

MARKET view

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Agreement for IT infrastructure in London

NYMEX Europe Limited has signed a five-year agreement with OMX for IT infrastructure services for the open outcry futures exchange it plans to open in London. This agreement, which follows an earlier decision by NYMEX Europe to lease space in OMX's London office, includes hosting its European IT infrastructure as well as providing desktop and network support for its trading floor.

"We chose to work with OMX to take advantage of their broad experience as an IT provider of mission-critical systems for the financial services industry and to enable us to be up and running quickly," says Samuel Gaer, CEO of NYMEX Europe Limited. "OMX has a long track record of serving exchanges, and we look forward to deepening our relationship with OMX as we continue to grow and expand our business globally."

This deal represents a further expansion of OMX's Global Services business, in this case supporting financial applications not originally developed by OMX.

Step toward closer ASEAN relations

Efforts by stock exchanges in Southeast Asia to build closer links has taken another step forward, as the five ASEAN exchanges – the Singapore Exchange, Bursa Malaysia, the Jakarta Stock Exchange, the Philippines Stock Exchange and the Stock Exchange of Thailand – have signed a memorandum of understanding with index provider FTSE for the creation of internationally recognized indexes for ASEAN equity markets as a regional grouping.

The new indexes will facilitate the international visibility of the ASEAN markets and help promote the ASEAN economies to both regional and global investors. This is the first collaborative effort between the five ASEAN bourses, with the exchanges expressing the hope that the deal will pave the way for future cooperation.



Fragmented approach adds costs

Many global financial services institutions lag behind industry leaders in operational efficiency by as much as 30 percent, according to new research from the TowerGroup research and consulting firm.

A review of a select group of top diversified global financial institutions found that these institutions averaged around 60 US cents in cost to produce USD 1.00 of revenue. This is compared with the industry's top performers, which spend just over 40 cents for that same dollar of revenue.

One of the conclusions from TowerGroup research is that a fragmented approach to technology on the part of a financial institution can bring additional hidden costs beyond simply an inefficient operation. Among the most potentially damaging of these are flaws in data integrity and information security.

Extended contract for CLICK and SECUR

Wiener Börse, the Austrian stock and derivatives exchange, has signed an agreement with OMX Technology for a five-year extension of the support contract for OMX's CLICK trading and SECUR clearing systems.

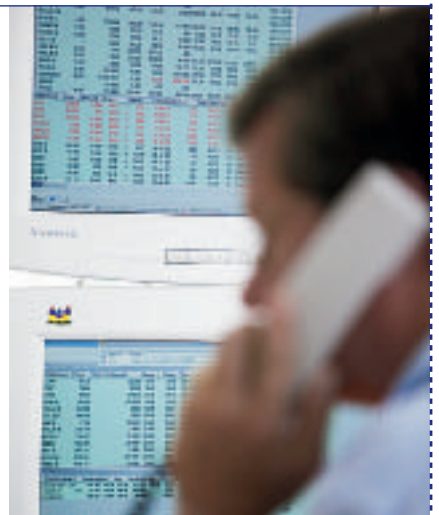
Wiener Börse was one of OMX Technology's first customers. It began using CLICK for its futures and options trading in 1991. The SECUR clearing system was launched at Wiener Börse in 1996.

New trading platform to be developed

OMX Technology and Orc Software have signed a letter of intent to develop a new front-office trading platform that will cover trading of cash and derivatives products on multiple electronic markets. The new product will be directed primarily at brokers who use exchange-provided terminals.

The new multi-asset and multi-market front-office trading platform will complement both companies' existing product offerings. Through OMX Technology, Orc Software will gain access to a global distribution channel selling through the exchanges. OMX Technology will also get access to Orc Software's extensive experience in front-end development.

The front-office trading platform is expected to be launched in early 2006. OMX Technology will continue to support its existing front-office products.



As electronic trading becomes the norm, US markets in transition

The rise of electronic stock trading networks (or ECNs) in the late 1990s altered the competitive landscape and paved the way for a period of rapid change in US stock markets. Recent consolidation in 2005 has put major exchange players seemingly back in control again, and the debate today is whether a hybrid of floor and electronic trading will dominate long-term or whether the hybrid model is merely a step on the way to wholly electronic markets.

