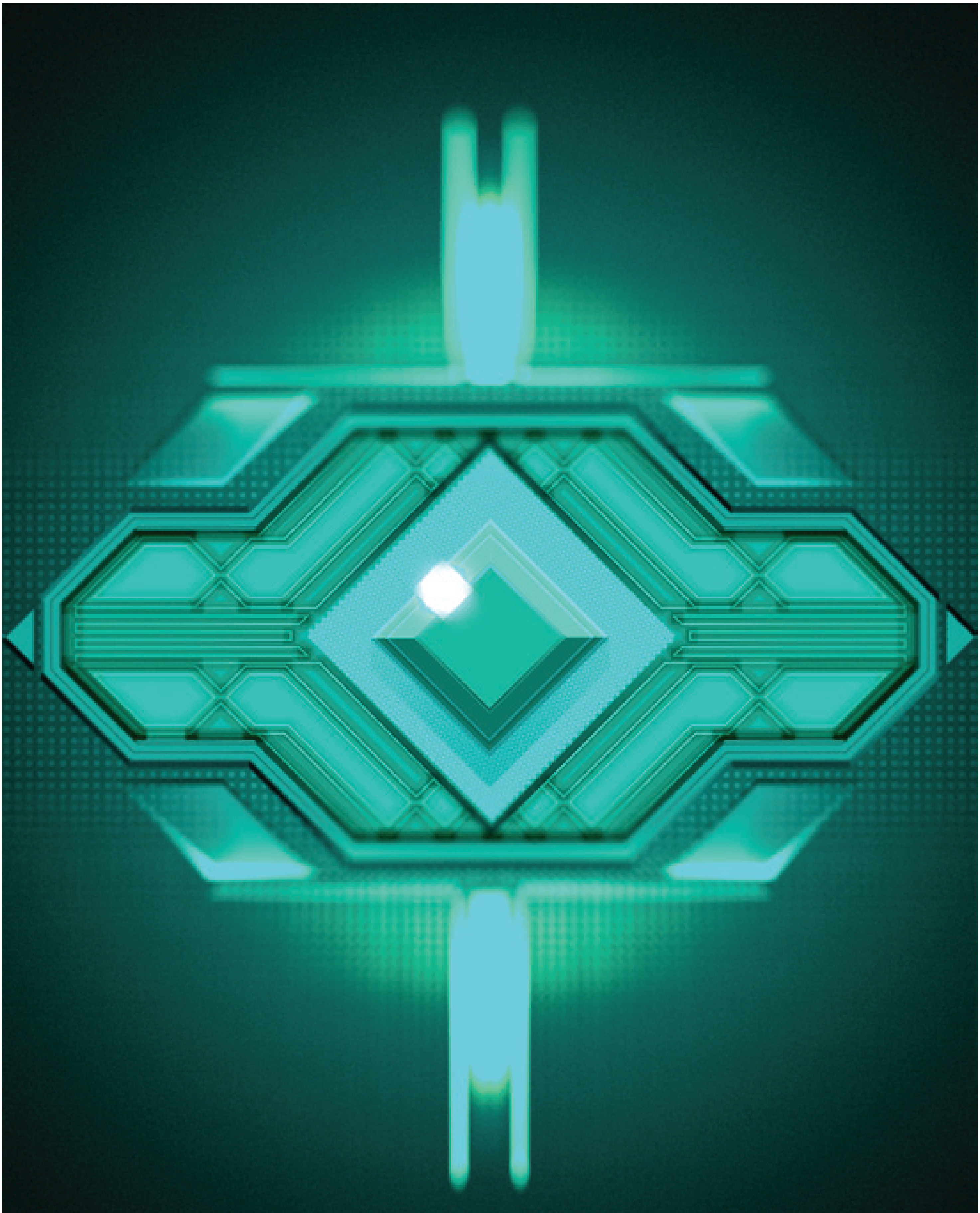

SURVEILLANCE 2015

A report for

ANCOA

FIS

mondovisione
Worldwide Exchange Intelligence

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by **Mondo Visione**

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Herbie Skeete, managing director, Mondo Visione

