

Company Name: Mastercard Inc  
Company Ticker: MA US  
Date: 2017-07-27  
Event Description: Q2 2017 Earnings Call

Market Cap: 137,297.21  
Current PX: 128.93  
YTD Change(\$): +25.68  
YTD Change(%): +24.872

Bloomberg Estimates - EPS  
Current Quarter: 1.200  
Current Year: 4.323  
Bloomberg Estimates - Sales  
Current Quarter: 3219.538  
Current Year: 12121.333

## Q2 2017 Earnings Call

### Company Participants

- Warren Kneeshaw
- Ajay Banga
- Martina Hund-Mejean

### Other Participants

- Bryan C. Keane
- David Mark Togut
- Sanjay Sakhrani
- Lisa Dejong Ellis
- James Schneider
- James Friedman
- Daniel Perlin
- Robert Paul Napoli
- Tien-Tsin Huang
- Craig Jared Maurer
- Jason S. Deleeuw
- George Mihalos

## MANAGEMENT DISCUSSION SECTION

### Warren Kneeshaw

#### *GAAP and Non-GAAP Financial Measures*

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

### Ajay Banga

#### *Business Highlights*

##### *Net Revenue Growth and EPS*

- So we continue to execute well against our strategy
- You can see that in our strong second quarter financial and operational performance
- We're really pleased
- We're delivering net revenue growth of 14% and if you exclude a special item related to a legal provision that we took last year in the same quarter, EPS growth is 16%, both of these numbers on a currency-neutral basis

##### *Global Economic Environment*

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- In terms of the global economic environment, not much has changed since the last quarter
- The U.S. economy just continues its steady growth trajectory; low unemployment, low inflation, healthy consumer confidence, and if you look at our SpendingPulse data, retail sales ex auto were up 3.6%, that's kind of similar to last quarter

### ***Europe***

- In Europe, real GDV is expected to grow by about 2% this year, in 2017
- Consumer confidence is continuing to improve and that's primarily driven by Germany and Spain
  - But, of course, unemployment does remain relatively high in some of the EU countries

### ***UK***

- Now in the UK, interestingly, despite ongoing concerns around Brexit, SpendingPulse showed solid overall retail sales growth of 5% in the quarter and that's partly driven by higher consumer spending due to rising inflation, the lower pound basically
- In Asia, we continue to see strong economic growth in India and several of the ASEAN countries

### ***Latin America***

- In Latin America, despite all the recent political turmoil and sustained high unemployment, Brazil is showing both consumer and business confidence improving
- Economic growth in Mexico has been solid, driven by consumer spending
- Venezuela, of course, continues to deteriorate, triple digit inflation, high foreign exchange volatility

### ***Double Digit Volume and Transaction Growth***

- With this backdrop, we're kind of pleased with the growth we're seeing across our business
- We're seeing double digit volume and transaction growth across most of our markets
- We're continuing to win deals by differentiating with services and, of course, by leveraging the work we're doing in digital

### ***VocaLink Acquisition***

- In terms of key business updates, as you know, we recently closed the VocaLink acquisition
- We're just pleased that we now have the ability to offer both card and bank account-based payment solutions to our customers

### ***Fast ACH***

- If you look at the payment flows in the top 50 countries around the world, a significant portion of the payments are being made via ACH
- With Fast ACH, in particular, we have the ability to now enable payments to and from any bank account in real time

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- And that expands our reach to more end points, including businesses, governments and consumers, who may only have a bank account and not a card
- And as you can imagine, for consumers, that's not that infrequent in many markets around the world

### ***ERP Systems***

- Further, VocaLink's Fast ACH is well suited for certain use cases and why is that? That's because of its enhanced data and messaging capabilities
- So, for instance, it can connect to ERP systems to facilitate B2B payables and receivable management, but it can also support bill pay through its Request to Pay messaging capability

### ***International Performance***

- As of now, over 25 countries are actively pursuing Fast ACH networks, a number of which have already launched
- VocaLink currently provides those capabilities to the UK, Sweden, Singapore, Thailand and, of course, in the United States, with the clearinghouse, and it's also engaged in many other such opportunities
- Now, VocaLink and Fast ACH complement our Mastercard Send push payment service
  - What that does is it facilitates the delivery of funds in near real-time, not real-time, to virtually all debit card accounts in the United States

### ***HomeSend JV***

- In addition, by leveraging the exclusive capabilities from what we have with our HomeSend JV, we can enable cross-border payments to over 85 markets, now by connecting into cash in and cash-out locations, by connecting into mobile wallets and bank accounts
- So what we have now is a unique combination of product offerings that we believe will allow us to better facilitate consumer choice
- And through that process, capture an even greater set of new payment flows

### ***Strategy***

- What we will have is card rails, which we've had for years
- We have Mastercard Send and now, Fast ACH rails
- With this, Mastercard can become a one-stop shop for our customers, banks, merchants and governments
- We're looking forward to talking to you more about our strategy around Fast ACH and our other network capabilities during our upcoming Investor Day

### ***Safety and Security Space***

- Now in the safety and security space, we recently announced our agreement to acquire Brighterion, whose artificial intelligence based technology enables more accurate decision-making and fraud scoring at the time of the transaction, obviously to mitigate risk and also reduce false declines

