

### ***Interview with a senior manager #11***

- SPEAKER1 00:06 OK, so just to start, I think it's started...could you just start by explaining what your experience in the investment industry has been and what your sort of role is today?
- SPEAKER2 00:41 So, I started off in clearing for a futures and options brokerage firm. I then moved to broking and trading, I've worked and space on desks and boots on all typically on exchanges, took a bad time out seven years, in fact, and then came back to trading and then I traded for a few years. And then futures and options across several exchanges. And then I took a customer facing technology role, an exchange. I'm explaining how APIs work, helping people test stuff, explaining and also selling colo connectivity, a combination of things, seen a few exchange migrations and acquisitions. So about 10 years an exchange then? Actually, my last few years were on a product desk at an exchange, you know, going out and encouraging people to try to products for a fixed income and then took account of technology and business development at a FCM and then became CTO. Well, it was basically CTO and now I'm CIO. I run operations around technology, and I also run market risk as well because it's me.
- SPEAKER1 02:09 And what is the type of firm that you're sort of currently working in, what sort of services they provide and sort of what sort of asset classes?
- SPEAKER2 02:18 And it's a known non-bank FCM and we only do exchange traded derivatives and we cover probably most exchanges around the world where members on a number of them and some of them use like a third party because various reasons might be that don't support remote clearing. So, we need to have boots on the ground in that country. For example, what we don't do enough to justify being a member. So, we're pretty big on most exchanges. Top 10, top five, number one on some. And we cover every everything from fixed income, equities, commodities, but all only exchange traded derivatives.
- SPEAKER1 03:00 And I may not notice in that year, I believe that your particular firm doesn't have sort of like other brokers have sort of trading desks and stuff like that. I mean, is that true?
- SPEAKER2 03:16 We used to and when I started that reported to me as well, but. It didn't work, it cost a lot and didn't generate enough. It's quite simple and I've been there for quite a few years before I start. I didn't realize that they even had one actually when I started. So, it

shows kind of how little impact I had in the market. So, yeah, it's not a road we followed. There are not people doing that.

SPEAKER1 03:40 So now we have sold more, acting almost like a peer intermediary, all with a little bit of money.

SPEAKER2 03:46 Absolutely. We are. We what we do is clear a game. We provide connectivity like most firms do, you know, with a nine every exchange comes for us. And in some cases, we provide the technology, in some cases the right combination of everything really.

SPEAKER1 04:04 And in that provision of technology, what sort of level of algorithmic development is that? Because they briefly set out three categories of algorithms. So, at the most basic are the order routers, most commonly deployed in equities markets, we've got multiple venues trading the same sort of products and you can get execution across them and then they've got the execution enhancement. So, you know, you're, I suppose, on your sort of platforms like and patches of stock losses limit orders all the way up to sort of things are also spreads and stuff like that. And then you've got your more advanced proprietary algos, maybe with some machine learning where they actually would say you can make the investment decisions independent, completely independently of any human actor. After the sort of initial development. What if at all deployment that you see?

SPEAKER2 05:08 We have all three.

SPEAKER1 05:11 And that's sort of...

SPEAKER2 05:13 sorry, yeah, we have all three of our clients, we've got clients in each of the categories, a number of clients in each of the categories. Of course, when it gets Supertech AI and, you know, sponsored access, for example, then obviously we have limited visibility of what the client is doing, as you'd expect. And, you know, we would set limits on exchanges for those purposes. But, you know, we have a combination of everything from your most basic to your more advanced models to, you know, vendors supported stuff in the provided models to actually people who build things within them to see, for example, some idea or advance that our design lab where you can go in and create your own algos within there. Some people built to the API as a team of guides and some people go directly to the exchanges and a sponsored access environment.

SPEAKER1	06:12	And how much of it is done by yourselves or the development was all purely on the client side?
SPEAKER2	06:23	You can find the site. We support it, but we don't. Well, yeah, we build stuff ourselves for internal processes and monitoring risk and things like that, but we are simply a clearing firm who either support clients, own development and has sponsored access enrichment and so on exchanges or providing them a front end where they can, you know, where they can access the market. And then in those cases will use exchange level risk as well as the risk layer provided by the front end.
SPEAKER1	06:57	So, in terms of sort of your involvement in the sort of deployment and collaboration process, I mean, obviously with some of the exchange products you get things like some of them is quite straightforward because you can see maybe a vendor informed on a venue's website. They already say they've passed out conformance or something. But what about clients which are maybe taking sponsored access and you have a degree of responsibility for that. How do you get comfortable that what they're deploying is not going to cause conduct problems or other problems in the in the market?
SPEAKER2	07:31	Well, it's very hard, actually. Well, obviously, they have to conform to an exchange before they're allowed to go to the exchange APIs the exchange criteria that they have to reconfirm when I make material changes as if it does. The trouble is you have limited visibility and in some cases these clients are very protective over, you know, their IP. So, in some cases, we ask clients to sign declarations and, you know, about their algos and we sell it now by phone that they have to sign to confirm that they understand if they change, that they have answers in them, we will personally review that and approve it or not. But yet, in some cases. You have typecast word for it, unfortunately, because you do not have the visibility. You can only ask them if you might, you know, you re conforming or retesting if you're making material changes, but you wouldn't have visibility of the changes they're making up.
SPEAKER1	08:37	The FCA, they brought in new roles, one of was which they sort of highlighted, and this sort of certification for persons involved in the design and deployment process for algorithms. And obviously that would it on the regulated firms such as yourself or other regulated firms. But given the sort of challenges, do you think the regulator has gotten that right?

