



#002: The Challenges of FX Ecommerce (Dr. John Bates/Dan Hubscher – Progress Software)

Candyce Edelen:

Welcome to this installment of TrendSpotters. I'm Candyce Edelen. And today my guests are Dr. John Bates and Dan Hubscher, experts in foreign exchange e-commerce as well as algorithmic and high frequency trading. John is Chief Technology Officer at Progress Software. He is recognized as one of the driving forces behind emergence and commercialization of complex event processing. He also pioneered the use of event processing applications in business solutions that empower capital markets trading, risk, compliance, and fraud prevention. John was the founder of APAMA, a market leader in the CEP space, which was acquired by Progress in 2005. He also recently became a member of the CFTC Technology Advisory Committee.

Dan Hubscher is the Director of Industry Solutions for Capital Markets at Progress. Dan focuses on driving innovative uses of Progress products in algorithmic and high frequency trading, real-time risk management, and foreign exchange e-commerce. Prior to joining Progress, Dan held several positions at Radianz, the global extranet, where he led sales, marketing, and development efforts. So today we're going to talk about developments in the FX space and trends in that area, including high frequency trading, FX pricing, and e-commerce.

Dan and John, for our first topic, let's talk about how firms are dealing electronically in a fragmented world. What are some of the key issues that they have to cope with as they build out their electronic systems?

Dan Hubscher:

Sure. Thanks, Candyce. And I guess I'll start. I think the best place to start this story is to review a little bit about how the industry has fragmented over the last few years. So as you know, we started with two dominant players in the foreign exchange space providing pricing distribution. Then we witnessed, over the last five years or so, the growth of foreign exchange ECNs. But I think the real driver today is the growth of the single-bank portals now, with banks getting into the game to provide liquidity. So, the market just fragments more and more, creating quite a level of complexity to participants. So coming to the dealing use case, how does a trader face off against all these sources of liquidity?

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Candyce: John, you want to talk about that?

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Dr. John Bates:

Sure. I think the big problem here, Candyce, is the fact that you've got a trader who's being forced, if they want to trade and look for the best price, across not just your traditional Reuters, but now you've got your Currenex, your Hotspot. Now you've got CME dealing in foreign exchange. And then you've got your bank portals, as Dan says, your Barclays, UBS, Deutsche, et cetera. And you've got a trader who might have to have six plus terminals on their desk, all of which are operating in real time with real-time quotes and so on. Clearly, it's not tractable. Clearly, it's too expensive, not scalable. And you've got that in the context of ever increasing competition. So what traders need and they're asking for is to be able to create what you might call a God's eye view of the market. So, a single screen that almost looks like you're trading on a single portal, but it's really doing something called aggregating. And it's aggregating, in real time, the best bids, best offers, across all the markets. So, for example, euro-dollar, the best prices might be on Reuters, but then second best might be on CME or might be available through the Barclays Bank portal, et cetera.

So, it's about that aggregation, and then about customizing which venues you want to connect to, how you want to see it. And of course, if you hit prices, it's about smart order routing, behind the scenes, actually making it and taking that order to the correct venue to actually fill that order, and customizable logic to prioritize other venues, venues that you prefer over certain other venues and so on. So that's a big issue, getting those terminals in the bin and actually having a single view of the market.

Dan:

Yeah, that's a good summary. And that would be lovely if that were the end of the story, but there's more to it, isn't there? Just thinking about regional banks as an example today, that's just half of the challenge they're facing. I find, most customers that we speak to these days are caught between a rock and a hard place. And we've just described the rock, which is the fragmenting markets and dealing in those marketplaces. But on the other side, the hard place is the difficulty in attracting customer flow in those aggregated markets. So, banks need to do things like find the best price in liquidity, not just for themselves but also to figure out what's the best price that they can quote to their customers, and there's a whole another equation there.

John:

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Absolutely. And of course, they're moving to a world now where they're not just looking at the spot trading desks as the way to deal in this. They might have algorithms that are going to do some of this automatically, to complement their trading groups as well. Both in the execution space, but also in the high frequency space, some people are specializing in this. Again, they want to have





an aggregated view of the fragmented market, to be able to make sure the algorithms are getting the best price and liquidity combinations.

