialists were finally permitted the opportunity to conduct a preliminary review of the MFS depository software system. The review identified several fundamental software and database problems that would prevent it from ever effectively supporting PFTS trading. First, the system's chart of accounts were too numerous and complex, with most being completely unrelated to depository functions. Second, the software required multiple manual entry of identical transactional data, which not only increased the possibility of data entry error, but also virtually eliminated the benefit derived by computerizing and automating the process in the first instance. Third, the depository database was abnormally large and contained unnecessary historical information, which would ultimately slow the movement of shares as the number of transactions increased.

Barents, therefore, recommended MFS to modify or replace its depository software with a design that would use a standardized, internationally-recognized accounting structure and maintain a master issue database that would be the source of all reporting. It was already clear by this time that substantial modification or replacement of MFS' software would be necessary if MFS was ever to properly support PFTS trading.

MFS received the first depository license in Ukraine in November 1997. In December of the same year the Law on the National Depository System and Peculiarities in the Electronic Circulation of Securities was passed by the Ukrainian Parliament. This law is discussed further in the section on legislation. One of the key provisions of this law states that membership in a depository is restricted to licensed custodians. Hence, non-bank, non-custodial broker-dealers can access the depository only through a custodian, which in most cases are banks. Another limiting factor is the requirements that custodians, in order to obtain a license, must have a minimum capitalization of ECU 100,000. The ND Law further required that all issuers with dematerialized shares place those shares, in the form of a global certificate, in a depository within six months – a completely unrealistic requirement given the fact that there was, at the time, no functioning depository in Ukraine.

In early 1998 MFS and PFTS began the first phase of testing of MFS software. The purpose was to determine the technical requirements for automating the process of re-registration, clearance and settlement by simulating the processing of PFTS trades and downloading compared trade information directly into the MFS system. Cross training of MFS and PFTS also took place, as did training from Barents personnel in internationally recognized depository accounting standards.

By March 1998 it became increasingly evident that MFS' software was not just theoretically, but practically, unworkable. All tests indicated that the software had been designed without consideration of the electronic environment in which PFTS member firms operated. The software design did not provide for the electronic downloading of confirmed PFTS trades, nor could it be integrated well with the back office operations of potential custodial member firms. Most significantly, the software and MFS depository procedures were not compliant with G-30 recommendations and principles. Among other significant software flaws was that share movement within the depository could be initiated by the selling party, without the knowledge or, or mutual confirmation by, the buy side custodial member firm. Mutual affirmation by buying and selling custodial representatives is as essential to the depository process, as the trade match and confirmation process is at the exchange level.

Solving these and other problems would have required close cooperation between MFS, PFTS and its member firms but this never materialized. In retrospect, the lack of cooperation was a direct result of substantial political and institutional differences between the two organizations. Although PFTS and MFS did conclude a cooperation agreement in April 1998, this was largely a palliative -- the political and institutional differences remained. (Cooperation agreements in the Former Soviet Union are typically face saving exercises or, at best represent a preliminary step toward a more detailed technical or substantive agreement at some future time. In this case, it was clearly the former.)

In practical effect, the absence or presence of a cooperation agreement was not the main obstacle to forward movement between PFTS and MFS. Something more fundamental was missing – shares. There was an almost total absence of shares registered in MFS depository or custodial name. The most frequently cited reason to explain this among market participants was a complete lack of trust in MFS as a competent depository or custodian. Beyond the considerable doubts about the abilities and efficiency of MFS software, there were also concerns about MFS management and its governance structure, which was seen as favoring large banks to the exclusion of all other key market participants. There was also considerable uncertainty regarding the Securities Commission's ownership interest in the National Depository System as well as the depository organization itself as mentioned in the National Depository law. The result, of course, was a reluctance on the part of brokers, issuers, custodians and registrars to give up custody and control over their shares to an unreliable third party. In fact, foreign custodial banks may be contractually and legally obligated (pursuant to due diligence provisions) not to transfer their shares to such an organization. Given the circumstances present during the time of the project, SEC Rule 17f-5 would most certainly preclude any US-based mutual fund from entrusting MFS with custody over their shares.

As further evidence, one need only look at the number and types of securities MFS holds in global certificate form and in immobilized form through custodian accounts. Of the 57 companies for which MFS held global or temporary global certificates (as of October 1998), only one was traded on PFTS. In fact, most of the securities held by MFS were closed joint stock companies, which would never trade publicly anyway. Hence, placing these shares in depository does nothing to stimulate trading and increase the liquidity of the market because it offers nothing to market participants, nor does it help MFS to establish itself as anything other than a registrar of beneficial owners with no interest in trade. Even MFS' own shareholders (57 total) have refused to place their shares in MFS, with two exceptions.

By May 1998 it became evident that MFS would not be able to provide even rudimentary clearing, settlement and depository services for PFTS-traded shares. MFS' problems were not merely technological but institutional. As such, following consultation with USAID, Barents shifted its focus toward the development of the electronic re-registration utility being developed jointly by Barents, PFTS and PARD-member registrars. The hope was that the re-registration utility would serve as an interface between traders and registrars and could eventually become an electronic link with MFS or any other depository, when needed. MFS was invited to participate in the working group that was subsequently created, but did not participate actively and even considered the utility a threat to the implementation of their own software product.

C. Support for PARD

In connection with the Professional Association of Registrars and Depositories (PARD) Barents was to develop and implement standard protocols for the direct electronic re-

registration of PFTS-traded shares with independent issuer-registrars Barents was also expected to insure a fully established and self-financing PARD

Background

The Professional Association of Registrars and Depositories was formed in June 1996 and presently consists of 229 independent registrars and one depository, MFS. The association was founded in response to a Presidential Decree of March 2, 1996 requiring every joint stock company with more than 500 registered shareholders to have their share registries maintained by an independent registrar. By that time the number of privatized firms in Ukraine with more than 500 shareholders numbered in the thousands and the government's ambitious privatization plans had called for thousands more within the coming year. Needless to say, this never materialized, but at the time the impetus was certainly there to unite the industry and standardize procedures.

PARD's activities focus primarily on promoting its members' services, establishing uniform pricing policies and re-registration procedures and establishing and enforcing ethical standards of conduct. The SSMSCurities Commission granted PARD SRO status in October 1997.

Share Registration and the Independent Registrar

The political and economic rationale for creating independent registrars was to prevent a government-controlled central registry of shares that was seen as a threat to the creation of an open and transparent market for trading in Ukrainian shares. By creating separate independent registrars it was hoped that corporate shares would circulate more freely and be more likely to attract capital into the market.

The privatization process further reinforced this approach by dispersing all share registries created through the Auction Center Network among independent registrars. The result, of course, was a highly decentralized system of share registry. In many cases, these registrars are far from independent and are in reality "pocket registrars" of the enterprise's management, which strictly monitors changes in share ownership and often restricts legitimate trading in its shares.

The process of re-registration of shares in Ukraine is cumbersome, costly and unpredictable. Buyers and sellers of shares are required to submit an inordinate amount of paperwork to the independent registrar and pay re-registration fees of, at a minimum, 1-1.5% of the amount of the transaction. For example, a typical transaction requires, at a minimum, a notarized buy-sell agreement between the two parties, a transfer order and an extract from the register. In many cases these registrars are located outside of Kiev, delaying the process further and adding to its cost. Furthermore, the requirements of re-registration are typically dictated by the registrar, resulting in no uniform practice of share re-registration in Ukraine.

Barents and PARD

In order to reduce the cost and eliminate most of the paperwork involved in the re-registration process, Barents together with PARD and PFTS began working on the basic specifications of an Electronic Information Exchange Utility (IEU) that would provide information on PFTS trades direct to issuer registrars. Automating the share registration process would not only reduce costs but also settlement time and, ultimately, transaction risk. Furthermore, re-registration of ownership rights in an electronic environment is an internationally recognized practice and one that Ukraine would need to develop sooner or later.

PARD and Barents spent most of 1997 determining the specifications of automating the re-registration process and drafting terms and conditions that balanced the needs of the broker-dealers and issuer registrars, i.e. the desire of the broker-dealers for faster re-registration with the registrar's requirement of duly notarized/legalized trade documentation.

By February 1998 the basic specifications had been completed and Barents began the actual software development. (Beta testing of the IEU commenced in early April 1998.)

The problem of establishing an electronic link or messaging system between registrars and PFTS traders was not simply a technological exercise. Present securities legislation as well as the civil code of Ukraine does not recognize electronic documentation as legally binding and electronic signatures as legal signatures. In early January 1998, PARD presented its own preliminary version of electronic re-registration procedures to the Securities Commission but they were flatly rejected. (Contributing to the rejection was the fact that PARD's proposal to the SSMSC was made without participation or review by Barents, and without a broad based consensus from the industry at-large.) Until this legislative obstacle is overcome, either in the form of revised legislation or a special waiver from the Securities Commission, Ukraine will never truly achieve an electronic circulation of securities.

Believing that workable solutions to market infrastructure problems requires practical input from market participants, Barents advocated the development of an IEU Users Group made up of key PARD registrars, PFTS traders, custodians, MFS, members of the SSMSC and lawyers from FMI. The task of the Users Group was to

- 1 Develop and implement specifications for automating share registration
- 2 Develop a prototype software module and begin testing an IEU
- 3 Develop participant contracts and procedures
- 4 Develop regulatory recommendations needed for real-time implementation

This formula represented a return to a fundamental key to PFTS' success – utilization of a consensus building approach from the industry level on up.

The first meeting of the Users' Group took place in May and every two weeks thereafter. After extensive demonstrations and testing of the IEU software, programming, procedural and contractual improvements were made that resulted in the creation of the Electronic Transfer Order (ETO) and an ETO processor that would be installed at each participating trader and registrar. The ETO replicated the Transfer Order used by one of Ukraine's largest registrars and contained fields for all information required by the SSMSC in order to re-register shares. In this way, a registrar would simply receive a TO by e-mail, print it and use it as the legal basis for re-registration. Encryption and decryption devices were also developed for the ETO and all other messaging between traders, registrars and the IEU server in order to protect sensitive data transmissions. All messaging and information fields also conform to the latest SWIFT (Category 5) and ISO communication standards.

By August 1998 a final testing group was formed consisting of three top PFTS traders and three of the largest PARD-member registrars in Ukraine. In fact, two of the participating registrars accounted for 35% of all trades on PFTS since the beginning of 1997. Barents then developed the IEU User's Manual and IEU Installation software for use by individual participants.

This represents the final stage of the IEU as an electronic information exchange system between securities traders, registrars and a trading system, i.e. the basis of a clearance and settlement system for corporate securities. In order to fully test and launch the IEU as an electronic re-registration system will require Securities Commission approval and recognition of electronic documents as legally binding. Barents advocated and continued to lobby, along with USAID and PARD, for a special "pilot" status for the IEU. This would allow the participants of the pilot to conduct live trading and re-registration of securities based solely on the electronic documents and messaging generated by the IEU in a controlled environment. The normative documents have been prepared and approved by the pilot participants and the system is ready to be launched. In fact, the IEU software module was, at the time of this report, being installed on the premises of the participants in the Test Group and sample trades will soon be generated.

Barents firmly believes that the IEU is the basis of an efficient clearance and settlement system for Ukrainian corporate securities. By employing internationally recognized standards of communication and transfer it will allow for a smooth and measured transition to a central registry or depository environment when market volumes and market participants dictate. The IEU is not, as some observers have suggested, "anti-depository", but is in fact "pro-depository" by providing a modular, building block approach toward depository development. Furthermore, it is uncertain when a separate clearance, settlement and depository organization will become economically feasible in the near term, which only further supports the need for an interim solution.

However, the development of PFTS and its listing and trading rules as well as the standards set by PARD for its members have done much to create a more fair, open and less costly process.

D Depository Development

The objective was to initiate the building of the market infrastructure institutions that would safeguard the share ownership of Ukraine's 20 million citizen shareholders and support increasing volumes of capital market transactions. The main task was to draft a depository development strategy and initiate a depository pilot program compatible with the PFTS Trading System and providing a Delivery vs Payment (DVP) mechanism. This was to be accomplished with the direct involvement of a broad-based Working Group of securities market participants.

This stage of the Task Order was added in June 1998 and included continued support of PFTS and the electronic IEU as a clearing and settlement mechanism. Furthermore, the depository development aspect of this task did not call for any support of MFS as the only licensed depository at the time. In fact, USAID had recognized that MFS "had become a question mark" in terms of being the basis for the industry's depository. Barents continued working with MFS by engaging them in the debate over the direction of depository development and continued to view them as part of the solution.

Beginning June 1, 1998, the OTC Project was expanded to include a Depository Development component. The task was to develop a depository development strategy and initiate a pilot depository project. It is important to note that the Task Order did not mention any existing market participants as potential depository candidates but simply called for Barents to address the key issues of organizational development and begin building a consensus among industry participants and eventually launch a Depository Pilot initiative.

The first task was to create a Working Group that would include the key broker-dealers, banks, custodians, registrars and trading systems operating in the Ukrainian market. Based on Barents' long history with most market participants this was a relatively easy task. The difficulty was finding participants who were not only knowledgeable in depository development issues but also willing to participate in the development process.

Three basic issues were identified as critical threshold questions:

1. What type of central depository organization was necessary to support PFTS-traded corporate securities?
2. What support structures for PFTS trading were necessary to facilitate the transition from a decentralized registrar system to a depository system?
3. What organizational and governance structure is desirable to ensure long-term viability and instill confidence in the market?

By June 1998, Barents had formed a tentative Working Group and began meeting with the prospective Working Group participants separately to determine their particular needs and their view of depository development

To encourage discussion of the key issues, Barents sponsored a one-week training program in the U S , which included a component on Central Depository Issues Barents met extensively with the conference participants while in the United States as well as with the Working Group in Kiev The result was a Depository Development Strategy Paper, or Framework Outline that incorporated what Barents viewed as the key organizational, ownership, governance and implementation issues surrounding depository development Barents used this same approach in the early development of PFTS with great success

The Role of the Securities Commission

The Task Order extension was in direct response to the SSMSCurities Commission's plans to develop a National Depository System as called for under the law of the same name passed in December 1997 It was clear from the beginning that USAID's demand for an industry-owned clearing, settlement and depository system would run counter to the wishes of the SEC

The Law on the National Depository (ND Law) empowers the Securities Commission to undertake the development of the National Depository and control the government's ownership stake in the National Depository Unfortunately, the Securities Commission interpreted these powers broadly and began to undertake depository development largely without any private sector input Several regulations and decrees of the Commission supported this position and approach and finally in July 1998, the Securities Commission and the NBU concluded a joint decision (Decision # 83) "On Measures for the Establishment of the National Depository of Ukraine" The measures set forth called for an almost entirely SEC-led initiative to create a functioning National Depository by April 1999 Another measure called for merging MFS into the National Depository It also established a working group consisting almost exclusively of banks and members of the NBU

Barents later learned that The SEC/NBU organizing committee was only a proposed list and most of the participants had not only not approved Decision #83 but had not even been aware of its conception Furthermore, the proposal was presented by the NBU and the SEC at the annual meeting of MFS shareholders and was soundly rejected

This approach was indicative of many Commission-led initiatives and illustrates not only the highly politicized nature of depository development in Ukraine but the virtual "crowding out" of private industry in the decision making process These were the two primary obstacles Barents had to overcome

Since passage of the ND Law, depository development was seen as almost solely within the purview of the Commission and was taking place without any realistic and practical input from the private securities industry. This prevented any meaningful debate on the issue and had a chilling effect on private sector initiative. In fact, an early initiative from several custodial banks and the Inter-bank Currency Exchange in late 1997 was so swiftly rejected by the Securities Commission that Barents later had problems enlisting them into the Working Group.

Consensus Building

In order to bring the industry back into the debate, Barents organized a two-day Depository Development conference in late July. The purpose was to seek private sector input on the major issues affecting the establishment and operation of a private sector owned and governed centralized depository system. To facilitate the process Barents provided each participant with a Depository Development Framework Outline. This outline became the basis for developing the organizational, ownership and governance structure of a future depository system.

Over 75 capital markets participants attended the conference including the SEC, NBU, the Cabinet of Ministers and the President's Administration as well as Barents depository experts and one representative from the U.S. Securities and Exchange Commission. The conference represented the first real exchange of ideas between all market participants and was the first step in creating an open development process based on consensus building. Though there were wide-ranging opinions on each issue there was general agreement on some of the basic principles and approaches to depository development. Namely,

- 1 A single organization should be created to perform clearing, settlement and depository functions for corporate securities,
- 2 The depository should be "not-for-profit" and owned and operated primarily by private-sector market participants,
- 3 Board composition and governance should reflect the not-for-profit status of the depository and balance the interests of all market participants with preference given to custodians as the primary users of a depository,
- 4 All that private sector depository proposals and initiatives should be considered equally by USAID when making funding decisions, preferably through a tender of all proposals.

In order to take advantage of the momentum and the expectations created by the conference (especially among the private sector) Barents Group quickly solidified the Depository Working Group by enlisting the most active participants of the conference. Furthermore, based on the numerous attempts of the Commission to control the direction of debate on depository development, Barents recommended establishing a Working Group made up solely of private market participants, relegating the SEC, NBU and other state organizations to an Advisory Group that would be responsible for providing

guidance to the WG as needed and considering their recommendations on procedural and legislative matters. Hence, a cooperative approach but one that from the beginning clearly established the operational and oversight functions as separate.

Based on the conference findings Barents revised the Depository Framework Outline to incorporate all of the developmental issues facing market participants and intended it to serve as the key developmental guideline for the Working Group.

Registrars' Role in the Depository Process

In making the transition to a central depository environment great care had to be taken not to add any administrative or legal uncertainty to the present registry system. Barents found that both the Commission and MFS in their respective attempts at depository development had not paid enough attention to this issue. MFS had been particularly hostile to registrars and refused to involve them in their efforts from the outset. The Commission's approach had been to legislate registrars out of existence by forcing dematerialized shares into a depository prematurely. In doing so they completely ignored the risks to the integrity of the registry of shareholders. Forcing shares into a depository shifts accountability for the integrity of the records to the depository, which is clearly unequipped to do, and forces millions of beneficial owners to enter into custody agreements that they can scarcely afford and that most custodians would sooner avoid.

Pilot Depository Project

The development of a fully operational, clearing, settlement and depository organization in Ukraine will likely be measured in years, not months. With this in mind, Barents proposed a phased, measured transition to a central depository environment that considered the needs of all market participants. The most important of those needs, which was expressed almost unanimously during the July Depository Conference, was a change in the re-registration process. The solution was the IEU.

Barents proposed a five-phase process for implementing the IEU that would eventually lead to a central depository environment once volumes and markets needs dictated. The Pilot Depository Project called for the implementation of the IEU among three traders and three registrars handling several highly liquid issues. The participants would register their actual trades for approximately 3-4 months while determining what modifications needed to be made and what requirements should be placed on new entrants to the pilot. In each subsequent stage, new traders, registrars are added to pilot group. The hope was that eventually other trading systems and exchanges as well as the depository would be brought in during the latter stages.

Barents recommended that the pilot be conducted in parallel with the Depository Development Working Group's efforts to determine the structure of the future depository.

E Training of PFTS, MFS and PARD

An additional part of the task order required Barents to provide regular training for members of PFTS, MFS and PARD both in Ukraine and the U S in clearing, settlement and depository systems and structures

Barents/USAID-sponsored a training trip to the U S for PFTS members, MFS and PARD in December 1997 on clearing, settlement and depository issues

Barents/USAID-sponsored a U S training program on the Roles of Stock Exchanges, SRO Practices and Central Depository Development in June 1997 for the Board of Directors of PFTS

IV EXTERNAL FACTORS

A Legislative Impediments

During the project period a number of legislative acts were passed that directly impacted the development of the PFTS trading system, depository development and the procedures for re-registering shares. A discussion of the more important acts follows

Additionally, in March 1998 Ukraine held their parliamentary elections. The result was a parliament controlled mostly by Communist and Socialist factions largely opposed to any market reform measures. It became increasingly clear in mid-1998 that no serious reform legislation or improvements to existing legislation would be possible before the end of the project. Therefore, our recommended solutions remained within the confines of the existing legislation except for those acts for which non-Parliamentary bodies exercised direct control, i.e. Securities Commission regulations

National Depository Law

Passed in December 1997, the law describes the elements of the National Depository System, the permitted functions of depositories and a plan for implementing the National Depository of Ukraine. The Law clearly restricts access to any depository to only licensed custodians. Thus, non-bank, non-custodial broker-dealers are denied direct access to the depository and must use the services of a custodian. This would clearly place a large part of the broker-dealer community at a competitive disadvantage as they will have to turn to custodians to maintain their customer accounts, most of which will be large banks. Moreover, most of these banks are broker-dealers themselves, increasing the risk that they will eventually encroach on this part of the business as well.

The Law also calls for the creation of a National Depository, to be partially owned by the government of Ukraine as represented by the Securities Commission. The purpose of the National Depository will be to control the functioning of all local depositories and

maintain relationships with foreign depositories. The Law, and a subsequent Presidential Decree, also directs the Securities Commission to create the National Depository with the participation of at least ten custodians.

As mentioned earlier, the Law also requires issuers who have dematerialized their shares to place those shares in a depository in the form of a global certificate within six months from the effective date of the Law. This was clearly an unrealistic requirement that, if forced, would have caused chaos in the market. The deadline passed and the requirement was largely ignored but the effect was that many issuers reclassified their shares as "materialized" and were preparing to issue certificates for those shares. The result, of course, would be a step backward in the development of the capital market.

The Law is perhaps singularly responsible for politicizing the depository development process and preventing what should ultimately be a private, business solution.

Electronic Re-registration

Ukrainian law does not recognize electronic documents as legally binding and electronic signatures as valid signatures. This is perhaps the biggest impediment to the implementation of the IEU in order to effect the electronic re-registration of shares. Barents and members of the IEU working group devised different schemes to work around the law but none were satisfactory. Until the Securities Commission grants the test group a "pilot" status and allows electronic re-registrations to go forward, there seems little hope of having a reliable, low cost clearing and settlement system.

Depository Regulation #61

Passed in May 1998, this Regulation, though better than its predecessor (Regulation #117), still attempts to prescribe the necessary internal functions of a depository rather than outline the boundaries within which it should operate. Its main drawbacks are that it ignores the present registrar system, places restrictions on the activities of custodians and seems to call for a manually-operated depository system that would not only add unnecessary costs to the clearance and settlement system, but worse, defeats the purpose of a depository.

V FINDINGS, OBSERVATIONS AND LESSONS LEARNED

Over the five years that Barents Group has worked on capital markets development in Ukraine and its collective experience in other emerging markets several basic tenets of institution and infrastructure development that must be followed to ensure long-term success.

The success of PFTS is attributable to the following conditions (1) the effort began as a consensus among private sector participants, (2) the institution was built on the basis of

private ownership and operation, and, (3) its practices are based on proven “best-industry” self-regulatory and trading system norms. Barents used this same approach in its development of an electronic re-registration utility and its depository pilot initiative.

Consensus Building

The importance of a market consensus when building capital market institutions cannot be underestimated, especially in emerging markets. This is a tried and true approach to institution building and one that Barents continues to employ in its capital markets efforts world-wide.

Market Solutions Work Best

One of the limiting factors in the development of Ukraine’s capital markets and its institutions is the lack of a clear, coherent, long-term capital markets policy for the country. The desire to protect shareholder rights, increase the liquidity of the market, achieve international standards for trading, clearing and settling of securities, and to increase capital inflows has never been adequately articulated by any government body. In the absence of a clearly defined policy, the approach to market development is fragmentary and only adds to the overall uncertainty in the market.

The problem is aggravated by the SSMS Securities Commission, which has taken on the role usually played by the private sector in other developed markets. This is especially clear in its approach to the National Depository. Whereas depository development should be a private sector initiative based on market forces and addressing market needs – facilitating trading and minimizing risks – the Securities Commission sees it merely as a piece of necessary infrastructure rather than a piece that must fit into a larger whole. Part of this is due to a lack of understanding of capital markets but, in our opinion, is mostly the result of a desire to control. The Commission clearly views itself as the source of capital markets development, at least conceptually. In the face of an underdeveloped market their tendency is to create and control, not merely regulate. This, in turn, leads to restrictive legislation designed mostly to entrench the interests of the Commission and stifle innovation on the part of the market.

Therefore, we found the most successful approach was to avoid directly engaging the Commission on developmental issues in favor of the private sector. The private sector, we believe, is the source of the solution – both conceptually and financially. The Commission should be brought in to provide the necessary regulatory and legislative guidance and be assisted only in its efforts to improve and enhance its regulatory functions.

This was particularly true when developing the electronic re-registration messaging system. Had the Commission been brought in from the beginning the process would surely have become a legal debate and nothing would have been accomplished. As it is, the market participants in the Working Group developed the procedures and the

normative documents and conducted numerous tests of the software without consulting or seeking permission of the Commission. The final step is to present their findings and recommendations to the Commission and seek a “pilot” status in order to re-register live trades. Thus, Commission approval and involvement is sought only after a market consensus has been reached on a solution.

Barents recommended the same approach concerning depository development and, in particular, the National Depository, i.e. market infrastructure development should start with an industry driven consensus. The Ukrainian capital market would be better served in the long run if the notion of the “National Depository” as described in present legislation were shelved. A market solution should first be developed that balances the needs of the private sector with those of the Commission. The debate about whether to build a National Depository, Central Depository or local depository is irrelevant and only serves to create more uncertainty in the market and lower the credibility of Ukraine’s capital market. The central issue is what a depository should do and what interests it is to serve and why. Once this question is answered, the real development process can begin.

If the IEU represents the transitional mechanism to a depository environment, what then represents a depository? This will be the challenge for USAID and its future contractors. However, it became clear during the July conference that there are several reasonable and viable approaches to depository development and not all of them conflicting. The final solution will likely represent some combination of these proposals but must include certain parties, without whose participation a viable depository will not be possible.

