the art of boring™

EP69 | Investment potential within the payments industry

Rob Campbell: **00:05** Hi everyone, I'm your host, Rob Campbell. Welcome to The Art of Boring, the podcast where we dive deeper into Mawer's investment philosophy and thinking, in order to make you, our listeners, more informed investors. Ultimately, we hope to connect you with the people at Mawer who find excitement in Be Boring. Make Money.™

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Rob Campbell: **00:38** Justin, welcome back to the podcast. We're here to talk about some of the recent work that you've done on companies involved in payments. I actually just listened to an episode of Patrick O'Shaughnessy's podcast this morning, and he was interviewing John Collison, one of the founders of Stripe. And when John Collison was asked to characterize the payments industry, his comment was that it's surprising how for something so ubiquitous, just how, "crazy inefficient and immature the industry is."

01:07 So, I guess with that as a starting point, what I'd love to do with you is to understand why you've been focusing a little bit more recently on some of these payments companies. I was hoping we could talk through some of the value chain. In other words, Payments 101. How does this actually work, and what are some of the differences that we see geographically? And then, finally, get into some of the themes in this industry that is under constant evolution and understand your take on that and the research that you've done. So, if that works, let's dive in.

01:37 What prompted your recent interest in payments?

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Justin Anderson: 01:40 First of all, I really appreciate you making the comment about that podcast because I actually just listened to it as well. I just find it fascinating how young this industry is. I think we sometimes take that for granted; this industry, it's just gone through its first generation. It's brand new. So, a lot of the infrastructure, everything is definitely fluid and in motion and undergoing a lot of change and growth at the same time.

I think that's a great introduction to it: just how much is going on. That's partly why we wanted to dig into it. So, to answer your question about, "why is it that we're looking at this right now?", one thing we do at Mawer is we have this process that we call the "bathroom list update."

02:16 So, what we do during the bathroom list update, it's this annual process [where] we go and we check all the companies that we own in our various funds. We update our reports on them, our analysis of them; make sure we're looking at the management teams and we're looking at the valuations and making sure we're staying on top of these companies.

02:32 So, one thing we thought we would do for payments is we [said], well, what if we took all of our bathroom lists for the payment companies and we bundled them all together and ran a payments reverse roadshow? Where we could go through and meet with all these companies back-to-back and do all these updates together and see if there was some sort of larger industry learning that we could pull away from it?

So, that was part of the genesis of why it is that we did this payments roadshow—to see if we could get some learnings from aggregating everything together.

Rob Campbell: 03:04 Great. Can I poke at that a little bit, though? Our mantra at Mawer is, "Be boring. Make Money.TM" And what that means is that we're long-term investors, we're not trying to chase fads. We're looking to invest in companies with the strongest, most durable competitive advantages. So, on the one hand, I can see how payments fits that boring approach: it's just credit card transactions, these things happen all the time. As I said, it's completely ubiquitous. On the other hand, if it's an industry that's changing and evolving, and if it's really immature, how does that fit with what we're looking for in terms of investments?

Justin Anderson: 03:39 What we look for, is, we're looking for businesses that are high-quality business models, run by good management teams, at attractive valuations. That's sort of our Mawer mantra. And so, part of that equation, is great business models. So, the question then is, "Well, are payments a good business model?" Let's look at that.

Justin Anderson: **03:55** First of all, these are very high growth businesses. And the reason they're high growth is that, worldwide, people are converting their payments from cash and cheque processes to pay for their goods and services, and they're converting that to cards and digitizing those payment processes. And the reason they're doing that is convenience. Who wants to carry around a wad of cash? That's very inconvenient. Governments are pressuring people and businesses to do that because for tax purposes, it's much easier to track if there's a digital record of the thing. And also, e-commerce is exploding, and it's very hard to buy something with cash online—you need some digital way to purchase it.

04:34 So, all of those things are causing this massive trend right now of shifting from cash and cheque, globally, over to credit cards and other forms of digital payments. And so that initial high growth from a company who's interested in looking for high-quality businesses, well, that's a good starting point. It's good to be in a growth business model, but that's not sufficient. It's definitely a helpful condition for a high-quality business, but it's not enough. What else is going on?

