

Company Name: Mastercard
 Company Ticker: MA US
 Date: 2018-10-30
 Event Description: Q3 2018 Earnings Call

Market Cap: 191,924.18
 Current PX: 185.83
 YTD Change(\$): +34.47
 YTD Change(%): +22.774

Bloomberg Estimates - EPS
 Current Quarter: 1.566
 Current Year: 6.402
 Bloomberg Estimates - Sales
 Current Quarter: 3840.357
 Current Year: 14953.892

Q3 2018 Earnings Call

Company Participants

- Warren Kneeshaw
- Ajaypal S. Banga
- Martina Hund-Mejean

Other Participants

- Jason Kupferberg
- James Schneider
- Donald Fandetti
- Tien-Tsin Huang
- Darrin Peller
- Sanjay Sakhrani
- Bryan C. Keane
- Lisa Ellis
- Craig Jared Maurer
- Robert Paul Napoli
- Andrew Jeffrey

MANAGEMENT DISCUSSION SECTION

Warren Kneeshaw

Financial Measures

Our comments today regarding our financial results will be on a currency-neutral basis and exclude special items unless otherwise noted

- Both the release and the slide deck include reconciliations of non-GAAP measures to their GAAP equivalents

Please note that due to our decision to deconsolidate our Venezuelan entity starting this year, we are providing additional information regarding our switched transaction and card growth rates

- The adjusted growth rates eliminate Venezuelan switched transactions and card counts from prior periods so that you can better understand the underlying growth rates of our business
- Our comments on the call today will be on the basis of these adjusted growth rates

These are the only supplemental operational metrics which are significantly impacted by the deconsolidation

Ajaypal S. Banga

Q2 Review

Revenue Growth

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- Strong performance continued this quarter
- We had revenue growth of 17% and EPS growth of 36% vs. a year ago on a currency-neutral basis and excluding special items
 - But if you further exclude the impact of the accounting changes that affect y-over-y comparisons, our underlying net revenue growth was 14% and our operating income increased by 19%
- I think these results reflect our operational focus, our market share growth, and I think strong underlying business fundamentals while we continue to invest in the business for the longer term

Macroeconomic Environment

- So let's start with the macroeconomic environment
- We continue to see solid overall growth, although just like others, we are keeping an eye out for potential impacts related to fiscal stimulus reductions, rising interest rates
 - And possibly increased trade barriers, which could slow global economic growth
- In addition, we are monitoring the impact of a stronger U.S. dollar on cross-border flows and the economic weakness in some emerging market countries

North America

- In the U.S., economic growth remains positive
- Low unemployment, healthy consumer confidence helped
- Our SpendingPulse estimate for Q3 showed retail sales remained strong and were actually up 5.2% ex-auto, ex-gas vs. a year ago
- Businesses are investing, and the provisional agreement on a new trade deal in North America is good news both in terms of the stability it will provide for companies as they plan their supply chains and due to some of the specific terms that it includes that we believe will be beneficial to our industry

Europe

- Overall conditions in Europe remain stable
- Unemployment continues to decline
- Consumer confidence remains strong in areas such as the Nordics while I think there are political concerns there in countries – some of them, including the UK, Italy and Turkey

Latin America

- In Latin America, the elections in Brazil and Mexico are now behind us, and the real and peso recovered somewhat, although yesterday was not a great day for the peso
- At this stage, we are waiting to see how the economic and fiscal policy agendas develop as these new administrations take office

Asia

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- We're also monitoring a few potential headwinds in Asia
 - Although consumer sentiment remains relatively positive, trade tensions are weighing on business sentiment, most notably in China and Japan and Korea

Volume and Transaction Growth

- Against that backdrop, we are driving healthy double-digit volume and transaction growth for Mastercard across most of our markets, with momentum across our core products and services
- And let me, as usual, give you a few examples
 - First, we have expanded our existing relationship with HSBC, including winning new business in the UK, Hong Kong, and Mexico
 - And like many of our customers, HSBC will now also leverage Mastercard Labs' rapid prototyping capabilities along with Mastercard Advisors and our data and analytics services to help optimize their portfolios

North America

- In North America, we've continued to build momentum in the co-brand states, and this quarter we announced that we will be the exclusive network for the new Air France-KLM co-brand portfolio with Bank of America, which includes a suite of enhanced travel benefits
- We also expanded our partnership with Kroger, which includes joint efforts to improve the customer experience to create a safer, more efficient check-out experience
- Kroger will leverage a broad array of Mastercard's products and solutions, including data analytics, fraud tools, and digital services
- We're also going to migrate their commercial card business to Mastercard, and this partnership basically builds on the co-brand portfolio flip that we won last year

Europe

- In Europe, we expanded our relationship with Bankia, one of the larger banks in Spain, to flip the vast majority of their debit and credit portfolios to Mastercard
- Bankia will also leverage our Advisor and Labs services as we partner to build their business going forward
- In Belgium, Mastercard was selected as IKEA's credit co-brand partner
 - And we've also extended our relationship with PayPal

PayPal's Partner

- Now as you know, we are PayPal's partner for almost all their credit and debit co-branded programs around the world
- Now, we have also been selected as PayPal's partner as they embark on direct card issuance in Germany and the UK
- In Germany, for example, we will work with PayPal to support digital cards issued in Google Pay wallets, which will enable German PayPal users to have access to contactless payments at the point of sale

