

Mr. Jignesh Shah in the list of top 30 international financial technology innovators-Institutional Investor Euro Online

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Online Finance 30

Our annual list of top international e-finance innovators.

The financial markets have been in turmoil, but the operators of those markets and many players in them aren't discouraged — when it comes to their technology, that is. With virtual unanimity, the financial technology innovators on *Institutional Investor*'s ninth annual Online Finance 30 list, led by CEOs Duncan Niederauer of NYSE Euronext and Robert Greifeld of Nasdaq OMX Group, say that their systems and automation initiatives are too critical to put on hold. In fact, these archrivals are on common ground, each viewing his business as, in Niederauer's words, "a technology company that also happens to be a multiasset global exchange operator." NYSE Euronext nearly doubled its software and technology services revenue in the first half of 2008, to \$226 million. At the same time, Nasdaq OMX increased market technology revenue 22 percent, to \$69.8 million. For Greifeld, technology is a key to taking market share from NYSE Euronext and dealing with the ever-growing volumes that he says pose "a fundamental challenge to the exchanges." Lee Hodgkinson (No. 30), CEO of electronic exchange SWX Europe, notes that technology is at the root of market structure changes that have brought NYSE and Nasdaq, among others, into competition for European institutional trades on so-called dark pools. The opportunities make exchanges "the best business to be in these days," he says. Microsoft Corp. managing director of worldwide capital markets Michel van Leeuwen (No. 16) shares Hodgkinson's optimism on tech investing but concedes, "Trust needs to be restored in the financial system, which is not what any technology can do."

1. Duncan Niederauer

CEO, NYSE Euronext
Not ranked last year

Just before NYSE Group and Euronext merged in April 2007, John Thain, the former Goldman Sachs Group president who was then NYSE's CEO, plucked Duncan Niederauer out of his former firm to be president and co-chief operating officer. Niederauer, with his 22 years of Goldman experience in such areas as e-commerce, equities execution and clearing, clearly had the high-tech credentials to lead NYSE Euronext into the brave new world of global trading. He just didn't expect to be thrust into the top job as quickly as he was — in December, when Thain decamped for Merrill Lynch & Co. In the ensuing months Niederauer, 49, has trotted the globe with abandon, wielding technology as a competitive weapon and potential merger enticement. Often collaborating with his Paris-based deputy CEO, Jean-François Théodore (No. 5 last year), Niederauer has struck strategic alliance deals with, or taken ownership stakes in, exchanges from Abu Dhabi and Qatar to Japan and Malaysia. "We hope to become their technology provider first, then we can explore the consolidation piece," he says. In November he expects to launch a European multilateral trading facility to compete against a raft of others, including that of Nasdaq OMX (see Robert Greifeld, No. 2). "Technology is the common denominator," says Niederauer. "We are a technology company that also happens to be a multiasset global exchange operator."

2. Robert Greifeld

CEO, Nasdaq OMX Group
Not ranked last year

Nasdaq OMX Group is flexing its muscles as what CEO Robert Greifeld calls "a diversified global exchange operator" — which is how Nasdaq Stock Market redefined itself after its February merger with Stockholm-based OMX. In September alone the combined exchange and technology company agreed to provide

derivatives clearing services to the Bond Exchange of South Africa, launched a new derivatives market for Bolsa de Valores de Colombia and opened the Nasdaq OMX Europe multilateral trading facility in London. The latter "represents the transformation of Nasdaq from a U.S.-focused cash equity exchange," says Greifeld, 51. He expects that pan-European competition "will break down the pricing monopolies that have existed for some time." Greifeld isn't averting his gaze from the target that has preoccupied him in his five years at the helm: NYSE Euronext. On July 11, Nasdaq for the first time traded more NYSE-listed shares than the NYSE did, by a slim 25.9 percent to 25.8 percent market-share margin. "Three years ago Nasdaq executed zero percent," notes Greifeld. "Bringing to market a better trading platform that has essentially resulted in the destruction of the 200-year [NYSE] trading floor is a major accomplishment."

3. Dick Harryvan

CEO, ING Direct

Last year's rank: 3

ING Direct is going full speed ahead with its multinational online growth strategy — even, believe it or not, into mortgages. While many banks are retreating from that business, the branchless banking unit of Amsterdam-based ING Group has seen its mortgage portfolio jump 26 percent, to €104 billion (\$150 billion) as of the second quarter. In Germany, ING Direct in August closed on its €379 million acquisition of mortgage broker Interhyp. "We always enter a market through the savings segment," says CEO Dick Harryvan, and prime mortgages are a "logical" place to expand from there. The mortgage balances grew at twice the 13 percent rate at which the bank added customers, who numbered 21.2 million at the end of June. ING Direct is awaiting regulatory approval to enter Japan, its tenth country since launching in 1997 and the first since Harryvan, 55, took the helm in April 2006. (The others are Australia, Austria, Canada, France, Germany, Italy, Spain, the U.K. and the U.S.) "We see ourselves as game changers in retail banking," says Harryvan.

