Foreign Exchange

FOREX GUIDE 2008

GLOBAL FINANCE

CONTENTS

THE DOLLAR ALSO RISES

These have been historic times, not only for the global financial system but for the foreign exchange market as well. The dollar, which had been falling almost ever since the euro was physically introduced in the form of coins and banknotes in 2002, suddenly turned significantly higher in early July of this year. This happened shortly after the US Treasury and the Federal Reserve made it clear that government-sponsored agencies Fannie Mae and Freddie Mac would not be allowed to fail. At about the same time, it was becoming evident that Europe and Japan were in recession, and neither was doing much to stimulate economic growth. Meanwhile, the decoupling theory crumbled, and the currencies of commodity-producing countries such as Australia, Canada and Brazil hit the skids.

While it may have seemed surreal for the greenback to end its multi-year decline against the euro at a time when the United States was at the epicenter of the perfect storm engulfing the financial markets, the dollar was perceived as a safe haven. There was nowhere else to hide, except in the low-yielding yen. The dollar remains the world's reserve currency of choice, and there are more dollars circulating outside of the United States than within its borders.

The FX market held up well throughout the events of the past year, but it no doubt will be affected by the changes sweeping the global financial services industry. Questions regarding credit, leverage and risk management remain unanswered. Meanwhile, technology will continue to evolve, feeding the already spectacular growth of online trading.

In this supplement, *Global Finance* examines the ongoing development of foreign exchange as a separate asset class, the new products and services that have been introduced in the past 12 months and efforts by banks' back offices to keep up with the pace of change and the growing number of trading tickets. We also profile some of the most important people in the industry in a "Who's Who" of foreign exchange.

With plans afoot to reform the financial system and strengthen cooperation between nations, attention is beginning to focus on calls for a new agreement to restructure the global monetary system. UK prime minister Gordon Brown says, "Around us we must build a new Bretton Woods—a new financial architecture for the years ahead." While a return to fixed exchange rates seems out of the question, a new age of global coordination to supervise cross-border flows of capital could bring major changes to the world of foreign exchange. The market has come to the attention of those in authority.

—*Gordon Platt*

FX GOES TO TOP OF CLASS

Its resilience during the recent financial turmoil demonstrates foreign exchange's emergence as a bona fide asset class.

By Gordon Platt

Foreign exchange trading activity has continued to expand rapidly throughout the global financial crisis, although the first signs of stress in the world's biggest market began to appear in early October, as banks became reluctant to supply liquidity as they hoarded cash. In addition, some algorithmic traders shut off their currency programs at the height of the crisis as trading became too volatile and risky.

All in all, the global credit crunch has failed to put a dent in foreign exchange trading activity. Amid the global market turmoil, FX has proven itself as a separate asset class that can generate alpha and continue to function smoothly when other markets are disrupted. Liquidity is not often an issue in a market that trades more than $3.2 trillion daily. Indeed, growing revenues from FX trading have helped some banks to weather the difficult financial and economic environment.

"Currencies appear to have become the preferred vehicles for risk-taking in financial markets," says David Woo, head of global FX strategy at Barclays Capital, based in London, the foreign exchange capital of the world. Evidence suggests that speculators may be running bigger FX positions than in other markets, he notes. "The size of these positions would suggest that they will end very well, or very badly," he says.

The dominant theme in all markets over the past few months has been risk aversion, and the dollar has been widely viewed as a safe-haven currency, with equity repatriations from emerging markets helping to finance the US current account, Woo says. Another theme is the unwinding of the carry trade, a strategy whereby hedge funds and other investors borrowed huge amounts of cheap yen to invest in higher-yielding securities outside of Japan.

Ironically, investors reacted to slowing global economic growth and the ongoing turmoil in the US financial sector in the third quarter of this year by reducing their exposure to emerging and European markets and gravitating toward what were viewed as the safest asset classes available, including US equity and bond funds and US treasury securities. This helped to push the dollar to its highest level in more than a year against the euro.