Ukrainian Interbank Currency Exchange (UICE)

UICE evolved out of the National Bank of Ukraine’s currency exchange, which was established in 1991. As a sub division of the NBU, the UICE is allowed to engage in foreign currency transactions. The UICE is an open joint stock company with approximately 40 commercial banks as members of the exchange. UICE also conducts daily auctions in Ukrainian treasury obligations.

UICE has already applied for a license to become a securities trade information system and has drafted proposals for the development of its own depository. Their level of sophistication and understanding of the fundamental features of a truly functional depository far exceeds that of MFS. Their collective experience in conducting and clearing currency transactions, their understanding of the inherent risks and how to manage them, and their connection with the major banks (custodians) of Ukraine, requires they be included in the development process. Until recently, they were shunned by both MFS and the Securities Commission.

Registrar Industry

Another group that has been almost entirely excluded from the depository debate is the registrar industry. Though ostensibly represented by PARD, most of the key registrars

feel PARD is neither truly represents the industry nor has any business representing two, often diametrically opposed, industry groups- registrars and depositories. The registrars represent a viable economic sector that provides a valuable service to the securities industry. While there are an estimated 400 plus registrars in the country, only 20 handle the shares that account for 90% of trade volume on PFTS. Of those 20, the top 10 represent 75% of total trades. Therefore, these key registrars must be treated as part of the solution, not part of the problem. In fact, Barents found most of these registrars to favor depository development and are willing to participate in the process if given an opportunity to evolve into other types of business, such as proxy and corporate action service vendors.

The Securities Trading System PFTS

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Development and Regulation Department Director	Igor Seletsky
Legal Department Director	Alexander Situkho

Brief history

On October 23, 1995, sixteen traders passed a joint decision in Kyiv establishing an Association of securities traders. Now the Ukrainian Securities Trading System Association PFTS is a non-governmental member-governed, association of licensed Ukrainian Securities Dealers. Registered in March 1996 PFTS membership - now stands at 298 firms from 21 major Ukrainian cities. The PFTS Trading System is an electronic «dealer» market system. This quote-driven, order-routing system is similar to the NASDAQ market system used in the United States.

Structure

The highest decision-making body of Securities Trading System PFTS is General meetings of PFTS-members and PFTS Association Council is an elective and joint body of the Securities Trading System PFTS, governing the PFTS between the General Meetings. All policies and new rules must gain its approval before being put into practice. There are four committees to make policies and rules for all PFTS members. The execution of these policies and the day-to-day operation of the Securities Trading System PFTS are overseen by Enforcement director.

Official trading – hours
11 00-17 00

Number of listings

Ukrainian-incorporated enterprises	176
Compensation certificate	1
Treasury Bills	19

Listed companies by sector

Energy	28
Metallurgy	28
Engineering	29
Oil and Gas	18
Building and Building materials	17
Chemical	21
Food processing	17
Service	4
Transport	1
Finance	4
Pulp and Paper	5
Pharmaceutical	4
Others	20

Market capitalization

Hrn 4 940 817 745,19 (at December 31, 1998)

Market capitalization (%) of top 20 shares by value
61,52% (at December 31, 1998)

Top companies by market capitalization end of 1998

<u>Position</u>	<u>Company</u>	<u>Capitalization (Hrn)</u>
1	Mykolayv Alumina Factory	412 004 452
2	Makivivka Metallurgy Works	354 160 360
3	Nikopol Plant of Ferrous Alloys	269 746 173
4	Markokhim	177 319 208
5	NPZ "Galychyna"	174 134 990
6	Yenakievsky Metallurgy Works	158 154 578
7	Kyivenergo	146 291 778
8	Dniproenergo	135 091 479
9	Zahidenergo	127 905 410
10	Lysichansknaftaorgsintez	118 649 049
11	Brewery "Rogan"	111 411 500
12	Khmelnitskoblenergo	100 913 520
13	Zaporzhoblenergo	100 652 348
14	Tsentrenergo	99 225 180
15	Ukrnafta	97 611 318

Trading Statistics

Most Active Issues - by turnover (1998)

Rank	Issue	Turnover (Hrn)
1	Treasury bills	114 595 146

2	Ukrnafta	18 555 392
3	Dniproenergo	17 676 803
4	Kyivenergo	17 407 819
5	Zahidenergo	16 217 932
6	Donbasenergo	13 068 668
7	Compensation certificate	10 081 888
8	Khartsyzk Pipe Plant	9 770 599
9	Tsentrenergo	8 388 691
10	Stirol	8 128 791

Equity market trading value

<u>Year</u>	<u>Total value (Hrn)</u>	<u>Daily average (Hrn)</u>
1996	3 124 000	26 033
1997	350 543 000	1 016 067
1998	338 540 000	981 275

Equity market trading volume

<u>Year</u>	<u>Total share volume</u>	<u>Daily average</u>
1998	240 579 081	1 023 741

Main indices

PFTS Index

The PFTS Index is made up of the 14 most-actively-traded stocks

The base value of the PFTS Index was set at 100 on October 1 1997

Securities Trading System PFTS

Securities Trading System PFTS is established as a multifunctional system to maintain broker/dealer activity on the securities buying/selling. Up to date the PFTS is the only trading system in Ukraine, that supports the interregional system of electronic trades in securities in an on-line mode. PFTS trading system is a computer network, acting in a real time mode. Effective from July 1996. From the technical viewpoint PFTS is composed of the following major components

- Software

System software is the upgraded variant of the trading system, developed by the NASDAQ Company in the USA. This program is installed on the central computer of the network. And it is this program that enables the traders

- to receive the quotations, entered by other system operators, on their displays,
- to display/ update quotations in securities,
- to view the best quotations in these securities that are gathered together on one screen, and interest the trader now (a so-called Market-Minder,
- to conduct negotiations on screens of their monitors,
- to enter trade reports,
- to receive additional information, such as the list of securities system participants and etc

The system has an important feature as to update dynamically the information on the computer screens, that is the information update is initiated by the system other than a trader

Software for the final users is installed on a personal computer in the securities trader office
From the user's viewpoint the PFTS trading system enables

- to maintain monitoring of the market in a real time mode,
- to conduct negotiations on the screens of their monitors in a real time mode,
- to effect transactions

Reliability of the informational technologies is a particular feature of the system First of all, the high-tech hardware, specific complements, developed especially by a «dealer-driven market» methodology and leased communication lines, are used to enable brokers, located in various cities of Ukraine, easily cooperate

One of the trading system advantages is that PFTS enables dealers, working in their offices to execute transactions with counterparts from other cities by using the electronic system, which displays competing securities bids and asks Thus, a broker, that uses the PFTS trading system does not need calling other companies on a daily basis to find out certain stocks at a particular price

Traders in securities that have access to the PFTS trading mode have the opportunity to buy/ sell securities by entering bid/ ask prices in certain securities on their computer displays
After following certain procedures, prescribed by the Trading rules, a trader becomes a party to transaction after another PFTS participant accepts his quote or if the trader accepts the quote put by another PFTS participant Trade transactions are performed in accordance with rules adopted by the Board of the Association and Trading Committee

Quotation rules

- According to PFTS Trading rules the best ask should be higher than the best bid at all times
- Maximum spread between best bid and best ask on enterprises of first level listed on PFTS Trading System should be not greater than 20%
- Minimum trading lot for enterprises of first level should be not less than 5000Hrn

Investor's protection details

- PFTS has established the organizational structure, owing to which all its members exist in one legal field that improves their cooperation
- PFTS as a self-regulatory organization ("SRO") seeks to develop, promote and implement, consistently and fairly, uniform standards of ethical and professional conduct among its Members And other rules designed to prevent fraudulent acts of securities market participants, and to guarantee fair and equitable principles of trade in the interests of the investing public
- Securities Trading System PFTS meets the current world standards of the securities electronic circulation, this is grounds to predict the considerable participation of foreign investors in privatization of the Ukraine enterprises through PFTS

Prospective developments

- Continued expansion of the Securities Trading System PFTS, including development of new software packages to trade "Promissory Notes" (Bills), to facilitate free transfer (without payment) of shares between market participants, and deliver improved issuer analytical information through "Callisto"

- Improved WEB-site to enable investors to have an electronic access to market information, and provide the flexibility to support future market developments
- Continued focus on market and investor education, through seminars conferences and courses targeting both market professionals and investors

DEPOSITORY DEVELOPMENT CONFERENCE

Saturday and Sunday, July 25-26, 1998
Banking Academy, Sichnevoho Povstannya 6B, Kyiv, Ukraine

Saturday, July 25, 1998

- 9 00 – 9 30 Registration
- 9 30 – 10 00 I Introduction
- USAID, Hugh Haworth
 - SSMSC, Mozgovoy/Ivchenko
 - NBU, Savchenko/Bendersky
- 10 00 – 11 00 II Round Table Discussion - Session I
- Organizational Structure
 - Ownership/Membership
 - Governance
- 11 00-11 15 Break
- 11 15 – 13 00 II Round Table Discussion - Session I (continued)
- 13 00-14 30 Lunch – Hotel Salyut
- 14 30-16 00 III Round Table Discussion - Session II
- Implementation Issues
- 16 00-16 15 Break
- 16 15-17 30 Round Table Discussion - Session II (continued)

Sunday, July 26, 1998

- 09 30-12 00 I Discussion of Conference Findings and Conclusions
- 12 00-12 30 Break
- 12 30-14 00 II Approval of Findings and Conclusions
- 14 00 - Fourchette

Market Structure Development Proposal

Executive Summary

Introduction

Ukraine's clearance, settlement and registration infrastructure clearly represents a substantial deterrent to international portfolio investment and greatly diminishes Ukraine's emerging market potential. The systemic delays, transactional costs, and lack of standardization associated with the present system are clearly a source of frustration and dissatisfaction among nearly all market participants. In response to these market conditions, USAID plans to provide technical and financial assistance to Ukraine's securities industry and its regulators to create a central depository, clearing and settlement system for corporate securities. This assistance, coupled with private sector contributions, could save the Government of Ukraine from spending scarce budgetary funds for such an endeavor.

USAID and Barents Group are now seeking input on the major issues affecting the establishment, operation and governance of a private sector governed, centralized Ukrainian depository system, clearance and settlement system. To facilitate this process a proposal (presented as a framework outline) is being circulated among a selected working group of key market participants and government officials. The attached proposal is designed to facilitate and structure pragmatic input from all working group participants. The proposal incorporates core USAID development principles and other preconditions necessary for providing US financial and technical support of a Ukrainian depository development project. Namely,

- Establishing a comprehensive regulatory regime that provides full legal support and judicious governmental oversight of internationally compliant, depository, clearance and settlement services,
- Building non-governmental, not-for-profit, depository, clearance and settlement institutions based upon private ownership principles of operations,
- Creating a member-driven governance and development process,
- Building consensus among the private sector when developing market initiatives,
- Establishing efficient, cost-effective market structure organizations offering a broad range of high quality services,
- Implementing "best industry" self-regulatory and global securities industry practices

Building depository, clearance and settlement organizations based on these principles would help ensure transparency, lower costs, and more importantly, inspire confidence among domestic and foreign investors, which is vital to the development of Ukraine's capital market.

What follows is a list of the key elements in the framework outline developed by USAID and Barents Group. They should be viewed as a basis for discussion and not as a final proposal or one representing any particular viewpoint. The suggestions put forth are intended simply to foster debate among market participants in hopes of building a consensus on the direction of future market structure development. The anticipated project starting date is approximately September 1, 1998. Whether USAID undertakes this project will depend greatly on the degree of consensus that can be achieved among the working group participants over the course of the next 45 days.

Market Structure Development Proposal

Key Elements

- Creation of two separate organizations in accordance with Ukrainian legislation - a Depository Organization (DO), and a Clearing and Settlement Organization (CSO) - to provide for the separate management of two distinct risks,
- DO and CSO organizations formed as "Not-for-Profit", Open Joint Stock Companies,
- DO ownership open to all licensed securities traders, custodians, banks, issuer registrars, exchanges and trading systems,
- CSO ownership open to all financially qualified licensed securities traders, custodians, banks, exchanges and trading systems,
- Direct government ownership prohibited, except for NBU NBU ownership limited to 10% of total equity Government equity investment considered as a loan of "seed capital", to be sold or redeemed after a period of at least three years,
- Move to a reorganized ownership structure which will limit DO & CSO shareholders to the purchase of one share, each, at a fixed nominal value,
- NBU to perform settlement bank functions for all eligible SO members,
- Board composition and governance should represent fairly the range of all major direct and indirect participants in the organization and reflect its not-for-profit status Designated board representation for NBU, SEC, and member Stock Exchanges and Trading and Information Systems,
- Capital contributed by USAID in the form of financial and technical assistance, and by private sector participants for operational expenses,
- Preference given to merging or reorganizing existing institutions into a DO and CSO -- credit given to eligible shareholders for prior capital contributions, and,
- DO and CSO to be developed as self-regulatory organizations and jointly regulated by the NBU and SEC

USAID, July 10, 1998

Summary of Depository Development Conference
July 25-26, 1998, Kyiv, Ukraine

In attendance were over 70 representatives from the National Bank, Securities Commission, stock exchanges, PFTS, banks (domestic and foreign), broker-dealers (domestic and foreign), custodians, depositories, and registrars. There was considerable discussion of several issues: 1) having one or two separate organizations providing depository, clearance and settlement services, 2) the ownership structure of the depository organization(s) - portion of private and state ownership, 3) the structure of ownership (which market participants participate), and 4) the structure of corporate governance (whether the board of directors represents only the owners or represents a broader constituency). Throughout the discussion all the issues summarized below were addressed. The level of understanding and the active involvement of the conference participants varied significantly. Thus, the summation here can only be considered as a general sense of the assembled group.

- * Depository shall be created as one organization - in accordance with Ukrainian legislation - performing all depository, clearance and settlement functions for corporate and municipal securities
- * Depository shall be formed as an open joint stock company with charter to provide for non distribution of profits (non-profit organization)
- * Preference given to merging or reorganizing existing institutions into a new depository organization
- * The depository shall initiate depository functions first and expand later into clearance and settlement functions
- * It would be preferred if the NBU performed settlement bank functions initially. Alternative settlement banks could be created subsequently. (The NBU is reluctant to be the settlement bank for a private-sector depository, one that is not the National Depository. This is more a political issue and somewhat a legal issue.)
- * The Securities Commission (SSMSC) is to be the principal regulator, the National Bank will have regulatory authority over the payment system and related monetary settlement functions
- * Depository development shall incorporate G-30 and other global securities industry practices
- * Depository ownership shall be open to all licensed securities market participants

- * Government ownership of depository shall be for the remainder of shares not subscribed by the securities industry, but not greater than 10-15% (law permits 25%)
- * It would be preferred if the NBU, major market participants (custodian banks), stock exchanges and trading and information systems had designated board representation. The SSMSC shall be designated the "state representative."
- * It would be preferred if board composition and governance of depository should represent first all major market participants (custodial banks) and second all market participants fairly. Such a governance structure depends on charter provisions and the continuous support for such structures by the owners as expressed in annual shareholder meetings (SRO advisory board structure needs to be considered in the charter.)
- * Depository governance and development shall be a member/owner-driven process.
- * Capital contribution by USAID shall be in the form of financial and technical assistance.

PFTS TRAINING AND DEVELOPMENT ASSESSMENT

TABLE OF CONTENTS

I Introduction	1
II PFTS Organization and Staffing Needs	1
III Members and Associated Persons	2
A Capitalization Rules	2
B Compliance Officer	3
C Associated Persons	5
IV PFTS Trading System Operations	6
A Listing on the Trading System	6
B Trading Practices	8
V Supervision and Compliance	9
A Books and Records Rule	9
B PFTS Review of Broker/Dealer Quarterly Reports	10
C Market Surveillance	10
D Periodic Audits and Cause Examinations	11
VI Enforcement	13
A Rules of Fair Practice	13
B Disciplinary Code	13
VII Dispute Resolution	16
A Arbitration Code	16
B Mediation Code	17
VIII Industry Advocacy and Legal Commentary	17



**PFTS
TRAINING AND DEVELOPMENT
ASSESSMENT
1998-2000**

I. Introduction

This report sets forth an assessment of the training and professional development needed by the PFTS staff during the next two years which will enable it to respond to new developments in the capital markets, to implement new PFTS regulations and to increase its capacity to function as a Self Regulatory Organization ("SRO") In order to evaluate the current activity and training needs of the PFTS, Barents Senior Advisor Richard L Symonds interviewed the PFTS's Director of Enforcement, the PFTS's litigation attorney, the Executive Director of the PFTS, the President of the PFTS, three brokerage houses and a securities custodial institution The relevant PFTS rules were evaluated as to their effectiveness in organizing the PFTS's functions as a Self Regulatory Commission The recommendations reflect a general consensus as to the next stage of development of the PFTS as a Trading System and as an SRO

II. PFTS Organization and Staffing Needs

The PFTS is currently organized along functional lines Each of the major activities of the PFTS is assigned to a separate organizational sub-unit within the PFTS, such as the Enforcement Department, the Accounting Department, and the Technical Support Department The Trading System itself is established as a wholly owned subsidiary

Currently, a great deal of the activity of the PFTS is centered on the Director of Enforcement who reviews new member applications, reviews listing of companies on the PFTS system, conducts market surveillance, and carries out investigations A review of the quarterly reports submitted by broker/dealers to the State Securities and Securities Market Commission ("SSSMC") and the PFTS is conducted by the

Executive Director The PFTS does not have part time examiners or auditors on its staff

The PFTS currently relies on the SSSMC annual audits for the periodic examination of registered broker/dealers and only conducts examinations for cause when they determine a need for it. Most of these examinations involve trading irregularities on the PFTS trading system for which the PFTS staff clearly has the higher expertise. However, even these examinations are limited due to the lack of an auditor/examiner and consist of requests for information to the members for documents to complete the examination. Due to the large number of members, approximately 350, a full scale examination staff is considered by the PFTS to be impractical due to the high cost involved and the redundant character of the examinations. The weak financial condition of the members and the relatively inactive market can't support a large PFTS staff. Consequently, the situation in the Ukraine has become the mirror image of the United States. The government regulator, SSSMC, conducts the routine exams and the SRO, PFTS, conducts the examinations for cause. This probably will change as the institutions mature, but it is an adequate system in the current state of the capital markets in the Ukraine.

Recommended Action or Training

The PFTS is currently understaffed, particularly in the area of compliance. Even within the context of its limited goal of cause examinations, the PFTS has need of a small examination staff to conduct the audits for cause or random spot checks and assist in the preparation of cases regarding suspected violations for disciplinary hearings. Assistance should be given the PFTS in hiring the following individuals:

- 1 Two examiners, at a minimum, to conduct audits and analyze documents
- 2 In addition, at least one more staff member to assist in the compliance review of new issuer listings and broker/dealer registrations, as well as the review of the quarterly broker/dealer reports

III Members and Associated Persons

A. Capitalization Rules for Members

Adequate capitalization of securities intermediaries is critical to the health of the capital markets and to the protection of customer holdings.

Inability of a broker/dealer to meet its commitments threatens the stability of the market, the financial condition of other broker/dealers, customer assets and general investor confidence in the market. As a result basic capital rules have been developed in the United States and Europe to ensure that broker/dealers are adequately capitalized.

Neither Ukrainian legislation, SSSMC regulations nor PFTS rules currently contain a Net Capital Rule or a rule which attempts to implement the European Union Capital Adequacy Directive ("CAD"). The current requirement in the PFTS rules is that each member connected to the PFTS system for information maintain at least UAH100,000 in "Effective Capital" and that each member who is a market maker of the PFTS maintain UAH150,000 in "Effective Capital." Several people interviewed have stated that this is not sufficient to provide for adequate financial support or liquidity of broker/dealers.

The monitoring of the financial health of broker/dealers is done through the preparation of Quarterly Reports. Under SSSMC Regulation 11/Protocol 9, brokers/dealers are obligated to submit Quarterly Reports on trading, liquidity and financial conditions to the SSSMC which are also sent directly to the PFTS by the broker/dealers. The Quarterly Reports submitted to the SSSMC and PFTS comply with current Ukrainian accounting standards which do not meet IAS standards in a number of areas. For example, current accounting only requires single entry bookkeeping. As a result, the Quarterly Reports do not accurately reflect the financial condition of the broker/dealers.

The PFTS Executive Director has indicated that the PFTS is currently working on revisions to their "Effective Capital Rules" and would like assistance in developing a capital requirement similar to the American Net Capital Rule or the European Capital Adequacy Directive.

Recommended Action or Training

1 Training should be provided to the PFTS regarding the elements and operation of the United States net capital rule and European Union Capital Adequacy Directive.

2 Assistance should be provided to the PFTS in the drafting of a Capital Adequacy Rule.

3 Assistance should be provided to the PFTS in the preparation of examination modules and the conduct of the examinations related to the Capital Adequacy Rule.

B Compliance Officer

PFTS Rules of Fair Practice, Art 7, require that each member of the PFTS have a Compliance Officer Under the current Rules of Fair Practice, the Compliance Officer is supposed to be one of the two "authorized persons" of the broker/dealer i.e. the registered traders at the broker/dealer who are authorized to use the Trading System

However, in practice, the PFTS has not enforced the provision The PFTS staff and some of the interviewed brokers feel that the provision making one of the "authorized persons" the Compliance Officer creates a conflict of interest The general view is that the Compliance Officer should be independent of any other position at the broker/dealer, but that most members could not afford an additional employee who acts as a Compliance Officer due to the small size of most members and the current inactive state of the capital markets Instead, most broker/dealers appear to rely on peer review of transactions and additional review by the Back Office Manager The Back Officer Manager appears to be developing into the Compliance Officer on a de facto basis at a few firms

Although to a certain extent these concerns are justified, they are not as critical as the members think – any supervisor who receives a part of the commissions of his or her sales people has the same problem and yet it is an accepted practice in the US The argument also misses the main purpose of a Compliance Officer which is to identify and hold someone responsible for the broker/dealer's compliance with the law The failure to have one person identified for such a purpose results in a situation where no one is responsible and any violations result in a fruitless "finger pointing" exercise In addition, the staff of the PFTS Enforcement Division need to have someone at a member whom they can contact regarding compliance issues These factors outweigh the theoretical conflict of interest which concerns the members In fact, the biggest concern of the members may be that no one wants the responsibility associated with a Compliance Officer

A Compliance Officer's manual has been written, although it is currently not in use

Recommended Action or Training

1 An extensive training program for Compliance Officers should be organized and provided to the members It seems certain that eventually the requirement for a Compliance Officer will be mandated by the SSSMC In order to demonstrate that it is serious about being an SRO, the PFTS should preempt the SSSMC by instituting a program for establishing and training Compliance Officers, as well as taking

enforcement actions against firms who do not designate a person as the Compliance Officer and require that person to go through PFTS training

2 The PFTS rules should be amended to expand the categories of people that can be designated as a Compliance Officer This would formalize the de facto practice at broker/dealers of having the Back Office Managers or Operations Officers engage in the functions and activities of a Compliance Officer

C Associated Persons

The PFTS does not have a general requirement for the licensing and training of officers or employees of a broker/dealer member The only requirement is that the two "Authorized Persons" who operate the Trading System for each broker/dealer member must be licensed These persons are trained pursuant to the Rules of Fair Practice, Articles 1 01 and 4, which requires a member of PFTS who wants to participate in the Trading System to identify, train and obtain a license for two persons to operate the System Many members have not seen a need to extend the licensing requirement to more officers and employees, since most sales of securities are to sophisticated institutional customers and there are few, if any, retail sales

Recommended Action or Training

1 The PFTS should modify its rules in order to extend its registration requirements to as many employees and officers of member broker/dealers as possible At the least, all directors, officers, supervisory persons and sales people should be registered Since it only has jurisdiction over natural or juridical person registered with it, the PFTS Enforcement Division will be able to conduct more effective investigations and enforcement actions by registering more individuals The staff would be able to compel employees and managers of a broker/dealer to give evidence and testimony by threatening to withdraw their registration if they fail to do so Moreover, violations by individual officers or employees, such as fraudulent representations in the offer or sale of securities, would be within the jurisdiction of the PFTS disciplinary structure An ancillary advantage is that it would bring more operating revenue into the PFTS

2 The PFTS should be given training to develop the categorization, examination and licensing for the new persons to be licensed

IV. PFTS Trading System Operations

A Listing on the Trading System

The PFTS Rules of Listing and De-Listing of the OTC Stock Trading System set forth the requirements for listing a company's stock on the PFTS trading system. The rules allow the members to list securities if certain conditions are met. It is important to note that most listings on the Trading System are done by the members of the PFTS and not by the issuers themselves. In fact, only about 5 of the listed companies have been listed by the issuers themselves and even this has development has only begun in the last several months.

The broker/dealers that are listing the stock are responsible for verifying the information used to determine if a company qualifies for listing under a specific listing category and for keeping the market information up to date to determine if a company continues to qualify for listing. Under the PFTS rules, reviews and audits of the companies to be listed or already listed is done by reviewing the financial statements filed by the issuers with the SSSMC. Due to the lack of communication between the SSSMC and PFTS, the PFTS staff have a very difficult time getting these financial statements.

The failure of the issuers to voluntarily list themselves on the Trading System means that there is no readily available source of information regarding a corporation's structure, recent official actions, votes at shareholder meetings, etc. The original incorporation documents are on file with the Ministry of Finance but they are considered confidential and are not available for the broker/dealers, the SSSMC, or the general public. As a result of amendments to the law, the SSSMC receives the up-dates and amendments to the corporate documents. However, any amendments and updates can be very unclear without the original documents. This inability to review the original incorporation documents creates considerable problems in reviewing the corporate status of listed companies.

Further aggravating the problem is that there have also been situations where the SSSMC has not made immediately available to the general public amendments to corporate documents filed with it which contain material changes in a corporation's structure, such as dilutive private placements. When it finally released the information, the share price dropped dramatically, presumably after people with advance knowledge had used the information.

