FTfm Foreign Exchange

Market fixing inquiry
Investors increasingly aware of regulators' moves
PAGE 14

Automated algorithms offer greater choice, but risks remain

Investment banks are competing to offer the best packages in an effort to win clients

THOMAS HALE

Nick Lowndes

When Axa Investment Managers decided to update its foreign exchange trading platform – which turns over €220bn annually – the company turned to algorithms.

Intelligent automated systems can execute trading decisions, cutting costs and boosting anonymity. Moreover, they are transforming the buyside's relationship with banks.

"In the old days, we used to call up banks over the phone to get a price," says Lee Sanders, head of FX execution at the company. "Now – thanks to new electronic systems – we have a rapidly expanding universe of choice when it comes to FX trading, including intelligent algorithms."

In the past decade, electronic pricing – which lets investors quickly choose from a vast range of prices from different banks and market makers – has revolutionised foreign exchange markets and lowered costs.

Also, self-learning algorithms – which learn from data – are further changing how clients can access the world's largest financial market.

Algorithms have gradually become a product that traders need to offer, says James Taylor, head of electronic sales for macro products at JPMorgan. "Whether you offered them or not wouldn't have had an impact on business with big institutional clients five years ago – but now, if you don't have a high-quality algorithm you'll lose out," he says.

Take the case of an asset manager who agrees a fixed price in euros for $100m. The manager might lose money if the price rises in response to the order and the market moves against the trade. Algorithms can help traders to "massage" the market – by buying and selling in such a way as to minimise any market impact.

As well as providing fast responses to events, which can save clients' money on trades, using a bank's algorithm makes it easier to stay anonymous. "With an algorithm you get 100 per cent anonymity – no one can see it's you," says Mr Sanders.

Algorithms also provide greater transparency and investment banks are competing to provide the best algorithmic packages, including "post transaction analysis", which allows trades to be scrutinised in minute detail.

Different clients trade foreign exchange for different reasons. Corporate treasuries or investors with foreign exchange exposure might need to hedge against their risk over a long period. On the other hand, hedge funds and high-risk investors might aim to make huge profits on volatility in currency markets. So different algorithmic software has been developed to meet these demands.

> 'The latest algorithms can detect turbulence in the market and alter their route to fly around it'

BNP Paribas, for example, has "adaptive" algorithms that investors can use for a fee. An algorithm named Chameleon lets clients take a passive approach to a trade over a longer period of time. Viper, at the other end of BNP's spectrum, seeks to find the best prices over a shorter time, and may take on more risk.

Increased variety reflects more subtle technology. Asif Razaq, head of FX algorithmic execution at BNP Paribas, draws an analogy with autopilots. "Previously, algorithms would blindly go down any route to get you from A to B. The latest algorithms can detect turbulence in the market and alter their route to fly around it."

Human control does not have to be sacrificed. "The client always has the option to switch off autopilot and fly the plane . . . " Mr Razaq adds.

"Increasingly investment banks are seen as vendors, and buyside clients as buyers," says Amin Rajan, chief executive of Create-Research, a consultancy advising asset managers.

"Things are now less cosy and highly transactional – buyside clients are simply moving from one vendor to another, using company X's algorithms, then company Y's algorithms," Mr Rajan says.

While automated products provide foreign exchange investors with clear benefits, risks remain.

"The obvious risk is that clients don't make the right decision about when to use an algorithm," Mr Razaq says. "If you use an algorithm ahead of a major scheduled market announcement, such as US employment data, clients need to be aware that there could be significant market reaction which could work for or against them."

> 'Algorithms might create a liquidity mirage – where assets seem more liquid than they actually are'

Setting up an electronic system that can easily integrate tools for foreign exchange trading is expensive for asset managers while the changing relationship between banks and the buyside presents risks of its own – the monetisation of algorithms may have implications for traditional notions of "loyalty", says Mr Rajan.

In addition, a foreign exchange trading environment increasingly dominated by algorithms may affect how market norms – such as liquidity or volatility – are perceived.