"During the past quarter, we've seen a marked shift away from the pattern of the past three years, as investors have moved out of emerging market and global equity and bond funds and back into US equity and bond funds," says Brad Durham, managing director of EPFR Global, a fund flow-tracking service of Cambridge, Massachusetts-based Emerging Portfolio Fund Research.

The shift was driven by several factors, including a classic flight to perceived safety, expectations of dollar strength and investors using exchange-traded funds (ETFs) to short the market, according to Durham. The US equity fund ETFs soaked up about $57 billion in net inflows during the third quarter, when fund performance was down about 10.8% for all US equity funds, he says.

The dollar rose 11.8% against the euro and 12% against the British pound in the third quarter, as more and more investors became convinced that the greenback's multi-year decline had ended.

"The third quarter of 2008 marks an important turning point," says Marc Chandler, global head of currency strategy at Brown Brothers Harriman, based in New York. "The financial crisis reached cataclysmic proportions," he says. "As the abyss drew closer, reluctant US officials were forced to act on a scale and in ways that heretofore have been unfathomable."

After a series of ad hoc steps in reaction to individual problems, the more systemic approach taken as the third quarter drew to a close may mark the beginning of the end of one of the most serious financial crises of modern capitalism, according to Chandler.

"The dollar's recovery was simply breathtaking," says Chandler. "In about seven weeks, it recouped everything it lost in the previous seven months, and more."

The main exception was the yen, which also benefited from the same forces that were lifting the dollar, including the acute de-leveraging, or debt-reduction process, which acted like a global margin call, and a greater appreciation of the economic headwinds that were hitting Europe and causing an outright contraction in the eurozone as a whole in the second quarter, Chandler says.

Chandler: The third quarter of 2008 proved a turning point for the dollar as the financial crisis intensified

In April of this year, 33 financial institutions active in the UK foreign exchange market participated in a semi-annual turnover survey for the Foreign Exchange Joint Standing Committee. The Bank of England chairs the committee, which comprises the senior staff from the banks and brokers of the London FX market. The survey found that combined average daily turnover was $1.82 trillion in the UK in April 2008, an increase of 54% from April 2007.

In the US, the Foreign Exchange Committee sponsored by the Federal Reserve Bank of New York conducted a similar survey in April 2008 of 30 leading financial institutions active in the North American foreign exchange market. The survey showed average daily volume of transactions increased by 15.7% overall compared with April 2007, to $715 billion. The increase in overall foreign exchange volume was driven by a 43.5% increase in spot transactions.

One reason that foreign exchange trading volumes have continued to expand amid this year's financial turmoil is the presence of continuous-linked settlement (CLS), which takes settlement risk out of the market, traders say. New York-based CLS Bank, which was established by the leading FX trading banks to settle transactions on a global basis, settled a one-day record 1,554,166 payment transactions with a gross value of $8.6 trillion on September 17, 2008.

"September's quarterly settlement date, combined with the current turbulence and volatility in the FX market, resulted in the previous volume record being exceeded by 35%," says Rob Close, chief executive of CLS Group and president and CEO of CLS Bank.

CLS Group, founded in 1997, began operating the CLS Bank in 2002. It was designed to remove the Herstatt risk of default by one party in a foreign exchange deal. Herstatt Bank, based in Cologne, Germany, went bankrupt on June 26, 1974, leaving a number of banks unable to receive payment for trades that had not yet settled when it closed its doors.

The CLS system proved its capabilities during the collapse of Lehman Brothers on September 15, when the vast majority of Lehman's FX trades were processed without a hitch. CLS Bank protects participants against loss of principal associated with FX trades. In the event of a failure by one party, the principal is immediately returned to the other party.

In addition to the 61 CLS Bank members, a total of 3,336 banks, brokers, funds and corporations are currently using the CLS Bank service. Some 17 currencies are currently eligible for CLS settlement.