04:59 So, the other thing is, you look at these payments companies and they tend to have some other attributes that we really like. For example, their returns tend to be very high (the returns on capital). That's partly because they don't require too much capital, generally, to get them up and running. They earn a high return on capital. So, we find that very attractive.

05:15 And then the third bucket is their moats. They vary a lot, and that's why we have to get very company specific. The moats can be very strong. One thing that's natural to many payments companies—a good example is Visa and MasterCard—is they have a very strong two-way network effect.

What does that mean when we say, "two-way network effect?" It just means that every additional cardholder—so, when I issue a new card to a new consumer—that actually makes it more valuable to the merchants that are on the network, because now they have another customer that they can accept payments from. And vice versa: as new merchants get signed-up and can now accept a Visa or a MasterCard, that's more attractive to the cardholders because now there's another store that they go and can purchase from.

Justin Anderson: 05:54 That's a very powerful network effect—that once you gather enough consumers and merchants on your network, it's a very sustainable moat. So, that's another feature of the payments industry that we really like. It's not universal throughout payments—we'll get into more of that—but, generally, a lot of them have these strong moats, high returns, and high growth. So that's why we're looking at it.

Rob Campbell: 06:12 It strikes me, as I'm listening to this, that I don't understand what happens when I go to the flower store and use my credit card to buy flowers for my wife...or something [laughs].

Justin Anderson: 06:25 Perfect.

Rob Campbell: 06:26 (She'll argue that I don't do enough of that [laughter].) But how does my money get to the flower store's bank account? From my bank account to the flowers store's bank account?

My understanding is that it's not just Visa or MasterCard, there are a lot of different businesses along that chain. And I'm just wondering if you can give us the 101 on that? What is involved in a typical credit card transaction that we know about in North America?

Justin Anderson: 06:49 Let's use your flower store as an example. (And I do have to confess that I'm also liable of the same sin that apparently you're liable of...) but yeah, so how do payments flow through the flower store?

So, think of the flower store: it's got a bunch of processes that it's running. So, first of all, the core of the flower store is accepting a payment from a consumer who's coming to buy flowers. In payments, we'd call that a C2B transaction, or consumer-to-business. So, that's when you show up, you swipe your card, you get the flowers, and you go home. That number today—that's actually the most important type of payment that is in the industry, because it is associated with the largest amount of revenue. Today, there's something like 50 trillion (with a T) of payments globally that are C2B payments of that kind.

Justin Anderson: 07:34 But there're other payments in the ecosystem that also matter. There's B2B transactions. So, that would be buying the flowers from your supplier at the store (that would be business-to-business transaction). And there's actually a much higher number of those transactions because you can think of, okay, well, we bought the flowers from a flower wholesaler while they might've bought it from a farmer…

07:54 So, that chaining of B2B transactions actually dwarfs the 50 trillion. It's something closer to 125 trillion in B2B. But most of those B2B transactions—those are done through bank-to-bank transfers. So, very much like the way you get paid your wages at work or something like that, it's going to be a bank-to-bank transfer. Whereas, that C2B flow—where you're using your credit card to pay—most of those are about 50% cash and 50% credit card today. And so that tends to be where we put a lot of our emphasis when we're studying payments—is into that C2B bucket.

Rob Campbell: 08:27 Okay, so, we've talked a bit about the credit card network itself with Visa and MasterCard—and I do later want to get into the specifics of that particular business model and the strength of their network effect. (That's what we all think about when we think about payments.) But my understanding is that there are many other players in the chain that goes between my bank and the florist's bank. Things like merchant acquirers and other particular businesses. Can you dig into some of those other businesses along the way?

Justin Anderson: 08:54 Sure. We're going to start pretty wonky here, so, hopefully, listeners can hang on for the ride. But I've already talked about how this 50 trillion flow is going as consumers are paying businesses, but there's this 200+ trillion business-to-business and business-to-consumer through wages that are much bigger, but yet, we focus on that 50 trillion mostly when we talk about payments.

09:13 And it's important to understand, first of all, the reason why that is, and why is there so much more revenue in these consumer payments to businesses than the rest of the network? And the main reason is that the rest of the payments, mostly, are being dominated by these bank-to-bank flows that are very low cost, whereas, the consumer-to-business payments are being dominated by the credit card networks.