Candyce:

So this all plays into some of the difficult things around what's driving e-commerce in FX, around pricing and hedging and lying off risk. Can you talk about how the trend toward e-commerce is influencing things, and what's driving this focus on e-commerce?

Dan:

Looking at it, again, from the banks' perspective, competing for customers is something that John just talked about. And especially with high frequency trading, we're seeing a lot of banks today starting to compete with each other to get that high frequency flow or various forms of automated flow from the buy side. So it's not just the traditional FX order flow world. With increasing participation from hedge funds, recognizing foreign exchange as an asset class, profit making opportunities, there's a lot of flow to be captured, so that's really the main driver. But making it more complicated is the fact that, as we saw in equities and futures markets, it's kind of the same trends here. So deal flow tends to be up, but deal size tends to be down, more electronic order flow but in smaller bids, and that puts a strain on infrastructure.

Plus, on top of that, getting back to the fragmentation, banks are trying to price currencies very aggressively, to attract that customer order flow away from other banks that are doing the same thing. But there again, it's a rock and a hard place. There's the competing pressure of volatility in the market and risk. So how do you quote the best prices you possibly can and wrap in the most innovative and fastest services to get those clients, while covering your risk in the market that's always moving? Liquidity is moving from one venue to the next, and you never know when a price is going to move against you.

That's a challenge. Plus, tiering in this market is something that's highly customized to banks' individual business models. So, taking all these things into account and creating a customized way about it to facilitate gaining that order flow is really what is driving e-commerce for most of these banks.

John:

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Yeah. I think, in terms of how banks are addressing this, in the market, Candyce, you're seeing that aggregation that we talked about, which is being used for internal spot trading. That actually is becoming a service which you can use to then have a very good view to create real-time prices for your customers. So you can take that aggregated view of the market. And, as Dan was just talking





about, you've got different tiers of customers. You can use that tiering to skew and to adjust the spread of the prices coming from the aggregator to make prices to put out to your customers, so just the spread, depending on how your platinum tier gets a narrower spread than your gold tier or whatever.

So you're pumping out these real-time prices. And then, of course, your customers are placing orders with you. You need to do a number of things in real time there. You need to credit check them in real time, as the orders come in. And of course, you might want to have position keeping, on a per client basis, per trader basis, and so on.

You might want to aggregate those client orders to be able to create a bigger chunk where you can lay-off risk, have auto-hedging componentry inside your system, which is automatically deciding when to trade based on has your position gone above a certain level. Say you want to maybe hedge out some risk, you've gone above a certain position in a certain currency pair, and deciding whether you want to be long or short a particular instrument. And then you've got this concept of internalization. So you may not go out to the aggregator to trade. You may use an internalization algorithm to sort of trade with yourself, if you like, if you've built up certain positions.

So there's all of that going on. It's a big loop. You've got your aggregator creating prices, your deal flow coming in. You're sort of auto-hedging that against the aggregator or against your internal book. So it's a great big loop, all happening in real time, all happening on top of this context of a fragmented market.

Dan:

Yeah. So that really kind of illustrates an elegant way to step around the challenges of the rock and the hard place. And back to Candyce's question, the main point of doing all these things in such an innovative way is to attract client order flow. That's the real bottom-line driver here. But there are other knock-on effects once you do all these things. You've got to turn around and look back at how you interface into the markets, because there tend to be new challenges there as banks ramp up on servicing high frequency trading.

Candyce:

So how does this all impact the relationship between banks? You've told me about situations with some of your clients where this created extra pressure on a relationship between tier one and tier two banks. And I'd like to hear more about that, if you could tell us a little bit about that story without identifying the bank.

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Dan:

Sure. So, like you said, we've worked with a number of banks that have started to do this, and they've all come back to us saying they gained some new experiences in the servicing of high frequency trading, not only just their own operations but in working with the book of the clients and the other banks in the ecosystem around them. So they've learned some lessons, some of them that they expected, some that they didn't. We found that dropping in a very highly customized, low-latency operation into the e-commerce infrastructure has been a bit for these clients like turbo charging a Volkswagen, almost, where, if you think of the Volkswagen as the whole ecosystem of clients and banks and everything around you, and just dropping a turbo-charger in without modifying anything else and expecting it to work, some things are going to explode somewhere. We have had some customers hit some speed bumps, haven't we, John?