The Federal Reserve announced on October 12 that it would provide unlimited dollars to the global financial system as part of efforts to normalize the credit markets. Analysts said the move would alleviate the shortage of dollars, which was one of the factors behind the greenback's recent strength.

"Flooding the market with currency [dollars] is never good for the exchange rate," says Chandler of Brown Brothers Harriman. "However, we continue to believe that the dollar's bull trend remains intact."

INNOVATION ABOUNDS

As foreign exchange establishes itself as a standalone asset class, the range of trading products available is expanding dramatically.

By Gordon Platt

Financial innovation is alive and well in the foreign exchange market, where new products continue to be introduced at a heady pace, despite the turmoil in global financial markets. New currency indexes and exchange-traded funds (ETFs), faster and cheaper technology and a widening audience with more sophisticated tools at their disposal are changing the face of foreign exchange.

Atlanta, Georgia-based IntercontinentalExchange (ICE), which operates global futures exchanges and over-the-counter markets, is testing the theory that bigger is better. Its ICE Futures US subsidiary this month will introduce million-currency-unit versions of its 12 existing foreign exchange futures contracts. The contracts, known as ICE Millions, will be 10 times the notional value of the existing ICE FX futures and options contracts.

"Institutional traders, hedge funds, commodity trading advisers and retail traders have been seeking greater efficiencies in terms of cost, transparency and straight-through processing in the FX markets," says Ray McKenzie, vice president and head of sales for ICE Futures US.

Barclays Capital, the investment banking division of London-based Barclays Bank, has been building on the concept of foreign exchange as an asset class, introducing the Intelligent Carry Index in 2006 and the FX Volatility indexes earlier this year. In September the bank rolled out the Barclays Adaptive FX Trend Index.

Trend strategies are one of the central sources of return in foreign exchange markets, says Andrew Kaufmann, head of FX structuring at Barclays Capital. "Like the FX Volatility indexes, the Barclays Adaptive Trend Index has low-to-negative correlation with fixed income, equities, commodities and other FX indexes, demonstrating the diversification benefits that it could bring to a traditional portfolio," he explains. While trend strategies have been popular with hedge funds, until now there have been few liquid, transparent and easily investable indexes that incorporate these strategies, he says. The new index is designed to follow trends during periods of low volatility, while adapting to mean reversion in periods of high volatility. Mean reversion is a tendency for prices to return over time to a long-run average value.

In July New York-based MSCI Barra launched the MSCI Global Currency indexes, which reflect the performance of both the currency and interest rate returns of the developed and emerging market currencies in regional or composite MSCI equity indexes. The weights of each currency are set to equal the relevant country weight in the corresponding MSCI equity index. Because of the way the indexes are constructed, institutional investors can use them to measure the total investment performance of foreign currencies within an equity portfolio tracking an MSCI equity index.

Standard & Poor's, another leading index provider, introduced currency indexes in March of this year that provide global investors with exposure to the Indian rupee and the Chinese yuan. Since these markets do not have liquid currency futures, the new indexes represent the performance of a rolling investment in three-month, non-deliverable forward currency (NDF) contracts. Short-term, cash-settled NDFs are generally issued by major banks and trade in the over-the-counter market. The only exchange of cash flows is for the difference between the NDF contract rate and the prevailing spot rate at the time of settlement. The new S&P indexes will enable a Chinese or Indian exporter that sells services to the US in dollars to hedge in an exchange-listed, transparent framework. The indexes are also the first-ever way for US retail investors to gain access to the currencies of China and India, according to S&P.

Bedminster, New Jersey-based Next Investments has developed a portfolio of currency-based ETFs, which in

Trading places: Foreign exchange has flourished even as investors have deserted other markets

less than three years, have attracted more than $4 billion in investor assets. The funds track the price of the euro, British pound, Canadian dollar, Japanese yen, Mexican peso, Swedish krona, Swiss franc and Australian dollar.