And why is that? What is the credit card doing that we can't just do with a bank-to-bank transfer?

Justin Anderson: **09:36** And the big thing is, real time payments. Bank-to-bank transfers—those tend to be batched up and processed on a daily basis. You can't know at the moment of the transaction that the consumer actually has a valid credit card that they can actually make the payment. Whereas, a real time validation process is what we get from the credit card. We can know instantly whether or not the credit card is legitimate, whether the person has the funds available to make the transaction actually happen.

10:00 And there're other benefits as well that you get from the credit card networks. For example, you get a dispute resolution mechanism because you have this third party involved. If you just did a bank-to-bank transfer, you would sort of depend on the good graces of the merchant to sort of say, "okay, I'm going to refund you. The flowers were bad quality. And here's a refund for those flowers." Whereas, now you can actually complain to your bank or whoever issued you the credit card. And I'll get into that in a second, because I know that's the heart of your question. I just wanted to make sure it's clear that these are different types of payments. There's a reason why the credit card networks—the Visas and the Mastercards—are serving this business. There's an entire ecosystem. You mentioned it: through acquirers and these others that are involved in this. So, let's talk about that.

10:38 You have a flower shop and the first thing you want to do is you accept cash, obviously, but you also want to accept credit card. So, how do you do that? The first thing you're going to need to do is you're going to need to not call up Visa and MasterCard. They're not going to take your call. If you call them, they're going to hang up on you. The person that you need to call is a merchant acquirer. This is a bank, typically. It could be like a BMO; there's all sorts of different companies that are doing this. But you have to call the merchant acquirer, and they're essentially going to act as your bank for the accepting of credit card payments. Okay? So, if you want to accept credit card payments, you need a merchant acquirer.

11:08 Once someone comes to your store and they swipe the card using your merchant acquirer's interface, the merchant acquirer is going to interface or talk to the Visa or the MasterCard network, and then, they're going to ask whoever is the consumer side of it—we call that the issuer bank, the bank that represents the consumer. So, for example, I have BMO as the bank that I have a MasterCard with. BMO would be my issuer bank.

Justin Anderson: 11:31 And then, the merchant bank that works for the merchant that's accepting the proposed transaction is going to send a request over to the issuer bank through the Visa, MasterCard network and say, "hey, this issuer, are they valid? Is this credit card really theirs? Is the identity valid? Do they have the funds to make this transaction work?" And the issuer is going to send back a response and say, yes or no, it is a valid transaction, and yes, they have enough funds to make the transaction—it's approved. Transaction gets accepted (you see the little accepted the thing on the terminal). And that's all happening in real time. It's an incredibly complicated process. That's the core of what the network is doing.

12:06 So, you have these really important stakeholders that are in each part of the process. You have the acquirer: they're taking a piece of the MDR. So, let me just stop there for a second and I'll explain what the MDR is. So, we call that the merchant discount rate. So what that represents is, when you swipe your credit card, you buy flowers worth a hundred dollars. Only $97 is going to the merchant. There's $3, or 3%, that is actually going to the different players in this value chain. Who is getting that $3? Most of it is actually going to the issuer bank. In our example, that would be the BMO who issued the credit card to the consumer. They're getting close to half of that MDR. It's called interchange.

12:46 The acquirer is also getting a little piece of it. So, they're maybe getting 50 beeps worth of the MDR. (So, the acquirer bank who is working with the merchant.) And then, Visa/MasterCard, they are actually accepting a relatively small number. They're maybe taking 25 to 35 beeps of that transaction just for providing the network, for providing the rails that are involved in that. And there's also some other players—there's payment validation that goes on that takes a smaller cut. But, essentially, that's roughly the way to kind of think about the different stakeholders and the amount that they're taking in that transaction.

Rob Campbell: 13:16 Does that seem like a fair allocation of the value that each is providing? In a way, I would think that the issuer bank...it makes sense for them to get most of that cut, given that they're the ones assuming the credit risk associated with that.

Justin Anderson: 13:29 Right. And I think there's different risks that are being taken on. So, yes, the issuer bank is taking on the credit risk associated with the consumer. So, if the consumer can't pay off their credit card, they take that risk. And so, in addition to the interchange that they're getting as part of that MDR, they're also getting an equivalent economic amount roughly in interest—essentially associated with those outstanding balances. So that's another revenue pool the issuer is getting. So, you can imagine the issuer is actually capturing a lot of the economic rent in this transaction.

