

HEARING ENTITLED “THE FUTURE OF MONEY: HOW MOBILE PAYMENTS
COULD CHANGE FINANCIAL SERVICES”

TESTIMONY OF ED MCLAUGHLIN
CHIEF EMERGING PAYMENTS OFFICER
MASTERCARD WORLDWIDE

BEFORE THE COMMITTEE ON FINANCIAL SERVICES
SUBCOMMITTEE ON FINANCIAL INSTITUTIONS AND CONSUMER CREDIT
U.S. HOUSE OF REPRESENTATIVES

MARCH 22, 2012

Good morning, Chairman Capito, Ranking Member Maloney, and Members of the Subcommittee. My name is Ed McLaughlin, and I am Chief Emerging Payments Officer at MasterCard Worldwide (“MasterCard”) in Purchase, New York. It is my pleasure to appear before you today to discuss developments in mobile payments. The subject of this hearing is a fascinating one, and is on the cutting edge of what is driving change in the way consumers and businesses interact to complete transactions. MasterCard is at the forefront of innovation in this space and a thought leader in mobile payments. We greatly appreciate the opportunity to be here today to share our perspective on how mobile payments are developing and benefitting consumers and businesses.

MasterCard is a Global Payments and Technology Company

MasterCard is a global payments and technology company that connects billions of consumers, thousands of financial institutions, and millions of merchants, governments and businesses worldwide, enabling them to use electronic forms of payment instead of cash and checks. MasterCard has been a leader in the transformation of mobile phones into secure mobile payment devices. We are pioneering the development of unique mobile information services to facilitate and promote financial inclusion and commerce, and we continue to be a champion of

global mobile payment standards. MasterCard also operates the industry's only fully integrated global payment processing platform, which sets the standard for reliability, agility, flexibility, and security. Our platform and technology are fueling a global migration away from cash by enabling safer, less expensive, and more convenient ways for consumers to pay and for merchants to get paid. And, we are proud to be leading this migration by utilizing our assets and resources based right here in the U.S.

MasterCard's technology center, based in O'Fallon, Missouri, drives the software systems and operational network that enables us to seamlessly process billions of transactions representing trillions of dollars each year. Our electronic payment network has the capacity to handle more than 160 million transactions per hour with an average network response time of 130 milliseconds. This is more than twice as fast as our largest competitor. In 2011 alone, MasterCard processed 27.3 billion electronic payments totaling approximately \$3.2 trillion, and nearly all of these transactions were processed in our U.S. facility. Through the efforts of MasterCard and other domestic companies, the U.S. is leading a new era of global commerce that will drive value to all participants, deliver greater personal financial empowerment, and offer additional possibilities for paying for goods and services and transferring money to the more than seven billion inhabitants of the globe.

It is an exciting time to be in the payments business, and at MasterCard we are working hard to drive innovations that deliver value to consumers, merchants, and our financial institution customers.

A World Driven By Devices

Perhaps the best way to begin a conversation about what is going on in mobile payments is to acknowledge that there are transformations in consumer behaviors that are happening globally, and these transformations are driven in large part by near ubiquitous access to the Internet, social connectivity, and mobility. We have all seen this in our everyday life, and these trends in technology will continue to rapidly transform commerce. Given the popularity of the mobile phone (more than 4 billion subscribers worldwide), the personal nature of the device (most are carried at all times), and the capabilities of the device (data access, storage, and transfer), it is no wonder that mobile phones are rapidly becoming a popular channel for accessing financial services in-store and online. Mobile phones—and especially smart phones—are giving consumers who already use payment cards a better payment experience.

By some estimates there will be twice the number of connected devices as people globally by 2015. These devices are bringing changes to the way people interact and also to how they want to transact. For example, the acceptance of card-based payments through the use of a handheld device is opening up channels of transactions for entrepreneurs that were not possible a few years ago.

Regardless of the payment environment or device, we need to constantly focus on two goals—making paying for something as simple and compelling as possible for every participant in the payments chain while providing the highest levels of security to consumers, merchants, and our financial institution customers. Intelligent devices such as smart phones provide the opportunity to move both objectives in a positive direction simultaneously, and we invest heavily in technologies that make this duality possible.