Another complication created by the failure of the issuers to list themselves is the inefficient functioning of the Trading System, particularly as it relates to the reaction of the market to the disclosure of material corporate developments. The problem is that the issuers do not provide information on material corporate events to the PFTS. They only make such reports to the SSSMC. Unfortunately, the reporting of these material events to the SSSMC by the issuers is not consistent and, even when done, can be as late as 10 days after the material event. Moreover, the PFTS cannot rely on filings with the SSSMC for immediate information on issuers, since the SSSMC does not make the material event filings available to the PFTS. The net result is that the market does not react in a timely manner to changing developments in corporate events of issues listed on the PFTS.

Recommended Action or Training

1 Assistance should be given the PFTS to reach an agreement with the SSSMC giving the PFTS immediate access to the periodic filings of issuers with the SSSMC, particularly the material events filings.

2 In addition, assistance needs to be given the PFTS in writing rules setting forth the procedures for filing material events with the PFTS by voluntarily listed companies.

3 Training and education needs to be given to public corporations and to corporations in the process of making an initial public offering regarding the advantages and benefits of voluntarily listing on the PFTS Trading System. The advantages of being listed on the Trading System need to be touted to the issuers at large.

4 Training and assistance should be given to the PFTS to develop its own data base containing real time reporting of material events obtained from such sources as subscriptions to clipping services, subscriptions to e-mail or fax news services and other sources of real time or near real time news, as well as news reports from broker/dealers and issuers.

5 The PFTS also needs assistance in developing its own data base of annual reports of listed companies, most of which are published in local newspapers. Much of this should be done by the broker/dealers who are listing the companies.

B Trading Practices

Almost all persons interviewed agree that currently about 80% of all trading in Ukraine is not done on the PFTS system, but is done in the "old fashioned" OTC manner through direct contact and negotiation between broker/dealers. Some individuals have estimated that in January, 1998, about 50% of the trading was done on the PFTS. No one is sure as to the cause of the decline, but some have felt that it may be due to recent SSSMC audits showing a difference between trades reported on the PFTS and trades reported to the SSSMC pursuant to its own regulations. The SSSMC has been threatening sanctions over this although nothing has been done yet. Since this appears to be a wide spread practice, the SSSMC's position has resulted in brokers reporting less trades on the PFTS.

There is also a great deal of concern that certain trading practices are distorting prices on the Trading System. The most often mentioned problem is the untimely and late reporting of trades. Indeed, there is concern that some reported trades bids are fictitious.

In addition, according to some persons spoken with, large block trades at negotiated prices, particularly with foreign customers, can distort trading prices and are therefore brokers frequently do not report them on the System. Conversely, brokers have also pointed to problems with extremely small orders being reported which can unfairly affect the market price. They have urged the creation of a minimum order quantity.

Finally, the legal requirement that a written contract must be executed by both parties before a valid contract is created has resulted in long delays in settlement of transactions, sometimes up to 60 days. This has resulted in the development of what one broker described as "a forward market" in securities. A customer buyer or seller can wait to see the movement of the market and then decide whether to back out of the trade if the trade is unfavorable. Recent court decisions deciding arbitration awards on appeal have upheld the non-finality of a trade on the System and have stated that a transaction is only legally binding when a written contract is entered into.

Recommended Action or Training

1 Extensive assistance in the integration of the Depository with the PFTS Trading System will be needed. Most of the current problems related to the trading on the Trading System, particularly the late and fictitious reporting of trades, will be corrected by the establishment of a Depository.

2 PFTS should receive assistance in conducting a study as to the effects of large and small orders on the trading system to determine if they are a real problem with the functioning of the price discovery mechanism of the Trading System. If so, modifications can be made to the Trading System to allow for the block orders and small orders so they do not affect the continuous trading that establishes the market price of a security.

3 The PFTS should receive assistance in legal drafting to amend those portions of the civil law that relate to the conditions for a valid contract so that an enforceable contract can be created based on acceptance of a bid or offer on the PFTS Trading System.

4 As explained in Section V, Compliance procedures need to be improved. Training is needed in the establishment of systems to detect market manipulation and the establishment of systems record keeping, auditing and evidence to prove them. There also needs to be verification as to whether bids are real or fictitious through spot checks or other reviews of underlying documentation.

V. Supervision and Compliance

A Books and Records Rule

The PFTS currently has no "books and records rule" which establishes a mandatory set of records that members must maintain regarding their securities activities. There is a proposal for such a rule before the Council of the PFTS which is currently planned to be on the agenda for the August meeting.

Recommended Action or Training

1 The PFTS needs assistance in the drafting of a Rule requiring that basic books and records be maintained and stipulating the general format for the records. Since the primary responsibility of the PFTS is currently in the area of market operation and surveillance, the records should, at least initially, focus on the records necessary to support the Trading System. Secondly, records relating to the financial condition of the firm should be clearly mandated.

2 Training should be given to the PFTS staff and members in the preparation of these records and the proper method of maintaining the records. Specifically, the Rule should require that PFTS staff and

members be familiar with the standard forms used for taking an order from a customer, transmitting it to the system and confirming it. Secondly, the records related to the calculation of adequate capital should be prepared.

3 Training should be provided to the PFTS staff in the auditing and examination of required records.

B PFTS Review of Broker/Dealer Quarterly Reports

The Broker/Dealer Quarterly Reports are reviewed by the Executive Director, although as discussed above, current Ukrainian accounting rules don't conform to IAS and consequently the statements do not reveal much about the financial condition of the broker/dealer. In addition, due to the lack of a Books and Records Rule and of examiners on the staff, the PFTS does not conduct on-site examinations to verify the accuracy of the statements.

Recommended Action or Training

1 Training in the analysis of broker/dealer quarterly filings, even under the Ukrainian accounting rules, should be given to the PFTS staff so they can recognize "red flags" of potential violations which indicate the need for cause examinations or other action.

2 In addition, as mentioned earlier, training in examinations and audits will be necessary. Once the Books and Records Rule is passed, random spot checks and audits will need to begin to verify the accuracy of the Quarterly Reports.

C Market Surveillance

Surveillance is currently done manually. The Director of Enforcement personally reviews the trading each day for irregularities in the day's trading. This has been a simplified method of conducting market surveillance due to the limitations in capacity of the computer operating the Trading System and the relatively small number of employees at the PFTS. Even so, it has been successful in detecting some of the violations.

Nonetheless, the PFTS's computer system is currently in the process of being reengineered and upgraded to allow for more capacity and functionality. One of the functions that can be added would be a Market Surveillance Program. Increased trading will overwhelm the Division of Enforcement if it continues manual inspection of trading activity. Moreover, the time of the Division could be more productively

spent if the operating program could be modified to conduct much of the market surveillance itself

Recommended Action or Training

1 A market surveillance program which could electronically review trading should be installed in the new computer system. As part of the installation, and analysis of the appropriate parameters and other red flags which are applicable to the Ukrainian market needs to be conducted

2 The Director of Enforcement and the staff of the Division should be trained in the methodology in which parameters in the Surveillance Program are set for reviewing the trading activity and generating Exception Reports. In addition, they will require training regarding the procedures for continually reevaluating and recalibrating the parameters in light of changed market circumstances

3 In addition, the PFTS staff will need to be trained in the follow-up investigation into the unusual market activity uncovered by the market surveillance program. As explained more fully below, the staff will need to be trained in the facts and evidence of insider trading, market manipulation and other violations indicated by their statistical review of market activity

D Periodic Audits and Cause Examinations

The SSSMC currently conducts on-site examinations of broker/dealers on a regular basis regarding their financial condition and compliance with SSSMC regulations. Currently, PFTS only does examinations for cause, although as explained above, even these do not include on-site examinations. It is felt by many broker/dealers that this is sufficient and that additional annual examinations by the PFTS would be excessive and an unnecessary burden on the broker/dealers back office, even though the PFTS has higher working capital requirements for members who have access to the PFTS trading system

The PFTS has already bifurcated the membership into those broker/dealers that are members of the Trading System, the Technical Center, and those which are simply members of the PFTS as a Self Regulatory Organization. As a result of this, the PFTS will need to move beyond the current situation where surveillance is its major compliance activity and move to other SRO functions such as auditing members to assure they are in compliance with the PFTS's Books and Records Rule. General examination modules were prepared and included in the Enforcement Manual prepared by Barents, although they couldn't be

adapted to the Ukrainian situation due to the lack of a Books and Records Rule

As mentioned earlier, a full scale periodic examination schedule may be currently impractical due to the weak financial condition of the PFTS's membership and the feeling that these examinations are redundant in light of the SSSMC's examinations. Nonetheless, a capacity to conduct on-site examinations must be created if the PFTS is to be considered an SRO, even if the responsibilities of the examination unit are initially limited to cause examinations and spot checks of trading records

Recommended Action or Training

1 Once the Books and Records Rule have been approved, training in the development of examination modules adapted to the new Rule needs to be completed. In addition, these examination procedures should be capable of detecting violations such as late reporting of trades, reporting of fictitious orders or orders without economic substance i.e. orders intended only to influence the market price. (As stated above, there will probably be a limitation as to the type of examinations the PFTS does, since the SSSMC already conducts examinations of the broker/dealers related to their general compliance. Two rounds of examinations might be considered redundant and too expensive by the members. Consequently, the reverse situation to that in the US may develop: the SSSMC will conduct the periodic examinations and the PFTS will conduct examinations to ensure the integrity of the PFTS Tech Center Trading System and examinations for cause.)

There are two types of on-site exams that would be conducted under this structure by the PFTS

a Cause

1 usually related to a violation and initiated by a customer complaint or a trading violation,

2 related to brokers financial solvency and ability to act as a market maker. This is new and would be somewhat controversial

b Periodic Spot Checks Related to the Trading System, including whether records related to the trading system are being properly maintained

2 PFTS needs assistance in modifying its regulations to allow on-site examinations

3 In addition, as mentioned earlier, detailed training needs to be conducted to prepare the examiners for on-site examinations related to the trading system and the examinations for cause

VI. Enforcement

A Rules of Fair Practice

The Rules of Fair Practice constitute the basic ethical code for the conduct of business by the members of the PFTS. They set forth the basic requirements for fair dealing with customers and the requirements for conducting the internal business of the company. The Rules contain general statements as to types of common securities violations, such as unauthorized trading, suitability, best execution, churning, advertising and manipulation, but, they do not contain a detailed discussion of what the violations are. Due to the newness of many of these concepts to the participants in the Ukrainian market, many participants frequently do not understand the scope of the ethical requirements in the Rules or the specific acts or behavior that can constitute a securities violation, particularly in less specific areas, such as suitability and manipulation.

Recommended Action or Training

1 Members and staff of the PFTS need to receive training in the characteristics of different types of securities violations

2 Members of the PFTS need to receive training in the methods of establishing internal controls to prevent them

3 In addition, the PFTS should receive assistance in drafting a procedure for the issuance of "Interpretive Statements" by the PFTS setting out the conduct expected of the members in more detail, specifically in light of the current Ukrainian situation, to enable the members to receive clarifications regarding the requirements in the Rules

B. Disciplinary Code

A Investigations

Investigations of violations of the Rules of Fair Practice are currently instigated primarily by surveillance of trading on the PFTS

Trading System If trading in violation of the PFTS rules or securities law is suspected, the PFTS Enforcement Director will request trading records from the relevant PFTS members. The review of those records constitutes the investigation of the violation.

This procedure has resulted in the commencement of numerous investigations and the imposition of sanctions against members. However, it relies heavily on compliance by members in selecting and transmitting all relevant documents to the PFTS enforcement staff. General experience has proven this to be insufficient to obtain all relevant documents. Moreover, the temptation on the broker/dealers to destroy damaging documents is very high which can only be countered by unannounced examinations for cause. In addition, the scope of the investigations is limited to market activity and does not cover sales fraud, misappropriation of assets or financial irregularities of the broker/dealer.

General training in enforcement, including the preparation of an Enforcement Manual for the Director of Enforcement, has been completed. However, detailed training in the investigation of specific securities violations has not been conducted. The major impediment is that there is little incentive to the PFTS enforcement staff to expand their scope of investigations into areas outside market activity, since the enforcement staff can not currently conduct on-site cause examinations of broker/dealers to obtain records which might support the findings of a violation.

B Proceedings

The procedures for the adjudicatory process have been developed in a general sense, but many participants feel the procedures need to be more completely defined.

Pretrial procedures providing for the collection of evidence to prepare for prosecution and defense of a case are not currently elaborated in detail in the Disciplinary Code. Both the PFTS staff and members feel that this hampers the development of the disciplinary process, since no one is certain as to the proper procedure to follow.

Similarly, there are no specific procedures for the conduct of the hearing, including the presentation of documentary evidence or testimony. The members of a Disciplinary Panel are not necessarily lawyers nor are they experienced in conducting an Arbitration hearing, although some have obtained some experience. The knowledge of what must be proved at a hearing, how to evaluate evidence, the weighing of

credibility of witnesses and similar aspects of adjudication are unevenly distributed among the potential members of the arbitration panels

Of considerable concern to many participants is also that there are no clear standards for the imposition of sanctions as the result of a finding of a violation. Even in the United States there was considerable demand for uniformity and consistency in the imposition of sanctions, both at the National Association of Securities Dealers and at the level of the Securities and Exchange Commission.

C Appeals

The PFTS rules state that a decision of a disciplinary panel can be appealed only to the Council of the PFTS and that it is not appealable to the SSSMC or any other institution. However, the SSSMC's regulation covering the authorization of SROs states that any sanction imposed by an SRO can be appealed to the SSSMC. These contradictory provisions create an ambiguity in the appellate rights of respondents in disciplinary actions. They have been explained by the PFTS enforcement staff as resulting from the fact that the PFTS began its operations and created its rules before the SSSMC became operational and developed its body of regulations.

Recommended Action or Training

1 Detailed training as to how to investigate specific violations set forth in the Rules of Fair Practice and generally discussed in the Enforcement Manual needs to be conducted. This training would include investigative techniques such as interviews and identification of the specific documents needed to prove the existence of a violation.

2 Assistance in the drafting of an Investigation and Audit Training Manual also needs to be given. This can be used to train new staff as they are hired by the PFTS.

3 In general, the PFTS also needs training and assistance in the drafting of a new Disciplinary Code. Among other things, the procedure for adjudication needs to be stated with more specificity in order to give needed direction to all of the participants in such a proceeding as to the proper steps in the preparation of their case and presentation to the Disciplinary Panel. In addition, the PFTS Disciplinary Code currently in effect was drafted before the creation of the SSSMC and the adoption of the regulations governing the SROs. Consequently, the Disciplinary Code needs to be modified to harmonize it with the current securities law and regulations of the SSSMC.

4 Further, training needs to be provided to members of the Disciplinary Committee who form the Disciplinary Panels regarding the conduct of such a hearing and the proper evaluation of evidence in the deliberations of the Panel

5 In conjunction with this, standardized sanctions for specific violations also need to be approved and accepted by the PFTS to avoid an appearance of arbitrary application of the disciplinary rules Training needs to be given to the PFTS or the proper drafting of guidelines for the imposition of such sanctions

6 The appellate procedure from sanctions imposed by the PFTS in its role as SRO also needs to be elaborated and harmonized with relevant Ukrainian laws and SSSMC regulations Assistance on drafting such procedures needs to be given to the PFTS

VII. Dispute Resolution

A. Arbitration Code

The PFTS has an unusually effective system of settling securities disputes between members and between members and their customers through the use of the PFTS Arbitration Procedures Almost all participants interviewed felt that the system was fairly administered Most disputes handled by the arbitration system revolved around claims for damages or specific enforcement of failed trades effected on the PFTS Trading System There have been recent difficulties with such arbitration claims as the result of recent court decisions that a binding contract to sell or buy is not created as a result of the acceptance through the Trading System of an offer to buy or sell placed on the System Under these decisions, a contract to buy or sell the security can only be created by a written contract signed by both parties

Several participants and the PFTS staff have expressed a need for additional training in the procedure of arbitrations and the method of proving and adjudicating more complex cases for the same basic reason it is needed in Disciplinary Proceedings Many participants and, particularly many Arbitrators, need more training to make up for their lack of experience

Recommended Action or Training

1 Training should be given to arbitration panel members in the conduct of an arbitration, such as pleadings, evidence, hearings, and appeals This is particularly necessary in the area of complex securities disputes

2 Members, the legal profession and the public should be educated as to the nature, character and conduct of an arbitration The best way to do this would be in the form of a program of "training the trainers," i e training the PFTS staff as the trainers of these procedures, since the PFTS has already begun a process of seminars and forums for the industry in matters related to the securities industry

B Mediation Code

The PFTS has promulgated a Mediation Code for use by its members to resolve disputes without going through the lengthy process of litigation Mediation has not been used with the same frequency as the Arbitration Code and would appear to be primarily of use to the members in disputes between themselves Interviewed parties had the same general comments about mediation as they had about arbitration in that there was no clear understanding of the procedures and uses of mediation in conflict resolution

Recommended Action or Training

1 The primary actor in mediation is the Mediator, as the person who is able to convey each party's views to the other party in the most positive light This is a very difficult task requiring highly developed skills Consequently, the potential pool of mediators should receive specialized training in how to fulfill their role

2 The members of the PFTS should receive an educational course in the value of mediation as an inexpensive and efficient method of resolving disputes

VIII. Industry Advocacy and Legal Commentary - Relations with the SSSMC and the Supreme Rada

As a Self Regulatory Organization and as a Trading System, the most important relation the PFTS has is with the governmental regulatory body, the SSSMC Unfortunately, that relationship has been difficult and strained in the recent past Moreover, the PFTS must develop a relationship with the Supreme Rada to ensure that new securities laws and amendments to old ones contain provisions that further the development of a free, well-regulated market in securities

To further these relationships, the PFTS has already become a member in legislative drafting working groups that are working to improve the securities law. The PFTS has also established a Legal and Regulatory Committee to develop strategies in dealing with the SSSMC and the Supreme Rada to ensure that new legislation and regulations take into account the realities of the securities industry. The new legal structure should further the economic viability of the participants in the industry while providing for the proper level of protection for investors.

Recommended Action or Training

1 Training in legislative drafting and advice on substantive issues should be given to the Legal and Regulatory Committee to assist it in reviewing proposed legislation and regulation.

2 Training in the United States should also be given to members of the Committee by allowing them to observe first hand the activity of the NASD in its review of pending legislation and regulations in the United States.

Information Exchange Utility

Program Summary
Draft February 12, 1998 v01 04

Information Exchange Utility

Please discard draft versions of this document prior to the current version displayed in document footer

Executive Summary	3
Overview	4
Goals	4
Key Pilot Assumptions	4
Approach	4
Implementation Strategy	6
Phase 1 (Pilot)	6
Phase 2 (Proposed)	6
Future Phases	6
Functional Design	7
Technical Design	9
Technical Overview – Pilot Project	9
IEU Pilot – Assumptions	11
Technical Mechanisms	12
Programs	12
LIT Extract	12
MsgScan Server	12
ETO Generator	13
User Interface	13
Message Contents	13
Database Schema	14
Participant Record.	14
Standard Agreements	14
Fees	14
Registrar	15
Locked-In Trade (LIT)	15
Operations Log (LOG)	15
Reporting	15
Issues – IEU Pilot	16
IEU Work Plan	17
Mechanics	17
Regulatory	17
Programming	17
Messaging	17
Contracts	17
Timetable	17

Executive Summary

MISSION *To facilitate the transfer and re registration of shares during the transition to a National Depository System environment.*

In the current environment dealers, custodians, and depositories are subject to lengthy re-registration delays and high transaction costs when PFTS shares are traded. Such an environment not only subjects market participants to substantial risk, but also presents significant obstacles to capital market development. The absence of transitional market infrastructures - such as an Information Exchange Utility (IEU) - will hamper Ukraine's smooth transition to a National Depository System (NDS) environment.

The IEU will

- ◆ Eliminate movement of paper in connection with re-registration of dematerialized shares
- ◆ Reduce risk by
 - Accelerating the re-registration process
 - Ultimately standardizing the re-registration and settlement process to a reliable T+3, and,
 - Combining the re registration process with a standardized settlement function to achieve true DvP securities transfer
- ◆ Standardize communications of securities transfer instructions using internationally recognized protocols (SWIFT)
- ◆ Accelerate transfer of shares into depository or custodial levels during the transition to a NDS

This document presents the goals and assumptions for the implementation of the IEU pilot program

Overview

De-materialized securities traded on PFTS undergo a costly, time consuming, and paper intensive re registration process. Buying and Selling dealers must deliver to the appropriate Registrar duly notarized documentation, including a Buy-Sell Agreement, Extract, Power of Attorney and a Transfer Order. Upon payment of the registrar's fee, the Registrar then validates and updates the registry, and finally produces an Extract for delivery to the Buyer.

The IEU will facilitate the transfer and re-registration of shares during the transition to a depository environment.

Goals

The goals of the IEU project are to

- ◆ Eliminate movement of paper in connection with re-registration of dematerialized shares
- ◆ Reduce risk by
 - Accelerating the re-registration process
 - Ultimately standardizing the re-registration and settlement process to a reliable T+3, and,
 - Combining the re-registration process with a standardized settlement function to achieve true DvP securities transfer
- ◆ Standardize communication of securities transfer instructions using internationally recognized protocols (SWIFT) in a secure environment using information encryption and electronic signatures
- ◆ Accelerate transfer of shares into depository or custodial levels during the transition to a NDS

Key Pilot Assumptions

- ◆ Pilot trades selected must involve securities held in dealer name which will be re-registered at the Registrar level¹
- ◆ Eligible pilot trades will involve dealers and registrars who have executed a standardized participant agreement governing the terms, conditions and procedures to be used in connection with the IEU process. As later phases of the IEU are implemented, this standardized participant agreement will include terms, conditions and procedures for custodians, depositories, and clearance and settlement structures.

Approach

The IEU project will use a multi phase approach to automate re registration functions that are now performed manually. These manual functions now include the compilation of relevant trade and ownership information, authentication of trading parties, and presentation of secure and verifiable information to the issuer registrar. A standardized participant agreement between and among IEU participants is expected to replace the legal documentation and information now provided for by the physical movement of paper which presently accompanies each registration. IEU automation principles can be expanded easily beyond the registrar level to include other parties responsible for recording transfers of ownership in a NDS environment - i.e., custodians and depositories.

¹ Phase 2 of IEU development provides for the re registration of PFTS dealer "nominee" trades into custodial or depository name.

MANUAL PROCESS	vs.	IEU
----------------	-----	-----

Trade Information

- | | | |
|--------------------|---|---|
| Buy-Sell Agreement | - | Authentic trade information normally contained in a Buy Sell Agreement will be extracted from the PFTS Portal trading system |
| Extracts | - | Buying and Selling PFTS dealers by means of a standardized participant agreement with the Registrar, will authorize the registrar to forward electronic extract forms as proof of ownership transfer - a credit extract for the buyer, and a debit extract for the seller |
| Transfer Order | - | IEU will use a standardized Electronic Transfer Order form, complete with trade, issue, and ownership information. These forms will be reviewed and approved by buyer and seller before submission to the appropriate Registrar |

Authentication

- | | | |
|---------------|---|---|
| Notary, Seals | - | <ol style="list-style-type: none"> 1 All parties to the trade (whether dealer, custodian, depository, or registrar) will be authenticated at the network, application, and contractual level 2 Data encryption will be used to ensure the security of the information on the network. 3 Electronic Signatures will be used to further enforce authorized access to individual pieces of data |
|---------------|---|---|

Registrar Information

- | | | |
|-------------------------|---|--|
| Manual Delivery Methods | - | Once all information has been verified by the IEU system, and the Confirmed Trade, Electronic Transfer Order, and SWIFT MT522 message have been verified by Buying and Selling parties, the complete package of information will be encrypted, signed, and electronically sent to the Registrar for review |
|-------------------------|---|--|

Implementation Strategy

The system will be developed in stages allowing different types of users to accomplish re registrations for different purposes. The design will be such that the same program logic can be applied when the change of "ownership" is performed at the Custodian or Depository level.

Phase 1 (Pilot)

The first phase Pilot will address Dealer to Dealer re-registration of PFTS trades at the registrar level. All participating IEU registrars and dealers to PFTS trades are expected to execute standard participant agreements to effect transfers through the IEU system. The terms, conditions and procedures of the standard participant contracts between the parties will be developed concurrently with extensive simulated trading and testing of the IEU registration function by a users group consisting of issuer registrars, PFTS traders and custodians, as well as other market participants. The testing phase is expected to last at least two months following completion of required programming and training.

Phase 2 (Proposed)

The second phase IEU evolution will facilitate the re registration of PFTS trades from Dealer name at the registrar level into Custodial name, and vice-versa. The transfer of shares into custodial name will be implemented first. Other forms of registration transfer between and among custodians and/or depository structures can also be accommodated at a later date using this same process -e.g., transfer from custodial name into depository name or transfers between different Custodian.