Justin Anderson:

The merchant acquirer is also taking on liability. Let's imagine, for example, you're an airline company selling tickets to take an airline ride. So, when you sell those tickets, and let's say then this COVID crisis hits and you no longer can deliver on those tickets. You've paid all your employees, so you don't have a lot of money left—you're depending on the airline to take the person and fulfill their side of the obligation. But COVID hits, and now all of a sudden, all the people you sold tickets to want their money back because they're not getting on an airplane. But it turns out you don't have the money. The merchant doesn't have the money (who sold the tickets) because they've already paid for it. [The planes are just] going to be sitting on the tarmac. There is no money.

14:35 And so, who takes on that liability? Well, it's the merchant acquirer. It's the bank that, when we first said, "hey, we want to accept credit card payments." The rules of the network stipulate that the merchant acquirer is going to have to cover the liability associated with the merchant that's unable to fulfill their obligations.

So, there's obligations on both sides. And that's partly why the acquirer is making that spread.

Rob Campbell: **14:55** Okay. So, you've got different levels of risk across various players in the value chain. Can you give me a sense—and I guess where I'm trying to go to with this question is just the dominance of Visa and MasterCard—there seems to be very few credit card networks. There seem to be more competition in terms of merchant acquirers.

I guess what I'm ultimately asking is, we own Visa and MasterCard in our portfolios. In some cases, they tend to be higher weights in our portfolios. What is it about that particular business model, that part of the value chain, that captures the least amount of the 2 or 3% that you referenced, that we see as the best business model, I would think?

Justin Anderson: **15:32** I think that the core of it is this really interesting story about how Visa/MasterCard became so dominant.

So, in the beginning—let's say when these networks were first developing—there were two very different models of how to run the network. So, one model was called the "open loop model." That's the one that we're very familiar with. That's Visa/MasterCard.

Justin Anderson: **15:52** There's another model called a "closed loop model." You've probably heard of American Express. Discovery is another one. Those are businesses where they don't have the issuer involved. So, they don't have the bank; they tend to not have the acquirer. They're in a situation where they're managing the entire transaction full-stop. The whole network. And they're not leveraging these third parties for distribution. And the advantage is, they get to capture pretty much all of that MDR. So, American Express is taking a much higher chunk of the MDR than the Visa/MasterCard, which you point out.

16:22 But the difference is Visa/MasterCard has this really powerful feature, which is that they realize that the game here isn't so much about what percentage of the transaction you take, it's about building the network, because it's a strong, two-way network.

What you really want is you want to be the dominant network provider. So, they came up with a model that made the cost of building the network much lower for them. For American Express, they themselves have to go and knock on the doors of merchants and say, "hey, can you accept this?" And they also have to become the provider of the credit associated with the credit cards. So they're doing a lot more. Whereas Visa/MasterCard are leveraging the distribution network of issuing banks, or they're partnering with other third parties that are issuing cards to consumers all over the place through these different banks. And they're also leveraging acquirers who are also third parties going out there knocking on doors because they want a piece of the pie.

17:12 So, by outsourcing a lot of the parts of the network that matter for onboarding and getting that two-way network effect up and running, they've actually made a more powerful business of it—essentially a stronger network effect. Because more people accept Visa/MasterCard; more consumers have Visa/MasterCard. And that was really done by incentivizing parts of the network through a piece of the MDR to engage in helping to build the network.

17:36 The insight was realizing that building the network and lowering the cost to building the network was the key to this game. And the reason why we do like these businesses so much, the network is built. I mean, there's millions of businesses that accept these, millions of consumers who have these cards. So now, it's much, much more difficult for a new payment company to come along and say, "hey, we're going to create a new network" because you've got this problem of getting both the merchant and the consumer to adopt your network criteria. They're going to say, "what's in it for me?"

So, that's why these businesses stay so dominant.

Rob Campbell: 18:05 I suppose it's the beauty in the network effect. Yes, it's a business model that doesn't require a lot of capital to get up and running, but capital isn't the barrier to entry in this case. It's the existing network.