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- In Asia-Pacific, we continue to benefit from strong deal momentum, and we are prioritizing two key areas: first, partnering with digital players to harness new payment flows; and secondly, increasing our participation in domestic transactions

Deal with Grab

- So let's start with the digital players and harnessing new payment flows
- Last week we announced a deal with Grab, which is a leading FinTech platform, digital wallet provider, and ride-sharing service in Southeast Asia
- The Grab app has been downloaded onto more than 110mm mobile devices in the region
 - And through this relationship, Grab will offer its customers both a prepaid Mastercard within the Grab Pay wallet as well as a physical prepaid Mastercard to enable online and offline payments across a wide range of spend categories
- The partnership also opens up the Grab Pay wallet for acceptance across the Mastercard merchant base using existing point-of-sale systems or QR codes
- This Grab effort will initially launch in Singapore and the Philippines in 2019, and the plan is to quickly expand across six additional countries in Southeast Asia

Increasing Participation in Domestic Transactions

- In China, we have strengthened our cross-border and mobile presence through an exclusive cross-border credit co-brand program with the Ctrip Group and the Bank of East Asia
- Ctrip is the largest online travel agency in China. 70% of their bookings, for example, are executed via mobile phones
- Now the second part of the conversation in Asia was around increasing our participation in domestic transactions, so let me give you a couple of examples
- In Thailand, in response to on-soil regulatory changes, we have built a co-badge partnership with NITMX, which is the leading domestic switch in the Thai market
 - That partnership enables us to deploy a range of Safety & Security and gateway services, and it will also allow us to significantly grow our co-badged debit share via flips and new issuance with four additional issuers in Thailand
 - Another example is Indonesia, where we recently launched on-soil debit switching, enabling us to comply with local regs but also work with domestic networks to integrate a set of value-added services
- These local capabilities and the global acceptance footprint gave us the entry point to flip the closed-loop debit business of BCA, which is one of Indonesia's largest banks, to debit Mastercard
 - So those are some of the regional updates, and I'm going to highlight our progress in addressing new payment flows

B2B Payments

Mastercard Track

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- On the B2B front, we are really excited about the launch of Mastercard Track, which is a global trade platform which we have developed in collaboration with Microsoft
- Track basically solves key challenges in the procure-to-pay process, including managing supply chain risk and creating more transparency in the B2B payments process
- We're going to deploy the platform through a phased rollout
- The first phase is focused on helping corporations with the cumbersome process of compliance screening of new and existing suppliers
- Now how we address that challenge is we provide a comprehensive trade directory, which is currently at more than 150mm businesses in over 75 countries
- The trade directory includes corporate industry details, business credit scores, and compliance data, including sanction notifications and other regulatory information
- The directory will be regularly updated to support a business's loyal customer and loyal supplier processes and includes automated change notifications to ensure that corporations understand the evolving risk across their supplier base
- We're also going to build out additional capabilities on that platform, including the integration of our account-based payment rail
 - And eventually we envision that Track will enable B2B networks, banks, insurance companies, and technology providers to extend value-added services to business customers, including data analytics and supply chain finance

Networked Trade Platform

- In Singapore, Track has already been integrated with the Networked Trade Platform, which is a trade and logistics platform developed by the Singaporean government, and it's got card payment facilities incorporated inside to facilitate secure and efficient electronic payments between buyers and suppliers
- In the Faster Payments space, we have talked about the opportunity to leverage our assets to provide a combination of infrastructure applications and services to help solve customer needs across an entirely different set of rails, and a recent example of this is the announcement of the Mastercard Bill Pay Exchange
- That's a digital application that will enable U.S. consumers to view, manage, and pay their bills instantly from their bank accounts
 - And the solution basically attempts to address consumer pain points like managing multiple billing sites and passwords, and most importantly remembering when bills are due
- Consumers will be able to use their mobile banking app to set up a broad set of their billers, receive notifications when a bill is due, see the bill details, and specify when and how much they want to pay from their bank accounts

Bill Pay Exchange

- The Bill Pay Exchange will support payments over the clearinghouse's real-time payments infrastructure which, as you probably recall, is based on technology from VocaLink
 - It will also support traditional ACH payments, and card integration is planned for the future
- The exchange includes a large community of over 100,000 U.S. billers, which is built on our existing Bill Pay network

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- And similar to how we distribute most products, this solution is designed to be offered through banks and credit unions, and the idea is to enable the bank or the credit union to become a one-stop shop for bill payments for their consumers

AML Insights

- Other services there on our Faster Payments strategy, we have now launched AML Insights, which is our network-level anti-money laundering solution, currently in the UK
- AML Insights runs advanced analytics to identify potential money laundering across the Faster Payments network there, and it helps our bank customers comply with their obligations
 - The solution has already been adopted by 10 banks representing over 90% of the UK market
- We're in active discussions with prospective customers in several markets around the world

Mastercard Identity Check

- And finally, a quick update on our efforts to improve the online checkout experience for consumers, merchants, and issuers
- Last week we announced that we are targeting to have token services on all cards by 2020, allowing consumers to store credentials at merchants without exposing their actual card details
 - That's the first part
- The second part is we're improving the consumer authentication experience to move quickly and accurately and allow them to verify that a consumer is who they say they actually are
- Our solution is called Mastercard Identity Check, which uses the data-rich EMV 3D secure authentication standard and applies our AI and behavioral biometric capabilities to verify the consumer with a single touch or click
- We worked with issuers and merchants in the U.S. and Europe to enable this technology
 - It begins to roll out globally in early 2019