4. Olivier Le Grand

Chairman and CEO, Cortal Consors

Last year's rank: 8

Cortal Consors, the BNP Paribas brokerage and mutual fund unit that boasts the biggest online operation of its kind in Europe, with more than a million customers, is branching out beyond its core markets of Belgium, France, Germany, Luxembourg and Spain. This month the Paris-based outfit launched operations in Saudi Arabia. It was already up and running in Abu Dhabi, Bahrain, Dubai and Oman as a result of BNP Paribas's 2007 purchase of 34 percent of India's largest retail brokerage, Geojit Financial Services, which enabled Cortal Consors to offer online trading both in India and to the 4 million Indian nationals residing in the Gulf region. The emerging-markets expansion's effect: Daily trades have soared sevenfold, to 250,000, says CEO Olivier Le Grand, 55. In another outgrowth of the partnership, since July, BNP Paribas's institutional clients have been able to place orders in the Indian stock market. Le Grand calls that "an important first step in the institutional world" that could be replicated in other emerging markets. Late last year Cortal Consors exported its Tradegate before- and after-hours trading service from Germany to France, where it now accounts for 13 percent of overall order flow, says Le Grand.

5. Kevin Kometer

CIO, CME Group

Not ranked last year

The Chicago Mercantile Exchange's Globex electronic trading platform got off to a slow start in 1992, meeting tremendous resistance from open-outcry traders. But now that it accounts for 80 percent of the derivatives exchange's volume, which as of August averaged 11 million contracts per day — processing orders for customers in 85 countries in 11 milliseconds, on average — Globex's revolutionary role in moving transactions online is beyond dispute. Kevin Kometer, a 14-year veteran of the CME and its CIO since June 30, has led much of the technological development and growth of Globex, which is being stretched not just by robust market activity but also by mergers. Over the past year Kometer's team faced the massive challenge of integrating the Chicago Board of Trade's systems and trading floors. Efforts to "increase our capacity scalability and performance" are, he notes, "a nonstop project," underscored by the August 22 completion of CME Group's \$9.6 billion purchase of Nymex Holdings. Nymex already uses Globex, so "it will be largely a back-office clearing and regulatory integration effort," says Kometer, 44, who was promoted from deputy CIO when James Krause retired after 23 years with CME.

6. Michael Kuhn
CIO, Deutsche Börse
Not ranked last year

Frankfurt-based Deutsche Börse, like other major exchange operators, has been working to accommodate growing demand for high-frequency automated trading. For the upgrades on the Börse's electronic Xetra platform and on the Eurex derivatives exchange, credit Michael Kuhn, a 20-year Börse veteran, principal Xetra architect and CIO since 1999. This year Deutsche Börse has halved its latency delays while doubling quote and order capacity and has accelerated algorithmic access through the Eurex Enhanced Transaction Service, launched in April. Eurex's August volume fell 28 percent from the volatility-fueled year-earlier month, to 126.2 million contracts, though over eight months it was still 11 percent ahead of the comparable 2007 period, at 1.45 billion. "We have technology road maps in place for Eurex and Xetra to adapt to the latency, performance and capacity requirements of algorithmic trading machines," says Kuhn, 54. "Our common [multiasset] platform is a major advantage in pursuing these road maps." Following Deutsche Börse's \$2.8 billion December acquisition of New York-based options market International Securities Exchange, Kuhn will be extending the common-platform concept across the ocean in a multiyear integration project.

7. Jeffrey Sprecher
Chairman and CEO, IntercontinentalExchange
Last year's rank: 19

Jeffrey Sprecher has never been one to think small. He acquired a regional power exchange in the late 1990s and transformed it into today's multinational IntercontinentalExchange, which last year made an unsolicited \$10 billion takeover bid for the Chicago Board of Trade. That bid was trumped by the Chicago Mercantile Exchange's friendly \$12 billion offer, but just about everything else Sprecher has touched has turned to, well, black gold. Atlanta-based ICE went live as an online energy exchange in 2000. The following year it bought the International Petroleum Exchange of London, now ICE Futures Europe, where the benchmark Brent and West Texas Intermediate crude oil contracts trade — all electronically, since the floor closed in 2005. "We decided to step back and look at finding markets that are moving from analog — the telephone — to digital," explains Sprecher, 53. Last year ICE acquired the New York Board of Trade for \$1 billion, and in August it purchased New York- and London-based Creditex Group for \$513 million (see Sunil Hirani, No. 22) as an entrée into credit derivatives. "A year ago we were an energy exchange; now we have Russell indexes, credit and OTC options," says Sprecher.

