

Mastercard Inc
Form 10-K
February 15, 2017
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2016
Or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____
Commission file number: 001-32877

Mastercard Incorporated
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

13-4172551
(IRS Employer
Identification Number)

2000 Purchase Street
Purchase, NY
(Address of principal executive offices)
(914) 249-2000
(Registrant's telephone number, including area code)

Title of each Class Name of each exchange on which registered
Class A common stock, par value \$0.0001 per share New York Stock Exchange
Securities registered pursuant to Section 12(g): Class B common stock, par value \$0.0001 per share
Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files) Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act. (Check One):

Large accelerated filer Accelerated filer

Non-accelerated filer (do not check if a smaller reporting company) Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of the registrant’s Class A common stock, par value \$0.0001 per share, held by non-affiliates (using the New York Stock Exchange closing price as of June 30, 2016, the last business day of the registrant’s most recently completed second fiscal quarter) was approximately \$94.8 billion. There is currently no established public trading market for the registrant’s Class B common stock, par value \$0.0001 per share. As of February 10, 2017, there were 1,058,599,678 shares outstanding of the registrant’s Class A common stock, par value \$0.0001 per share and 19,320,090 shares outstanding of the registrant’s Class B common stock, par value \$0.0001 per share.

Portions of the registrant’s definitive proxy statement for the 2017 Annual Meeting of Stockholders are incorporated by reference into Part III hereof.

MASTERCARD INCORPORATED
 FISCAL YEAR 2016 FORM 10-K ANNUAL REPORT
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ITEM
16. SUMMARY

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In this Report on Form 10-K (“Report”), references to the “Company,” “Mastercard,” “we,” “us” or “our” refer to the Mastercard brand generally, and to the business conducted by Mastercard Incorporated and its consolidated subsidiaries, including our operating subsidiary, Mastercard International Incorporated.

Forward-Looking Statements

This Report contains forward-looking statements pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts may be forward-looking statements. When used in this Report, the words “believe”, “expect”, “could”, “may”, “would”, “will”, “trend” and similar words are intended to identify forward-looking statements. Examples of forward-looking statements include, but are not limited to, statements that relate to the Company’s future prospects, developments and business strategies.

Many factors and uncertainties relating to our operations and business environment, all of which are difficult to predict and many of which are outside of our control, influence whether any forward-looking statements can or will be achieved. Any one of those factors could cause our actual results to differ materially from those expressed or implied in writing in any forward-looking statements made by Mastercard or on its behalf, including, but not limited to, the following factors:

• payments system-related legal and regulatory challenges (including interchange fees, surcharging and the extension of current regulatory activity to additional jurisdictions or products)

• the impact of preferential or protective government actions

- regulation of privacy, data protection and security

• regulation to which we are subject based on our participation in the payments industry (including payments oversight, anti-money laundering and economic sanctions, financial sector oversight, issuer practice regulation and regulation of internet and digital transactions)

• potential or incurred liability and limitations on business resulting from litigation

• the impact of competition in the global payments industry (including disintermediation and pricing pressure)

• the challenges relating to rapid technological developments and changes

• the impact of information security failures, breaches or service disruptions on our business

• issues related to our relationships with our financial institution customers (including loss of substantial business from significant customers, competitor relationships with our customers and banking industry consolidation)

• the impact of our relationships with other stakeholders, including merchants and governments

• exposure to loss or illiquidity due to settlement guarantees and other significant third-party obligations

• the impact of global economic and political events and conditions (including global financial market activity, declines in cross-border activity, negative trends in consumer spending and the effect of adverse currency fluctuation)

• reputational impact, including impact related to brand perception, account data breaches and fraudulent activity

• issues related to acquisition integration, strategic investments and entry into new businesses

• issues related to our Class A common stock and corporate governance structure

Please see a complete discussion of these risk factors in Part I, Item 1A - Risk Factors. We caution you that the important factors referenced above may not contain all of the factors that are important to you. Our forward-looking statements speak only as of the date of this Report or as of the date they are made, and we undertake no obligation to update our forward-looking statements.

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PART I

ITEM 1. BUSINESS

Overview

Mastercard is a technology company in the global payments industry that connects consumers, financial institutions, merchants, governments and businesses worldwide, enabling them to use electronic forms of payment instead of cash and checks. As the operator of what we believe is the world's fastest payments network, we facilitate the switching (authorization, clearing and settlement) of payment transactions and deliver related products and services. We make payments easier and more efficient by creating a wide range of payment solutions and services using our family of well-known brands, including Mastercard®, Maestro® and Cirrus®. We also provide value-added offerings such as safety and security products, information services and consulting, issuer and acquirer processing and loyalty and reward programs. Our network is designed to ensure safety and security for the global payments system.

A typical transaction on our network involves four participants in addition to us: cardholder (an individual who holds a card or uses another device enabled for payment), merchant, issuer (the cardholder's financial institution) and acquirer (the merchant's financial institution). We do not issue cards, extend credit, determine or receive revenue from interest rates or other fees charged to cardholders by issuers, or establish the rates charged by acquirers in connection with merchants' acceptance of our branded cards. In most cases, cardholder relationships belong to, and are managed by, our financial institution customers.

We generate revenue by charging fees to issuers, acquirers and other stakeholders for providing transaction processing and other payment-related products and services, as well as by assessing customers based primarily on the dollar volume of activity, or gross dollar volume ("GDV"), on the cards and other devices that carry our brands.

Our Strategy

Our ability to grow our business is influenced by personal consumption expenditure growth, driving cash and check transactions toward electronic forms of payment, increasing our share in electronic payments and providing value-added products and services. We achieve our strategy by growing, diversifying and building our business.

Grow. We focus on growing our core businesses globally, including growing our consumer credit, debit, prepaid and commercial products and solutions, increasing the number of payment transactions we switch.

Diversify. We look to diversify our business and capabilities by focusing on:

- diversifying our customer base in new and existing markets by working with partners such as governments, merchants, technology companies (such as digital players and mobile providers) and other businesses
- encouraging use of our products and solutions in areas that provide new opportunities for electronic payments, such as transit, business-to-person transfers, business-to-business transfers and person-to-person transfers
- capturing more payment flows by adding automated clearing house (ACH) payments to our core card-based business via our pending acquisition of VocaLink Holdings Limited
- driving acceptance at merchants of all sizes
- broadening financial inclusion for the unbanked and underbanked

Build. We build our business by:

- taking advantage of the opportunities presented by the evolving ways consumers interact and transact in the growing digital economy; and
- providing value-added services across safety and security, consulting, data analytics and loyalty.

We grow, diversify and build our business through a combination of organic growth and strategic investments, including acquisitions.

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Strategic Partners. We work with a variety of stakeholders. We provide financial institutions with solutions to help them increase revenue by driving preference for Mastercard-branded products. We help merchants by delivering data-driven insights and other services that help them grow and create simple and secure purchase experiences regardless of how and where their customers shop. We partner with technology companies such as digital players and mobile providers to deliver digital payment solutions powered by our technology, expertise and security protocols. We help national and local governments drive increased financial inclusion and efficiency, reduce costs, increase transparency to reduce crime and corruption and advance social programs. For consumers, we provide better, safer and more convenient ways to pay.

Recent Business and Legal/Regulatory Developments

Digital Payments. We have launched and extended products and platforms that take advantage of the growing digital economy, where consumers are increasingly using technology to interact with merchants. Among our recent developments:

In 2016, we further expanded the availability of Masterpass™, our global digital payments ecosystem. Masterpass provides an easy and secure way to shop by storing payment information in a secure connected wallet of the consumer's choice and enabling consumers to access that information to make a payment with a simple click or touch.

In 2016, several of our largest issuing customers began automatically enabling consumer accounts in Masterpass using their online banking applications. We also began work to integrate Masterpass with mobile wallet solutions provided by technology companies such as digital players and mobile providers. Our network facilitates digital transactions online, in-app and in-store for consumers, merchants, issuers and other wallet providers.

In 2016, we continued to use our digital technologies and security protocols to enhance the suite of digital token services available through our MasterCard Digital Enablement Service (MDES). In addition to leveraging MDES to tokenize Masterpass, we continued to expand our collaborations with all of our partners, such as enabling third-party token vaults compliant with EMV® (the global standard for chip technology) to tokenize Mastercard-branded cards. In 2016, we re-launched Mastercard Developers, a single gateway that enables developers, digital players, financial institutions, merchants and our other partners to innovate by accessing and integrating Mastercard technology via a diverse range of Application Programming Interfaces (APIs) across the payments, data and security spaces.

In 2016, we continued to expand and scale Mastercard Send™, connecting more consumers, businesses and governments to facilitate the transfer of funds via financial institutions quickly and securely.

Safety and Security. Our focus on security is embedded in our products, our systems and our network, as well as our analytics to prevent fraud:

- In 2016, we launched Decision Intelligence™, a suite of security solutions that uses machine learning to leverage real-time insights from transactions to enhance approvals and reduce false declines. These solutions are designed to go beyond simply managing for fraud and to instead actively drive automated productive decisions and help issuers and retailers further improve the consumer shopping experience.

- In 2016, we expanded Mastercard Identity Check™, a suite of technology solutions that leverage biometrics to help authenticate a consumer's identity. These solutions are now available in the United States, Canada and numerous markets across Europe.

We continue to lead the migration to EMV to bring its fraud prevention benefits to our U.S. customers, consumers and merchants. Building on our October 2015 introduction of a new liability hierarchy, in 2016 a significant number of merchants implemented EMV in the United States for payment transactions.

Financial Inclusion. We are focused on addressing financial inclusion, reaching people without access to an account that allows them to store and use money. In 2016, we worked with governments across several geographies to develop and roll out electronic payments solutions, social payment distribution mechanisms and digital identity solutions. We also worked with merchants globally to help drive acceptance necessary to support these inclusion efforts.

Brand. In 2016, we introduced an evolution of our brand identity for the first time in 20 years that reflects our corporate heritage while highlighting our focus on technology and payments in a more digitally-connected world.

Acquisitions and Investments. In 2016, we entered into a definitive agreement to acquire a controlling interest in VocaLink Holdings Limited (VocaLink). VocaLink operates systems for ACH payments and ATM switching platforms in the United Kingdom and other countries. ACH payments constitute a significant amount of all payments

made by companies, businesses and

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governments. Adding ACH payments to our core card-based business will expand our ability to offer more electronic payment options to consumers, businesses and governments, and help us capture more payment flows. While we anticipate completing the acquisition by the middle of 2017, it is subject to regulatory approval and other customary closing conditions.

Capital Structure. In 2016, we completed a bond issuance in an aggregate principal amount of \$2 billion as part of our capital planning.

Legal and Regulatory. We operate in a dynamic and rapidly evolving legal and regulatory environment, with heightened regulatory and legislative scrutiny and other legal challenges, particularly with respect to interchange fees (as discussed below under “Our Operations and Network”). Recent developments include:

European Union

In 2015, the European Commission issued a statement of objections related to the interregional interchange rates we set and our central acquiring rules within the European Economic Area (EEA). The statement of objections preliminarily concludes that these practices have anticompetitive effects, and the European Commission has indicated it intends to seek fines if it confirms these conclusions. Mastercard submitted a response in April 2016 and participated in a related oral hearing in May 2016.

In June 2016, under the European Union Interchange Fee Regulation adopted in 2015, we separated our scheme activities (i.e., brand, products, franchise and licensing) from our switching activities in terms of how we go to market, make decisions and organize our structure. We are awaiting standards to be developed by the European Banking Authority establishing the requirements with which payment card networks will need to comply as part of this separation.

United States - In June 2016, the U.S. Court of Appeals for the Second Circuit reversed the approval of a settlement of an antitrust litigation among a class of merchants, Mastercard, Visa and a number of financial institutions. The court vacated the class action certification and sent the case back to the district court for further proceedings. The Court of Appeals’ ruling was based primarily on whether the merchants were adequately represented by counsel in the settlement.

United Kingdom

Beginning in May 2012, a number of retailers filed claims or threatened litigation against Mastercard seeking damages for alleged anti-competitive conduct with respect to Mastercard’s cross-border interchange fees and its U.K. and Ireland domestic interchange fees. In 2016, a tribunal in one of these cases issued a judgment against Mastercard for damages, and we entered into settlements with additional claimants. In January 2017, we received a favorable liability judgment on all significant matters in a separate action brought by ten of the claimants (who were seeking over \$500 million in damages).

In September 2016, a proposed collective action was filed in the United Kingdom on behalf of U.K. consumers seeking damages for intra-EEA and domestic U.K. interchange fees that were allegedly passed on to consumers by merchants between 1992 and 2008.

China - In 2016, People’s Bank of China issued regulations providing the license application and operational requirements for network operators, including international networks such as ours, to process domestic payments in China. We are awaiting detailed implementation guidelines for this and other related regulations to be released to guide our participation in the market, including our ability to authorize, clear and settle transactions “on-soil” in China. In the meantime, we continue to work to expand issuance and acceptance of Mastercard-branded products in the Chinese market to support our existing cross-border business.

Data Privacy - In 2016, the European Parliament passed the General Data Protection Regulation (GDPR), a new data protection regulation that will increase our compliance burden for using and processing personal and sensitive data of EEA residents. We have implemented a comprehensive approach to achieve compliance by the May 2018 deadline. Additionally, we have adopted an alternative method of data transfer considered to be fully compliant by all data protection authorities in the European Union in response to the European Court of Justice’s 2015 invalidation of the EU-U.S. Safe Harbor treaty that had permitted the transfer of personal data between the European Union and the United States.

See Part I, Item 1A for a more detailed discussion of our legal and regulatory developments and risks.

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Our Business

Our Operations and Network

We operate a unique and proprietary global payments network that links issuers and acquirers around the globe to facilitate the switching of transactions, permitting Mastercard cardholders to use their cards and other payment devices at millions of acceptance locations worldwide. Our network facilitates an efficient and secure means for receiving payments, a convenient, quick and secure payment method for consumers to access their funds and a channel for businesses to receive insight through information that is derived from our network. We authorize, clear and settle transactions through our network for our issuer customers in more than 150 currencies and in more than 210 countries and territories.

Typical Transaction. With a typical transaction involving four participants in addition to us, our network supports what is often referred to as a “four-party” payments network. The following diagram depicts a typical transaction on our network, and our role in that transaction:

In a typical transaction, a cardholder purchases goods or services from a merchant using a card or other payment device. After the transaction is authorized by the issuer, the issuer pays the acquirer an amount equal to the value of the transaction, minus the interchange fee (described below), and then posts the transaction to the cardholder’s account. The acquirer pays the amount of the purchase, net of a discount (referred to as the “merchant discount” rate, as further described below), to the merchant.

Interchange Fees. Interchange fees reflect the value merchants receive from accepting our products and play a key role in balancing the costs consumers and merchants pay. We do not earn revenues from interchange fees. Generally, interchange fees are collected from acquirers and paid to issuers to reimburse the issuers for a portion of the costs incurred by them in providing services that benefit all participants in the system, including acquirers and merchants, whose participation in the network enables increased sales to existing and new customers, efficiencies in the delivery of existing and new products, guaranteed payments and improved customer experience. We (or, alternatively, financial institutions) establish “default interchange fees” that apply when there are no other established settlement terms in place between an issuer and an acquirer. We administer the collection and remittance of interchange fees through the settlement process.

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Additional Four-Party System Fees. The merchant discount rate is established by the acquirer to cover its costs of both participating in the four-party system and providing services to merchants. The rate takes into consideration the amount of the interchange fee which the acquirer generally pays to the issuer. Additionally, acquirers may charge merchants processing and related fees in addition to the merchant discount rate, and issuers may also charge cardholders fees for the transaction, including, for example, fees for extending revolving credit.

Switched Transactions

Authorization, Clearing and Settlement. Through our network, we enable the routing of a transaction to the issuer for its approval, facilitate the exchange of financial transaction information between issuers and acquirers after a successfully conducted transaction, and help to settle the transaction by facilitating the determination and exchange of funds between parties via settlement banks chosen by us and our customers.

Cross-Border and Domestic. Our network switches transactions throughout the world when the merchant country and issuer country are different (cross-border transactions), providing cardholders with the ability to use, and merchants to accept, Mastercard cards and other payment devices across country borders. We also provide switched transaction services to customers in every region of the world where the merchant country and the issuer country are the same (domestic transactions). We switch approximately half of all transactions using Mastercard and Maestro-branded cards, including nearly all cross-border transactions. We switch the majority of Mastercard and Maestro-branded domestic transactions in the United States, United Kingdom, Canada, Brazil and a select number of other countries. Outside of these countries, most domestic transactions on our products are switched without our involvement.

Our Network Architecture. Our network features a globally integrated structure that provides scale for our issuers, enabling them to expand into regional and global markets. It features an intelligent architecture that enables the network to adapt to the needs of each transaction by blending two distinct network structures:

- a distributed (peer-to-peer) processing structure for transactions that require fast, reliable processing to ensure they are switched close to where the transaction occurred; and
- a centralized (hub-and-spoke) processing structure for transactions that require value-added processing, such as real-time access to transaction data for fraud scoring or rewards at the point-of-sale.

Our network's architecture enables us to connect all parties regardless of where or how the transaction is occurring. It has 24-hour a day availability and world-class response time.

Payments System Security. Our network and products are designed to ensure safety and security for the global payments system. The network incorporates multiple layers of protection, both for continuity purposes and to provide best-in-class security protection. We engage in multiple efforts to mitigate information security challenges, including maintaining an information security program, a business continuity program and insurance coverage, as well as regularly testing our systems to address potential vulnerabilities. We offer products and services to prevent, detect and respond to fraud and cyber-attacks and to ensure the safety of transactions made on Mastercard products.

As part of our multi-layered approach to protect the global payments system, we also work with issuers, acquirers, merchants, governments and payments industry associations to help develop and put in place standards for safe and secure transactions. These efforts include:

- continuing the migration in the U.S. to EMV, bringing its fraud prevention benefits to our U.S. customers, consumers and merchants
- developing an industry-open standard for tokenization

These technologies protect sensitive cardholder information for card and digital transactions by generating unique one-time use codes or credentials to an identified and verified individual to authenticate that the transaction is originating from a valid card or device.

Digital Payments. Our network supports and enables our digital payment platforms, products and solutions, reflecting the growing digital economy where consumers are increasingly seeking to use their payment accounts to pay when, where and how they want.

Participation Standards. We establish, apply and enforce standards surrounding participation in the Mastercard payments system. We grant licenses that provide issuers, acquirers and other customers that meet specified criteria with certain rights,

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including access to the network and usage of cards and payment devices carrying our brands. As a condition of our licenses, issuers, acquirers and other customers agree to comply with our standards surrounding participation and brand usage and acceptance. We monitor areas of risk exposure and enforce our standards to combat fraudulent, illegal and brand-damaging activity. Issuers, acquirers and other customers are also required to report instances of fraud to us in a timely manner so that we can monitor trends and initiate action when appropriate.

Customer Risk. We guarantee the settlement of many of the transactions between our issuers and acquirers to ensure the integrity of our network. We refer to this as our settlement exposure. We do not, however, guarantee payments to merchants by their acquirer, or the availability of unspent prepaid cardholder account balances.

Our Products and Services

We provide a wide variety of products and solutions that support payment products that customers can offer to their cardholders. These services facilitate transactions on our network among cardholders, merchants, financial institutions and governments in markets globally.