Secure Remote Commerce

- And finally, you've heard us talk about the importance of a safe, streamlined, and standardized online checkout experience for all key stakeholders
- The Secure Remote Commerce framework, or SRC, will create a standard for a simplified and secure digital point-of-sale process
- EMVCo's draft technical specs for SRC have now been finalized
- We're working to complete the branding guidelines and other go-to-market considerations
- We expect to begin the rollout of SRC in H2 2019
 - So with that, let me turn the call over to Martina for an update on our financial results and operational metrics

Martina Hund-Mejean

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Financial Results

Revenue

- Turning to page 3, despite the expected foreign exchange headwinds, we delivered another very strong quarter
- Here are a few highlights on a currency-neutral basis excluding special items related to litigation provisions and the adjusted tax effects of previously recorded special items
- Net revenue grew 17%, driven by strong underlying performance and includes a 3 ppt benefit from the new revenue recognition rules
 - Excluding this, underlying revenue growth was 14%

Operating Income and Net Income

- Operating income grew by 22%, or 19% if you exclude the revenue recognition rules impact
- Net income was up 33%, reflecting strong operating results and the impact of the U.S. tax reform, which contributed approximately 9 ppt to net income growth
- EPS was at \$1.78, up by 36% y-over-y, with share repurchases contributing \$0.04 per share
 - During the quarter we repurchased about \$1.2B worth of stock and an additional \$385mm through October 25

Operational Metrics

- Let's turn to page 4, and here you can see the operational metrics for Q3
- Worldwide gross dollar volume, or GDV, growth was 13% on a local currency basis, down 1 ppt from last quarter
- We saw solid double-digit growth across most regions
- U.S. GDV grew 9%, similar to last quarter, with credit and debit growth of 8% and 10% respectively
 - And outside of the U.S., volume growth was 15%, down 1 ppt from last quarter
- Cross-border volume grew at 17% on a local currency basis, in line with expectations and driven by double-digits growth in all regions
 - This was down 2 ppt from Q2, primarily due to one less switching day in Q3 vs. a year ago

Transactions Growth

- Let me turn to page 5
- Switching transactions continued to show strong growth at 16% globally, normalized to exclude Venezuelan transactions, as we no longer consolidate that entity
- Again, there was one less switching day vs. a year ago, which impacted growth by 1 ppt
- We saw healthy growth in switched transactions across all regions, led by Europe and the U.S.
- In addition, global card growth was 6%, again normalized for Venezuela
 - Globally, there are 2.5B Mastercard and Maestro branded cards issued

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New Revenue Recognition

- Now let's turn to page 6 for highlights on a few of the revenue line items, again described on a currency-neutral basis unless otherwise noted
- The 17% net revenue increase was in line with expectations, and was primarily driven by strong volume and transaction growth as well as growth in our services offerings
- As I mentioned already, the new revenue recognition rules contributed 3 ppt to the growth rate
- Excluding these impacts, underlying net revenue growth was 14%
- Looking quickly at the individual revenue line items, domestic assessments grew 24% while worldwide GDV grew 13%
 - The difference is mainly due to pricing and the impact of the new revenue recognition rules
- Cross-border volume fees grew 18% while cross-border volume grew 17%
- Transaction processing fees grew 17%, primarily driven by the 16% normalized growth in switched transactions as well as revenues from our various service offerings
 - And finally, other revenues grew 11%, driven by increases in our Advisors and Safety & Security services

Operating Expenses

- Moving to page 7, you can see that total operating expenses increased 10% excluding special items on a currency-neutral basis
- Within our expense growth, we had a 2 ppt increase related to the new revenue recognition rules, offset by a 2 ppt benefit associated with foreign exchange hedging losses in the year-ago period
- I'm going to now turn to slide 8, and let's discuss what we have seen through the first three weeks of October
- While drivers are generally similar, two are slightly better than what we saw in Q3 on a normalized basis
- Just remember, Q3 had one less switching day, which reduced each of the switched metrics by approximately 1 ppt

Switched Volume

- So the numbers through October 21 are as follows
- Starting with switched volume, we saw global growth of 16%, an increase of 2 ppt compared to Q3
- In the U.S., our switched volume grew 13%, a sequential increase of 3 ppt, aided in part by the timing of certain Social Security payments this quarter
 - And switched volume outside the U.S. grew 19%, up 1 ppt from Q3
- Globally, switched transaction growth was 17%, up 1 ppt from Q3, with healthy growth in each region
- With respect to cross-border, our volumes grew 18% globally, up 1 ppt sequentially
 - As a reminder, we will face a more difficult comp as this quarter progresses due to the timing of cryptocurrency-related activity last year

FY2018 Outlook

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Turning to our thoughts for the full year 2018, which I will describe on a currency-neutral basis excluding special items, overall, not much has changed

The economic environment remains healthy, and we continue to expect y-over-y revenue growth to be in the high teens and operating expense growth to be in the mid-teens

As a reminder, these growth rates include the impact of the new revenue recognition rules that we adopted in 2018 and the full-year effect of acquisitions

A few other items of note, FX is now expected to have no real impact to revenue for the full year, and we expect Q4 to have a higher foreign exchange headwind to revenue than in Q3

- We expect a sequential increase of operating expenses in Q4, due primarily to the timing of some of our marketing programs, and we estimate the tax rate will be approximately 19% for the year

QUESTION AND ANSWER SECTION

<Q - Jason Kupferberg>: Just two quick ones here. I guess first, one for you, Ajay. I just wanted to take your temperature macro-wise. I'm not sure if your tone is maybe softening a little bit, some caution points out there, obviously U.S. equity markets dropping a lot this month. I'm not sure what your historical data would show in terms of potential impacts on consumer spending going forward.