"All of these algorithms are finding liquidity with other algorithms," says Mr Sanders. "There is a collage of algorithmic solutions, which might create a liquidity mirage – where assets seem more liquid than they actually are."

For investors, the rise of algorithms poses one final risk paradoxically tied to their biggest selling point: choice.

"As an investor you want the choice, but with too much choice you might um and ah . . . In the end, you always need a human being to make the final decision," Mr Sanders says.

FOREIGN EXCHANGE

Market fixing inquiry gathers pace

MALPRACTICE INVESTIGATION

Investors are becoming increasingly alert to every step regulators take

MADISON MARRIAGE

Manipulation, fixing and rigging are words investors with significant foreign exchange exposure have become familiar with in the past year as investigations into alleged malpractice in the forex market by some of the world's leading banks gather pace.

No regulatory authority has taken action against the banks that have been drawn into the investigations, which includes UBS, Credit Suisse and Barclays in Europe and JPMorgan and Citigroup in the US.

Nonetheless, investors are increasingly alert to every step regulators take, as their chances of proving they suffered losses as a result of currency manipulation hinge on the evidence regulators uncover and reveal.

David Kovel, partner at US law firm Kirby Mclnerney, says: "What is necessary to proving actual damages is to understand the particulars of the manipulations, such as when the currencies were manipulated up or down and to what degree.

Drawn in: State Street's headquarters in Boston Massachusetts – Bloomberg

"Those particulars will mostly remain hidden until plaintiffs are given access to the banks' internal records, there are settlements between the banks and the regulators with disclosures of this sort, or a sophisticated economic and statistical analysis manages to ferret the information out."

Investors already taking action include the $4.5bn City of Philadelphia pension scheme, the $3.4bn State Boston Retirement System and the $1.9bn Oklahoma Firefighters Pension and Retirement System, which filed a joint lawsuit against 12 banks in March. The case may take two to three years to come to trial, say lawyers familiar with it.

In Europe, Dutch pension fund PGGM says it is still deciding whether to make a claim. The UK's National Association of Pension Funds says it will "monitor the issue closely".

A law firm, which asked not to be named, says it has "raised the FX issue with a number of parties [including] pension funds and other institutional asset managers . . . It is clear some have been doing their own analysis internally . . . Market participants are interested but generally waiting for the regulatory findings."

The good news for those considering or taking action is that investigations seem to have picked up steam. In late September it emerged that the UK's Financial Conduct Authority is close to finalising a settlement with six global banks over manipulation of the $5.3tn-a-day forex market, with the collective fine expected to amount to about £1.5bn.

Last month the US Department of Justice also said it was hoping to bring charges over forex rigging in the next few months. Meanwhile, BaFin, the German regulator, said in June it had found "concrete evidence" that attempted forex market manipulation had taken place. The Swiss regulator made similar noises in March.

Simon Hart, a partner at law firm RPC, says: "The outcome of these investigations will be the turning point for civil claims in England."

US custody bank State Street became the latest group to be drawn into the investigations after it emerged last month that it had asked its head of foreign exchange trading, Simon Pepper, to stay away from the office following an internal review of market manipulation allegations. The FT was unable to reach Mr Pepper for a comment.

Although the banks involved are generally thought to be facing collective fines from global authorities similar to those issued over the Libor rigging scandal of between $5bn-$10bn, some estimates suggest the penalties could be up to six times higher.

Regulatory penalties appear increasingly likely, but "there may be some procedural skirmishing in the US where the banks try to knock out the claims [made by investors] on legal grounds alone", warns Mr Hart.

But Dan Brockett, a partner at Quinn Emanuel, one of the US law firms involved in the pension funds' suit, says: "Given the growing evidence of wrongdoing by the banks, it is likely at least some, if not all, of the claims by investors will proceed past the motion to dismiss phase [and] the banks will be forced to open themselves up to discovery. Discovery will in turn increase the pressure on these institutions."