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- Now adding that capability expands our advanced suite of security products and expertise in fraud migration, in authentication and decision intelligence, while trying to make sure that the consumer has a seamless payment experience
  - So, with that, I'm going to move on to some of our recent deal activity

## ***U.S***

- And in the U.S., we continue to have success in the co-brand space
- This quarter, we're pleased to announce Kroger, the largest grocery chain in the world, will be converting their credit portfolio with U.S. Bank to Mastercard
- Still with U.S. Bank, that's our partner in this co-brand

### ***New Co-Brand Program with Belk***

- In addition, we won a new co-brand program with Belk, a department store chain with about 300 locations throughout the United States and renewed our credit co-brand agreement with Toys "R" Us
- We also renewed [ph] Saturn (8:20) there in the U.S. for their credit and debit business, which includes our Decision Intelligence, fraud solutions and gateway processing services
- In each of these deals, our innovative solutions and value-added services were key differentiators for us

### ***Partnership with PayPal***

- Building on the agreement we announced in the U.S. last year, we're pleased to extend our partnership with PayPal into Asia-Pacific, which brings similar features and benefits to this region
- In fact, we've just announced and signed that in the last 24 hours
- We've been working with PayPal around the world for a long time, as most of their co-brand cards globally are Mastercard-branded
- And just for an example, in Europe, we have multiple co-brands with them, including a prepaid program in Italy, commercial debit in the UK and, by the way, they've also been a licensed issuer in the region since 2011

## ***Europe***

- Now talking about Europe, we continue to drive strong performance and win new deals there
- I'm going to give you a couple of examples
- We have renewed and expanded our agreement with Intesa Sanpaolo in Italy, which is one of the largest banks in the country for their credit, debit and prepaid business and that includes advisor services

### ***UK Debit Space***

- We're also pleased with some recent progress in the UK debit space
- This quarter, we announced a deal with TSB to flip their entire debit portfolio to Mastercard, building on our existing relationship with them in credit

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- Now, this is a significant win for us because TSB's customers represent over 4% of all debit customers in the United Kingdom
- The partnership also includes their commercial business and we'll leverage our expertise in digital, in fraud, data analytics and even our Priceless sponsorship assets to deliver an even better payment experience for TSB's customers

### ***China***

- China, as you know, we've been deeply engaged in navigating the potential opening of their domestic payments market
- Back in March of this year, we actually submitted a draft application for a domestic bank card clearing institution
- That early draft was informed by active considerations and conversations with the People's Bank of China and actually a number of potential partners as well in the market over the last two years
- Now, more recent set of regulations got published, as you know, on June 30, so we're now finalizing our next application based on that new set of regulations
  - We're working through all our options for either a 100% Mastercard application or for a joint venture
- We're going to make a decision on this and then file our next application

### ***Technology Network Solution***

- Obviously, what's really important here is to get it right out of the gate
- Because, remember, this is just another step in the process that will likely play out over the next 12 to 18 months as there are several review cycles from the Chinese regulators between now and that point of time
- At the same time, we've also been working on developing our technology network solution for China, which considers both national and cyber security standards and we're progressing well in that regard

### ***Customer Base***

- Now, in the meanwhile, what we are doing is continuing to make progress with single-branded cards and we've nearly quadrupled y-over-y single-brand card issuance, launched a total of 18 new programs in H1 this year, including the first single-branded EMV Debit card in China with Bank of China, and a World card with ICBC, which is targeted at their affluent customer base

### ***Mastercard B2B Hub***

- So, finally, we're continuing to see growth in our commercial business, and is driven by a combination of innovation and some new deals
- On the product front, we just recently announced the launch of the Mastercard B2B Hub, which is an innovative solution that enables small and medium-size businesses in the United States to automate their invoice and payment processes
- As you know, more than 50% of all B2B payments in the U.S. are still made via checks and if we can integrate this with more than our 130 accounting and back-office systems and also into inControl, our virtual card platform, now we believe this solution helps buyers and suppliers reduce the burden and the cost associated with manual payment processes and helps us to accelerate the conversion from check to electronic payment

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- The idea clearly is to capture new payment flows

### ***Agreement with Citibank***

- And in terms of new commercial payment deals in this space, we are pleased to have renewed and expanded our agreement with Citibank in the UAE for their commercial business
- I think that win was basically driven by our virtual card platform as well as our ability to help drive B2B acceptance in the market
- We're also expanding our global partnership with Amadeus, which I spoke about last quarter, to the United States, with U.S. Bank as their exclusive issuer, as we continue to pursue the more than \$300B in annual global payments that travel agencies make to airlines, hotels, and other travel providers, which by the way today are largely made via bank transfers and checks

### ***Digital***

- So turning to digital, we're making good progress with the execution of our Digital by Default strategy with issuers
- We now have over 90mm enabled accounts and we're actually pleased to have partnered on the launch last week of Citi Pay in the U.S., which is powered by Masterpass
- This wallet enables customers and consumers of Citibank to use their Citibank online login credentials to make seamless payments across all channels
  - Online, in-app, in-store with their card number, which is protected through our MDES organization service

### ***Davivienda***

- We've also added U.S. Bank and SunTrust in the U.S
- We've also added Davivienda in Columbia
  - That's the progress we are making
- We are continuing our momentum on the digital acceptance side
- We now have more than 340,000 online merchants across 38 markets in addition to the 6mm contactless locations in 96 countries, where Masterpass can be used
  - This quarter, we're really pleased to have added Ann Taylor, LOFT, Hulu, Air Canada, Costco Canada
- We've integrated Vodafone in Turkey, which is the second largest mobile network operator in that market to enable their more than 22mm subscribers to pay for mobile airtime minutes and other services using Masterpass