Introduction

As markets in Europe become more transparent under the revisions of the Market Abuse Directive/Regulation (MAD II/MAR) and Markets in Financial Instruments Directive/Regulation (MiFID II/MiFIR) two things will happen. Firstly, trading will become less frequent as the risk of information leakage increases. Secondly, analysis will become more intense as everybody tries to extract as much information from the publicly available data as possible. There will also be, inevitably, some traders seeking to find loopholes in the market rules or even to break the rules without getting caught.

For the majority of traders the increased disclosure and scrutiny will create short-term pain as they readjust their costs to account for the increased implementation shortfall as their activity is more rapidly exposed to the market.

For market operators and those firms charged with supervision of activity, such as broker-dealers, the additional information should help shore up gaps in the framework, for example around keeping tabs on the effect of direct market access. However the issues of inter-market abuse are still a serious concern and have not been addressed in full.

There are considerable improvements that can be made through enhanced access to data, a balance of real-time and historical analysis, and information sharing. However there are also limits on the role of technology in isolation; structural change is needed with regard to cross-asset and cross-market supervision, if larger systemic risks and abuses are to be avoided. MV

Executive summary

On Wednesday 23 September 2015, Mondo Visione held its annual Market Surveillance Panel at Ironmongers' Hall. Ironmongers' Hall, with an audience of market practitioners, regulators, technologists and consultants. Banks have paid some US$10 billion in fines over recent months to settle claims brought against them for manipulating benchmark indices such as the London Interbank Offered Rate and the daily foreign exchange fix. These scandals have caused regulators to review their approach to overseeing the wholesale markets on which such benchmarks are based. As they focus on how to raise standards of behaviour among traders at banks, it is likely that tougher sanctions will be imposed and markets will be given more detailed guidance on what are acceptable trading practices.

In the UK former UBS and Citigroup derivatives trader Thomas Hayes was found guilty in August this year on all eight charges of conspiracy to manipulate Libor. This guilty verdict reverberated around the world. Hayes was sentenced to 14 years in prison.

In the US, the Commodity Futures Trading Commission (CFTC) has filed a motion in federal court to prohibit the founder of 3Red Trading LLC from trading futures contracts on several markets until its civil case against him is over. The CFTC previously accused him of illegally bluffing, 'spoofing,' the markets on at least 51 days between December 2011 and January 2014.

In another case, a New Jersey-based trader became the first person to be found guilty of manipulative trading, or 'spoofing', in a landmark criminal case.

Regulators on both sides of the Atlantic have signalled that rule-breaking and sharp behaviour will likely result in the perpetrators being jailed.

Regulators and market operators are making a determined effort to control market manipulation, reducing fraud and restoring trust in markets.

In the UK, draft rules have been published by the Prudential Regulation Authority and the Financial Conduct Authority under which, all senior managers in an eligible institution are to submit a 'Statement of Responsibilities' which will facilitate the identification of person-in-charge at any point in time. This will make it easier for regulators to take action against the person guilty for the misconduct, as well as the person accountable for enforcement of correct procedures.

The technology being used for market surveillance is moving to match this changing environment. The sophistication of market surveillance systems is improving by leaps and bounds. Regulators can now pull together data across trading venues allowing them to stitch together these fragmented markets into one big, virtual market to discover layering, spoofing, algo gaming, wash sales and other manipulative and distortive conduct.

As we prepare to go to press we note that the UK Serious Fraud Office has charged four former Barclays employees and six Deutsche staffers with conspiring to rig Euribor, taking to 23 the number of bankers to be hit with or facing action on the back of the rate-rigging investigation.