And then just, Martina, any comments on rebates? We were expecting the number to be a little higher in Q3. I know timing is always an issue here. Any changes in how you're thinking about full-year rebates? Is this just a timing issue between Q3 and Q4? Thanks, guys.

<A - Ajaypal S. Banga>: On the macro, Jason, honestly, in our numbers, nothing is showing up that should give me reason to be cautious. If you look at our – even our three weeks of data that we've shown you until October 21, you'll find that consumer spending remains kind of robust or even a little better in some cases. So nothing is showing up directly. It's just at the end of the day, any of our time spent in industry and business, you do feel that if you've got trade values, if you've got discussions going on, on rising interest rates and the removal of liquidity in the system, at some point in time that should have an impact overall on the economy, if nothing else, to slow down the growth rate a little to keep the heat down, if anything else.

And so that's part of you that you're hearing me speak about because I don't have any indicator in the system that I could point to that should give you either exuberance or caution where we are today. We're going along the way we see our data, which is good spending, even in the three weeks of October that we shared with you.

<A - Martina Hund-Mejean>: And on rebates and incentives, as you know, Jason, our first quarter was actually the low quarter from a rebates and incentive cost point of view. Second and third quarter are very similar, and we continue to expect strong deal activity into Q4.

<Q - James Schneider>: I want to ask a question on cross-border. Obviously, that was still strong and it looks like it improved a little bit in October. Can you maybe give us a little bit of color on some of the regional composition of that, and anything in that that have implications in terms of you taking a more cautious view on spreads or cross-border pricing, and then just in the general macro sense, in any particular region?

<A - Martina Hund-Mejean>: Cross-border has continued to be very strong. And in fact, when you look at Q3 numbers, they're very similar to Q2 numbers when you adjust for the switching day. And you can see that when you look at the October 21 stats, it continues to be very strong. So we put out a bit of a cautionary note on that because when you remember Q4 last year, in particular at the end of November into December, we saw all that cryptocurrency-related activity that we don't expect to repeat. In fact, that activity has gone down in a very significant way.

The areas that we're looking at very carefully is, of course, one, what is happening from a strengthening U.S. dollar point of view. So we can already see that cross-border inbound into the U.S. has been – the growth rate has been

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declining vs. what we saw in Q2. And in addition to that, we're looking at some of the emerging market phenomena in terms of people being able to travel. So I would watch out for countries like Brazil, Indonesia, a number of other countries on this. But also we watch very carefully on Canada as well as Australia because how these currencies behave vs. the U.S. dollar very much impact what our cross-border volume growth does.

<Q - Donald Fandetti>: Ajay, as you look out, the market seems to be convinced that there's a potential recession coming into the U.S. And if you look back at your company, you had very good revenue growth through the downturn. Can you talk a little bit about what the playbook would be in this scenario? Do you still feel like pricing could be a buffer and take cost out, or do you feel like you have a similar type of buffer?

<A - Ajaypal S. Banga>: I don't know about the conclusion that the market is pricing in a recession or the market is pricing in a correction caused by the reality of increasing Fed rates and reducing liquidity. I don't know that yet, so I think I'd be cautious on including that as of now.

But having said that, I guess your question really is, what's our flex in our P&L to manage our way through cycles of different types? Our revenue is built out of multiple legs of the stool, first of all. One part of it is clearly impacted by personal consumption expenditure [PCE]. It tends to be the quickest impact on our revenue. So if PCE in the U.S. tomorrow slows in its growth rate from the 5.2% that I referred to for Q3 in the SpendingPulse ex-auto, ex-gas, to, let's say, 4.5%, that impacts our revenue immediately.

What's happened in past cycles on that has been that while some countries slow down, others pick up. And over a period of two to three years, you tend to find that global PCE, supported in addition by the secular shift from cash to electronic, gives us a reasonable multiple legs of the stool to keep some form of revenue growth going through that period.

Our pricing is a function of what you think the market can bear, both on acquiring pricing and issuing pricing. But remember, we now have another leg of the stool, which is our services, and there's pricing there as well. So it's Safety & Security tools. It's data analytics and consulting, all of which tend to get used a great deal more when people feel the pressure to grow their own company's revenue or manage their own expenses or be more efficient. So I actually think our multiple legs of the revenue stool, if anything, will help us through the next challenging set of circumstances in an even better way than it was 10 years ago.

On the expense side, we've got two forms of expenses that can be dialed up or down. Remember, we are putting a lot of money consciously into strategic growth initiatives. Some of that is people, and that's a cost that you incur to get the right quality of skills and talent. But some of it is technology and the rollout of new products and new platforms.

Clearly if there's a pullback, you will find lower appetite for rolling out some of those new products and platforms. We can expect some of that to show up in our expenses. A&M is an obvious one. Marketing can be another one that can be played with and dialed with during times of crisis. But as we've shown some years back, we know how to manage our expenses tightly and down when there's a crisis as well.

So I'd say – you're going to get more of this from Martina, but on the revenue side of the stool, more legs and therefore some degree of balance; on the expense side, a couple of good levers to play with. Martina?