Justin Anderson: 18:15 That's right.

Rob Campbell: 18:16 Outside of Visa and MasterCard, what other payment schem[a]s are there? And I will plead my ignorance. I mean, I've heard of Alipay and just…things in other parts of the world. How do they fit into the payments ecosystem? Or are they completely separate?

Justin Anderson: 18:30 They absolutely fit in. And it's really important, because there [are] a lot of different schemas—I like that word schema. What we mean by schema is just another method of making a payment. Other than, say, Visa/MasterCard. So, one of the most common schemas out there are "wallets." Payment wallets. So, one that I think is one of the original[s] was PayPal. You're kind of familiar with PayPal—it's this kind of…wallet in the sky, let's say. You can hook your credit card to it, you can hook bank account to it. And then you can use it to make payments. So, that would be a wallet. Google Pay, Apple Pay are becoming more popular. WeChat Pay, Alipay in China are very popular wallets. And there's a lot more of these. A lot of local wallets are emerging that are trying to jump into this game.

19:11 One thing I would say about wallets is they might sound like they're very competitive to Visa/MasterCard, and I think the takeaway is actually, they're not that competitive. There are aspects; they're not completely either aligned with Visa/MasterCard or against it. So, they are somewhat competitive. Call them "frenemies." But, for the most part, they're actually helping to support and they're leveraging the existing payment networks, rather than replacing them.

19:35 So, for example, Google Pay and Apple Pay—they're leveraging Visa/MasterCard to make the payment happen because the merchants already accept those cards. All they're doing is they're making the technology experience a little bit better for the consumer.

Justin Anderson:

A payment schema that is more disruptive to this existing order would be something like a Bitcoin, where you're dealing with an entirely new type of network with an entirely new kind of settlement process and validation process. That kind of schema would be a lot more disruptive if it was to become a very popular schema. And right now, Bitcoin is much more of an asset class than it is a payment method or a currency—even though obviously a lot of the founders of that or people interested in Bitcoin would like to see it become a currency. But today it's not really threatening as a currency, but tomorrow, who knows? The world could change.

Rob Campbell: **20:27**

Interesting. So, if we can talk about some of the themes that are in the payments space—I know we've referred to one of them a little bit, but maybe we could build on that—the B2B.

And I guess the lens I'm trying to take on this is, where are we seeing the best investment opportunities as a result of some of these themes? Where these competitive advantages are maybe a little bit more durable?

Justin Anderson: **20:48**

B2B is obviously a really important one because we talked about earlier on how big the payment flows are there. So, you're talking three times bigger total payment flows than C2B transactions. It's a huge number, and most of that's being done through bank transfers today.

21:04

There is a big opportunity here: Visa/MasterCard are focused on it, a lot of payment companies are focused on it. Where is the opportunity? Well, it comes in, if you can think of payments, a lot of what payments are doing is they're satisfying the revenue side of a business. So, if you go back to our flower example, it's like you're accepting payments, which going to eventually go into your revenue for your flower company. But a company also has an expense side of the equation. And our expenses are buying the flowers, we're paying employees—those sorts of flows.

Justin Anderson: **21:32** And those flows today…they are all typically solved by different software platforms. For example, [for] my payroll system, I might be using Paychex, which is actually a company we own in our [Mawer] U.S. Equity Fund. For my invoicing process, I might just be going directly to the bank and submitting an EFT payment into the bank. And then at the end of the month or the end of the quarter, I have to then gather all that and go through a very complicated reconciliation process where I'm validating all of my transactions against what actually happened in my bank account. And that can be very tedious and cumbersome process for businesses. The reasons we have large financial departments in businesses today is essentially to manage those kinds of reconciliations. And where B2B gets very interesting, is technology companies are starting to—we're very much in the first inning on this—but they're starting to issue cards.

22:17 Let's say, a credit card that I can use as a business to make my payments. And it would actually track that and integrate that into my entire operating system—the same system that's also running the payments. It's the theme of integrating expenses and revenue and everything that's going into the accounting for the business into one platform, rather than having these disparate processes that are running it.

22:40 And that promises a lot of efficiency potential for businesses if they can capitalize on that. So we are definitely spending a lot of time identifying these kinds of businesses that are out there, that are tinkering around with seeing if they can integrate it.