Rydex Investments has filed to introduce four new CurrencyShare funds for the Russian ruble, South African rand and Singapore dollar, with the Hong Kong dollar to be added at a later date. The funds are backed by currency held in accounts at JPMorgan Chase in London. The liquidity of the shares comes not only from trading on NYSE Arca but also from creation and redemption features. Shares can be created and redeemed in baskets of 50,000 shares by authorized participants.

Meanwhile, the world's leading foreign exchange platforms are experiencing continued fast growth in trading volumes. More and more major banks are moving into the online retail FX market. In March of this year Citi introduced CitiFX Pro, an online trading platform for active individual and small institutional traders, in the US market. Citi teamed with Saxo Bank, a Copenhagen-based online bank, to develop the new platform. It offers clients a range of global major and emerging market currencies with streaming prices and one-click trading.

"CitiFX Pro will provide institutional-level online trading services to a wide range of clients," Sanjay Madgavkar, global head of FX margin trading at Citi, said in a release announcing the platform. "The FX market is very attractive for active traders, and we believe we can provide a best-in-class platform and liquidity to this client base," he says.

In September this year Citi introduced CitiFX Pro in Hong Kong, the world's sixth-largest center for foreign exchange trading. Settlement is always in the customer's base currency, thereby eliminating the need to open bank accounts in each of the currencies being traded.

This year alone, more than 10 new exotic structures were added to the FX derivatives market and have become popular, says David Gershon, CEO of SuperDerivatives, a London-based provider of pricing benchmarks for derivatives. In June the company introduced its Next Generation FX trading platform, which was upgraded to help traders cope with increasingly volatile market conditions.

FX traders can now trade fourth-generation exotics as easily and efficiently as plain vanilla options, Gershon says. Fourth-generation (4G) currency options have structures that link various asset classes, such as currencies of commodity-producing countries.

Boston-based State Street, a leading provider of services to institutional investors, has developed an industry standard for online settlement instructions to reduce operational risk and reduce costs in foreign exchange trading. In May its State Street Global Markets research and trading arm acquired SSISearch, a provider of international payment processing and settlement instructions. SSISearch operates a central database for asset managers and other big investors with immediate access to verified standard settlement instructions via a secure website or State Street's Global Link network.

FXCM, a fast-growing retail FX trading platform, has contracted Triana NetLink to provide a retail-ticket netting service for its liquidity providers and prime brokers. The service will consolidate thousands of small retail tickets transacted on FXCM prior to processing in the dealer banks' back offices.

"The huge volume of ticket growth coming from our small retail customers has put real pressure on our dealer clients to process the tickets in their back office," says Drew Niv, CEO of FXCM. An average of 4 million tickets and $350 billion in notional value is traded on FXCM each month.

BEATING THE BOTTLENECKS

Dramatic growth in foreign exchange is highlighting tension in the trading systems.

By Anita Hawser

Volumes in the FX market are growing strongly. In April multibank FX trading portal FXall reported that its first-quarter total volume had increased 39% year-on-year to $4.1 trillion. CLS Bank, which was established in 2002 at the behest of international regulators to provide payment-versus-payment (PvP) settlement so that both legs of an FX transaction could be settled simultaneously, is seeing sharp growth, too. "The week Lehman filed for bankruptcy we settled FX trades for a value of $30 trillion, which is two-and-a-half times the United States' GDP," says Jonathan Butterfield, executive vice president for marketing and communication at CLS Bank. "Our record-volume day was on September 17, when we settled 1.5 million settlement instructions, with a value of more than $8.6 trillion. We are seeing significant interest from people that previously eschewed participation in CLS."

With CLS largely taking care of settlement risk for those that choose to use it, the rise in FX volumes has highlighted a number of other operational bottlenecks in the FX market. According to Z/Yen Financial Services Benchmarking, algorithmic trading in the FX markets has created large volumes of smaller trades, and the trading of FX as an asset class by hedge funds has given rise to the prime brokerage model, which has also contributed to massive volume growth.