8. Alasdair Haynes
CEO, ITG International
Last year's rank: 22

Revenue at New York-based Investment Technology Group increased a respectable 12 percent in the first half of 2008, to \$384.6 million, while the non-U.S. portion jumped 24 percent, to \$98.6 million; Europe alone rose 25 percent, to \$40.5 million. Alasdair Haynes, CEO of ITG International in London, concedes that it's easier to grow twice as fast on a smaller base, but ITG's results reflect global institutional trading realities and the agency brokerage's breadth of automated and analytical tools. Algorithms, nondisplayed liquidity, execution management systems, transaction cost analysis — ITG offers them all. As the technologies migrate from the U.S. to Europe and Asia, ITG is doing the same, investing in staff and product development in Australia, Hong Kong and Japan as well as Europe. Those expenses help explain why ITG's non-U.S. pretax profit fell 1 percent in the first half, to \$9.1 million. Haynes, 47, looks past the recent credit-crunch-induced contraction in European trading volumes and sees "a true globalization of electronic trading." ITG is uniquely equipped to provide the "dashboard" that traders need to navigate complex markets, says Haynes, who assumed global responsibilities last year after serving as head of ITG Europe since 1998, when he joined from HSBC Bank.

9. Anthony Abenante and Fumiki Kondo
Co-CEOs, Instinet
Not ranked last year

Having introduced electronic trading in 1969, a crossing system in 1986 and an electronic communications network in 1997, Instinet has a secure place in the history of automated trading. But today the company,

owned by Japan's Nomura Holdings, is trying to conquer an institutional trading world that is far more crowded and complicated than in the past. After buying the New York-based agency brokerage from an ownership group led by private equity firm Silver Lake Partners for \$1.2 billion in February 2007, Nomura named Anthony Abenante and Fumiki Kondo co-CEOs, and they're in the thick of the global trading wars. Instinet's Chi-X Europe, for example, doubled share volume between the first and second quarters, to 14 billion, and is trading more than 20 percent of the volume in FTSE 100 stocks. But Abenante, 42, who worked for Nomura in New York for four years before the acquisition, emphasizes that Instinet combines automation with "experienced sales traders in a model that global investors find valuable." The firm's U.S. brokerage in the second quarter handled 388 million shares on an average day, up 59 percent year-over-year, for a 5 percent share of the U.S. equity market. "Instinet's clients have always valued the model, and we believe it will be successful in Europe and Asia," adds Kondo, 44, a 20-year Nomura veteran.

10. Lance Uggla

CEO, Markit Group

Last year's rank: 27

Recent upheavals in financial markets, particularly the volatility in over-the-counter credit derivatives, have been very, very good for Markit Group. The New York- and London-based company that Lance Uggla, 46, founded within Canada's TD Bank Financial Group in 2001 and spun out in 2003 has consolidated its hold on the business of valuing — and thereby promoting transparency and liquidity — of hard-to-price securities. Now with 16 shareholder banks, Markit is also playing key roles as a posttrade processor of credit default swaps and an administrator of credit indexes. In June it announced a transparency initiative with major European asset-backed securities dealers to distribute investor disclosures. Markit acquired European trade reporting system BOAT in January, derivatives platform SwapsWire in May and syndicated loan software company JPMorgan FCS Corp. last month. It formed alliances this year with brokerage Creditex Group (see Sunil Hirani, No. 22) and Depository Trust & Clearing Corp. to help address regulators' concerns about OTC processing backlogs. "We have added more than 40 buy-side clients to our trade-processing platform this year," says Uggla.