SPEAKER2 09:06 Yes, but again, it's near impossible to police. Because how can you? You know, you're talking about people's IOI models, thousands and thousands, hundreds of thousands of lines of code, the proprietress of that firm and their intellectual property. How would an intermediary have visibility or even a regulator of what material changes?

SPEAKER1 09:37 If you think about it, we've got conduct risk. I mean, one of the big drivers, again, that an initiative like SMCR I've been trying to push is that. You know, especially with not exclusively, but especially with sort of sales and trading stuff it took to get almost get them to take more responsibility for their own development, their own behaviour not to just say, oh, wow, you know, I didn't really understand what I was doing or something like this. But in a firm like yourself, where you literally just pushing it out to someone and I may be in China or somewhere in the Southeast Asia or somewhere like that, I mean, how do you try and relay that message to them? Because, you know, there's been a lot of concern about things like electronic learning because people say it's not very effective, because people just click through it. And I mean, how do you ensure that their conduct is in line with expectations over here?

SPEAKER2 10:41 It's really hard to....we do actively engage with clients, might know where to send them documentation, might suggest that they understand documentation, but in some cases, you've got a client and there's a client of mine is one an omnibus structure. So, we don't know the client behind them. They're FCM themselves and we're providing them access to Western markets. And in that example, for example, Chinese FCM, Hong Kong FCM and yeah, but there were no one of us. We don't know what's behind them. And again,

SPEAKER1 11:19 that's all also.

SPEAKER2 11:22 Yeah, we engage with them, we might we explain it to them in as clear as possible and actually get them to sign documentation that I understand with this. But yeah, unless you. Again it is a horrible thing to say but there's an element of trust in your client. But you can't there's no way you can place that 100 percent. And I think we know this and the relationship we have with them foam's you know; they just make you sign up. We just, you know, we can do is make people sign a piece of paper saying, you understand the rules, you understand the obligations under control that you have to have in place. We asked them to fill in some documentation, which is quite a long document, would actually have to explain

what they have. So, it's not just yet, you understand, we break it down into many components covering risk coming, covering audit, covering logs, covering changes, and we make them complete documentation. So, it's not just that you understand. Yep, it's not checkboxes. It's more than that. And then we look and sign off on that documentation.

SPEAKER1      12:30    I mean, from what you've seen in terms of some of the issues that have come up and what your perceptions of what the main contact risks are in the sort of. Think markets relating to this type of trading because. Again, I mean, I've spoken to a number of different people and who like yourself, they've originally been maybe floor traders or, you know, they've been upstairs and taking calls from clients, you know, the traditional way. And there's a bit of a mix of opinions as to whether this type of activity is creating new conduct risks because people are developing new rules-based pieces of cake, which can sort of maybe do new things that people couldn't do before. But then there's also another sort of side of the argument where people are saying, well, no, not really doing anything new. They're just sort of amplifying issues that are already there or they're just doing them in a in a smarter way. What are you saying? What do you think is...?

SPEAKER2      13:23    That's actually true. True. These things were going on the floor as well. The pit was no exception. And all that's happened is that exact word is amplified by the direct participation in the market is not a level to what it was twenty-five years ago. You know, there is what I would was on the floor, 60 of us, maybe 100 of us in a pit, and then maybe a few more than that. Yeah. And all orders had to come through us. Did people still spoke the market? Yep. Did people still try and run things up, you know. Horse trading, you know, 50 percent rolls and crosses and things, but yet people still tried. It's the accessibility. So, in the old days, there was only one hundred and fifty of us who could do those things because that was all it was, had direct access to the market. In other words, standing in the derivable wooden floor, now there's, you know, hundreds of thousands of people who have direct access to the market. Or even if you call in direct, you know, they have a machine that can send an order in under a X many milliseconds or microseconds, even in some cases. So, yeah, opens up the world. And, you know, you could say, well, those 200 people standing in that 150 or whatever it was, understand the rules because I live it, breathe every day. And yeah. And this visibility of them, they can't hide behind a screen or an algorithm and they but now people build things into

algorithms to do it. There are hundreds of thousands of people and they're anonymous as well. You know, that's part of it too.

SPEAKER1 15:17 So, I mean, one of the things referred to and, you know, it's certainly a challenge to ISIL in the past was, you know, they had because of data protection and all the rest of it, you had ID for sure. Cards in the transaction reporting for maybe that the people who directly face the phone. But like you said, you've got this this complication for people who are for maybe second-degree omnibus accounts.