I'll give you an example. So, one example of a company that we actually own is Shopify in our [Mawer] Canadian Equity Fund. They actually just announced in their most recent conference that they're going to be issuing something called "Shopify Balance," which is a debit card that the merchant can get and start to use for their expenses. And that's going to provide them a lot more integration than they had previously.

23:16 So there [are] businesses that are actually starting to tinker on the edges of this, but there's a lot more runway here. You can imagine the 200+ trillion that we talked about. This is a huge field, it's a completely untapped field, so we're looking for new potential high growth businesses. We're definitely poking around at these B2B businesses.

Rob Campbell: **23:32** What's another theme that you've been looking at?

Justin Anderson: **23:34** I think another one that we could talk about would be on the platform acquirer side. We talked about acquirers already; let me describe a problem that is in payments today. Let's say you're getting on a flight to go to Mexico, or something. Once you land in Mexico, you get off, you want to take an Uber. You go to type in your Uber, but boom, your payment gets rejected. Why does it get rejected? Well, because the credit card company, the processors thought, "Hey, what's Rob's car doing in Mexico? I mean, there's something wrong here. I don't trust this." And we call that a "type II" error in payments. Basically, you're rejecting a valid transaction.

24:09 The other side of that is a "type I" error, which is accepting a fraudulent transaction. Those are the two types of errors that acquirers and everybody, frankly, in payments are really trying to minimize. Because if you can minimize those errors, you can help a lot. You can imagine how detrimental it would be to Uber (if it wasn't really Uber's fault), but you swiped your payment and now they got rejected. And you said, "You know what? I'm going to take a Lyft. And screw Uber—they're unreliable when I travel." You can just imagine how much is at stake for these companies of losing the customer, of losing that transaction.

24:39 So, they really want to get this right. And especially in the big tech space, it's very, very important. Now, the history of payments is…we are talking about how new the industry is, how young the industry is. So, you have all these local acquirers; most of the acquirer companies we already talked about, they're really banks. Most of them. And banks, as you probably know if you think of the Canadian banks—they tend to be organized by geography. So, you have Canadian banks, you have the U.S. banks, the European banks, and they don't really talk that smoothly with each other. This is a real problem if you're Uber and you're trying to figure out if you should validate this transaction. Because now, most of my Rob Campbell transactions are being processed through my Canadian acquirer, but my Mexican acquirer—who's a different bank—doesn't really seamlessly talk to my Canadian acquirer. And so the probability that I'm going to reject that transaction is higher because of that disintegration between those systems.

Justin Anderson: **25:29** So, acquiring companies have been doing a lot of M&A activity and they've been trying to combine the companies to try to solve this problem, but they still have this friction that makes it very hard for them to sort of provide seamless validation. So, one company that we own in the [Mawer] International Equity Fund and also the [Mawer] Global Equity Fund is a company called Adyen, and they're really taking on this problem and they're essentially acting as an acquirer. They do more than just acquiring, they also do the processing. But they're trying solve this problem of lack of integration between geographies and saying, look, we're going to build a single platform that a big tech company can use, and it's going to integrate everything across the globe.

They're going to be able to see that Rob Campbell just took an Uber to get to the Calgary Airport. And now that he shows up in Mexico, the probability that this [is] a valid transaction, (because I can now see all that data) is much higher. And then he approves the transaction, everybody's happy, everybody wins.

26:22 Adyen is one of these disruptors that is taking share from other first-generation bank merchant acquirers by providing a much more sophisticated technology solution. So, that's another important theme.

Rob Campbell: **26:34** What about—just talking about disruption—fintech? How is that playing into the payment space?

Justin Anderson: **26:41** I mean, we're kind of blasting the banks here a little bit for innovation, but I think fintech is another one where people have been talking about this for a long time saying, well, banks aren't delivering the sort of technology experience that Google or an Uber or a Netflix is delivering. And just imagine: you log onto your bank and it's a browser from the '90s and you're just like, "ugh, what is this?" Fiddling with some dropdown. But you go into Netflix, and it's like...instantly playing something and recommending great things. It's a completely different experience. And consumers are starting to kind of revolt and they're saying, "we really want to have that Netflix-like experience with our bank. And why can't we do it?" And they're pounding on the banks to give them this, but the banks just because of the tech debt that they often suffer from, aren't able to kind of deliver that as seamlessly.