### ***Partnership with EMVCo***

- And, finally, a good example of our thought leadership in driving the convergence from physical to digital can be seen in our partnership with EMVCo and other industry participants to enable greater choice in retail payments by creating a new global standard to ensure consistency, industry consistency in QR codes
- And this builds on our momentum with the rollout of QR technology in Africa and India



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- In addition to the launch of BharatQR in India, which is now live with four large banks in the country, we've partnered with the Bank of Thailand and the Government of Thailand in support of their goal of creating a cashless society

## Martina Hund-Mejean

### *Financial Highlights*

#### *Net Revenue Growth and Operating Expenses*

- As you can see in the highlights on page 3, we have delivered another strong quarter ahead of our expectations
- Unless otherwise stated, the growth numbers I call out will be on a currency neutral basis, excluding a special item related to a legal provision taken last year
- The FX impact was less of a headwind than expected at about 1 ppt, primarily due to the strength of the euro
- Net revenue growth was 14% due to strong underlying drivers and growth across our services, and includes approximately a 2 ppt benefit from the VocaLink acquisition
- Operating expenses increased by 17%, which includes a 6 ppt impact due to acquisitions primarily, VocaLink, and a 4 ppt impact due to FX related charges

#### *Operating Income and EPS*

- Operating income was up 12%
- And EPS was \$1.10, up 16% y-over-y, driven primarily by our strong operating performance with share repurchases contributing \$0.03 per share
- During the quarter, we repurchased \$931mm worth of stock and an additional \$226mm through July 24

#### *GDV Growth*

- So let me turn to page 4, where you can see the operational metrics for Q2
- Worldwide gross dollar volume, or GDV growth, was 9% on a local currency basis, up 1 ppt from last quarter
- U.S. GDV grew 3% and was made up of credit and debit growth of 7% and 1%, respectively
- Outside of the U.S., volume growth was 11%, similar to last quarter

#### *Cross-Border Volume*

- Cross-border volume grew 14% on a local currency basis
- Areas of real strength continued to be Europe, where we are seeing strong UK inbound and outbound volumes, as well as Russia, Italy and France
- Latin America continues its recovery ,with Brazil and Mexico leading the way
- And in Asia-Pacific, we see strong growth from South Korea, China and Japan
- We have also seen higher cross-border growth rates to and from the United States

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### ***Regional Performance***

- Turning to page 5, switched transactions continue to show solid growth at 17% globally again this quarter, with double-digit growth in all regions outside of the U.S
- We saw continued strength in Brazil, Russia and India
- Globally, there are 2.4B Mastercard and Maestro-branded cards issued

### ***Net Revenue Growth***

- Now let me turn to page 6 for highlights on a few of the revenue line items, again, described on a currency neutral basis, unless otherwise noted
- Net revenue grew 14%, driven by continued strong volume, transaction and services growth, with VocaLink contributing about 2 ppt to this growth
- Rebates and incentives grew 22%, reflecting higher volumes and incentives for new and renewed deals in line with expectations
- Looking quickly at the individual revenue line items
- So you may recall that last quarter I said the difference between fees charged and volumes and the domestic assessments and cross-border categories were mainly due to pricing, which was essentially offset in rebates and incentives as well as some mix
  - This continues to be the case this quarter

### ***Domestic Assessments***

- Domestic assessments grew 14%, while worldwide GDV grew 9%
- Cross-border volume fees grew 16%, while cross-border volume grew 14%
- Transaction processing fees grew 18%, in line with the 17% growth in switched transactions
- And finally, other revenues grew 18%, most of the VocaLink revenues show up in this line
  - This more than offset the 5 ppt effect of the changes we made to our loyalty business in Asia that I have discussed with you last quarter

### ***Operating Expenses***

- Moving on to page 7, so here you can see that total operating expenses increased 17% on a currency neutral basis, excluding a special item taken last year
- So this includes 6 ppt impact from acquisitions, that's primarily from VocaLink, including the impact of purchase accounting and integration related costs
- And then there is a 4 ppt impact from higher FX charges related to hedging losses due to the weakening U.S. dollar and balance sheet re-measurement effects as a result of the devaluation of the Venezuelan bolivar
- And excluding these items, operating expenses grew 7%, as we continued to invest in digital, geographic expansion and advisors capability
  - This also includes a 2 ppt impact from accelerated A&M spend related to the Masterpass awareness campaign



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### ***Volume***

- Turning to slide 8, let's discuss what we have seen in July through the 21, where most of our drivers are similar or slightly lower than in Q2
- The numbers through July 21 are as follows
- So let me start with switched volume
- We saw global growth of 10%, the same as what we saw in Q2, with double-digit growth in all regions outside of the U.S
- And in the U.S., our switched volume grew 2%, down a bit from Q2, with higher growth in credit, but lower switched volume in debit as we are lapping a number of 2016 PIN wins
- And gas had really no impact on our July numbers