SPEAKER2 15:42 Well, that's true. However, you all if it's you know, if you take it to Hong Kong firm, and they're an FCM themselves within their regulated by the FCM. So actually, in terms of that, you could say, well, you know, you have to for the client. Yeah, but the firm we're dealing with is a regulated entity. So, they are under the same rules and restrictions that we are in terms of having visibility there unclogged. So, we might not have direct access to the court, but a regulator certainly will. I can certainly request that data. And yeah, I mean, I'm sure maybe there's some firms bring on slightly less or less regulated entities than us, but we have rules to do customs we would deal with. Who's behind them? Where some cases we don't know, but we know that the firm we face directly is regulated then to yourself and under the jurisdiction of a very tough regulator. For example, the SFC, ASIC whoever it might be, the FCA.

SPEAKER1 16:52 But are they necessarily collecting the same data because, of course, the method to you had this sort of short code initiative and transacts reporting, but jurisdictions like the United States and Hong Kong and Singapore, my understanding is they don't have the same sort of transaction reporting. They have post trade, EMIR style, reporting for OTC products like Dodd-Frank, reporting something that they don't have the same market abuse detection type reporting. So, I mean, how confident can you be that, you know, ultimately, they could identify the people responsible if it came to the crunch for certain issues

SPEAKER2 17:31 based on our experience? Very confident. I don't think we've had a case where someone couldn't yeah, we've gone out with who hasn't been able to identify or doesn't have a record of their client.

SPEAKER1 17:46 How do you stop them from sort of I suppose it's a game down Brighton, Brighton Beach, where, you know, you hit one of the heads down and another one pops up somewhere else, that game, the other what they call it, the mole, the mole game. Ultimately, you smash the thing down and another one comes up. I'd stop that

from happening because that seems to be a problem as well. That's coming up.

SPEAKER2 18:11 I mean, that could be a bad actor who's going through an omnibus firm and then he gets in trouble with us, and he pops up somewhere else. We haven't really experienced it very much. Yeah, you can't really, it's actually very hard to say how we've gone out to a firm and, you know, an issue with that trading style, a particular type 50 or something, and we've raised concerns that client's gone away, and it pops up somewhere else. I mean, we have seen it once or twice. You can't. Yeah, I mean, unless, you know, the identity of every client and yet genuine identity, you can't stop it is the honest answer. You know that I could pop up under another FCM that we support. We would identify the trading star. You know, we have these, as you well know, know, we have real time trade surveillance. And if we saw something, we'd be on it within minutes.

SPEAKER1 19:19 Some of the respondent have mentioned that human emotion was being quite a big deal in this room, more traditional styles of trading that happened. And no longer a longer time ago, or even some in some broking firms today, that may be not so advanced, and some have argued that maybe, you know, the presence of algorithms may actually remove that emotion and maybe improve conduct in certain areas. I mean, what do you think to that?

SPEAKER2 19:56 That's an interesting angle, actually. I mean, the idea what models do algorithm to any automated trading system is...human emotion, the w oh shit that I tried on, but I'm not going to miss that. Well, the machine wouldn't. It would do it. You know something? I don't think human emotion, I've never seen that a reason for someone having a bad day and therefore breaking some rules, I'm sure it might happen. It's not something I've seen because, you know, the implications are, well, a huge you could be fined, banned from trading and it could take a while for people to find out. So, there's an algorithm, get it right one time. No, I think in my opinion, it's not an issue of human emotion. It doesn't make any difference. I think you get bad actors and they're just bad actors. I find a way of doing something that they know is wrong or they think it's great. Well, no, categorically not great. You definitely can't do it. Yeah, they do it because it makes money, and they'll continue to do it. And you'll see the same with an algorithm, someone who builds a model that takes advantage of a matching algorithm or something which technically could be perceived as being wrong. But they know it's

going to make money and they'll just put it out there until someone stops them.

SPEAKER1 21:28 I mean, FCA has made a big play on, again, on remuneration. And there's a lot these people out there that are using a lot of this behavioural science stuff. And I've spoken to one of these people that is a sort of consultant who goes into firms and him. He thinks about the way a lot of firms are doing things are wrong because they're not focusing in on the fact that human beings are not perfect actors, that they're flawed in many ways. And actually, you need to design your control programs to sort of take into account people's inherent flaws. And they're going around, and he's sort of saying to them, you know, you've got to take all the sort of compliancy wording and all that sort of legalistic stuff out. And you've got to redesign incentive structures and other things to make it to guide people into the into the place that they need to be. However, when you're getting a market which is becoming more and more electronic does that sort of approach still work with remuneration, do you think? You know your firm yourself; you've taken the trading floor away and does it do you think it still works that that sort of approach or is that is that sort of not really going to work in the future, do you think?