Justin Anderson: **27:27** So, fintech has been chomping at the edges of banking services for some time. And a lot of start-up companies are trying to get a piece of that, but struggling. Because banks have a huge advantage that they own the customer. And that's where the money is. And there's a lot of regulation that's involved as well with the banks. So there [are] a lot of barriers that actually make banks a very defensible business that retain customers despite that terrible technology experience. And that's actually a testament to some of the strength that is in some of that model. So, what I'm saying is, we may not love the company, but the stocks can actually be attractive at retaining customers.

But the important thing that happened recently—Visa announced that they're going to buy Plaid. Plaid is a fintech enabler, and what they do is they essentially make it much easier for a start-up company to talk to a bank. To get Rob Campbell's credential, if you provide it. Think of a Mint.com for example, where you can go in, you can hook it to your bank account, and now you can have a cleaner understanding of what's going on with all your transactions.

28:24 So, that concept of third parties, fintechs, doing a lot of what banks sort of should be doing but just can't seem to be able to deliver—I think that theme is going to become more and more important over time. And there are other examples: Square's Cash App is an example; Venmo comes from PayPal. These are P2P platforms that are essentially starting to do that—they're starting to take away some of that bank services.

28:48 For example, how would I send you money right now? Let's say you came over to my place for a poker night and I lost to you at poker because you're great, you're a professor, you're very good at poker. So now I've got to pay that money to you. So, what I would do now is, I'd log into my BMO [and] have to send over an email transfer. And it's a bit clunky, it's not the nicest experience.

29:06 But what I could do if I was in the U.S. (unfortunately it's not really that seamless in Canada yet), but if I was in the U.S., I could log on to a Cash App or onto Venmo, and I could really nicely with that sort of Netflix-style experience, send you that money. And it would be a much better experience.

So those businesses, they're innovating, they're moving quickly. We expect fintech—at least I do—to take more of that sort of low-hanging fruit from banking services.

Rob Campbell: **29:31** I agree—if I ever won money from you in poker, it would be a very unique and great experience [laughter]. Is there anything that we missed in terms of trends that are important to the payments industry?

Justin Anderson: **29:45** Well, maybe the last one I'll just hit on—I mean, we already talked about cash-to-card as a really important overlying trend. There is this idea of integrated payments—that's another trend that's emerging. And I think the best companies that do this today—actually one of them we already mentioned, which is Shopify. Square's doing this a lot in the U.S. And this is the idea of…in the first generation of payments, payments was looked at much more like a vendor that you would (if you're an entrepreneur running a flower business) you're not thinking of hiring the payments company, the bank, to run your business. All you're thinking is, "Okay, I need to accept credit cards, so give me somebody that helps me accept credit cards."

30:20 But the next generation that we're seeing in the Shopifys and the Squares is, "No, no, we're actually going to run your entire flower shop. We're going to run your inventory. We're going to run your staffing. We're going to run your payroll. We're going to do all of that. And we're also going to run payments and accept payments from customers and integrate that all into a single place."

So we're calling that integrated payments, very much like the platform acquirers—we talked about Adyen—it's a very new trend. That's just starting to emerge. I think Shopify and Square are definitely on the cusp of that. But I would expect more of that to happen going forward as more industry niches figure out that an entrepreneur doesn't want all these one-off solutions, they want an integrated solution that does the whole process. So that's another trend to watch.

Rob Campbell: **31:01** And eventually, even with Shopify, I mean—it may start with very small businesses, but eventually the platform becomes so powerful, that even medium-sized businesses might sign on to some of these features. Would that be correct?

Justin Anderson: **31:12** Yeah, and I think actually that's an important debate that nobody really knows the answer [to]. But the question is, a lot of these integrated payment companies are targeting SMBs (small and medium-sized businesses)—can they make the journey into the bigger enterprise businesses? And there's two schools of thought, frankly, on that. There's people who say, "no, it's a very different game and you need different customizations and it's just fundamentally different." And then there's others who say, "no, it's just inertia that is what keeps all the complexity going at the big companies and these new platforms are just much more efficient, much easier to maintain. And it'll just be with time that they'll kind of get adopted." Even if they're not adopted by the big companies, the smaller companies will grow and become the big companies that use them.