11. David Rutter

Deputy CEO, ICAP Electronic Broking

Not ranked last year

London-based interdealer brokerage ICAP has spent much of this decade tilting toward electronic trading. Chief executive Michael Spencer (No. 7 last year) punctuated its transformation with the high-profile acquisitions of fixed-income platform BrokerTec Global in 2003 for \$289 million and spot foreign exchange platform EBS in 2006 for \$775 million, both from bank-consortium owners. Under David Rutter, who ran BrokerTec after the acquisition and is now the Jersey City, New Jersey-based deputy CEO of ICAP Electronic Broking, ICAP has these systems operating on 6,000 workstations on 2,500 dealing floors in 50 countries. "The key to increasing both profits and market share is increasing our product offerings and capitalizing on opportunities in new geographies," says Rutter, 45, who has been in his current position for four years. "A lot of growth is coming from emerging-markets countries, and it is very important that we continue to build a global footprint." Last month bullion trader Swiss Gold DMCC in Dubai became the first Middle Eastern nonbank spot metals trader on EBS.

12. Oki Matsumoto

CEO, Monex Group

Last year's rank: 12

Oki Matsumoto, president and CEO of Japan's Monex Group, readily concedes that the current business climate isn't working to his advantage. The former Goldman, Sachs & Co. partner founded online brokerage Monex in 1999 with the goal of empowering individual investors, and in recent years he has enabled them to invest not only in domestic and foreign equities but also in private equity and hedge funds. But his 860,000 account holders are largely retreating into the most cautious of investments — yen deposits. "The movement is stalled," says Matsumoto. Tokyo-based Monex's net profit declined 24 percent in its fiscal year ended March, to ¥7.2 billion (\$72 million), and its shares have fallen 49 percent in 2008 through late September. Last month Matsumoto flew most of his board to Beijing, where Monex set up shop in March as a step toward offering its services to Chinese retail clients. Matsumoto, 44, still believes that "sooner or later the market will stabilize and create a good opportunity for investment."

13. **Joseph Antonellis**

Vice Chairman, State Street Corp.
Not ranked last year

State Street Corp. became an e-finance trailblazer in 1996 by launching Global Link, the institutional research and trading network that includes the FX Connect foreign exchange platform, which in June had a record \$156 billion day. Global Link, headed by Simon Wilson-Taylor (No. 16 last year), is just one example of how pervasive information technology has become across all business lines of the Boston-based asset manager and servicer. It is so critical that the company's vice chairman, 53-year-old Joseph Antonellis, is the head of global IT, which according to State Street accounts for more than 4,000 of its 27,000 employees and 20 to 25 percent of its operating budget. Antonellis, who left Bank of Boston Corp. in 1991 to join State Street's mutual fund services business and has presided over IT since 2003, says many of today's priorities revolve around alternative investments. Responding to explosive growth in over-the-counter derivatives, the bank in August launched the OTC Hub, a system that "will enable us to handle the increasing complexity and volume of these transactions," says Antonellis, whose other responsibilities include global securities services, which saw total assets jump 17 percent, to \$15.3 trillion, in the 12 months ended June 30.

14. **Lee Olesky**

CEO, Tradeweb
Not ranked last year

Tradeweb, which opened in 1998 as a trading platform for U.S. government securities, has grown into a multi-asset-class network that boosted its total volume 40 percent in the first half of 2008, to \$42.7 trillion, and now reaches clients in more than 50 countries. Lee Olesky, 46, had much to do with that international expansion. Before he succeeded his Tradeweb co-founder and former Credit Suisse First Boston colleague James Toffey (No. 15 last year) as CEO in September, Olesky was the Jersey City, New Jersey-headquartered company's London-based president for six years, spearheading overseas growth. With a data center in Tokyo and offices in Hong Kong and Singapore established over the past three years, "we have completed our buildout in Asia and become a truly global network," Olesky proclaims. An online market for new and maturing deposits in five currencies, launched in April and introducing transparency into what Olesky termed a "difficult" short-term funding environment, brought the number of Tradeweb markets to 18, with 225 participating dealer desks.

15. **Paul Caplin**

CEO, Caplin Systems
Last year's rank: 17

When it opened in 2000, Caplin Systems developed a then-groundbreaking technology for streaming real-time market data over the Internet, but that idea was quickly copied and commoditized. So the London software shop's founder and CEO, Paul Caplin, pursued another outlet for innovation. Over the past few years, Caplin Systems has solidified its relationships with the top-tier institutions that were at first attracted to streaming quotes. BNP Paribas, Crédit Agricole Group's Calyon and Royal Bank of Canada, among others, have adopted Caplin Trader, which allows them to establish direct online connections to their fixed-income or foreign exchange clients. "We anticipated the demand for direct channels to clients across more and more over-the-counter asset classes, and we had a multiasset solution," says Caplin, 53. The company has been profitable for four years, he says, and now has 60 employees, up 25 percent in the past year. And it's trying to make more of its original streaming server, Liberator. Now a component within Caplin Trader, Liberator since March has been available free to firms and developers for testing and evaluation. Caplin believes it will prove its superiority by "handling orders of magnitude more data than other servers."