SPEAKER2 22:59 It's difficult to say. We've all declined because we were comfortable with the trading behaviour, the trading style of doing one thing. And then over time, they changed to something that we didn't like, or they wanted more limits or something. And you always have this you know, these people bring money in. You know, it's what we exist for. So, you know that by restricting what they do, they call it appropriately. And it's difficult because there's a conflict, isn't there, in terms of, you know, remuneration, we want to make money so we can all get good, keep our jobs and get good bonuses. So does that mean you turn a blind eye to some of the things going on when, you know, deep down you think, oh, I'm not sure I'm comfortable with that. We're a small firm in terms of people, but large in terms of volume. I think we're whiter than white in some cases, and perhaps sometimes we turn away too much, not because we don't want to be wrong. Yeah. There's definitely an argument there to say, especially some firms looking to sell, looking to "We'll bring on business that, you know, perhaps I shouldn't be taking on".

SPEAKER1 24:25 that, I mean, one of the things that I find interesting about the firm that you currently work at is, is this absence of production and sort of absence of this, the front desk trading people and knowing the sort of sector that we operate in, I think you're fairly unique,



actually. I don't know of too many other firms that exclusively do what you do. I know firms that do what you do and then also have the more traditional. Trading operations as well. What was the sort of motivating factor behind making that leap, do you think, too. Completely just complete intermediation and clearing on what drove that for you to think?

SPEAKER2 25:08 Well, I mean, first thing was that the FCA, I mean, we used to be a self-clearing guy, sorry, shouldn't use names were started on the floor, you know, clearing locals. And then obviously start clearing more people as a GCM. Start clearing normal business, and then I said, well, you have to have more separation between your clearing and your trading business because you know, the other clients even bought it. And, you know, you were kind of initially so firm ready. And then we looked at broking. But to be honest, we were doing well, doing what we were doing. And, you know, stick to what you know well.

SPEAKER1 26:01 I mean, do you think that the development of algorithmic trading, all these different guises? From. You know, the most basic forms to the most... do you think that that is changing firms in the sector and that progressively you're sort of seeing differences in the terms of headcount, the types of people that are being taken on and retained and the types of people that are being let go?

SPEAKER2 26:28 Sorry, Alex, can you repeat that?

SPEAKER1 26:32 Do you think that the types of the development of algorithms as over time from the more basic ones to the more to the more advanced ones, which, you know, which we've talked about earlier, do you think that is changing the type of headcounts in essentially the market?

SPEAKER2 26:50 Yes, absolutely changing. Yeah. I mean, in a previous job, you just going to see a lot of these firms because, again, explaining how much algorithms work, how technology works, how you know and. I remember seeing a phone once who said that there's an outage and I remember guys safe and trying to explain some things about product. But I didn't know anything about the products to them, it's just a number one up and down, and that's all I cared about, price and volume, price and volume, nothing else. We did what was underlying it didn't matter. So, these kids had multiple PhDs and some you know, they were Brainiac's geniuses in terms of maps and modelling, but they had zero market knowledge. And it kind of scared me a little, to be honest. These people didn't even know the product or anything or didn't care about a product they were

trading. It was a no. It moved. We can make money out of that because, you know, we're mathematicians and you can build correlation studies to anything. Does that....again I'm old school, you know, we stood in place, you didn't really move from one pit to the other during the day, you were a bund trader, BTP trader, FTSE trader or a gilt trader you knew your product. You knew how it moved and how it worked. And the people in it, you know. Yeah, it's a very different world where people tried, you know, a firm who tried hundreds of different products in multiple different asset classes, knowing very little about the underlying market.

SPEAKER1      28:36    I mean, talking about that old school, do you think that a lot of the certainly a lot of the sort of brokerage firms active in these in the thick markets, I mean, a lot of their managements certainly at the moment seems to be, you know, people who have at one point being on the floor or they've been to more traditional traders. Do you think they're ready for maybe some of the changes that are coming?

SPEAKER2      29:06    It's like anything, some are, some aren't, some people don't adapt to change. Some do Darwinian theory of evolution. You look at some of the big Albi firms, there's a combination of them out there. Some are founded by explorer traders, and some were founded with guys with these some very prestigious universities. And both do. Well, I think the problem is that, yes, some people out there haven't adapted and refused to and they're going to get squashed if they haven't been already. I think the world we've all predicted it for a long time that, you know, if you don't adapt and you don't change in what's going on, you're not going to be around very long. And I think we're seeing that now. Well, we've been seeing over the last decade anyway, I think it's actually accelerating at the moment. That's the scary side, really. You know, we have one person who dominates. There's no prizes for second place.

SPEAKER1      30:01    And I mean one I suppose one the most reported developments recently have been in relation to the enemy and in their market structure. And certainly, that political battle that's been going on for a number of years where you've seen new trading firms come in that, you know, are more known perhaps for their market making and the sort of security space. And, you know, previously they've protested that the date structure and all the rest of it and then margining model was not really suitable for them, not scalable. Looking at what's happening there and, you know, knowing that your firm, you know, used to be involved in the LME for something for a number of years before deciding to stop, what do you think? Where do you think that's going to go? I mean, do you think I mean

I mean, why would a firm like yourself, for example, may not be so interested in the LME as it is today? I mean. Do you think that that is what's changing, that is driven at all by sort of electrification algorithms and all the rest of it? I mean, we do think it's going to go.