The following chart provides GDV and number of cards featuring our brands in 2016 for select programs and solutions:

	Year Ended December 31, 2016		As of December 31, 2016		Percentage Increase from December 31, 2015	
	GDV in billions	% of Total GDV	Cards in million			
Mastercard Branded Programs ^{1,2}						
Consumer Credit	\$2,135	44 %	740	2		%
Commercial Credit	400	8 %	42	8		%
Debit and Prepaid	2,293	47 %	888	15		%

¹ Excludes Maestro and Cirrus cards and volume generated by those cards.

² Article 8 of the EU Interchange Fee Regulation related to card payments, which became effective in June 2016, states that a network can no longer charge fees on domestic EEA payment transactions that do not use its payment brand. Prior to that, Mastercard collected a de minimis assessment fee in a few countries, particularly France, on transactions with Mastercard co-badged cards if the brands of domestic networks (as opposed to Mastercard) were used. As a result, the non-Mastercard co-badged volume is no longer being included. Please see "Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations" for a further discussion.

Core Products

Consumer Credit and Charge. We offer a number of programs that enable issuers to provide consumers with cards that allow them to defer payment. These programs are designed to meet the needs of our customers around the world and address standard, premium and affluent consumer segments.

Debit. We support a range of payment products and solutions that allow our customers to provide consumers with convenient access to funds in deposit and other accounts. Our debit and deposit access programs can be used to make purchases and to

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obtain cash in bank branches, at ATMs and, in some cases, at the point of sale. Our branded debit programs consist of Mastercard (including standard, premium and affluent offerings), Maestro (the only PIN-based solution that operates globally) and Cirrus (our primary global cash access solution).

Prepaid. Prepaid programs involve a balance that is funded prior to use and can be accessed via a card or other payment device. We offer prepaid payment programs using any of our brands, which we support with processing products and services. Segments on which we focus include government programs such as Social Security payments, unemployment benefits and others; commercial programs such as payroll, health savings accounts, employee benefits and others; and consumer reloadable programs for individuals without formal banking relationships and non-traditional users of electronic payments.

We also provide prepaid program management services, primarily outside of the United States, that manage and enable switching and issuer processing for consumer and commercial prepaid travel cards for business partners such as financial institutions, retailers, telecommunications companies, travel agents, foreign exchange bureaus, colleges and universities, airlines and governments.

Commercial. We offer commercial payment products and solutions that help large corporations, mid-sized companies, small businesses and government entities streamline their procurement and payment processes, manage information and expenses (such as travel and entertainment) and reduce administrative costs. Our offerings and platforms include premium, travel, purchasing and fleet cards and programs; our SmartData tool that provides information reporting and expense management capabilities; and credit and debit programs targeted for small businesses.

Digital. Consumers continue to expand their use of varied digital devices, reflecting the growing digital economy where consumers are increasingly seeking to use their payment accounts to pay when, where and how they want.

Leveraging our global innovations capability, we are developing platforms, products and solutions in digital payments. We do this in a number of ways, including:

Creating Better Shopping and Selling Experiences. We are using our digital technologies and security protocols to develop solutions to make digital shopping and selling experiences (such as on smartphones and other connected devices) simpler, faster and safer for both consumers and merchants. These include our Masterpass digital payments ecosystem and the MDES suite of digital token services we offer, as well as other products. We also offer products that make it easier for merchants to accept payments and expand their customer base and are developing products and practices to facilitate acceptance via mobile devices.

Engaging with New Partners. We enable consumers to use their smartphones securely to make digital payments through numerous active partnerships with mobile leaders and large digital companies around the world. Through Mastercard Developers, our API platform, developers, digital players, financial institutions, merchants and other partners can innovate by accessing our technology via a diverse range of APIs.

Facilitating Money Transfers and Personal Payments. Through Mastercard Send, we provide money transfer and global remittance solutions to enable our customers to facilitate consumers sending and receiving money quickly and securely domestically and around the world. We continue to enhance our personal payments platforms, providing financial institutions connected to our network with additional opportunities for their customers to send funds domestically and globally.

We also focus on developing the future of payments and delivering additional consumer shopping safety and convenience through Mastercard Labs, our global innovation and development arm. Our efforts include incubating various ideas and hosting thought-leadership events to spur the next generation of innovative payment products.

Value-Added Products and Services

We provide additional products and services to our customers and stakeholders that enhance the value proposition of our core products and network.

Safety and Security. We offer products and services to prevent, detect and respond to fraud and cyber-attacks and to ensure the safety of transactions made on Mastercard products while enhancing the consumer experience. These include:

• internet authentication/verification solutions that leverage biometrics

• security solutions that leverage machine learning to enhance approvals and reduce false declines

services assisting customers, merchants and third-party service providers in protecting against attacks and subsequent account data compromises

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fraud detection and management products and services

We have also worked with our financial institution customers to provide products to consumers globally with increased confidence through the benefit of “zero liability”, or no responsibility for counterfeit or lost card losses in the event of fraud.

Processing. We extend our processing capabilities in the payments value chain in various regions and across the globe with an expanded suite of offerings, including:

• Issuer and acquirer solutions designed to provide customers with a complete processing solution to help them create differentiated products and services and allow quick deployment of payments portfolios across banking channels.

- Payment gateways that offer a single interface to provide e-commerce merchants with the ability to process secure online and in-app payments and offer value-added solutions, including outsourced electronic payments, fraud prevention and alternative payment options.

• Mobile gateways that facilitate transaction routing and processing for mobile-initiated transactions for our customers.

Mastercard Advisors. Mastercard Advisors is our global professional services group that provides proprietary analysis, data-driven consulting and marketing services solutions to help clients optimize, streamline and grow their businesses, as well as deliver value to consumers. With analyses based on billions of transactions switched globally, we leverage anonymized and aggregated information and a consultative approach to help financial institutions, merchants, media companies, governments and other organizations grow their businesses or otherwise achieve efficiencies.

Our information services group provides a suite of data analytics and products (including reports, benchmarks, models and insights) that enable our customers to make better business decisions. Our consulting services group combines professional problem-solving skills with payments expertise to provide solutions that address the challenges and opportunities of clients with respect to payments. The managed services group provides solutions to enable data-driven acquisition of accounts, activation of portfolios, card conversions, marketing promotions activities and other customer management services.

Loyalty and Rewards. We have built a scalable rewards platform that enables issuers to provide consumers with a variety of benefits and services, such as personalized offers and rewards, access to a global airline lounge network, global and local concierge services, individual insurance coverages, emergency card replacement, emergency cash advance services and a 24-hour cardholder service center. For merchants, we provide targeted offers and rewards campaigns and management services for publishing offers, as well as opportunities for holders of co-brand or loyalty cards and rewards program members to obtain reward points faster. We support these services with program management capabilities.

Brand

Our family of well-known brands includes Mastercard, Maestro and Cirrus. In 2016, we introduced an evolution of our brand identity for the first time in 20 years. This evolved brand reflects our corporate heritage while highlighting our focus on technology and payments in a more digitally-connected world. We manage and promote our brands through advertising, promotions and sponsorships, as well as digital, mobile and social media initiatives, in order to increase consumer preference for our brands and usage of our products. We sponsor a variety of sporting, entertainment and charity-related marketing properties to align with consumer segments important to us and our customers. Our advertising plays an important role in building brand visibility, usage and overall preference among cardholders globally. Our “Priceless®” advertising campaign, which has run in 54 languages in 113 countries worldwide, promotes Mastercard usage benefits and acceptance, markets Mastercard payment products and solutions and provides Mastercard with a consistent, recognizable message that supports our brand around the globe. We have extended Priceless to create experiences through four platforms to drive brand preference: Priceless Cities® provides cardholders across all of our regions with access to special experiences in various cities, Priceless Causes® provides cardholders with opportunities to support philanthropic causes, Priceless Specials® provides cardholders with merchant offers and discounts and Priceless Surprises® provides cardholders with unexpected and unique surprises.

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Our Revenue Sources

We generate revenues primarily by assessing our customers based on GDV on the cards and other devices that carry our brands, from the fees we charge to our customers for providing transaction processing and from other payment-related products and services. Our net revenues are classified into five categories: domestic assessment fees, cross-border volume fees, transaction processing fees, other revenues and rebates and incentives (contra-revenue). See “Management’s Discussion and Analysis of Financial Condition and Results of Operations - Revenue” in Part II, Item 7 for more detail about our revenue, GDV, processed transactions and our other payment-related products and services.

Intellectual Property

We own a number of valuable trademarks that are essential to our business, including Mastercard, Maestro and Cirrus, through one or more affiliates. We also own numerous other trademarks covering various brands, programs and services offered by Mastercard to support our payment programs. Trademark and service mark registrations are generally valid indefinitely as long as they are used and/or properly maintained. Through license agreements with our customers, we authorize the use of our trademarks in connection with our customers’ issuing and merchant acquiring businesses. In addition, we own a number of patents and patent applications relating to payments solutions, transaction processing, smart cards, contactless, mobile, electronic commerce, security systems and other matters, many of which are important to our business operations. Patents are of varying duration depending on the jurisdiction and filing date.

Competition

We compete in the global payments industry against all forms of payment including:

- cash and checks

- card-based payments, including credit, charge, debit, ATM and prepaid products, as well as limited-use products such as private label

- contactless, mobile and e-commerce payments, as well as cryptocurrency

- other electronic payments, including ACH payments, wire transfers, electronic benefits transfers and bill payments

We face a number of competitors both within and outside of the global payments industry:

- **Cash and Check.** Cash and check continue to represent the most widely used forms of payment, constituting approximately 85% of the world’s retail payment transactions.

- **General Purpose Payment Networks.** We compete worldwide with payment networks such as Visa, American Express and Discover, among others. Among global networks, Visa has significantly greater volume than we do. Outside of the United States, networks such as JCB in Japan and UnionPay in China have leading positions in their domestic markets. For example, UnionPay currently operates the sole domestic payment switch in China. In addition, several governments are promoting, or considering promoting, local networks for domestic processing. See “Risk Factors” in Part I, Item 1A for a discussion of the risks related to payments system regulation and government actions that may prevent us from competing effectively for a more detailed discussion.

- **Debit and Local Networks.** We compete with ATM and point-of-sale debit networks in various countries, such as Interlink®, Plus® and Visa Electron® (owned by Visa Inc.), Star® (owned by First Data Corporation), NYCE® (owned by FIS) and Pulse® (owned by Discover) in the United States; Interac in Canada; EFTPOS in Australia; and Bankserv in South Africa. In addition, in many countries outside of the United States, local debit brands serve as the main domestic brands, while our brands are used mostly to enable cross-border transactions (typically representing a small portion of overall transaction volume). Certain jurisdictions have also created domestic card schemes that are focused mostly on debit (including RuPay in India and MIR in Russia).

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Three-Party Payments Networks. Our competitors include operators of proprietary three-party payments networks, such as American Express and Discover, which have direct acquiring relationships with merchants and direct issuing relationships with account holders. These competitors have certain competitive advantages over four-party payments systems such as ours. Among other things, these networks do not require formal interchange fees to balance payment system costs between the issuing and acquiring sides of their business, even though they have the ability to internally transfer costs in a manner similar to interchange fees. As a result, to date, operators of three-party payments networks have avoided some of the regulatory and litigation challenges that we and other four-party networks face.

Competition for Customer Business. We compete intensely with other payments networks for customer business. Globally, financial institutions typically issue both Mastercard and Visa-branded payment products, and we compete with Visa for business on the basis of individual portfolios or programs. In addition, a number of our customers issue American Express and/or Discover-branded payment cards in a manner consistent with a four-party system. We continue to face intense competitive pressure on the prices we charge our issuers and acquirers, and we seek to enter into business agreements with them through which we offer incentives and other support to issue and promote our payment products. We also compete for non-financial institution partners, such as merchants, governments and mobile providers.

Third-Party Processors. We face competition and potential displacement from transaction processors throughout the world, such as First Data Corporation and Total System Services, Inc., which are seeking to enhance their networks that link issuers directly with point-of-sale devices for payment transaction authorization and processing services. We also face third-party competition driven by local regulations. For example, under the Second Payment Services Directive (PSD2), which is being finalized in Europe, new third-party processors will have open access to consumer account information at financial institutions, providing these entities the opportunity to process Mastercard transactions directly with issuers and acquirers.

Alternative Payments Systems and New Entrants. As the global payments industry becomes more complex, we face increasing competition from alternative payment systems and emerging payment providers. Many of these providers have developed payments systems focused on online activity in e-commerce and mobile channels (in some cases, expanding to other channels), and may process payments using in-house account transfers, ACH payment networks or global or local networks. Examples include digital wallet providers (such as PayPal, Alipay and Amazon), mobile operator services, mobile phone-based money transfer and microfinancing services (such as mPesa), handset manufacturers and cryptocurrencies. In some circumstances, these providers can be a partner or customer, as well as a competitor.

Value-Added Products and Services. We face competition from companies that provide alternatives to our value-added products and services, including information services and consulting firms that provide consulting services and insights to financial institutions, as well as companies that compete against us as providers of loyalty and program management solutions.

Our competitive advantages include our:

- globally recognized brands
- highly adaptable global acceptance network built over 50 years and that we believe is the world's fastest
- adoption of innovative products and digital solutions
- Mastercardpass global digital payments ecosystem
- safety and security solutions embedded in our network
- Mastercard Advisors group dedicated solely to the payments industry
- ability to serve a broad array of participants in global payments due to our expanded on-soil presence in individual markets and a heightened focus on working with governments
- world class talent

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Government Regulation

General. Government regulation impacts key aspects of our business. We are subject to regulations that affect the payments industry in the many countries in which our cards and payment devices are used. See “Risk Factors” in Part I, Item 1A for more detail and examples.

Interchange Fees. Interchange fees associated with four-party payments systems like ours are being reviewed or challenged in various jurisdictions around the world via legislation to regulate interchange fees, competition-related regulatory proceedings, central bank regulation and litigation. Examples include statutes in the United States that cap debit interchange for certain regulated activities, European Union legislation capping consumer credit and debit interchange fees on payments issued and acquired within the EEA and interchange regulations by the Reserve Bank of Australia. For more detail, see our risk factors in “Risk Factors-Payments System Legal and Regulatory Challenges” in Part I, Item 1A. Also see Note 18 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8.

Payments System Regulation. Regulators in several countries around the world either have, or are seeking to establish, authority to regulate certain aspects of the payments systems in their countries. Such authority has resulted in regulation of various aspects of our business, including interchange fees in various jurisdictions (described above) and no-surcharging rules. In the European Union, legislation requires us to separate our scheme activities (brand, products, franchise and licensing) from our switched transactions and other processing in terms of how we go to market, make decisions and organize our structure. Additionally, several jurisdictions have created or granted authority to create new regulatory bodies that either have or would have the authority to regulate payment systems, including the United Kingdom’s Payments Systems Regulator (PSR) (which has designated us as a payments system subject to regulation) and the National Bank of Belgium.

Preferential or Protective Government Actions. Some governments have taken action to provide resources, preferential treatment or other protection to selected domestic payments and processing providers, as well as to create their own national providers.

No-Surcharge Rules. We have historically implemented policies in certain regions that prohibit merchants from charging higher prices to consumers who pay using Mastercard products instead of other means. Authorities in several jurisdictions (including Australia and Canada) have acted to end or limit the application of these no-surcharge rules (or have indicated interest in doing so). Additionally, pursuant to the terms of settlement of the U.S. merchant class litigation, we have modified our no-surcharge rules to permit U.S. merchants to surcharge credit cards, subject to certain limitations.

Payments Oversight. Several central banks or similar regulatory bodies around the world have increased, or are seeking to increase, their formal oversight of the electronic payments industry. In some cases, these regulators could designate certain payments networks as “systemically important payment systems” or “critical infrastructure.” This includes the Financial Stability Oversight Council (“FSOC”) in the United States. Designated systems will be subject to new regulation, supervision and examination requirements. To date, Mastercard has not been designated “systemically important.” However, certain jurisdictions have begun to employ elements of “systemically important” analysis in their review of Mastercard licenses or other applications, and may increasingly do so in the future.

Financial Sector Oversight. We are or may be subject to regulations related to our role in the financial industry and our relationship with our financial institution customers. For example, certain of our operations are periodically reviewed by the U.S. Federal Financial Institutions Examination Council under its authority to examine financial institutions’ technology service providers. Additionally, the Consumer Financial Protection Bureau (“CFPB”), which has significant federal authority to regulate consumer financial products in the United States, has supervisory authority over companies such as Mastercard that provide services to financial institutions that are subject to the CFPB and that issue and acquire our consumer credit, deposit, payment and similar products.

Data Protection and Information Security. Aspects of our operations or business are subject to privacy and data protection laws in the United States, the European Union and elsewhere around the world. For example, in the United States, we and our customers are respectively subject to Federal Trade Commission and federal banking agency information safeguarding requirements under the Gramm-Leach-Bliley Act that require the maintenance of a written, comprehensive information security program. Due to constant changes to the nature of data, regulatory authorities

around the world are considering numerous legislative and regulatory proposals concerning privacy and data protection. In addition, the interpretation and application of these privacy and data protection laws in the United States, Europe and elsewhere are often uncertain and in a state of flux. This includes the 2016 General Data Protection Regulation (GDPR) passed by the European Parliament, the 2015 ruling by the European Court of Justice that invalidated the EU-U.S. Safe Harbor treaty and the EU-U.S. Privacy Shield.

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Anti-Money Laundering. Mastercard is subject to anti-money laundering (“AML”) laws and regulations, including the USA PATRIOT Act. We have implemented a comprehensive AML program designed to prevent our payment network from being used to facilitate money laundering and other illicit activity. Our AML compliance program is comprised of policies, procedures and internal controls, including the designation of a compliance officer, and is designed to address these legal and regulatory requirements and assist in managing money laundering and terrorist financing risks.

Economic Sanctions. We are subject to regulations imposed by the U.S. Office of Foreign Assets Control (“OFAC”) restricting financial transactions and other dealings with Crimea, Cuba, Iran, North Korea, Sudan and Syria and with persons and entities included in OFAC’s list of Specially Designated Nationals and Blocked Persons (the “SDN List”). Iran, Sudan and Syria have been identified by the U.S. State Department as terrorist-sponsoring states. We have no offices, subsidiaries or affiliated entities located in these countries or in the Crimea region and do not license entities domiciled there. We have established a risk-based compliance program that includes policies, procedures and controls that are designed to prevent us from having unlawful business dealings with prohibited countries, regions, individuals or entities. This includes obligating issuers and acquirers to screen cardholders and merchants, respectively, against the SDN List.

Issuer Practice Regulation. Our customers are subject to numerous regulations and investigations applicable to banks and other financial institutions in their capacity as issuers and otherwise, impacting Mastercard as a consequence. Such regulations and investigations have been related to campus cards, bank overdraft practices, fees issuers charge to cardholders and the transparency of terms and conditions. Additionally, regulations such as PSD2 in Europe require financial institutions to provide new third-party processors and other service providers access to consumer account information at financial institutions, enabling them to initiate a transaction directly with consumers.

Regulation of Internet and Digital Transactions. Various jurisdictions have enacted or have proposed regulation related to internet transactions. For example, under the Unlawful Internet Gambling Enforcement Act in the United States, payment transactions must be coded and blocked for certain types of internet gambling transactions. The legislation applies to payments system participants, including Mastercard and our U.S. customers, and is implemented through a federal regulation. We may also be impacted by evolving laws surrounding gambling, including fantasy sports. Certain jurisdictions are also considering regulatory initiatives in digital-related areas that could impact us, such as cyber-security, copyright and trademark infringement and privacy.

Additional Regulatory Developments. Various regulatory agencies also continue to examine a wide variety of issues that could impact us, including evolving laws surrounding marijuana, prepaid payroll cards, virtual currencies, payment card add-on products, identity theft, account management guidelines, privacy, disclosure rules, security and marketing that would impact our customers directly.