16. **Michel van Leeuwen**

Managing Director of Worldwide Capital Markets, Microsoft Corp.
Not ranked last year

Although Microsoft Corp. technology is as ubiquitous on Wall Street and in the capital markets as it is in any industry, 96 percent of its sales to the sector are made indirectly, through partners that incorporate Microsoft systems in their products, says Michel van Leeuwen, who manages the Redmond, Washington-based software giant's worldwide capital markets business. That gives van Leeuwen, 42, a Dutch native who took the Microsoft post in London in August 2007 after three years as CEO of risk management for U.K.

software company Misys, a broad perspective on financial markets technology. He sees capital markets customers in crisis conditions imposing a "small freeze" on spending but not retreating from "wanting to optimize and automate" in such areas as high-performance trading and customer relationship management. "To do more with fewer people," he notes, "you need technology, which creates an interesting market potential for us." In March, Microsoft launched the Institutional Client Platform, a set of compatible CRM and analytical components for the buy and sell sides sold by partners including software vendor GaleForce Solutions and consulting firm Lab49. Last month ING Investment Management adopted Microsoft's BizTalk Server for securities processing and messaging applications.

17. Lee Amaitis

Co-CEO, BGC Partners

Not ranked last year

Two spin-offs of New York-based Cantor Fitzgerald — interdealer brokerage BGC Partners and trading technology developer ESPEED — merged in April to form the current incarnation of BGC, co-headed by Cantor Fitzgerald chairman and CEO Howard Lutnick and Cantor and ESPEED veteran Lee Amaitis. The higher-profile Lutnick "deserves more recognition" for executing his vision, says Amaitis. But Amaitis, 59, has been Lutnick's London-based lieutenant since 1996, overseeing international expansion and playing a key role in rebuilding Cantor after it lost more than 600 employees in the terrorist attacks on the World Trade Center. BGC represents a fusion of voice and electronic brokerage. That hybrid structure, giving clients a choice of transaction modes, though common today, "was Cantor's brokerage model in 1995," when Lutnick was beginning to develop ESPEED, notes Amaitis. He says BGC invests \$100 million annually in its proprietary technology. The payoff is "allowing us not only to stay in the race but to win the race." He believes homegrown technology confers an advantage over bigger rival ICAP, which has acquired rather than built its major trading platforms.

18. Mark Warms

General Manager, Europe, Middle East and Africa, FX Alliance

Not ranked last year

Volatility in the currency markets fueled a 32 percent rise in first-half volume this year at FX Alliance, says Mark Warms, the multibank foreign exchange platform's general manager for Europe, the Middle East and Africa. New York-based FXall tapped into demand for anonymous order-matching with its Accelor system, which went live in February 2007. This year, says Warms, 44, "we began rolling out a white-label version of our software," which banks offer under their own brand names to smaller clients — a strategy akin to Saxo Bank's (see Kim Fournais, No. 27). Over the past 12 months, FXall has added some 100 institutional clients, bringing active users up to about 800, with 68 banks providing liquidity. New participants include ten Russian banks and corporations — "a new area of focus for us," says Warms, adding that business is also up in the Persian Gulf region. "We're getting calls from clients looking to diversify the number of banks with which they trade, and people are looking much more closely at counterparties," observes Warms, who helped develop FXall before its 2001 launch when he was a director in the forex department of Credit Suisse First Boston in New York. The Tenafly, New Jersey, native opened FXall's London office in 2001; he now oversees 40 of the company's 140 employees.

19. Eli Lederman

CEO, Turquoise

Not ranked last year

Within a month of its first live trades in mid-August, the Turquoise multilateral trading facility claimed a 2 percent share of the volume in Europe's most liquid stocks. The London-based platform's CEO, Eli Lederman, who reports to an ownership consortium of nine major banks, likens the effort to organizing an orchestra. "You start with silence, you hire the musicians, you train them, and then they perform together," says Lederman, 45, who took the job in December after serving as Morgan Stanley's head of European electronic trading. Turquoise takes the orchestra concept literally; rather than building its infrastructure from scratch, it struck partnership deals with the suppliers of its components, including Cinnober of Sweden for the trading platform and Transaction Auditing Group for performance analytics. Lederman says the key to competing with the growing number of both open-quote and hidden, or dark, pools of liquidity is Turquoise's combination of the two approaches to meet institutions' block-order requirements: "Turquoise has reconciled these two ends of the spectrum by creating an ecosystem where the large dark orders and the small visible orders share a symbiotic relationship, giving one another liquidity and price improvement," he

explains.