### ***U.S***

- Switched volume outside the U.S. grew 18%, up a bit from Q2
- Globally switched transactions growth was 15%, down 2 ppt from what we saw in Q2, with similar growth outside the U.S
- And the U.S. slowed 4 ppt, due to lower PIN growth that I was just mentioning under switched volume
- With respect to cross-border, our volumes remained strong, up 14% globally
  - That's very similar to what we saw in Q2

### ***Service Offerings***

- So let me look ahead and our underlying business fundamentals remained strong
- We continue to grow our business through a combination of new and renewed agreements as well as our expanded set of service offerings
- We had a strong H1 and we are particularly pleased with the progress we are making in Europe and in Latin America
- As we look forward to H2, we are forecasting this momentum to continue

### ***Foreign Exchange Rate***

- Based on current foreign exchange rates, we now anticipate FX headwinds will subside, primarily due to the weakening U.S. dollar
- For the year, we continue to expect net revenue will grow at a low double-digit y-over-y rate on a currency neutral basis excluding acquisitions
- And for Q3, we expect net revenue growth to be similar to what we saw in Q2, again, on a currency neutral basis excluding acquisitions

### ***Operating Expenses***

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- On expenses, we expect y-over-y total operating expenses to continue to grow in the high single digit range on a currency neutral basis excluding acquisition and special items
- Also of note, we're extending our support of the rollout of Masterpass through the acceleration of A&M spend in Q3
- So in particular, we expect A&M spending to be up by about \$35mm vs. the year ago quarter

### **Acquisitions**

- And we continue to forecast recent acquisitions, most notably, VocaLink, will be about \$0.05 to \$0.06 dilutive in 2017, driven primarily by purchase accounting and integration related costs
- Separately, you should assume a tax rate of about 28% based on our current expectations of regional mix

## **QUESTION AND ANSWER SECTION**

**<Q - Bryan C. Keane>**: Ajay, just want to ask, on the whole Push Payments opportunity, seems like it's a big market for a lot of folks. And thinking about one of your competitors was recently talking about that they didn't need to purchase an ACH network or anything with ACH capability; they had it already with their capability with Visa Direct. Just wanted to get your analysis on that on why the VocaLink acquisition was necessary?

**<A - Ajay Banga>**: So, I think that Mastercard Send is similar in a way to other offerings in the marketplace. We could have taken that, combined it with our HomeSend JV, extended its reach to mobile wallets and cash-in and cash-out points around the world. That's one way to have built it. There would be some challenges still left with that to really enable that to compete the way Fast ACH is growing around the world. Those challenges are actually quite interesting and require a real solution to solve for. I'm not saying you can't solve for it organically and try and build it. I just think that's more expensive and a longer solution with less credibility of working than if you pick up a unit like VocaLink with its enormous reputation in the UK where it operates the payments infrastructure, but also its ability in multiple countries around the world. ACH has been a country-by-country business. VocaLink is one of the only players in the world that has demonstrated the ability to take its software and apply it in markets as diverse as Sweden and the UK and the United States and Singapore and Thailand and so on. That's the first point.

I think the second point is the nature of the data flows; now this is a little bit more in the commercial B2B payment space, the nature of the data flows that come back-and-forth over VocaLink's B2B payment enabled system is such that you get their ISO 20022 dealer standard. So what they get is far more information that allows them to integrate seamlessly with B2B ERP systems, with e-commerce systems and cross-border payments are also built in there, as standard. They have directories which combines the VocaLink IPS system with these directories, simplifies the flow of payments, simplifies payment requests. So, the aspects in the B2B space that I think with the richer data set and the better connectivity of VocaLink Fast ACH that I think are actually quite important to be able to play a good role in that space.

So the combination of these two is kind of what prompted us sometime back doing a scan across the world of the opportunity to enter Fast ACH. We kind of took the decision that if this property were not available, we probably would have tried to build something organically with its opportunities and risks and costs and timeframe. But as it so turned out, the opportunity with VocaLink came along and we were trying our best to leap on it and take it and move forward. That's broadly what we're trying to do.

**<Q - David Mark Togut>**: Could you update us on your progress in signing pan-European deals? In particular, I'm thinking about the new merchant routing regulations that went into effect in June of 2016 and how you're doing vs. some of these local and national payment schemes.

**<A - Ajay Banga>**: Well, I'll tell you this much, that what we are looking at is the fact that all the new regulations that went in, the one part of them were the routing regulations; another part was the actual, as you know, a level of

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interchange. There were other parts of our co-branding and co-badging and separational switch and scheme. There were a series of these that went in. I will tell you this. The expansion of acceptance that is going on for brands like us across Europe is actually for the first time encouraging. As you can see, even in Germany, where Martina hails from, even in Germany, and I'm not holding it against her, but that's where she hails from...

**<A - Martina Hund-Mejean>**: Even the Germans are using cards.

**<A - Ajay Banga>**: Even the Germans are beginning to use these payment systems in these stores which earlier they did not. They basically paid through the giro through their bank accounts. You can see a change coming from the merchant community as well as the consumers, which I think is a function not just of one aspect of the regulation, but of the totality, which I think is what [ph] the EC (30:06) wanted to do. They wanted to create fresh momentum and fresh competition in the market, both for us and against what we do, and I think that's fine. That's a competitive marketplace.