Seasonality

See “Management’s Discussion and Analysis of Financial Condition and Results of Operations-Seasonality” in Part II, Item 7.

Financial Information About Geographic Areas

See Note 21 (Segment Reporting) to the consolidated financial statements included in Part II, Item 8 for certain geographic financial information.

Employees

As of December 31, 2016, we employed approximately 11,900 persons, of whom approximately 6,600 were employed outside of the United States.

Additional Information

Mastercard Incorporated was incorporated as a Delaware corporation in May 2001. We conduct our business principally through our principal operating subsidiary, Mastercard International Incorporated (“Mastercard International”), a Delaware non-stock (or membership) corporation that was formed in November 1966. For more information about our capital structure, including our Class A common stock (our voting stock) and Class B common stock (our non-voting stock), see Note 13 (Stockholders’ Equity) to the consolidated financial statements included in Part II, Item 8.

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Website and SEC Reports

Our internet address is www.mastercard.com. From time to time, we may use our corporate website as a channel of distribution of material company information. Financial and other material information is routinely posted and accessible on the investor relations section of our corporate website. In addition, you may automatically receive e-mail alerts and other information about Mastercard by enrolling your e-mail address by visiting “E-Mail Alerts” in the investor relations section of our corporate website.

Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports are available for review, without charge, on the investor relations section of our corporate website as soon as reasonably practicable after they are filed with, or furnished to, the U.S. Securities and Exchange Commission (the “SEC”). The information contained on our corporate website is not incorporated by reference into this Report. You may also read and copy any materials that we file with the SEC at its Public Reference Room at 100 F Street N.E., Washington, D.C. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, our filings are available electronically from the SEC at www.sec.gov.

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ITEM 1A. RISK FACTORS

Legal and Regulatory

Payments Systems Challenges

Global regulatory, legislative and litigation focus on the payments industry may have a material adverse impact on our overall business and results of operations.

Interchange rates are a significant component of the costs that merchants pay in connection with the acceptance of payment cards. Although we do not earn revenues from interchange, interchange rates can impact the volume of transactions we see on our cards. If interchange rates are too high, merchants may stop accepting our products or route debit transactions away from our network. If interchange rates are too low, issuers may stop promoting our cards, eliminate or reduce loyalty rewards programs or other cardholder benefits (e.g. free checking, low interest rates on balances), or charge fees to cardholders (e.g. annual fees or late payment fees).

Historically, we have set interchange rates in the United States and certain other countries. In some jurisdictions, such as the United States and the European Union, however, interchange rates related to certain products and related practices are subject to regulatory activity and litigation that have limited our ability to establish these rates.

Regulators, legislatures, and merchant groups in a number of countries have implemented or are seeking interchange rate reductions through legislation, competition and central bank regulation and litigation.

More broadly, regulators increasingly have been seeking to establish or expand their authority to regulate certain aspects of payments systems such as ours, beyond just interchange rates. These regulations have established, and could further expand, obligations or restrictions with respect to the types of products that we may offer to financial institutions for consumers, the

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countries in which our products and services may be used, the way we structure and operate our business and the types of consumers and merchants who can obtain or accept our cards. These obligations and restrictions may further increase and could conflict as more jurisdictions impose oversight of payment systems.

Examples of regulatory and legislative activity related to interchange fees and payments systems include:

The European Union adopted its Interchange Fee Regulation in 2015 regulating electronic payments issued and acquired within the EEA, including caps on consumer credit and debit interchange fees and the separation of brand and processing (which Mastercard implemented in 2016).

- The European Commission issued a Statement of Objections in July 2015 related to our interregional interchange fees and central acquiring rules within the EEA, to which we have responded.

Legislation regulating the level of domestic interchange rates has been enacted, or is being considered, in many jurisdictions. For example, debit interchange in the United States is capped by statute for certain regulated entities.

Also, the Reserve Bank of Australia has proposed further reductions to debit interchange rates, as well as interchange rate caps on commercial and cross-border transactions.

- Several jurisdictions have created or granted authority to create new regulatory bodies that either have or would have the authority to regulate payment systems, including the United Kingdom and India (both of which have designated us as a payments system subject to regulation), as well as Belgium, Brazil, Mexico and Russia.

Merchants and consumers are also seeking interchange fee reductions and acceptance rule changes through litigation. Such litigation includes individual and/or class action suits filed by merchants against Mastercard, Visa and our customers in the United States (where approval of a 2012 settlement agreement was overturned by the U.S. Court of Appeals in 2016) and Canada, claims filed by retailers against Mastercard in the United Kingdom and other European jurisdictions and a collective action filed by consumers in the United Kingdom. See Note 18 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8 for more details regarding litigation and regulatory proceedings and inquiries related to interchange fees.

If issuers cannot collect, or we are forced to reduce, interchange rates, issuers may be less willing to participate in our four-party payments system, or may reduce the benefits offered in connection with the use of our products, reducing the attractiveness of our products to consumers. In particular, any changes to our interregional interchange fees as a result of the European Commission's Statement of Objections could impact our cross-border transaction activity disproportionately versus competitors that are not subject to similar reductions. These and other impacts could lower transaction volumes, and/or make proprietary three-party networks or other forms of payment more attractive. Issuers could reduce the benefits associated with our products or choose to charge higher fees to consumers to attempt to recoup a portion of the costs incurred for their services. In addition, issuers could seek to decrease the expense of their card and other payment programs by seeking a reduction in the fees that we charge to them, particularly if regulation has a disproportionate impact on Mastercard than on our competitors in terms of the fees we can charge. This could make our products less desirable to consumers, reduce the volume of transactions and our profitability, and limit our ability to innovate or offer differentiated products.

We are devoting substantial resources to defending our right to establish interchange rates in regulatory proceedings, litigation, and legislative activity. The potential outcome of any legislative, regulatory, or litigation action could have a more positive or negative impact on Mastercard relative to its competitors. If we are ultimately unsuccessful in defending our ability to establish interchange rates, any resulting legislation, regulation and/or litigation may have a material adverse impact on our overall business and results of operations. In addition, regulatory proceedings and litigation could result in Mastercard being fined and/or having to pay civil damages, the amount of which could be material.

Additionally, increased focus on regulation of payment systems may result in costly compliance burdens or otherwise increase our costs, which could materially and adversely impact our financial performance. Moreover, failure to comply with the laws and regulations to which we are subject could result in fines, sanctions or other penalties, which could materially and adversely affect our overall business and results of operations, as well as have an impact on our brand and reputation. In order to successfully compete in such an environment, we and our customers would each need to adjust our strategies accordingly.

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Limitations on our ability to restrict merchant surcharging could materially and adversely impact our results of operations.

We have historically implemented policies, referred to as no-surcharge rules, in certain jurisdictions, including the United States, that prohibit merchants from charging higher prices to consumers who pay using Mastercard products instead of other means. Authorities in several jurisdictions have acted to end or limit the application of these no-surcharge rules (or indicated interest in doing so). Additionally, we have modified our no-surcharge rules to permit U.S. merchants to surcharge credit cards, subject to certain limitations. It is possible that over time merchants in some or all merchant categories in these jurisdictions may choose to surcharge as permitted by the rule change. This could result in consumers viewing our products less favorably and/or using alternative means of payment instead of electronic products, which could result in a decrease in our overall transaction volumes, and which in turn could materially and adversely impact our results of operations.

Current regulatory activity could be extended to additional jurisdictions or products, which could materially and adversely affect our overall business and results of operations.

Regulators around the world increasingly look at each other's approaches to the regulation of the payments and other industries. In some areas, such as interchange fees, we believe that regulators are increasingly cooperating on their approaches. Consequently, a development in any one country, state or region may influence regulatory approaches in other countries, states or regions. For example, a decision in Europe related to interchange fees could increase the possibility of additional competition authorities in European member states opening interchange fee proceedings. Similarly, new laws and regulations in a country, state or region involving one product may lead lawmakers there to extend the regulations to another product. For example, regulations affecting debit transactions could lead to regulation of other products (such as credit).

As a result, the risks to our business created by any one new law or regulation are magnified by the potential it has to be replicated in other jurisdictions or involve other products. These include matters like interchange rates, potential direct regulation of Mastercard's network fees and pricing, network standards and network exclusivity and routing agreements. Conversely, if widely varying regulations come into existence worldwide, we may have difficulty adjusting our products, services, fees and other important aspects of our business to meet the varying requirements. Either of these outcomes could materially and adversely affect our overall business and results of operations.

Preferential or Protective Government Actions

Preferential and protective government actions related to domestic payment services could adversely affect our ability to maintain or increase our revenues.

Governments in some countries, such as China, Russia and India, have acted, or in the future may act, to provide resources, preferential treatment or other protection to selected national payment and processing providers, or have created, or may in the future create, their own national provider. This action may displace us from, prevent us from entering into, or substantially restrict us from participating in, particular geographies, and may prevent us from competing effectively against those providers. For example:

Governments in some countries are considering, or may consider, regulatory requirements that mandate processing of domestic payments either entirely in that country or by only domestic companies. In particular, we are currently excluded from domestic processing in China and are seeking market access, which is uncertain and subject to receiving a more detailed interpretation of final regulations issued in 2016 by the People's Bank of China.

Additionally, Russia has amended its National Payments Systems laws to require all payment systems to process domestic transactions through a government-owned payment switch. As a result, all Mastercard domestic transactions in Russia are currently processed by that system instead of by Mastercard.

Regional groups of countries, such as the Gulf Cooperation Countries in the Middle East and a number of countries in South East Asia, are considering, or may consider, efforts to restrict our participation in the processing of regional transactions.

Such developments prevent us from utilizing our global processing capabilities for domestic or regional customers.

Our efforts to effect change in, or work with, these countries may not succeed. This could adversely affect our ability to maintain or increase our revenues and extend our global brand.

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Privacy, Data Protection and Security

Regulation of privacy, data protection and security could increase our costs, as well as negatively impact our growth. We are subject to regulations related to privacy, data protection and information security in the jurisdictions in which we do business. These regulations could result in negative impacts to our business. As we continue to develop products and services to meet the needs of a changing marketplace, we may expand our information profile through the collection of additional data across multiple channels. This expansion could amplify the impact of these regulations on our business. Regulation of privacy and data protection and information security may require changes to our data practices in regard to the collection, use, disclosure or security of personal and sensitive information. In addition, due to the European Parliament's passage of the General Data Protection Regulation and the European Court of Justice's invalidation of the Safe Harbor treaty, we are subject to enhanced compliance and operational requirements in the European Union. Failure to comply with these laws, regulations and requirements could result in fines, sanctions or other penalties, which could materially and adversely affect our results of operations and overall business, as well as have an impact on our reputation.

New requirements in these areas, either from new regulations or laws or any additions or changes (as well as the manner in which they could be interpreted or applied) may also increase our costs and could impact aspects of our business such as fraud monitoring, the development of information-based products and solutions and technology operations. In addition, these requirements may increase the costs to our customers of issuing payment products, which may, in turn, decrease the number of our cards and other payment devices that they issue. Moreover, due to account data compromise events, as well as the disclosure of the monitoring activities by certain governmental agencies, there has been heightened legislative and regulatory scrutiny around the world that could lead to further regulation and requirements. Any of these developments could materially and adversely affect our overall business and results of operations.

Regulation Related to Our Participation in the Payments Industry

Regulations affecting the global payments industry may materially and adversely affect our overall business and results of operations.

We are subject to regulations that affect the payments industry in the many jurisdictions in which our cards and other devices are used. Many of our customers are also subject to regulations applicable to banks and other financial institutions that, at times, consequently affect us. Regulation of the payments industry, including regulations applicable to us and our customers, has increased significantly in the last several years. See "Business-Government Regulation" in Part I, Item 1 for a detailed description of such regulation and related legislation. Examples include:

- Increased Payments Oversight - Several central banks or similar regulatory bodies around the world that have increased, or are seeking to increase, their formal oversight of the electronic payments industry are in some cases considering designating certain payments networks as "systemically important payment systems" or "critical infrastructure." As a result, Mastercard could be subject to new regulations relating to its payment, clearing and settlement activities (including risk management policies and procedures, collateral requirements, participant default policies and procedures, the ability to complete timely clearing and settlement of financial transactions, and capital and financial resource requirements). Also, Mastercard could be required to obtain prior approval for changes to its system rules, procedures or operations that could materially affect the level of risk presented by that payments system.
- Anti-Money Laundering and Economic Sanctions - We are subject to AML laws and regulations, including the USA PATRIOT Act in the United States, as well as the various economic sanctions programs administered by OFAC, including restrictions on financial transactions with certain countries and with persons and entities included on OFAC sanctions lists (including the SDN List). We have policies, procedures and controls designed to comply with applicable AML and OFAC sanctions requirements. We take measures to prevent transactions that do not comply with OFAC sanctions, including obligating our customers to screen cardholders and merchants against OFAC sanctions lists. However, despite these measures, it is possible that such transactions may be processed through our payments system. Activity such as money laundering or terrorist financing involving our cards could result in an enforcement action, and our reputation may suffer due to our customer's association with those countries, persons or entities or the existence of any such transaction. Any enforcement action or reputational damage could reduce the use and acceptance of our products and/or increase our costs, and thereby have a material adverse impact on our business.

In addition, geopolitical events and resulting OFAC sanctions could lead jurisdictions affected by those sanctions to take actions in response that could adversely affect our business. For example, in response to the 2014 global sanctions imposed as a result of the Ukraine conflict, the Russian government amended its National Payments Systems laws requiring all payment systems to process domestic transactions through a government-owned payment switch. There is a risk that in the future other

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jurisdictions (or their sympathizers) may take similar or other actions in response to sanctions that could negatively impact us.

Financial Sector Oversight - In the United States, the CFPB regulates consumer financial products, and can continue to do so by amending existing requirements or imposing new ones. The CFPB also has supervisory and independent examination authority as well as enforcement authority over certain financial institutions, their service providers, and other entities, which include us because of the services we provide to financial institutions that issue and acquire our products. It is not clear whether and/or to what extent the CFPB will regulate broader aspects of payment card networks.

Issuer Practice Legislation and Regulation - Our financial institution customers are subject to numerous regulations, which impact us as a consequence. Existing or new regulations in these or other areas may diminish the attractiveness of our products to our customers. In addition to regulation and investigation of issuer practices, regulations such as PSD2 in Europe require financial institutions to provide new third-party processors and other service providers access to consumer account information and the ability to initiate transactions directly with the consumer. This could enable these entities to disintermediate issuers by providing value-added services directly to consumers, and disintermediate payment networks such as ours by routing transactions to other forms of payment.

Regulation of Internet and Digital Transactions - Proposed legislation in various jurisdictions relating to Internet gambling and other digital areas such as cyber-security, copyright, trademark infringement and privacy could impose additional compliance burdens on us and/or our customers, including requiring us or our customers to monitor, filter, restrict, or otherwise oversee various categories of payment transactions.

Increased regulatory focus on us, such as in connection with the matters discussed above, may result in costly compliance burdens and/or may otherwise increase our costs. Similarly, increased regulatory focus on our customers may cause such customers to reduce the volume of transactions processed through our systems. Finally, failure to comply with the laws and regulations discussed above to which we are subject could result in fines, sanctions or other penalties. Each may individually or collectively materially and adversely affect our financial performance and/or our overall business and results of operations, as well as have an impact on our reputation.

Litigation

Liabilities we may incur for any litigation that has been or may be brought against us could materially and adversely affect our results of operations.

We are a defendant on a number of civil litigations and regulatory proceedings and investigations, including among others, those alleging violations of competition and antitrust law and those involving intellectual property claims. See Note 18 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8 for more details regarding the allegations contained in these complaints and the status of these proceedings. In the event we are found liable in any material litigations or proceedings, particularly in the event we may be found liable in a large class-action lawsuit or on the basis of an antitrust claim entitling the plaintiff to treble damages or under which we were jointly and severally liable, we could be subject to significant damages, which could have a material adverse impact on our overall business and results of operations.

Limitations on our business resulting from litigation or litigation settlements may materially and adversely affect our overall business and results of operations.

Certain limitations have been placed on our business in recent years because of litigation and litigation settlements, such as changes to our no-surcharge rule in the United States. Any future limitations on our business resulting from litigation or litigation settlements could impact our relationships with our customers, including reducing the volume of business that we do with them, which may materially and adversely affect our overall business and results of operations.

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Business and Operations

Competition and Technology

Substantial and intense competition worldwide in the global payments industry may materially and adversely affect our overall business and results of operations.

The global payments industry is highly competitive. Our payment programs compete against all forms of payment, including cash and checks; electronic, mobile and e-commerce payment platforms; cryptocurrencies; ACH payment services; and other payments networks, which can have several competitive impacts on our business:

• Within the global general purpose payments industry, we face substantial and increasingly intense competition worldwide from systems such as Visa, American Express, Discover, UnionPay, JCB and PayPal among others. In certain jurisdictions, including the United States, Visa has greater volume, scale and market share than we do, which may provide significant competitive advantages. Visa's acquisition of Visa Europe in 2016 may provide it with additional competitive advantages.

Some of our traditional competitors, as well as alternative payment service providers, may have substantially greater financial and other resources than we have, may offer a wider range of programs and services than we offer or may use more effective advertising and marketing strategies to achieve broader brand recognition or merchant acceptance than we have.

• Our ability to compete may also be affected by the outcomes of litigation, competition-related regulatory proceedings, central bank activity and legislative activity.

Certain of our competitors, including American Express, Discover, private-label card networks and certain alternative payments systems, operate three-party payments systems with direct connections to both merchants and consumers. These competitors may derive competitive advantages from their business models:

Operators of three-party payments systems tend to have greater control over consumer and merchant customer service than operators of four-party payments systems such as ours, in which we must typically rely on our issuing and acquiring financial institution customers. Our inability to control end-to-end processing may put us at a competitive disadvantage by limiting our ability to introduce value-added products and services that are dependent upon us processing the underlying transactions.

Even when competitors operate programs that utilize a four-party system, these competitors have generally not attracted the same level of regulatory or legislative scrutiny of their pricing and business practices as have operators of four-party payments systems such as ours.

If we continue to attract more regulatory scrutiny than these competitors because we operate a four-party system, or we are regulated because of the system we operate in a way in which our competitors are not, we could lose business to these competitors. See "Business-Competition" in Part I, Item 1.

If we are not able to differentiate ourselves from our competitors, drive value for our customers and/or effectively align our resources with our goals and objectives, we may not be able to compete effectively against these threats. Our competitors may also more effectively introduce their own innovative programs and services that adversely impact our growth. We also compete against new entrants that have developed alternative payments systems, e-commerce payments systems and payments systems for mobile devices, as well as physical store locations. A number of these new entrants rely principally on the Internet to support their services and may enjoy lower costs than we do, which could put us at a competitive disadvantage. Our failure to compete effectively against any of the foregoing competitive threats could materially and adversely affect our overall business and results of operations.

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Disintermediation from stakeholders both within and outside of the payments value chain could harm our business. As the payments industry continues to develop and change, we face disintermediation and related risks, including: Parties that process our transactions in certain countries may try to eliminate our position as an intermediary in the payment process. For example, merchants could process (and in some cases are processing) transactions directly with issuers. Additionally, processors could process transactions directly between issuers and acquirers. Large scale consolidation within processors could result in these processors developing bilateral agreements or in some cases processing the entire transaction on their own network, thereby disintermediating us.