Mr Hart says yet more legal battle lines could depend on the outcome of the European Commission's examination of whether the banks have broken EU antitrust laws. "The competition angle is particularly interesting for claimants as it allows them to claim for so-called umbrella damages," he says.

This means banks found to have broken competition laws by participating in a cartel could also face claims from investors that carried out FX transactions with banks that were not involved in the cartel, but raised their prices as a result of the cartel's existence. "There is potentially large exposure here," says Mr Kovel.

Legal counsel: David Kovel

Corporates & Markets

Because there's more to FX than just speed, trust our FX trading to keep you ahead

Our expertise – your edge

We know you need fast FX trading. But to perform at your best, you also need an FX partner who is reliable, innovative and award-winning.*

Commerzbank has built a reputation for trusted FX liquidity, rapid execution and intelligent products. We deliver liquidity and advice across the FX spectrum, including trading, quantitative solutions and structuring. And with both voice and e-trading available, we can help you to execute your FX strategy how you want to, when you want to.

www.commerzbank.com/fx ficsales@commerzbank.com

* Best FX Liquidity Provider – World Finance Excellence Awards 2013

COMMERZBANK
The bank at your side

FOREIGN EXCHANGE

Bitcoin poised to shake up government-run currencies

PAYMENT SYSTEMS

Practical issues may reshape landscape in the longer term

BRIAN BOLLEN

Could Bitcoin and other cryptocurrencies ever pose a realistic threat to established currencies and payment processes? Among professionals, the question generates a range of responses, most of which suggest there is enough room for all types of payment methods for now. But philosophical and practical issues could reshape the landscape over the longer term.

David Berger, founder and chief executive officer of the Digital Currency Council, an independent member organisation launched last month, says different types of exchange have different uses. "So long as there is a use case for established fiat currencies [money backed by governments], they will exist alongside digital currencies," he says. But, he adds, the more uses digital currencies have, the more likely it is they will become pervasive.

In simple terms, if someone can purchase more goods or services more efficiently with Bitcoin than a fiat currency, then it makes sense for consumers to use it. "I expect there will be a tipping point, but for now we are experiencing steady growth in its acceptance," he says. "I can already buy the FT with Bitcoin. My corner store accepts Bitcoin and sells the FT."

But Simon Smith, chief economist at FxPro, a foreign exchange trading platform, questions how widespread that acceptance is. "I wonder if anyone has tried to survive a week on Bitcoins?" he says. "You might end up homeless and starving by Tuesday lunchtime, even Monday. You'd need to find places that would accept Bitcoins in return for food and lodgings and I think you'd struggle." Unless, of course, you were to eat, drink and bed down at The Old Shoreditch Station café bar, home of what is widely thought to be the UK's first Bitcoin ATM.

Philosophically the question boils down to "who do you trust?", argues Mr Berger. Do people trust currency-issuing governments – that over centuries have often abused their own monetary systems – or do they trust a decentralised, transparent system whose participants are aligned with their own interests? "Bitcoin is based on certainty, based on math [sic] and with complete transparency," he says. "Most people will prefer this to a black box Federal Reserve."

A significant infrastructure is being built around digital currencies, though much more is still needed, he says. More than 100,000 merchants accept Bitcoin today, according to www.bitcoin.com. The leading merchant service provider, BitPay, claims to be adding about 1,000 merchants a week and other merchant service providers are said to be adding even more. PayPal has said it would enable the use of Bitcoin for digital goods.

Existing payment platforms will all come around to Bitcoin sooner or later, insists Mr Berger. History shows that incumbents are slow to adopt, and that if they are too slow, they will go the way of video rental stores.

James Wood-Collins, chief executive of Record Currency Management, answers the question by going back to basic economics. He points to the three classic functions of money: to act as a unit of account, a store of value and a medium of exchange.

"I don't see Bitcoin being one or two for institutional assets at any time in the near future as they so obviously demand a sovereign fiat currency," he says.

In his book *Money: The Unauthorised Biography*, Felix Martin, co-manager of the Lion Asset Management bond fund, says that although the technology is 21st century, cryptocurrencies are centuries old.