<A - Martina Hund-Mejean>: Just to add, every time that we put our yearly budget together, we put obviously a base plan together based on our base assumptions on what we think revenues will be and what we can afford from an investment point of view, both in the core as well as additional investments that we are making into our strategic initiatives.

But at the same time, we actually always put a couple of downside scenarios together so that the entire organization actually premeditates if a downturn were to come down the road what we actually have to do so that we don't have to scramble at that point in time. We have a roadmap. The roadmap is very defined. Obviously, when anything happens, you refresh your roadmap, but the company is able to course-correct if it needs to be course-correct.

And let me just add a couple of things to that. First of all, if it's a modest downturn, generally we would not be cutting out strategic initiatives. We would have to find our way through it because from a long-term perspective, we are

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obviously looking at long-term growth and garnering that. If we were to shortchange some the strategic initiatives, we would not be able to do that and really create the kind of value that you want to have for our shareholders. However, if it's a more severe downturn, then it's some of the things that Ajay said jumping in where we would evaluate very carefully which initiatives we would continue and which ones we would maybe mothball for a while.

<Q - Tien-Tsin Huang>: Just wanted to ask on the pipeline for new deals and renewals and how you'd characterize that and your win share so far. Looks like obviously with KLM, that was a nice one, so just curious what the go-forward looks like.

<A - Martina Hund-Mejean>: So, Tien-Tsin, across the board we are still continuing to win share, and just remember that this is not just against one competitor. This is obviously against domestic competitors too. And secondly, from a pipeline point of view, we look pretty strong. You can see that in the rebates and incentives number. I do expect that that will continue to grow. And the agreements that we have announced, most of them will be rolling out between the first and Q4 2019.

<Q - Darrin Peller>: When looking at the strong trends, even into calendar fourth quarter, just how much of that is really market share? I know the switching day helps, obviously, but market share vs. macro strength.

And then just as a follow-on to that, can you just touch on the contribution of the potential benefits from the Maestro conversion you're seeing? How much is that impacting numbers now? It seems like it's got a long road ahead of it, but really good benefits. Thanks.

<A - Martina Hund-Mejean>: So, Darrin, it's tough for us to parse this apart. The macroeconomic environment is obviously good in many countries around the world. And it is, as Ajay was saying, driving quite a bit of our revenue growth. But every quarter, we're winning from a market share point of view, given the kind of announcements that you have. So that is an added benefit. And then don't forget the secular trend is also an added benefit. So we are not seeing any changes in terms of the three drivers of our core business besides what we're actually doing on the services side, which is another growth driver for us.

From a Maestro conversion point of view, I think you are seeing probably in this data about 9mm cards or so have gone away from the Maestro card. Pretty much all of them got flipped to a debit Mastercard. And as we told you before, the Maestro product, given that it cannot be used in a number of different ways, like on e-commerce, but the debit Mastercard product can be used, that we see much more significant volume on it as well as the pricing is different. So it's a nice contribution to what we're seeing on the debit side.

<Q - Sanjay Sakhrani>: Ajay, you talked about the SRC initiative in your prepared remarks. I'm curious how confident you feel the industry players will come together with a strong solution that competes with the other players out there. And perhaps you could just talk about the value proposition to the various constituencies.

And then secondly, Martina, you guys have had obviously very strong growth in revenues on the back of all the various things you talked about. Just in terms – you haven't provided formal guidance yet, but is there any reason outside of a macro situation that you couldn't continue or sustain these trends? Thanks.

<A - Ajaypal S. Banga>: So on SRC, Sanjay, I think it's all early days, but I'm pretty confident that the issuing and acquiring and merchant community will see, say, a lot of value out of SRC. I have a very simple logic for the response we get when we talk about SRC to any of those communities. The first one is, there is plateau on our checkout page, and there are going to be multiple checkout points. The second one is, it's just harder for a merchant or an issuing bank or an acquiring bank to have to handle multiple checkout options for the purposes of digital and online purchases. And so both of those are appealing to the entire community, and that appeal is what we're hearing back from them.

So getting the standards right, which is why it took us the time that EMVCo, which is a body that comprises, as you know, the networks, the issuing banks, but also some merchants are now part of the advisory group there, they're all involved with this together with us in an effort to create the right standards that not only provide for simplicity of integration and checkout, but also for higher standards of security for the merchant and the consumer and the issuer and acquirer. So I think they're actually building this infrastructure the right way for all the different stakeholders in the

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 Date: 2018-10-30
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system.

Obviously, the one group of stakeholders we haven't yet tested it on is the consumer because it hasn't reached them yet, and that one we'll see. And the proof of the pudding will be in the eating, but at the end of the day, there's no reason why they wouldn't find it the right thing to use. So my general view of this thus far from all the interactions is very, very optimistic.

Now it's going to be a run. It's not going to be something that's going end in a 100-yard dash. So we've got to get it out, get the standards frozen, get all the work done to get it launched out there, get issuing, acquiring, and merchant systems to accept these new standards, work with them, and then allow us to roll that out over three, four years. This is not a one-year or a six-month effort. So it starts in the second part of next year. You should see this having a lot of energy and momentum from us at least for the next three, four years. And then you'll see where we get to with it. I'm reasonably optimistic about it. And the value prop is embedded in what I just told you. The reason for my optimism is the value prop.