- SPEAKER2 31:09 I think it is. It's just fighting very hard to keep up with. Fighting against the current is my opinion again. Look, you know, I'm certainly no expert on LME, but it seems like the world's changed from there, their structure, their models. And they're. Again, kicking and screaming not to change, because there's a few people who are doing who still doing very well out of the current model. That I made for me is wrong for me, so I could be incorrect, but there's a small group of people doing very well who know that if they adopt the changes that are going on elsewhere, they won't do as well. And there'll be more competition.
- SPEAKER1 32:05 You mentioned yourself, you used to be involved in the bond markets. Bond markets have always struck me that they've got quite a unique structure.
- SPEAKER1 32:18 The GEMS, the
- SPEAKER1 32:20 GEMS, and then, you know, you've got down from that, you got to sort of almost like the GEM, so much control or the initial, you know, the relationship, the auctions. And you got some IDB involvement, I think. And then you've got, you know, people on the street and everything else. So secondary to that. Why do you think that it seems that algorithmic trading is not being so. Quick to take off in that sort of subsector vs. other asset classes, I mean, is that the case? And if so, what do you think, knowing what you know about that market? You think that's not been the case so much?
- SPEAKER2 33:04 I mean, for group to support algorithmic trading, you tend to need. High 14, you know, we don't see people about products in the past and trying to encourage people to try a new a new product launch. The question always will get as soon as the open interest is 100000, we're in and you're not. Well, if everyone sits on the fence, everyone sits on the sideline and says, I understand this, as soon as the ball starts wrong, we will run onto the pitch and kick it. Well, then it's never going to move. So, you need that concentration of liquidity in these products. The trouble with the bull market is it spread across. You know, it's not just one contract or there isn't always liquidity. I think it is changing. Again, another thing that, you know, the gyms have a tight hold on it. I know the other people are all platforms out there. Lots of people have tried different things

and still are trying to kind of. Bring it make it more open and more available to everyone, and then that will bring the guys in until that happens. You know, an unknown people have used platforms to try to bring our guys onto, you know, bank platforms and things like that. Yeah. It hasn't worked very well, and that's because they don't have the same access to those markets as they do to an exchange traded product. Will it change? Maybe not in the very near future, that's for sure, because these guys keep out of these, keep a tight rein on the markets and make money from

SPEAKER1      34:57    is there I mean, certainly on that sort of sovereign bond, the government issued bonds is that you think may be an element of. Unlike in the securities markets where, you know, people like Maggie Thatcher and all the rest of them are very keen to liberalize, and I suppose if one was one that was almost seen by some people as an attack on the NSA as an example, because it allowed people to trade the same thing on other venues. It almost seems that maybe national governments are not so keen to open up.

SPEAKER2      35:36    Now, when we just saw the HMT, throw open access out, which, you know, open access was a guy, this is more heated, though, I guess it applies to anything, but open access was part of it. So, it's postponed for 18 months, and it's just postponed for another year or so in June 22. Open access should have been permitted. I think it was 20 this year. HMT you know.... went round and consulted people when they went for the FIA, said, should we allow open access, yes or no? And there were the brokers were. Yeah, absolutely. The some of the storms were like, no, because it's just more work for us. So, they weren't really talking about market structure, just, oh, God, I'm going to have to have products that can clear multiple venues. And then actually there was some discussion about what actually as a result of Brexit, if the UK had open access in Europe, didn't what would that mean on lots of different sides? Basically, it was. So, [REDACTED] to that it's never going to go like yeah, and you could set up through various other markets that if people don't want to open again for multiple reasons, a CCP would want open access. Why? Because, well, some might not a successful one, because they've got a monopoly on the product, one that isn't as successful might want open access because it gives them hopefully allows them to bring competition and stop poaching business from another CCP. But then there's also this Brexit debate in there... The UK had open access, but the EU didn't, what would that mean? And then you also have these groups of algo firms banding together and saying, banding together and saying, hey, why don't we create something? We're way to where the liquidity providers

we are the market. You know, why should an exchange like CCP get all the money while we do so? So, yeah, we will open access. Why? Well, actually, it isn't because we want to competition between exchanges, because we want to create something ourselves.

- SPEAKER1 37:55 Do you think also in the bond market you've also got these complications around how junior or senior the debt is? Does that have any potential impact on the ability to scale for something like algo trading, because obviously when you trade in equity, OK, you've got a different share class, but...
- SPEAKER2 38:23 Yes, one hundred percent. Because it makes pricing harder, it adds some complications and yeah, the algos, although, you know, they're are algos in bond markets, you know, today, some of the other firms, they typically use those to bob or hedge against an ETD product. In my experience, it's not always the case, but it does make it harder and actually and sometimes it's not impossible, but there's other fish to watch the ponds to fish in.
- SPEAKER1 39:03 You know, the opportunity cost type thing?
- SPEAKER2 39:06 Yeah, and we have this discussion with clients on some other standad exchanges and say like, how are you doing that? You're doing that. Have you thought about doing this? And we've done the research where you have some matching algorithms, colo, indicative cost would be and the quiddity volume open interest has an opportunity and they're like, great, but we're so busy over making so much money out here. And there's other opportunities. Yeah, I'm sure we could make some money there, but yeah, we've got enough going on to complication. Is every barrier to entry is a roadblock. You know, we did with doing some stuff with Brazil and you know, the way that bond will have to interest rate contract works D1 one that some combination of free trade night right fee, permanent fee, fee structures, the fact it trades as a rate and clears as a future. You know, somebody so many other products of the various products in the past traded as a NPV net present value and cleared as futures you start as soon as there's any new complications, it's you know, we're going to do something simpler.
- SPEAKER1 40:20 Yeah, I mean, colocation, you mentioned that you've been involved in that at some point in your career, like colocation. And I brought up in books like Flash Boys with regards to equities trading and quite controversial people saying, oh, I know this helps rent seekers and all this kind of stuff. How much have you seen of that, if any, in thick markets? Is there much interest in colocation in FICC markets or is that not really taking off?