As he puts it, sovereign governments are petrified because an invention that allows people to make payments across borders without leaving a trace in the official monetary system is spreading. Few understand its workings, yet it is backed by leading entrepreneurs. However, this was also precisely what happened during a much earlier episode of monetary innovation: the birth of modern banking in 16th-century Europe.

Despite doubts among many bankers, Bitcoin and other cryptocurrencies may yet revolutionise finance, Mr Martin says: "In fact, if Bitcoin's distributed, public ledger payments technology is as efficient, scalable, and secure as its advocates claim, I would be amazed if it did not seriously disrupt the antediluvian payments systems currently operated by banks."

Alternatives allow money transfers without borders

Digital currencies should be viewed as alternative currencies rather than possible replacements, says Simon Hamblin, chief executive officer at Netagio, a platform for people who want to trade Bitcoin, gold and sterling. A UK government short paper (PostNote Number 475 August 2014) agrees, and the number of retailers who accept Bitcoin is growing, Mr Hamblin says.

One advantage of Bitcoin, he says, is the ability to transfer money across borders instantly without the high banking fees.

Brian Bollen

CONVERTIBLE BONDS WITH PARVEST®

Give your investment some uplift.

A BROAD SAIL

Parvest offers you a wide and innovative range of 4 funds covering the major markets:
- Parvest Convertible Bond Europe®
- Parvest Convertible Bond Europe Small Cap®
- Parvest Convertible Bond Asia®
- Parvest Convertible Bond World®

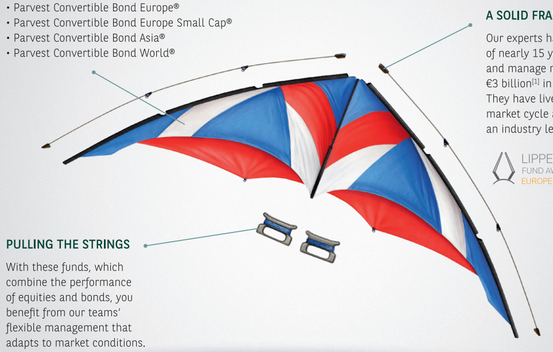
A SOLID FRAME

Our experts have an average of nearly 15 years' experience and manage more than €3 billion[1] in convertible bonds. They have lived through every market cycle and made Parvest an industry leader[2].

LIPPER FUND AWARDS 2013 EUROPE

PULLING THE STRINGS

With these funds, which combine the performance of equities and bonds, you benefit from our teams' flexible management that adapts to market conditions.



PARVEST
LOOK NO FURTHER

TBWA\CORPORATE - © Jesse Kyllanen

The value of investments and the income they generate may go down as well as up and it is possible that investors will not recover their initial investment. Past performance is not a guide to future performance. [1] Source BNPP IP as at 30/06/2014. [2] In 2013, the Parvest Convertible Bond Europe Small Cap® fund was recognised by the Lipper Awards for the 3- and 5-year segments. Lipper ratings and rankings do not constitute investment advice or an offer to sell or the solicitation of an offer to buy. Lipper ratings and rankings should be used for information purposes only. © Thomson Reuters 2014. All rights reserved.

BNP PARIBAS INVESTMENT PARTNERS | The asset manager for a changing world

www.parvest.com
@bnppip_com

The above funds are sub-funds of the PARVEST UCITS IV compliant SICAV registered under the Luxembourg law. This is an advertisement issued by BNP Paribas Asset Management S.A.S. (BNPP AM)* a member of BNP Paribas Investment Partners (BNPP IP)**. Investors considering subscribing for the financial instruments should read the most recent prospectus and KIID available from their local BNPP IP correspondents. Opinions included in this advertisement constitute the judgment of BNPP AM at the time specified and may be subject to change without notice. *BNPP AM is an investment manager authorised by the AMF under number GP 96-02, with its registered office at 1, boulevard Haussmann 75009 Paris, France, RCS Paris 319 378 832. **BNP Paribas Investment Partners (BNPP IP) is the global brand name of the BNP Paribas group's asset management activities. For further information, please contact your locally licensed Investment Partners.