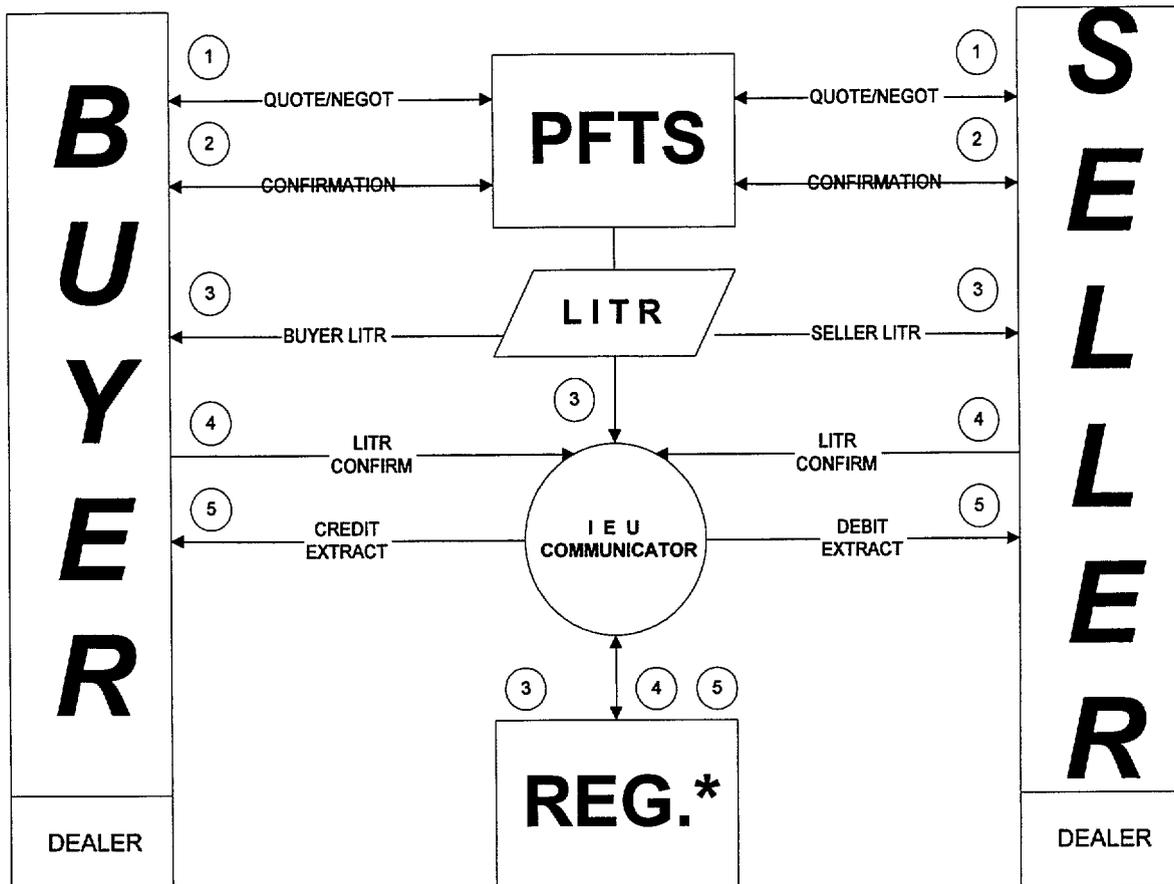
Future Phases

IEU & Settlement The IEU is designed conceptually in a modular format, which permits it to be easily combined with settlement functions to be performed by designated clearance and settlement structures.

Non-Transactional Registrations The modular design format of the IEU will permit it to be easily modified for non-transactional registrations of ownership - i.e., transfers of ownership not resulting from trades between buying and selling dealers. Among such registrations are those resulting from gift, inheritance, or the simple request by a custodial client to place shares into Custodian or Depository name for the sake of mere convenience.

Functional Design

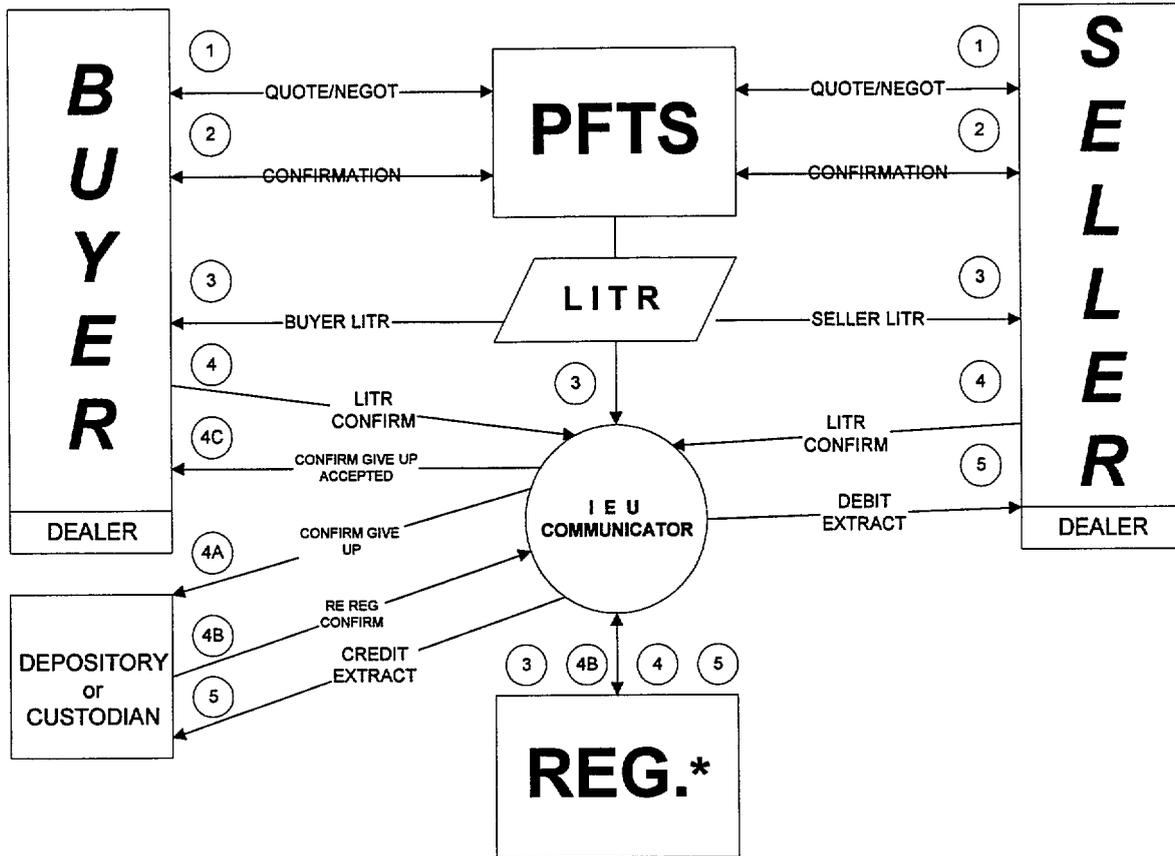
PHASE 1 DEALER TO DEALER CHANGE OF HOLDER AT THE REGISTRAR LEVEL



- 1 Buyer & Seller negotiate a trade
- 2 Buyer & Seller report and confirm trade details through PFTS
- 3 PFTS sends the Locked In Trade Report (LITR) to the Dealers and the IEU system
- 4 The Dealers re-confirm the trades to be handled by IEU to the system
- 5 The Registrar sends the Credit and Debit Extracts to the party whose position has been increased and decreased respectively

* The same flow of information would occur if the change of holder was taking place at the Custodian or Depository Level

PHASE 2
DEALER NAME AT REGISTRAR LEVEL TO CUSTODIAL OR DEPOSITORY NAME



- 1 Buyer & Seller negotiate a trade
 - 2 Buyer & Seller report and confirm trade details through PFTS
 - 3 PFTS sends the Locked In Trade Report (LITR) to the Dealers and the IEU system
 - 4 The Dealers re-confirm the trades to be handled by IEU to the system
 - 4A If a Custodian or Depository name is provided on the re-confirmed trade the trade detail is sent to Custodian or Depository named in the confirmation
 - 4B The Custodian or Depository confirms acceptance of the trade
 - 4C Acceptance of the trade by the Custodian or Depository is confirmed back to the Dealer
 - 5 The Registrar sends the Credit and Debit Extracts to the party whose position has been increased and decreased respectively
- * The same flow of information would occur if the change of holder was taking place at the Custodian or Depository Level

62

Technical Design

The technical design of the IEU system will be carried out in two phases

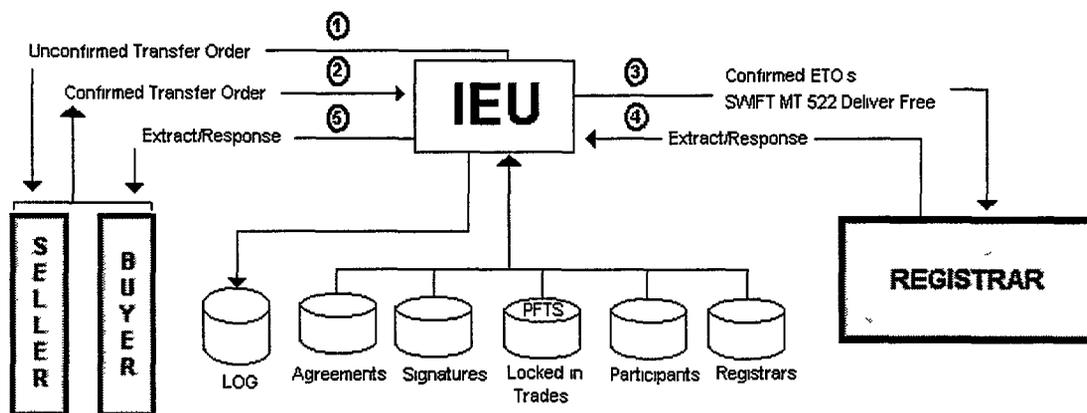
PHASE I (PILOT) the goal of the first, pilot phase is to produce a production-capable "proof-of-concept" model, which may serve as the foundation for subsequent phases

PHASE 2 The goal of the second technical design will be to devise a client server application with broader and more robust capabilities and functions than the pilot system. This design will be used for all subsequent phases of the project

Technical Overview – Pilot Project

The initial Pilot phase of this project will

- Provide a practical solution for expediting registration of dealer-name trades
- Establish a structure for future support of additional nominees and clearance and settlement entities (custodians, and depositories), and
- Establish a structure for future support of additional operations such as Free Transfers of securities



Information Exchange

The IEU will serve as a re registration hub, supporting the needs of dealers, registrars, custodians, and depositories that elect to use automated re registration

- (1) The IEU program reads "locked in" trades from the PFTS trading system "Locked In Trade Report" (LITR) and selects eligible transactions. It generates a signed and encrypted "Electronic Transfer Order" (ETO) to solicit confirmation from buyer and seller
- (2) Both buyer and seller confirm the trade and verify the contents of the ETO, then forward the signed and encrypted ETO to the IEU
- (3) The IEU forwards the signed and encrypted confirmations along with the trade data (formatted in a SWIFT message) to the appropriate registrar
- (4) The registrar validates the incoming information, updates internal registration records, and submits a signed and encrypted reply to the IEU. The reply will be in the form of a credit Extract for the new owner and a debit Extract for the seller, if the re-registration was completed successfully. The registrar will reply with a failure response code and verbiage if the registration could not be processed successfully

(5) The IEU will forward the registrar's response to both parties regardless of the response type

IEU Pilot – Assumptions

The IEU pilot project is meant to address basic functional requirements, as well as to provide a structural basis for future refinements. As such, it will have a minimal feature set. Except where noted, items, which have been excluded in the pilot project, are expected to be incorporated into subsequent development phases of the project.

- Pilot trades selected must involve securities held in dealer name which will be re-registered at the Registrar level²
- The pilot will not address shares held, transferred to or transferred out of Custodian name or Depository. These entities will be handled in subsequent phases.
- Eligible pilot trades will involve Dealers and Registrars who have standing registration agreements with respect to the registrar of the traded security.

Function	Trading Parties	- Registrar or Nominee -		
		Registrar	Custodian	Depository
Trade	Dealer	Phase 1 (Pilot)	Phase 2	Phase 2
Transfers	Dealer	TBD	TBD	TBD
Settlement	Dealer	TBD	TBD	TBD

- All trades are assumed to be for or against a single party; the overall system design can provide for multiple parties on each side of the trade.
- The pilot will not address Corporate Action Notice processing.
- The pilot will not take into account Delivery vs -Payment timing or logistical issues, the pilot will not be integrated with any settlement or payment system. An anticipated future stage of this project would implement a settlement function.
- The pilot does not consider post-trade correction or cancellations, It will be the responsibility of the trading parties to inform counterparty and Registry of post-trade amendments.
- Accounting features (such as Stock Record etc) will not be implemented in the pilot.
- Wherever relevant in the design of the pilot project, the default settlement will be considered to be T+3.
- IEU ARCHITECTURE. It is anticipated that electronic mail communication will be used only for the pilot phase. The more complex messaging requirements in subsequent phases is likely to drive the selection of a more sophisticated transport mechanism.

² In subsequent phases, the trades may involve securities that will be re-registered into Custodian or Depository name. Client trades would have to be so identified within the PFTS trading system in order to be eligible for IEU.

Technical Mechanisms

Programs

Program	Description
LIT Extract	Locked-in Trade Extract Program
MsgScan Server	Scan Incoming IEU Messages (mail)
ETO Generator	Generate Electronic Transfer Orders, including SWIFT MT 52x messages

LIT Extract

Locked in Trade Extract Program

The locked-in trade extract program will read PFTS trade records, and select trades meeting the following eligibility requirements

- Trade is Compared
- Trade Date is today
- Buyer and Seller are IEU eligible dealers
- Buying and selling dealers have a standard participant agreement on file with the Registrar for the security traded

MsgScan Server

Scan Incoming IEU Messages

This program will check incoming mail at a user-specified frequency. It will validate that incoming messages are sent in "reply" and are in 1 of 4 formats (see "User Interface" Section below for complete message listing). Improperly formatted messages will be returned to the sender with an error reply code. Valid incoming messages will be logged and forwarded to the appropriate recipient, as appropriate.

MESSAGE TYPE	ACTION
Confirm ETO	Log confirmation from buyer or seller. If both sides have confirmed, encrypt, sign, and forward both confirmations to the appropriate Registrar.
Deny ETO	Log denial of buyer or seller. If both sides have replied, mark this transaction CLOSED with an EXCEPTION status ³ . Advise both sides of final reply status.
Successful Re Registration	Log registration from Registrar. Forward affirmation to buyer and seller. Update Fees record and mark this transaction CLOSED with an SUCCESS status.
Failed Re-Registration	Log error response from Registrar. Forward fail message to buyer and seller. Mark this transaction CLOSED with an EXCEPTION status.

³ EXCEPTION status will trigger inclusion of this transaction on the IEU Exception Report

ETO Generator

Generate Electronic Transfer Orders, including SWIFT MT 52x messages

This program extracts and re-formats data for each IEU eligible trade (selected by the LIT Extract program) Two unconfirmed ETO messages are composed, each containing a SWIFT MT 52x message The messages are encrypted, signed, mailed to the buyer and seller, and logged

User Interface

The initial interface will be comprised of 6 formatted mail messages

Only the IEU may send unsolicited messages All dealer and registrar messages must be in the form of a reply to a particular IEU message

	⇒IEU Unsolicited Message	⇐Dealer Reply	⇐Registrar Reply
Unconfirmed ETO	Please Confirm ETO ⇒		
Confirm ETO		⇐ Affirm ETO	
Deny ETO		⇐ Deny ETO	
Registration Request	Please Re Register ⇒		
Extract Attached			⇐ Successful Re Registration
Registration Denied			⇐ Failed Re Registration

Message Contents

Electronic Transfer Order

- Trade Data
- SWIFT MT 522
- Calculated Fees

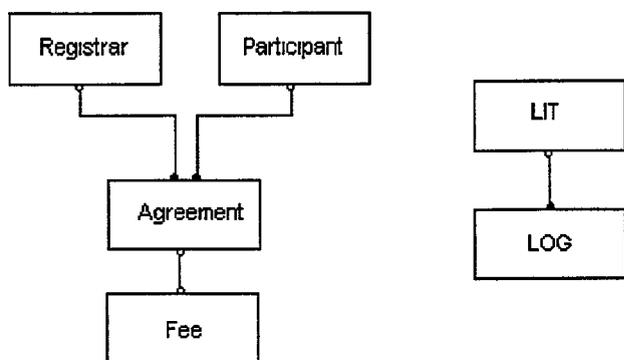
Registrar Response

- Debit Extract
- Credit Extract
- Fee Balance

Present field level details of message contents in draft revision.

Database Schema

IEU Database



The IEU database will be comprised of

- PFTS IEU Participants
- PFTS IEU Standard Agreements
- PFTS IEU Fees
- PFTS IEU Registrars
- PFTS Locked-In Trades
- An Operations Log File

Signature files will be maintained on disk

Participant Record

Portal Participant ID	Char	8	Key
Last Name	Char	(Use Portal Definition)	
First Name	Char	(Use Portal Definition)	
PFTS E-mail ID	Char	100	
Signature File	Char	256	
Public Key	Char	32	

Standard Agreements

Portal Participant ID	Char	8	Key Component
Portal Security ID	Char	12	Key Component
IEU Registrar Code	Char	8	Index
Agreement ID	Char	20	Index

Fees

Agreement ID	Char	20	Key
Fee (%)	Long		
Fee Minimum	Long		
Fee Maximum	Long		

Registrar

IEU Registrar Code	Char	8	Key Component
Registrar Name	Char	30	
Registrar Contact	Char	30	
E mail ID	Char	100	
Signature File Name	Char	256	
Public Key	Char	32	

Locked In Trade (LIT)

This file will contain the data elements as defined in the Portal trade h file. The file will be keyed by transaction number and trade date.

Operations Log (LOG)

Transaction	Char	6	KEY
Status	Char	4	
Buyer	Char	8	
Seller	Char	8	
Registrar Ref Num	Char	2	
Fees Owed	Long		
Fees Paid	Long		
Processed On	Char	8	(date)
Buy Msg Timestamp	TIMESTAMP		
Sell Msg Timestamp	TIMESTAMP		
Reg Msg Timestamp	TIMESTAMP		

Reporting

- 1 Daily Activity
- 2 Aged Requests
- 3 Completed Requests
- 4 Fees Paid/Owed
- 5 Exception Report

Present details of report layouts in draft revision.

Issues – IEU Pilot

- 1 Participants (buyer and seller) may be identified by the 8 character Portal Participant ID. Firms that have multiple Portal Ids may wish to use only five characters of the Portal ID to setup relations. This issue should be addressed prior to implementation.

For example, if BROKZKIE and BROKZ.ODE are brokers for the same firm, they may use the same firm level e-mail address, and maintain just one Registrar agreement per security for the entire firm.

- 2 Standard Participant Agreement will be used to replace hardcopy of all documents used in a manual process. Registrar extracts in electronic form will replace hardcopy extracts.
- 3 Closed-loop IEU processing requires acknowledged message receipt and application level Registration Status response codes for IEU messages.
- 4 Need information about current methods employed for confirming matched PFTS trades.
- 5 Need to understand what extra information may be required for Electronic Transfer Orders.
- 6 How will Registrar be identified in PFTS trades from the Portal system?
- 7 The table of Standing Agreements may eventually become quite large – even for dealer only trading. The maximum number of records is⁴

$$((\#Active\ dealers) * (\#securities)) +$$

$$((\#Active\ dealers) * (\#securities) * (\#custodians)) +$$

$$((\#Active\ dealers) * (\#securities) * (\#depositories))$$
- 8 POST-PILOT Client re registrations can only be handled if client identification information is maintained and used in the Portal trading system. Client account information would also have to be maintained for each security at each Registrar/Custodian/Depository.
- 9 Need to determine whether issue information is being properly maintained within Portal in order to provide EDRPOU and ZKNG codes, and Par Value.
- 10 It will be necessary to create data administration programs for static (table) data maintenance in a subsequent phase of this project. These programs will be used to maintain Agreement, Participant, Registrar, Custodian, and Depository Information.
- 11 It will be necessary to modify the PFTS trading system to incorporate support for reference information required for re registration (registrar, custodian, and depository reference data, etc).
- 12 Further user specification of reporting and Fee administration requirements is needed.

⁴ This formula assumes that all securities can be kept by any custodian or depository.

IEU Work Plan

Mechanics

- Design Information Flowcharts
- Identify Sequencing and Processing Steps

Regulatory

- Obtain Permission to Conduct Pilot IEU
- Identify Needed Structural and Regulatory Changes

Programming

- Encrypted Email system
- Dual level electronic signatures

Messaging

- Identify needed content
- Use SWIFT category 5 protocols

Contracts

- Create standard contract for use by all parties
- Terms and conditions
- Procedures
- Address liability issues
- Draft limited indemnification and hold-harmless – depo/cust/reg
- Arbitration and dispute resolution
- Parties will accept registration electronic signatures
- Power of Attorney can be rolled into contract
- Authorized Person will be known to registrar and vice-versa
- Fee for registration
- Acknowledgement of the use of electronic signatures
- Description of messaging content
- Buyers request and confirm to reregister
- Sellers request and confirm to deregister
- Back office

Timetable

- 1 Develop IEU design specifications and functional review with workgroup - 7 days
- 2 Convert Portal Locked In Trade Report to SWIFT messaging protocol - 3 days
- 3 Program IEU e-mail system - 15 days
- 4 Setup IEU encryption/decryption software - 4 days
- 5 Setup IEU electronic signature/certificates - 4 days
- 6 Create report programs to track registration process - 5 days

TRAVEL PER DIEM

The Per Diem amounts are the limits which Barents Group LLC may bill for Government Contracts. Barents will reimburse you only up to these rates, therefore, we urge you to stay within them. The rates are subject to change monthly.

MONTH	CITY	Lodging Per Diem	Meals & Incidentals Per Diem	Maximum Per Diem
	Tbilisi, Georgia	Inapplicable	\$89	\$89

Depending on the terms of the Contract and the length of your stay abroad, you may be entitled to certain USAID allowances. Barents provides an International Travel Orientation for those who will be working overseas on a project for more than six weeks. Please call your cognizant Project Administrator to schedule an appointment.

It is anticipated that Contractor will stay in a Barents Corporate Apartment, and thus, Contractor shall not receive lodging per diem. However, if an apartment is not available, Contractor shall receive up to USD 245 lodging per diem.

For the first thirty days, Contractor will receive 100% Meals & Incidentals per diem, ie \$89 daily. For the next thirty days, contractor will receive 50% M&I per diem, ie \$44.50 daily. For the following thirty days, the Contractor will receive 25% M&I per diem. After 90 days, the Contractor will no longer receive per diem.

TABLE OF CONTENTS

1 GENERAL INFORMATION	3
2 IEU SYSTEM WORKING PLAN	4
3 IEU SERVER PROGRAM (<i>OPERATOR MANUAL</i>)	6
3 1 GETTING STARTED	6
3 2 CONFIGURATION	6
3 3 IEU INTERACTIVE MODE OPERATION	7
APPENDIX 3 A – OPTIONS	8
APPENDIX 3 B - IEU TABLES	10
APPENDIX 3 C – OTHER FILES OF INTEREST	16
4 ETO PROCESSOR PROGRAM (<i>USER MANUAL</i>)	17
4 1 ETO PROCESSOR PROGRAM INSTALLATION	17
4 2 ETO PROCESSOR START-UP	19
4 3 USE OF THE ETO PROCESSOR (TRADER)	20
4 4 USE OF THE ETO PROCESSOR (REGISTRAR)	22
<i>APPENDIX A IEU WORKING PROCEDURES</i>	24
<i>APPENDIX B EXAMPLE OF AGREEMENT BETWEEN TRADER AND REGISTRAR ON THE USE OF IEU SYSTEM</i>	26

1 GENERAL INFORMATION

Mission to standardize the PFTS trade information enabling the prompt and efficient securities ownership rights reassignment during the transition period to the National Depository System

Dealers currently are subject to lengthy re-registration delays and high transaction costs. Buying and selling dealers must deliver trade documentation duly notarized in compliance with the effective legislation and the SSSMC regulatory acts to the registrar. This documentation includes a buy-sell agreement and a transfer order. Additionally, the registrar may require, where appropriate, a power of attorney, registered securities owner application form, and other documents. Upon receipt of payment and registry update, the registrar forwards an extract from a registry to the buyer.

Introduction of the Information Exchange Utility (IEU) as an interim market structure will facilitate the transition for the Ukrainian Capital Market to a National Depository System environment.

Objectives to be solved by the IEU are to

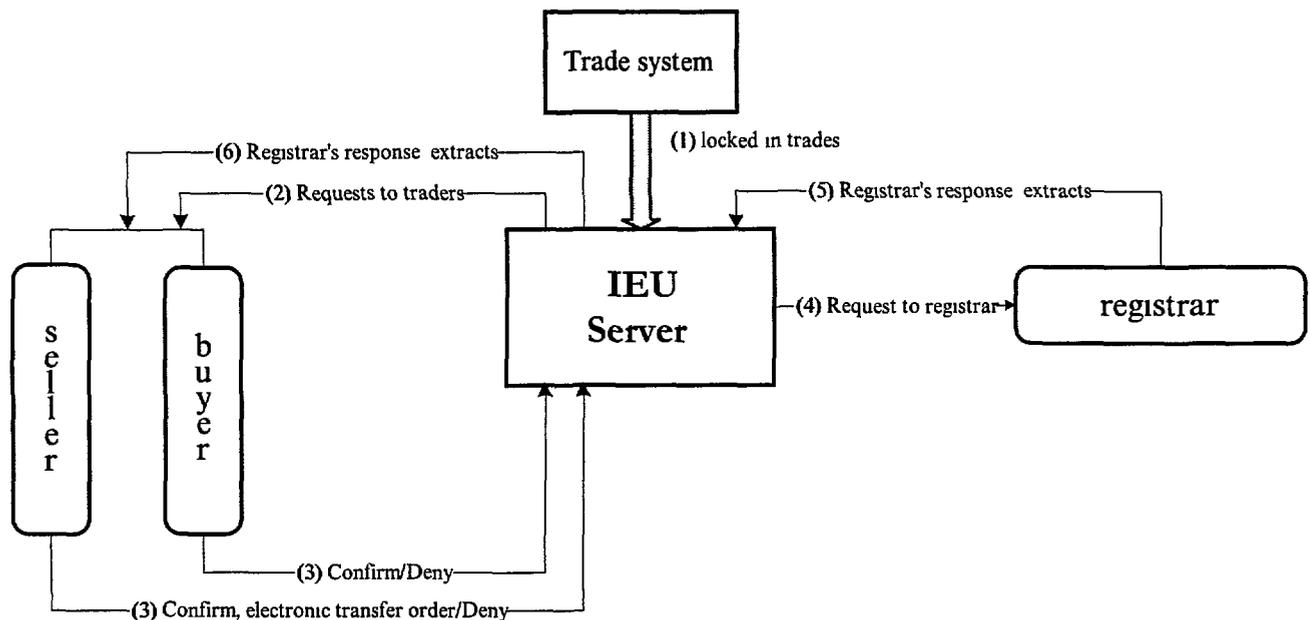
- ◆ Reduce or eliminate the paperwork required to re-register shares,
- ◆ Use internationally recognized SWIFT protocols to standardize securities transfer instructions,
- ◆ Accelerate the transfer of securities into depository or custodial accounts within a National Depository System, and
- ◆ Reduce risk by
 - ◆ Accelerating the re-registration process,
 - ◆ Standardizing the re-registration process and introducing a T+1 securities delivery

The IEU project is based on a multi-phase approach to automate re-registration functions that currently are performed in paper form. This incorporates the PFTS trade information processing, authentication of trade parties, and presentation of verifiable information to the registrar. A standardized participant agreement should replace the legal documentation, and information provided by the present re-registration documents.