**<A - Martina Hund-Mejean>**: Yeah. We are seeing real progress on the acceptance side. But we are also really seeing progress on our winning European deals, predominantly off-course, because we have a fantastic digital suite of products and we have great consulting services. And we're seeing that a lot of the banks that have been grabbling with a lot of these issues, especially as PSD2 is coming down the road, how we could be servicing in them. And that is – we called out some wins last time. We have a couple of wins that Ajay called out this time. That is really adding to the progress in terms of our European payments volume, which as you can see, even this quarter again is at 15%.

**<Q - Sanjay Sakhrani>**: I guess on a related European note, obviously, a little bit more time has passed with Visa's acquisition of Europe. Ajay, I was wondering if you've noticed any discernible trends, [ph] PINs (31:08) maybe impacting Mastercard? Thanks.

**<A - Ajay Banga>**: Sanjay, not yet directly. Although, as I said, they are winning some deals and that's because the market is a little more open to now having these conversations as compared to prior to the acquisition when everybody was waiting for that to happen with all their obvious benefits that were tied up in that.

But I would say – you remember even that Visa is still sorting through it, as they themselves said, all their agreements with their customers. So, you've got to let this play out for a little while. But, we are seeing progress, we are winning deals, and I'm just giving you a couple of examples, I'm trying not to give you a list. But, we are winning deals along the way.

This will become, as I said over time, you should get past this couple of years and then think about this as settling into a regular competitive marketplace, where one of two or three things will happen. Either the yields of that market, which tend to be lower than global yields, will begin to come up a little bit, maybe, maybe not; we'll see. Or, the opportunity to win more deals and volume will present itself. One of those two will fall into place. Right now, it feels more of the latter than the former. But, it's early days.

**<A - Martina Hund-Mejean>**: In addition to really driving secular trend in Europe. As you know, it's really only the UK that is very much enabled from an electronic payments point of view. And it just presents an enormous opportunity in many of the other countries to take advantage of the secular trends from cash and check to electronic forms of payments.

**<A - Ajay Banga>**: That's why to that earlier question I'm so delighted about the expansion and acceptance, even in Germany.

**<Q - Lisa Dejong Ellis>**: Ajay, you mentioned working with EMVCo on this global standard around QR codes and driving that. Can you elaborate a bit exactly what that solution looks and feels like for the merchant and the consumer? And what's required to enable that globally? Like what's the solution on the acquiring side and is the acquiring environment activating around that? And then also on the consumer side, is this Masterpass or is this bank wallets and how do you see that playing out?

**<A - Ajay Banga>**: First of all, the last part, to me Masterpass and bank wallets are one and the same thing. I'm not into building Masterpass as I've said as a B2C solution. it's really a B2B2C solution. Banks can take a wallet container

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 YTD Change(%): +24.872

Bloomberg Estimates - EPS  
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from us or build their own and then ride our rails, which is what a number of them are doing. Someone like CitiPay uses Masterpass more extensively than others. I'm fine with that. That to me is our model. It's a open, engagement model with banks and others who are authorized to have financial accounts so that we can enable the path through digitization as compared to trying to build our own wallet. That's not what I'm trying to do.

The standards topic is a really interesting one. To me, if you're going to make progress in expanding acceptance and QR code is a little bit of our expanding acceptance into markets where infrastructure and the cost of having terminals as well as the running costs of managing those terminals, are challenging.

So you take in Africa, you take parts of India or you take Pakistan or other such markets, or even parts of China, at the end of the day, QR codes represent a real opportunity to enable electronic payments in smaller and more remote shops. What essentially you are doing, you can pull or you can push the payment, meaning you can have a QR code that is unique to the merchant, in which case a consumer who walks in using a phone with a camera can actually focus on that QR code and enable the money to be transferred to that merchant for the potatoes and onions and bicycle tires they bought. Or, it could be the other way around, where the consumer carries around a QR code, which is unique to them, and it can connect into the merchants system to enable the money to be sent from the consumers account to the merchants account.

Both are possible, both are feasible, both have been tried in different markets in the world. The idea of standardizing them across EMVCo is to ensure that banks and merchants don't end up with complicated multiple standards between us and the other participants in EMVCo, which include Visa and AMEX and the others. So that's the purpose of what we're trying to get done. We've actually done that and issued standardized guidelines so that the acquirers and the merchants and the banks can find a simpler way to connect to what I think could be a transformative way of growing acceptance in a number of these markets.

**<Q - James Schneider>**: I was wondering, maybe you could talk philosophically about your approach to margins from here on out? Is the philosophy still to kind of make sure that you maximize revenue growth and get EPS tracking with that? Or post the acquisition of VocaLink, is there a desire to potentially get a little bit more operating leverage over the next few quarters until you lap that acquisition? Thank you.

**<A - Martina Hund-Mejean>**: James, it's Martina. So, no, we have not changed our view in terms of how we are looking at operating margin. First and foremost, as you said, we are growing the company for top line performance, and net revenue growth and bottom-line performance, both on the net income line as well as on the EPS line.

We continue to believe that our operating margin should be, including buying VocaLink at a 50% plus margin, we are not driving the company in such a way that we are expanding it, so it might expand from time to time as we are today, actually 56% when you exclude VocaLink, 54% when you include VocaLink, but we are already above that 50% threshold. But what we're really doing with the company is, we're taking certain amounts of money that we are earning on the top line and we are investing it in those critical areas in order to get top line and bottom-line performance to continue to work.