As you might expect, smart phones are now providing a platform for the delivery of new applications that are transforming the in-store shopping experience. In a recent survey, over 50% of smart phone users have already used their phone to assist them in shopping in some way. In developed markets like the U.S., smart phones will soon represent over half of the mobile phones in the market. Smart phones provide consumers with the convenience of messaging, browsing, and applications that facilitate commerce. For merchants, smart phones provide a convenient channel to engage consumers at multiple levels, such as though an Internet store-front or a Facebook account, so that merchants can be available to consumers in all of the places where consumers want to find them.

Smart phones themselves are also becoming payment devices through the adoption of Near Field Communication, or NFC, technology. Indeed, major handset manufacturers, including Samsung, HTC, Nokia, and RIM are beginning to deliver NFC-enabled handsets to market, and by 2016 the majority of smart phones will support NFC. MasterCard's *PayPass* technology, which is discussed below, is central to the use of smart phones as payment devices.

Why are these new uses for mobile phones so important? Because they provide convenience and promote financial inclusion in a secure environment. Unlike the simple plastic card that has been around for decades, smart phones provide an intelligent device right in the consumer's hands that the consumer can use to interact with financial services providers and merchants in ways that were never before possible. For example, not only can smart phones provide faster and more convenient ways for consumers to pay, but they can also now enable consumers to access their account information before making a purchase to determine if the transaction is something the consumer can afford. This type of on-the-go budget tool will make more consumers comfortable using mainstream financial products. Smart phones also enable

micro-entrepreneurs to accept payment card transactions, bringing more people into the payment system and empowering small businesses. For example, Square reported late last year that over 750,000 merchants are now using its smart phone technology to accept electronic payments. Companies like Intuit and iZettle also compete in this space for payment card acceptance.

Financial Inclusion

When you look at the 85% of transactions that are still being funded through cash and check, emerging technologies such as smart phones provide an unprecedented opportunity to accelerate the transition to electronic payments and to enhance the lives of consumers, merchants, and communities around the world.

In this regard, we are particularly excited about the global movement towards mobile money. Mobile money creates a unique engine for financial inclusion. By enhancing the reach of our network and services to benefit consumers, we are now able to reach a large number of consumers who are outside the financial mainstream. For example, in markets in Latin America, Africa, and Asia, mobile network operators and financial institutions are increasingly providing access to financial services to the underserved through mobile devices, and MasterCard is working with our partners in these markets to use the assets of our network to help facilitate payments and replace cash. This is particularly so in those markets where the penetration of point of sale terminals that can read plastic cards may be very low.

One example of such collaboration can be seen in MasterCard's recent work with Airtel Africa and Standard Chartered Bank on the Airtel Card. The Airtel Card enables unbanked, underbanked and fully banked Airtel Money mobile wallet customers to conduct on-line shopping on any Internet site that accepts MasterCard in a secure and convenient way through

use of single-use virtual debit cards. The Airtel Card received the award for Best Mobile Money Product or Solution at the 2011 GSMA Mobile Money Congress, where the judges commented that the Airtel Card “provides a developed-world service to the developing world with great use of existing and readily accessible technologies (such as MasterCard’s network) to open up commerce and banking to the unbanked and underbanked.”

We also believe that payment card solutions like prepaid cards coupled with mobile technology can unlock the global commerce grid to consumers who currently do not have access to financial services. The platforms we have created enable consumers without a traditional bank account to deposit money with a regulated entity or its agent to send money to family members in a distant town or to pay a bill across town, a feat that may have required consumers in the past to travel many miles or to take time off from work. In short, consumers now have new opportunities to access online commerce, transfer funds, pay bills and more. Continuing to invest in our networks will ensure that transactions such as these are made in record time and deliver the most efficient benefits to consumers and businesses alike.

MasterCard’s Role In Mobile Payments

As established commerce continues to migrate to new experiences, and newer markets such as digital media goods expand, we are moving not only to a world beyond cash, we are also starting to enable a world beyond plastic. This creates an incredible opportunity for MasterCard and others in the payments business to serve consumers with new experiences and to create value for merchants and other partners who deliver technology-based services to consumers, such as Google and Intel.