Prior to a 1997 SEC ruling favoring electronic trading, US equities trading was dominated by NYSE and NASDAQ. The rule change opened the door for new venues, and by the beginning of 2000 there were approximately 20 significant equities exchanges and ECNs.

Today, competition from these electronic exchanges is driving consolidation. NYSE and NASDAQ are merging with ECNs – Archipelago and Instinet respectively. But these acquisitions do not necessarily mean that the days of traditional floor-style trading are coming to an abrupt end.

IT MAY TAKE LONGER than some independent experts believe for floor trading to disappear, or at least to play a minor role in an exchange. The NYSE in particular has the advantage of massive liquidity and has maintained a very strong market share in spite of severe competition from purely electronic exchanges.

Yet the NYSE has cause for concern. One fully electronic market, LiquidNet, has been very successful in attracting order flow from NYSE's traditional customers.

THERE ARE FOUR REASONS to believe that the NYSE and NASDAQ will continue to face tough competition. Foremost is that the SEC rules governing markets, or the NMS (National Market System) regulations, have changed in 2005 to further support electronic markets. No US equities exchange currently believes that it can survive with only floor-based trading. Second, the new NMS regulations have nearly eliminated distinctions between the listed (NYSE-oriented) and OTC (NASDAQ-oriented) markets, intensifying competition.

Third, Wall Street's top trading firms will not accept a de facto duopoly. We have already seen Merrill Lynch and Citadel take an equity stake in the Philadelphia Stock Exchange. At the same time, Fidelity, Lehman Brothers, Credit Suisse First Boston and Citigroup are in advanced talks to create an electronic trading platform in Boston.

Fourth, and perhaps most important, the rise of many successful ECNs has stimulated development of sophisticated order-routing systems where participants can instantly route order flow using standard interfaces, such as FIX, between electronic markets.

THIS CHANGE IS IRREVERSIBLE, and never again will the NYSE and NASDAQ have the same pricing power that they did before the rise of ECNs and sophisticated order routing.

These fundamental changes in the structure of US markets have reduced barriers to entry. Thus, we are likely to see the pendulum swing

away from consolidation as new ECNs and exchanges are created and existing exchanges expand into new instruments or change their trading model.


In this highly competitive environment, each marketplace will have to balance specialization in one instrument with supporting multiple instruments and, perhaps, risk falling behind more specialized exchanges.

Electronic trading is becoming the norm in the US. While there will always be independent pockets of floor traders for specific instruments, we are moving towards electronic trading where marketplace data is available to define National Best Bids and Offers (NBBO), and to a more intense competitive landscape. ■

Roland Tibell
President, OMX Americas

PHOTO: OMX



A man in a dark suit and orange tie is walking through a colonnade of large stone columns. He is smiling and looking towards the camera. The background shows a modern building with large windows and a red awning. The ground is paved with light-colored tiles.

»The more choices for trading we can offer our customers, the better it is for them and us.«

Stuart Frith, Head of Business Development
for EDX London

Clearing the way

EDX London rolls out OTC clearinghouse alternative

Large London banks have long conducted trades of European derivatives through a bilateral over-the-counter process. With the rollout of a new service this year, EDX London becomes the first exchange to offer those customers the ability to clear trades through a third party, driving down costs while maintaining the flexibility that banks need.

BY KEITH REGAN PHOTO EVA EDSJÖ

Large London banks interested in trading European equities derivatives have long done so through a cumbersome process involving bilateral trades directly between two banks.

That's in the process of changing, with potentially dramatic consequences for financial institutions.

EDX London, a joint venture of the London Stock Exchange and OMX, has gone live with a new service that enables such trades to be moved through a clearinghouse, offering customers a more efficient alternative to direct trades while maintaining the flexibility that over-the-counter (OTC) trading offers.

Banks prefer the OTC process to trading on exchanges for various reasons, including the ability to work out more flexible contract details than may be available on a traditional exchange. The new EDX platform strives to offer the same degree of flexibility but at much more competitive costs.

Stuart Frith, Head of Business Development for EDX London, says that EDX is the first exchange to go

live with a clearinghouse approach for its large wholesale trading customers. Currently, three large London banks are connected to and trading on the platform, and by year's end, EDX expects to have five or six customers up and running, a level that the exchange believes will help create critical mass and foster more demand for the service.