Just remember, VocaLink, when you actually look at them from a standalone point of view, you can look at their 2016 financials, and if you exclude one particular investment that they have made in push payments, which is their ZAPP product, their paid-by-bank product in the UK, VocaLink has a 32% EBITDA margin. So, obviously, they have a much lower margin than what Mastercard as a whole is, and despite that we are capable and able of taking in and we are still holding firm with our operating margin level of a minimum of 50% plus.

**<Q - James Friedman>**: I just wanted to ask you about that Kroger win that you announced in your prepared remarks. So, Ajay, if you don't want to speak about the merchant specifically, maybe more comments in general about grocer. Kroger is a massive company. How should we be timing that in terms of modeling it in? And was that a flip? Some color on the grocer would be helpful. Thank you.

**<A - Ajay Banga>**: Sure. I'm glad you called them prepared remarks. There are days when Warren and Martina are worried about what I might say compared to the prepared remarks. But I will note that for my future.



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So, Kroger. Kroger was a co-brand that many years ago actually used to be with Mastercard. I think it flipped out of Mastercard either the year before I joined, or two years; I actually don't remember correctly. But, I know about 8, 9, 10 years ago it moved away, and it was with our competitor, largest competitor, with Visa. U.S. Bank is their issuer and their primary banking relationship. Kroger went through a relatively detailed process of figuring out how to renew and what to renew. And we all went through and made our usual pitches for it and it ended up with U.S. Bank and us as being the partners for their co-brand platform going forward. We haven't yet finalized the dates of the migration of the portfolio. That work is happening as we scope out the different aspects of this. Over the next few months, I'm pretty certain we will be able to give you a better date and a better guideline. And Martina will be able to help you with that.

**<Q - Daniel Perlin>**: The question I have is on operating expenses. You had 7% growth in OpEx once you take out the acquisitions and FX. You called out another 2 points of impact related from Masterpass spending. So, I guess, net it's 5%. So the question I have is two-fold. One is, and I heard your comments a second ago, Martina. But is the run rate of core business OpEx growth around 5%?

And then secondly, you're calling out another \$35mm of A&M spending for Masterpass in Q3. I'm wondering if you could just help us balance the investments you've been making there for the past three quarters that have accelerated to some of the early-stage benefit as to how that's driving your top line? Thanks.

**<A - Martina Hund-Mejean>**: So, Dan, first of all, for the whole year, we gave a guidance that we would be at the high single digits on a currency neutral basis for operating expense growth, right, and that continues to be true. And that is excluding acquisitions, okay.

So, steady-state company with the investments that we are making has high single digit for the whole year. That includes any of the FX charges. That includes any of the Masterpass cost on the A&M side, which quite frankly, quite a bit of the cost is being accelerated from Q4 into the first three quarters of the year. So we have absolutely no change for that.

In terms of driving growth, when you look at that high single-digit investment that we are making on the OpEx line, that is, when you look in the detail of it, is a number of things. One, it's obviously digital. We continue to invest in digital. Number two, so this is both on the technology side, that is on helping our customers to getting up and running; that is where the A&M is going up. So that is digital.

Secondly, we're doing quite a bit of geographic expansion. You can look at what Ajay said about China. Of course, we're building the technology backbone there, so that is expense. In India, given the demonetization, we are investing quite a bit there. In Africa, there are a number of those things going on. So geographic expansion is another big bucket.

The third bucket that drives growth, which we have been calling out in a number of quarters, is of course what we're doing in safety and security, right? So a number of the things we're actually doing and until very recently, from an organic investment point of view. Look at the Safety Net feature that we had shown to you a number of times; that was actually an organic investment that this company has been making. Recently, we've been adding a few inorganic acquisitions to it, but that is a very key investment area for us.

And then last but not least, as we called out this quarter, we are continuing to invest in our advisors capability, which is really two things: One, what we are doing on the consulting side with our customers, which does pay back in spades because of better portfolio performance, additional things that our customers might be doing that really benefit our volume and transaction. But also it's what we're doing on the data analytics side that goes way beyond financial institutions. That is where we're helping a lot, the merchants, to be very successful with what they need to do to sell to consumers.

**<Q - Robert Paul Napoli>**: A question just on U.S. credit. One area that has been a bit of a challenge for Mastercard over the past couple years has been market share and growth in U.S. credit. It does seem that you have some momentum and have lapped some losses, lapping some losses. Can you maybe give a little color on your thoughts on the market position in U.S. credit, market share trends and growth outlook?

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**<A - Ajay Banga>**: First of all, you're correct. We are lapping some of those losses and there is an improvement in both our consumer and commercial credit in the U.S. performance. You've got to remember, we've got a good presence in commercial credit as well. And we look at both as part of our credit business in the United States.

In consumer, which is I think where your question was coming from compared to the commercial side, in consumer, within the market, as I said, are looking for opportunities to grow. Those opportunities have, over the last few years, largely been through merchant driven co-brand decisions and we win some and we don't win some. This quarter, we've got a couple we told you about that we won. There are a couple of others that we won that we won't announce for another year or so until the deals become visible in the marketplace.

But there are others we didn't win. We didn't win Costco in the United States some quarters ago. So we won Costco in Canada, but we didn't win it in the U.S. We have a relationship with Costco in other markets around the world. And so there are deals we'll win and there are deals we'll not win. We will try and do them in a way that makes economic sense to our bottom line. That's the principle behind those deals.