It remains to be seen whether the Fair and Effective Markets Review (FEMR), a joint initiative launched by the UK Government Treasury and the Bank of England aimed at rebuilding trust and restoring confidence in the financial markets, will have a positive impact when it comes to culture and conduct. Until now, regulators in the U.K., Switzerland and the U.S. have been mainly focused on manipulation of benchmark currency exchange rates by traders at global banks, with an emphasis on collusive behavior. The "last-look" review in the USA indicates that regulators and prosecutors are turning their focus to other manipulative practices, which could make markets unfair.

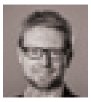
Fines alone are clearly not enough. Perhaps holding individuals accountable for their actions, and making firms take greater responsibility for improving standards of trading practices will make a difference. MV

Panel 1 / Mind the gap – Holes in market surveillance

Panellists

Chair
Herbie Skeete,
MONDO VISIONE

Brian Taylor,
managing director,
BTA CONSULTING



Magnus Almqvist,
senior product specialist,
PROTEGENT, FIS

J.P. Minet,
UBS MTF Supervisor,
UBS MTF

Stefan Hendrickx,
founder and executive director,
ANCOA

Herbie Skeete, chair opened the discussion by asking how regulation has impacted the ability of regulators to receive massive amounts of data from the market centres and use it in such a way that they can operate a successful market surveillance infrastructure.

Brian Taylor, managing director at BTA Consulting, said that since the Markets in Financial Instruments Directive (MiFID I) was first published in 2007, the market has increased in complexity significantly.

“Do I believe [regulators] have the ability to receive and manage this data?” he asked. “At the moment the answer is no. I don’t believe any of the regulators in the EU collect all of the data that is available and then the question is, should they? I don’t think there has been a sufficient impact analysis of MiFID I and an analysis of whether they should take all of this data and use it.”

He also highlighted problems with the new Market Abuse Directive and Regulation (MAD II/MAR), which is trying to enhance the capacity of authorities to spot misbehaviour in the market, supported by other associated regulations. When looking at the level of granularity required for regulators to check, he noted there were points of weakness; for example, the definition of inside information requires parties that are monitoring the market to look for significant price movements.

“Why must it be ‘significant’ and not ‘any’ price movements?” he asked. “The markets are full of high-frequency traders (HFTs) who trade on wafer thin sub-basis point price movements and make significant amounts of money. So why is the regulator not looking at that level of granularity and not storing that?”

His point was later supported by a member of the audience working at a market in Europe, who reported identifying unusual activity on his own market in London Stock Exchange-listed stocks, but which accounted for very small percentages of volume. He also reported never hearing back from the authorities on any reports.

Another area of concern was the historical focus on transactions which could miss any pre-trade activity that indicated market abuse.

J.P. Minet, the supervisor for the multilateral trading facility (MTF) at UBS said, “I agree there is a gap if we look at order-book data. It is not wrong for the UK’s Financial Conduct Authority (FCA) to expect all trading venues, from exchanges and MTFs to run surveillance on the order book. We all do as we have the data. If there is a gap, it is because of fragmented markets. We do not always raise concerns because we lack certainty at Order Book level. We do not always raise the issue if we are unsure. However when a Trading Venue is unsure, it should escalate.”

> **I don’t believe any of the regulators in the EU collect all of the data that is available and the question is, should they?”**
>
> Brian Taylor, managing director, BTA CONSULTING

Magnus Almqvist, senior product specialist for FIS’s surveillance platform Protegent, said he largely agreed with the earlier comments, adding, “The technology use and costs associated with surveillance over the last few years have increased tremendously. The ambition levels that I see ongoing in collecting transaction data at the moment are omitting the important part, that being orders. So it is good to see regulators across Europe take that step and focus on orders as well.”

Stefan Hendrickx, founder and executive director at analytics and surveillance technology provider Ancoa said that developing the capability is a “work in progress” for regulators with some of them collecting billions of orders per day and others still in spreadsheet mode. The technical capabilies do exist, with FINRA for example processing 30 billion rows of trading data per day.

