

**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, 2018
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)

2000 Purchase Street
Purchase, NY
(Address of principal executive offices)

13-4172551
(IRS Employer
Identification Number)

10577
(Zip Code)

(914) 249-2000
(Registrant's telephone number, including area code)

| <u>Title of each Class</u> | <u>Name of each exchange on which registered</u> |
|--|--|
| 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 every Interactive Data File required to be submitted 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 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.
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check One):

| | | | |
|-------------------------|--|---------------------------|--------------------------|
| Large accelerated filer | <input checked="" type="checkbox"/> | Accelerated filer | <input type="checkbox"/> |
| Non-accelerated filer | <input type="checkbox"/> (do not check if a smaller reporting company) | Smaller reporting company | <input type="checkbox"/> |
| | | Emerging growth company | <input type="checkbox"/> |

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13 (a) of the Exchange Act.

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 29, 2018, the last business day of the registrant's most recently completed second fiscal quarter) was approximately \$179.5 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 8, 2019, there were 1,014,237,644 shares outstanding of the registrant's Class A common stock, par value \$0.0001 per share and 11,671,404 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 2019 Annual Meeting of Stockholders are incorporated by reference into Part III hereof.

MASTERCARD INCORPORATED
FISCAL YEAR 2018 FORM 10-K ANNUAL REPORT
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In this Report on Form 10-K ("Report"), references to the "Company," "Mastercard," "we," "us" or "our" refer to the business conducted by Mastercard Incorporated and its consolidated subsidiaries, including our operating subsidiary, Mastercard International Incorporated, and to the Mastercard brand.

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:

- regulation directly related to the payments industry (including regulatory, legislative and litigation activity with respect to interchange rates, 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, security and the digital economy
- regulation that directly or indirectly applies to us based on our participation in the global payments industry (including anti-money laundering, counter terrorist financing, economic sanctions and anti-corruption; account-based payment systems; issuer practice regulation; and regulation of internet and digital transactions)
- the impact of changes in tax laws, as well as regulations and interpretations of such laws or challenges to our tax positions
- potential or incurred liability and limitations on business related to any litigation or litigation settlements
- the impact of competition in the global payments industry (including disintermediation and pricing pressure)
- the challenges relating to rapid technological developments and changes
- the challenges relating to operating a real-time account-based payment system and to working with new customers and end users
- the impact of information security incidents, account data breaches, fraudulent activity or service disruptions
- 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 our role as guarantor, as well as other contractual obligations
- the impact of global economic, political, financial and societal events and conditions
- reputational impact, including impact related to brand perception
- the inability to attract, hire and retain a highly qualified and diverse workforce, or maintain our corporate culture
- 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 "Risk Factors" in Part I, Item 1A for a complete discussion of these 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.

PART I

ITEM 1. BUSINESS

Overview

Mastercard is a technology company in the global payments industry that connects consumers, financial institutions, merchants, governments, digital partners, businesses and other organizations worldwide, enabling them to use electronic forms of payment instead of cash and checks. 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 are a multi-rail network. Through our core global payments processing network, we facilitate the switching (authorization, clearing and settlement) of payment transactions and deliver related products and services. With additional payment capabilities that include real-time account-based payments (including automated clearing house (“ACH”) transactions), we offer customers one partner to turn to for their payment needs for both domestic and cross-border transactions across multiple payment flows. We also provide value-added offerings such as safety and security products, information and analytics services, consulting, loyalty and reward programs and issuer and acquirer processing. Our payment solutions are designed to ensure safety and security for the global payments system.

A typical transaction on our core network involves four participants in addition to us: account holder (a consumer who holds a card or uses another device enabled for payment), issuer (the account holder’s financial institution), merchant 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 account holders by issuers, or establish the rates charged by acquirers in connection with merchants’ acceptance of our branded products. In most cases, account holder relationships belong to, and are managed by, our financial institution customers.

We generate revenues from assessing our customers based on the gross dollar volume (“GDV”) of activity on the products that carry our brands, from the fees we charge to our customers for providing transaction switching and from other payment-related products and services.