John:

It's funny you say "speed bump" there, Dan, because there's a scenario that happened recently that we called a speed-bump scenario. A customer of ours...you might call them a regional bank, but they have a growing global presence as well, implemented an e-commerce FX system, starting off with an aggregator and so on, and they found an interesting scenario. One of their big partners that they work a lot with, through a single-bank portal, was part of the feeds that they aggregated. And what they found was their aggregator was working so fast that if they wanted to fill a certain amount of liquidity in a certain currency pair, it might find the best price with the single-bank portal they were working with and then immediately walk the book to continue filling the liquidity and maybe trade with Reuters. But actually, what was happening was the single bank was quoting this good price and then hoping to fill it with the Reuters liquidity, which was the next thing the aggregator filled. So the aggregator was taking the liquidity from the bank before the bank could actually take that liquidity itself.

So this was leading to a bit of a relationship problem. The bank was saying to our customer, "Look, we won't be able to work with you anymore, because you're basically taking our liquidity and then you're taking the liquidity from the market we were going to use to fill you." And so that was a bit of a problem. What we did was, through customization, we were able to show the bank how they could put a speed bump in there, that if they were trading with this particular institution, there'd be a little pause to allow that firm to fill their order and then carry on walking down the book.

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Candyce: Interesting. So it actually impacted the larger bank's ability to fill the orders for

the smaller bank because they were coming in so fast.

John: Exactly. And new technology, Candyce, is coming out, like aggregators that are

moving much faster than the old technology. And so all firms have to got to be able to keep up, but they also need to be able to customize to their particular

business relationships that they have.

Candyce: So what do you see as the trends for the future? I'd love to hear what you're

seeing and what's developing out there, and where do you think the market is

going to go?

Dan: Well, we kind of started out this conversation by talking about foreign exchange

as an asset class. And some people kind of take it as a given, but others don't, so I think it needs to be said, in terms of firms finding profit seeking opportunity, not just hedging opportunities, in foreign exchange. You look at what's going on in the foreign exchange market around the globe; you see the balance of power shifting away from some of the primary players, and primary countries, even, as reported by the Bank of International Settlements. So we've taken a look at that

and thought about who might be on the rise coming next.

John: Absolutely. We've seen FX, really, as becoming an asset class in its own right.

it's really become an asset class in its own right that's traded for profit in itself. I think you've seen this fragmentation happen. That's probably going to continue, but there'll also be consolidation. But you've seen this empower smaller institutions to do more than they previously could. You've seen them move

Instead of just being an interesting instrument to support various foreign trade,

away from the phone. That's going to continue: more electronic, more rise in the regions, based on technology. And we're interested to see regions like Brazil, and there have been a number of conferences in foreign exchange in Brazil recently. We're interested to see what happens there, what's going to

happen in that very hot area.

I think you're going to see more algorithms trading in the FX space, both for execution and high frequency. You're probably going to see more problems in the FX space, along the lines of, we saw the flash crash in equities and futures

last year. But there's also been a few problems in the FX space, where

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algorithms have gone wrong or gone into infinite loops. I think there were a few problems with things like the Norwegian kroner and with cable and various Sterling crosses last year. A few banks had some problems. They've got a risk of having a flash crash, maybe, in FX, and you've got to watch out for that.

And then, finally, this idea of customization, and every bank needing different requirements, different liquidity pools, different ways to trade. Customizing based on the relationships, as we've talked about, that is going to be a big theme. It's all about customization and being able to evolve as the business evolves.

Candyce:

Well, I think we're out of time. John and Dan, thank you again for being my guests. This has been a very interesting conversation, and we look forward to hearing more about the FX space as we go forward.

My guests today have been Dr. John Bates and Dan Hubscher of Progress Software. If you have questions for John, you can email him at jb@progress.com. And if you have questions for Dan, you can reach him at dhubsche@progress.com. I'm Candyce Edelen, CEO of PropelGrowth, and I look forward to joining you again next time on TrendSpotters. Have a great day.

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