Regulation such as PSD2 in Europe may disintermediate us by enabling new third-party processors and other service providers opportunities to route payment transactions away from our network and towards other forms of payment. Although we partner with technology companies (such as digital players and mobile providers) that leverage our technology, platforms and network to deliver their products, they could develop platforms or networks that disintermediate us from digital payments and impact our ability to compete in the digital economy.

Competitors, customers, technology companies, governments and other industry participants may develop products that compete with or replace value-added products and services we currently provide to support our switched transaction and payment offerings. These products could replace our own processing and payments offerings or could force us to change our pricing or practices for these offerings.

Participants in the payments industry may merge, create joint ventures or form other business combinations that may strengthen their existing business services or create new payment services that compete with our services.

Our failure to compete effectively against any of the foregoing competitive threats could materially and adversely affect our overall business and results of operations.

Continued intense pricing pressure may materially and adversely affect our overall business and results of operations.

In order to increase transaction volumes, enter new markets and expand our Mastercard-branded cards and enabled payment devices, we seek to enter into business agreements with customers through which we offer incentives, pricing discounts and other support that promote our products. In order to stay competitive, we may have to increase the amount of these incentives and pricing discounts. Over the past several years, we have experienced continued pricing pressure. The demand from our customers for better pricing arrangements and greater rebates and incentives moderates our growth. We may not be able to continue our expansion strategy to process additional transaction volumes or to provide additional services to our customers at levels sufficient to compensate for such lower fees or increased costs in the future, which could materially and adversely affect our overall business and results of operations. In addition, increased pressure on prices increases the importance of cost containment and productivity initiatives in areas other than those relating to customer incentives.

In the future, we may not be able to enter into agreements with our customers if they require terms that we are unable or unwilling to offer, and we may be required to modify existing agreements in order to maintain relationships and to compete with others in the industry. Some of our competitors are larger and have greater financial resources than we do and accordingly may be able to charge lower prices to our customers. In addition, to the extent that we offer discounts or incentives under such agreements, we will need to further increase transaction volumes or the amount of services provided thereunder in order to benefit incrementally from such agreements and to increase revenue and profit, and we may not be successful in doing so, particularly in the current regulatory environment. Our customers also may implement cost reduction initiatives that reduce or eliminate payment product marketing or increase requests for greater incentives or greater cost stability. These factors could have a material adverse impact on our overall business and results of operations.

Rapid and significant technological developments and changes could negatively impact our overall business and results of operations or limit our future growth.

The payments industry is subject to rapid and significant technological changes, which can impact our business in several ways:

Technological changes, including continuing developments of technologies in the areas of smart cards and devices, contactless and mobile payments, e-commerce and cryptocurrency and block chain technology, could result in new technologies that may be superior to, or render obsolete, the technologies we currently use in our programs and services. Moreover, these changes could result in new and innovative payment methods and programs that could place

us at a competitive disadvantage and that could reduce the use of Mastercard products.

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We rely in part on third parties, including some of our competitors and potential competitors, for the development of and access to new technologies. The inability of these companies to keep pace with technological developments, or the acquisition of these companies by competitors, could negatively impact Mastercard offerings.

Our ability to develop and adopt new services and technologies may be inhibited by industry-wide solutions and standards (such as those related to EMV, tokenization or other safety and security technologies), and by resistance from customers or merchants to such changes.

Our ability to develop evolving systems and products may be inhibited by any difficulty we may experience in attracting and retaining technology experts.

Our ability to adopt these technologies can also be inhibited by intellectual property rights of third parties. We have received, and we may in the future receive, notices or inquiries from patent holders (for example, other operating companies or non-practicing entities) suggesting that we may be infringing certain patents or that we need to license the use of their patents to avoid infringement. Such notices may, among other things, threaten litigation against us or our customers or demand significant license fees.

Our ability to develop new technologies and reflect technological changes in our payments offerings will require resources, which may result in additional expenses.

We work with technology companies (such as digital players and mobile providers) that use our technology to enhance payment safety and security and to deliver their payment-related products and services quickly and efficiently to consumers. Our inability to keep pace technologically could negatively impact the willingness of these customers to work with us, and could encourage them to use their own technology and compete against us.

We cannot predict the effect of technological changes on our business, and our future success will depend, in part, on our ability to anticipate, develop or adapt to technological changes and evolving industry standards. Failure to keep pace with these technological developments or otherwise bring to market products that reflect these technologies could lead to a decline in the use of our products, which could have a material adverse impact on our overall business and results of operations.

Information Security and Service Disruptions

Information security failures or breaches could disrupt our business, damage our reputation, increase our costs and cause losses.

Information security risks for payments and technology companies such as Mastercard have significantly increased in recent years in part because of the proliferation of new technologies, the use of the Internet and telecommunications technologies to conduct financial transactions, and the increased sophistication and activities of organized crime, hackers, terrorists and other external parties. These threats may derive from fraud or malice on the part of our employees or third parties, or may result from human error or accidental technological failure. These threats include cyber-attacks such as computer viruses, malicious code, phishing attacks or information security breaches.

Our operations rely on the secure processing, transmission and storage of confidential, proprietary and other information in our computer systems and networks. Our customers and other parties in the payments value chain, as well as our cardholders, rely on our digital technologies, computer and email systems, software and networks to conduct their operations. In addition, to access our products and services, our customers and cardholders increasingly use personal smartphones, tablet PCs and other mobile devices that may be beyond our control. We routinely are subject to cyber-threats and our technologies, systems and networks have been subject to cyber-attacks. Because of our position in the payments value chain, we believe that we are likely to continue to be a target of such threats and attacks. Additionally, geopolitical events and resulting government activity could also lead to information security threats and attacks by affected jurisdictions and their sympathizers.

To date, we have not experienced any material impact relating to cyber-attacks or other information security breaches. However, future attacks or breaches could lead to security breaches of the networks, systems or devices that our customers use to access our products and services, which in turn could result in the unauthorized disclosure, release, gathering, monitoring, misuse, loss or destruction of confidential, proprietary and other information (including account data information) or data security compromises. Such attacks or breaches could also cause service interruptions, malfunctions or other failures in the physical infrastructure or operations systems that support our businesses and customers (such as the lack of availability of our value-added systems), as well as the operations of our

customers or other third parties. In addition, they could lead to damage to our reputation with our customers and other parties and the market, additional costs to Mastercard (such as repairing systems, adding new personnel or protection technologies or compliance costs), regulatory penalties, financial losses to both us and our

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customers and partners and the loss of customers and business opportunities. If such attacks are not detected immediately, their effect could be compounded.

We maintain an information security program, a business continuity program and insurance coverage (each reviewed by our Board of Directors and its Audit Committee), and our processing systems incorporate multiple levels of protection, in order to address or otherwise mitigate these risks. We also periodically test our systems to discover and address any potential vulnerabilities. Despite these mitigation efforts, there can be no assurance that we will be immune to these risks and not suffer material breaches and resulting losses in the future, or that our insurance coverage would be sufficient to cover all losses. Our risk and exposure to these matters remain heightened because of, among other things, the evolving nature of these threats, the prominent size and scale of Mastercard and our role in the global payments and technology industries, our plans to continue to implement our digital and mobile channel strategies and develop additional remote connectivity solutions to serve our customers and cardholders when and how they want to be served, our global presence, our extensive use of third-party vendors and future joint venture and merger and acquisition opportunities. As a result, information security and the continued development and enhancement of our controls, processes and practices designed to protect our systems, computers, software, data and networks from attack, damage or unauthorized access remain a priority for us. As cyber-threats continue to evolve, we may be required to expend significant additional resources to continue to modify or enhance our protective measures or to investigate and remediate any information security vulnerabilities. Any of the risks described above could materially adversely affect our overall business and results of operations.

Service disruptions that cause us to be unable to process transactions or service our customers could materially affect our overall business and results of operations.

Our transaction processing systems and other offerings may experience interruptions as a result of technology malfunctions, fire, weather events, power outages, telecommunications disruptions, terrorism, workplace violence, accidents or other catastrophic events. Our visibility in the global payments industry may also put us at greater risk of attack by terrorists, activists, or hackers who intend to disrupt our facilities and/or systems. Additionally, we rely on third-party service providers for the timely transmission of information across our global data network. Inadequate infrastructure in lesser-developed markets could also result in service disruptions, which could impact our ability to do business in those markets. If one of our service providers fails to provide the communications capacity or services we require, as a result of natural disaster, operational disruptions, terrorism, hacking or any other reason, the failure could interrupt our services. Although we maintain a business continuity program to analyze risk, assess potential impacts, and develop effective response strategies, we cannot ensure that our business would be immune to these risks, because of the intrinsic importance of our processing systems to our business, any interruption or degradation could adversely affect the perception of the reliability of products carrying our brands and materially adversely affect our overall business and our results of operations.

Financial Institution Customers and Other Stakeholder Relationships

Losing a significant portion of business from one or more of our largest financial institution customers could lead to significant revenue decreases in the longer term, which could have a material adverse impact on our business and our results of operations.

Most of our financial institution customer relationships are not exclusive and may be terminated by our customers. Our customers can reassess their commitments to us at any time in the future and/or develop their own competitive services. Accordingly, our business agreements with these customers may not reduce the risk inherent in our business that customers may terminate their relationships with us in favor of relationships with our competitors, or for other reasons, or might not meet their contractual obligations to us.

In addition, a significant portion of our revenue is concentrated among our five largest financial institution customers. Loss of business from any of our large customers could have a material adverse impact on our overall business and results of operations.

Exclusive/near exclusive relationships certain customers have with our competitors may have a material adverse impact on our business.

Certain customers have exclusive, or nearly-exclusive, relationships with our competitors to issue payment products, and these relationships may make it difficult or cost-prohibitive for us to do significant amounts of business with them

to increase our revenues. In addition, these customers may be more successful and may grow faster than the customers that primarily issue our cards, which could put us at a competitive disadvantage. Furthermore, we earn substantial revenue from customers with nearly-exclusive relationships with our competitors. Such relationships could provide advantages to the customers to shift business from us to the competitors with which they are principally aligned. A significant loss of our existing revenue or transaction volumes from these customers could have a material adverse impact on our business.

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Consolidation in the banking industry could materially and adversely affect our overall business and results of operations.

The banking industry has undergone substantial, accelerated consolidation in the past. Consolidations have included customers with a substantial Mastercard portfolio being acquired by institutions with a strong relationship with a competitor. If significant consolidation among customers were to continue, it could result in the substantial loss of business for us, which could have a material adverse impact on our business and prospects. In addition, one or more of our customers could seek to merge with, or acquire, one of our competitors, and any such transaction could also have a material adverse impact on our overall business. Consolidation could also produce a smaller number of large customers, which could increase their bargaining power and lead to lower prices and/or more favorable terms for our customers. These developments could materially and adversely affect our results of operations.

Our business significantly depends on the continued success and competitiveness of our issuing and acquiring customers and, in many jurisdictions, their ability to effectively manage or help manage our brands.

While we work directly with many stakeholders in the payments system, including merchants, governments and large digital companies and other technology companies, we are, and will continue to be, significantly dependent on our relationships with our issuers and acquirers and their respective relationships with cardholders and merchants to support our programs and services. We do not issue cards or other payment devices, extend credit to cardholders or determine the interest rates or other fees charged to cardholders using our products. Each issuer determines these and most other competitive payment program features. In addition, we do not establish the discount rate that merchants are charged for acceptance, which is the responsibility of our acquiring customers. As a result, our business significantly depends on the continued success and competitiveness of our issuing and acquiring customers and the strength of our relationships with them. In turn, our customers' success depends on a variety of factors over which we have little or no influence. If our customers become financially unstable, we may lose revenue or we may be exposed to settlement risk. See our risk factor in "Risk Factors - Settlement and Third-Party Obligation Risk" in this Part I, Item 1A with respect to how we guarantee certain third-party obligations for further discussion.

With the exception of the United States and a select number of other jurisdictions, most in-country (as opposed to cross-border) transactions conducted using Mastercard, Maestro and Cirrus cards are authorized, cleared and settled by our customers or other processors. Because we do not provide domestic processing services in these countries and do not, as described above, have direct relationships with cardholders, we depend on our close working relationships with our customers to effectively manage our brands, and the perception of our payments system, among consumers in these countries. We also rely on these customers to help manage our brands and perception among regulators and merchants in these countries, alongside our own relationships with them. From time to time, our customers may take actions that we do not believe to be in the best interests of our payments system overall, which may materially and adversely impact our business. If our customers' actions cause significant negative perception of the global payments industry or our brands, cardholders may reduce the usage of our programs, which could reduce our revenues and negatively impact our results of operations.

Merchants' continued focus on acceptance costs may lead to additional litigation and regulatory proceedings and increase our incentive program costs, which could materially and adversely affect our profitability.

Merchants are important constituents in our payments system. We rely on both our relationships with them, as well as their relationships with our issuer and acquirer customers, to continue to expand the acceptance of our cards and payment devices. We also work with merchants to help them enable new sales channels, create better purchase experiences, improve efficiencies, increase revenues and fight fraud. In the retail industry, there is a set of larger merchants with increasingly global scope and influence. We believe that these merchants are having a significant impact on all participants in the global payments industry, including Mastercard. Some large merchants have supported the legal, regulatory and legislative challenges to interchange fees that Mastercard has been defending, including the U.S. merchant litigations. See our risk factor in this Part I, Item 1A with respect to payments industry regulation, including interchange fees. The continued focus of merchants on the costs of accepting various forms of payment, including in connection with the growth of digital payments, may lead to additional litigation and regulatory proceedings.

Certain larger merchants are also able to negotiate incentives from us and pricing concessions from our issuer and acquirer customers as a condition to accepting our payment cards and devices. We also make payments to certain merchants to incentivize them to create co-branded payment programs with us. As merchants consolidate and become even larger, we may have to increase the amount of incentives that we provide to certain merchants, which could materially and adversely affect our results of operations. Competitive and regulatory pressures on pricing could make it difficult to offset the costs of these incentives. Additionally, if the rate of merchant acceptance growth slows our business could suffer.

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Our work with governments exposes us to unique risks that could have a material impact on our business and results of operations.

As we increase our work with national, state and local governments, both indirectly through financial institutions and with them directly as our customers, we may face various risks inherent in associating or contracting directly with governments. These risks include, but are not limited to, the following:

Governmental entities typically fund projects through appropriated monies. Changes in governmental priorities or other political developments, including disruptions in governmental operations, could impact approved funding and result in changes in the scope, or lead to the termination of, the arrangements or contracts we or financial institutions enter into with respect to our payment products and services.

Our work with governments subjects us to U.S. and international anti-corruption laws, including the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act. A violation and subsequent judgment or settlement under these laws could subject us to substantial monetary penalties and damages and have a significant reputational impact.

Working or contracting with governments, either directly or via our financial institution customers, can subject us to heightened reputational risks, including extensive scrutiny and publicity, as well as a potential association with the policies of a government as a result of a business arrangement with that government. Any negative publicity or negative association with a government entity, regardless of its accuracy, may adversely affect our reputation.

Settlement and Third-Party Obligations

Our role as guarantor exposes us to risk of loss or illiquidity.

We are a guarantor of certain third-party obligations, including those of:

principal customers, which are customers that participate directly in Mastercard programs and are responsible for the settlement and other activities of their sponsored affiliate customers

affiliate debit licensees

In this capacity, we are exposed to risk of loss or illiquidity:

We may incur obligations in connection with transaction settlements if an issuer or acquirer fails to fund its daily settlement obligations due to technical problems, liquidity shortfalls, insolvency or other reasons.

If a principal customer or affiliate debit licensee of Mastercard is unable to fulfill its settlement obligations to other customers, we may bear the loss.

Although we are not obligated to do so, we may elect to keep merchants whole if an acquirer defaults on its merchant payment obligations, or to keep prepaid cardholders whole if an issuer defaults on its obligation to safeguard unspent prepaid funds.

Our gross settlement exposure for our brands was approximately \$37 billion as of December 31, 2016.

We believe that we have sufficient liquidity to cover a settlement failure by our largest customer on its peak day (including the availability of our revolving credit facility and commercial paper program) and we are able to seek assignment of underlying receivables from a failed customer and may charge customers for settlement losses incurred during Mastercard's ordinary course activities. We also minimize the contingent risk of a settlement failure using various strategies, including monitoring our customers' financial condition, their economic and political operating environments and their compliance with our participation standards. However, the term and amount of our guarantee of obligations to principal customers is unlimited. As a result:

Concurrent settlement failures of more than one of our larger customers or of several of our smaller customers either on a given day or over a condensed period of time may exceed our available resources and could materially and adversely affect our overall business and liquidity.

Even if we have sufficient liquidity to cover a settlement failure, we may not be able to recover the cost of such a payment and may therefore be exposed to significant losses, which could materially and adversely affect our results of operations.

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Financial institution customers in general are directly and indirectly impacted by economic conditions in global financial markets. These conditions subject us to risk that we may have to perform under our settlement guarantees. For more information on our settlement exposure and risk assessment and mitigation practices, see Note 19 (Settlement and Other Risk Management) to the consolidated financial statements included in Part II, Item 8. Separately, Mastercard also provides guarantees to certain customers and other companies indemnifying them from losses stemming from our failure to perform with respect to our products and services or the failure of third parties to perform. Should an event occur that would trigger any significant indemnification obligation which we owe to any such customers or other companies, such an obligation could materially and adversely affect our overall business and results of operations.

Global Economic and Political Environment

Global financial market activity could result in a material and adverse impact on our overall business and results of operations.

Adverse economic trends (including distress in financial markets, turmoil in specific economies around the world and additional government intervention) have impacted the environment in which we operate. The condition of the economic environment may accelerate the timing of or increase the impact of risks to our financial performance. Such impact may include, but is not limited to, the following:

Our customers may:

- Ø restrict credit lines to cardholders or limit the issuance of new Mastercard products to mitigate increasing cardholder defaults
- Ø implement cost reduction initiatives that reduce or eliminate payment card marketing or increase requests for greater incentives or greater cost stability
- Ø default on their settlement obligations, including as a result of sovereign defaults, causing a liquidity crisis for our other customers

Consumer spending can be negatively impacted by:

- Ø declining economies, foreign currency fluctuations and the pace of economic recovery, which can change cross-border travel patterns, on which a significant portion of our revenues is dependent
- Ø low levels of consumer and business confidence typically associated with recessionary environments and those markets experiencing relatively high unemployment

Government intervention (including the effect of laws, regulations and/or government investments on or in our financial institution customers), as well as uncertainty due to changing political regimes in executive, legislative and/or judicial branches of government, may have potential negative effects on our business and our relationships with customers or otherwise alter their strategic direction away from our products.

Tightening of credit availability could impact the ability of participating financial institutions to lend to us under the terms of our credit facility.

Any of these developments could have a material adverse impact on our overall business and results of operations.

A decline in cross-border activity could adversely affect our results of operations.

We process substantially all cross-border transactions using Mastercard, Maestro and Cirrus-branded cards and generate a significant amount of revenue from cross-border volume fees and fees related to switched transactions. Revenue from processing cross-border and currency conversion transactions for our customers fluctuates with the levels and destinations of cross-border travel and our customers' need for transactions to be converted into their base currency. Cross-border activity may be adversely affected by world geopolitical, economic, weather and other conditions. These include the threat of terrorism and outbreaks of flu, viruses and other diseases. Additionally, any regulation of interregional interchange fees could negatively impact our cross-border activity, which could decrease the revenue we receive. Any such decline in cross-border activity could materially adversely affect our results of operations.

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Negative trends in consumer spending could negatively impact our results of operations.