The chair then suggested the problem would get worse in the face of new regulation, as MiFID II rolls out from 2017 covering more asset classes and data.

Minet observed that it would be wrong to write-off the regulators' capacity to spot market abuse entirely.

"There are various examples that one can find in the press to show that regulators have achieved results with the data that they have access to," he noted.

Hendrickx made a counterpoint that many of the FICC market cases in the news today are a consequence of whistle blowers, "I don't think surveillance has captured many of those cases because the lack of a contextual approach."

However Minet said that for the purpose of establishing facts, "The regulators still depend on venues a lot."

Taylor noted that the risk of over-reliance on market participants is that their own views of the market would have gaps.

He said "A key gap is cross-market surveillance and that has not been put in place. I don't think, given the structure of the market here and in Europe that could be reasonably put in place, unless the regulator does it."

The big return

Skeete took points from the initial discussion to raise the issue of costs and expected returns form investment in surveillance technology.

"Everyone seems to be saying that it is very expensive and that whistle blowers often raise the flag, so is surveillance technology worth it?" he asked. "How does one prove the value of the system?"

Hendrickx opened the responses by stating that measuring a return on investment, is an obligation for both regulators and market participants.

"The risk of doing it incorrectly is reputational damage," he said. "If you are fined your future revenue will be compromised. If [your firm's] market capitalisation goes down, employees might be dis-incentivised because their stock options become worthless so that is the insurance aspect. If you do it right, then the advantage of market surveillance which is done well is that it generates insight and business intelligence as well as enhancing risk capabilities. Ultimately it creates greater insight into the business."

Magnus Almqvist, senior product specialist for Protegent said that the drivers for investment were different for various organisations but for a bank or broker, fear factor is a big motivator.

"The risk that running without a surveillance system, can you handle the penalties, the reputational damage, living with that risk not knowing how exposed you are," he said. "I think from there you can argue you need to understand how your traders are behaving and how they are conducting themselves. How else can you say you know you are meeting regulatory demands"

Taylor then gave the audience an insight into some work his firm had recently conducted, which compared and contrasted national capital markets, corruption and national economic performance.

"We have found that high levels of perceived corruption correlate with lower gross domestic product (GDP), poor stock market performance, lower market capitalisation and lower profits for the national exchanges."

He cited the comparison of Poland with Ukraine, which both had the same GDP per capita 25 years ago, around US$3000. He said that while Ukraine is still at that level and it has one of the highest corruption index scores in the world, Poland has advanced to about US$13,000 per capita.

"The stock market value is close to zero in Ukraine while in Poland it is well managed," he said. "If players know they can get away with corruption then the cost of capital rises and markets don't benefit. Cost of capital is lowered where investor protection/market surveillance laws, in particular, are enforced"

Whose trade is it anyway?

The discussion then turned to the oversight of trading by direct trading onto markets by broker clients, either through direct market access (DMA) or sponsored access, in which buy-side firms use the membership of a sell-side firm to execute on a market with no or minimal interference from the broker.

"Is it difficult to have oversight of a market where direct market access is granted," asked Skeete, "What challenges does it pose?"

Taylor responded that the level of DMA is increasing as is sponsored access and that the question this has raised is the level of surveillance that a broker should be providing, with an acknowledgement that some regulators had already ruled on supervision and pre-trade risk checks.

"In Hong Kong the regulator has specifically said that member firms do not need to know what is going on in the systems that clients use for DMA access," he noted. "It has absolved the member of any responsibility, effectively saying 'Please come here and abuse our markets'."

The chair then asked whether it was feasible for broker-dealers to police their clients effectively. Hendrickx said that dealers certainly had a greater capacity to see client activity that the venues

"It is difficult to distinguish between different clients; that level of detail is not going to be available to the venue, but the macro effect of market abuse could still be spotted by the trading venue in many cases," he said. "In some cases if there are not enough client details you could still spot a pattern, such as front running. The venue then needs to flag this with the regulator who may request the client details from the broker firm."