So there's definitely two schools of thought on that and we'll have to see how that plays out.

Rob Campbell: **31:57** Great. I want to finish on process and outcomes. We talked about the fact—I think you mentioned a reverse roadshow. Can you just quickly describe what was involved in that, and the types of companies that you looked at?

Justin Anderson: **32:08** We spoke to around 20 companies and most of them [were] basically payment companies or payment-adjacent companies. And what was involved was, just we [had conversations] with them and just [took] insight[s]. We [were] talking to our own companies—the companies that we own in our portfolios. We [were] also talking to other companies that we don't own just to understand the industry dynamics and trends going on.

So when we say "reverse roadshow," all we really mean is concentrating a bunch of calls with different management teams within a week, let's say, or two of intense discussions.

Rob Campbell: **32:39** Within those, on the outcome side, what has that led to in terms of new businesses that we've considered or added? Or companies that we're getting a little bit more nervous about?

Justin Anderson: **32:50** Without giving you specific names because it's so raw and we don't want to give too much of the farm away here [laugh], but we definitely have got a lot of names that came out of that process, of these companies that fit neatly into this integrated payments and into platform acquirer models. And right now we're actually live in the process of doing the work on those and getting them to a point where we can make an investment decision on whether to go ahead with them.

Rob Campbell: **33:13** What about outside the payments industry? Has this research that you've done caused you to think differently about other businesses that we own? I can't imagine a single business in the world that doesn't have a payments problem. And so I just wonder if the research that you've done on this one very specific niche has resulted in insights that go broader...

Justin Anderson: **33:33** Yeah. We mentioned banks, and I think that's the most obvious one, because the banks are massively important to the payments story. They're the ones who started it. Before we hit too hard on the banks, we've got to realize that MasterCard and Visa were really spun out of the banks. The banks really kind of...gave them birth. And so this idea that they do no innovation and that they're way behind—there's definitely some truth that they're struggling, but they're at the genesis of the whole industry.

33:57 And the other thing I would highlight that we kind of mentioned already, but how difficult it's been for fintech to break into banking services is a testament of the strength of some of the banking's capture of the customer. So, there are some learnings there. But on the flip side of that, the banking companies...the bank industry definitely [has] got some major threats on its hands with payments, especially as banking services start to roll out to more tech-focused companies. So that's something that we're exploring the implications more for our bank holdings and definitely having some intense discussions around that.

Rob Campbell: **34:29** And how are we considering the pandemic? In the sense that on the one hand, I would presume more transactions being driven through e-commerce results in less cash transactions, more in the payments companies. On the other hand, if economic activity is depressed, if there's less travel, payments might see downward pressure.

How are we thinking about that as both a near-term and, gosh, who knows how this is going to play out for the pandemic, but as a medium to longer term risk for some of these companies?

Justin Anderson:	**34:58**	There's no question, at the end of the day—we talked about 50 trillion of payment volume is consumer to business—if there's a recession, or if no one spends money, you lose a big chunk of that revenue. So obviously the recessions and shutting down the economy in any form is very negative for the industry in the short term.
	35:17	But I do think the long-term effects—assuming that we don't shut down the economy for all time [laughs], which I think all of us really expect to happen, like the economy should open up—then yeah, it's probably net positive, because it really does stimulate that conversion away from cash more quickly than maybe what would have happened in absence of a COVID crisis. And with interest rates being as low as they are, the long-term matters a lot more because we're sort of flattening the interest rates down to almost nothing. So yeah, I would argue my own view on this—again, we're looking forward, so it's always difficult—but it would be a net positive, generally, for the payments industry because of the stimulus you have of conversion from cash.
Rob Campbell:	**35:57**	Justin, thank you. I really appreciate you taking us through. We did get wonky for a little bit, but I've certainly come away with a better understanding of this very fractured, complicated business and where some of the investment opportunities might be. So, thanks.
Justin Anderson:	**36:11**	Well, thanks for having me! It was great. I enjoyed it. Hopefully not too crazy technical for everyone.