"There are other competitors that are coming out with alternatives to help make the OTC and bilateral trade process more efficient, but we're the first to put the clearinghouse option before customers," he says.

EDX LONDON WILL BECOME a third party in the trades, a transparent intermediary that uses its technological platform to enable the trades to be cleared and confirmed quickly. The project realizes at least partly a longstanding goal of EDX to bring a new level of sophistication to the automation of OTC trades in the European marketplace. OTC trading has long been seen as both a problem and an opportunity: It handles far more volume than exchange-listed trades, but it lacks

»OTC trading has long been seen as both a problem and an opportunity.«

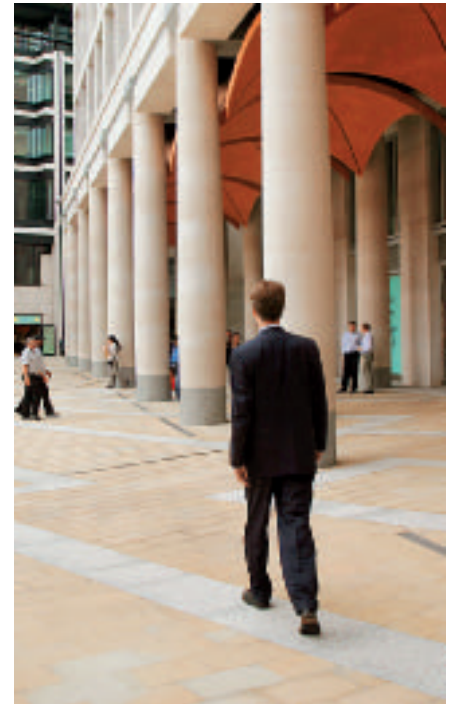
the widespread automation to clear and confirm those trades.

Frith acknowledges that the market for the service is not expansive, with consolidation leaving as few as 20 major UK banks that still conduct large block trades of derivatives. Still, he says, adding the service is important and may, over time, help increase the amount of such trading.

"It's going to be an important part of our business," Frith says. "The number of players isn't large, but the volume of business, the number of trades and the value of them is quite substantial. And I think the number of trades will grow,

EDX London: A partnership of solid histories with eyes on the future

EDX London is a derivatives exchange jointly owned by the London Stock Exchange (76 percent) and OMX (24 percent) that was formed in 2002 to combine the strength and liquidity of the LSE with the technological expertise of OMX. The new exchange began by offering trading of Scandinavian derivatives and has several strategic expansions and new product rollouts in the works.



Stuart Frith, Head of Business Development for EDX London, says that EDX is the first exchange to go live with a clearinghouse approach for its large wholesale trading customers.

» as participants see the benefits of our approach.”

In addition, the service will be one more offering on the EDX menu, one that no competitor currently offers directly. As a result, it could help generate additional trading business from large institutional customers. “The more choices for trading we can offer our customers, the better it is for them and us,” Frith notes.

EDX and OMX are currently working on a project that will also help expand trading options by giving UK customers access to more overseas derivatives trading opportunities, which are in increasing demand among the exchange’s customers.

THE CLEARING PROCESS for the OTC trades will use OMX’s SECUR platform, one that many of the institutions that trade derivatives in Europe are already familiar with, since they trade Scandinavian derivatives through EDX.

»OTC trading lacks the widespread automation to clear and confirm those trades.«

EDX London was created in late 2002 as a joint partnership between the London Stock Exchange (LSE) and OMX’s London Exchange, a derivatives marketplace. The electronic exchange went live in 2003 and has since been actively seeking ways to make more equity trading options available to its customers.

EDX gave London-based traders direct electronic access to Scandinavian derivatives from the outset. In fact, one of the strategic reasons behind the partnership between the

LSE and OMX was the ability to link with the London Clearing House to quickly clear and confirm wholesale derivatives trades.

Frith says the technical challenges of adding the service were few, with most of the work involving installing end-user systems at the banks’ customers.