"Algo trading breaks trades up into 100 individual trades, for example, which are executed across different venues," says Larry Ng, managing director for corporate development at treasury management and FX software vendor Wall Street Systems (WSS). "That means banks processing these trades are seeing a lot more ticket flow. It is a question of how fast banks can digest these trades."

Then there is the burgeoning retail FX trading market. "Trade processing in the retail space is growing at a rate of 15% a month, with the number of clients doubling due to the flight from equities and also volatility in the markets," observes Mike Thrower, global head of sales and marketing at FX software provider Cognotec.

Rising FX volumes and tickets are stretching banks' back-end systems. "For the banks, high-capacity, low-latency solutions are required to keep up with volume demands," writes Z/Yen in a white paper on volume growth in the FX market. But Butterfield of CLS maintains that capacity per se is not the issue for larger banks. "One of the senior vice presidents in treasury at a global bank said their biggest pain is that they have 20 trading platform interfaces to manage, they are not all the same, and some have latency challenges," he says. "This is one example of several that are a cost drag, particularly for smaller value trades."

According to Ng of WSS the large banks, which typically process between 100,000 and 400,000 FX trades a day at a cost of 35 cents to 80 cents a ticket, are in a much better position to address these bottlenecks, as the volumes of business they support at lower cost margins allow them to invest in faster trading technologies and more sophisticated back-office processing infrastructure. Yet, he says, the situation is markedly different for tier 2 and tier 3 banks: "Tier 2 FX settlement banks may only process 1,000 trades a day at a cost per trade of $10 to $25 so they are at a cost disadvantage to the tier 1 banks." To help the lower-tier banks get up to speed, WSS in conjunction with FX portal Currenex, Bloomberg, ICAP and Logicscope announced the launch of Electronic Settlement Network (ESN) in mid-October. ESN will provide an outsourced, on-demand post-trade FX processing hub.

At the annual Sibos conference in Vienna in September, there was talk that CLS may need to adopt pre-netting to help address FX bottlenecks. Others hinted at an FX exchange model, but these ideas were largely rejected. "We don't see current demand for the exchange model in FX," says Butterfield.

"WHO'S WHO" IN FOREIGN EXCHANGE 2008

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Hulya Kefeli was named executive vice president–international banking at Akbank in 2007. She has held various positions in the international banking division of the Istanbul-based bank since 1983. Kefeli has a bachelor's degree from the School of Business Administration and Engineering at Istanbul Technical University.

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Shayne Collins is in charge of sales for ANZ's foreign exchange and interest-rate risk-management products. Prior to joining ANZ, he performed a variety of roles at National Australia Bank (NAB), including managing interest-rate derivatives and FX sales teams. Collins also has experience in managing balance-sheet interest-rate risks in group treasury at ANZ.
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GERHARD SEEBACHER
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Bank of America this year combined its global rates, currencies and commodities businesses into one unit, known as GRCC, which is led by Gerhard Seebacher. Former head of global rates, Seebacher added currencies to his portfolio in October 2007. Before that, he was head of marketing for global derivatives products in Europe, the Middle East and North Africa. In August 2008 Bank of America announced six senior appointments to its foreign exchange platform.
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Managing director Ivan Ritossa relocated from Barclays Capital's London office to

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Wassim Khodr is chief dealer and managing director at Lebanon-based BLOM Bank, which he joined in 1981 after completing his master's degree in economics at the University of Nice in France. Khodr manages the treasury and foreign exchange division at BLOM Bank and also manages leveraged portfolios for clients, primarily in bonds and structured products.