Our Performance

The following are our key financial and operational results for 2018:

| GAAP | Non-GAAP ¹ | | |
|---------------------------------------|--|---|--|
| \$15.0B Net revenue 20% YOY | \$15.0B Net revenue 20% YOY (currency-neutral) | \$6.0B in capital returned to stockholders | \$5.9T ↑ 14% Gross dollar volume YOY (local currency basis) |
| \$5.9B Net income 50% YOY | \$6.8B Adjusted net income 38% YOY (currency-neutral) | \$4.9B Repurchased shares | 73.8B ↑ 17% ^{2,3} Switched transactions YOY |
| \$5.60 Diluted EPS 53% YOY | \$6.49 Adjusted diluted EPS 41% YOY (currency-neutral) | \$1.0B Dividends paid |  ↑ 18% ² Cross-border volume growth YOY (local currency basis) |
| | | \$6.2B Cash flow from operations | |

¹ Non-GAAP results excludes the impact of Special Items and/or foreign currency. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations - Financial Results Overview” in Part II, Item 7 for the reconciliation to the most direct comparable GAAP financial measures.

² Adjusted to normalize for the effects of differing switching days between periods.

³ Adjusted for the deconsolidation of our Venezuelan subsidiaries in 2017. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations - Financial Results- Revenue” in Part II, Item 7.

Our Strategy

We grow, diversify and build our business through a combination of organic growth and strategic investments. Our ability to grow our business is influenced by personal consumption expenditure (“PCE”) growth, driving cash and check transactions toward electronic forms of payment, increasing our share in electronic payments and providing value-added products and services. In addition, growing our business includes supplementing our core network with enhanced payment capabilities to capture new payment flows, such as business to business (“B2B”), person to person (“P2P”), business to consumer (“B2C”) and government payments, through a combination of product offerings and expanded solutions for our customers.



Enabled by Brand, Data, Technology and People

Grow . We focus on growing our core business globally, including growing our consumer credit, debit, prepaid and commercial products and solutions, as well as increasing the number of payment transactions we switch. We also look to take advantage of the opportunities presented by the evolving ways people interact and transact in the growing digital economy. This includes expanding merchant access to electronic payments through new technologies in an effort to deliver a better consumer experience, while creating greater efficiencies and security.

Diversify . We diversify our business by:

- working with new customers, including governments, merchants, financial technology companies, digital players, mobile providers and other corporate businesses
- scaling our capabilities and business into new geographies, including growing acceptance in markets with limited electronic payments acceptance today
- broadening financial inclusion for the unbanked and underbanked

Build . We build our business by:

- creating and acquiring differentiated products to provide unique, innovative solutions that we bring to market to support new payment flows, such as real-time account-based payment, Mastercard B2B Hub™ and Mastercard Send™ platforms
- providing services across data analytics, consulting, managed services, safety and security, loyalty and processing

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, financial institutions and other organizations by delivering data-driven insights and other services that help them grow and create simple and secure customer experiences. 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 faster, safer and more convenient ways to pay and transfer funds.

Talent and Culture. Our success is driven by the skills, experience, integrity and mindset of the talent we hire. We attract and retain top talent from diverse backgrounds and industries by building a world-class culture based on decency, respect and inclusion in which people have opportunities to do purpose-driven work that impacts customers, communities and co-workers on a global scale. The diversity and skill sets of our people underpin everything we do.

Recent Business and Legal/Regulatory Developments



Digital Payments . Technology is increasingly changing the way people get information, interact with each other, shop and make purchases. As a result of these changes, digital commerce is growing significantly. In this digital environment, consumers continue to seek a seamless experience where their payment is simple, secure and familiar. These consumer demands are driving us to think and act differently. Our teams are innovating to create solutions that meet the needs of our consumers and merchants, and applying emerging technologies to maximize our opportunities from those needs. In 2018, we:

- supported the development and implementation of EMVCo’s global standards for a simple and unified digital experience for consumers, issuers and merchants in the form of a common checkout button. This button is designed to provide consumers the same convenience and security in a digital environment that they have when shopping and paying in a store, make it easier for merchants to implement secure digital payments and provide issuers with improved fraud detection and prevention capability.
- announced plans to enable token services on all cards, removing the primary account number from the transaction flow. Enabling these services will help make the payment process simpler, more seamless and more secure, while supporting our merchant partners in their card on file activities.
- reinforced our support for contactless payments across all markets, including in Europe, where we are working with issuers, acquirers and merchants to ensure availability and support of contactless payments across the continent by 2020.