Minet confirmed Hendrickx's observation, noting, "Our view of this is we are blind to whether it is DMA or non-DMA. However based on statistics and patterns reasonable doubt is created and anything that one cannot explain and is unusual should be raised. I believe that under MiFID II we should receive substantially more information. Information should be clear for the trading venues and more useful for the regulators as well. Until then we can't see anything."

Hendrickx added that where there were gaps in some systems or in the approaches to surveillance at a broker level, there is a risk in taking a one-size-fits-all approach as it can provide good visibility in general but will not then offer flexibility to tailor work when trying to address more issues such as DMA order flow."

The buck stops here

Taylor said that this was one areas in which it would be useful for the regulators to produce some specifics around their expectations, and address certain imbalances in structure.

"One of the problems is that the exchanges charge for all of the data used so if you look in the book, you have got to pay for it if you want to trade it and you have got to pay if you want to monitor it," he said. "I think the regulators ought to say - 'if you guys want to stay in business, data for monitoring and market surveillance should be free."

Minet concurred on this issue, saying, "One can trade Vodafone on 16 European venues today so if you want to conduct market level surveillance you need level II information from 12 lit venues. That is a horrible cost. And that is only for the UK market. That is not a cost we need."

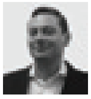
The chair then asked the panel to summarise the issues that were holding back regulatory supervision, rather than market participant supervision, given the elevated position and minimal conflict of interests that the authorities ought to be experiencing.

"They have to simplify a massive amount of data and communicate a clear message based on that analysis, then secondly they must prove that what they are seeing is beyond reasonable doubt," said Taylor. "I cannot see how those regulators or systems that only sample data rather than looking at all of it, can ever prove anything beyond reasonable doubt." MV

Panel 2 / A clear view of surveillance

Panellists

Chair
Herbie Skeete,
MONDO VISIONE



David Murphy,
head of operations & business development,
EQUIDUCT

Alex Lamb,
Head of Marketing and Business Development Americas,
THE TECHNANCIAL COMPANY

Magnus Almqvist,
senior product specialist,
PROTEGENT, FIS

Stefan Hendrickx,
founder and executive director,
ANCOA

Several aspects of market structure make supervision and surveillance challenging at present, which were explored by the second panel. For the first point, Chair Herbie Skeete brought up the lack of a consolidated view of market as the first issue. He opened the discussion asking how possible it was for venues to offer or support cross market surveillance.

David Murphy, head of market operations at pan-European regulated market Equiduct, took the example of his own firm's activity. It takes in market data feeds from other European exchanges in order to support best execution for its users, he said. Therefore it should be possible for an exchange to take that extended view of what is happening in the market.

"We have a view of the market and a capability to look at abuse across the market," he said. "However in reality because we are an exchange it is our role to look at abuse on our own market and not at anything that does not impact our market. Nevertheless, that would be possible from an operational perspective; it's entirely possible to take that data in and process it across multiple markets where liquidity is genuinely fragmented."

The question, he observed, is how efficiently market abuse will be spotted across multiple trading venues by parties outside of those trading venues, such as NCAs.

"If you are giving data to the national competent authorities (NCAs) they need to have the same capabilities," he said. "They also need to be able to do that on a far greater scale. Under MiFID II with a more harmonised post-trade market structure that will be easier for NCAs to consume."

The chair then asked whether there was a case for operators of listed derivatives markets to have insight into the underlying instruments and their markets.

Magnus Almqvist, senior product specialist for Protegent, FIS's compliance business for the capital markets, answered "You need to look at the underlying and understand how it trades to be truly confident of what is happening in your market. Market data can get you to a point but you need detail and full data to do proper surveillance."

However Stefan Hendrickx, founder and executive director at surveillance and analytics firm Ancoa, said that even when markets take in a lot of data they have some limitations, such as which client is behind a trade.