“There were not many technical difficulties at all,” he says. “What took time was getting the banks comfortable with the new system and the flexibility it afforded them.” ■

» **The challenge:** Large London banks that trade European equities have traditionally used a direct bank-to-bank process that is manual in nature and has high overhead costs. Yet banks prefer this over-the-counter approach for several reasons, including the ability to negotiate specific contract terms on a trade-by-trade basis. EDX London sought to put a more streamlined process in place in order to help the largest London-based banks complete these trades more efficiently.

The solution: OMX’s SECUR platform offered a technological foundation to build the new solution, which provides clearinghouse services for trading large blocks of European equities derivatives. The solution fits well because many EDX customers are already familiar with and comfortable with the OMX platform, as they also trade Scandinavian derivatives through EDX.

CSDs face challenges

With competition increasing, central securities depositories are facing a conundrum: They are meant to provide security and stability, but to survive they need to move into new market areas, which means taking on new risks.

BY ARIANE SAINS ILLUSTRATION MÅNS ADOLFSSON

As custodians move away from clearing individual transactions to batch netting, CSDs face a challenge to their traditional revenues. With batch netting, thousands of transactions are cleared together at less cost to the client and less revenue to the CSD.

“To increase their customer base and create new revenue streams, a lot of CSDs are expanding to serve multiple asset classes and more complex corporate actions,” says James Martin, an Advisor with OMX Professional Services. Some are also beginning to more actively offer direct clearing to larger institutions — either through direct membership or a service bureau arrangement, Martin says. This bypasses custodians, which saves institutions money and preserves CSD revenues.

“By expanding into unfamiliar markets and products, CSDs can expose themselves to the very risk they’re trying to mitigate,” he says. So while in many cases CSDs need to rethink their operating model, they must move cautiously, carefully evaluating the potential benefits and pitfalls of their choices and crafting a risk mitigation strategy.

CSDs IN EMERGING markets often face different problems from those in more established markets. The former, says Martin, often operate in regulatory environments that are not as strict or advanced as those in more developed markets. This can lead to a lack of market confidence

in the stability of a CSD, as well as low liquidity. At the same time, CSDs in these countries often work hand in hand with their governments to attract international investment to their country. To meet that goal, it is imperative that the CSD provide a stable infrastructure that is reliable and meets international standards.

In addition, many of these CSDs run on systems developed in-house, most of which cannot clear more complicated asset trades. “They’re now realizing that they have to come up to speed,” Martin says. CSDs in more established markets generally do not face this problem, he says, although traditionally they tend to be conservative and resistant to change. “Due to slow implementation time frames, they need to plan well in advance how to meet their future revenue challenges and quickly move new products to market,” he says.

SO WHAT ARE CSDs TO DO? They need to think carefully about their function and status in the financial infrastructure, the requirements of their customers and their own needs. That’s particularly important because, Martin says, “CSDs can’t just change their operating model every other year.” Regulators would not allow that, and it would contribute to the very volatility CSDs are supposed to prevent.

Martin stresses the importance of securing market buy-in to any proposed changes. “We see the process of interviewing market participants as

»CSDs are expanding to serve multiple asset classes and more complex corporate actions.«

James Martin, Advisor at Professional Services at OMX



vital to helping CSDs make decisions and to ensure that the CSD continues to meet market needs,” he says. Other focus areas include operational modeling, risk evaluation and mitigation, the importance of understanding new products before launching them, and the regulatory environment.

“Now is an ideal time for CSDs to review their internal workings, as G30 and Giovannini deadlines are coming into play,” he says.

But regardless of new regulations and products, Martin says, in the future the primary role of the CSD will continue to be the same as in the past: to ensure market stability and orderly transaction processing. ■

OMX Professional Services: CSD Advisory Practice

- Experts with more than 30 years of combined experience running CSDs
- Extensive knowledge of the securities industry with expertise in transaction technology
- Significant experience advising CSDs on operational modeling, risk management and securing market buy-in

A focus on IT in mid-size financial services

Erik Penser Fondkommission, a Swedish brokerage, and OMX deepen their relationship.

BY BRANDON WICK PHOTO MATTIAS BARDÅ

Market integration and improved technology have prompted consolidation and new competition in the Swedish financial services market. To stay competitive, firms are rethinking many of their business goals and strategies and, in the process, are realizing that their IT infrastructure can be a source of competitive advantage. While it is common knowledge that large international financial firms have used IT outsourcing to cut costs, enhance efficiencies and improve service, it is only now that more regional mid-sized firms are beginning to reap these benefits.