The global payments industry depends heavily upon the overall level of consumer, business and government spending. General economic conditions (such as unemployment, housing and changes in interest rates) and other political conditions (such as devaluation of currencies and government restrictions on consumer spending) in key countries in which we operate may adversely affect our financial performance by reducing the number or average purchase amount of transactions involving our payment cards and devices. Also, as we are headquartered in the United States, a negative perception of the United States could impact the perception of our company, which could adversely affect our business.

Adverse currency fluctuations and foreign exchange controls could negatively impact our results of operations. During 2016, approximately 62% of our revenue was generated from activities outside the United States. This revenue (and the related expense) could be transacted in a non-functional currency or valued based on a currency other than the functional currency of the entity generating the revenues. Resulting exchange gains and losses are included in our net income. Our risk management activities provide protection with respect to adverse changes in the value of only a limited number of currencies and are based on estimates of exposures to these currencies.

In addition, some of the revenue we generate outside the United States is subject to unpredictable currency fluctuations (including devaluations of currencies) where the values of other currencies change relative to the U.S. dollar. If the U.S. dollar strengthens compared to currencies in which we generate revenue, this revenue may be translated at a materially lower amount than expected. Furthermore, we may become subject to exchange control regulations that might restrict or prohibit the conversion of our other revenue currencies into U.S. dollars.

The occurrence of currency fluctuations or exchange controls could have a material adverse impact on our results of operations.

Reputational Impact

Negative brand perception may materially and adversely affect our overall business.

Our brands and their attributes are key assets of our business. The ability to attract consumers to our branded products and retain them depends upon the external perception of us and our industry. Our business may be affected by actions taken by our customers that impact the perception of our brands. From time to time, our customers may take actions that we do not believe to be in the best interests of our brands, such as creditor practices that may be viewed as “predatory”. Additionally, large digital companies and other technology companies who are our customers use our network to build their own acceptance brands, which could cause consumer confusion and decrease the value of our brand. Moreover, adverse developments with respect to our industry or the industries of our customers may also, by association, impair our reputation, or result in greater regulatory or legislative scrutiny. We have also been pursuing the use of social media channels at an increasingly rapid pace. Under some circumstances, our use of social media, or the use of social media by others as a channel for criticism or other purposes, could also cause rapid, widespread reputational harm to our brands by disseminating rapidly and globally actual or perceived damaging information about us or our products. Such perception and damage to our reputation could have a material and adverse effect to our overall business.

Account data breaches could adversely affect our reputation and results of operations.

We, our issuers and acquirers, merchants and other third parties process, transmit or store cardholder account and other information in connection with payment cards and devices. In addition, our customers may sponsor (or we may certify as PCI-compliant) third-party processors to process transactions generated by cards carrying our brands and merchants may use third parties to provide services related to card use. A breach of the systems on which sensitive cardholder data and account information are processed, transmitted or stored could lead to fraudulent activity involving cards carrying our brands, damage our reputation and lead to claims against us, as well as subject us to regulatory actions. We routinely encounter account data compromise events, some of which have been high profile, involving merchants and third-party payment processors that process, store or transmit payment card data, which affect millions of Mastercard, Visa, Discover, American Express and other types of cardholders. These events typically involve external agents hacking the merchants’ or third-party processors’ systems and installing malware to compromise the confidentiality and integrity of those systems. Further data security breaches may subject us to reputational damage and/or lawsuits involving payment cards carrying our brands. Damage to our reputation or that of

our brands resulting from an account data breach of either our systems or the systems of our customers, merchants and other third parties could decrease the use and acceptance of our cards and other payment devices, as well as the trend toward electronic payments, which in turn could have a material adverse impact on our transaction volumes, results of operations and prospects for future growth, or increase our costs by leading to additional regulatory burdens being imposed upon us.

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In addition to reputational concerns, while most of the lawsuits resulting from account data breaches do not involve direct claims against us and while we have releases from many issuers and acquirers, we could still face damage claims, which, if upheld, could materially and adversely affect our results of operations.

Fraudulent activity could damage our reputation and encourage regulatory intervention, which could reduce the use and acceptance of our cards and other payment devices.

Criminals are using increasingly sophisticated methods to capture cardholder account information to engage in illegal activities such as counterfeiting or other fraud. Cards that use magnetic-stripe technology, still widely used in the United States, continue to raise heightened vulnerabilities to fraud relative to other technologies due to the static nature of the information on the magnetic stripe. Fraud is also more likely to occur in transactions where the card is not present, such as online commerce, which constitutes an increasing percentage of transactions. In addition, as outsourcing and specialization become commonplace in the payments industry, there are more third parties involved in processing transactions using our cards. While we are taking measures to mitigate risks associated with magnetic stripes (via increased migration to EMV) and making digital payments more secure through MDES, increased fraud levels involving our cards, or misconduct or negligence by third parties processing or otherwise servicing our cards, could lead to regulatory intervention, such as enhanced security requirements, as well as damage to our reputation. These occurrences could reduce the use and acceptance of our cards or increase our compliance costs, and thereby have a material adverse impact on our business.

Acquisitions

Acquisitions, strategic investments or entry into new businesses could disrupt our business and harm our results of operations or reputation.

Although we may continue to evaluate and/or make strategic acquisitions of, or acquire interests in joint ventures or other entities related to, complementary businesses, products or technologies, we may not be able to successfully partner with or integrate them, despite original intentions and focused efforts. In addition, such an integration may divert management's time and resources from our core business and disrupt our operations. Moreover, we may spend time and money on acquisitions or projects that do not meet our expectations or increase our revenue. To the extent we pay the purchase price of any acquisition in cash, it would reduce our cash reserves available to us for other uses, and to the extent the purchase price is paid with our stock, it could be dilutive to our stockholders. Furthermore, we may not be able to successfully finance the business following the acquisition as a result of costs of operations, including any litigation risk which may be inherited from the acquisition.

Any acquisition or entry into a new business could subject us to new regulations with which we would need to comply. This compliance could increase our costs, and we could be subject to liability or reputational harm to the extent we cannot meet any such compliance requirements. Our expansion into new businesses could also result in unanticipated issues which may be difficult to manage.

Class A Common Stock and Governance Structure

Provisions in our organizational documents and Delaware law could be considered anti-takeover provisions and have an impact on change-in-control.

Provisions contained in our amended and restated certificate of incorporation and bylaws and Delaware law could be considered anti-takeover provisions, including provisions that could delay or prevent entirely a merger or acquisition that our stockholders consider favorable. These provisions may also discourage acquisition proposals or have the effect of delaying or preventing entirely a change in control, which could harm our stock price. For example, subject to limited exceptions, our amended and restated certificate of incorporation prohibits any person from beneficially owning more than 15% of any of the Class A common stock or any other class or series of our stock with general voting power, or more than 15% of our total voting power. In addition:

- our stockholders are not entitled to the right to cumulate votes in the election of directors
- our stockholders are not entitled to act by written consent
- a vote of 80% or more of all of the outstanding shares of our stock then entitled to vote is required for stockholders to amend any provision of our bylaws
- any representative of a competitor of Mastercard or of the MasterCard Foundation (the "Foundation") is disqualified from service on our board of directors

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The Foundation's substantial stock ownership, and restrictions on its sales, may impact corporate actions or acquisition proposals favorable to, or favored by, the other public stockholders.

As of February 10, 2017, the Foundation owned 112,834,232 shares of Class A common stock, representing approximately 10.7% of our general voting power. The Foundation may not sell or otherwise transfer its shares of Class A common stock prior to April 26, 2026, except to the extent necessary to satisfy its charitable disbursement requirements, for which purpose earlier sales are permitted. The directors of the Foundation are required to be independent of us and our customers. The ownership of Class A common stock by the Foundation, together with the restrictions on transfer, could discourage or make more difficult acquisition proposals favored by the other holders of the Class A common stock. In addition, because the Foundation is restricted from selling its shares for an extended period of time, it may not have the same interest in short or medium-term movements in our stock price as, or incentive to approve a corporate action that may be favorable to, our other stockholders.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

As of December 31, 2016, Mastercard and its subsidiaries owned or leased 158 commercial properties. We own our corporate headquarters, located in Purchase, New York. The building is approximately 500,000 square feet. There is no outstanding debt on this building. Our principal technology and operations center, a leased facility located in O'Fallon, Missouri, is also approximately 500,000 square feet. The term of the lease on this facility is 10 years, which commenced on March 1, 2009. Our leased properties in the United States are located in 11 states and in the District of Columbia. We also lease and own properties in 66 other countries. These facilities primarily consist of corporate and regional offices, as well as our operations centers.

We believe that our facilities are suitable and adequate for the business that we currently conduct. However, we periodically review our space requirements and may acquire or lease new space to meet the needs of our business, or consolidate and dispose of facilities that are no longer required.

ITEM 3. LEGAL PROCEEDINGS

Refer to Notes 10 (Accrued Expenses and Accrued Litigation) and 18 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Price Range of Common Stock

Our Class A common stock trades on the New York Stock Exchange under the symbol "MA". The following table sets forth the intra-day high and low sale prices for our Class A common stock for the four quarterly periods in each of 2016 and 2015. At February 10, 2017, we had 74 stockholders of record for our Class A common stock. We believe that the number of beneficial owners is substantially greater than the number of record holders because a large portion of our Class A common stock is held in "street name" by brokers.

	2016		2015	
	High	Low	High	Low
First Quarter	\$95.83	\$78.52	\$93.00	\$79.82
Second Quarter	100.00	87.59	96.31	85.37
Third Quarter	102.31	86.65	99.18	74.61
Fourth Quarter	108.93	99.51	101.76	88.92

There is currently no established public trading market for our Class B common stock. There were approximately 331 holders of record of our non-voting Class B common stock as of February 10, 2017, constituting approximately 1.8% of our total outstanding equity.

Dividend Declaration and Policy

During the years ended December 31, 2016 and 2015, we paid the following quarterly cash dividends per share on our Class A common stock and Class B Common stock:

	Dividend per Share	
	2016	2015
First Quarter	\$0.19	\$0.16
Second Quarter	0.19	0.16
Third Quarter	0.19	0.16
Fourth Quarter	0.19	0.16

On December 6, 2016, our Board of Directors declared a quarterly cash dividend of \$0.22 per share paid on February 9, 2017 to holders of record on January 9, 2017 of our Class A common stock and Class B common stock. On February 7, 2017, our Board of Directors declared a quarterly cash dividend of \$0.22 per share payable on May 9, 2017 to holders of record on April 7, 2017 of our Class A common stock and Class B common stock.

Subject to legally available funds, we intend to continue to pay a quarterly cash dividend on our outstanding Class A common stock and Class B common stock. However, the declaration and payment of future dividends is at the sole discretion of our Board of Directors after taking into account various factors, including our financial condition, operating results, available cash and current and anticipated cash needs.

Issuer Purchases of Equity Securities

On December 8, 2015, the Company's Board of Directors approved a share repurchase program authorizing the Company to repurchase up to \$4 billion of its Class A common stock (the "December 2015 Share Repurchase Program"). This program became effective in February 2016. On December 6, 2016, the Company's Board of Directors approved a share repurchase program authorizing the Company to repurchase up to \$4 billion of its Class A common stock (the "December 2016 Share Repurchase Program"). This program will become effective after completion of the December 2015 Share Repurchase Program.

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During the fourth quarter of 2016, Mastercard repurchased a total of approximately 10.6 million shares for \$1.1 billion at an average price of \$103.51 per share of Class A common stock. The Company's repurchase activity during the fourth quarter of 2016 consisted of open market share repurchases and is summarized in the following table:

Period	Total Number of Shares Purchased	Average Price Paid per Share (including commission cost)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Dollar Value of Shares that may yet be Purchased under the Plans or Programs ¹
October 1 – 31	3,180,216	\$ 102.05	3,180,216	\$ 1,772,785,237
November 1 – 30	3,613,763	\$ 104.71	3,613,763	\$ 1,394,380,716
December 1 – 31	3,843,257	\$ 103.60	3,843,257	\$ 4,996,237,293
Total	10,637,236	\$ 103.51	10,637,236	

¹ Dollar value of shares that may yet be purchased under the December 2015 Share Repurchase Program and the December 2016 Share Repurchase Program are as of the end of each period presented.

ITEM 6. SELECTED FINANCIAL DATA

The statement of operations data and the cash dividends declared per share presented below for the years ended December 31, 2016, 2015 and 2014, and the balance sheet data as of December 31, 2016 and 2015, were derived from the audited consolidated financial statements of Mastercard Incorporated included in Part II, Item 8. The statement of operations data and the cash dividends declared per share presented below for the years ended December 31, 2013 and 2012, and the balance sheet data as of December 31, 2014, 2013 and 2012, were derived from audited consolidated financial statements not included in this Report. The data set forth below should be read in conjunction with, and are qualified by reference to, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 and our consolidated financial statements and notes thereto included in Part II, Item 8.

	Years Ended December 31,				
	2016	2015	2014	2013	2012
	(in millions, except per share data)				
Statement of Operations Data:					
Net revenue	\$10,776	\$9,667	\$9,441	\$8,312	\$7,391
Total operating expenses	5,015	4,589	4,335	3,809	3,454
Operating income	5,761	5,078	5,106	4,503	3,937
Net income	4,059	3,808	3,617	3,116	2,759
Basic earnings per share	3.70	3.36	3.11	2.57	2.20
Diluted earnings per share	3.69	3.35	3.10	2.56	2.19
Balance Sheet Data:					
Total assets	\$18,675	\$16,250	\$15,329	\$14,242	\$12,462
Long-term debt	5,180	3,268	1,494	—	—
Equity	5,684	6,062	6,824	7,495	6,929
Cash dividends declared per share	\$0.79	\$0.67	\$0.49	\$0.29	\$0.12

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with the consolidated financial statements and notes of Mastercard Incorporated and its consolidated subsidiaries, including Mastercard International Incorporated ("Mastercard International") (together, "Mastercard" or the "Company"), included elsewhere in this Report. In the fourth quarter of 2016, the Company began using the term "switched" transactions instead of "processed" transactions to differentiate our authorization, clearing and settlement activities from our issuer/acquirer processing activities. This change only relates to terminology; no previously reported amounts have changed. Percentage changes provided throughout "Management's Discussion and Analysis of Financial Condition and Results of Operations" were calculated on amounts rounded to the nearest thousand.

Non-GAAP Financial Information

Non-GAAP financial information is defined as a numerical measure of a company's performance that excludes or includes amounts so as to be different than the most comparable measure calculated and presented in accordance with accounting principles generally accepted in the United States ("GAAP"). See "Overview" for the tables that provide reconciliations of the non-GAAP operating results and growth to the most directly comparable GAAP measures. This Report contains non-GAAP financial measures that exclude the impact of the following special items ("Special Items"): In 2016 and 2015, the Company recorded provisions for litigation of \$117 million (\$85 million after tax, or \$0.08 per diluted share) and \$61 million (\$44 million after tax, or \$0.04 per diluted share), respectively, related to litigations with merchants in the U.K.

In 2015, the Company recorded a settlement charge of \$79 million (\$50 million after tax, or \$0.04 per diluted share) relating to the termination of its qualified U.S. defined benefit pension plan in general and administrative expenses (the "U.S. Employee Pension Plan Settlement Charge").

The provisions for litigation for both years discussed above relate to separate merchant litigations in the U.K. (collectively the "U.K. Merchant Litigation Provision"). See Note 18 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8 for further discussion. Mastercard excluded the U.K. Merchant Litigation Provision because its management monitors material litigation judgments and settlements separately from ongoing operations and evaluates ongoing performance without these amounts. The Company also excluded the U.S. Employee Pension Plan Settlement Charge because its management monitors significant one-time items separately from ongoing operations and evaluates ongoing performance without these amounts. For additional discussion regarding the U.S. Employee Pension Plan Settlement Charge, see Note 11 (Pension, Postretirement and Savings Plans) in Part II, Item 8.

Mastercard presents growth rates adjusted for the impact of foreign currency, which is a non-GAAP financial measure. For 2016, the Company presents currency-neutral growth rates, which are calculated by remeasuring the prior period's results using the current period's exchange rates for both the translational and transactional impacts on operating results. Prior to 2016, the impact of foreign currency on our operating results were presented to include only translational impacts. The impact of foreign currency translation represents the effect of translating operating results where the functional currency is different than our U.S. dollar reporting currency. The impact of the transactional foreign currency represents the effect of converting revenue and expenses occurring in a currency other than the functional currency. Mastercard's management believes the presentation of the impact of foreign currency provides relevant information.

Mastercard's management believes that the non-GAAP financial measures presented facilitate an understanding of Mastercard's operating performance and provide a meaningful comparison of its results between periods. Mastercard's management uses non-GAAP financial measures to, among other things, evaluate its ongoing operations in relation to historical results, for internal planning and forecasting purposes and in the calculation of performance-based compensation. The presentation of non-GAAP financial measures should not be considered in isolation or as a substitute for the Company's related financial results prepared in accordance with GAAP.

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Overview

The following tables provide a summary of our operating results:

	For the Years Ended December 31,						Percent Increase (Decrease)		
	2016		2015				Actual	Special Items ¹	Non-GAAP
	Actual	Special Items ¹	Non-GAAP	Actual	Special Items ¹	Non-GAAP	Actual	Special Items ¹	Non-GAAP
(in millions, except per share data and percentages)									
Net revenue	\$10,776	\$—	\$10,776	\$9,667	\$—	\$9,667	11%	—%	11%
Operating expenses	\$5,015	\$(117)	\$4,898	\$4,589	\$(140)	\$4,449	9%	(1)%	10%
Operating income	\$5,761	\$117	\$5,878	\$5,078	\$140	\$5,218	13%	1%	13%
Operating margin	53.5	%	54.5	%	52.5	%	54.0	%	
Income tax expense	\$1,587	\$32	\$1,619	\$1,150	\$45	\$1,195	38%	3%	35%
Effective income tax rate	28.1	%	28.1	%	23.2	%	23.4	%	
Net income	\$4,059	\$85	\$4,144	\$3,808	\$95	\$3,903	7%	—%	6%
Diluted earnings per share	\$3.69	\$0.08	\$3.77	\$3.35	\$0.08	\$3.43	10%	—%	10%
Diluted weighted-average shares outstanding	1,101		1,101	1,137		1,137	(3)%		(3)%

	For the Years Ended December 31,						Percent Increase (Decrease)		
	2015		2014				Actual	Special Items ¹	Non-GAAP
	Actual	Special Items ¹	Non-GAAP	Actual	Special Items ¹	Non-GAAP	Actual	Special Items ¹	Non-GAAP
(in millions, except per share data and percentages)									
Net revenue	\$9,667	—	\$9,667	\$9,441	—	\$9,441	2%	—%	2%
Operating expenses	\$4,589	\$(140)	\$4,449	\$4,335	—	\$4,335	6%	3%	3%
Operating income	\$5,078	\$140	\$5,218	\$5,106	—	\$5,106	(1)%	(3)%	2%
Operating margin	52.5	%	54.0	%	54.0	%	54.1	%	
Income tax expense	\$1,150	\$45	\$1,195	\$1,462	—	\$1,462	(21)%	(3)%	(18)%
Effective income tax rate	23.2	%	23.4	%	28.8	%	28.8	%	
Net income	\$3,808	\$95	\$3,903	\$3,617	—	\$3,617	5%	(3)%	8%
Diluted earnings per share	\$3.35	\$0.08	\$3.43	\$3.10	—	\$3.10	8%	(3)%	11%
Diluted weighted-average shares outstanding	1,137		1,137	1,169		1,169	(3)%		(3)%

Note: Tables may not sum due to rounding.