"There is always a certain partiality because of this nature. It doesn't always have to be an enormous amount of data to make it work, just tracking the price of the underlying may be sufficient to find suspicious behavior in the derivatives market."

Weight of responsibility

Alex Lamb marketing and business development for risk management and surveillance system provider The Technancial Company, said that a further challenge was the fear that regulators had of getting involved in the data mining and analysis business. He cited conversations with a major US market regulator which had put a bid for a pan-market data capture system that included orders and trades.

"[Making that work] is really a question of organising that data in a single format," he said. "Even when dealing with a single client deploying a risk management system, we are gathering data from other venues and we have to normalise that, which means we are collaborating with other vendors."

The ability to replicate that for a regulator exists, but the knowledge of trading and the ability to think like a 'deviant trader', then to track him down forensically and plan some means of discovering those games is where regulators find a skills gap, he added.

"Let's face it, as soon as we know what the new rules are, someone will figure out a way to go around those new rules," said Lamb. "It is about being inventive. We should then build a rule that recognises anything that steps outside of [the rules] and eliminate the noise. Regulators try to find examples that are cast iron rather than finding 80,000 apparent transgressions and trying to decide who to prosecute first."

The chair then asked the panel whether, given their capacity to access the same data as the exchanges, market vendors could be one of the other organisations able to spot what is going on in the market could vendors help by collaborating with regulators.

Lamb noted that vendors were in a difficult spot as they had to support clients in developing technology, but did not typically have the same regulatory or fiduciary responsibility. However he also noted that their role was to anticipate what the customers needed.

"With the present adoption of software-as-a-service and use of data centres to house this information, collaborating between systems and building a set of analyses, if there is correct Know Your Customer (KYC) documentation in place would be possible, maybe at the behest of the regulator," he said. "The key is getting that documentation in place, identifying the end user."

He disagreed identifying either the intermediary for the end user or potentially the beneficial owner themselves would be impossible.

"Normalising that data is the challenge; if the regulators say you need to deliver a set of data with an ID for every customer, once you have that you should be able to identify the account."

Skeete asked whether such a model would be likely to be accepted by market participants, vendors or infrastructure providers.

Almqvist reported, "I think that is very exciting, the whole utility idea. Everyone is facing roughly the same challenges and the same needs. It makes sense to share costs and infrastructure."

The chair asked for further detail as to the level at which a utility could be operated, including the infrastructure or the data.

"I see both as having potential," Almqvist said. "The most straightforward one is trading infrastructure. If you look at the Investment Industry Regulatory Organization of Canada (IIROC) that is demonstrative of the possibility."

In the absence of an organisation like IIROC, the technical challenge for any given party is bringing together different fragmented markets, Lamb observed.

"For example, deploying pan-Asia one not only has the issue of remote geographical locations, different data networks, but also time lags," he said. "The challenge is in terms of figuring out the timestamps, originations, and making sure that you are syncing those up. If you start a trade off in three different locations one has to identify what happens at that initial point rather than at the end point. That is the challenge."

Hendrickx noted that a utility approach solves part of the problem but not the entirety. He said, "You still own responsibility so putting all your private client data into a central utility would be overkill. There are large differences between firms."

Murphy concurred on that point and reported that as a market operator, Equiduct creates its own surveillance software in order to move with the development of the overall market structure.

"Everything we have done mirrors the needs of our market," he said. "But in the current fragmented market one would have to crazy to carry out market abuse on just one venue."

Lamb then observed that standards, such as FIX, would make the presentation of transaction data standardised across almost all firms however that would not remove all technical challenges.

"The hard part is slicing and dicing it in real time," he said.

The Cheat sheet

The chair then asked how the recent cases of benchmark manipulation and cheating could impact the role of market surveillance technology. "Do we have the tools to monitor benchmarks?" Skeete asked.