One such firm is Erik Penser Fondkommission, an independent and privately owned Swedish company that was founded in 1994. Having roughly SEK 10 billion under management, the firm specializes in financial advising and asset management to high net worth clients. A new CEO, Eva Redhe, has recently

»Outsourcing our IT helps to reduce operational risk.«

Peter Melbi,
Executive Vice
President at Erik
Penser

come on board who, along with other key staff, has made superior customer service the firm's highest priority. "Our business concept is to supply the best financial solutions to an exclusive and very qualified market segment," says Per Wall, the Head of Private Clients at Erik Penser. Since last summer, the firm's market share in Sweden has more than tripled — a strong sign that they are on the right track.

TO ENSURE THE BEST possible customer service, the company looks to provide its advisors with all necessary client information. "After taking a long look at the market and our competitors, we decided to invest in developing our own asset management and financial advising functions," says Peter Melbi, Executive Vice President at Erik Penser. The system, which is currently under development, will provide superior customer data, performance tracking, risk management and reporting functions to the desktop. "With the Asset Management System, we can easily share information with our clients in every dimension of their portfolio," says Wall. Erik Penser managers will also find it easier to discover unbalanced portfolios and to measure risks.

Another major focus for the management team was the general role of technology in the company. While

Erik Penser's internal IT department was running well, security issues were a big concern. "We had all our machines running in-house, and if something happened to this building, there were no back-up systems," says Melbi. "Outsourcing our IT helps to reduce operational risk and better enables us to cope with the new requirements in Basel II." Reducing operational risk will be a part of the new Basel II set of EU financial standards expected in 2007. "Although roughly the same cost as our previous IT setup, outsourcing frees us to focus on the core business," he says.

HAVING RECENTLY COMPLETED the IT outsourcing project, Erik Penser is looking forward to the benefits of the Asset Management System later this year. Erik Penser made the strategic decision to work with OMX on both projects after considering the benefits of working with only one vendor. OMX has provided technology solutions to Erik Penser since 1994 and has become a trusted business partner. "When we learned that OMX could develop a customized Asset Management System with us and manage it along with our other IT services, the decision was easy to make," Melbi says. "We came to OMX with our vision of the future and decided to develop the necessary tools in partnership." ■

The challenge: For Erik Penser Fondkommission to utilize technology best practices in support of its primary business goals — a new focus on the core business and the delivery of excellent customer service.

The solution: The company has outsourced its IT infrastructure to OMX and is working with OMX to develop a new Asset Management System with enhanced customer data, performance tracking, risk management, and reporting functions.

Per Wall, Head of Private Clients,
Eva Redhe, CEO and Peter Melbi,
Executive Vice President at Erik
Penser. (From left to right)



The power of unity

The hope for the new Korea Exchange is that it will be a marketplace that can provide better service in Korea and can compete more effectively with overseas exchanges.

BY KEITH REGAN PHOTO THE KOREA EXCHANGE

In the future, 2005 may be remembered as a pivotal year, when Korea's major stock markets came together to expand their influence in Asia. The Korea Stock Exchange, the KOSDAQ Stock Market and the Korea Futures Exchange merged into the Korea Exchange, or KRX — the result is the first fully integrated market in Korea for equities, bonds and derivatives.

"I believe consolidation was inevitable for us to compete with the leading overseas exchanges as well as to cope with a rapidly changing financial environment," says Jung-Hwan Lee, President of the Management Strategy Division of Korea Exchange Inc. "Global competitiveness will be strengthened through lowered transaction costs and by providing customer-oriented market services."

The creation of KRX creates opportunities to lower transaction costs and to provide better service to end users, says Lee, but work remains. "To capitalize on our synergies, we will focus on the integration of IT infrastructure and providing customer-tailored products and services."

ON THE TECHNOLOGY SIDE, various options and approaches are still being weighed, including partial integration, system merge or what Lee calls a "complete Big Bang" approach. "The scope of integration comprises interface, trading, clearing, settlement, information dissemination, surveillance and electronic disclosure systems," he says, adding that the exchange can "turn these challenges into great opportunities with the

cooperation of our business partners."