SPEAKER2 40:54 Only on the space, but not on I say on the back side.

SPEAKER1 41:03 is there much of a benefit to it where I mean, in equities, I can see sort of the rationale because you've got maybe multiple venues and, you know, you've got things like the NBBO in the States and stuff where, you know, all this you might get lifted on a on a very slightly cheaper price somewhere else. And, you know, you've got you've got a bit of price risk there. But when you've got it seems to me that in a lot of markets, it's in most cases one venue that's listing a particular contract. I mean, is there much of a benefit to it?

SPEAKER2 41:32 Yes, absolutely.

SPEAKER1 41:35 In what sense?

SPEAKER2 41:38 If you take gilt futures, it's a price time. Setting out with the person first gets everything you take. Some of the things that go pro rata algorithms is always a priority. And then there's volumes that you can take it. There are. I mean, I got to say this because it's on the Internet, Karol, who was the head of RSJ who, are a Czech based derivatives trading firm, I mean, he wrote lots of papers about matching algorithms on a guy's life years ago and the advantages of things and how you can guide them. Let me put it out there in the public domain. So, look, you know, but yeah, there are certainly many benefits, market data, the fact that you're I mean, I talk about this private public facing a lot at the moment to make sure that public feed is faster than the private feed. In other words , you know , the market data goes out , the market data update goes out to everyone before you get your fill , because when the audience will if you get filled and you go down your private feed and you got you know , the market's moved before everyone else because the market data hasn't come out yet to the public , there's a lot of talk about that . And there's, you know, as we know, there's regulations around those things. But at the end of the day, if your cabinet is sitting there next to the matching engine, you're going to find out for everyone else. That's pop. There's lots of work and some of the data centres where previously they didn't normalize the length of cables between cabinets. Why? Well, because that one's at a front. I mean, it's a six-foot cable that was a facsimile to 100-foot cable. But, you know, MIFID II clients have argued and a lot of them changed and normalized the cable. And I mean, those conversations. Yeah, have when we saw the WMC, that Wavelength Division multiplexing, I had conversations with clients about what we should break down the fibre into wavelengths, those conversations about what wavelength I could have because rates faster than by. Yeah, there's a lot to be said for....The downside is it

costs a lot of money because it's a revenue for the exchange. They charge a lot of money for a big premium for that space next to the cabinet and quiet markets. That premium doesn't change. That's a fixed cost because it was going on. Do they benefit from it? Absolutely. Is it big in equities? Yes, things are equity options. You know, you've got your Euronext cash markets in Basildon and you're in options markets in all. Yeah, yeah, there's lots of guys trading or pricing options off the underlying it to take a price from Basildon back to my London office and then price my options, send it back again. Yeah, we're talking about milliseconds, however, from a couple of feet away in a cabinet that I'm doing well might cross fractions of micros.

SPEAKER1 44:49 And I mean, if it to sort of underline, as you said, I mean, this is a big sort of emphasis on fair and non-discriminatory access, partially around, I think, inspired by some of the controversies around how commercial venues were offering. We're offering access practically. Do you think it's really possible to. To not discriminate at all, is it possible to keep all those actors' equivalent access if they're all paying the same money?

SPEAKER2 45:21 Well, it comes down to money, doesn't it? So now people have microwave antennas on the roof. Why? Because you've got lost, you've got fibre going between exchanges. You have fibres, zigzags down roads, a high speed of light down across medium. So, he would then go on with his microwave antenna or what instead? Well, that line of sight that a short distance cable, it zigzags. And it's also, you know, it's the speed of light through area as opposed to a glass medium much faster. Is that available to everyone for a cost? Yeah. I mean, you hear stories about people falling over bits of land in Cornwall or Norfolk. Why? Because the Atlantic was a bit nearer to the US by a few hundred meters or that bit of Norfolk, a bit near Europe and Frankfurt then, you know, coming off the Cape Coast or something. Yeah, it is a frightening. This goes on. I mean, there's lots of stories about these things and, you know, yeah, it's an in trouble as one person spends all the money has the fastest access. The fastest access is available to everyone, if you can afford it or if you want to take a punt and then they dominate the market and everyone else disappears. Why? Because they can't. This guy wins every race. I will drop out and then the guy wins every race. One day is a bad day or, you know. Sir.