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Jamie Thorsen is in charge of BMO Capital Markets' global foreign exchange operations, with desks in Montreal, Toronto, Chicago, New York and London. She also oversees the capital markets activities of the firm in China, where it has offices in Beijing, Guangzhou and Shanghai. She is a member of both the Federal Reserve Bank of New York's FX Committee and the Bank of Canada's FX Committee. BMO Capital Markets, the Bank of Montreal's investment and corporate banking arm, is a leader in the Canadian dollar foreign exchange market and trades more than 100 currency pairs.
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Firas Askari oversees Canadian dollar trading at BMO Capital Markets. He has global responsibility for the firm's Canadian dollar spot and forward business and heads the FX sales and trading group in London. Askari is a past president of the Financial Markets Association of Canada and has served on the Bank of Canada's FX Committee. He joined BMO in 1996 and assumed his current position in 2004.
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Marc Chandler joined Brown Brothers Harriman in October 2005 as global head of currency strategy. Previously he was the chief currency strategist for HSBC Bank USA and Mellon Bank. Chandler is an associate professor at New York University, where he has taught classes in international political economy since the early 1990s. He has been analyzing, writing about and commenting on the FX market for more than 20 years.
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Anil Prasad joined Citibank India in 1986 and relocated to New York in 1988 to work on the currency and metals options desk. In 1992 he was named head of the options business. Prasad moved to London to head Citi's interest rate options business in 1996. He also has worked in proprietary trading at NatWest Capital Markets beginning in 1997. Prasad rejoined Citi in 2000 as regional head of CEEMEA (Central & Eastern Europe, Middle East & Africa) trading and was named head of sales and trading for the region in 2003.
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Jeff Feig is responsible for all foreign exchange sales and trading in the developed markets at Citi. He joined the bank in 1989 as an associate on the FX desk in Toronto and has held several FX management positions in North America and Europe. He was named to his current position in 2004. Feig serves on both the Federal Reserve Bank of New York's FX Committee and the Bank of Canada's FX Committee. He was on the board of electronic broker EBS until its sale in 2007 to ICAP.
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Peter Cruddas founded London-based CMC Markets as the Currency Management Corporation in 1989. The company released its first Internet FX trading platform in 1996. Since then it has developed its trading software and expanded its products to include CFDs (contracts for difference) and spread betting on financial instruments. Cruddas, one of the richest men in the City of London, started working at Western Union at age 15. With his typing skills, he landed a job as a Telex operator at a bank and learned to trade.
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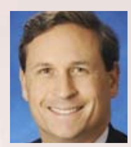

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Derek Sammann is managing director in charge of foreign exchange products at CME Group, formed by the 2007 merger of the Chicago Mercantile Exchange and Chicago Board of Trade. CME, which acquired the New York Mercantile Exchange this year for $8.3 billion, is the largest regulated FX marketplace in the world. The CME Globex platform is open 24 hours a day, and trades are instantly confirmed through more than 1,100 direct connections in 86 countries. Sammann previously was managing director and global head of FX options and structured FX products at Calyon Corporate and Investment Bank.
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Deutsche Bank is the leading provider of FX services to hedge funds and large corporations globally. Based in London, Zar Amrolia has been instrumental in transforming the options, structuring and FX sales areas at the bank. He was named global head of foreign exchange in September 2006. He joined Deutsche Bank in 1995 from Credit Suisse First Boston. From 2000 until 2004 he was co-head of foreign exchange at Goldman Sachs.
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Based in Athens, Stergios Pantostis is in charge of all interest rate and FX products at Eurobank EFG. He began his career as part of the proprietary trading team at Bank of America's treasury division in London. After completing his military service, he joined the Investment Bank of Greece as head of interest rate trading before joining Eurobank EFG in 2002.

