

Data. The Catalyst

Host: Jonathon Traer-Clark

Co-host: Jo Miyake

Jonathon ([00:01](#)):

You're listening to the Treasury Insights podcast. This is part of our broader objective to foster a treasury relationship that prepares clients for the future, supports more strategic decision making, creates efficiencies and helps manage risk. Put another way. We want to give you the power to see what's next. Data and artificial intelligence is transforming the business world. Organizations will gain the power needed to solve tough challenges by harnessing data to help make better decisions. While data has always been an important business input, recent advances in artificial intelligence and other analytics are allowing decision makers to make better decisions to anticipate outcomes. Our host will examine how data helps make informed strategic decisions about efficiency and what we're hearing from our clients. I'm Jonathon Traer-Clark, Head of GTS Advisory and with me is Jo Miyake, Head of Cross Product Solutions and Commercialization at Bank of America.

Jo ([00:59](#)):

Hi Jonathon. Thanks for having me.

Jonathon ([01:00](#)):

Hi Jo. Thanks for coming. Jo, as a compelling need to help our clients harness their data to transform their institutions. If we start with that, how do you think about data?

Jo ([01:13](#)):

So data's a word I've toiled over a lot for such a small word it means so many different things to different people. And interestingly recently, just appending the word big data seems to make the whole term take a life of its own, which I find interesting because after all, data has been around for a very long time and it's circumambient, all of us, and it's been around for decades. So, so what's different? So the way I describe what's actually changed, really the catalysts around data. First and foremost, the availability of data. So thinking back to the early days of Microsoft XL having 16,000 rows to it, now, having over a million rows is a very relatable metric for people to understand what's actually happened in terms of data capture and therefore the data availability as a result of that. Secondly, it's really around the techniques as it relates to data.

Jo ([02:02](#)):

So oftentimes referred to as data science and again, to make it relatable for people. If you think back to the early computing days where we would have been coding you and I, Jonathon in Basic or Fortran. (Thank you.) Yes, the techniques have been much more amplified. So it's now a combination of presupposed functions that you're putting together to harness some of those insights. And so you're not really working from first principles, which means it's acting as an accelerant to how we think about data and some of those insights that are driving. And then thirdly, compute power, which is an obvious statement in terms of the capabilities today. And compute power is important because of the sheer amount of data. Really stringing availability in those techniques to the datasets you're already handling their vast. To that end, there was an IBM article that suggested that 90% of data that exists in the world today was created in the last two years.

Jo ([02:57](#)):

It's very illustrative of the fact that this compute power has to really grow at an exponential rate so that we can really harness all the data that we're producing through its availability. This quickly brings us on to another point around the fact that I said data has existed for a long time and so nothing's really changed other than the catalyst. But then if you fast forward to the comment I made at the end there, that 90% of the data is actually two years old. You get into this debate of is the transformation for data actually a young thing or has it been a gradual thing?

Jonathon ([02:29](#)):

Presumably if I think about, and thank you for that. So let's just recap. So you talked about availability as in sheer expenses of data. You then talked about; I'm going to call it tools and techniques or processing methods for that data being much more common and prevailing. And then you talked about compute power so we can actually crunch through the data much, much faster and deal with much bigger data sets. I like the million rows analogy and everything else. But then you also kind of branched into I guess the sheer scale of it. So perhaps this is where we leverage innovation and data together.

Jo ([04:05](#)):

And I like the way you've linked kind of data and innovation because I think in the market today, people talk about data innovation, digital as very separate independent topics. But to me it's all one in the same. If you'd like to think of it this way, in our space, in the payment space, there are a lot of Fintechs that are coming to the fore and a lot of their businesses actually are predicated on the fact that they have some form of data science capability, whether its machine learning, some form of AI predictability. And that's really the basis of their business.

Jonathon ([04:34](#)):

Okay. And you kind of led me to think a little bit further about innovation, creating new business models, using data and leveraging data, to create new opportunities. So do you think we're approaching an information age or number of decades. In fact, you started in the early nineties when compute power became much more accessible to all of us, but would you say now we're in the 20s if we can call them that, but we're actually really now in the decade of information and data utility.