SPEAKER1 46:48 So, I've read a number of different things about this arms race. And there's sort of more fundamental players. Sort of argue that this type of activity doesn't really enhance the quality. Yes, you're getting advances in speed, but ultimately. For the for the you know,

the general use of the market is not really moving things forward, it's just firms spending lots of money on just so they can get there first. But is the service economy what it is? Is it really? Is that really a social benefit in your view or.

SPEAKER2 47:32 I actually don't know. It's very subject to isn't it? And if you ask the broker who went and pushed the button but got beaten by now, that he's going to complain and say, you know, the guy goes out to do something and the other guys beat me. Is that rule? No. I mean, if you all go well, we guy we're providing the liquidity. We're the ones who are putting the prices in the market. Where you also to taking the prices in the market as well. I own self thought about this a lot, Alex and I still haven't come to a conclusion, you know, I've been very close to this business. My fear is that one firm dominates all of it. And then what happens is and then that firm everywhere else goes bankrupt, sort of goes bankrupt because they can't make any money. And then they pull out the market and then that one firm goes belly up one day and then what you're left with.

SPEAKER1 48:31 MiFID II tries to sort of address some of these issues. From what you've seen, is MIFID II...how MIFID II has been implemented...Do you think that sort of top-down regulatory approach is going to work? Is it being successful so far?

SPEAKER2 48:58 It's definitely a good start. You know, the regulators are trying to do something about it. Again, they're not necessarily experts in this specific field. Hope I've got some people there who understand it. We've engaged quite heavily with the FCA in terms of prudential capital, for example, and, you know, some of the feedback we got from the FCA is that I appreciate the feedback we gave because I said we're not experts in this. And actually, every firm is different. So what? We can't know how every business is impacted by some of these changes. I think more could be done. By the regulator, as we know, typically they're slow to act and because, again, you know, they've got to do a lot of due diligence. They can't just come out the policy as being market data, for example. You know, there was lots of conversation about market data fees and putting some of this referencing method to it. It's very, very hard. They are doing something. They're trying to do something about it. Is it enough? Probably not. But this it's a start. And you can't do these things quickly and rush them.

SPEAKER1 50:25 And given what he said about the regulator, maybe not having. All the expertise to understand what's going on, do you think there's enough industry collaboration on these topics, or is that still the



sort of idea that actually we're not really going to talk about this because this is our commercial interests and actually we want to get ahead of them? Do you think that needs to be more industry collaboration or all the initiatives of the FCA and things like the FICC market standard?

SPEAKER2 51:10 It's interesting, isn't it, because trouble with these industry bodies is not everyone wants the same results. You've got the "EPTA" group who are basically a bunch of our guys and HFT who want something, and then you got several actually. Who is that group? Who's the dominant? People on that group, always a bunch of, for example, states who are trying to do so. Yeah, it's interesting. I mean, it's really hard and it's not easy to get a group of people in on some of the groups have their own sort of group, but really, they're battling each other anyway. So, you got to be careful. Can you trust one of them says agencies to each other? Probably not looking out for themselves and a little bit for the group. I do a good job in writing around. But again, when we were looking at open access, those three different views, that was the one group saying, yes, we want access to market. Another group saying absolutely not. Another group saying, well, because we have for various reasons and for different reasons, some would just not work is a little work somewhere. And I know this isn't great cause issues and someone we want. So how can you how can you represent brokers, banks, groups and nations within the same voice? You can't probably.

SPEAKER1 52:49 In terms of deterrence, I mean, one of the things I've noticed is that the US regulators and exchanges have been pretty prolific in the number of cases that they bring against market users and some firms that fail on their systems and controls, you will see almost, it seems, almost every quarter there will be some other layering of spoofing case and somebody getting a 90-day ban and some sort of fine. Whereas in the UK, certainly on the FICC front, the only one that stands out for me that I can remember is the Michael Coscia case, which was and his Panther energy trading. And that was really sort of started in the U.S. anyway. It wasn't really something which emerged in the U.K. It was just that the UK authorities got on the bandwagon after the US authorities started the case. Do you think I mean, is that really indicative that we're much more advanced and there is not there are not as many issues and bad actors here?

SPEAKER2 53:53 I think taken from my experience the US regulators are a lot quicker taking action, whereas, you know, we read reports from the FCA or from exchanges in terms of some getting fined, it will come out today and it reflects something that happened in 2008, 2009.

Having worked in some of these venues as well, might have been involved in arm's length and following proper Chinese walls. You know, things get reported and you hear nothing back. I not thought they all investigating it all I know are they is it what are we going to hear back in three years' time? Yeah, I don't think. Yes, you're right that you see a lot more coming out to us and Europe, and it's not through people not getting reported. You know, I know that their news report bad actors to regulators in Europe and in the U.K., you know, Wednesday, I say now I've involved in it. And the feedback I always had when I asked them about these cases, you know, very much. But all that said things was, yeah, it takes up to hear nothing, but. And actually, people would phone me up and scream at me trying to decide, you seen someone is doing this. Say, "I want them done." "I want them to fine you." "You have to report this." "You have to do this." This is when I worked for a venue and, you know, it had been reported. And you had a fine a week later. What did I do about it? Well, I reported it to the regulator and said there's no other... This one-way traffic had nothing back.