2 IEU SYSTEM WORKING PLAN

Information Exchange Utility System consists of three program modules with electronic messages circulating among them. They are IEU Server program acting as a re-registration center, ETO Processor (Trader) and ETO Processor (Registrar) programs, which help traders and registrars correspondingly to process requests and messages coming from the IEU Server. All information, circulated within the system, should go through the IEU Server. Traders and registrars do not communicate directly but through the IEU Server program. The day, specified in a trade record as securities delivery date, shall be considered the electronic re-registration start-up day.

IEU Server's functions include the trading system information import and processing, forwarding of requests, and analysis of the system participants' responses. All operations, except for import of the trading system data, are automated in the IEU Server program.



(1) Every trade day, with a period specified in "IEU Working Procedures" (Appendix A), an operator of the IEU Server program receives from the PFTS trading system server and imports into the IEU system a locked-in trades file. IEU Server program automatically selects those trades from all trades just imported and trades kept in the IEU Server archives, which correspond to re-registration conditions:

- 1 both parties of a trade have entered in the agreement with appropriate registrar on electronic re-registration of securities (Appendix B),
- 2 in the agreement, securities delivery date is a current day

Trades, re-registration for which should be effected electronically, but for which the delivery date is specified as of the later date, shall be put into the IEU Server archives.

(2) For the selected trades, the IEU Server shall form requests to traders for permission in re-registration. Requests are combined into one package, which is sent to traders by e-mail in the form of attached file.

(3) A trader receives a package by his e-mail program (Netscape Messenger, Microsoft Outlook, etc.) and opens an attached file. At this, the ETO Processor (Trader) program starts up automatically, by means of which a trader prepares and sends a message on its consent or denial in re-registration to the IEU Server program. If a trader acts as a seller for this trade, and expresses its consent for re-registration, then with the help of ETO Processor (Trader) it should also fill in the electronic transfer order and forward it to the IEU Server.

(4) IEU Server program automatically compares responses received from traders, and if both parties expressed their consent for re-registration of securities, a request for re-registration shall be forwarded to an appropriate registrar. Requests to registrars are also combined into packages, incorporating messages for a designated period. If at least one party rejected re-registration, a confirmation on denial in re-registration shall be forwarded to both parties.

(5) ETO Processor (Registrar) program facilitates the registrar to process the information received, verify it, and forward a response on re-registration results to the IEU Server.

(6) Registrars' responses are reflected automatically in the IEU Server archives and forwarded to traders.

At the end of each week, traders provide registrars with paper form of required documentation for all trades for a current reporting period, as well as copies of payment orders.

3 IEU SERVER PROGRAM (*Operator Manual*)

3 1 Getting Started

The IEU Server module requires a specific directory structure, established upon installation. Two important databases must be present in the directory structure. The IEU Account database (Account.mdb), containing names of all authorized IEU operators, must reside in the core operating directory (co-located with the IEU module). The IEU working database (IEU.mdb) must reside in the DATA subdirectory.

At least one user account must be established in order to use the IEU Server. A new account may be established by inserting a simple "User Name" entry in the Login table of the IEU Account database. Use of an account password is highly recommended. The password will be masked when entered.

User Name – up to 32 characters, validation is not case-sensitive

Password – up to 32 characters, validation is is case-sensitive

Once an account and password have been established, the IEU Server module may be initiated. At this time, the new user will be required to establish set-up parameters. The IEU will not function properly unless valid operating parameters ("Options") are established. See the "Options" appendix for details on setting up user options.

Security

The IEU account must have a valid X.509 certificate from an authorized Certificate Authority (CA). The exported PKCS#12 format certificate must be available in a file called SMIME.P12 in the core operating directory.

Getting Data Files

The IEU must reside on a machine which is configured with an executing ftp service, since trade files transmitted from the Portal Stratus computer must be received via ftp into the IEU IMPORT subdirectory on a daily basis.

3 2 Configuration

The IEU must be properly configured in order to execute without user intervention. Specifically,

- the IEU operator account,
- the default execution parameters, and
- the IEU database (IEU.mdb)

must be established prior to unattended execution.

IEU Operator Account

The Operator account (User Name = IEU) will be used for converting trade files, sending, and receiving IEU messages. The IEU Operator account must use a valid PFTS mail account. The IEU account should use a permanent set of operating parameters ("Options") for live operation. Because the IEU must have a certificate from an authorized CA, it is advisable to associate a real person with the IEU mail account. The designated administrator should be a permanent resource who will be responsible for the IEU operations.

IEU Execution Parameters

The "Options" selected by the IEU user will be used for unattended execution. Please see the "Options" appendix for details about IEU parameters.

The IEU Database (IEU MDB)

The IEU database is comprised of the following tables

Agreement	maintained by IEU Operator
Fee	maintained by IEU Operator
FeeBalance	<i>IEU Internal Use Only</i>
Participant	maintained by IEU Operator
Registrar	maintained by IEU Operator
Log	<i>IEU Internal Use Only</i>
ETO	<i>IEU Internal Use Only</i>
Input	<i>IEU Internal Use Only</i>
Status	<i>IEU Internal Use Only</i>

The **Agreement**, **Fee**, **Participant** and **Registrar** tables should be populated with the production values. These tables are not modified by the IEU module. They should only be modified by the IEU Operator as required to reflect real IEU relationships. Please see the document appendix for a complete description of the attributes of IEU tables.

The **FeeBalance**, **ETO**, **Input**, **Log**, and **Status** tables are internal and should only be modified by IEU processing.

3.3 IEU Interactive Mode Operation

IEU is designed to operate in semi-automatic mode. In this mode, the IEU will manually perform a daily import of Portal Trade files, automatically send messages to traders and registrars and respond to incoming messages. Run-time errors will be logged in the DATA\ERRORS.TXT file.

Interactive mode permits the operator to perform functions for configure new users, change existing options, and import of Portal Trade files.

Interactive mode operations may be accessed using the IEU menu or toolbar. The key functionality is available using the following commands:

File Import

IEU will attempt to import today's trades. If a file of today's trades is not available, the operator may elect to import files from a different date. After successfully finishing of this operation need to press button "Go" for trades processing.

File Open Mail

In the IEU message facility, pressing the "Go" (lightening) button will cause the IEU to poll for incoming mail and generate user responses, as appropriate.

The IEU will automatically file mail after it has read and responded to it. IEU stores a copy of outgoing solicitations in the **OutBox** folder. New incoming mail is temporarily stored in the **InBox** folder. Messages of unknown origin are stored in the **ERROR** folder.

View Options

The Options window allows the operator to review or change the current options.

Connection Logout

The operator may choose to logout at any point. After logout, the only available function is login. A valid IEU user must be logged in to use IEU functions.

Connection Status

Displays details of current connection status.

Appendix 3 A – Options

IEU Options

New users will be prompted to setup Account options. Options may be changed by selecting the "Options" button from the IEU toolbar, or selecting "View-Options" from the IEU menu.

There are 3 Options categories: **E-mail, Internet, and Advanced**

E-mail Options

Login Account

Name –

Enter full name, as it will be transmitted in mail "From" field

E-mail Account –

Enter full e-mail address. For example

ieucourier@courier.pfts.com

Password -

Enter the password for the e-mail account you specified

General E-mail (Non-IEU) [TESTING ONLY]

E-mail Directory -

Directory where your non-IEU mail will be stored (NOTE: You cannot use the General Mail Facility if you lack a valid E-mail Directory)

Inbox Directory -

Directory where your non-IEU INBOX will reside (NOTE: You cannot use the General Mail Facility if you lack a valid INBOX Directory)

Internet Options

Host Server Domain Name/IP Address

POP Server –

Enter the domain name or IP Address of the server from which mail will be retrieved. For example

courier.pfts.com

SMTP Server -

Enter the domain name or IP Address of the server which will send outgoing mail. For example

pfts.com

Advanced Options

NOTE *Advanced options should only be modified by the IEU operator since these settings impact universal IEU operation modes*

Import

Portal trade files use the following file naming convention

yymmddTR CSV

where *yymmdd* is the formatted trade date

If this convention changes, the operator may modify the Import file specification to change the date portion of the format. For example, the operator could change the string from "yymmdd" to "mmyydd". This change would cause the IEU to seek files which conform to the file naming convention.

mmddyTR CSV

Schedule

Incoming Mail

The operator may request automatic mail polling in 1-minute units for frequencies of up to one day (the maximum is 1439 minutes). The default is 15 minutes.

Daily Trade File

The operator must establish the time of day when the trade import should execute. The time must be entered in military format. The default time is 22 59.

Outgoing Mail

The operator may choose to hold outgoing mail which is automatically generated by the IEU in the IEU's SUSPense folder. The operator is responsible for reviewing and sending held mail if this option is selected.

Internet

Advanced Options

Blocking –

If this setting is flagged "on", then processing will be suspended during the time that IEU is waiting for telecommunications operations to complete. Blocking will automatically be flagged on for unattended operation

Trace –

Debug only. Not used for production execution.

Host Delete –

If this setting is flagged "on", then incoming e-mail which has been received by IEU will be deleted on the Unix host. Host Delete will automatically be flagged on for unattended operation



Appendix 3 B - IEU Tables

Agreement

Operator-Maintained

The Agreement table contains an entry for each "Standard Agreement" between a Portal Participant and a Registrar. This table is used to determine which Portal Trades are subject to IEU processing.

Name	Type	Size	Description
AgreementID	Number (Long)	4	KEY Auto-number field (internal) This is the relative record number which links the Agreement to its corresponding FeeBalance record
ParticipantID	Text	8	Portal Participant ID
RegistrarID	Text	8	Registrar ID
IssueID	Text	12	Portal Issue ID
BeginDate	Date/Time	8	Date Agreement Begins (optional)
EndDate	Date/Time	8	Date Agreement Expires (optional)

Fee

Operator-Maintained

The Fee table contains an entry for each Agreement showing the fee percentage, maximum fee and minimum fee which the Agreement stipulates per IEU transaction. The Fee table must contain a record which corresponds to each agreement, linked by AgreementID.

Fees calculated by the IEU are displayed in the Electronic Transfer Order, which is automatically generated for the Participant and sent to the Registrar.

Name	Type	Size	Description
AgreementID	Number (Long)	4	KEY Auto number field (internal) This is the relative record number which links the Agreement to its corresponding FeeBalance record
FeePercent	Number (Double)	8	Fee as a Percentage of Total Quantity of a Transaction
FeeMinimum	Number (Double)	8	Minimum Fee which will be charged
FeeMaximum	Number (Double)	8	Maximum Fee which will be charged

FeeBalance*Internal*

The IEU updates the Fee Balance table when fees begin to accrue (at the start of an IEU transaction) For each transaction, Fee records are maintained for the selling broker under the Portal Sell Transaction Number and for the contra-party under the Portal Buy Transaction Number

Name	Type	Size	Description
TxnNo	Text	7	KEY Portal Transaction Number (may be a Buy or Sell transaction)
FeesDue	Number (Long)	4	Total calculated fees due to Registrar
FeesPaid	Number (Long)	4	<i>Presently not used</i>

Log*Internal*

The IEU updates the Log table when it sends or receives an IEU message *Not used in current version*

Name	Type	Size	Description
EmailID	Text	255	KEY RFC821 'world unique message ID
StatusCode	Text	10	Status may be PEND (pending broker response) PENDCLOS (pending registrar response) CLOSED (processing completed) or CLOSEERR (processing was aborted by user action)
MailTo	Text	50	Contents of To field
MailFrom	Text	50	Contents of From field
Sent	Date/Time	8	Date message was sent or received
Subj	Text	128	Contents of Subj field
Body	Memo	-	<i>Presently not used</i>
Attachment1	Text	128	<i>Presently not used</i>
TxnNo	Text	7	Related Portal Transaction if applicable
ContraTxnNo	Text	7	Only populated if this log record pertains to both the Buy and the Sell side of a transaction
Broker	Text	8	Related Portal Broker ID if applicable
Registrar	Text	8	Related Registrar ID if applicable
ReplyDate	Date/Time	8	Date that a reply to this message was received
ReplyCode	Text	10	Subj of the reply to this message if there was one
ReplyText	Text	100	<i>Presently not used</i>
CloseDate	Date/Time	8	Date this item was closed if any
CloseBy	Text	50	<i>Presently not used</i>

Participant*Operator-Maintained*

The Participant table must contain an entry for each Portal participant who has a "Standard Agreement"

Name	Type	Size	Description
ParticipantID	Text	8	KEY Portal Participant ID
Nickname	Text	30	This field is reserved for future use (Address Book functionality)
FirstName	Text	50	Participant First Name used when creating fully qualified e-mail address
LastName	Text	50	Participant Last Name used when creating fully qualified e mail address
Title	Text	50	Used in the text of the Electronic Transfer Order
Company	Text	50	Used in the text of the Electronic Transfer Order
Address	Text	255	Used in the text of the Electronic Transfer Order
City	Text	50	Used in the text of the Electronic Transfer Order
State	Text	50	Used in the text of the Electronic Transfer Order
Region	Text	50	<i>Presently not used</i>
PostalCode	Text	20	Used in the text of the Electronic Transfer Order
Country	Text	50	Used in the text of the Electronic Transfer Order
WorkPhone	Text	30	Used in the text of the Electronic Transfer Order
MobilePhone	Text	30	<i>Presently not used</i>
FaxNumber	Text	30	<i>Presently not used</i>
AlternativePhone	Text	30	<i>Presently not used</i>
EmailAddress	Text	50	RFC 1522 format e-mail address
CompuServeID	Text	50	<i>Presently not used</i>
SignatureFile	Text	255	Optionally contains name of file containing this participant s RFC-format digital signature
PublicKey	Text	32	Contains the name of the file in the DATA subdirectory which contains this participant s public key in PKCS7 format
EmrgcyContactName	Text	50	<i>Presently not used</i>
EmrgcyContactPhone	Text	30	<i>Presently not used</i>
MembershipStatus	Text	30	<i>Presently not used</i>
DateJoined	Date/Time	8	<i>Presently not used</i>
Notes	Memo		<i>Presently not used</i>

Registrar*Operator-Maintained*

The Registrar table must contain an entry for each registrar who is named in a "Standard Agreement"

Name	Type	Size	Description
RegistrarID	Text	8	KEY Registrar ID as it will appear in the Agreement table
Nickname	Text	30	This field is reserved for future use (Address Book functionality)
FirstName	Text	50	Registrar First Name used when creating fully qualified e-mail address
LastName	Text	50	Registrar Last Name used when creating fully qualified e-mail address
Title	Text	50	<i>Presently not used</i>
Company	Text	50	Used in the text of the Electronic Transfer Order
Address	Text	255	Used in the text of the Electronic Transfer Order
City	Text	50	Used in the text of the Electronic Transfer Order
State	Text	50	Used in the text of the Electronic Transfer Order
Region	Text	50	<i>Presently not used</i>
PostalCode	Text	20	Used in the text of the Electronic Transfer Order
Country	Text	50	Used in the text of the Electronic Transfer Order
WorkPhone	Text	30	<i>Presently not used</i>
MobilePhone	Text	30	<i>Presently not used</i>
FaxNumber	Text	30	<i>Presently not used</i>
AlternativePhone	Text	30	<i>Presently not used</i>
EmailAddress	Text	50	RFC 1522 format e mail address
CompuServID	Text	50	<i>Presently not used</i>
SignatureFile	Text	255	Optionally contains name of file containing this registrar's RFC format digital signature
PublicKey	Text	32	Contains the name of the file in the DATA subdirectory which contains this registrar's public key in PKCS7 format
EmrgcyContactName	Text	50	<i>Presently not used</i>
EmrgcyContactPhone	Text	30	<i>Presently not used</i>
MembershipStatus	Text	30	<i>Presently not used</i>
DateJoined	Date/Time	8	<i>Presently not used</i>
Notes	Memo	-	<i>Presently not used</i>

Status*Internal*

The IEU creates a status record for each IEU-eligible transaction (Buy and Sell)

Name	Type	Size	
TxnNo	Text	7	KEY Portal Transaction Number
SettlementDate	Text	20	Settlement date
Broker	Text	8	Portal Broker ID
BrokerAction	Text	10	Broker action – (S)ell or (P)urchase
BrokerEmailID	Text	100	RFC 1522 format e mail address from the Participant table
Contra	Text	8	Portal Contra party ID
ContraEmailID	Text	100	RFC 1522 format e mail address from the Participant table
ContraTxNo	Text	7	Contra party Portal Transaction Number
Registrar	Text	8	Registrar ID from the Agreement table
RegistrarEmailID	Text	100	RFC 1522 format e-mail address from the Registrar table
Issue	Text	12	Portal Issue ID from the Agreement table
BrokerReplyCode	Text	10	Broker Reply may be CONFIRM or DENY
ContraReplyCode	Text	10	Contra Reply may be CONFIRM or DENY
RegistrarReplyCode	Text	10	Registrar Reply may be CONFIRM or DENY
StatusCode	Text	10	Current Status (see Status field in Log Record for possible values)

ETO*Internal*

The IEU creates a ETO record for each received ETO

Name	Type	Size	
TxnNo	Text	7	KEY Portal Transaction Number
ETODate	Date/Time		ETO creation date
OwnerAccount	Text	50	Seller account number
OwnerState	Text	4	Seller status – owner or keeper
OwnerName	Text	50	Seller name
OwnerDoc01	Text	50	Seller's document type
OwnerDoc02	Text	50	Seller's document seria
OwnerDoc03	Text	50	Seller's document number
OwnerDoc04	Text	50	Seller's document authorization
OwnerDocDate	Date/Time		Seller's document registration date
OwnerRegCode	Text	50	Seller registration code
OwnerAgentName	Text	50	Seller's agent name
OwnerAgentDoc01	Text	50	Agent s document type
OwnerAgentDoc02	Text	50	Agent s document seria
OwnerAgentDoc03	Text	50	Agent s document num
OwnerAgentDoc04	Text	50	Agent s document authorization
OwnerAgentDocDate	Date/Time		Agent s document registration date
ContraAccount	Text	50	Buyer account number

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ContraState	Text	4	Buyer status – owner or keeper
ContraName	Text	50	Buyer name
ContraDoc01	Text	50	Buyer's document type
ContraDoc02	Text	50	Buyer's document seria
ContraDoc03	Text	50	Buyer's document number
ContraDoc04	Text	50	Buyer's document authorization
ContraDocDate	Date/Time	50	Buyer's document registration date
ContraRegCode	Text	50	Buyer registration code
Emitent	Text	50	Issuer Name
EmitentRegCode01	Text	50	Issuer's Registration code 1
EmitentRegCode02	Text	50	Issuer's Registration code 2
SecurityType	Text	50	Security type
SecurityIssue	Text	50	Security Issue
NominalPrice	Number	double	Security's nominal price
Qty	Number	long int	Security's quantity
NominalTotal	Number	double	Total nominal price
SharePrice	Number	double	Trade's price
Sert01Seria	Text	50	Certificate 1 seria
Sert01No	Text	50	Certificate 1 number
Sert01Qty	Number	long int	Shares quantity for certificate 1
Sert02Seria	Text	50	Certificate 2 seria
Sert02No	Text	50	Certificate 2 number
Sert02Qty	Number	long int	Shares quantity for certificate 2
Respond	Yes/No		Shares blocked or not
RespondType	Text	128	Description of blocking
TxnType	Number	integer	Transaction type ID
TxnTypeDescr	Text	128	Transaction type description
AddedDocs	Text	255	Additional documents
RegNum	Text	50	Re registration number
RegDate	Date/Time		Re registration date
RegResult	Text	50	Re registration result code
RegResultDescr	Text	50	Re registration result description
RegName	Text	50	Trader's full name
RegNo	Text	50	Trader's registration number
RegNoDate	Date/Time		Trader's registration date
RegLicNo	Text	50	Trader's license number
RegLicDate	Date/Time		Trader's license registration date
RegAddress	Text	50	Traders registration address
RegMailAddress	Text	50	Traders mail address
RegAgrNum	Text	50	Trade Agreement number
RegAgrDate	Date/Time		Trade Agreement date
RegSignedBy	Text	50	Responsible person name

Input*Internal*

The IEU use this table only for import Portal Trade Report files

Appendix 3 C – Other Files of Interest

DATA and IMPORT subdirectories will be created as part of IEU installation. The IEU will not function properly without the files and directories named below. In production mode, **do not erase any files in the IEU directory**

IMPORT Subdirectory

Read-Only Files

- IMPORT\schema.ini

The import directory contains Portal Trade files and the SCHEMA INI file. The SCHEMA INI file is a read-only file which must be present in order to import Portal Trade Files.

The Portal ftp process should send trade files to the IMPORT directory. The ftp server should be setup to ensure that the Portal "user" writes to the IMPORT directory by default.

DATA Subdirectory

The data directory contains IEU database IEU MDB file.

The IEU subdirectory is the default e-mail directory for IEU operations. IEU will automatically create subdirectories in the IEU directory. These will be named ERROR, FWD, NEW, REPLIES SENT, and SUSP.

4 ETO PROCESSOR PROGRAM (*User Manual*)

ETO Processor Program is designed to process requests and messages that come from the IEU server to traders and registrars. ETO Processor provides the maximum automated operations of messages' receiving, forwarding, and processing, as well as appropriate and uncomplicated interface, regardless of the type of e-mail program used for the information receipt, and maintains the archive of the messages processed.

Depending on the user's functions, the program can work in two modes – ETO Processor (Trader) for traders and ETO Processor (Registrar) for registrars. The type of mode is specified upon the program installation.

Requests and messages shall be received as united into a joint package in the form of an attached file, upon opening of which the ETO Processor Program starts up automatically, and the messages received in a package are being processed. Responses to messages are forwarded back autonomously through the internal ETO Processor e-mail program.

The algorithms RSA Public-Key Cipher, RC4 stream cipher, and RSA MD5 hashing algorithm are used for encryption/decryption of messages and digital signatures.

4.1 ETO Processor Program Installation

Installation package of ETO Processor program is provided on a CD-ROM disk or in a set of seven floppy disks, and contains the ETO Processor Installation Program itself (folders Disk 1-Disk 3 on CD-ROM or floppy disks with labels "Disk #1" – "Disk#4"), and a Database Access Object utility (folder Dao on CD-ROM or floppy disks with labels "Disk#5" – "Disk#7"), that enable access to internal database of the program.

Installation from a CD-ROM

- 1 Insert a disk into a disk drive, open a Disk 1 folder, and start up a setup exe file.
- 2 A registration form will appear on a screen. The number of fields in the form depends on a program work mode. Choose a mode required – Trader or Registrar – and fill in the rest of fields (See Pic 1, Table 1). When you finish, press a "Continue" button.
- 3 In the next dialogue box choose a directory, to which the ETO Processor program files will be written. By default, the directory \Program Files\ETO\ is set up. Then click a button to start up the software installation (See Pic 2).
- 4 After all required files are copied into the specified directory, there will be a message on a screen on successful completion of installation.
- 5 To insure access to the internal database, containing electronic transfer orders, it is also required to install a Database Access Object package. Its installation program setup exe is on a CD-ROM disk in a folder Dao\Disk1\.