Jo ([05:02](#)):

Yeah, it's interesting. I think there's probably two ways to think about that in my mind, despite the fact that data's been around a long time and we've been in a state where we've been analyzing all of these things. So you could argue, well the information age has been around for a while, but if you actually look at the statistics, one could also argue that because of the sheer amount of data that's come into existence in the last two years, it's actually relatively young space if you'd like to think about a concentration of data.

Jonathon ([05:28](#)):

So to some extent we're still thinking about how to filter it because if you have a volume of information, then you could dilute the quality of that information as well, right? So are there any tools and techniques that we're thinking about or our clients are talking to you about my way of doing the filtering of the data before they start thinking about processing it.

Jo ([05:47](#)):

I think your question really goes to how are we responding to the availability of this information and how are we helping clients? Let me answer it slightly differently. If I were to share with you what clients are talking to us about in relation to data and how they are engaging us, I think that will also go in part to answer your question. So I think firstly what's interesting to me is when I sit down and oftentimes talking to clients about this topic and how we might help them from a service perspective, we actually go backwards and end up talking to clients about how our journey has gone, transforming ourselves as a bank in relation to data. And they're really asking that question because I think a lot of corporations are still in the early stages of their own transformation as it relates to this topic.

Jo ([06:33](#)):

And so what they're really trying to garner is what are some of the pitfalls as we, as clients consider as we try to transform ourselves, and that's something that we share often with our clients. That quickly then

snowballs into, well, if we have some common problems such as infrastructure, how is it that you as a bank can then help us leapfrog those problems? And that's when we get into the conversation of the services we provide. And therefore, the way we think about that problem set, we as Bank of America invest a huge amount in technology, in our ability to prosecute our own data. And as we think about clients and their infrastructure challenges that I just described, it's our ability to provide the technology backbone on top of the data and provide that insight back to the client such that they can leapfrog where they are on that evolutionary curve, in terms of technology.

Jonathon ([07:25](#)): You're saying its scale.

Jo ([07:27](#)): It's scale. And we also have access to data sets that are greater than that that the client would possess.

Jonathon ([07:32](#)): Presumably we can also perform pattern matching. We can look for behavior and analytics. We can look for commonality because we have a broader set of information to look at as well. So the perspective we have is much larger, which means the clients can get a more enriched response to the information we process.

Jo ([07:49](#)): And I think that's key. As you talk to people at different evolutionary stages, oftentimes the question comes are you just playing back the data that we provide you in relation to our payments? In fact, the real value is combining that with other data assets as we call them to give them deeper and deeper insights. Whether that's market data, whether that's other kinds of payments data, you know there's a variety of the things you mentioned behavioral analytics, that's another one, so the combination of those data assets amplifies the insight you can play back to the client.

Jonathon ([08:18](#)): It's interesting because one of the words we haven't mentioned is information and my own somewhat puritanical view is that information is data with context. I don't know if you agree with that but it seems that in the enrichment phrase that you're talking about, so if we think about basic extraction processing as scale through large infrastructure and then enrichment, adding things to it, whether it be the market data or other such things, you create essentially new pieces of insight that

you can then use to push forward and drive business activities and outcomes. Is that fair?

Jo ([08:50](#)):

That is fair. You may start with a an idea of a data insight that you're trying to generate from a data set, but oftentimes as you achieve that initial goal, you realize that you can compound that analysis to kind of second the third order of insights. Oftentimes when you speak to clients, they're trying to get to that second, third order first. But the journey is an important one because as you go to the first, it allows you to think more broadly and go deeper on the data.

Jonathon ([09:16](#)):

That's interesting because a lot of clients have spoken to me about almost, I don't want to call them false stars, but it's almost like, slicing the whale or slicing the elephant, I'm not sure what animal you want to choose, but essentially it's a huge problem and you can get overwhelmed by it. So you're actually saying break it down into viable use cases and essentially learn in small steps, figure out what you can do and reinvest the value in the utility that you create along the way.