At MasterCard, we have invested substantial financial resources and human capital in developing the technology necessary for the mobile payments ecosystem. These efforts have focused on three areas. The first of these is what I will call a contactless-based system. MasterCard's *PayPass* "tap-and-go" product is at the forefront of this space. The second area of the mobile payments ecosystem we are seeing develop is based around SMS-based money management systems, which involve text messaging between mobile devices. MasterCard's MoneySend product is an example of this type of system. Third, as I have already mentioned, we are seeing exciting developments in mobile commerce-enabled systems with the rapid deployment of smart phones, including the innovative MasterCard *inControl* platform.

MasterCard *PayPass*. MasterCard's *PayPass* technology is a contactless payment method that enables consumers to pay with a payment product but without swiping a card. MasterCard has been building the *PayPass* infrastructure over the last decade, focusing on interoperability standards, acceptance locations, security and developing devices. *PayPass* is designed to displace cash for everyday purchases, and enhance credit, debit and prepaid payment products. A tiny microchip and radio antenna embedded in a *PayPass*-enabled card, key fob, device or phone transmit a customer's payment details wirelessly to a high-speed *PayPass* reader at checkout. The reader then verifies the transaction with the customer's bank through the MasterCard network and indicates approval almost instantly.

Encryption technology and MasterCard's Zero Liability protection on a *PayPass*-enabled credit, debit or prepaid MasterCard card make using *PayPass* at checkout as safe as swiping. *PayPass* also has built-in safeguards to help prevent unwanted purchases—it never leaves a customer's hands at checkout, it must be very close to the card reader for it to work, and it only bills the customer once, even if it is tapped twice. As we continue to develop the *PayPass*

program, MasterCard is committed to expanding merchant acceptance in key categories, developing contactless payments for transit, working to expand functionality to mobile phones and other options, expanding beyond low-value payment channels, and increasing marketplace awareness and education. By linking a mobile phone to MasterCard *PayPass*, we bring a new level of convenience to consumers by enabling them to tap and go at any of our contactless-enabled merchants around the globe with the reliability and protections of all MasterCard transactions.

Mobile MoneySend. MoneySend is MasterCard's fully-integrated, on-demand person-to-person mobile payment platform for financial institutions that issue MasterCard products in the United States. Mobile MoneySend is a breakthrough payment platform that provides a better way for consumers to send and receive funds via SMS-text, mobile browser, mobile applet or an Internet PC. Once consumers are registered for MoneySend with their bank, the consumers have the flexibility of directly, easily and securely transferring funds to and from one another through their mobile phone, eliminating the need to write or cash checks, visit ATMs, or wire money domestically.

Senders initiate transfers to any domestic mobile phone number via SMS message, mobile web browser or a downloadable MoneySend application. Upon initiation of the transfer, the sender approves the request by entering the MoneySend mobile PIN which only the accountholder knows. The recipient receives a text message confirmation of the transfer (for pre-registered users) or that the transfer is pending (for yet to be registered users). The funds can then be accessed by the recipient through an account designated during the registration process. These funds are then available for access through the mobile phone. If the consumer has a

MasterCard card associated with the account, the funds can also be accessed at traditional points of interaction, including ATMs, over-the-counter at a bank branch, or at the point-of-sale.

MasterCard *inControl*. MasterCard *inControl* is an innovative platform that offers an array of advanced authorization, transaction routing and alert controls to satisfy consumer demand for increased security and budgeting capability. With *inControl*, spending limits and controls can be set on payment accounts to enable account owners to determine exactly where, when and how their cards are used. Coupled with these controls, real-time email or text alerts can be sent to account owners to provide transparency into the spending activity occurring on the account. For consumers, *inControl* provides a new level of financial control and awareness that is unmatched in today's market. Cardholders create personalized spending profiles for themselves and their family members by setting up spending limits according to budget goals and account security concerns. Cardholders can also choose to receive real-time alerts on specific transactions as well as when spending is nearing a budgeted amount. Because of our substantial investment in innovations like *inControl*, consumers can harness their mobile phones in ways that enables them to manage their finances more efficiently and spend with greater confidence.