New payment flows. In order to help grow our business and offer more electronic payment options to consumers, businesses and governments, Mastercard has developed and enhanced solutions beyond the principal switching capabilities available on our core network. We believe this will allow us to capture more payment flows, including B2B, P2P, B2C and government disbursements. In 2018, we:

- advanced business development efforts around the world with our real-time account-based payments capabilities that we acquired with Vocalink in 2017. These efforts include the launch of a real-time payment service in the U.S. in conjunction with The Clearing House that enables consumers and businesses to send and receive immediate payments.
- combined our proprietary Mastercard Send assets with Vocalink strategic partnerships to enable financial institutions, financial technology companies (or fintechs), digital customers and other businesses to send real-time payments to U.K. bank accounts. Mastercard Send will connect to Faster Payments, enabling a variety of use cases such as P2P payments and B2C disbursements. This effort is part of our continued expansion of Mastercard Send’s capabilities, connecting more people, businesses and governments to facilitate the transfer of funds quickly and securely both domestically and cross-border.
- expanded the reach of Vocalink’s Pay by Bank application in the United Kingdom, enabling real-time payments directly from a consumer’s bank account using a mobile banking app, with real-time clearing and without the need for a card.
- continued to invest in and test proprietary permission-based Blockchain, with an initial focus on the cross-border B2B payments space.



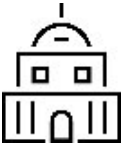
Safety and Security. As new technologies and cyber-security threats evolve, including organized cyber-crime and nation state attacks, there is a growing need to protect the security and resilience of the payments ecosystem for every stakeholder. It is critical to protect all transactional and personal data that is stored, processed or transmitted regardless of the device or channel used to make a purchase, while at the same time continuing to improve the payment experience for all stakeholders. We focus on security across networks, and it is embedded in our policies, products, systems and analytics to prevent fraud. In 2018, we:

- implemented EMVCo’s 3D Secure 2.0 specification as part of a new solution (launched with issuer and merchant partners globally) that supports app-based authentication, integration with digital wallets and browser-based e-commerce. This is complemented by biometrics, machine learning and artificial intelligence solutions, alongside incremental transaction data, to help merchants seamlessly verify a consumer’s identity. At the same time, the solution reduces friction during the checkout process, as well as reduces fraud while increasing payment approvals.
- continued to extend our investments in Artificial Intelligence (“AI”) by:
 - introducing AI Express, a new accelerated technology implementation service to help issuers, acquirers and merchants develop AI models to solve priority problems, including anti-money laundering, fraud, risk management and cybersecurity.
 - scaling Decision Intelligence™, our fraud scoring technology, to score billions of transactions in real time every day while increasing approvals and reducing false declines.
- piloted biometric cards in multiple markets, placing fingerprint readers directly onto a card to authenticate a cardholder’s identity (as an alternative to a PIN or signature) using existing chip and contactless acceptance terminals.
- modified our rules so that signatures will no longer be required on either cards or receipts and merchants no longer need to capture or compare a signature at the point of sale, helping to provide a faster checkout and more advanced authentication methods.



Inclusive Growth. We are dedicated to increasing the opportunity for individuals and micro and small merchants to achieve financial security and greater prosperity, with the benefits of economic growth shared among all segments of society. Together with our partners, we are more than two-thirds of the way toward an important initial step towards that goal by providing access to 500 million people previously excluded from financial services by 2020. We also help communities build the ecosystems that support usage. In 2018, we worked with governments and private sector partners across several geographies to develop and roll out electronic payments solutions, social payment distribution mechanisms and digital identity solutions. We organized a global network of cities to help city leaders address the challenges of urbanization and co-develop solutions to improve life for residents and visitors and promote economic growth. We also deployed our services, partnerships and technologies to develop platforms that help small business owners accept electronic payments, manage their records, access market information, build a financial footprint and use digital communications channels to receive training and business advice.