It's the same for winning more credit share with issuers and for looking at them as part of participating in their growth. One of our biggest partners, as you know, is Citibank. And you know that Citibank has begun to reinvest very wisely in their credit business over the last few quarters. And, honestly, their own performance, as a result, is improving. And their performance, which is improving, is driving our improvement, because they're one of our best partners. And that's kind of how this works for us and we try to work our way through this in a sensible way and support our principal customers and work with them on growth, while we try and win as many deals as we can, when and if they come up in the marketplace.

**<Q - Tien-Tsin Huang>**: I guess I'll ask about the TSB win. What drove the switch there? I know I think Sanjay asked about Europe and whatnot in general, but just given its opening up in the UK, was this tied in any way to the Visa Europe transition? Is there a pipeline of new stuff maybe with challenger banks that you're excited about?

**<A - Ajay Banga>**: Hi, Tien-Tsin. Yeah, well, the TSB conversation honestly had started before the Visa European transition. I remember talking to them some time ago. It so happened that the Visa Europe transition happened in between. But is there pipeline in the marketplace from large, medium and small sized banks that we are pursuing? Absolutely. But I'm not going to say much more about it.

**<Q - Craig Jared Maurer>**: We've now had pay-by-bank in the market in the UK for, I believe, a full quarter even though I know that availability to consumers is still very small vs. where it'll be by year-end. I was hoping you could talk about early returns in terms of things like fraud and an update. Thanks.

**<A - Ajay Banga>**: Craig, it's very tiny yet and you're correct that it's early days. Its availability is limited. It's a couple of banks and I'm actually looking at Martina to try to figure out whether it's two or three banks.

**<A - Martina Hund-Mejean>**: No. It's two banks, but it's three stores and if you want to buy pizza in the UK, then you can use it.

**<A - Ajay Banga>**: Yeah. So, right now, it's very early. But I'll tell you a different picture about it which I think you'll be more interested in. My view is that a consumer must get choice at the front end of their decision of how to pay and that choice should be connected back to where their bank relationship comes from. And if that choice is to pay by direct debit to their bank account or by the inward receipt of a remittance through a friend, a relative or a government disbursement or with a debit card or a prepaid card or a credit card, that concept of choice is what we're trying to put together when I was describing the opportunity with Fast ACH as well as what we have, which is Mastercard Send and HomeSend and our card rails.

Whether you – pay by bank has only one way of choosing right now, which is from your bank account. I visualize that as being important and an interesting application not just in the UK but in other markets as well. It can lead to some good volume growth, but what I also visualize over time is the choice coming across to a consumer at the point-of-sale on their phone or from the terminal, whichever way, a choice to make payments from these alternative funding sources. That's what I think is where all this is going.



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**<Q - Jason S. Deleeuw>**: Just a question on B2B payments and how you think about the opportunity there for VocaLink vs. Mastercard Send. Can you size it up? Is one bigger opportunity for the other? Just kind of help us think about that. Thank you.

**<A - Ajay Banga>**: I continue to believe that the opportunity in B2B for ACH and therefore VocaLink type of Fast ACH payments is enormous. It's way beyond what a Mastercard Send or card rails can address. Why is that? Card rails requires you to have card acceptance with all these merchants on both side or the businesses on both sides of a B2B transaction. And while you can attempt to build that acceptance and we have built it over the years, we're actually building in a number of markets around the world. But I would say while that addresses a portion of the opportunity, there is a much bigger opportunity that lies outside of that portion. That outside of that portion opportunity you can address a part of it through the tools of a Mastercard Send combined with a HomeSend because you've got multiple distribution points you could reach.

But even now you don't have the right data and connectivity to the ERP systems of these B2B businesses that you can get with an ISO 20022 certified data standard system like VocaLink. That's the real difference. So think of this as layering a cake. There is what you can do with the card. I love it. We're going to do it. There is what you can do by adding HomeSend. I love it. We're going to do it. There's a little more I can do than most other people there by adding on the HomeSend capability. I love it. We're going to do it. But, boy, what I really love is the capability with Fast ACH. So I'll give you a number for the United Kingdom. In the UK alone, VocaLink's domestic real-time platform carries over last year about 1.4B transactions per annum and the combined value of that is \$1.5 trillion. Whatever you can look at addressing through card rails and through the equivalent of Mastercard Send rails would be a fraction of that number.

**<Q - Jason S. Deleeuw>**: Great. Thank you for that.

**<A - Ajay Banga>**: Now, to be clear, the revenue dynamics and the challenges of building that's out, I'm not discounting any of those. Please don't assume that by next quarter I'm going to have the worlds answer to B2B payments. I'm going to build it, but what I've got now is the right set of tools between card rails, Send, HomeSend and Fast ACH and as we get together and roll these out sensibly, in sensible profitable ways across the world, you should see us bringing choice and data capability through this to the front end of a B2B business.

**<A - Martina Hund-Mejean>**: Yeah. And, Jason, that is exactly also what we're doing with the Mastercard B2B payment hub, right. Our investment [indiscernible] (52:56) exchange where we're basically enabling small and medium size businesses to automate their invoice and payment processes, and one way to do it is as Ajay said, to give a card offer which we are doing obviously through our virtual card offering, which will get linked into that system. But in addition to that, those businesses want to also have ACH capabilities and what's called ACH plus capabilities which is an ACH transfer with more data and what is wonderful with this B2B hub is that we will be connected into over 130 ERP systems which allows those businesses, both buyers and sellers, to be easily putting the data into their backend systems so that they can reconcile those kind of payments with the goods delivered or a Send.