Jo ([09:41](#)):

Yeah. The other thing I would share is when I speak to clients, oftentimes this concept of Data Lake comes up, a Data Lake being one place you would put all your information and the way we've approached has been slightly different because if you go on a journey to build a Data Lake, it's an endless journey. If you go back to my comment around data assets, I mean you're trying to add so many things just to get started and put your analytics on top. Well, the approach we, go ahead...

Jonathon ([10:06](#)):

Sorry. I was going to say, if you think about the comment you made about IBM's statistic every two years you, Data Lake doubling in size, isn't it? If not more. So. Okay. So sorry. You were going to tell us how you sold that.

Jo ([10:17](#)):

And so the journey is an important one or the way we've approached it is as you develop very commercial use cases that you think has value and that could be any number of things and you build an insight around that topic, you're necessarily creating an underlying data structure to result in that commercial outcome. And if you then do two five, 10 and you're putting those datasets in a singular place, then you're naturally converging on an end state, which is a Data Lake. When I described that it's interesting because as you go on that journey, you're able to extract

real value in bite sized chunks while still achieving a strategic goal. And I think that's a pitfall that clients I hear fall into a lot.

Jonathon ([10:59](#)):

Now I've heard the same sort of thing, similar story to yourself and much like you we kind of describe it as create the reference framework that says this is where the information is that I need to be able to resolve that query or that challenge. And that actually is what will then drive the structure around your concentration of data rather than anything else. Really, I think it's the same thing as you. You expand on that reference framework as you add more and more use cases as opposed to just simply doing a gathering exercise. In the same way that a library is organized by the Dewey decimal numbering system, I believe. You know where to go to find things. You need to think about that rather than just frankly adding books. If I stretch the analogy.

Jo ([11:37](#)):

One thing that we talk to clients often about are some of these operational statistics that we delivered to them through a product called Client Insights that effectively just lists out different statistics that we measure our clients by, for operational efficiency reasons. And when we do that we hone in on certain statistics that they find important to their business and they value, we can help prioritize where they invest their effort as it relates to their data transformation and kind of guide them as to where they should be making those investments as it relates to either payments infrastructure, whether it's kind of operation efficiency process. And so it's a nice nexus between providing a service and advising our clients on how to transform themselves, but also being able to advise in the near term material ways that they can actually get outcomes quickly through some of the products that we provide.

Jonathon ([12:29](#)):

That's great. And if I may just leveraging off your last observation about creating leverage, we hear that word being used quite a lot around things like artificial intelligence. Could you kind of define it for us a little bit and then talk about perhaps how we might be using that or how you're seeing it being used?

Jo ([12:42](#)):

So I think the important thing is getting away from these big terms. Clients, stumble across machine learning, AI, data science. I find what happens when you start using terms like that is in your mind, the barrier to entry to get to the point of transformation just feels harder because they seem like unattainable things as it relates to business. When I started these conversations, I always try and boil it down to more kind

of understandable concepts. So let's take data science as an example. Data science is a term that has been bounded about; you'll see on resumes a lot. But the reality is it's a combination of computer science and statistics. Both of which you and I know have existed for a long time. If you boil it back to that again, that term becomes understandable. When you think about data science and machine learning and some of the things I was talking to you about earlier around going from first order computing to functional computing, the already available algorithms that exist in the market, the data scientists employed to try and fine tune for the specific purpose of the use case that becomes yet again an attainable concept.

Jo ([13:51](#)):

So when you boil it down to these simple terms and don't get caught up in the big words, you find the transition becomes a lot easier in your mind. Let's go back to your actual question, which was around artificial intelligence and machine learning. (Please.) The easiest way to answer that is really if you take a data set at a basic level and you analyze that with some sort of machine data science algorithm and you want to then scale that on an ongoing basis, whether it's predictability, whether it's another measure that you have. Machine learning is a self-perpetuating model. The more data you feed into a model, the better it becomes, the more accurate it becomes and the more it learns. And so whilst the term machine learning can be quite daunting, it's really just a model that as you feed more data, you can fine tune and optimize over time. And when you speak about it in those terms, it's much more attainable for a client as they think about their transition.