Download on the App Store
Only for iPad

Hopes rise of a revival for active currency funds

Cash control: tighter monetary policy in the US is helping to revive carry and momentum strategies — Getty

INVESTMENT STRATEGIES

Interest is being rekindled, but can profits reach halcyon pre-crisis levels?

STEVE JOHNSON

To say that active currency management has fallen out of favour would seem to be something of an understatement.

Figures are hard to come by, but the travails of London-listed Record, one of the largest specialist currency managers, are instructive

Back in the balmy days of March 2008, Record had $29bn of active, return-seeking money on its books, but managed just $18.3bn in its low-margin "passive hedging" operation, which institutional investors and companies use to reduce the risk from their holdings of foreign assets.

As of June 30 this year, this passive hedging book had ballooned to $40.2bn, but the assets managed by Record's renamed "currency for return" service had dwindled to just $2.5bn. In the process, its share price had slumped from a high of 165p to just 35p.

"We lost a lot of assets through redemptions and overwhelmingly our clients were redeeming out of the asset class, not going to other managers. I don't think any return-seeking currency manager had a good experience in 2009-10," admits James Wood-Collins, chief executive of Record.

"We have not fully recovered to the level of acceptance [that foreign exchange can be a source of systemic returns] that we saw five years ago."

If anything, the fallout among hedge funds has been worse still. New York-based FX Concepts, once the world's largest currency-focused hedge fund manager with assets of $14bn, returned all its assets and filed for bankruptcy protection in October 2013.

Brevan Howard and QFS Asset Management are among a number of other houses to have shut their currency funds amid a sea of red ink across the sector.

The Bank for International Settlements estimates assets run by quantitative currency funds fell from $35bn at the start of 2008 to just $6bn last year. The simple truth is that the most common systematic trading strategies have not worked since the onset of the financial crisis.

The carry trade – which involves taking long positions in currencies backed by high interest rates and shorting low-yielding currencies – has been hammered by central banks' co-ordinated responses to the financial crisis, which have crushed interest rate differentials.

According to Record, a typical carry trade lost 16.2 per cent during 2008-09, worse still than the 15.9 per cent reversal triggered by the 1985 Plaza Accord, a multinational agreement to weaken the dollar, and the 11 per cent loss in 1992-93 driven by sterling's exit from the European exchange rate mechanism. These losses were particularly painful for highly leveraged investors.

As Mr Wood-Collins points out, the carry trade also became an element of a broad "risk-on" strategy, increasing its correlation with other risk assets and undermining the hoped-for uncorrelated returns that had drawn many into the strategy in the first place.

The other dominant strategy, momentum or trend investing, also suffered as a result of a suppression of FX volatility.

"The low-volatility environment pervading the FX market has depressed currency moves and likely had a deleterious impact on active currency manager performance," says Martin Arnold, research analyst at ETF Securities, which runs a number of currency-related exchange traded products.

But – with tentative signs the tide may be turning – Record trumpeted a "re-emergence of interest" in its currency-for-return strategies in July's first-quarter trading update.

Mr Wood-Collins says the carry and momentum strategies have begun to splutter back into life, driven partly by Japan's efforts to weaken the yen, then, from May 2013 onwards, signs that the US Federal Reserve is slowly edging towards tighter monetary policy, even as the European Central Bank is still in easing mode.

Mr Wood-Collins says: "People realised this convergent central bank policy couldn't continue forever. That has become increasingly clear over the past year. We are moving to a more familiar world where central banks are pursuing policies that are driven by domestic objectives."

He says that, in normal circumstances, carry trade strategies make about half of their gains from movements in the spot FX market, and half from the underlying interest rate differentials. However, in the early stages of a carry rally, gains are skewed 80 per cent towards spot movements as the market starts to price in expected interest rate moves, meaning the carry trade can be profitable even well in advance of actual monetary policy changes.