¹ See “Non-GAAP Financial Information” for further information on Special Items.

We recorded net income of \$4.1 billion, or \$3.69 per diluted share in 2016 versus net income of \$3.8 billion, or \$3.35 per diluted share in 2015. Net income and diluted earnings per share increased 7% and 10%, respectively, in 2016 versus 2015.

Excluding the impact of Special Items, we had adjusted net income of \$4.1 billion, or \$3.77 per adjusted diluted share in 2016, versus adjusted net income of \$3.9 billion, or \$3.43 per adjusted diluted share in 2015. Adjusted net income increased 6%, or 7% on a currency-neutral basis, in 2016 versus 2015. In addition, adjusted earnings per diluted share increased 10%, or 11% on a currency-neutral basis, in 2016 versus 2015.

Key highlights for 2016 were as follows:

Net revenue increased 11%, or 13% on a currency-neutral basis, in 2016 versus 2015, primarily driven by increases across revenue categories, partially offset by higher rebates and incentives. Switched transaction growth of 16%, cross border growth of 12% and gross dollar volume increase of 11%, on a local currency basis and adjusted for the impact of the recent EU regulation change, contributed to the net revenue growth.

Operating expenses increased 9% in 2016 versus 2015. Excluding the impact of Special Items, adjusted operating expenses increased 10%, or 12% on a currency-neutral basis, in 2016 versus 2015. The increase was primarily due to higher personnel costs due to continued investment in our strategic initiatives, lapping the favorable impact of foreign exchange activity gains recognized in 2015 and higher data processing expenses.

Total other expense decreased 5% in 2016 versus 2015, due to lower impairment charges and higher investment income in 2016, that were partially offset by higher interest expense from debt issued in 2015 and 2016.

The effective income tax rate increased 4.9 percentage points to 28.1% in 2016 versus 23.2% in 2015, primarily due to lapping of the favorable impact of settlements with tax authorities and the recognition of U.S. foreign tax credit benefits in 2015.

Other financial highlights for 2016 were as follows:

• We generated net cash flows from operations of \$4.5 billion in 2016, versus \$4.0 billion in 2015.

• We completed a debt offering for an aggregate principal amount of \$2 billion.

• We repurchased 37 million shares of our Class A common stock for \$3.5 billion in 2016.

Business Environment

We process transactions from more than 210 countries and territories and in more than 150 currencies. Net revenue generated in the United States was 38% of total revenue in 2016 and 39% in 2015 and 2014, respectively. No individual country, other than the United States, generated more than 10% of total revenue in any such period, but differences in market growth, economic health and foreign exchange fluctuations in certain countries can have an impact on the proportion of revenue generated outside the United States over time. While the global nature of our business helps protect our operating results from adverse economic conditions in a single or a few countries, the significant concentration of our revenue generated in the United States makes our business particularly susceptible to adverse economic conditions in the United States.

The competitive and evolving nature of the global payments industry provides both challenges to and opportunities for the continued growth of our business. Adverse economic trends (including distress in financial markets, turmoil in specific economies around the world and additional government intervention) have impacted the environment in which we operate. Certain of our customers, merchants that accept our brands and cardholders who use our brands, have been directly impacted by these adverse economic conditions.

Mastercard's financial results may be negatively impacted by actions taken by individual financial institutions or by governmental or regulatory bodies. In addition, political instability or a decline in economic conditions in the countries in which the Company operates may accelerate the timing of or increase the impact of risks to our financial performance. As a result, our revenue or results of operations may be negatively impacted. Mastercard continues to monitor political and economic conditions around the world to identify opportunities for the continued growth of our business and to evaluate the evolution of the global payments industry. Notwithstanding recent encouraging trends, the extent and pace of economic recovery in various regions remains uncertain and the overall business environment may present challenges for Mastercard to grow its business.

For a full discussion of the various legal, regulatory and business risks that could impact our financial results, see "Risk Factors" in Part I, Item 1A.

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Impact of Foreign Currency Rates

Our overall operating results are impacted by foreign currency translation, which represents the effect of translating operating results where the functional currency is different than our U.S. dollar reporting currency.

Our operating results can also be impacted by transactional foreign currency. The impact of the transactional foreign currency represents the effect of converting revenue and expense transactions occurring in a currency other than the functional currency. Changes in foreign currency exchange rates directly impact the calculation of gross dollar volume (“GDV”) and gross euro volume (“GEV”), which are used in the calculation of our domestic assessments, cross-border volume fees and volume-related rebates and incentives. In most non-European regions, GDV is calculated based on local currency spending volume converted to U.S. dollars using average exchange rates for the period. In Europe, GEV is calculated based on local currency spending volume converted to euros using average exchange rates for the period. As a result, our domestic assessments, cross-border volume fees and volume-related rebates and incentives are impacted by the strengthening or weakening of the U.S. dollar versus non-European local currencies and the strengthening or weakening of the euro versus other European local currencies. For example, our billing in Australia is in the U.S. dollar, however, consumer spend in Australia is in the Australian dollar. The foreign currency transactional impact of converting Australian dollars to our U.S. dollar billing currency will have an impact on the revenue generated. The strengthening or weakening of the U.S. dollar is evident when GDV growth on a U.S. dollar-converted basis is compared to GDV growth on a local currency basis. In 2016, GDV on a U.S. dollar-converted basis increased 6%, while GDV on a local currency basis increased 9% versus 2015. In 2015, GDV on a U.S. dollar-converted basis increased 2%, while GDV on a local currency basis increased 13% versus 2014. Further, the impact from transactional foreign currency occurs in transaction processing revenue, other revenue and operating expenses when the local currency of these items are different than the functional currency.

The following table provides a summary of the foreign currency impact on growth for the following items in operating results for the years ended December 31, 2016, and 2015:

	Positive (Negative)	
	Impact from Foreign Currency	
	2016 ²	2015 ³
Net revenue	(1)%	(6)%
Operating expenses ¹	1%	4%
Net income ¹	(1)%	(7)%

¹ Excludes the impact from Special Items.

² Represents the foreign currency translational and transactional impact versus 2015.

³ Represents the foreign currency translational impact versus 2014.

In addition, the Company incurs foreign currency gains and losses from remeasuring monetary assets and liabilities that are in a currency other than the functional currency and from remeasuring foreign exchange derivative contracts (“Foreign Exchange Activity”). The impact of Foreign Exchange Activity has not been eliminated in our currency-neutral results (see “Non-GAAP Financial Information”) and is recorded in general and administrative expenses. The Company attempts to manage foreign currency balance sheet remeasurement and cash flow risk through its foreign exchange risk management activities, which are discussed further in Note 20 (Foreign Exchange Risk Management) to the consolidated financial statements included in Part II, Item 8. Since the Company does not designate foreign currency derivatives as hedging instruments pursuant to the accounting standards for derivative instruments and hedging activities, it records gains and losses on foreign exchange derivatives on a current basis, with the associated offset

being recognized as the exposures materialize.

The Company generates revenue and has financial assets in countries at risk for currency devaluation. While these revenues and financial assets are not material to Mastercard on a consolidated basis, they could be negatively impacted if a devaluation of local currencies occurs relative to the U.S. dollar.

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Financial Results

Revenue

Revenue Description

Mastercard’s business model involves four participants in addition to us: cardholders, merchants, issuers (the cardholders’ financial institutions) and acquirers (the merchants’ financial institutions). Our gross revenue is generated by assessing our customers based primarily on the dollar volume of activity on the cards and other devices that carry our brands and from the fees that we charge our customers for providing transaction processing and other payment-related products and services. Our revenue is based upon transactional information accumulated by our systems or reported by our customers. Our primary revenue billing currencies are the U.S. dollar, euro and Brazilian real.

The price structure for our products and services is complex and is dependent on the nature of volumes, types of transactions and type of products and services we offer to our customers. Our net revenue can be significantly impacted by the following:

- domestic or cross-border transactions
- signature-based or PIN-based transactions
- geographic region or country in which the transaction occurs
- volumes/transactions subject to tiered rates
- processed or not processed by Mastercard
- amount of usage of our other products or services
- amount of rebates and incentives provided to customers

The Company classifies its net revenue into the following five categories:

- Domestic assessments are fees charged to issuers and acquirers based primarily on the dollar volume of activity on cards and other devices that carry our brands where the merchant country and the issuer country are the same.
- 1. Domestic assessments include items such as card assessments, which are fees charged on the number of cards issued or assessments for specific purposes, such as acceptance development or market development programs.
- Cross-border volume fees are charged to issuers and acquirers based on the dollar volume of activity on cards and other devices that carry our brands where the merchant country and the issuer country are different. In general, a
- 2. cross-border transaction generates higher revenue than a domestic transaction since cross-border fees are higher than domestic fees, and may include fees for currency conversion.
- Transaction processing revenue is earned for both domestic and cross-border transactions and is primarily based on
- 3. the number of transactions. Transaction processing includes the following:
 - Switched transactions include the following products and services:
 - Authorization is the process by which a transaction is routed to the issuer for approval. In certain circumstances, Ø such as when the issuer’s systems are unavailable or cannot be contacted, Mastercard or others, on behalf of the issuer approve in accordance with either the issuer’s instructions or applicable rules (also known as “stand-in”).
 - Clearing is the determination and exchange of financial transaction information between issuers and acquirers after Ø a transaction has been successfully conducted at the point of interaction. Mastercard clears transactions among customers through our central and regional processing systems.
 - Ø Settlement is facilitating the exchange of funds between parties.
 - Connectivity fees are charged to issuers and acquirers for network access, equipment and the transmission of
 - authorization and settlement messages. These fees are based on the size of the data being transmitted and the number of connections to the Company’s network.

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- Other Processing fees include issuer and acquirer processing solutions; payment gateways for e-commerce merchants; and mobile gateways for mobile initiated transactions.
- 4. Other revenues: Other revenues consist of other payment-related products and services and are primarily associated with the following:
 - Consulting, data analytic and research fees are primarily generated by Mastercard Advisors, the Company's professional advisory services group.
 - Safety and security services fees are for products and services we offer to prevent, detect and respond to fraud and to ensure the safety of transactions made on Mastercard products. We work with issuers, merchants and governments to help deploy standards for safe and secure transactions for the global payments system.
 - Loyalty and rewards solutions fees are charged to issuers for benefits provided directly to consumers with Mastercard-branded cards, such as access to a global airline lounge network, global and local concierge services, individual insurance coverages, emergency card replacement, emergency cash advance services and a 24-hour cardholder service center. For merchants, we provide targeted offers and rewards campaigns and management services for publishing offers, as well as opportunities for holders of co-brand or loyalty cards and rewards program members to obtain rewards points faster.
 - Program management services provided to prepaid card issuers consist of foreign exchange margin, commissions, load fees, and ATM withdrawal fees paid by cardholders on the sale and encashment of prepaid cards.
 - The Company also charges for a variety of other payment-related products and services, including account and transaction enhancement services, rules compliance and publications.
- 5. Rebates and incentives (contra-revenue): Rebates and incentives are provided to certain Mastercard customers and are recorded as contra-revenue.

Revenue Analysis

Gross revenue in 2016 and 2015 increased 14% and 7% versus 2015 and 2014, respectively. The increases in 2016 versus 2015 and 2015 versus 2014 were primarily driven by an increase in dollar volume of activity and number of transactions on cards carrying our brands, as well as growth in our Advisors business, which includes the impact of our data analytics business acquired in 2015, partially offset by the negative impact from foreign currency translation and the foreign currency impact on local billing.

Rebates and incentives in 2016 and 2015 increased 20% for both periods, versus 2015 and 2014. The increases in rebates and incentives in 2016 versus 2015 and 2015 versus 2014 were primarily due to the impact from new and renewed agreements and increased volumes, partially offset by the positive impact of foreign currency translation. Our net revenue in 2016 and 2015 increased 11% and 2% versus 2015 and 2014, respectively.

The following table provides a summary of the trend in volume and transaction growth:

	Years Ended December 31,			
	2016		2015	
	Growth	Growth	Growth	Growth
	(USD)	(Local)	(USD)	(Local)
Mastercard-branded GDV ¹	6%	9%	2%	13%
Asia Pacific/Middle East/Africa	7%	11%	6%	14%
Canada	6%	9%	—	16%
Europe	5%	10%	(5)	16%
Latin America	1%	15%	(11)	15%
United States	6%	6%	8%	8%
Cross-border Volume ¹		12%		16%
Switched Transactions Growth		16%		12%

¹ Excludes volume generated by Maestro and Cirrus cards.

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In 2016, our GDV was impacted by new EU Interchange Fee Regulation related to card payments. The regulation was effective in June 2016 and required that we no longer collect fees on domestic European Economic Area payment transactions that do not use our network brand. Prior to that, Mastercard collected a de minimis assessment fee in a few countries, particularly France, on transactions with Mastercard co-badged cards if the brands of domestic networks (as opposed to Mastercard) were used. As a result, the non-Mastercard co-badged volume is no longer being included.

The following table reflects GDV growth rates for Europe and Worldwide Mastercard. For comparability purposes, we adjusted growth rates for the impact of Article 8 of the EU Interchange Fee Regulation related to card payments, to exclude the prior period co-badged volume processed by other networks.

For the Years Ended
December 31,
2016 2015
Growth (Local)

GDV ¹		
Worldwide as reported	9%	13%
Worldwide as adjusted for EU Regulation	11%	13%
Europe as reported	10%	16%
Europe as adjusted for EU Regulation	18%	19%

¹ Excludes volume generated by Maestro and Cirrus cards.

A significant portion of our revenue is concentrated among our five largest customers. In 2016, the net revenue from these customers was approximately \$2.5 billion, or 23%, of total net revenue. The loss of any of these customers or their significant card programs could adversely impact our revenue. In addition, as part of our business strategy, Mastercard, among other efforts, enters into business agreements with customers. These agreements can be terminated in a variety of circumstances. See our risk factor in “Risk Factor - Business Risks” in Part I, Item 1A for further discussion.

The significant components of our net revenue were as follows:

	For the Years Ended			Percent	
	December 31,			Increase	
	2016	2015	2014	(Decrease)	
	2016 2015				
	(in millions, except percentages)				
Domestic assessments	\$4,411	\$4,086	\$3,967	8%	3%
Cross-border volume	3,568	3,225	3,054	11%	6%
Transaction processing	5,143	4,345	4,035	18%	8%
Other revenues	2,431	1,991	1,688	22%	18%
Gross revenue	15,553	13,647	12,744	14%	7%
Rebates and incentives (contra-revenue)	(4,777)	(3,980)	(3,303)	20%	20%
Net revenue	\$10,776	\$9,667	\$9,441	11%	2%

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The following table summarizes the primary drivers of net revenue growth:

	For the Years Ended December 31,									
	Volume		Acquisitions		Foreign Currency		Other ³		Total	
	2016	2015	2016	2015	2016 ¹	2015 ²	2016	2015 ⁴	2016	2015
Domestic assessments	11 %	12 %	— %	— %	(2) %	(6) %	(1) % ⁵	(3) % ⁵	8 %	3 %
Cross-border volume	11 %	14 %	— %	— %	(3) %	(5) %	2 %	(3) %	11 %	6 %
Transaction processing	14 %	11 %	— %	— %	— %	(6) %	5 %	3 %	18 %	8 %
Other revenues	**	**	3 %	8 %	— %	(6) %	19 % ⁶	16 % ⁶	22 %	18 %
Rebates and incentives	8 %	6 %	— %	— %	(2) %	(6) %	14 % ⁷	20 % ⁷	20 %	20 %
Net revenue	11 %	12 %	1 %	2 %	(1) %	(6) %	1 %	(6) %	11 %	2 %

Note: Tables may not sum due to rounding

** Not applicable

¹ Represents the foreign currency translational and transactional impact versus 2015.

² Represents the foreign currency translational impact versus 2014.

³ Includes impact from pricing and other non-volume based fees.

⁴ Includes the foreign currency transactional impact versus 2014.

⁵ Includes impact of the allocation of revenue to service deliverables, which are recorded in other revenue when services are performed.

⁶ Includes impacts from Advisor fees, safety and security fees, loyalty and reward solution fees and other payment-related products and services.

⁷ Includes the impact from timing of new, renewed and expired agreements.

Operating Expenses

Our operating expenses are comprised of general and administrative, advertising and marketing, depreciation and amortization expenses and provisions for litigation settlements. Operating expenses increased 9% and 6% in 2016 and 2015, respectively, versus the prior year. Excluding the impact of the Special Items, adjusted operating expenses increased 10% and 3% in 2016 and 2015, respectively, primarily due to higher general and administrative expenses.

The components of operating expenses were as follows:

	For the Years Ended December 31,								
	2016			2015			Percent Increase (Decrease)		
	Actual	Special Items ¹	Non-GAAP	Actual	Special Items ¹	Non-GAAP	Actual	Special Items ¹	Non-GAAP
	(in millions, except percentages)								
General and administrative	\$3,714	\$—	\$ 3,714	\$3,341	\$(79)	\$ 3,262	11 %	(3) %	14 %
Advertising and marketing	811	—	811	821	—	821	(1) %	— %	(1) %
Depreciation and amortization	373	—	373	366	—	366	2 %	— %	2 %
Provision for litigation settlements	117	(117)	—	61	(61)	—	**		**
Total operating expenses	\$5,015	\$(117)	\$ 4,898	\$4,589	\$(140)	\$ 4,449	9 %	(1) %	10 %

For the Years Ended December 31,

	For the Years Ended December 31,								
	2015			2014			Percent Increase (Decrease)		
	Actual	Special Items ¹	Non-GAAP	Actual	Actual	Special Items ¹	Non-GAAP		
	(in millions, except percentages)								

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General and administrative	\$3,341	\$(79)	\$ 3,262	\$3,152	6 %	3 %	3 %
Advertising and marketing	821	—	821	862	(5)%	—%	(5)%
Depreciation and amortization	366	—	366	321	14 %	—%	14 %
Provision for litigation settlements	61	(61)	—	—	**		**
Total operating expenses	\$4,589	\$(140)	\$ 4,449	\$4,335	6 %	3 %	3 %

Note: Tables may not sum due to rounding.

** Not meaningful.

¹ See “Non-GAAP Financial Information” for further information on Special Items.

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The following table summarizes the primary drivers of changes in adjusted operating expenses in 2016 and 2015:

	For the Years Ended December 31,									
	Operational		Special Items ²		Acquisitions		Foreign Currency		Total	
	2016	2015 ¹	2016	2015	2016	2015	2016 ³	2015 ⁴	2016	2015
General and administrative	15%	(1)%	(3)%	3%	1%	7%	(1)%	(3)%	11%	6%
Advertising and marketing	—%	2%	—%	—%	—%	—%	(1)%	(7)%	(1)%	(5)%
Depreciation and amortization	—%	4%	—%	—%	4%	11%	(2)%	(1)%	2%	14%
Provision for litigation settlements	**	**	**	**	**	**	**	**	**	**
Total operating expenses	11%	1%	(1)%	3%	1%	6%	(1)%	(4)%	9%	6%

Note: Table may not sum due to rounding.

** Not meaningful.

¹ Includes foreign currency transactional impact versus 2014.

² See “Non-GAAP Financial Information” for further information on Special Items.

³ Represents the foreign currency translational and transactional impact versus 2015.

⁴ Represents the foreign currency translational impact versus 2014.