SPEAKER1      55:55      Yeah. It almost seems that in the US is a very big focus on enforcement and what some people have mentioned is that they believe that the reason for that is, is because in America, on the enforcement notice, the person who's bringing the case gets their name on the notice and they spend a couple of years in the CFTC, almost like they're induction to the industry, if you like, or something, and then they get lifted by one of the big law firms and it's much more profitable for them because they can say, well, look, I brought these number of enforcement cases. So, there's a sort of incentive for them to be quite aggressive. Whereas in the UK, that's not the case on the enforcement case, you never see. The name of who was really you name, you might see from an exchange, you might see the name of the chief executive, but you don't really see that, that the team of people who were who were involved in actually bringing it up. And they say that they think that's a big reason why there's a big difference apart from resource issues and maybe knowledge issues as well, which I find is quite interesting. But I'm also wondering as well whether there could be also a nationalistic element of it? And we know we're in difficult economic times. Is it may be a case of governments like the U.K., Germany, France, maybe think, well, "we don't want to force these people offshore because then we'll lose the revenue to a rival centre like Singapore" or something?

SPEAKER2      57:34      No. I think so. I mean, this has been going for I mean, for people of I've spoke too It's always been the case. It's gone on for a long time.

And it's not because they're scared of losing the business to somewhere that perhaps has less strict policies. I think they're just probably understaffed compared to their US compatriots who have armies of people asking millions of questions to, you know, compliance teams are firms like ours? Well, I did speak to someone recently, they were telling me how many questions, you know, how much of their workload is just answering questions from typically U.S. regulators or Hong Kong regulators, but not from UK regulators.

SPEAKER1 58:28 Coming close to the end, no final couple of questions, so the first one is. All there anything I mean, maybe when you were at the venues, did you ever look out to see what was going on, maybe extraneous to the to the trading industry? So, you know, there are a number of other highly regulated industries which there are a lot of algorithmic deployment, medicine, airline industry, that type of stuff. Did you. Was there much cross pollination? Did you ever look to what they were doing and try and get inspiration in terms of how you might look at the systems and controls in the financial industry, or was that in your view, not much of that going on?

SPEAKER2 59:21 No, actually, the answer is no. No, we didn't I mean, I was there when we built the first colocation, the first couple of cabinets, we stuck above the kitchen on the old, you know, exchange. And then the next thing, building massive data centres. No. But I don't recall anyone taking a lesson or something I learned from another market. This might be because in those days the markets were advanced as financial markets. Why? Because it, you know, generate the most money quickly. I think the world's changed a lot in the last few years for sure. And especially with covid and the amount of money and research put into biomedical, for example, and biotech companies, I think that space is really exploding. And I think some of the things they're learning from derivative markets, you might have to analyse. You know, people have been analysing markets and using AI for decades and derivatives. We hear about Renaissance and, you know, the story was they were using AI in the 80s, you know, first paper out there year, I think actually other markets learn a lot from the financial markets. Now, the world's turned a lot more investment in biotech these days. Maybe financial markets can learn things from biotech. But it's not something I've come across in the past.

SPEAKER1 01:01:02 Finally, what would your what's your principal concern, I mean, other than what you've already mentioned about the potential dominance of one or two actors? I mean, do you have any other

principal concerns for the sort of viability and future of sort of trading industry as these things evolve?

SPEAKER2 01:01:25 Costs. Costs are spiralling upwards just because there's the same sort of single actor, the same technology front one or you know, it's the guys who sell the shovels and make money during managing the gold rush. I think in that scary space where there's only a few vendors left in the industry because they've acquired everyone else who dominated. Yeah, and the amount of regulatory cost. Has gone through the roof, you know, the phones I talk about for, you know, incorrect media reporting, you see it every now and again. Someone's been fined 20 million in huge amounts of money. So, the amount of the cost of running a business now is significantly higher than it's ever been. And it's only going in one direction.

SPEAKER1 01:02:25 Could that encourage people to maybe cut corners? Is that a danger?

SPEAKER2 01:02:34 Well, I don't think they're cutting corners, I think they're not doing what they're supposed to be doing in some cases, and I think because it's also very complicated. And we did in the past, we tried to get experts and certain subjects and the guys we interviewed who turned up were certainly what experts and we ended up learning ourselves. The trouble is, you know what? I had someone resign today because the things we taught them over the last year have made them very valuable. And because we know there are not many people out there with that skill set. Yeah. I mean, we get people come poach our staff that we've trained up and taught them how reg reporting works, for example. It's not I don't think it's that complicated. I've gone through every MIFIR field. If there is, you know, apparently or someone's got those skills you're worth a fortune at.

SPEAKER1 01:03:34 Good. Well, that concludes the interview. I'm just going to switch off the so thank you for that. I'm just going to switch off the recording.