$35bn

The estimated value of assets run by quantitative currency funds in 2008, which had fallen to $6bn last year

Mr Wood-Collins says: "We have had investors say 'I don't want to come back while you can't get a cigarette paper between interest rates'," he says. "They will miss a lot of the return."

Nevertheless, the pain of the past few years means those investors that are returning to the fray are often demanding simpler, more transparent products with "more rational return expectations, lower levels of leverage and certainly lower fees".

"For highly leveraged and opaque strategies there will be issues of trust and confidence," Mr Wood-Collins adds.

Matthew Roberts, senior investment consultant at Towers Watson, also notes a pick-up in the carry trade in the past 12 months.

Yet he argues that specialist active currency management should not be a big part of his clients' portfolios, given that they can access the FX market through bond funds and broad hedge fund strategies such as global macro funds and trend-following commodity trading advisers.

Moreover, Towers Watson classes strategies such as the carry trade and "value" (going long currencies that are cheap on a purchasing power parity basis and shorting the expensive ones) as "alternative betas" that tap systematic anomalies in the market.

As a result, Mr Roberts says access to such strategies "should be at an appropriate cost and very transparent", which means 1 per cent a year with no performance fee at most and "ideally mid double-digit basis points and below", rather than the 1-2 per cent with a 20 per cent performance fee once charged by many FX hedge funds.

"We are engaging with the industry to get these products created," Mr Roberts adds, suggesting the active FX industry may yet see a revival in assets under management, but that it may never again reap the profits of its golden period in the halcyon days before the crash.

FOREIGN EXCHANGE

Industry evolves as G20 regulations take effect

COMMENT

Phil Weisburg

It is not often industries experience a complete restructure, but that is exactly what is happening now in foreign exchange.

A combination of public scrutiny and regulation is shifting longstanding industry dynamics and driving market participants to rethink their approach to forex.

Historically, currency trading has not taken place on organised exchanges but on a bilateral basis between a liquidity provider, typically a bank, and a liquidity consumer. Using this so-called over-the-counter (OTC) trading method, the forex market has become one of the most efficient, largest and liquid in the world.

Not all OTC asset classes work quite so well, however, and during the 2008 financial crisis the system was put to the test and gaps emerged. Reforms subsequently mandated by leaders of the G20 economies introduced centralised trading to create greater transparency and monitor the build-up of risk.

The market has not wholly escaped such reforms and to fully understand what is in and out of regulatory scope, it is important to understand forex products. For hedging purposes, there are simple swaps or forwards that lock in a rate at which to buy or sell at a future date, as well as more complex products that can be structured to pay out at pre-arranged levels.

But in many emerging markets, governments still exercise strict exchange controls that mean the currency is not deliverable and cannot be traded. In such cases, non-deliverable forwards (NDFs) are used, whereby the difference between the agreed rate and the spot rate at settlement date is cash settled.

Phil Weisburg: rules see shift in global trading behaviour

Recognising that the market continued to operate without incident during the crisis, US regulators exempted forex spot, swaps and forwards from the most onerous requirements of the Dodd-Frank Act, but NDFs and forex options were included in the regulation, thus creating challenges for banks and buyside firms.

Under the Act, NDFs will be traded on swap execution facilities (Sefs), a new type of trading venue that has the potential to bring greater transparency than traditional bilateral channels, with multiple participants bidding for every trade. The buyside will now need access to Sef-enabled NDF trading to satisfy their clearing and reporting obligations.

Europe's rules on FX trading and clearing are still to be determined, with mandatory clearing and trading of FX derivatives likely to be introduced at the end of 2016 and the beginning of 2017 respectively. As a result, the impact of regulation in the market can be seen most markedly among those trading with US counterparts.

While the advancement of forex regulation in the US differs to European reform, the changes in market dynamics have led to a shift in global trading behaviour.

Exceptionally low volatility in major currency pairs since mid-2013 has led firms that trade forex for profit to scale back activities, leading to reduced trading volume. Although volatility will return, greater focus on compliance and risk means banks are looking at new opportunities, with some now matching buyers and sellers on an agency basis rather than taking the other side of the trade as principal market maker.