General and Administrative

General and administrative expenses increased 11% in 2016 versus 2015 and increased 6% in 2015 versus 2014. Excluding the impact of the U.S. Employee Pension Plan Settlement Charge, adjusted general and administrative expenses increased 14% in 2016 versus 2015 and increased 3% in 2015 versus 2014. In 2016, adjusted general and administrative expenses increased primarily due to higher personnel cost and the lapping of the impact of foreign exchange activity gains in 2015, partially offset by improved cost controls. In 2015, the increase was due to acquisitions and higher data processing costs, partially offset by improved cost controls, the favorable impact of foreign currency translation, lapping of the impact of the restructuring charge taken in 2014 and foreign exchange activity gains.

The significant components of our general and administrative expenses were as follows:

	For the Years Ended December 31,			Percent Increase (Decrease)	
	2016	2015	2014	2016	2015
	(in millions, except percentages)				
Personnel	\$2,225	\$2,105	\$2,064	6%	2%
Professional fees	337	310	307	9%	1%
Data processing and telecommunications	420	362	273	16%	33%
Foreign exchange activity	34	(82)	(30)	**	**
Other	698	646	538	8%	20%
General and administrative expenses	3,714	3,341	3,152	11%	6%
Special Item ¹	—	(79)	—		
Adjusted general and administrative expenses (excluding Special Item) ¹	\$3,714	\$3,262	\$3,152	14%	3%

Note: Table may not sum due to rounding.

** Not meaningful.

¹ See “Non-GAAP Financial Information” for further information on Special Items.

The primary drivers of changes in general and administrative expenses in 2016 and 2015 were:

Personnel expenses increased 6% in 2016 versus 2015 and 2% in 2015 versus 2014. These percentage changes include the impact of the U.S. Employee Pension Plan Settlement Charge of \$79 million recorded in 2015, which decreased Personnel expense growth by 4 percentage points for 2016 and increased it by 4 percentage points for 2015. Excluding the impact of the U.S. Employee Pension Plan Settlement Charge, adjusted Personnel expense grew 10%

for 2016 versus 2015 and decreased 2% for 2015 versus 2014. The adjusted 2016 increase was driven by a higher number of employees to support our continued investment in the areas of digital, services, data analytics and geographic expansion. The adjusted 2015 decrease was due to the lapping of the restructuring charge of \$87 million recorded in 2014 and improved cost controls, partially offset by an increase in the number of employees resulting from our acquisitions.

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Professional fees consist primarily of third-party services, legal costs to defend our outstanding litigation and the evaluation of regulatory developments that impact our industry and brand. The increase in 2016 versus 2015 is primarily due to higher legal costs to defend litigation. Professional fees remained consistent in 2015 versus 2014. Data processing and telecommunication expense consists of expenses to support our global payments network infrastructure, expenses to operate and maintain our computer systems and other telecommunication system. These expenses increased in both 2016 and 2015 due to capacity growth of our business and higher third-party processing costs.

Foreign exchange activity includes gains and losses on foreign exchange derivative contracts and the impact of remeasurement of assets and liabilities denominated in foreign currencies. See Note 20 (Foreign Exchange Risk Management) to the consolidated financial statements included in Part II, Item 8 for further discussion. During 2016, foreign exchange activity negatively impacted general and administrative expense growth by 4 percentage points versus the comparable period in 2015, due to the impact from foreign exchange derivative contracts and the lapping of balance sheet remeasurement gains in the prior year. In 2015 versus 2014, we recorded higher gains on derivative contracts, as well as balance sheet remeasurement gains related primarily to the devaluation of the Venezuelan bolivar.

Other expenses include costs to provide loyalty and rewards solutions, travel and meeting expenses and rental expense for our facilities. Other expenses increased in 2016 primarily due to higher cardholder services and loyalty costs. Other expenses increased in 2015 primarily due to the impact of acquisitions and expenses incurred to support strategic development efforts including costs associated with loyalty and rewards programs.

Advertising and Marketing

In 2016, advertising and marketing expenses decreased 1% versus 2015, mainly due to lower sponsorship promotions in the current year. Advertising and marketing expenses decreased 5% in 2015, mainly due to the favorable impact from foreign currency translation and lower media spend, partially offset by higher sponsorship promotions to support our strategic initiatives. See Value-Added Solutions and Marketing sections included in Part I, Item 1 for further discussion of our marketing strategy.

Depreciation and Amortization

Depreciation and amortization expenses increased 2% in 2016 versus 2015 and increased 14% in 2015 versus 2014. The increase in 2016 was primarily due to higher depreciation from capital investments partially offset by certain intangibles becoming fully amortized. In 2015, the increase was primarily due to higher amortization of capitalized software costs and other intangibles associated with our acquisitions.

Provision for Litigation Settlements

During 2016 and 2015, the Company recorded pre-tax charges of \$117 million and \$61 million, respectively, related to litigations with merchants in the U.K. See Note 18 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8 for further discussion.

Other Income (Expense)

Other income (expense) is comprised primarily of investment income, interest expense, our share of income (losses) from equity method investments and other gains and losses. Total other expense decreased to \$115 million in 2016 versus \$120 million in 2015 due to lower impairment charges taken on certain investments and higher investment income in 2016, partially offset by higher interest expense from debt issued in 2015 and 2016. Total other expense increased in 2015 versus 2014 primarily due to impairment charges taken on certain investments in 2015 and higher interest expense resulting from incremental debt issued in 2014 and 2015.

Income Taxes

The effective income tax rates for the years ended December 31, 2016, 2015 and 2014 were 28.1%, 23.2% and 28.8%, respectively.

The effective income tax rate for 2016 was higher than the effective income tax rate for 2015 primarily due to benefits associated with the impact of settlements with tax authorities in multiple jurisdictions in 2015, the lapping of a discrete benefit relating to

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certain foreign taxes that became eligible to be claimed as credits in the United States in 2015, and a higher U.S. foreign tax credit benefit associated with the repatriation of current year foreign earnings in 2015. These items were partially offset by a more favorable geographic mix of taxable earnings in 2016.

The effective income tax rate for 2015 was lower than the effective income tax rate for 2014 primarily due to settlements with tax authorities in multiple jurisdictions. Further, the information gained related to these matters was considered in measuring uncertain tax benefits recognized for the periods subsequent to the periods settled. In addition, the recognition of other U.S. foreign tax credits and a more favorable geographic mix of taxable earnings also contributed to the lower effective tax rate in 2015.

The provision for income taxes differs from the amount of income tax determined by applying the U.S. federal statutory income tax rate of 35% to pretax income for the years ended December 31, as a result of the following:

	For the Years Ended December 31,					
	2016		2015		2014	
	Amount	Percent	Amount	Percent	Amount	Percent
	(in millions, except percentages)					
Income before income taxes	\$5,646		\$4,958		\$5,079	
Federal statutory tax	1,976	35.0 %	1,735	35.0 %	1,778	35.0 %
State tax effect, net of federal benefit	22	0.4 %	27	0.5 %	29	0.6 %
Foreign tax effect	(188)	(3.3)%	(144)	(2.9)%	(108)	(2.1)%
Impact of foreign tax credits ¹	(141)	(2.5)%	(281)	(5.7)%	(183)	(3.6)%
Impact of settlements with tax authorities	—	— %	(147)	(2.9)%	—	— %
Other, net	(82)	(1.5)%	(40)	(0.8)%	(54)	(1.1)%
Income tax expense	\$1,587	28.1 %	\$1,150	23.2 %	\$1,462	28.8 %

¹ Included within the impact of foreign tax credits were repatriation benefits of current year foreign earnings of \$116 million, \$172 million and \$177 million, in addition to other foreign tax credit benefits which become eligible in the United States of \$25 million, \$109 million and \$6 million for 2016, 2015 and 2014, respectively.

The Company's GAAP effective income tax rates for 2016 and 2015 were affected by the tax benefits related to the Special Items as previously discussed.

As of December 31, 2016, the Company's unrecognized tax benefits related to positions taken during the current and prior period were \$169 million, all of which would reduce the Company's effective tax rate if recognized. See Note 17 (Income Taxes) to the consolidated financial statements included in Part II, Item 8 for further discussion. Within the next twelve months, we believe that the resolution of certain federal, foreign and state and local tax examinations is reasonably possible and that a change in estimate, reducing unrecognized tax benefits, may occur. It is not possible to provide a range of the potential change until the examinations progress further or the related statute of limitations expire. During 2015, the Company's unrecognized tax benefits related to tax positions taken during the current and prior periods decreased by \$183 million. This decrease was primarily due to settlements with tax authorities in multiple jurisdictions. Further, the information gained related to these matters was considered in measuring uncertain tax benefits recognized for the periods subsequent to the periods settled.

During the fourth quarter of 2014, we implemented an initiative to better align our legal entity and tax structure with our operational footprint outside of the U.S. This initiative resulted in a one-time taxable gain in Belgium relating to the transfer of intellectual property to a related foreign entity in the United Kingdom. We believe this improved alignment will result in greater flexibility and efficiency with regard to the global deployment of cash, as well as ongoing benefits in our effective income tax rate. See Note 17 (Income Taxes) to the consolidated financial statements included in Part II, Item 8 for further discussion.

In 2010, in connection with the expansion of the Company's operations in the Asia Pacific, Middle East and Africa region, the Company's subsidiary in Singapore, Mastercard Asia Pacific Pte. Ltd. ("MAPPL"), received an incentive grant from the Singapore Ministry of Finance. See Note 17 (Income Taxes) to the consolidated financial statements included in Part II, Item 8 for further discussion.

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Liquidity and Capital Resources

We need liquidity and access to capital to fund our global operations, credit and settlement exposure, capital expenditures, investments in our business and current and potential obligations. The Company generates the cash required to meet these needs through operations. The following table summarizes the cash, cash equivalents, investments and credit available to the Company at December 31:

	2016	2015
	(in billions)	
Cash, cash equivalents and investments ¹	\$8.3	\$6.7
Unused line of credit	3.8	3.8

¹ Investments include available-for-sale securities and short-term held-to-maturity securities. At December 31, 2016 and 2015, this amount excludes restricted cash related to the U.S. merchant class litigation settlement of \$543 million and \$541 million, respectively. This amount also excludes restricted security deposits held for customers of \$991 million and \$895 million at December 31, 2016 and 2015, respectively.

Cash, cash equivalents and investments held by our foreign subsidiaries (i.e., any entities where earnings would be subject to U.S. tax upon repatriation) was \$3.8 billion and \$3.3 billion at December 31, 2016 and 2015, respectively, or 45% and 48% as of such dates. It is our present intention to indefinitely reinvest historic undistributed accumulated earnings associated with our foreign subsidiaries as of December 31, 2016 outside of the United States (as disclosed in Note 17 (Income Taxes) to the consolidated financial statements included in Part II, Item 8), and our current plans do not require repatriation of these earnings. If these earnings are needed for U.S. operations or can no longer be indefinitely reinvested outside of the United States, the Company would be required to record a liability for such U.S. taxes for the historic undistributed accumulated earnings at that time. Such taxes would be due upon repatriation of such earnings to the United States.

Our liquidity and access to capital could be negatively impacted by global credit market conditions. The Company guarantees the settlement of many Mastercard, Cirrus and Maestro-branded transactions between our issuers and acquirers. See Note 19 (Settlement and Other Risk Management) to the consolidated financial statements in Part II, Item 8 for a description of these guarantees. Historically, payments under these guarantees have not been significant; however, historical trends may not be an indication of the future. The risk of loss on these guarantees is specific to individual customers, but may also be driven significantly by regional or global economic conditions, including, but not limited to the health of the financial institutions in a country or region.

Our liquidity and access to capital could also be negatively impacted by the outcome of any of the legal or regulatory proceedings to which we are a party. See our risk factor in "Risk Factors - Legal and Regulatory Risks" in Part I, Item 1A and Note 18 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8; and Part II, Item 7 (Business Environment) for additional discussion of these and other risks facing our business.

Cash Flow

The table below shows a summary of the cash flows from operating, investing and financing activities for the years ended December 31:

	2016	2015	2014
	(in millions)		
Cash Flow Data:			
Net cash provided by operating activities	\$4,484	\$4,043	\$3,407
Net cash (used in) provided by investing activities	(1,167)	(715)	690
Net cash used in financing activities	(2,293)	(2,458)	(2,339)

Net cash provided by operating activities increased \$441 million in 2016 versus 2015, primarily due to higher net income as adjusted for non-cash items and accrued expenses, partially offset by higher prepaid taxes. Net cash provided by operating activities in 2015 versus 2014, increased by \$636 million, primarily due to lower prepaid taxes and higher net income, partially offset by timing of customer settlements.

Net cash used in investing activities increased \$452 million in 2016 versus 2015, primarily due to lower sales and maturities of our investment securities, partially offset by cash used for acquisition activities in the prior year. The

\$1.4 billion decrease in investing activities in 2015 versus 2014 was primarily due to the higher proceeds from the sales and maturities of investment securities in 2014.

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Net cash used in financing activities decreased \$165 million in 2016 versus 2015, primarily due to higher proceeds from debt, partially offset by higher dividends paid. Net cash used in financing activities increased \$119 million in 2015 versus 2014, primarily due to higher dividends paid and an increase in purchases of treasury stock in 2015, partially offset by increased proceeds from debt in 2015.

The table below shows a summary of select balance sheet data at December 31:

	2016	2015
	(in millions)	
Balance Sheet Data:		
Current assets	\$ 13,228	\$ 10,984
Current liabilities	7,206	6,269
Long-term liabilities	5,785	3,919
Equity	5,684	6,062

The Company believes that its existing cash, cash equivalents and investment securities balances, its cash flow generating capabilities, its borrowing capacity and its access to capital resources are sufficient to satisfy its future operating cash needs, capital asset purchases, outstanding commitments and other liquidity requirements associated with its existing operations and potential obligations.

Debt and Credit Availability

In November 2016, the Company issued \$650 million aggregate principal amount of notes due 2021, \$750 million aggregate principal amount of notes due 2026 and \$600 million aggregate principal amount of notes due 2046 (collectively the “2016 USD Notes”). Including the 2016 USD Notes, our total debt outstanding as of December 31, 2016 was \$5,239 million (collectively the “Notes”). The Company is not subject to any financial covenants under the Notes. The Notes are senior unsecured obligations and would rank equally with any future unsecured and unsubordinated indebtedness. The proceeds of the Notes are being used for general corporate purposes.

The Company has established a commercial paper program (the “Commercial Paper Program”), under which the Company is authorized to issue up to \$3.75 billion in outstanding notes, with maturities up to 397 days from the date of issuance. In conjunction with the Commercial Paper Program, the Company has entered into a committed unsecured \$3.75 billion revolving credit facility (the “Credit Facility”) which expires in October 2021.

Borrowings under the Commercial Paper Program and the Credit Facility are to provide liquidity for general corporate purposes, including providing liquidity in the event of one or more settlement failures by the Company’s customers. In addition, the Company may borrow and repay amounts under these facilities for business continuity purposes.

Mastercard had no borrowings outstanding under the Commercial Paper Program or the Credit Facility at December 31, 2016 and 2015.

See Note 12 (Debt) to the consolidated financial statements included in Part II, Item 8 for further discussion on the Notes, the Commercial Paper Program and the Credit Facility.

In June 2015, the Company filed a universal shelf registration statement to provide additional access to capital, if needed. Pursuant to the shelf registration statement, the Company may from time to time offer to sell debt securities, preferred stock, Class A common stock, depository shares, purchase contracts, units or warrants in one or more offerings.

Dividends and Share Repurchases

Mastercard has historically paid quarterly dividends on its outstanding Class A common stock and Class B common stock. Subject to legally available funds, we intend to continue to pay a quarterly cash dividend. However, the declaration and payment of future dividends is at the sole discretion of our Board of Directors after taking into account various factors, including our financial condition, operating results, available cash and current and anticipated cash needs. The following table summarizes the annual, per share dividends paid in the years reflected:

Years Ended			
December 31,			
2016	2015	2014	
(in millions, except per share data)			

Cash dividend, per share	\$0.76	\$0.64	\$0.44
Cash dividends paid	\$837	\$727	\$515

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On December 6, 2016, our Board of Directors declared a quarterly cash dividend of \$0.22 per share paid on February 9, 2017 to holders of record on January 9, 2016 of our Class A common stock and Class B common stock. The aggregate amount of this dividend was \$238 million.

On February 7, 2017, our Board of Directors declared a quarterly cash dividend of \$0.22 per share payable on May 9, 2017 to holders of record on April 7, 2017 of our Class A common stock and Class B common stock. The aggregate amount of this dividend is estimated to be \$237 million.

Shares in the Company's common stock that are repurchased are considered treasury stock. The timing and actual number of additional shares repurchased will depend on a variety of factors, including the operating needs of the business, legal requirements, price and economic and market conditions. In December 2016, the Company's Board of Directors approved a share repurchase program authorizing the Company to repurchase up to \$4 billion of its Class A common stock. This program will become effective after completion of the share repurchase program authorized in December 2015.

The following table summarizes the Company's share repurchase authorizations of its Class A common stock through December 31, 2016, as well as historical purchases:

	Authorization Dates			Total
	December 2016	December 2015	December 2014	
	(in millions, except average price data)			
Board authorization	\$4,000	\$ 4,000	\$ 3,750	\$11,750
Remaining authorization at December 31, 2015	\$—	\$ 4,000	\$ 507	\$4,507
Dollar-value of shares repurchased in 2016	\$—	\$ 3,004	\$ 507	\$3,511
Remaining authorization at December 31, 2016	\$4,000	\$ 996	\$ —	\$4,996
Shares repurchased in 2016	—	31.2	5.7	36.9
Average price paid per share in 2016	\$—	\$ 96.15	\$ 89.76	\$95.18

See Note 13 (Stockholders' Equity) to the consolidated financial statements included in Part II, Item 8 for further discussion.

Off-Balance Sheet Arrangements

Mastercard has no off-balance sheet debt, other than lease arrangements and other commitments as presented in the Future Obligations table that follows.

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Future Obligations

The following table summarizes our obligations as of December 31, 2016 that are expected to impact liquidity and cash flow in future periods. We believe we will be able to fund these obligations through cash generated from operations and our cash balances.

	Payments Due by Period				
	Total	2017	2018 - 2019	2020 - 2021	2022 and thereafter
	(in millions)				
Debt	\$5,239	\$—	\$ 500	\$650	\$ 4,089
Interest on debt	1,547	131	258	243	915
Capital leases	7	5	2	—	—
Operating leases	247	66	93	49	39
Other long-term obligations ¹					
Sponsorship, licensing and other ²	1,576	1,121	317	109	29
Employee benefits ³	200	62	34	20	84
Total ⁴	\$8,816	\$1,385	\$ 1,204	\$1,071	\$ 5,156

¹ The table does not include the \$722 million provision as of December 31, 2016 related to litigation in the U.S. and the U.K. since the payments are not fixed and determinable. See Note 18 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8 for further discussion.

² Included in the payments due in 2017 is £700 million (approximately \$860 million as of December 31, 2016) related to a definitive agreement for the Company to acquire a controlling interest in VocaLink Holdings Limited (“VocaLink”). See Note 2 (Acquisitions) to the consolidated financial statements included in Part II, Item 8 for further discussion. Additional amounts primarily relate to sponsorships to promote the Mastercard brand. Future cash payments that will become due to our customers under agreements which provide pricing rebates on our standard fees and other incentives in exchange for transaction volumes are not included in the table because the amounts due are contingent on future performance. We have accrued \$2.7 billion as of December 31, 2016 related to customer and merchant agreements.

³ Amounts relate to severance liabilities along with expected funding requirements for defined benefit pension and postretirement plans.