20. Simon Nathanson

CEO, Neonet

Last year's rank: 23

Stockholm-based executing brokerage Neonet offered direct market access to a variety of international venues before demand for cross-border trading picked up in the past few years. Now it connects to 31 markets around the world and finds its smart order-routing technology and algorithmic tools much in demand, says CEO Simon Nathanson, 47. Having added, as of April, the Australian Stock Exchange to his DMA roster, Nathanson says he has turned his attention to "the new alternative marketplaces in Europe." The firm is supporting or will link to such multilateral trading facilities as Burgundy, to be launched in the Nordic region next year, London's Turquoise (see Eli Lederman, No. 19), Instinet affiliate Chi-X Europe (see Anthony Abenante and Fumiki Kondo, No. 9) and Nasdaq OMX Europe (see Robert Greifeld, No. 2). Neonet had 360 million Swedish krona (\$53 million) in revenue in the first half of 2008. "Tough market conditions," notes Nathanson, slowed year-over-year revenue growth to 16 percent for the period, down from 74 percent for full-year 2007. But Neonet's 240 clients in 23 countries trade on an average of 13 markets, up from ten a year ago, and licensees of its XG trading software have jumped to 20 from six.

21. Yoshitaka Kitao

CEO, SBI Holdings

Not ranked last year

Two years after separating from Internet investments giant Softbank Corp., SBI Holdings is moving rapidly to extend its financial-services-focused venture capital portfolio into other Asian markets. Tokyo-based SBI, which began in 1999 as Softbank Investment Corp. and has been led all along by CEO Yoshitaka Kitao, now boasts 74 consolidated subsidiaries. They include SBI Securities Co., the former SBI E-Trade Securities Co., which is Japan's biggest online brokerage; SBI Sumishin Net Bank, which surpassed \$4 billion in deposits in August, 11 months after it opened; and SBI Japannext, the largest of Japan's after-hours stock-trading platforms. Kitao, 57, has set up venture funds with local partners in India, Vietnam and Russia to assemble similar "online financial ecosystems," as he calls them, for markets where "the speed of Internet penetration will be very fast." Like Monex Group CEO Oki Matsumoto (No. 12), Kitao is fighting headwinds at home. Retail brokerage activity is sluggish, and SBI's shares have dropped 46 percent this year through late September. Kitao found time to publish his first book in English, *The SBI Group Vision & Strategy: Continuously Evolving Management*. "People who want to understand my vision and philosophies should read it several times at least," he says.

22. Sunil Hirani

Chairman and CEO, Creditex Group

Last year's rank: 25

Sunil Hirani, who was part of Deutsche Bank's pacesetter over-the-counter derivatives team in the 1990s, co-founded Creditex Group with Wall Street backing in 1999 and has established it as a key interdealer brokerage in the burgeoning credit derivatives market. The company, with offices in New York and London, has grown along with credit default swaps volumes, which have been doubling annually since 2000 and reached \$62 trillion in notional value at year-end 2007. CEO Hirani, 41, has added some juice of his own with a string of infrastructure-enhancing initiatives, including the 2005 formation of CDS affirmation subsidiary T-Zero, the 2006 acquisition of London-based brokerage CreditTrade and the 2007 introduction of the Q-WIXX electronic platform for trading large CDS portfolios. He made the ultimate deal in August, selling Creditex to Atlanta-based IntercontinentalExchange (see Jeffrey Sprecher, No. 7) for \$513 million. Hirani says Creditex and ICE have a "complementary ability" to help dealer clients as they face "greater capital constraints, regulatory scrutiny, processing challenges and heightened focus on counterparty credit risk."

23. John Bates

General Manager, Apama Division Progress Software Corp.

Not ranked last year

More than a few computer scientists have had a hand in creating complex event processing, a critical

component in algorithmic trading systems for analyzing and acting upon vast quantities of market information. John Bates, 38, was among the inventors, dating back to his research as a University of Cambridge professor in the 1990s, and he has spread CEP literally around the world. A 1993 Cambridge Ph.D. in distributed and mobile computing, Bates founded software developer Apama in 1999 to commercialize CEP. "It was a bit of an accident that we got into capital markets," he recalls. "This is an early-adopting industry and just seemed like the best opportunity at the time." Bates's hunch proved correct, as such top-tier institutions as Deutsche Bank, ING Group and JPMorgan Chase & Co. became clients of Apama. In 2005, Bedford, Massachusetts-based Progress Software Corp. acquired Apama, which then had 25 employees, retaining Bates as general manager. Today the division employs 400, reflecting the extension of CEP into nonequity asset classes and Asia and Latin America. The U.K.'s Financial Services Authority and the Turquoise multilateral trading facility are using Apama software for real-time market surveillance.