The reallocation of bank capital away from principal risk-taking will affect bank clients such as asset managers, who must now assume more of that risk themselves. As a result they will need to directly access a range of pricing sources in advance of execution, and analyse and report on execution quality post-trade.

Moreover, when it comes to technology investment, banks are now less interested in investing in their own offerings and are leveraging industry-standard technology offered by platform providers to efficiently and cost-effectively satisfy evolving regulatory requirements while meeting their own business goals.

Five years on from the G20 summit we are beginning to see the practical effects of the rule changes. The industry will continue to evolve as market participants reposition themselves in the face of continued low volatility and independent trading platforms respond by providing new solutions to the reconfigured foreign exchange landscape.

Assessing the impact of such regulatory and market dynamics on the industry will be a big theme until the end of this year and beyond.

The writer is global head of foreign exchange, Thomson Reuters

WHEN ACTIVE RISK MANAGEMENT IMPROVES PERFORMANCE

ABSOLUTE RETURN MULTI ASSET FUNDS

• FLEXIBLE & REACTIVE INVESTMENT MANAGEMENT •

The Absolute Return Multi Assets 8 fund seeks to return money market yield between +6 to 10% p.a. over a 3 to 5 year investment horizon while maintaining an average annualized volatility below 8%. In doing so, the fund is exposed to various asset classes based on their risk profile and adapt its tactical allocation in order to gain exposure to the best-performing asset classes at any given point of the economic cycle.

ISIN code	LU0812609666 (I EUR) / LU1009070381 (B GBP)
Bloomberg ticker	LARM8IE LX (I EUR) / LARBGBP LX (B GBP)
1 Year return (data as of 30 June 2014)	10.29% (I EUR)
1 Year volatility (data as of 30 June 2014)	5.74% (I EUR)

Discover more at lyxorfunds.com or email contact@lyxor.com

MAIN RISKS. Capital is at risk. The investments of the Sub-Fund are subject to market fluctuations and there is a risk for investors to eventually recover an amount lower than the one they have invested. Lyxor Asset Management recommends that investors read carefully the "risk factors" section of the fund's Key Investor Information Document. The documentation Key Investor Information Document is available on the websites of Lyxor (www.lyxorfunds.com) and the AMF (www.amf-france.org). We recommend you to refer to the « risk factors » section of the prospectus of the Fund (the "Prospectus"). Investing in the Sub-Fund carries with it a degree of risk including, but not limited to the following risks: Market Risk, Equity Risk, Counterparty Risk, Liquidity Risk.

ASSET MANAGEMENT BY LYXOR
SOCIETE GENERALE GROUP

THE POWER TO PERFORM IN ANY MARKET

ETFS & INDEXING • ALTERNATIVE INVESTMENTS • STRUCTURED INVESTMENTS • ACTIVE QUANTITATIVE & SPECIALIZED INVESTMENTS

This communication is for professional clients only and is not directed at retail clients.
This product complies with the UCITS Directive (2009/65/EC). It is a sub-fund of a Luxembourg SICAV authorised by the Commission de surveillance du secteur financier (CSSF) in Luxembourg and registered for distribution in the UK. The Absolute Return Multi Assets 8 fund is a compartment of the Luxembourg SICAV Lyxor Quantitative Fund. Lyxor AM recommends that investors read carefully the "investment risks" section of the product's documentation (prospectus and KIID). The prospectus and KIID in English are available free of charge on www.lyxorfunds.com, upon request to client-services@lyxor.com. Lyxor Asset Management (Lyxor AM), société par actions simplifiée having its registered office at Tours Société Générale, 17 cours Valmy, 92800 Puteaux (France), 418 862 215 RCS Nanterre, is authorized and regulated by the Autorité des marchés financiers (AMF) under the UCITS Directive and the AIFM Directive (2011/31/EU). Lyxor AM is represented in the UK by Lyxor Asset Management UK LLP, which is authorised and regulated by the Financial Conduct Authority in the UK under Registration Number 435658.