On the business side, the challenges include "maximizing corporate value through transparent management as well as creating a new corporate culture," Lee continues. The KRX is currently evaluating the feasibility of staging an IPO to provide capital for the needed changes.

The effort of extending the reach of the Korea-based exchange will include, says Lee, welcoming good and sound competition with overseas exchanges while at the same time seeking cooperation for common interests. KRX also hopes to convince more overseas companies to list on the Korea Exchange and will target the burgeoning Chinese economy early on. "Compared to other leading global exchanges, Korea still has a lower profile in the international securities industry," he says. "We plan to focus initially on companies with high potential for listing, such as Chinese companies. Due to the bottleneck of IPO applications in China, there are huge potential demands from Chinese listing candidates."

STILL, KRX ACKNOWLEDGES that its international platform is still in an early stage of development. "Korean underwriters do not have sufficient experience in international businesses, and our stock market is comparatively undervalued, compared to our international peers," Lee says. "There are other issues, such as language and the need to adopt global standard corporate practices."

KRX also plans to conduct joint marketing activities such as



»There are huge potential demands from Chinese listing candidates.«

Jung-Hwan Lee, President of the Management Strategy Division of Korea Exchange Inc.



The Korea Exchange in Busan.

overseas listing promotion events with domestic/global brokerages, accounting firms and law firms. As for the regulatory aspects, the plan is to build a closer relationship with China as well as to revise its regulations on foreign listings.

Underlying all the goals will be the need to have a strong infrastructure capable of handling international orders and meeting international standards for liquidity and transparency. "We hope OMX will share its expertise in the integration of our IT infrastructure in the future," Lee says. ■

As KRX sets out to complete its merger integration, it has a strong partner in OMX

The Korea Futures Exchange (KOFEX) has been an OMX client since 1998. OMX's CLICK and SECUR provided the platform to help KOFEX build a trading system that met its customers' needs. In 2004, KOFEX signed an extended service agreement for OMX to provide additional technical support on an ongoing basis, a partnership that was undertaken as talks about integrating the various exchanges were already under way.

The challenge: To consolidate disparate exchanges, merging technologies and practices in a way that enables the newly formed KRX to compete for international business.

The solution: As a long time partner of KOFEX and a leading provider of transaction technology, OMX is in a position to provide platforms that will enable KRX to merge the various trading activities while providing the scalability needed to expand volume and reach out to overseas companies.

Moving toward multi-asset trading

With many equities markets seeing little growth, particularly when compared with the stock market rush of the late 1990s, financial institutions are eager to leverage multi-asset trading to boost their bottom lines.

“Just in terms of returns alone, if you’re relying on a single asset class, you’re shortening yourself in terms of upside potential,” says Sang Lee, a Principal with the Aite Group, a Boston-based consulting firm.

THE INCREASING sophistication of investors is another factor driving the trend. The rise of individual investment in hedge funds is just one example, says Lee.

But multi-asset trading often works better in theory than in practice. That’s because each trading market has often matured on its own, with specific technologies, data standards, practices and even pricing schemes that make blending them into a single platform a challenge. There may even be internal political obstacles, with a certain trading area carefully guarding how it does things.

ADD IN THE HURDLES that come with dealing with disparate third parties, such as data providers and market makers, and it’s easy to see how the challenge could be immense.

It can be done, however, and today’s technology makes it possible. And while few firms will be able to combine all their trading onto a single platform in the near term, Lee advises all firms to think strategically about striving toward that goal.

Still, for most players, a true multi-asset trading platform is a long-range goal at best. Lee recommends taking into consideration what’s happening in the marketplace and then taking action accordingly. “It’s a Herculean task to put it all under one roof,” says

Multi-asset trading is more of a long-range wish than a short-term reality for most market participants, but companies can make it part of their strategic outlook.

BY KEITH REGAN ILLUSTRATION MÅNS ADOLFSSON



»If you’re relying on a single asset class you’re shortening yourself in terms of upside potential.«

Sang Lee, a Principal with the Aite Group

Lee. “This thinking is very high-level at this point, strategic at best. It’s not something I see happening very widely overnight.”

Instead, firms should look to add to their offerings in ways that also add to overall operational improvement. For instance, if a platform is due for an upgrade, it may make sense to consider expanding its capabilities then.