<A - Martina Hund-Mejean>: So on the longer-term guidance, Sanjay, first of all, we said earlier this year that you have to let us finish out 2018, predominantly because of the adoption of the new revenue recognition standard because there are lots of moving parts. And having said that, we will on Q4 call, which is in early 2019, you will hear our thoughts about 2019, as well as you will hear our thoughts from a long-term performance objective.

And the one thing that I usually point people back to is when you look at our Investor Day back in September of 2017, you actually see that one chart that we put out for a 5 to 10-year period where it shows our drivers and what we're doing from a services point of view, and puts it together what we think from a very long-term point of view for our revenues, and it says low to mid-teens. We haven't changed our opinion in all of this, but you have to wait for the 2019 thoughts as well as for a longer-term guidance at Q4 earnings call. I think that's end of January or so.

<Q - Bryan C. Keane>: I just wanted to ask about the adjusted operating margins that came in I think significantly above last year and above Street estimates. How much of this, Martina, is just leverage in the model vs. timing of expenses? I know you – I think you called out some increased marketing in Q4, but just trying to figure out how much of that was a surprise in showing leverage vs. is just this a timing issue.

<A - Martina Hund-Mejean>: Look, Bryan, first of all, we're going to continue to stick to our guidance that we said. When we look at the business overall, we think the business can produce 50%-plus operating margins at any point in time, so we're not going to change that.

Every year when we put our numbers together, we basically decide what we think revenue growth will be and how much we can afford from an operating expense point of view. Obviously, you're seeing that we've been doing really well from a revenue growth point of view this year, and so we have been able to produce more profits. And it doesn't go that quickly that we can just turn on a dime and suddenly invest in some other strategic investments. So you have to have a long-term view. We're not going to change our long-term view, but from time to time, as we have said the past, depending on revenue growth, you might have a little bit of an extra contribution to operating margin.

<A - Ajaypal S. Banga>: Bryan, the way we run our system is that we took the idea of a 50% minimum operating margin to explain to our investors that we are committed to running the company with a fair degree of efficiency and profitability, but we are also committed in a growth industry because that's what our industry is with the amount of PCE that's still in cash, with the amount of B2B payments that are still inefficiently done through check and strange ways of paying, that there's an enormous amount of opportunity to enable our company to grow. In that circumstance, our long-term sights now – I've been here nine years, Martina's been here 10. I've been saying this every time. Our long-term sights are set on investing to get at that cash and to get at those inefficient ways of doing B2B payments.

The second thing we've built out over these years is the investment in services, and I'm hoping you guys are beginning to see a lot of those services embedded in our relationships with merchants, issuing banks, governments, and acquiring systems. And the embedding of those services in those relationships enables us to not only have a better, more holistic relationship with that partner, but also enables us to be seen as a value-added partner, not just a price play. Price is important, don't get me wrong. I've said this every time. But it also allows you to have more than that in addition to the

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service being a good revenue and good margin generator on its own.

So our approach to this whole thing has been play that game for the longer term, play it in a way that our investments make sense of where we're going, including inorganic investments, and then manage – if there's a couple of years of a slowdown in growth, manage your way through it but don't take your eyes off where you're going. And that's what we're trying to do.

So your question about operating margin in the quarter, to be perfectly honest, I don't even look at it until Martina comes and bops me over the head and informs me that this is our operating margin. I actually don't. I don't operate through operating margin. I operate through revenue growth, that's to net revenue growth. I operate through basic franchise indicating trends, and I operate through investing in the strategic portfolio initiatives that we have laid out for you. Those three things, making sure we've got great people, good technology, good brand, is how we run our company. Everything else, quarter by quarter it comes and it goes, and I'll faithfully report it to you.

<Q - Lisa Ellis>: At Money20/20 last week, we got a peek into the future of commerce with things like voice commerce, which is like buying through a personal assistant, and social commerce, which is like buying through a photo on Instagram, or doing things like seamless omni-channel, where you're checking out with your phone while you're in the store. So just on the theme of investing for the future, what are some of the unique technologies and investments you're making at Mastercard against those futuristic trends that are looking more like five, 10 years out?

<A - Ajaypal S. Banga>: So, Lisa, going in backward order, the first one, the last one you talked about was about seamless multi-channel, omni-channel thinking. As you know, we've been talking about that for some time with you as well and others as well about the things we're doing in that space because consumers do exactly what you said. They actually research online, buy in store. They buy online, return in store. They research while in the store.

So for example, at our labs or our tech hub, you'll find things like these mirrors where you can both etch out things but also ask the attendant to bring you stuff from the inventory in a different color and purchase right there and have shipped to you later delivered. All that is part of the idea of the fact that consumers don't think online separate from physical. They just look at their experience. And so a ton of things are going into that seamless back-and-forth. In fact, your entire approach to managing charge-backs and disputes also has to evolve to the idea of buying in one channel, returning in the other. And so that entire work has been growing for quite a while.

Your inventory one, the one about social commerce, you'll remember some time back we launched an effort with Vogue Magazine where if you were on Vogue Magazine and you were flipping through and you found a pair of shoes – which Martina has plenty of – but you found a pair of shoes that she liked even more than the 2,000 pairs she already has, then she would just click on it and go right to – she's making faces at me. Then she would click on it and go right there and buy that pair seamlessly through a one-click, and by the way, come right back to the same page in Vogue as compared to going out to a website to buy and then have to navigate back to the Vogue site.