Picture 4 1 Registration form

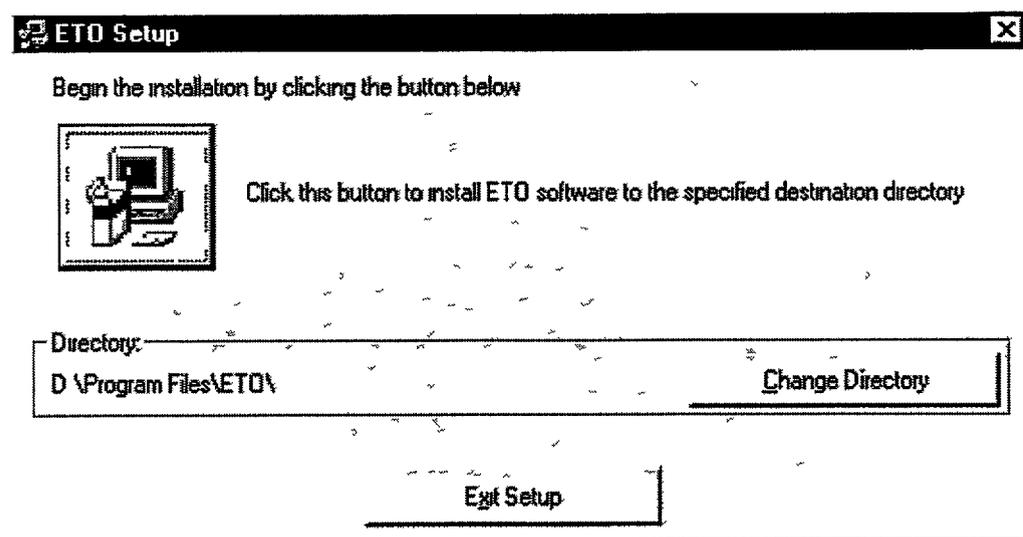
Installation from floppy disks

- 1 Insert a floppy disk with a label "Disk #1" into a disk drive and start up a setup exe file
- 2 Continue to fulfill instructions of step 2 to 5 of the previous section, periodically inserting an appropriate floppy disk on a request of installation program. Installation program setup exe for Database Access Object package is on a floppy with a label "Disk #5"

TABLE 4 1 Registration form fields

Field	Meaning
<i>Fields common for both modes</i>	
Login for e-mail	User name, from which messages for the IEU Server will be forwarded
Mail Server Address	Electronic address of mail server, on which you are registered under the above mentioned name, and from which messages for the IEU Server will be forwarded
Password on a server	A password enabling access to the Mail server
Password for IEU	A unique password for a given user of the IEU System, based on which messages from this user will be coded

Note At installation of the program, which will be working in a trader mode, it is also required to fill in the fields, which then will be entered into electronic transfer orders automatically, for instance, name of organization, registration number, and license number, date of license registration and issuance, legal and mail address



Picture 4 2 Specify a directory, to which the ETO Processor package files will be entered and click a button to start up the installation

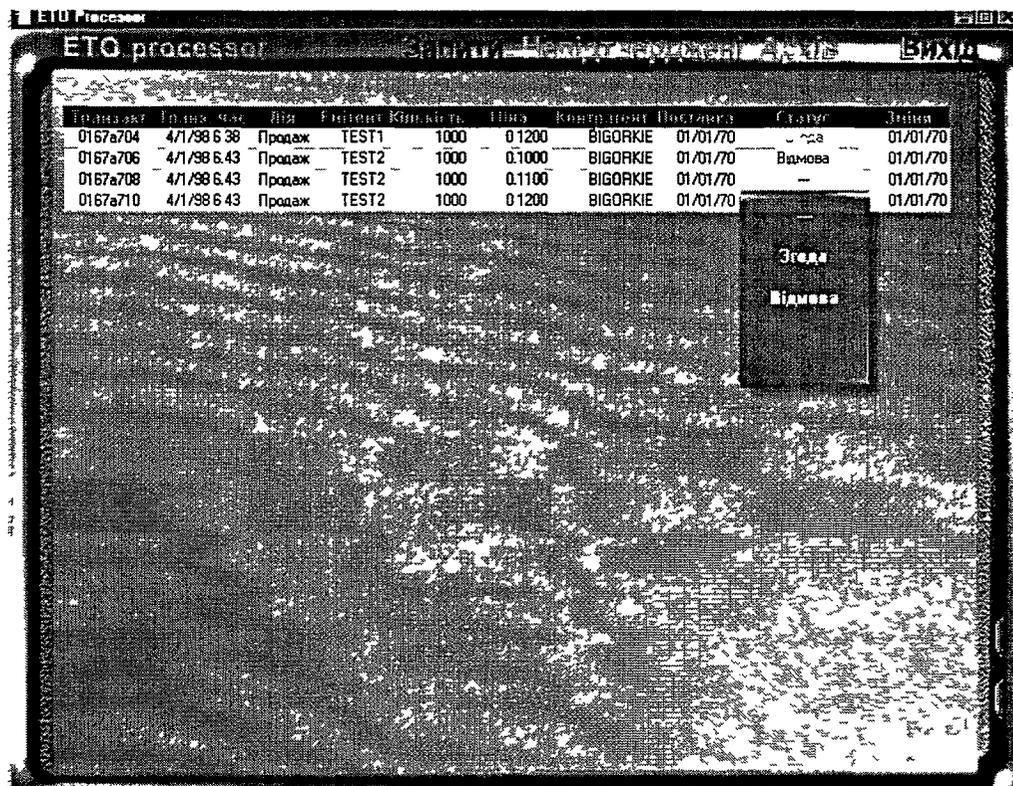
4 2 ETO Processor start-up

ETO Processor program starts up automatically upon opening an attached file, which comes from the IEU Server

Another option of ETO Processor start-up is through the ETO Processor icon

4 3 Use of the ETO Processor (Trader)

ETO Processor Program (Trader) locates the requests for permission in re-registration, which are received by traders from the IEU server, in a **Request** folder. Information by each trade is displayed as separate records. If a trader agrees to effect the securities re-registration by this trade electronically, then he should choose the **Confirm** option in the **Status** column. For this, he needs to click the left button of a mouse on an appropriate field of record and choose the **Confirm** option in the pull-down menu, which appears on the screen. If for some reasons, a trader refuses to effect the securities re-registration by this trade electronically, then he should choose the **Deny** option in the menu. If for some trades, the decision to perform re-registration or reject it has not taken yet, then in the **Status** column for such trades the "___" option is displayed.



Picture 4 2 ETO Processor Program (Trader) interface

A trader acting as a seller for a given trade, in case of effecting re-registration electronically, should also fill in the electronic transfer order. To receive a form of this order on a screen, he should click a mouse on an icon at the end of a record for a certain trade. A form of electronic order consists of two pages and look like shown on Pic 3.

With the help of the **Forward** slide button in the right bottom corner of the screen, responses to all requests, for which the **Deny** and **Confirm** options have been chosen, shall be forwarded to the IEU server. Requests, the status of which has not been determined yet, shall stay in the Requests folder until the decision on denial or confirmation for securities re-registration by these trades is taken.

After the receipt of the server's response, records for the trades shall be transferred to the **Archive** folder. Depending on the results of re-registration, the trades' status in the archive can have one of these three definitions

- ◆ **"Deny"** - this trader, its counterpart, or both parties rejected to effect re-registration electronically,
- ◆ **"Re-registered"**- securities for this trade have been successfully re-registered electronically,
- ◆ **"Non re-registered"** - upon certain reasons registrar refused to re-register the securities for this trade electronically

Records, which are contained in each folder, can be printed out with the help of a **Print** slide button in the right bottom corner of the screen

The screenshot shows the ETO processor interface with a menu bar at the top containing 'ETO processor', 'Запити', 'Моніторинг', 'АРХІВ', and 'Вихід'. Below the menu is a table with the following data:

Транзакт	Транс. чар	Дія	Емітент	Кількість	Шлях	Контрагент	Постачка	Статус	Зміни
01676688	4/1/98 6.23	Продаж	ZVOD	1000	0.1000	BIGORAKJE	01/01/70	відмова	07/07/98
01676690	4/1/98 6.25	Продаж	ZVOD	1000	0.1100	BIGORAKJE	01/01/70	перереєстровано	07/07/98
01676692	4/1/98 6.30	Продаж	ZVOD	1000	0.1200	BIGORAKJE	01/01/70	перереєстровано	07/07/98
01676698	4/1/98 6.33	Продаж	NEFT	1000	0.1200	BIGORAKJE	01/01/70	неперереєстровано	07/07/98
01676694	4/1/98 6.30	Продаж	NEFT	1000	0.1000	BIGORAKJE	01/01/70	перереєстровано	08/07/98

In the bottom right corner of the window, there is a button labeled 'Друк' (Print).

To exit the program it is necessary to click **Exit** on the menu

4.4 Use of the ETO Processor (Registrar)

Records for trades in ETO Processor program are maintained in two folders – **Requests** and **Archive**.

Requests for re-registration, which come to registrar from the IEU server, shall be kept in **Requests** folder. If a registrar agrees to effect re-registration by this trade electronically, then in the **Status** column it has to display the **Confirm** option. For this, it is necessary to click the left button of mouse on an appropriate field and choose the **Confirm** option from the pull-down menu, which appears on the screen. If for some reasons, registrar refuses to re-register the securities by this trade electronically, then it is necessary to

Appendix A IEU Working Procedures

- 1 At 10 a m , 2 p m , and 4 p m of each trading session IEU operator receives and imports to IEU system a file of trades locked during the current day or after 4 p m of the previous day,
 - 1 1 IEU operator receives a file of locked-in trades from the PFTS trading system server
- 2 IEU Server program sends requests for permission in electronic re-registration to all traders (hereinafter referred to a re-registration)
 - 2 1 Requests shall be forwarded automatically by the IEU Server program immediately after the information on locked-in trades is imported
 - 2 2 Based on the database supported by the IEU system, the program chooses, among all locked-in trades, those ones, re-registration for which should be performed electronically
- 3 On receiving the request for permission in re-registration, the traders shall verify data for trades, which came along with the request
 - 3 1 If the seller confirms its consent to re-register securities for this trade, it fills in, with the help of ETO Processor program, the electronic transfer order, and forwards it to the IEU operator If the buyer confirms its consent to re-register securities for this trade, it forwards, with the help of ETO Processor program, a proper standard message to the IEU operator
 - 3 2 If the trader refuses to effect re-registration of securities for this trade, it forwards the message on denial to the IEU operator
 - 3 3 Filled in electronic transfer order, message on consent, or message on denial, for each separate trade should be forwarded to the operator not later than 6 p m of T-day
 - 3 4 If by 9 a m of T+1 day the IEU operator does not receive the answer of at least one party, re-registration of securities for this trade shall be deemed cancelled A particular message shall be forwarded to both traders
- 4 IEU Server program processes responses of the traders automatically
 - 4 1 If both parties confirmed their consent to re-register securities, the request for re-registration should be forwarded to a proper registrar
 - 4 2 If at least one party refused to effect re-registration, both parties should be forwarded a confirmation on re-registration denial
 - 4 3 Requests to registrars or confirmations on re-registration denial shall be forwarded with a certain period of time, as responses come from the traders, but not later than 10 a m of T+1 day
- 5 From 10 a m till 6 p m of T+1 day registrars shall verify the information received, re-register securities, and forward a response on re-registration results to the IEU Server
 - 5 1 If by 10 p m of T+1 day the IEU Server does not receive responses from the registrar, the latter shall be forwarded a message of warning If during 48 hours from the time the message was forwarded, there is no response from the registrar on re-registration results, registration of securities for this trade shall be deemed cancelled A particular message shall be forwarded to both traders and the registrar

- 6 During 10 minutes from their receipt, responses from the registrars are fixed automatically in the archives of the IEU Server, and are forwarded to the traders
- 7 If technical defects related to work of communication line or the software occur, the trader or the registrar should notify on that, within two hours, by fax, the IEU operator
- 8 Every second and fourth Monday of a month, registrars shall forward an invoice for securities re-registration services to the traders
- 9 Every second and fourth Wednesday of a month, the traders shall pay invoices for re-registration services, provide registrars with paper documents for all trades required for the current reporting period, as well as copies of a payment order

Definitions used in the Procedures

IEU operator – a person, which manually imports locked-in trades file into IEU Server program and supervises the process of IEU system work. As far as all operations besides import of trade information are executed automatically, IEU operator interferes into system work only in a case of emergency or fault

IEU Server – a program, which receives the information from the trading system, and serves as a communication center between traders and registrars

T-day – a date, which for a given trade, in a file of concluded trades, is specified as the securities delivery date. For trades, which were concluded after 4 p.m. of T-day, T-day shall be considered the following day. When calculating dates, corresponding to T-day, T+1, and T+2 days, only business days shall be taken into account

Electronic securities re-registration – ownership rights re-assignment based on electronic transfer order and messages received through e-mail

Information Exchange Utility – a system of procedures and regulatory and legal acts designated to insure the ownership rights re-assignment electronically

Appendix B. Example of agreement between trader and registrar on the use of IEU system

AGREEMENT
on pilot operation of the electronic documents exchange between
Registrar and Traders in securities

Kiev,

date _____

_____, hereinafter referred to as the Participant represented by _____

acting in accordance with the Charter on one part, and the public company "Finansova Kompaniya "UKRNAFTAGAZ", hereinafter referred to as the Registrar represented by Mr Sabodakha Oleksandr Sergiyovych acting in accordance with the Charter of the Company on the other part concluded this agreement as follows

1 TERMS AND DEFINITIONS

System – a set of hardware and software aimed at maintenance, authorization, encryption, deciphering, transmission and reception through channels of electronic communication of information as specified in this Agreement

Executive Documents – any paper issues, which form and contents are content with requirements of the Registrar as per the regulation "On Procedures of Maintenance of Registers of Registered Securities' Owners" being subject of transactions in register

Electronic Message – standard electronic document used within the System for exchange of information including without limitation payment and settlement information, orders, inquiries, files as per the list of documents (compiled in accordance with special requirements as for documents' fields and format of data to be filled in) to be processed by the System through electronic communication networks

Notice – electronic message notifying on results of processing information received in accordance with this Agreement

Authorized Person – a physical person authorized by the Participant for performing responsibilities of its representative with the Registrar acting in interests of the Participant in accordance with documents duly issued and certified by the Participant Responsibilities of such authorized person shall be specified in the letter of attorney issued by the Participant to such person (see Attachment 1)

Customer – a person already registered within the system of Register or to be registered within this system in future, and, in accordance with current law of Ukraine, issued the written authorization to the Participant to act on the Customer's behalf in relation to securities of issuers maintained on the Customer's personal accounts on the Registers, to which the Customer is a registered person including without limiting alienation, burdening of securities with liabilities for the benefit of third persons including the Participants

Business Day – a day (except for Ukrainian institutional holidays a week ends) when banks of Ukraine are open



Operation Day – a business day limited by the time of receipt of electronic messages from the Participant from 10 a m through to 5 p m

Other terms and definitions used in this Agreement except for the cases when the content implies otherwise shall be interpreted and understood by the Parties hereto and any third persons whatsoever as expressed in the regulation “On Procedures of Maintenance of Registers of Registered Securities’ Owners”

2 SUBJECT OF THE AGREEMENT

Subject of this Agreement shall be adjustment and regulating relations among and between the Participant, its Authorized Person and the Registrar within the process of pilot electronic issue exchange system in relation to

- exchange by the Parties of settlement and/or other correspondence specified in this Agreement including the exchange electronic communication channels,
- operating of the System by the Participant in order to secure compliance with the conditions of this Agreement and throughput of settlement and/or other correspondence through electronic communication channels in order to perform objectives set in this Agreement,
- transfer by the Authorized Person to the Registrar of duly issued Executive Documents content with Electronic Messages by the Participant to perform on behalf of the Participant such actions in the Register as specified in the Executive Documents and complied with appropriate procedures of maintenance of registers of registered securities’ owners prescribed by law In doing so, the Authorized Person shall guarantee (provided proper performance by the Participant of the conditions of this Agreement as well as faultless functioning of electronic communication network and the System in general) execution of settlement transactions on received and verified notices by the Participant on the Register (when open for transactions) during one hour within one Operation Day from the time when such electronic message is duly received from the Participant

3 GENERAL PROVISIONS AND PROCEDURES OF ELECTRONIC SETTLEMENT

- 3 1 Electronic notices generated by the System used in relations between the Participant/Authorized Person and the Registrar in electronic settlements, duly certified by electronic signature shall be admitted by the Parties and any other persons whatsoever as legally adequate to the appropriate forms of the Executive Documents as if created by the Parties in paper form, signed and sealed in a regular way, and such documents shall have similar rights and liabilities The Parties herewith admit that the systems of processing, telecommunication and storing of information used by them shall be deemed sufficient for securing reliable and efficient activities in reception, transmission, processing and storing information
- 3 2 The Registrar shall appoint a person responsible for installation of customer’s part of the System at the Participant’s workstation, conduct training of the Participant’s personnel and maintain reliable functioning of the System
- 3 3 The Parties admit the system of data protection used by them in accordance with this Agreement as compliant with the purposes of generation of secret codes, encryption, integrity control and electronic signature and sufficient for protection from unauthorized access as well as for confirmation of authorization and authenticity of electronic signature
- 3 4 The Parties herewith admit that any electronic message received, deciphered and verified by one Party by means of the System of processing and deciphering and duly certified by electronic signature of the other Party shall be deemed received by such first Party as if received in regular way on paper

- 3 5 The Party initiating transmission of the Electronic Message shall prepare it and send to the opposite Party, the opposite Party verifies the Electronic Message and transmit the notice to the Party-initiator in confirmation of acceptance of the message or denial to perform the Electronic Message specifying reasons for such denial Notice on acceptance or denial shall be prepared within one hour from the time of receipt of the message and transmitted to the opposite Party automatically during the next communication session
- 3 6 Each Party shall retain the right to transmit to the opposite Party any electronic message whatsoever as listed in Attachment 2 hereto
- 3 7 Transmission of any other information through electronic communication channels is allowed though such other information shall not impose any liabilities to the Parties hereto
- 3 8 Electronic messages shall generate liabilities of the Parties in accordance with his Agreement for transmitting Party - if duly prepared, certified by electronic signature and transmitted through electronic networks using the System, for the Party to which the messages are addressed – if duly received, verified and accepted Duly prepared and signed notice of receipt shall be deemed confirmation of due receipt of the Electronic Message
- 3 9 Authorized Person shall present to the Participant consolidated list of electronic messages containing messages sent by the Participant and received from him not later than on the first day of each month or on the nearest day if such day is other than business day The consolidated list shall is made on paper and certified by the signature of the Authorized Person as well as by signatures and seal of appropriate staff members of the Registrar The Participant shall certify the list by signatures of his appropriate staff members and his seal in order to confirm verification against his personal accounts and return one copy to the Registrar on the next business day following the day of receipt of the consolidated list of Electronic Messages Parties herewith admit that after positive completion of the procedures of verification of transmitted and accepted Electronic Messages they will relive each other of possible claims as for processing of settlement correspondence The above consolidated lists of Electronic Messages shall be kept by the Parties during 3 (three) years from the day of signing the appropriate lists
- 3 10 In order to prevent conflicts that may arise at exchanging Electronic Messages, verification of transmitted and accepted Electronic Messages shall be performed on weekly basis at the end of each week on Friday and appropriate certificates of receipt shall be issued

4 PROCEDURES OF PERFORMANCE OF THIS AGREEMENT

- 4 1 Then Participant from his workstation independently generates secret codes used for further encryption of all Electronic Messages of the Participant to be transmitted through the System's electronic communication channels including the electronic signature of the Participant On completion of the procedure of generation of the secret codes, the Parties sign the act on generation of secret codes
- 4 2 The Participant shall promptly notify the Registrar and its Authorized Person on all cases of disclosure of his secret codes as we as on cases of loss, unauthorized use or damage to parts of the System responsible for generation of electronic signature of the Participant and encryption of Electronic Messages to perform extraordinary replacement of secret codes and other actions agreed with the Registrar aimed at maintenance of operability of the System
- 4 3 The Participant in the event of disclosure of his secret codes shall promptly block all transactions with electronic documents already prepared with the use of such codes
- 4 4 The Registrar shall monitor and control normal functioning of the data protection system and promptly notify the Participant on each case of unauthorized access to the System

- 4 5 In the event of disclosure of secret codes of the Participant, the Registrar shall block all transactions on the System till the codes are extraordinary replaced and take other measures to maintain operability of the System
- 4 6 The Registrar is not responsible for the effects entailed by disclosure of secret codes of the Participant if such disclosure occurred not through the fault of the Registrar, nor for loss or stealage of the Participant's electronic signature or parts of the System responsible for encryption of the Electronic Messages transmitted from the Participant as well as for unauthorized used of the System by third persons
- 4 7 The registrar herewith notifies the Participant that the device named "adapter key" is a carrier of the registration number of software applications of electronic signature, encryption and deciphering containing secret codes of signature and encryption Loss, stealage or damage to the device shall automatically entail disclosure of the Participant's secret codes
- 4 8 The Registrar shall provide the Authorized Person of the Participant with a properly equipped workstation compliant with conditions of reception of Electronic Messages from the Participant
- 4 9 The Authorized Person receives from the Participant the Electronic Messages compliant with the executive documents by form and contents, duly signed by electronic signature and sent through the System's electronic communication channels
- 4 10 The Authorized Person verifies accepted Electronic Messages as for their integrity and authenticity of the electronic signature in each such message
- 4 11 The Authorized Person prepares on behalf of the Participant paper copies of the Electronic Messages using the pattern of Executive Documents, certifies them with his signature and submit the Executive Documents to the Registrar
- 4 12 The Registrar performs general settlement transactions on depositing securities on personal accounts of the Participant and Customers in accordance with the Executive Documents prepared by third persons including without limitation by the Authorized Person of the Participant when the Authorized Person provides such services to counter-agents of the Participant and/or the Customer in accordance with contracts conditions of which are content with the conditions of this Agreement The Authorized Person promptly transmits Electronic Message, statement on status of personal account of the Participant and/or Customer under appropriate request from the Participant received by the Authorized Person through electronic communication channels
- 4 13 Each Party shall have the right to transmit requests and responses to the requests to opposite parties by each individual Electronic Message not later than on the next business day after the day of acceptance of such request also supplying paper copies compliant with requirements to the forms of the Executive Documents and Electronic Messages
- 4 14 The Participant, in accordance with law and provisions of this Agreement, shall on his behalf and on behalf of his Customers prepare the letter of attorney on the name of the Authorized Person authorizing such person to perform actions with securities on personal accounts of the Participant and/or Customers in Register as ordered by the Participant and his Customers and within his competence in accordance this Agreement
- 4 15 In order to comply with appropriate provisions of law, the Participant shall keep executive documents and submit executive documents for each week to the Registrar The acceptance certificate shall confirm such submission
- 4 16 In required, the Participant in accordance with appropriate written request from the Registrar shall provide duly prepared executive documents confirming transactions in accordance with which Electronic Messages were generated within 4 hours after the request
- 4 17 In the event, that the Participant failed to submit executive documents within the specified term, the Registrar shall adjust the account on which the transactions were

performed to its initial status, i.e. the status available when the electronic message on re-registration was received

- 4 18 In accordance with the summaries for last month, the Parties sign acceptance certificate confirming procedures of verification of transmitted to and accepted by each other Electronic Messages and performance of settlements under this Agreement during reported year

5 SETTLEMENT PROCEDURES

- 5 1 The Participant pays for services rendered by the Registrar in accordance with the price-list of the Registrar (Attachment 3) and bills presented to the Participant
- 5 2 The Participant shall effect payment within at least 5 (five) business days from the date of the bill. In case of delay, the Participant shall pay to the Registrar penalty at the rate of 0.2 % of the outstanding sum for each day of delay but not to exceed the amount of double interest rate of NBU valid in the period for which the penalty is charged. Should the money be not available at the account of the Registrar within 10 (ten) calendar days from the date of bill, this Agreement shall be deemed unilaterally cancelled by the Registrar

6 VALIDITY TERM

- 6 1 The Parties hereto agreed that this Agreement shall be valid for the period of 1 (one) month starting from the date of its signing by both parties and can be extended for the term not more than 3 (three) months if appropriate for the purpose of pilot operation of the System
- 6 2 If the Parties determine that the system of documents electronic exchange between the Registrar and the Participant is generally satisfactory, they may conclude a new agreement on operation of the System

7 CONFIDENTIALITY

- 7 1 Any information whatsoever (including terms and conditions of this Agreement) submitted by any one Party to the other during the term of validity of this Agreement and disclosure of which may cause loss or damage to any of the Parties shall be deemed strictly confidential and not subject to disclosure to third persons except as prescribed by Ukrainian law
- 7 2 Parties shall be liable for keeping in secret, properly use and not submit to third persons any information which become of their knowledge during the term of validity of this Agreement and unauthorized dissemination of which may cause losses to any of the parties
- 7 3 The Participant shall keep in secret all components of the System. The Participant shall be responsible for keeping commercial secret by assuming responsibilities for not disclosing secrets by its personnel and taking appropriate measures for this purpose
- 7 4 Parties shall bind themselves by not disclosing to any third person specific measures of data protection used by the System as well as keep confidential secret codes engaged by the data protection system
- 7 5 Registrar shall keep confidential information on electronic settlements performed in accordance with this Agreement

8 LIABILITIES OF THE PARTIES

- 8 1 Participant shall assume liabilities for the use of services rendered by the Authorized Person, third persons, which use or may use the System through the Participant, and indemnify such third persons

- 8 2 In case of violation of this Agreement, the violating Party shall be fully responsible for possible effects of such violation
- 8 3 Any Party shall be deemed liable for the damage caused to the opposite Party resulted from the use of the System even in case of electronic messages containing errors if such electronic messages are duly prepared, signed and transmitted by one party or duly received, verified and accepted by the other party
- 8 4 Registrar shall not be liable for legality and correctness of an electronic message prepared by the Participant as well as for losses incurred to the Participant through errors, denials or omissions of third persons for which benefit settlement transaction was performed with the use of electronic message by the Participant
- 8 5 Each of the Parties shall have the right to demand compensation of losses should such losses are caused by failure to perform the conditions of this Agreement by opposite Party
- 8 6 Amount of compensation of losses caused by actions or omissions of one of the parties and resulted in full or partial failure to perform conditions of this Agreement shall be as prescribed by Ukrainian law
- 8 7 Parties shall be relieved from responsibilities for partial or full failure to perform their respective obligations under this Agreement if such failure is caused by circumstances beyond the reasonable control of the parties (force-major) occurred after signing this Agreement
- 8 8 In the event of force-major events, performance of this Agreement shall be postponed proportionally to the time of duration of these circumstances or their effects
- 8 9 Force major events shall be deemed legal if appropriate party issue a written notice on such events to the opposite party indicating the nature of the events within 15 (fifteen) days from the day of arising of such circumstances

9 OTHER PROVISIONS

- 9 1 The parties by way of negotiations shall settle all disputes, which may arise from performance of this Agreement. If parties fail to reach an acceptable agreement, the disputes shall be submitted for consideration by the Arbitration court of the city of Kiev
- 9 2 Parties agreed that they should consider all disputes, which may arise between the Parties in relation to authorship and origination of contents of the Electronic Messages, only from the point of authenticity of the electronic signature. Electronic message shall be deemed valid and authorized if it was duly signed with the use of electronic signature by a one party and duly received, deciphered, verified, accepted by the other party provided that the validity of electronic signature was not denied by any of the parties
- 9 3 To prevent conflicts of recognizing the very fact of availability of electronic signature and the fact of receipt of electronic message, the parties agreed that electronic message signed by electronic signature of the Participant and sent to the Registrar shall be deemed received by the Registrar and signed by the electronic signature of the Participant if such electronic message accepted and deciphered by the Registrar, electronic signature of the Participant is confirmed by its Authorized Person, original electronic message saved as file on computer of the Registrar, correctness of acceptance is automatically confirmed, electronic signature contained in the electronic message is deciphered. Electronic message (notice) of the Registrar sent to the Participant and certified by the Registrar shall be deemed received by the Participant if such message accepted, deciphered and registered in computer registration log of the Participant