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Wolfgang Koester is CEO of Fireapps, developer of the leading on-demand foreign exchange exposure management software. Prior to forming Fireapps, Koester worked for more than 13 years at GFTA Trendanalysen, a qualitative currency manager. Based in Scottsdale, Arizona, he holds a bachelor of science degree from Arizona State University and a master's degree from the Garvin School of International Management.
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Dori Levanoni is one of two First Quadrant partners overseeing the firm's global derivatives strategies. His responsibilities involve model development, risk management, risk allocation and portfolio optimization related to global derivatives. Levanoni served as manager of currency research, director and currency product strategist and co-director of global derivatives before being named a partner in 2006.
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David Gilmore is responsible for managing Foreign Exchange Analytics' fundamental coverage. Prior to founding the company in 1994, he spent seven years providing online commentary in New York and London with MCM CurrencyWatch and MMS International. He holds an MSc in economics from the London School of Economics and a BA in history from the University of California at Berkeley.
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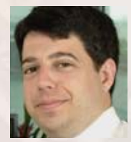
FXall is a leading provider of automated trading and workflow solutions for foreign exchange and treasury operations. Philip Weisberg took FXall from a concept in June 2000 to a live platform in May 2001. More than 700 institutions have since joined the platform. Before joining FXall Weisberg was a managing director at LabMorgan, JPMorgan Chase's e-finance incubator. Weisberg joined JPMorgan Chase in 1989 and held various positions in derivatives trading in New York and London before managing currency derivatives globally.



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FXCM
Drew Niv, CEO of FXCM, co-founded the foreign exchange brokerage in 1999. Since then, FXCM has grown to become one of the largest firms in online retail forex trading, with 100,000 accounts in 200 countries. Prior to founding FXCM he was director of marketing at MG Financial, which he helped transform from a relative unknown with fewer than 250 clients to an early industry leader with more than 1,000 clients in less than 18 months.

ANDREAS PUTZ
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Andreas Putz is managing director for FXCM Pro, an institutional services division of FXCM. He has greatly expanded the institutional agency desk at the New York-based firm. Prior to joining FXCM Pro in 2005, he headed FX emerging markets trading and sales at Calyon, based in London. Putz began his career at Deutsche Bank in New York.

JOHN TAYLOR
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FX CONCEPTS
John Taylor founded FX Concepts, an in-

vestment management company for foreign exchange assets, including currency overlays, in 1981. He specializes in the analysis of cyclicality of FX and interest rate markets. Taylor developed some of the first computer models to assist multinationals in managing foreign exchange risk. He previously worked as a vice president at Citibank, where he headed the bank's marketing and advisory services in FX. He began his career at Chemical Bank.
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MARK GALANT
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GAIN CAPITAL GROUP
Mark Galant founded GAIN Capital in 1999, and it has grown into one of the largest online foreign exchange companies. GAIN Capital operates the Forex.com system for individual investors and provides trading services for institutional and retail clients worldwide. Prior to forming the company, Galant helped build FNX into a leading provider of trading and risk management systems. Before that, he was global head of foreign exchange options trading at Credit Suisse.

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Frank Manganella is the global co-head of the fixed-income, foreign exchange and commodities group at Handelsbanken Capital Markets and is directly responsible for the New York and Singapore branches. He also is a member of the Foreign Exchange Committee of the Federal Reserve Bank of New York. He has worked in various capacities at Lehman Brothers, Bear Stearns, Credit Suisse and Dresdner Kleinwort Benson.
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ANDREW BROWN
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Andrew Brown is managing director and global head of foreign exchange at HSBC. Based in London, Brown is responsible for both developed and emerging market FX throughout the HSBC group. He joined the bank in 1996 and previously was head of foreign exchange for Europe and the Middle East. Brown is a member of the Bank of England's Foreign Exchange Joint Standing Committee.