24. Andrew Chua

Head of Direct Banking and Personal Financial Services Asia-Pacific, HSBC Holdings

Not ranked last year

As head of HSBC Holdings' HSBC Direct service in the Asia-Pacific region outside of Hong Kong, Andrew Chua runs a business that has 1.9 million online customers. HSBC moved a further 1.6 million in Hong Kong into a separate department last year, allowing Chua, 45, to focus on a customer base in 17 countries that grew 29 percent in the 12 months ended July 2008 and 27 percent in the 12 months before that. "A huge percentage of our banking is now self-service," says Chua, speaking from his office on the 27th floor of the HSBC Building in Hong Kong's Central District. Since taking over as regional head of online banking in September 2007, Chua has introduced tools that help clients set investment goals and track performance. "Whether in the U.S., U.K., Taiwan or Hong Kong, people are interested in savings, but their risk tolerance varies by region," says the Singapore-born, 20-year HSBC veteran. "We try to be aware of that when offering online tools in different markets." He also manages Global View, which enables customers to manage accounts in multiple countries. "Our service allows you to transfer money from one account in one country to another account in another country, and there are no remittance fees," says Chua.

25. Mark Beeston

President, T-Zero

Last year's rank: 28

T-Zero's formation in July 2005 to process credit derivatives was well timed. Just two months later Federal Reserve Bank of New York president Timothy Geithner, concerned about risks in the credit default swaps market, issued an ultimatum to major financial firms to clear away the mounting backlog of unconfirmed over-the-counter trades. The New York Fed has since monitored the dealers' progress periodically, and following each status report, most recently on July 31, Mark Beeston has asserted T-Zero's ability to meet whatever goals the dealers set. The London- and New York-based subsidiary of Creditex Group, now part of the IntercontinentalExchange (see Sunil Hirani, No. 22, and Jeffrey Sprecher, No. 7), has gotten that message across: 17 major dealers, ten prime brokerages and 200-plus buy-side firms use its platform for trade affirmations and novations, or transfers of the securities. Beeston, 37, a former Deutsche Bank COO for global credit trading who has been president of T-Zero from the start, says his company is "the leading method for electronically novating a trade." Only T-Zero, he adds, "has allowed both the sell side and buy side to automate the new trade affirmation process as well as novation consents."

26. Jignesh Shah

Chairman and CEO, Financial Technologies (India)

Not ranked last year

Outsourcing was India's technological hallmark when Jignesh Shah founded Mumbai-based Financial Technologies (India) in 1995. But he set out to do something very different — to become a global leader in developing exchange, trading and transaction-processing systems for the rapidly modernizing financial infrastructures of emerging markets. "Our vision is to create one of the world's largest exchange networks," says Shah, 40, a systems engineer formerly with the Bombay Stock Exchange who mortgaged his house for Financial Technologies' seed money. Today he runs a company that has a market capitalization of \$1.8 billion and that increased revenue 674 percent in its fiscal year ended March 31, to 13.48 billion rupees (\$296 million). The company has set up exchanges as far afield as Dubai, Mauritius and Singapore, but its marquee initiative was Multi Commodity Exchange of India, launched in 2003, which in February sold a 5 percent stake for an undisclosed price to NYSE Euronext (see Duncan Niederauer, No. 1) and ranks as one of

the world's ten biggest futures markets. Financial Technologies has also started several companies, including Atom Technologies, which enables transactions on mobile devices; TickerPlant Infoventing, a financial data distributor; and Riskraft Consulting, a provider of risk management solutions. The common denominator is data and price transparency, which, says Shah, "transforms economies, empowers the common man and changes lives."