“You need to identify which areas are important to you,” he says. “Maybe you have overlap in certain operations. Or maybe different asset classes are being asked for by your customers, and you can combine those in some way. But if you have unrelated asset classes, there’s no point in forcing the issue.”

Combining trading into united platforms could be a competitive advantage, especially in today’s markets, which are more transparent than ever, meaning tighter margins for all participants. That has pushed firms into trading areas such as fixed-income securities, derivatives, and currencies.

Another consideration is to weigh carefully which areas to focus on based on the potential for profitability. For instance, the tremendous rise of interest in trading US Treasuries electronically has resulted in a host of competitors. “In a market like that, the amount of money to be made would not outweigh the risks and costs,” Lee says. “It has to make business sense.” ■

A step-wise movement toward multi-asset trading

- Look for ways to make small improvements in compatibility of trading areas
- Make true multi-asset trading a long-range consideration
- Be realistic about the possibilities for getting there
- Get buy-in from all key constituencies in the company to lower political hurdles
- Carefully weigh the risks and benefits before targeting certain areas
- Know the competitive landscape
- Consider how technology upgrades can advance the goal of multi-asset trading

The path of uncertainty

Myron S. Scholes isn't afraid to look uncertainty in the face, and solving the problems it causes is still the Nobel Memorial Prize winner's favorite pastime.

BY ARIANE SAINS PHOTO STIG-GÖRAN NILSSON

Myron S. Scholes is happy confronting the uncertain world. "I've lived with uncertainty all my life," says the Nobel Memorial Prize winner. "I understand uncertainty and integrate it into the ways I address problems."

Scholes understands uncertainty so well, in fact, that he won the Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel for developing the Black-Scholes formula, in conjunction with Fischer Black and Robert Merton.

THE FORMULA USES SIX VARIABLES — the current underlying asset price, the option strike price, the option time-to-expiration, the riskless return, the underlying asset payout return and the underlying asset volatility — to determine the value of a standard option, theoretically taking the risk out of the pricing of options contracts.

The formula built on the work of Paul Samuelson and, following its introduction in the early 1970s, became one of the most broadly used formulas in the markets.

Scholes says that being awarded the Nobel created a kind of freedom for him in problem-solving.

"It freed me up to be less parsimonious, to be able to think about things more broadly," he says. "My results may not be as robust, but they are as or more creative."

»Being awarded the Nobel created a kind of freedom for him in problem-solving.«

Scholes has been a problem solver all his life. "I love learning," he says. "I get so excited thinking about problems. It's like going into an ice cream shop and being able to have everything."

With the financial world becoming ever more complex, Scholes doesn't lack for problems to solve or the stimulation of uncertainty.

In today's market he sees more competition between the cost of hedging risk and the cost of equity capital.

Increasingly, he says "corporations are trying to offload risks they don't understand," on the market, but idiosyncratic risk is being kept in private hands and



Quick facts on Myron S. Scholes

Age: 64

Current position: Chairman, Oak Hill Platinum Partners

Personal: Married, two daughters

Recommended reading: *The Logic of Failure*, by Dietrich Dorner

Leisure pursuits: Golf, skiing. "I want to think about something that's different from my work."

More on the the Black-Scholes formula:

<http://nobelprize.org/economics/laureates/1997/press.html>

often in investment banks.

Scholes says the situation will become even more complex as more individuals worldwide are forced to save for their own retirements.

That, he says, will lead to a myriad of new investment products and to a whole new assessment of risk.

And that, in turn, will lead to the growth of more specialized financial advisers. "The world is too complicated to do it on your own," Scholes says.

AT THE SAME TIME, that uncertainty is what drives him, Scholes says. "Modern society creates too many stimuli," he says. "We weren't built to respond to so much."

To combat stress, Scholes employs Indian breathing techniques. He believes that breathing properly can reduce tension and create calm.

If he ever retires, Scholes says he'd like to work full time on a project to marry Eastern breathing techniques with Western neurological medicine.

Meanwhile, he plans to take a deep breath and keep on his uncertain path. ■

Market View

A magazine from OMX Technology, a leading global provider of transaction technology, as well as processing and outsourcing solutions for financial and energy markets.

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