ALAN CLARKE
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Alan Clarke is global head of e-FX at HSBC, based in London. Emerging markets are a key focus of HSBC, and the bank is building on this by adding new currencies, improving pricing and increasing auto-execution limits in order to improve client access. Clarke worked closely with FXall to enable HSBCfix for FXall's order-management system, known as Quick OMS.
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JOHN NIXON
executive director, and CEO of ICAP Electronic Broking
ICAP
John Nixon was named an executive director of ICAP in May 2008. ICAP is a leading trading venue for spot and forward FX, currency options and non-deliverable forwards. Nixon also is CEO of ICAP Electronic Broking and is responsible for strategic acquisitions as well as ICAP's information business. Previously he was CEO of Tullett & Tokyo Forex, now part of Tullett Prebon, where he worked from 1978 to 1997 in Toronto, London and New York. Approximately $216 billion in spot FX is traded over ICAP's EBS platform in more than 40 countries each day.

DAVID RUTTER
deputy CEO of ICAP Electronic Broking
ICAP
David Rutter is deputy chief executive of ICAP Electronic Broking. Prior to joining ICAP he was a significant shareholder in the Prebon group of companies. Rutter served in various capacities at Prebon, beginning in 1988. He was global chief executive of Prebon Energy and managing director of the Americas for Prebon Yamane. He has served on several corporate boards in the e-commerce field.

TODD CROSLAND
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Todd Crosland, chairman and president of Interbank FX, founded the firm in 2004 in Salt Lake City, Utah. With 25,000 customers in 140 countries, IBFX offers individual traders, fund managers and institutional customers proprietary technology to trade spot foreign exchange online and via wireless devices. Customers can execute trades directly from a streaming quote feed from multiple banks. Crosland has a bachelor's degree in business finance from the University of Utah.

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Alan Ruskin joined RBS Greenwich Capital, a subsidiary of Royal Bank of Scotland, in January 2006. He has been a financial economist and strategist for the past 25 years. He was research director

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SIMON WILSON-TAYLOR
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Simon Wilson-Taylor is in charge of State Street's Global Link e-finance platform, which he helped create in 1995, followed by the industry's first multi-bank FX platform, FX Connect. He was instrumental in State Street's acquisition in March 2007 of Currenex, an online foreign exchange and metals trading platform. Wilson-Taylor's finance career started in 1975 at Canadian Imperial Bank of Commerce in Toronto. He joined State Street in London in 1992 to build its currency overlay business after doing the same for Midland Montagu.
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FABIAN SHEY
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Fabian Shey is jointly responsible for trading and distribution of Group of 10 and emerging market currencies, short-term interest rates, foreign exchange derivatives and structuring, and FX prime brokerage at UBS Investment Bank. Shey has led various areas within FX at UBS since 2000. Prior to that, he was global head of FX exotic options for SBC Warburg, which later became UBS Warburg. Shey holds an MBA in finance from the University of Chicago and a BS in economics from Miami University. After being based in the UK for 11 years, he now lives in Switzerland.

RETO STADELMANN
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Reto Stadelmann is global co-head of the foreign exchange and money market area at UBS Investment Bank. He joined Union Bank of Switzerland in 1986 and two years later became responsible for Swiss franc trading as an FX forwards trader in London. Since then he has held many positions at the bank, including global head of FX forwards. In 1998 Stadelmann was named head of short-term interest rate products for the Asia-Pacific region at UBS in Singapore and later became global head of cash and collateral trading in Zurich. He holds a law degree from the University of Zurich.

DANIEL O'SULLIVAN
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UNICREDIT
Daniel O'Sullivan, based in London, was named global head of foreign exchange trading at UniCredit in October 2007. He previously was co-head of FX Americas at HSBC Bank USA, which he joined in 2003 as a managing director in charge of the spot and forward FX business. He also traded FX at Credit Suisse First Boston and Goldman Sachs. O'Sullivan is a graduate of Harvard University.

MARK KRITZMAN
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Mark Kritzman is president and CEO of Windham Capital Management, based in Cambridge, Massachusetts. He also serves as a senior partner of State Street Associates and teaches a financial engineering course at MIT's Sloan School. He has an MBA with distinction from New York University and a CFA designation. Windham Capital Management has more than $40 billion of assets under management and a thriving investment technology business.
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