Hendrickx said "The cases are fairly recent and the International Organization of Securities Commissions (IOSCO) has responded with guidelines that are both cultural and procedural as well as referring to the tools available. Vendors are building those tools, they are maturing although the extent of maturity depends on the instruments in question. For some instruments they are quite good."

He added that the complexity of benchmark manipulation can mean that surveillance systems even have to integrate with human resources systems to see if people have the right training to submit a benchmark.

"It goes beyond the typical surveillance in equity markets," he said.

Murphy said that Equiduct is far more involved with analysing the constituents of benchmarks than the benchmarks themselves, with the ability to look at those markets in real time and retrospectively.

"That will be significantly improved after MiFID II when you can see end-user information;

when an order comes in we will be able to see more information with respect to the origination of the order that contributes to the price formation process. We have a lot of that in place because German regulations determine we should. One of the issues is spotting the component parts that contribute to benchmarks."

The new rules create an opportunity to look outside of the typical trading metrics that surveillance tools look at, he added, with the potential to look at multi-asset surveillance in an entirely new way and with an entirely different process to the way it is conducted in the equity world.

Skeete asked how much a lack of transparency in how benchmarks are made up was an issue. Almqvist noted that with the London Interbank Offered Rate (LIBOR) it was very easy to spot the market abuse however the market had not been closely looked at for abuse despite the technology existing today.

Hendrickx added that the siloes that historically exist in compliance monitoring meant that looking at communications or transactions in a silo were limiting; putting them together in the system created visible abuse.

Lamb advocated the move towards a benchmark system based only on real trades.

"If a benchmark trades at 10-10.5 and it suddenly becomes 7 at the close then everyone should object to that," he said. "The problem is, where the market is trading and where the benchmark is, is not in sync."

OTC under the spotlight

Regulation is increasing the pressure on firms to disclose ever greater levels of information in what have traditionally been over-the-counter markets, the equity dark pools to the derivatives transactions.

Murphy said, "The submission of data around trading volume on a daily basis is already expected in the new RTS that will need to happen from 4 January 2016 although in what form is not exactly clear. Monitoring the levels of trading won't be enormously challenging if the dark pools are submitting their data in the same way that the lit pools have to."

The chair asked if these markets had the real capacity to track abuse under upcoming regulations, and whether or not the regulators have the right people and technology in place.

"The vision I get is of market participants caught in the headlights," said Almqvist. "I don't see much readiness or understanding of what regulators are truly asking for."

Murphy also noted that a lot of regulations have a date at which they will enter into force however the actual details of what market participants are supposed to do are no clearer than they were a year ago.

Lamb said, "How do you capture OTC? Most of it is on the telephone. How will you capture one trader implying what they want to happen to another trader? In the US you now have to post every swap you deal on a SEF. But what about all of the orders and pre-trade activity. How many phone calls were made? Who is being robbed? My view is that until you list OTC products as on a listed market, the industry is wide open to abuse."

Given the size of the OTC markets in most instruments, this would be one place for cutting edge voice technologies such as those used by Google and Apple, asserted Almqvist.

Lamb added that in OTC markets such as fixed income, where considerable parts of trading require pre-trade disclosure of trading intentions, the request-for-quote (RFQ) and indication-of-interest (IOI) data could provide considerable value for the market supervisors.

"I think that RFQs and indications of interest can be used to influence markets depending upon how they are spread around," he said.

Skeete observed, "IOIs are like spam mail in many ways."

The audience raised the question if surveillance systems were capable of monitoring RFQ based trading venues. Hendrickx responded that this is possible indeed, but has required Ancoa to re-think surveillance as we know it in order to achieve accurate alerts for Fixed Income and other RFQ markets.

Lamb concluded, "If those were captured electronically you would be able to see who is manipulating and they would stop. At the moment in the voice market there is no way to discover them so they won't get caught. So if we are going to police anything, we should police everything. But let's do it at a sensible and achievable level." MV