102

10 ADDRESSES AND BANK REQUISITES OF THE PARTIES

PARTICIPANT	REGISTRAR
	Public Company "Finansova Kompaniya "UKRNAFTAGAZ" Ukraine, Kyiv 253090, vul Praz'ka, 5 code # 24101605 account # 2600800266001 at AKB "UKRNAFTOGAZBANK", Kyiv MFO 300294 telephone/fax (044) 551-9540, 552-7360

 O S Sabodakha

Attached hereto

- Attachment 1 Authorized Person Letter of Attorney
- Attachment 2 Forms of Electronic Messages
- Attachment 3 Price list of services rendered b the Registrar

BACK OFFICE STANDARDS OF THE PFTS MEMBER COMPANIES

1 Principles of in-office record-keeping of transactions in securities

1.1 General

These standards establish single principles of organization and maintenance of in-office transactions in securities record-keeping for all members of the PFTS Association regardless of their subordination, form of ownership, organizational and legal form of a PFTS member

The standards define major requirements to in-office record-keeping for transactions in securities made by traders-professional securities market participants within the process of realization of their activities, procedures of organization and record-keeping maintenance, basic principles of reporting to their customers aimed at protection of interests of the traders' customers, specifying liabilities of the securities market professional participants to PFTS

According to these Standards, all PFTS member traders prepare regulations on in-office record-keeping policies where they establish underlying principles and rules upon which an in-office record-keeping of transactions in securities should be based, including in-office record-keeping accounts' plan, description of contents, procedures of organization, terms of filling in and other specifications of the documents of primary record-keeping, documents of in-office reporting, reports to customers and specifying other essential specifications of the in-office record-keeping system

1.2 Terms and definitions

Customer	an individual or entity other than officer or founder of a trader in securities acting as an investor in the securities market and bound with a trader by contractual relations regulating terms and conditions of rendering services in the market to such customer
Customer's securities	any securities purchased by a trader for and under order from its customer delivery of which to the customer has not yet been completed, securities' certificates registered for the name of the customer or company acting as a nominal custodian of its customer and being kept in custody of the company, dematerialized securities towards which a company acts as a nominal custodian of its customer
Securities of a company	any securities purchased by a trader at its own expense
Trader/Customer contract	a contract concluded between customer and company establishing terms and conditions of rendering services by the company to the customer in the securities market Such contract may be concluded in the form of securities management agreement, broker servicing

contract etc

Counter-agent an individual or entity with which a trader concludes the contract on carrying out transactions in securities

Delivery of securities

- **delivery of dematerialized securities** transfer from one party to the other a duly executed document confirming re-assignment of the property rights for securities (extract from the register)

- **delivery of registered securities' certificates** transfer by one party to the other of the registered securities certificate and duly executed transfer order as well as other documents required for effecting re-registration

- **delivery of immobilized (deposited) securities** transfer by one party to the other of the extract from DEPO accounts specifying acceptance/write-off of securities on/from the DEPO account

Transactions in securities any action in securities and funds undertaken by a trader to perform its liabilities to a customer or a counter-agent in securities as well as liabilities of customers and counter-agents to the company resulted in motion of funds or securities

Time of entering deal or transaction the time when party reach of verbal agreement on all basic conditional issues of a deal or transaction or undersigning of written contract on carrying out such deal or transaction resulted in arising of liabilities to securities and/or money

Completion of the deal time of completion of all liabilities' performance under the contract between the seller and the buyer

Place of the deal trading system, stock exchange, unorganized market

Back office sub-division, person in charge or a group of persons charged with functions of maintenance of record-keeping of transaction in securities performed by a trader in securities

1 3 **General requirements to organization of record-keeping**

In-office record-keeping of a trader can be maintained by an employee of the company, separate unit or it can be maintained by a specialized organization or expert on contractual basis In any case, full responsibility for the accuracy, completeness, and timeliness of the record-keeping data is bored by the trader

Responsible for organization of record-keeping of a trader is the company manager The manager is liable for securing meeting by all company pertinent units all requirements to

105

the organization, providing duly registered information for record-keeping organization purposes as well as preparation of required in-office reporting data to the customers

2 Back office structure

A PFTS member's back office should be structured to ensure that any deal from the time of entering contract up to the time of its closure shall come through the following stages

- 1 Ticket filling in,
- 2 Ticket processing,
- 3 Ticket registration,
- 4 Preparation of the contract,
- 5 Registration of securities in the back office system,
- 6 Effecting payment,
- 7 Delivery of securities,
- 8 Re-registration of securities in the register,
- 9 Closure of the contract

- 1 Ticket is a primary document of in-office record-keeping by the contract concluded
The ticket should be filled in by the trader or other person authorized to sign such contracts
- 2 Ticket processing is issuing confirmation (if confirmation of the opposite party is available) Each stage of the contract performance shall be consistent with pertinent stage of the contract
- 3 The ticket shall be duly registered in appropriate log
- 4 Preparation of the contract is carried out in accordance with the ticket

Consequence in performance of paragraphs 5-8 can vary in accordance with the ticket terms and agreements between traders (contract terms)

- 5 Registration of securities in the back office system is made only when all pertinent documents confirming reassignment of the property rights for the securities have been received from the registrar and checked
- 6 Payment under the contract terms is performed only when all pertinent documents confirming re-registration are available at the back office (unless the contract stipulates otherwise) The stages, in this case, look as follows
 - completing initial payment procedures
 - effecting payment "from" or "to"
- 7 Delivery of securities is performed as stipulated in the contract
- 8 Re-registration of securities is performed in accordance with them law of Ukraine and agreements between the parties
- 9 The deal is deemed closed only after all stages above are completed

All stages in performing the deal should be appropriately represented in physical form (log records) or in electronic form (software product)

All stages of the deal shall be supported by appropriate documents

3 Transaction documentation

The following primary documents fixing facts of concluding deal, motion of securities and money are deemed grounds for entering records to the registers of in-office record-keeping

- documents registering the fact of receipt of the customer's order to enter the deal in securities (customer's orders) and the fact of concluding such deal, (tickets) and confirmation of deals,
- agreements, contracts on entering deals in securities,
- payment documents (extract from banking documents on effecting payment),
- documents confirming re-registration of the property rights for securities (extract from register of shareholders, extract from DEPO account)

The persons signed the primary documents are responsible for timeliness of preparation of the [primary documents and credibility of the information contained in them as well as for their transfer for further record-keeping purposes on transactions made

Information contained in the primary documents required for maintenance of an appropriate record-keeping is accumulated and systematized in the record-keeping registers specified below Errors corrected in the primary documents and registers should be approved by the signature of a person undersigned the document and bear the date of such correction

Primary documents and in-office record-keeping registers shall be kept during 5 years

4 Primary deals record-keeping

- 1 Order to enter the deal (from the customer)
- 2 Ticket
- 3 Confirmation of customer/counter-agent deal
- 4 purchase/sale contract

5 In-office record-keeping registers

Each participant of the securities market eligible for carrying out all types of activities in issue and circulation of securities shall continuously maintain the following record-keeping logs and records

- 1 Deals log,
- 2 Funds accounting book
- 3 Log of day-by-day funds accounting book
- 4 Securities record-keeping book
- 5 Day-by-day securities record-keeping log
- 6 Dealers' transactions records log
- 7 Transactions in progress log
- 8 Customer's deals log

5 1 Deals log

Purpose of the Log

The log is a day-by-day log containing basic information on the transactions made by a company. The log also contains reports on dealers' and brokers' transactions. Ticket is a source of information to be entered to the log.

Each closed deal has an appropriate entry in the log. Information of the deals is entered to the log on the day of the deal in chronological order.

The Deals Log Data

The log should contain the following information on a deal:

- Date of the deal
- no. of the deal in organized markets
- contract date
- securities' re-registration date
- settlement date (the date when money is received on the seller's account)
- contract no.
- name of the seller
- no. of the seller's account within the in-side record-keeping system
- name of the buyer
- no. of the buyer's account within the in-side record-keeping system
- security
- price
- settlement currency
- quantity of the securities
- total sum of the deal
- Broker's commission fees
- state duty
- registrar's services
- total sum of the deal

6 Cash motion record-keeping system

6.1 In-side plan of accounts

In order to ensure timely and accurate record-keeping and reporting on transactions in securities, back-office maintains all accounts of the in-side record-keeping of cash and securities motion. Rules and procedures of synthetic and analytic record-keeping on those accounts are determined by the company in accordance with the Regulations on in-side record-keeping policies, generally accepted accounting principles as well as special needs and requirements of the company.

The plan of accounts includes:

a) Accounts of funds, income and expenses

Accounts of funds should be available to reflect funds on settlements and currency accounts of the company as well as cash.

The company should maintain accounting of commission income charges and received by the company at carrying out intermediary transactions in securities. For this purpose, the company maintains a special account upon which the sum of transaction (without separation expenses for re-registration, commission and other charges) in accordance with the accounts of customers and counteragents acting as the transaction seller and purchaser.

The company maintains the records of dividends and interest received by the company from securities which belong to the company or are in the company's nominal hold. The dividends and interest from the securities of customers should be transferred to the customers' accounts immediately upon their receipt.

The company maintains records of expenses for re-registration of property rights in securities.

b) **Securities investments accounts**

The company's back-office securities' accounts for the purposes of evaluation of the status of the company portfolio.

The company also keeps records of short sales of securities effected on the company's name and at the cost of the company.

Within the in-side records, there should be maintained accounts of settlements under REPO transactions for reflection of cash motion in accordance with these transactions as well as accounts of liabilities under REPO transactions for the reflection of motion of liabilities on delivery of securities under REPO transactions.

c) **Accounts of customers, counteragents and settlements with affiliated persons**

Accounts of customers, counteragents and settlements with affiliated persons are necessary in order to generalize information on the company's settlements with its customers and counteragents as well as with its employees, directors and affiliated persons under transactions in securities. Settlements of the company with its employees, directors and affiliated persons should be separated in an independent account and has a separate line in the balance sheet.

d) **Account for obtaining in-side balance**

In order to obtain in-side balance in money, it is required to separate funds conditionally determined by broker or dealer as those for transactions in securities. These funds are available in Liabilities of the in-side balance sheet and are intended to maintain balance of assets and liabilities of the balance sheet. Amount of these funds determined conditionally for transactions in securities is established by the company independently and can be reduced or increased during a reported period.

6.2 Daily Cash Disbursement Journal

Purpose of the Daily Cash Disbursement Journal

This Journal is required to reflect all transactions related to the movement of cash on security transaction accounts. All transactions which result in the movement of cash on the cash account, the bank or other accounts, as well as changes in the amount of liabilities shall be registered in the Journal in chronological order by the principle of double entry on the accounts that are numbered in ascending order.

Daily Cash Disbursement Journal Data

The Journal contains the following information:

- Date
- Account #
- Name of an account
- Serial # of a transaction

- Brief description of a transaction
- Covering document #
- Opening balance

The opening balance can be a debit or credit one

To maintain records in several currencies, the opening balance shall be shown in both hryvnias and currency

- Debit entry amount
- Credit entry amount

To maintain records in several currencies, the entry amount shall be shown in both hryvnias and currency

- # and/or name of a corresponding account
- Closing balance

The closing balance can be a debit or credit one

To maintain records in several currencies, the closing balance shall be shown in both hryvnias and currency

6.3 Cash Disbursement Book

Purpose of the Cash Disbursement Book

This Book shall be kept on the basis of the information of the Daily Journal. The Book shall be organized by the number order of accounts and reflect the balances on all accounts of the cash accounting system.

Structure of the Cash Disbursement Book

This Book shall contain the following information:

- Date
- Account #
- Name of an account
- Debit account balance
- Credit account balance
- Total accounts receivable turnover over the period
- Total accounts payable turnover over the period
- Also, additional information may, if necessary, be entered in the Book

7 Dealer Transactions Journal

Purpose of the Dealer Transactions Journal

The traders shall keep this Journal which reflects a company's positions on all securities that are part of this company's portfolio, operating profit/loss from each of the company's deal and the total profit/loss on transactions with each security at any point of time.

The Dealer Transactions Journal is a document where the weighted average cost of securities and their balance value are computed.

Structure of the Dealer Transactions Journal

This Journal shall be structured by the types of securities and issuers. The Journal shall consist of two mandatory sections which may be supplemented with additional sections if the company wishes so. The mandatory sections are required to calculate the basic indicators: the company's security portfolio balance value and profit/loss operating value.

General Information on Deals

This section contains the principal parameters of a deal which are entered from a ticket or the deals journal

- Date of a deal
- Transaction code (contract #)
- Exchange rate on the day of transaction processing
- Quantity of securities bought or sold
- Cost of one security
- Primary amount of a deal

Information on the Portfolio

This section contains the principal indicators that characterize the the portfolio balance value and the profit earned in the buy/sell process

a) Balance Securities

The value of securities balance shall be calculated on the progressive total basis by way of adding the quantity of bought securities or subtracting the quantity of sold securities The different value of the indicator means a short position

b) Weighted Average Cost of a Security

The weighted average cost of a security reflects the prime cost of one security for a company and is calculated for the purpose of properly writing a given security off the balance The weighted average cost is changed after each buy or short sell and is computed as a part of dividing the balance value of the securities by the quantity of balance shares When selling or buying for closing a short position, the weighted average cost is not changed

c) Security Balance Value

The balance value of securities characterizes a company's expenses for the purchase of a given security portfolio and is calculated as follows

- When buying (or short sell)

The balance value shall be calculated on the basis of progressive total by adding the prime amount of a deal

- When selling (or closing a short sell)

The balance value shall be calculated as a weighted average cost derivative by the quantity of balance shares

d) Profit and Loss under a Deal

Profit/loss shall be calculated separately for each deal

When selling the difference between the sell cost of one security and its weighted average cost multiplied by the quantity of sold shares

When covering a short sell as the difference between the cost of cover of one security and its weighted average cost multiplied by the quantity of covered shares

e) Profit and Loss by Progressive Total

A company shall calculate, for internal accounting purposes, profit and loss by progressive total

The columns that show profit by progressive total and loss by progressive total, may be kept by a company separately to facilitate the appraisal and planning of cash flows and market policies. Profit and loss by progressive total may, of necessity, be balanced in the Journal so as to assess the company's efficiency as a whole. Also, the company may incorporate in the Journal a section where, upon payment under deals, the profit/loss indicators will be adjusted in compliance with the information available on the date of the actual payment.

f) *Portfolio Market Reevaluation*

This section of the Journal may be maintained by a company if the latter deems it necessary. The Journal data that are computed on the basis of a market price enable the appraisal of the impact of market quotation fluctuations on the value of the company's security portfolio and its potential profit.

8 Securities Movement Record-keeping System

8.1 Principles of the Securities Movement Record-keeping System

This System is designed to reflect securities movement quantitatively. The purpose of maintaining the System is building up complete and reliable information on transaction results quantitatively, determining a company's assets in securities, the quantity of client securities the nominee holder of which the company is, the latter's debts with regard to delivery of securities to clients or counterparts, client and counterpart debts concerning delivery of securities to the company, and the actual location of the securities at any point of time.

The System consists of a Securities Journal and a Securities Book.

8.2 Accounts of the Securities Movement Record-keeping System

An account having its unique number shall be opened in its system for each client, counterparty, each location of the securities (registry, depository, securities on the way, etc), and the company's portfolio.

The accounts that show the belonging of securities, i.e. the security accounts of a company, and of clients, the nominee holder of whose securities the company is, etc. Have a debit balance (or a long position)

The accounts that show the location of securities - registry accounts, depository accounts, etc , as well as securities sold without cover, have a credit balance (or a short position)

The accounts that show liabilities or location changes - counterparty accounts, client accounts, which show securities registered in the name of clients, and securities on the way - can have both a debit balance and a credit balance.

8.3 Daily Securities Journal

Purpose of the Daily Securities Journal

This Journal is a day-to-day registry. All transactions which result in the movement of securities of the company or clients shall be shown on corresponding accounts by the double entry principle and reflect the entire movement of securities that has taken place throughout the opening day. All transactions shall be entered in the Journal on the day of their processing, i.e. not later than the end of the workday on which the transaction took

112

place The Journal shall be kept in chronological order according to the following principles

- Record-keeping of transactions on the day of their processing
- Segregation of the company's securities and its clients securities
- Verification with other related registries

The Journal data are subject to periodic verification with the data of Dealer Transaction Journal, Cash Disbursement Journal, and the information that comes from the trading units

Structure of the Daily Securities Journal

The Journal shall be kept separately for each security Registered in the Journal shall be only those accounts on which operations are performed during the day

The Journal contains the following information

- Account #
- Name of an account
- Description of a transaction, the full or short name of a transaction on a given account is entered into a given field, e g

Buy/sell - entry is made with regard to client and counterparty accounts and the company's security accounts,

delivery - entry is made with regard to client and counterparty accounts upon receipt of a registry statement about reregistration of securities or upon receipt of security certificates,

receipt - entry is made with regard to client and counterparty accounts upon receipt of a registry statement about reregistration of securities or upon receipt of security certificates

- Deal # - provided of necessity for client and counterparty accounts
- Account debit entry
- Account credit entry

It reflects the quantity of the securities that are entered into or written off this account Also, additional information deemed as necessary by the company may be incorporated in the Journal

8 4 Securities Book

The purpose of Securities Book

The Securities Book shall be compiled at the end of an operating day based on the information of the Daily Securities Journal and shall be organized in the form of balance The Book shall be organized in accordance with the order of account numbers and show balances on all accounts of the record keeping system of securities movement A separate Book shall be maintained for each type of securities The Book is also an instrument for clearing up errors and discrepancies which occurred in the internal accounting

Securities Book Structure

The Securities Book contains the following information_

- Account #
- Name of an account

- Date of the last transaction
It shows the date of the last securities transaction on the given account
- Debit balance
- Credit balance
- It shows the summary debit or credit circulation of the given account
Also, additional information may, of necessity, be incorporated in the Book

8 Registry Keeping Method

A company shall choose the method of maintaining its internal record keeping journals depending on the volume of transactions and software capabilities

- on paper carriers in the form of journal or registration cards
- in the form of an electronic matrix
- in the form of computer data bases which is an integral part of the back-office information processing system ,etc

10 Standards of Reporting to Customers

10.1 The purpose of reporting to customers

A broker/dealer company shall provide a customer with the primary documents (contract, a copy of payment order, registry abstracts etc) for accounting and taxation purposes in compliance with the current Ukrainian practice of record-keeping and document circulation and the procedure for payments provided for by a deal with a customer

Also, a broker/dealer company shall provide a customer with periodic reports to keep him posted about transactions which are performed with his money and to determine the profitability of such transactions

In their internal record-keeping, brokers and dealers shall keep accounts of all their customers regardless of the form of a deal and the frequency of transaction processing with a particular customer

10.2 Information to be included in a statement of accounts

A statement of accounts shall contain the following information

- All securities transactions on a customer's account, including completed buy/sell deals and uncompleted ones
- Payments over the period after the last submitted statement
- Commission fees to be paid and already paid by a customer
- Dividends and interest which have accrued and have been paid by a company to a customer
- State duty, re-registration services and other expenses paid by a company and refunded by a customer
- Other amounts deducted from a customer in the process of fulfilment of the conditions of a deal with him
- The quantity of securities which are owned by a customer and are nominally held by a broker/dealer company, as well as the quantity of securities of customers deposited with a broker/dealer company according to a deal with a customer

504

- Data on the market value of a customer's portfolio The market value appraisal method is determined by a deal between a company and a customer

10.3 The period for providing a statement of accounts

A statement of a customer's account shall be provided for each customer of a company within the following timeframe

- At least once a month in case transactions were processed on a customer's account over this period
- At least once a quarter if no transactions were processed on a customer's account over this period but there is a balance of cash and/or securities on the account

A statement of a customer's account shall be provided within the five workdays that follow the end of the period under review

At least once a month, a customer shall be provided with the requisite primary documentation on each deal processed for him so as to enable him to make reports in compliance with Ukrainian accounting standards

11 Responsibility to Customers

Brokers and dealers shall not use a customer's money which is on the bank accounts of a broker/dealer without a customer's instructions unless otherwise stated in an agreement of customer broker service

Brokers/dealers shall provide customers with periodic reports about transactions processed for a particular customer

A broker/dealer shall provide customers, the nominee holder of whose securities he is, with the documents and information received from a securities issuer, or his agent, that are required for the exercise of rights to securities

Verification can be done by way of random check of those entries in the registries which are "essential" for record-keeping and reporting, i.e. are above the company-established level of information importance

The level of information importance shall, in this case, be determined by management and reflected in reports and can be periodically revised considering the volume of transactions

12 Verification

A broker/dealer shall verify on a quarterly basis the available securities with the records of the Securities Book

A broker/dealer shall at least once a month verify records related to the internal accounts of record-keeping of cash on hand, on the settlement and currency accounts with

- the data circulation statements on the accounts of analytic cash accounting on settlement and currency accounts, and
- bank statements



13 Access to Journals and Books

All PFTS members shall provide, for auditing purposes, PFTS authorized persons, at their request, with the Regulations of internal accounting policies, registries, reports, under these Standards, and other documents regulating company activities

Responsibility for the violation of the requirements of the Standards

Responsibility for the violation of the requirements set forth in these Standards shall be determined by the PFTS Code of Disciplinary Procedures

**Appendix to the PFTS Association
Council's Resolution #3 of 12/03/97**

**Interim Back-office Principles and Procedures for PFTS Association
Member Firms**

1 General

- 1 1 These standards were developed to accommodate the rules, customs and practice of civilized activities on the developed stock market and establish rules of the organization of back-office operation for all Association member firms , irrespective of the subordination, type of ownership, and organizational and legal status of an Association member
- 1 2 All Association member firms shall prepare on a permanent basis and maintain for a prescribed period of time records which accurately reflect their financial assets and liabilities owed to their customers and counterparties This is a necessary precondition to ensure that member firms' securities activities are conducted in compliance with high standards of commercial honor and just and equitable principles of trade
- 1 3 In accordance with these standards, Association member firms develop internal regulations on the organization of a firm's back-office operation These regulations describe the principles and rules on which internal recordkeeping of transactions in securities is based, including schedules of internal records accounts, description of the structure, organization procedure, periodicity of completion and other characteristics of original entries, internal reports, customer reports , as well as indicate other essential features of the system of book-keeping and execution of trades
- 1 4 These standards only determine the need for appropriate information in a firm's back-office system, but not the form and method of record-keeping

2 Terms and definitions

In these standards, terms have the following meanings

Back-office	the department, or the employee, in a firm that ensures securities transactions performance and recordkeeping in dealing with customers and counterparties, in electronic and/or physical form
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Financial assets	activity undertaken by a company to perform its
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instructions	duties to a customer or a counterparty relative to the movement of funds and/or securities
Order execution	activity to carry out a customer's order and process a purchase and sale ticket so as to indicate when agreement was reached regarding the terms and conditions of the transaction
Settlement date	the date when funds and securities are exchanged to satisfy the terms and conditions of a transaction
Agreement between firm and customer	agreement that identifies what services and on what conditions a firm provides for a customer
Comparisons	communications exchanged prior to settlement that enable counterparties to specify all settlement terms and conditions
Customer statements	client records issued quarterly and/or monthly when activity occurs irrespective whether such activity occurred in the form of purchase/sale and/or movement of securities or funds
Customer	an individual or a legal entity that has entered into a firm-customer agreement and is not affiliated with the firm
Books of original entry	purchase and sale, received and delivered, and receipt and disbursement blotters are the first place information from securities activity is recorded
Firm	trader in securities that has the Securities Commission's permission to engage in activities relative to the issue and circulation of securities and is a PFTS member
Counterparty	any individual or entity with whom a firm transacts securities activity
Market place	trade and information system, stock exchange, or other less formal arrangements for transacting securities

Subsidiary records	records that support and augment a firm's blotters
Securities transactions	activity undertaken by a firm to perform its duties to a customer or counterparty relative to the purchase or sale of securities
Order entry	processing a purchase and sale ticket to indicate when the order was received by a firm and what terms and conditions need to be met
Confirmations	client advices to specify the terms and conditions of the transaction
Dematerialized securities delivery	issue of an account extract of charging of securities to/off account at the custodian/depository
Physical securities in bearer form delivery	issue of securities to bearer
Registered physical securities delivery	provision of the owner's endorsement and securities transfer, as well as provision of other documents required for reregistration
Delivery of securities the property rights of which are registered with registrar/issuer	provision of a duly executed document which confirms the reassignment of property rights (a registry extract)
Ticket	message of agreement reached about a securities transaction and its terms and conditions
Contractual agreement	entered into between counterparties regarding securities transactions
Financial assets	funds and securities
Front-office	the department, or the employee, in a firm that performs purchase/sale transactions in securities
Customer securities	securities purchased by a securities trader

for/and on the instructions of a customer the customer delivery of which has not been done yet, or securities certificates registered in the name of a customer and being kept in custody at a firm, or securities being kept in custody at a firm acting as a nominee holder

A firm's securities

any securities purchased by a securities trader for its proprietary account and with credit resources

Securities that are under a firm's control

any securities for whose delivery and receipt a firm is responsible in compliance with the terms and conditions of a transaction or a customer agreement

3 Back-office structure

- 3 1 In a firm's organizational structure, both front-office and back-office should be separate structural departments (they should be represented by different individuals)
- 3 2 Back-office organizational structure depends on the number of its staff, the nature and scope of its business
- 3 3 Firms should have an individual that is responsible for back-office operation
- 3 4 The organizational structure of back-office should provide for the internal audit and review process

4 Back-office recordkeeping procedures

- 4 1 It is recommended that back-office recordkeeping be accomplished with the application of the double entry principle
- 4 2 Back-office recordkeeping is done in five stages
 - order entry
 - order execution
 - order comparison
 - order confirmation
 - delivery reference for transactional activity

- 4.3 Order entry and execution documents consist of
- customer order
 - tickets
 - firm-customer agreement
 - contractual agreements
- 4.4 A customer order should indicate the time and date of order entry
- 4.5 Tickets are the operational linkages between the terms and conditions of the firm-customer agreement and the terms and conditions of the transaction that are specified in the contractual agreement. Tickets should contain the time and date of their completion in the front-office
- 4.6 Order comparison involves an electronic or/and paper exchange of information between a firm and counterparties. It enables parties to a transaction to verify and reconcile the transaction's terms and conditions. Order confirmation allows to inform the client on order execution and get the client's consent to the transaction's terms and conditions. The client-side communication is conducted through verbal conferencing at the time of order execution, and thereafter followed by a written confirmation. Trade discrepancies are resolved via a cancel-and-rebill process. If an order is canceled, records should show the terms, conditions, time, and date of cancellation
- 4.7 Order recordation processes information by posting blotters. From these records, information is then recorded onto other supporting records. Blotters must be prepared no later than the day following activity. Blotters must be maintained for a period which is determined by the Securities Commission
- 4.8 A firm should maintain three blotters
- purchase and sale
 - securities received and delivered
 - cash receipt and disbursement
- 4.9 Information to be recorded in the purchase and sale blotter, and thereafter transmitted to related records should include
- transaction number in organized markets
 - contract number
 - name of the client
 - client's account number
 - name of the counterparty
 - date the transaction was entered as per ticket
 - date of contract signed

- date of reregistration
- date of payment/receipt of funds
- name of the issuer
- par value
- identification number of the security
- whether the transaction was a purchase or a sale
- price per unit
- settlement currency
- quantity of the securities
- principal amount
- fees paid for commission
- fees paid for state duty
- registrar's service fee
- other costs
- total amount of transaction

4 9 1 The subsidiary records that are based on the information contained in the purchase and sale blotter should be maintained of necessity in accordance with the nature of the firm's business

4 10 The securities received and delivered blotter reflects the movement of securities that are in the firm's possession and is controlled by it The blotter shows the movement of securities for both client and proprietary possessions by identifying the

- name and account number of beneficial owner
- quantity of the securities
- name and description of security
- identification number of the security
- date the activity took place
- name of the counterparty
- delivery reference for nontransactional activity

4 10 1 1 The stock record is a primary document for monitoring the movement of securities It identifies ownership and location for securities which are owned, kept, or controlled by the firm Required information to be included on the stock record concerns each security and is as follows quantity of the securities, unique name and account number for each counterparty/client or location of a security

4 10 1 2 Ownership or long side (debit) of stock record

- customer's securities
- firm's securities
- stock borrowed
- fail-to-deliver

4 10 1 3 Location or short side (credit) of stock record

- in-transit from customer
- firm's vault for safekeeping (physical securities)
- loaned/borrowed stock
- fail-to-receive
- depository/custodian
- registrar in-process
- pending status held in registrar's vault

4 10 1 4 The total number of shares in the long side (debit) should equal the total number of shares in the short side (credit)

4 10 1 5 Stock record should be posted no later than the day following settlement or movement date, or the day information is received by the back-office. Stock records must be maintained for a period which is determined by the Securities Commission.