So it's not just social commerce, it's the ease of in-and-out that you have to manage in that process. And the all-commerce part of that is actually just beginning to move, and I think you'll find us over a period of time being very focused on evolving our brand and our signature and our capability in all these channels of all social and omni-channel commerce.

So there are investments going on in technology, there are investments going on in charge-backs and dispute management, there are investments going on in the consumer experience from front to back. There are investments going on in the brand and its evolution. It's across the whole lot. And of course, there are investments in data and analytics that help you work into that process that connect to the safety and security of transactions in that space.

So one of the things that you will find us using artificial intelligence on is taking a look at new data. New data was all about trying to figure out whether the person using the phone is the person whom the phone belongs to or not, or somebody's been able to get into their phone. And so using AI, you can send back a risk-rated score to the merchant or the bank to say this may not be Martina buying that 2,001th pair of shoes that she saw in the magazine, and instead it might be Ajay who stole her phone and her password. And that gives the bank or merchant a chance to make a conscious decision based on the value of the customer whether to let that decision go through or not. So we could keep

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going on this topic, but it's a whole series of efforts across all forms of commerce, across all the legs of our revenue stool that we're working on.

<Q - Craig Jared Maurer>: I wanted to follow up on Tien-Tsin's question from much earlier. Visa called out 20% of their volume being renewed in FY2019. Is there an increased opportunity to win share over the next, call it, 12 months?

And secondly, how much of the current OpEx is being spent on complying with data localization rules, if you could just frame that for us? Thanks.

<A - Ajaypal S. Banga>: Let me start with both of those, then I'll let Martina get into some of that as well. The data localization rules – you've got to remember, we are managing and meeting the needs of what, for example, India has announced about what it wants from data localization.

Essentially, data localization comes in many flavors. It's a bit like white bread to whole wheat bread. Which part of it do you want? And if you look at data localization, the way the Indian government has put out its original guidelines with, managing that data localization is a question of attempting to put a bunch of servers on the ground that enable their data to be kept locally. There are factors if you go further onto on-soil processing and on-soil switching, as we've had to do in some countries. That's a different cost base.

What we are referring to when we talk about our lack of support for data localization is not caused so much by expenses. It's caused by the inefficiency of what that does to the ability to provide safety, security, and analytics to India's banks and merchants. Honestly, if we are to be able to look at transactions and recognize them, the example of new data I just gave, to recognize patterns and to look at them across systems, it's common sense that more transactions give you better predictability and lower false positives. Less transactions give you lower predictability and more false positives.

Secondly, if you localize, you're unable to learn from the learnings of one country and apply them to the global platforms like ours to every country, and therefore you leverage the cost of learning by 1/200, meaning you learn in one country and it's available to 200. And I have tons of examples of when this has paid off. What India is doing is actually enabling both those benefits to India to be turned off.

So at the end of the day, it's not a cost issue is what I'm trying to tell you. It's more of the manner in which we run the business to be able to benefit those stakeholders on the ground in India that I think we're losing out on. And I'm picking on India only because that's a live issue over the last few months. There are others like that. So it's not a cost issue as much as it is a manner of operating issue.

<A - Martina Hund-Mejean>: On the agreements, Craig, first of all, on average, agreements are between three and seven years, so you can actually say five years. So it's no surprise that typically in any given year 20% plus/minus a few percentage points come up for renewal. And we will continue to do what we did in the past many years. It means we're all going to go after every agreement, and hopefully we can convince clients to continue to do business with us or new clients to come over to do business with us. It's business as usual.

<Q - Robert Paul Napoli>: I was wondering if you could give a little more color on the growth of your B2B business and the investments that you're making there, and just maybe general thoughts to the percentage of your business that could come from B2B payments over the very long term.

<A - Martina Hund-Mejean>: So, Bob, let me start on this one. First of all, when you just look at B2B payments, we said in the past that it's about 11% of our total volume at this point in time, and that it's growing in the low, mid, high teens depending on which quarter you're looking at. And if I can just recall for you, we think that the opportunity worldwide is actually \$120 trillion. That doesn't mean that we're going to go after every \$120 trillion, but we're going after the slices where we can actually bring a lot of good value proposition to bear.

You saw how we expanded into virtual cards. That is actually in these numbers and how we're basically adopting virtual cards for ecosystems such as the travel industry, et cetera. And we took that learning further and expanded basically in the United States how to figure out for smaller companies and midsize companies to be outsourcing their accounts payable process. And that is going beyond virtual cards. This is the Mastercard B2B Hub, right. And it's not

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 Current Year: 6.402
 Bloomberg Estimates - Sales
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 Current Year: 14953.892

just virtual cards. It's any – the whole suite of payments means, be it check or ACH, our vendors can basically make payments to suppliers. So that is one expansion which is closer probably to our core business.

This morning you heard Ajay talk about Mastercard Track. That is really to address pain points between trading partners across the whole world, right, just like know your supplier. And that solution which, as Ajay said, will be rolled out in phases at some point in time, we hope that we are also going to integrate a payment solution. So that is addressing a different pain point.

In cross-border, account-to-account, we have told you before that we have been working on a permission-based blockchain solution that we have already connected to our settlement capability, and we're currently in a pilot with several banks. And then in addition to that, you know that Mastercard Send is actually also enabled for cross-border B2B payments. And then you shouldn't forget VocaLink, which is enabling B2B payments too. So there is a number of things that we're doing and innovating on, all of which that we're hoping, obviously, to come to fruition over time.