**<A - Ajay Banga>**: Just keep this in mind, it's about choice, both commercial enterprises as well as for consumers and all I'm trying to do is to have the repertoire that allows us to do that in a sensible, practical way.

**<Q - George Mihalos>**: Ajay, I guess I'll ask on obligatory India question. I know it's early days, but when you look at the market structure there, heavy on debit, obviously, you can do the local processing. Is there any reason why structurally the revenue yield in India shouldn't be superior to Europe? And can you envision needing to take a more direct role from an acquiring perspective a la what Mastercard and Visa did in Brazil years ago?

**<A - Ajay Banga>**: So, Martina, didn't send you an email on the side asking you to ask me an India question because of my poking her on Germany, right? I'm just guessing. But the India opportunity, so there are close to 850mm debit cards in that market. A large number of them, by the way, are still used essentially for taking cash out from an ATM. It's only a smaller number of them that are used at the point-of-sale and credit cards are way smaller than the debit cards, we're talking about a fraction of those. Those, of course, used at point-of-sale. There's little cash take out on those, although there is some. And when you put that together, you get a market that has lots of cards, more than they

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ever had, but still with a huge opportunity in the front of it.

The second side of it is the acceptance methodology. Whether it's card payment or pay by a QR code or pay by a phone or a fingerprint and all those options are being developed by different players in India, including us. I think what you'll find is that this is only as good as how the acceptance market in India evolves. Now, the acceptance market is growing rapidly in the sense that over the course of this last eight, nine months, you've had a 70%, 80% growth in merchants. But it comes to 2.5mm, 2.6mm merchants, depending on who you're counting. If you look at the total number of merchants in India, the Confederation of All India Traders with whom we have a very deep partnership, estimates there are 60mm merchants.

Now, a large number of those are going to be fruit sellers and casual merchants who I don't yet know how we will get to create electrification, although we probably could over time. But there's still a large number there that should get into acceptance expansion. Now, the acquiring community in India is actually pretty good at growing the acceptance. Their challenge has been in the past the risk underwriting capability compared to their business model because all the acquirers in India are actually issuing banks as well and their business model is not clear until the revenue dynamics of their business model is clarified by the Reserve Bank of India. For the last few months now, since the demonetization, there has been a dispute going on about the level of MDR that the banks will make out of the system. If you don't clarify that, you're going to find a lack of appetite on the part of the players there to grow acceptance. It's got nothing to do with Visa and Mastercard going into the market acquiring or not.

We ourselves won't know what our revenue model will be or what our profitability model will be until we get clarity on the pricing model in the marketplace. That pricing model was supposed to have been clarified a couple of months back. I think there have been recommendations made by the Reserve Bank of India to the Indian government. We're still waiting for them to finalize that. I am hopeful they will finalize that. I raised that recently in a public meeting with the Prime Minister as well. I know they're working through a number of puts and takes to figure it out. They will.

Once they do, I think back to the earlier question Lisa asked me about QR codes, I think you will see between traditional terminals, mobile as a point-of-sale and QR codes with dongles, I mean, mobile is a point-of-sale in dongles, and QR codes, I think you will see a reasonably strong expansion of acceptance in India. And people like us and our competitors, we can focus on enabling banks and merchants to make sense out of this opportunity.

Remember, there's one big impetus coming, which is the implementation of a Goods and Services Tax called GST in India. That GST has levels and slabs, but most commodities are at 28%. People will be paying that 28% when they receive goods in a merchant shop. A merchant is no longer incented to help a consumer not pay taxes because they are most likely to have paid a relatively high tax rate on receiving those goods from their supplier. And therefore subsidizing that to a consumer by helping to avoid taxes is probably something that we should see reducing over the next few years. And that, to me, is the real change in the [indiscernible] (59:02) in this place.

So if we can get our stuff together in the MDR, get the acceptance expansion going, build the right digital tools and QR tools, and roll those out, while also not losing focus on cards, I think there is a really interesting opportunity over the next five to seven years in India.

<A - Warren Kneeshaw>: I see that we've got to the end of our allotted time. Ajay, do you have any final comments to make?

## Ajay Banga

### Q2 Highlights

#### Revenue and EPS

- And I'm going to leave you with a couple of closing thoughts

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- We've had a strong H1 the year
- We're just really pleased to have delivered record revenue and EPS in this quarter
- I believe we are executing well against our strategy
- We've added a number of new capabilities, which we were talking about during the Q&A, which I think differentiate us from competition and they add real value to our merchant and bank customers

### ***Fast ACH***

- With Fast ACH, we now have the ability to offer even greater choice for our customers with both cards and bank account based payment solutions
- With the Mastercard B2B Hub, we think we're continuing to deliver innovative solutions to help companies manage their businesses more efficiently
- And with Brighterion, another company we acquired this quarter, we're extending our capabilities in artificial intelligence to create an even better and safer payment experience for consumers
  - So I'm looking forward to having a number of you join us at our upcoming Investor Day in New York
- You'll have an opportunity to hear about our strategic areas of focus, and you can get a chance to touch and feel and experience the various ways that we are working to capture new payment flows and help to shape the future of where payments are going.

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