Protecting Consumers and Delivering Value

As I mentioned at the outset, we are driven to make payments simple for all participants in the payments value chain, while providing the highest levels of security. This is why we apply MasterCard's Zero Liability protections to new payment technologies, including mobile phone-based payments. The MasterCard Zero Liability policy offers MasterCard cardholders

peace of mind, as in most instances they are not liable in the event of the unauthorized use of a MasterCard-branded product.

Another way we deliver value to participants in the MasterCard network is to ensure that transactions are processed seamlessly and to take steps to combat payment card fraud before it occurs. These are top priorities for MasterCard. We have consistently maintained availability of our global processing systems more than 99.9% of the time. We are able to do this because our network provides multiple levels of back-up protection and related continuity procedures. Moreover, our network features multiple layers of protection against hacking or other cybersecurity attacks, which we supplement with mitigation efforts to strengthen our protection against such threats, both in terms of operability of the network and protection of the information transmitted through the network.

As data is increasingly stored in electronic formats, preventing fraud is more important than ever. Recognizing the importance to cardholders, financial institutions, and merchants of the security of payment card information, and the consumer and other harms that flow from the fraudulent and unauthorized use of such information, MasterCard helped lead the industry in developing the Payment Card Industry Data Security Standard (“PCI DSS”). The PCI DSS is managed by an open governance body, the PCI Security Standards Council, of which all the major payment card brands are members.

The PCI DSS includes requirements for security management, policies, procedures, network architecture, software design and other critical protective measures. The PCI DSS is intended to help organizations proactively protect payment card account data. We operate several compliance programs in connection with the PCI DSS and otherwise to help ensure that

the integrity of our payment system is maintained by our customers and their agents. Key compliance programs include merchant audits (for high fraud, excessive chargebacks and processing of illegal transactions) and security compliance (including our MasterCard Site Data Protection Service®, which assists customers and merchants in protecting commercial sites from hacker intrusions and subsequent account data compromises) by requiring proper adherence to the PCI DSS. Our customers are also required to report instances of fraud to us in a timely manner so we can monitor trends and initiate action where appropriate. MasterCard continues to work with the PCI Security Standards Council as it develops standards to protect payment card account data in an increasingly mobile world.

In furtherance of our efforts to attack fraud and ensure the integrity of payment transactions on our network, we have recently announced a program to transition MasterCard-branded payment products in the U.S. to the EMV standard. The EMV standard is a global standard for credit and debit payment cards based on chip technology, the objective of which is to ensure interoperability and acceptance of payment cards on a worldwide basis. The adoption of EMV-compliant payment products in the U.S. will help provide additional layers of protection for consumers at the point of interaction, enabling dynamic authentication across all channels and devices—card, smart phone or otherwise.

Conclusion

MasterCard is extremely proud of the role we play in advancing commerce through new technologies. The rise of the mobile phone, and other smart handheld wireless devices, is transforming the way we conduct our everyday lives, and holds significant promise for



delivering new value to consumers and businesses in the delivery of financial services. As I said at the outset, it is an exciting time to be in the payments business.

I appreciate the opportunity to appear before you today and I will be glad to answer any questions you may have.

United States House of Representatives
Committee on Financial Services

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Clause 2(g) of rule XI of the Rules of the House of Representatives and the Rules of the Committee on Financial Services require the disclosure of the following information. A copy of this form should be attached to your written testimony.

1. Name:	2. Organization or organizations you are representing:
Edward Grunde McLaughlin	Mastercard Worldwide
3. Business Address and telephone number: 	
4. Have <u>you</u> received any Federal grants or contracts (including any subgrants and subcontracts) since October 1, 2008 related to the subject on which you have been invited to testify?	5. Have any of the <u>organizations you are representing</u> received any Federal grants or contracts (including any subgrants and subcontracts) since October 1, 2008 related to the subject on which you have been invited to testify?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6. If you answered .yes. to either item 4 or 5, please list the source and amount of each grant or contract, and indicate whether the recipient of such grant was you or the organization(s) you are representing. You may list additional grants or contracts on additional sheets.	
	
7. Signature:	

Please attach a copy of this form to your written testimony.