27. Kim Fournais

Co-CEO, Saxo Bank

Not ranked last year

Traders using CitiFX Pro, an online foreign exchange service launched in the U.S. in March and in Hong Kong in September, may not know that the technology isn't Citigroup's. Departing from its tradition of building homegrown systems, Citi is the biggest of 120 "white label partners" of Copenhagen-based Saxo Bank, says Kim Fournais, founder and co-CEO of the privately held Danish investment bank. Saxo has 10 billion kroner (\$1.9 billion) in assets and 1,400 employees, and serves retail and professional clients in 180 countries through partners or directly through downloadable multi-asset-class software or Web services. The partners slap their brand names on Saxo's platform "because this is the only thing we do, and we do it quite well," says Fournais, 42, who started a predecessor securities firm, Midas, in 1992. In 1995 he and co-CEO Lars Seier Christensen, 45, began exploring the Internet's potential to "level the playing field and create a global business." They obtained a bank charter and adopted the Saxo name in 2001. "Lars and I like to be out with clients and think about what we can do to revolutionize the industry," says Fournais. So in August they hired Eric Rylberg, then CEO of the 300,000-employee global cleaning services company ISS, to be chief executive director in charge of day-to-day management.

28. Diana Chan

CEO European Central Counterparty

Not ranked last year

Diana Chan admits to being "very immodest" when she interviewed for the CEO job at European Central Counterparty, the London company that New York's Depository Trust & Clearing Corp. set up last year to export its brand of clearing and settlement services to Europe, with the Turquoise multilateral trading facility (see Eli Lederman, No.19) as its first customer. Chan, who was then managing director of Citigroup's global transaction services business in London, boasted of her more than 20 years of clearing and settlement experience — with Bank of New York, Euroclear and J.P. Morgan & Co. as well as Citi — and commitment to lowering transaction costs. The latter resonated with DTCC leaders, who for years had been seeking an opportunity to prove that they could clear and settle trades for one fourth to one tenth the costs of Europe's multiple legacy clearing systems. "We have the most to offer in improving clearing in Europe," asserts Chan, 54, who took the EuroCCP post in November after ten years with Citi. "If the European agenda is to lower costs so Europe can compete with the U.S., this is the fastest route." Chan's journey to EuroCCP began at age two and a half, when her parents arranged for her and her grandmother to be smuggled out of China on a fishing boat to Hong Kong. She went on to get a social sciences degree from University of Hong Kong and an MBA from Harvard Business School.

29. James Hale III and Robert Huret

Founding Partners, FTVentures

Not ranked last year

Over ten years James Hale III and Robert Huret have attracted \$1.1 billion of committed capital — \$512 million of it for their third fund, which closed in April — from more than 50 limited partners. The latter are such world-class financial institutions as Bank of America Corp., Barclays Global Investors, Citigroup, Deutsche Bank and HSBC Holdings. Hale and Huret's firm, FTVentures, channels the capital into companies whose emerging technologies show promise of being bought by the investors. Although based in San Francisco and lacking a foreign office, FTVentures invests up to 20 percent of its funds outside the U.S., reflecting the international composition of the partnership and the fact that "this is a global business," says Huret, 63, who worked with Hale, 56, at Montgomery Securities before they started the 36-person firm. Though today's technology investing climate is hardly benign, FTVentures stresses discipline. "Nice-to-have" proposals don't get funded, but "gotta haves" in areas such as compliance and outsourcing do, says Hale. Portfolio companies include London software house Caplin Systems (see Paul Caplin, No. 15) and Freeborders, a San Francisco outsourcer with programmers in Shenzhen, China.

30. **Lee Hodgkinson**

CEO, SWX Europe

Not ranked last year

Until seven months ago SWX Europe was Virt-x, an affiliate of Zurich's SWX Swiss Exchange that had struggled earlier this decade to secure a niche among Europe's e-trading elite. Lee Hodgkinson, who has worked for London-based SWX Europe and its predecessor since 2000 and has been its CEO for two years, seized on the rebranding as a new beginning. Bidding to establish the exchange as "the home market for Swiss equities trading" and a world-class technology innovator, Hodgkinson announced a 15 percent fee reduction in April, followed by a further 30 percent cut this month. "We have invested in a new core technology platform, with all asset classes on it," says Hodgkinson, 35, who earlier in his career spent nearly ten years with the London Stock Exchange. He made his biggest splash in August by diving into the dark-pool business with SWX Swiss Block, offering anonymous order matching on New York-based Nyfix's Euro Millennium platform. Citigroup, Deutsche Bank and nine others were on the system at launch; Hodgkinson expects 25 to 30 to be on it by year-end. "We're making a difference and doing something meaningful versus the household names," he says.

The Online Finance 30 was compiled under the direction of U.S. Editor Jeffrey Kutler. Individual profiles were written by Kutler, Steven Brull, Allen T. Cheng, Tom Groenfeldt, Savita Iyer, Maureen Nevin Duffy, Rosalyn Retkwa, Julie Segal and Melanie Wold.