Jonathon ([14:45](#)):

Yeah, it becomes much more palatable because you're actually, again, breaking it down into, frankly, to use your analogy, less complicated words. No buzzwords and just making it simple, easy steps. You mentioned earlier about some of the products that we're looking at in terms of data and information. Can you kind of talk about how that's helped us transform our portfolio and what that means for our customers?

Jo ([15:06](#)):

Yeah, absolutely. So I think we really approach what we provide our clients really from two places. One is data as a service as we call it. This is really going into the data that we have on our clients, such as the operational statistics. Then really going deep on each of those different measures as it relates to the payments data we have on them and playing it back in terms of how we can optimize, whether that's a paper to electronic strategy for them, whether that's improving their days payable outstanding. We have data use cases that really kind of target

those things on behalf of our clients. And then we would engage with them on a case by case basis in terms of what their specific goal is. Because despite the fact that we have all of these statistics, they are all relevant to every client and they may prioritize it differently.

Jo ([15:51](#)):

So that's just data as a service. The other way we try and help our clients, and this goes back to the leapfrogging challenge that they have in terms of their infrastructure is what I refer to as embedded data science. So again, taking the concept of Fintechs really existing and their value prop being rooted in some sort of data capability, let's call it. We go into the market and partner with Fintechs. We see them as partners, not competitors. We may have a strategic relationship through some form of equity investment. We may just have a contractual strategic relationship with them, but we really look to harness all of the advancements that the Fintech space offers and bring it into our offering to our clients and bolt it in if you'd like to our frame so that when clients really engage with platforms like ours, like Cash Pro, they're inherently benefiting from the capabilities we're bringing in to that platform.

Jo ([16:44](#)):

They don't necessarily need to be the things that we do if we have these strategic partners. Clients really benefit two ways in that situation. One is they have a platform where they have inherent data science capabilities without upgrading their own infrastructure. But two, as we, Bank of America go into the market and look at these Fintechs; we're selecting best in class. We're a natural filtering to ensure that by the time the product is given to the client, they have comfort that we have actually assessed the market participants and selected one that we believe is best in class and therefore they directly benefit from that selection.

Jonathon ([17:18](#)):

I guess you also get over the scale issue from the point of view of the Fintech as well. You have the customer base, you have the use cases, you have the, forgive me the data pool of insights from which you're going to extract potential business outcomes and models from and they're creating the analytics and the algorithms that serve to process that. Would that be fair? (I agree with that.) I mean just to wrap Jo; you talked a lot about what we're doing, what you've seen in the marketplace. If I was a client and I was intrigued to kind of do a bit more with this and perhaps my stakeholders were sort of asking what my data strategy should be, are there any kind of two or three tips that you would give me to think about it other than to simplify the buzzwords and get down? I think two use cases.

Jo ([18:01](#)): I think it's really just assessing the business for what it is that you're operating and trying to just get a deeper insight. That will lead you to where you should focus your efforts in terms of data and where you should make those investments. As you engage with partners like ourselves, we can help advise on some of those things in terms of how to focus in on those very identifiable outcomes. I think the danger is when you think data transformation strategy just becomes a very overarching big topic and much like the conversation we had around the journey, taking bite-size steps is much more fruitful in the short term and the long-term in fact. So really honing in on that immediate value.

Jonathon ([18:46](#)): So focus on outcomes as opposed to trying to boil the Data Lake, shall we say. All right, well Jo thank you very much for your insights. I mean it was incredible to hear your thoughts and what you've seen in the marketplace on this, so thank you very much.

Jo ([19:01](#)): Thank you for having me.

Jonathon ([19:02](#)): You're very welcome. You've been listening to Treasury Insights. I'm Jonathon Traer-Clark, Head of GTS Advisory. My co-host today was Jo Miyake, Head of Cross Product Solutions and Commercialization's at Bank of America. As each day brings innovation and opportunity, we are dedicated to working with you to turn technology advances into intelligent treasury.

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