⁴ The Company has recorded a liability for unrecognized tax benefits of \$169 million at December 31, 2016. Within the next twelve months, the Company believes that the resolution of certain federal, foreign and state and local examinations are reasonably possible and that a change in estimate, reducing unrecognized tax benefits, may occur. It is not possible to provide a range of the potential change until the examinations progress further or the related statute of limitations expire. These amounts have been excluded from the table since the settlement period of this liability cannot be reasonably estimated. The timing of these payments will ultimately depend on the progress of tax examinations with the various authorities.

Seasonality

The Company does not experience meaningful seasonality. No individual quarter in 2016, 2015 or 2014 accounted for more than 30% of net revenue.

Critical Accounting Estimates

The application of U.S. GAAP requires the Company to make estimates and assumptions about certain items and future events that directly affect the Company’s reported financial condition. We have established detailed policies and control procedures to provide reasonable assurance that the methods used to make estimates and assumptions are well controlled and are applied consistently from period to period. The accounting estimates and assumptions discussed in this section are those that the Company considers to be the most critical to its financial statements. An accounting estimate is considered critical if both (a) the nature of the estimate or assumption is material due to the levels of subjectivity and judgment involved, and (b) the impact within a reasonable range of outcomes of the estimate and assumption is material to the Company’s financial condition. Senior management has discussed the development, selection and disclosure of these estimates with the Audit Committee of the Company’s Board of Directors. The

Company's significant accounting policies, including recent accounting pronouncements, are described in Note 1 (Summary of Significant Accounting Policies) to the consolidated financial statements included in Part II, Item 8.

Revenue Recognition

Application of the various accounting principles in U.S. GAAP related to the measurement and recognition of revenue requires the Company to make judgments and estimates. Specifically, complex arrangements with nonstandard terms and conditions may require significant contract interpretation to determine the appropriate accounting. Domestic assessment revenue requires an estimate of our customers' performance in order to recognize this revenue. Rebates and incentives are recorded as a reduction

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to gross revenue based on these estimates. We consider various factors in estimating customer performance, including a review of specific transactions, historical experience with that customer and market and economic conditions. Differences between actual results and the Company's estimates are adjusted in the period the customer reports actual performance. If our customers' actual performance is not consistent with our estimates of their performance, net revenue may be materially different.

Loss Contingencies

The Company is currently involved in various claims and legal proceedings. The Company regularly reviews the status of each significant matter and assesses its potential financial exposure. If the potential loss from any claim or legal proceeding is considered probable and the amount can be reasonably estimated, the Company accrues a liability for the estimated loss. Significant judgment is required in both the determination of probability and whether an exposure is reasonably estimable. Our judgments are subjective based on the status of the legal or regulatory proceedings, the merits of our defenses and consultation with in-house and outside legal counsel. Because of uncertainties related to these matters, accruals are based only on the best information available at the time. As additional information becomes available, the Company reassesses the potential liability related to its pending claims and litigation and may revise its estimates. Due to the inherent uncertainties of the legal and regulatory process in the multiple jurisdictions in which we operate, our judgments may be materially different than the actual outcomes. See Note 18 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8 for further discussion.

Income Taxes

In calculating our effective income tax rate, we need to make estimates regarding the timing and amount of taxable and deductible items which will adjust the pretax income earned in various tax jurisdictions. Through our interpretation of local tax regulations, adjustments to pretax income for income earned in various tax jurisdictions are reflected within various tax filings. Although we believe that our estimates and judgments discussed herein are reasonable, actual results may be materially different than the estimated amounts.

We record a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. Significant judgment is required in determining the valuation allowance. We consider projected future taxable income and ongoing tax planning strategies in assessing the need for the valuation allowance. If it is determined that we are able to realize deferred tax assets in excess of the net carrying value or to the extent we are unable to realize a deferred tax asset, we would adjust the valuation allowance in the period in which such a determination is made, with a corresponding increase or decrease to earnings.

We record tax liabilities for uncertain tax positions taken, or expected to be taken, which may not be sustained or may only be partially sustained, upon examination by the relevant taxing authorities. We consider all relevant facts and current authorities in the tax law in assessing whether any benefit resulting from an uncertain tax position is more likely than not to be sustained and, if so, how current law impacts the amount reflected within these financial statements. If upon examination, we realize a tax benefit which is not fully sustained or is more favorably sustained, this would decrease or increase earnings in the period. In certain situations, the Company will have offsetting tax credits or taxes in other jurisdictions.

We do not record U.S. income tax expense for foreign earnings which we intend to reinvest indefinitely to expand our international operations. We consider business plans, planning opportunities, and expected future outcomes in assessing the needs for future expansion and support of our international operations. If our business plans change or our future outcomes differ from our expectations, U.S. income tax expense and our effective tax rate could increase or decrease in that period.

Valuation of Assets

The valuation of assets acquired in a business combination and asset impairment reviews require the use of significant estimates and assumptions. The acquisition method of accounting for business combinations requires the Company to estimate the fair value of assets acquired, liabilities assumed, and any non-controlling interest in the acquiree to properly allocate purchase price consideration. Impairment testing for assets, other than goodwill and indefinite-lived intangible assets, requires the allocation of cash flows to those assets or group of assets and if required, an estimate of fair value for the assets or group of assets.

We evaluate goodwill and indefinite-lived intangible assets for impairment on an annual basis or sooner if indicators of impairment exist. Goodwill is tested for impairment at the reporting unit level. The impairment evaluation utilizes a quantitative assessment using a two-step impairment test. The first step is to compare the reporting unit's carrying value, including goodwill, to the fair value. The Company uses its market capitalization for estimating the fair value of its reporting unit. If the fair value exceeds the carrying value, then no potential impairment is considered to exist. If the carrying value exceeds the fair value, the second step

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is performed to determine if the implied fair value of the reporting unit's goodwill exceeds the carrying value of the reporting unit. An impairment charge would be recorded if the carrying value exceeds the implied fair value.

The impairment test for indefinite-lived intangible assets consists of a qualitative assessment to evaluate all relevant events and circumstances that could affect the significant inputs used to determine the fair value of indefinite-lived intangible assets. In performing the qualitative assessment, we consider relevant events and conditions, including but not limited to, macroeconomic trends, industry and market conditions, overall financial performance, cost factors, company-specific events, and legal and regulatory factors. If the qualitative assessment indicates that it is more likely than not that the fair value of the indefinite-lived intangible asset is less than their carrying amounts, the Company must perform a quantitative impairment test.

The Company's estimates in the valuation of these assets are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable. These valuations require the use of management's assumptions, which would not reflect unanticipated events and circumstances that may occur.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk is the potential for economic losses to be incurred on market risk sensitive instruments arising from adverse changes in market factors such as interest rates, foreign currency exchange rates and equity price risk. Our exposure to market risk from changes in interest rates, foreign exchange rates and equity price risk is limited.

Management establishes and oversees the implementation of policies governing our funding, investments and use of derivative financial instruments. We monitor risk exposures on an ongoing basis. The effect of a hypothetical 10% adverse change in foreign currency rates could result in a fair value loss of approximately \$80 million on our foreign currency derivative contracts outstanding at December 31, 2016 related to the hedging program. A 100 basis point adverse change in interest rates would not have a material impact on the Company's investments at December 31, 2016 and 2015. In addition, there was no material equity price risk at December 31, 2016 or 2015.

Foreign Exchange Risk

Our settlement activities are subject to foreign exchange risk resulting from foreign exchange rate fluctuations. This risk is typically limited to the one business day between setting the foreign exchange rates and clearing the financial transactions. We enter into derivative contracts to manage risk associated with anticipated receipts and disbursements which are either transacted in a non-functional currency or valued based on a currency other than the functional currencies of the entity.

We may also enter into foreign currency derivative contracts to offset possible changes in value due to foreign exchange fluctuations of earnings, assets and liabilities denominated in currencies other than the functional currency of the entity. The objective of these activities is to reduce our exposure to transaction gains and losses resulting from fluctuations of foreign currencies against our functional and reporting currencies, principally the U.S. dollar and euro. Foreign currency exposures are managed together through our foreign exchange risk management activities, which are discussed further in Note 20 (Foreign Exchange Risk Management) to the consolidated financial statements included in Part II, Item 8. The terms of the forward contracts are generally less than 18 months.

As of December 31, 2016, the majority of derivative contracts to hedge foreign currency fluctuations had been entered into with customers of Mastercard. Mastercard's derivative contracts are summarized below:

	December 31, 2016		December 31, 2015	
	Notional	Estimated Fair Value	Notional	Estimated Fair Value
	(in millions)			
Commitments to purchase foreign currency	\$37	\$ (2)	\$ 232	\$ 1
Commitments to sell foreign currency	777	18	1,430	12
Options to sell foreign currency	—	—	44	1

We also use foreign currency denominated debt to hedge a portion of our net investment in foreign operations against adverse movements in exchange rates, with changes in the value of the debt recorded within currency translation adjustment in accumulated other comprehensive income (loss). We have designated our euro-denominated debt as a net investment hedge for a portion of our net investment in European foreign operations. Our euro-denominated debt is vulnerable to changes in the euro to U.S. dollar exchange rates. The principal amounts of our euro-denominated

debt as well as the effective interest rates

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and scheduled annual maturities of the principal is included in Note 12 (Debt) to the consolidated financial statements included in Part II, Item 8.

Interest Rate Risk

Our interest rate sensitive assets are our investments in fixed income securities, which we generally hold as available-for-sale investments. Our general policy is to invest in high quality securities, while providing adequate liquidity and maintaining diversification to avoid significant exposure. The fair value and maturity distribution of the Company's available-for-sale investments for fixed income securities as of December 31 was as follows:

Financial Instrument	Summary Terms	Maturity						
		Fair Market Value at December 31, 2016	2017	2018	2019	2020	2021	2022 and there-after
		(in millions)						
Municipal securities	Fixed / Variable Interest	\$59	\$46	\$10	\$3	\$—	\$—	\$—
Government and agency securities	Fixed / Variable Interest	166	72	64	4	—	21	5
Corporate securities	Fixed / Variable Interest	855	317	220	180	119	19	—
Asset-backed securities	Fixed / Variable Interest	80	2	20	49	7	2	—
Total		\$1,160	\$437	\$314	\$236	\$126	\$42	\$ 5

Financial Instrument	Summary Terms	Maturity						
		Fair Market Value at December 31, 2015	2016	2017	2018	2019	2020	2021 and there-after
		(in millions)						
Municipal securities	Fixed / Variable Interest	\$62	\$48	\$14	\$—	\$—	\$—	\$—
Government and agency securities	Fixed / Variable Interest	95	50	37	2	—	—	6
Corporate securities	Fixed / Variable Interest	645	210	308	123	3	—	1
Asset-backed securities	Fixed / Variable Interest	57	1	20	22	13	1	—
Total		\$859	\$309	\$379	\$147	\$16	\$1	\$ 7

We also have time deposits that are classified as held-to-maturity securities. At December 31, 2016 and 2015, the cost which approximates fair value, of our short-term held-to-maturity securities was \$452 million and \$130 million, respectively. In addition, at December 31, 2016, the Company held \$61 million of long-term held-to-maturity securities, which mature in 2018.

At December 31, 2016, we have U.S. dollar-denominated and euro-denominated debt, which is subject to interest rate risk. The principal amounts of this debt as well as the effective interest rates and scheduled annual maturities of the principal is included in Note 12 (Debt) to the consolidated financial statements included in Part II, Item 8. See "Future Obligations" for estimated interest payments due by period relating to the U.S. dollar-denominated and euro-denominated debt.

At December 31, 2016, we have the Commercial Paper Program and the Credit Facility which provide liquidity for general corporate purposes, including providing liquidity in the event of one or more settlement failures by our customers. Borrowing rates under the Commercial Paper Program are based on market conditions. Borrowings rates under the Credit Facility are variable rates, which are applied to the borrowing based on terms and conditions set forth

in the agreement. See Note 12 (Debt) to the consolidated financial statements in Part II, Item 8 for additional information on the Credit Facility and the Commercial Paper Program. We had no borrowings under the Commercial Paper Program or the Credit Facility at December 31, 2016 and 2015.

Equity Price Risk

The Company did not have significant equity price risk as of December 31, 2016 and 2015.

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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA
MASTERCARD INCORPORATED
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MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of Mastercard Incorporated ("Mastercard") is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with accounting principles generally accepted in the United States of America. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. As required by Section 404 of the Sarbanes-Oxley Act of 2002, management has assessed the effectiveness of Mastercard's internal control over financial reporting as of December 31, 2016. In making its assessment, management has utilized the criteria set forth in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Management has concluded that, based on its assessment, Mastercard's internal control over financial reporting was effective as of December 31, 2016. The effectiveness of Mastercard's internal control over financial reporting as of December 31, 2016 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears on the next page.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
of Mastercard Incorporated:

In our opinion, the accompanying consolidated balance sheet and the related consolidated statements of operations, of comprehensive income, of changes in equity and of cash flows present fairly, in all material respects, the financial position of Mastercard Incorporated and its subsidiaries at December 31, 2016 and December 31, 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express opinions on these financial statements, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

New York, New York
February 15, 2017

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**MASTERCARD INCORPORATED
 CONSOLIDATED BALANCE SHEET**

	December 31,	
	2016	2015
	(in millions, except per share data)	
ASSETS		
Cash and cash equivalents	\$ 6,721	\$ 5,747
Restricted cash for litigation settlement	543	541
Investments	1,614	991
Accounts receivable	1,416	1,079
Settlement due from customers	1,093	1,068
Restricted security deposits held for customers	991	895
Prepaid expenses and other current assets	850	663
Total Current Assets	13,228	10,984
Property, plant and equipment, net	733	675
Deferred income taxes	307	317
Goodwill	1,756	1,891
Other intangible assets, net	722	803
Other assets	1,929	1,580
Total Assets	\$ 18,675	\$ 16,250
LIABILITIES AND EQUITY		
Accounts payable	\$ 609	\$ 472
Settlement due to customers	946	866
Restricted security deposits held for customers	991	895
Accrued litigation	722	709
Accrued expenses	3,318	2,763
Other current liabilities	620	564
Total Current Liabilities	7,206	6,269
Long-term debt	5,180	3,268
Deferred income taxes	81	79
Other liabilities	524	572
Total Liabilities	12,991	10,188
Commitments and Contingencies		
Stockholders' Equity		
Class A common stock, \$0.0001 par value; authorized 3,000 shares, 1,374 and 1,370 shares issued and 1,062 and 1,095 outstanding, respectively	—	—
Class B common stock, \$0.0001 par value; authorized 1,200 shares, 19 and 21 issued and outstanding, respectively	—	—
Additional paid-in-capital	4,183	4,004
Class A treasury stock, at cost, 312 and 275 shares, respectively	(17,021)	(13,522)
Retained earnings	19,418	16,222
Accumulated other comprehensive income (loss)	(924)	(676)
Total Stockholders' Equity	5,656	6,028
Non-controlling interests	28	34
Total Equity	5,684	6,062
Total Liabilities and Equity	\$ 18,675	\$ 16,250

The accompanying notes are an integral part of these consolidated financial statements.

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MASTERCARD INCORPORATED
CONSOLIDATED STATEMENT OF OPERATIONS

	For the Years Ended December		
	31,		
	2016	2015	2014
	(in millions, except per share data)		
Net Revenue	\$ 10,776	\$ 9,667	\$ 9,441
Operating Expenses			
General and administrative	3,714	3,341	3,152
Advertising and marketing	811	821	862
Depreciation and amortization	373	366	321
Provision for litigation settlements	117	61	—
Total operating expenses	5,015	4,589	4,335
Operating income	5,761	5,078	5,106
Other Income (Expense)			
Investment income	43	25	28
Interest expense	(95) (61) (48
Other income (expense), net	(63) (84) (7
Total other income (expense)	(115) (120) (27
Income before income taxes	5,646	4,958	5,079
Income tax expense	1,587	1,150	1,462
Net Income	\$ 4,059	\$ 3,808	\$ 3,617
Basic Earnings per Share	\$ 3.70	\$ 3.36	\$ 3.11
Basic Weighted-Average Shares Outstanding	1,098	1,134	1,165
Diluted Earnings per Share	\$ 3.69	\$ 3.35	\$ 3.10
Diluted Weighted-Average Shares Outstanding	1,101	1,137	1,169

The accompanying notes are an integral part of these consolidated financial statements.

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MASTERCARD INCORPORATED
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

	For the Years Ended December 31,		
	2016	2015	2014
	(in millions)		
Net Income	\$4,059	\$3,808	\$3,617
Other comprehensive income (loss):			
Foreign currency translation adjustments	(275)	(460)	(436)
Income tax effect	(11)	27	—
Foreign currency translation adjustments, net of income tax effect	(286)	(433)	(436)
Translation adjustments on net investment hedge	60	(40)	—
Income tax effect	(22)	14	—
Translation adjustments on net investment hedge, net of income tax effect	38	(26)	—
Defined benefit pension and other postretirement plans	(1)	(19)	(3)
Income tax effect	—	7	2
Defined benefit pension and other postretirement plans, net of income tax effect	(1)	(12)	(1)
Reclassification adjustment for defined benefit pension and other postretirement plans	(1)	80	7
Income tax effect	—	(29)	(3)
Reclassification adjustment for defined benefit pension and other postretirement plans, net of income tax effect	(1)	51	4
Investment securities available-for-sale	3	(11)	(5)
Income tax effect	(1)	—	1
Investment securities available-for-sale, net of income tax effect	2	(11)	(4)
Reclassification adjustment for investment securities available-for-sale	—	15	(1)
Income tax effect	—	—	—
Reclassification adjustment for investment securities available-for-sale, net of income tax effect	—	15	(1)
Other comprehensive income (loss), net of income tax effect	(248)	(416)	(438)
Comprehensive Income	\$3,811	\$3,392	\$3,179

The accompanying notes are an integral part of these consolidated financial statements.

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MASTERCARD INCORPORATED
CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	Total	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Common Stock Class A Class B	Additional Paid-In Capital	Class A Treasury Stock	Non-Controlling Interests
	(in millions, except per share data)						
Balance at December 31, 2013	\$7,495	\$10,121	\$ 178	\$ —	\$ 3,762	\$(6,577)	\$ 11
Net income	3,617	3,617	—	—	—	—	—
Activity related to non-controlling interests	23	—	—	—	—	—	23
Other comprehensive income (loss), net of tax	(438)	—	(438)	—	—	—	—
Cash dividends declared on Class A and Class B common stock, \$0.49 per share	(569)	(569)	—	—	—	—	—
Purchases of treasury stock	(3,424)	—	—	—	—	(3,424)	—
Share-based payments	120	—	—	—	114	6	—
Conversion of Class B to Class A common stock	—	—	—	—	—	—	—
Balance at December 31, 2014	6,824	13,169	(260)	—	3,876	(9,995)	34
Net income	3,808	3,808	—	—	—	—	—
Activity related to non-controlling interests	—	—	—	—	—	—	—
Other comprehensive income (loss), net of tax	(416)	—	(416)	—	—	—	—
Cash dividends declared on Class A and Class B common stock, \$0.67 per share	(755)	(755)	—	—	—	—	—
Purchases of treasury stock	(3,532)	—	—	—	—	(3,532)	—
Share-based payments	133	—	—	—	128	5	—
Conversion of Class B to Class A common stock	—	—	—	—	—	—	—
Balance at December 31, 2015	6,062	16,222	(676)	—	4,004	(13,522)	34
Net income	4,059	4,059	—	—	—	—	—
Activity related to non-controlling interests	(6)	—	—	—	—	—	(6)
Other comprehensive income (loss), net of tax	(248)	—	(248)	—	—	—	—
Cash dividends declared on Class A and Class B common stock, \$0.79 per share	(863)	—	—	—	—	—	—