4 10 2 To ensure the accuracy of the securities received and delivered blotter, a firm is required to physically examine and count all securities held in its vault and reconcile all positions which are subject to the firm's control but not in physical possession. The results should be compared with company records. The count should be conducted by two individuals, one whose responsibilities are not directly related to the recordkeeping function. A log of quarterly box count should be signed by the individuals who conducted the count and maintained for a period which is determined by relevant regulatory documents of the Securities Commission.

4 10 3 Subsidiary records derived from information related to the securities delivery and receipt blotter are maintained of necessity in accordance with the nature and scope of the firm's business and can include

- ledger of securities dividends paid for in securities
- securities loans ledger
- reregistration status ledger
- ledger of property rights reassignment operations
- ledger of transfer orders and other documents related to property rights reassignment

These records must be maintained for a period which is determined by relevant regulatory documents of the Securities Commission.

4 11 The cash receipt and disbursement blotter records the movement of client and firm funds. The source of funds should have a unique numerical identifier to facilitate the allocation of such funds to the appropriate account. Information to be included consists of

- date of activity
- client name and account number
- amount of funds
- source of funds and disposition of funds

4 11 1 Subsidiary records derived from information related to the cash receipt and disbursement blotter are maintained of necessity in accordance with the nature and scope of a firm's business and can include

- ledger of dividends and revenues on securities which are paid in funds
- monies borrowed and loaned ledger

These records must be maintained for a period which is determined by the Securities Commission

4 12 Buy-up transactions can be recorded in a consolidated way in compliance with a firm's internal provisions of the organization of back-office operation

5 Customer reporting standards

5 1 At least once a month, a firm should provide a customer with the primary reporting documentation (contract, copy of the payment order, registry extracts, etc.) for accounting and taxation purposes in compliance with the current practice of recordkeeping and document circulation, and payment procedure as envisioned by the customer agreement

5 2 Also, a firm provides a customer with periodic reports to keep the customer posted on transactions which involve his/her financial assets as well as to determine the profitability of these transactions

5 3 As regards their internal records, firms maintain accounts of all their customers irrespective of the form of agreement and the frequency of transactions involving the given customer

5 4 A statement of account should contain the following information

- all securities transactions on a client's account including consummated and outstanding trades
- payments effected over the period since the latest statement

- commissions due and already paid by client
- dividends and interest already charged and paid to a client by the firm
- fees for state tax, reregistration and other fees that were paid by the firm and reimbursed by a client
- other fees deducted from a client in the course of the performance of the firm-client agreement
- quantity of the securities that are owned by a client and being kept in custody at a firm acting as a nominee holder and are under its control as per agreement with the client
- data on the market value of a client's portfolio if the firm-client agreement provides for this

5 5 A statement of account is provided for each client of the firm in the following manner

- at least once a month, if transactions were performed on a client's account over this period of time
- at least once a quarter, if no transactions were performed on a client's account over this period but there is a balance of funds and/or securities on the account

5 6 A statement of account is made available to a client within the five business days following the end of the period under review

6 PFTS Association member firms' obligations

6 1 A firm cannot use a client's financial assets without the client's instructions unless otherwise stated in the client agreement

6 2 A firm's obligation is to provide clients with periodic information on the state of client financial assets and relevant transactions

6 3 A firm's obligation is to provide clients whose securities it holds as a nominee, with documents and information received from an issuer, or its agent, which are required for exercising securities rights

6 4 A firm shall keep and maintain such information, books and records, in such form and manner, and for such period as may be required by these Standards, the Association's Rules and Regulations, and effective Ukrainian legislation



**UKRAINIAN DEPOSITORY SYSTEM
OBSERVATIONS AND COMMENTS**

**Presented by
L Bertram Lewis**

September 23, 1998

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DEVELOPMENT OF UKRAINIAN SECURITIES DEPOSITORY SYSTEM

EXECUTIVE SUMMARY

Ukraine's development of a depository system will require cooperation from both the government and the securities industry. Presently, the Ukrainian government concept of a national depository system proposes government participation and ownership. Contrarily, the Ukrainian securities industry and foreign investors want an industry-developed and owned depository.

Frequently, when systems are developed and owned by governments on behalf of market participants they are uneconomical, inefficient and do not have sufficient input from those that will use it (government decision making is often slow and deliberate, as well as being several steps behind market needs). On the contrary, systems developed and owned by the market participants generally are economical and efficient because they have strong incentives to find workable, cost-effective solutions. A central depository owned and operated by the private sector market participants would be more responsive to the needs of and would be trusted more by financial and securities communities in and outside Ukraine.

A two day depository conference sponsored by USAID was held on July 25-26 1998 in Kyiv and attended by over seventy persons representing the industry including banks (domestic and foreign), Ukraine Over the Counter Trading System (PFTS), Ukraine Interbank Currency Exchange (UICE), the National Bank of Ukraine, Cabinet of Ministers and the Securities and Stock Market State Commission (SSMSC). Considerable discussion, some of it heated, of numerous issues took place. Consensus was reached on one issue: that only one organization for depository, clearing and settlement should be developed instead of separate organizations for Clearing and Settlement and for a Depository. The market participants desire a central depository developed, owned and operated by the private sector in keeping with procedures used in other countries and inspiring the confidence of potential investors. The government (SSMSC) demands a National Depository System be built with government ownership. With the SSMSC as part owner of the depository its regulatory legitimacy would be compromised with the question, "who regulates the regulators?", which could cause investor uncertainty and result in slow growth of the market due to less effective stimulation of post-privatization restructuring of companies. These crucial questions must be settled as the depository eventually be the heart of the market infrastructure.

Four basic questions: ownership, development, operations and which organization receives the funding remain. The differences of opinion between the entities is not insurmountable but these crucial points must be resolved as a first step towards a viable system as the depository will eventually be the heart of the market infrastructure.

Ukraine is now in the position that it can and should follow the evolutionary path to a market driven approach in its development of the capital markets infrastructure and depository development instead of government led initiatives and ownership. In order to facilitate private sector participation in the electronic trading system an efficient and safe re-registration system and a settlement depository must be created.

OVERVIEW

Presently there is only one licensed corporate securities depository operating in Ukraine but it is not utilized by the trading community for a multitude of reasons. It is minimally supported by USAID funds.

The Interregional Securities Union (MFS) was licensed by the SSMSC in November 1997 to perform three functions:

1. Corporate Securities Depository
2. Registrar
3. Custodian

It is presently acting as a corporate securities depository only.

The securities industry in Ukraine is at a crossroads in the development of a depository system. Market participants are interested in definitive solutions to the problems presented by the multiple registry system that, in their opinion, is limiting the development of the liquid capital market. Furthermore, the lack of a clear strategy by market participants and the SSMSC on how to proceed in developing the market infrastructure leads to uncertainty within the market. A number of government officials believe that institutional investors and the banks will dominate the securities market. In Ukraine, ongoing legislative and regulatory efforts have been aimed at establishing a national depository designed around large custodians as members, with up to 25% government ownership. This plan requires all dematerialized securities to be placed in a national depository; this would eliminate the present registrar process. These governmental efforts are being undertaken in an environment in which there is no industry support for developing a national depository system.

The Securities and Stock Market State Commission's (SSMSC) Resolution #61 of May 26th 1998 declares that:

"Securities custodians are traders in securities and commercial banks licensed for performance of professional activities in issue and circulation of securities and for performance of professional depository activities." Also, "Securities depositories are legal entities set up in the form of publicly owned company and duly licensed for performance of professional depository activities."

This means that traders who hold client accounts will need a depository license as will custodian banks. Traders who do not have a depository license will need to contract with a licensed depository custodian to handle its client accounts. Furthermore, a custodian depository will be a registrar for the issuing company as well as a custodian securities depository. Securities on deposit in a custodian depository will not need an independent registrar. The elimination of private registrars poses significant problems, and the registrar community is vehemently opposed to this concept.

The problem is not the registrars, but the model. The decentralized record of ownership like Russia's multiple registrar system has proven to be a problem and does not appear that it will improve in the near future. Traders and custodians currently performing settlement face quite a challenge. They are required to maintain an inventory of hundreds of different transfer or re-registration documents and to present original documentation in person to over 400 independent registrars located throughout the country, requiring frequent travel to remote cities, paying high re-registration fees, and waiting for days for the actual registration to take place.

Ukraine presently has an electronic over-the-counter securities market trading newly privatized companies called Over-the-Counter Trading System (PFTS). It is the primary vehicle for trading equities within the country. Trading volumes on all licensed exchanges and trading systems presently and in the foreseeable future are not large enough to financially support a Ukrainian securities depository. In its heaviest trading month ever PFTS averaged about fifty (50) trades a day.

CONCLUSIONS

In summary, the main problem of the securities industry today is not the lack of a securities depository but in the re-registration of traded shares.

Based on my observations from July 10th through September 21st, the results of the July 25-26 Depository Conference, discussions with industry participants, the National Bank of Ukraine SSMSC PFTS UICE and conferring with the Russian counterparts at the Depository Clearing Corporation (DCC), Russian Trading System (RTS) and representatives of the Federal Commission on the Securities Market (FCSM) in Moscow, the following is recommended:

1. Implement the Information Exchange Utility (IEU) for top tier PFTS traded issues as soon as possible as an interim vehicle to support the transition to a industry developed owned and operated settlement depository (CHD) when market volume dictates its need. Presently over two hundred issues are listed on PFTS and of those about forty are actively traded. Five or six registrars represent these forty actively traded issues. PFTS has developed the IEU under the direction of the USAID funded contractor Barents Group and its wholly owned subsidiary PFTS Technical Center.
2. That Ukrainians from PFTS meet with their Russian counterparts at the DCC and RTS. Visits to these organizations for their staff members would be to discuss the DCC's transfer agent service. Information and ideas could be exchanged during further visits to include discussions on organizational, business and present operational problems they have and how they were solved. These two Russian organizations have been operating for at least two years longer than their Ukrainian counterparts, autonomously (no USAID assistance either financial or technical) for over a year. Each has successfully developed its business into viable a organization under its own leadership and management (until the current financial crisis). In my recent talks with the heads of these organizations I was informed that they would be willing to exchange ideas with similar Ukrainian organizations.
3. That any additional USAID funding to the capital markets industry be withheld until a financial need has been justified and/or if market conditions dictate the need for a speeded up implementation schedule for the Settlement Depository, That the Russian model should be studied to determine how over the past fifteen months it has developed on its own without the help of USAID money and technical assistance.
4. Consider the PFTS Technical Center as the securities industry computer operations center which would provide a sound financial basis for the Technical Center's operating expenses. (In the United States this is accomplished through the Securities Industry Automation Corporation (SAIC)).
5. Until the tax laws and laws regarding currency restrictions are changed, the current situation of 90-95% of all money settlement for equity securities being settled off-shore will not change, and thus there is no present need to develop a money settlement system. In our recent meetings with the National Bank it was determined that the bank would be willing to open a money settlement account for the depository organization for trade settlements. The

structure of a money settlement system would link the depository to the National Bank via the banks' electronic communication system. Using this scheme, depository members would not have to open another account with a settlement bank, but have his own bank wire payment to the depository's settlement account at the National Bank and receive payment in his own bank from the National Bank.

IMPLEMENTATION STRATEGY

Implement the IEU for top tier PFTS traded issues to permit electronic registrations at the registrar level. The IEU is a multi-phase project to automate the re-registration functions that are now manually performed. A diagram of how the system functions is attached (Appendix I). Refer to the IEU Program Summary for detailed descriptions of the functions and operating procedures.

PHASE 1

The first phase of the program has been field-tested in conjunction with a working group comprised of PFTS member firms, custodians, registrars and local Ukrainian legal counsel. IEU participant contracts and procedures have been completed and any regulatory recommendations and changes required by Ukrainian legislation for its real-time implementation are now being addressed. The later phases and stages allow for a multi-year transition that permits the present share registry system to be smoothly and predictably phased out, while the settlement depository (CHD) is phased in. The following operational time line of one to two-years has been developed.

PHASE 2

1. Develop eligibility requirements for entry into Phase 3

- ~ capital requirements
- * volume levels
- ~ maximum fee levels
- ~ same day re-registration
- ~ systems capabilities
- ~ data protection/backup guarantees
- ~ other

2. Develop and conduct continuous educational and training programs tailored to IEU user groups (traders, registrars, and exchanges) and other non-user groups as preparation for Phase 3. Training should address the following:

- ~ purpose/benefit of an IEU
- how the IEU works
- * back office requirements
- ~ system requirements
- ~ reports, controls, reconciliation procedures

The program should be designed for two sessions of three hours each for two weeks and would have separate programs for each of the five industry groups, (traders, registrars, issuers, custodians and exchanges). The program could be taken "on the road" to other cities if needed.

PHASE 3

Open the pilot program to include additional number of eligible users, registrars, custodians and exchanges, as well as issues

PHASE 4

With the IEU fully operational the next step is to move to a full depository organization for highly liquid shares initially (the IEU issues). At this point the IBU could become the basis for a depository as is, or by adding it to an existing or new organization as determined by the industry's Depository Working Group.

Should the decision be that the IEU be used as the basis for a depository organization (See Appendix 2) the PFTS Technical Center could provide the system and the development by adding modules for accounting, reporting, inventory control and reconciliation.

Once these are completed implement basic depository functions, in a pilot mode, for a small number of liquid shares and for traders (See Appendix 3).

Before expanding the system have an operational audit performed by an outside non-interested auditing firm to determine the soundness of the operating system, operations procedures and security measures prior to opening the depository to expansion.

PHASE 5

Expand the CHD to include additional issues, eligible traders, custodians and exchanges.

Implement automated electronic share settlement of trades received from eligible trading systems and exchanges.

FUTURE PHASES

Settlement Services

NBU would open a bank account for the depository to accommodate money settlement. A money netting system should be established so that only net buyers transmit money and net sellers receive money. Continue to settle all eligible transactions on a reliable "DVP" "trade-for-trade" basis. The benefits include:

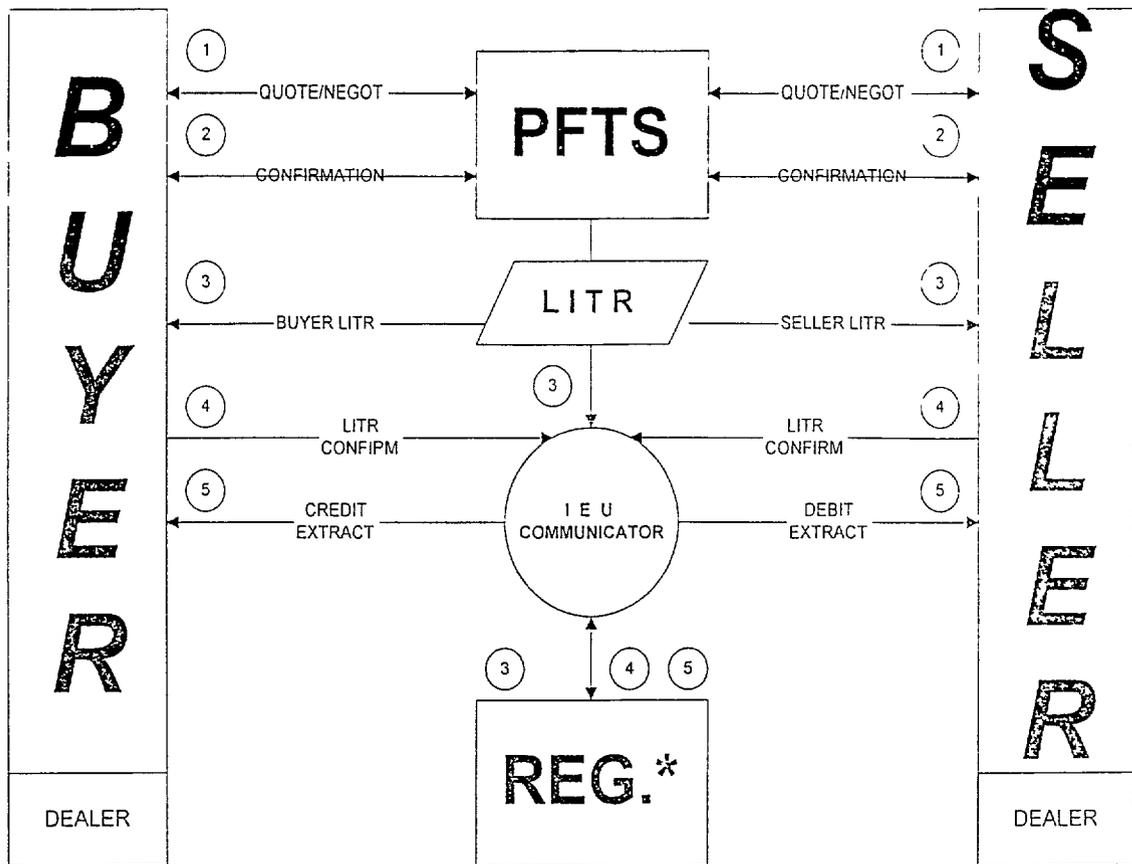
1. Objections and concerns regarding emerging market financial system stability would be removed.
2. Would permit Ukrainian securities market intermediaries to compete more effectively.
3. Would eliminate commercial settlement bank risk.

Depository Services

Enhanced depository services, to be phased in as the market dictates, would include establishment of the following:

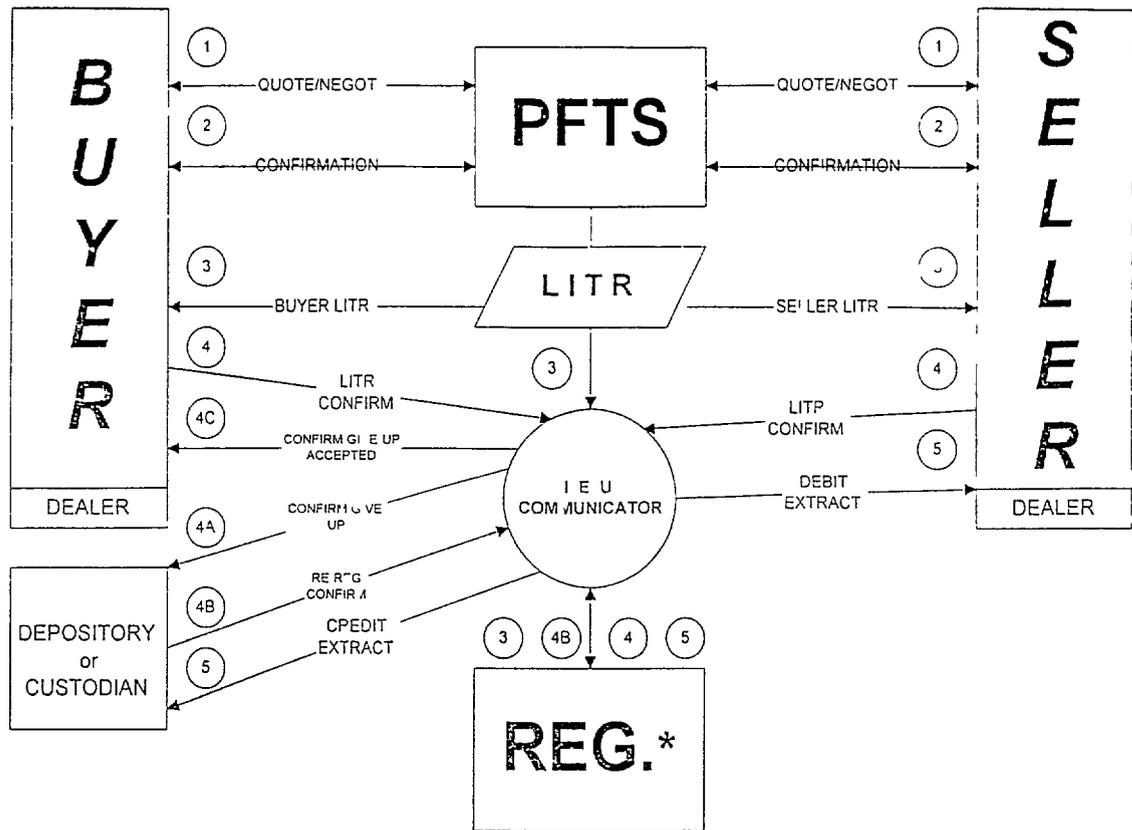
- settlement of bonds, money market instruments, and derivatives
- securities borrowing and lending
- cross border clearance and settlement
- risk management programs
- institutional delivery system

PHASE 1
DEALER TO DEALER CHANGE OF HOLDER AT THE REGISTRAR LEVEL



- 1 Buyer & Seller negotiate a trade
- 2 Buyer & Seller report and confirm trade details through PFTS
- 3 PFTS sends the Locked In Trade Report (LITR) to the Dealers and the IEU system
- 4 The Dealers re confirm the trades to be handled by IEU to the system
- 5 The Registrar sends the Credit and Debit Extracts to the party whose position has been increased and decreased respectively

The same flow of information would occur if the change of holder was taking place at the Custodian or Depository Level



- 1 Buyer & Seller negotiate a trade
 - 2 Buyer & Seller report and confirm trade details through PFTS
 - 3 PFTS sends the Locked In Trade Report (LITR) to the Dealers and the IEU system
 - 4 The Dealers re confirm the trades to be handled by IEU to the system
 - 4A If a Custodian or Depository name is provided on the re confirmed trade the trade detail is sent to Custodian or Depository named in the confirmation
 - 4B The Custodian or Depository confirms acceptance of the trade
 - 4C Acceptance of the trade by the Custodian or Depository is confirmed back to the Dealer
 - 5 The Registrar sends the Credit and Debit Extracts to the party whose position has been increased and decreased respectively
- The same flow of information would occur if the change of holder was taking place at the Custodian or Depository Level

BARENTS GROUP

APPENDIX 4

REFERENCES

UKRAINE

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Head of Information Directorate Member of Board

Mr, Efim L BENDERSKY — National Bank of Ukraine
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Mr Victor IV CHZENKO — Securities and Stock Market State Commission Co-
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Mr Anatoliy T GOLOVKO — Securities and Stock Market State Commission
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Ms Nina ZARYA — OTS Stock Trading System (RTS) President

Dr Peter GORDIENKO — Professional Association Registrars and
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Mr Nikolay SHILTSOV — Interregional Securities Union (MFS) President

Mr Vadim V VIOUN — Government of Ukraine
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12

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