<Q - Robert Paul Napoli>: Has the growth rate of the B2B business accelerated? We've seen signs that maybe it has in other places.

<A - Martina Hund-Mejean>: As we are adding to it, you have to look at – that's why I said, depending which quarter you're looking at, it's anywhere between a low teens and a high teens growth rate, which is pretty fantastic.

<Q - Robert Paul Napoli>: Great.

<A - Ajaypal S. Banga>: So think of the B2B business as a little piece of Martina's speech because she obviously has imbibed the B2B business deeply. So here's the thing.

<A - Martina Hund-Mejean>: Former treasurer.

<A - Ajaypal S. Banga>: And now there's [indiscernible] (56:52) work for her, who used to run our commercials. I think this education process has only ratcheted up. So here's the deal. There's the card base original business that we always were in, small corporates, large corporates, T&E, B2B, SME, fleet cards, B-cards. That business continues to grow in a good rate. And frankly, you should view that as a steady stable business that we understand the most about because it's been in our portfolio for a fair amount of time.

Then the virtual card business came in after that. And that has continuously improved, not only in the form of the industries it targets, as Martina was explaining, but also in the form in which we deliver the product more and more through open APIs and through simple ways for people to integrate with the virtual card. That business is also beginning to, I would say, come to the point where it's in the first category of something we've known for a lot of years.

The Hub business, which connects to the ERP systems, and the Track businesses, we have just about launched. These are new. And I think you will see the results of these two over the next two to five years, not the next six months to one year. So I think you've got to look at our B2B business as being laid out as the foundation of the way we've built the services business. It took us four or five years to build it to some size, and then we began to really plug it hard. You should watch us doing the same with those parts of the B2B business, the hub and the Track part. And there's more to come on Track, and there's more to come on the Hub as we go along.

VocaLink and the Fast ACH capability that VocaLink gave us, along with the incremental amount of data that flows in a VocaLink message back and forth, which gives us better reconciliation capability and better capability for these vendors who are buying and selling from each other, that is just another plus in the system.

And so we are building a repertoire of assets like we built in Safety & Security, packaged together and bundled together at the front end for meeting that \$120 trillion market that Martina is talking about. That's how I view the B2B business are those two distinct parts: our older, more mature type; and newer, more interesting, probably more future growth variety, and Mastercard transcends both of those.

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<Q - Andrew Jeffrey>: I appreciate you squeezing me here at the end. Ajay, I heard you mention in your prepared remarks at least one flip from a proprietary or closed network. I wonder if you can expound globally on the share that you think those networks have and how much opportunity Mastercard has to open them up, and in fact, what your win rates might look like as you go after that volume.

<A - Ajaypal S. Banga>: Closed-loop networks have evolved over the years. They were very strong, for example, in Europe over the last so many years. And then when SEPA and the first payment systems directive came around, it began to open up the opportunity for companies like ours to gain vis-à-vis the closed-loop networks in a number of those countries. And the Netherlands was the first big breakthrough, but you will find every quarter, every country, we begin to see some progress. In fact, if you dial back to the big picture, nine years ago we used to see about 40% – 42%, Martina will remember the number correctly. 42% of our transactions went through us?

<A - Martina Hund-Mejean>: It was less actually, I think it was more like in the mid-30s.

<A - Ajaypal S. Banga>: Okay. So mid-30s was what we saw. Now it's 50-something percent.

<A - Martina Hund-Mejean>: 55% of our transactions.

<A - Ajaypal S. Banga>: 55% of our transactions. So we can see a large part of that is because we've been able to take on these closed-loop systems over the years and convert them into open-loop and be able to see them ourselves.

Closed-loop has many implications. There are bank-owned ones, there are government-owned ones, then there smaller closed-loop systems like transit systems. So the London Transport was a closed-loop system, where if you took a subway in London, you paid on an Oyster card, which was their own little closed loop. That has been converted to an open loop as well. So the closed-loop/open-loop conversation has many dimensions across smaller ones for government-run systems to all the way big ones that are run nationally, and infrastructure.

I actually don't want to give you a percentage of what comes from those vs. the others only because it will start becoming a quarterly question of this is not a change that happens quarterly. But I would tell you this. In our secular growth story, while there is a great deal of focus on the 80-odd percent of transactions that are still in cash, in that other 15% – 20% that are electronic, there is a chunk of closed-loop; and Europe is a big example of that, Canada has that. Australia has that. Latin America, has it. It's not only a developed market, emerging-market thing, it's across the world.

So yes, we are focused on that, and we work with those closed loops very often to show them why they're inefficient. Remember the conversation I was giving about India and not having access to global technology, global data analytics. All closed-loop systems suffer from that problem. They can't even keep pace with innovation and new technology forms. And so it's those arguments that enable us to go after that volume. It's a regular, steady drumbeat of growth.

Ajaypal S. Banga

Concluding Comments

I just want to tell you, wrap up with a few thoughts

We have once again delivered strong financial performance this quarter, record revenue, record earnings growth

We are very focused on executing against our strategy

We're investing in our core products as well as in differentiated service offerings

- And the idea is to embed ourselves but also to provide choice to our customers

We continue to drive solid deal momentum across products, across geographies

We've placed that momentum on our solution selling approach

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We are focused on delivering the best digital experience possible over the next few years across all channels and all devices for merchants, consumers, and issuers

- And so with that, thank you very much for your continued support of the company, thank you for joining us today

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