In 2018, we made an initial \$100 million contribution to the Mastercard Impact Fund (formerly referred to as Mastercard’s Center for Inclusive Growth Fund), a non-profit charitable organization. This contribution is part of a \$500 million commitment to support initiatives that focus on inclusive growth, such as financial inclusion, economic development, the future of work and data science for social impact.



Legal and Regulatory . We operate in a dynamic and rapidly evolving legal and regulatory environment, with heightened regulatory and legislative scrutiny, expansion of local regulatory schemes and other legal challenges, particularly with respect to interchange fees (as discussed below under “Our Operations and Network”). These challenges create both risks and opportunities for our industry. Our recent legal and regulatory developments include:

- **Payments Regulation**

- In December 2018, we announced the anticipated resolution of an investigation by the European Commission (“EC”) related to the interregional interchange rates we set and our central acquiring rule within the European Economic Area (the “EEA”). With respect to interregional interchange fees, the proposed settlement included changes to those fees that, if accepted by the EC following market testing, would avoid prolonged litigation and gain certainty concerning our business practices. With respect to our historic central acquiring rule, the EC issued a negative decision in January 2019. The EC’s negative decision covers a period of time of less than two years before the rule’s modification in 2015. The decision does not require any modification of our current business practices but includes a fine of €571 million . We recorded a charge of \$654 million in the fourth quarter of 2018 in relation to this matter. See Note 20 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8 for further discussion.
- Several jurisdictions have implemented payments regulation or initiated payments reviews in 2018. In the U.K., the Payment Systems Regulator (the “PSR”) published draft terms of reference for a formal review of card-acquiring services provided by Mastercard, Visa and other card scheme operators that could lead to future regulation. The European Commission expects to issue proposals in 2020 to revise the E.U. Interchange Fee Regulation. In Australia, the Productivity Commission released a report recommending, among other things, that regulators ban interchange fees by the end of 2019 and consider regulating merchant service fees. In Brazil, the Central Bank implemented a weighted average and cap for domestic debit interchange.
- Jurisdictions around the globe continue to implement or consider open banking initiatives. Initiatives such as the EEA’s revised Payment Services Directive (commonly referred to as “PSD2”) which went into effect in 2018, require financial institutions to provide third-party payment processors access to consumer payment accounts, as well as requiring additional verification information from consumers to complete transactions. Other jurisdictions considering open banking initiatives include Australia, Canada, Hong Kong, Japan, Singapore and the United States.
- The U.K. Treasury has extended the U.K. payment systems oversight to include our Vocalink business due to its role as a payment service provider.

- **Privacy and Data Protection**

- In 2018, the European Union General Data Protection Regulation (the “GDPR”) became effective. The GDPR is a data protection regulation that has increased our compliance burden for collecting, using and processing personal and sensitive data of EEA residents. We have reviewed our products, services and processes involving EEA personal data to ensure privacy and data protection requirements are embedded into their design. We have also launched online data portals to allow EEA residents to request a copy of their personal data, and to ask for their data to be updated, corrected or deleted as appropriate. In addition, we have taken steps to assist our customers with their compliance efforts. As part of our implementation approach, we co-founded with IBM a data trust called Truata to provide anonymization and analytics services in a GDPR-compliant manner.
- Some jurisdictions are currently considering adopting “data localization” requirements, which mandate the collection, processing, and/or storage of data within their borders, including India, Kenya and Vietnam.

- **Litigation** - In September 2018, we entered into an amended class settlement agreement with the merchant damages class plaintiffs to settle their monetary damages claims in a U.S. antitrust litigation that was brought against Mastercard, Visa and a number of financial institutions. Visa and the financial institutions are also parties to the agreement, which is subject to court approval. In addition to the monetary amounts that constituted the financial settlement under the original agreement, the agreement requires an additional

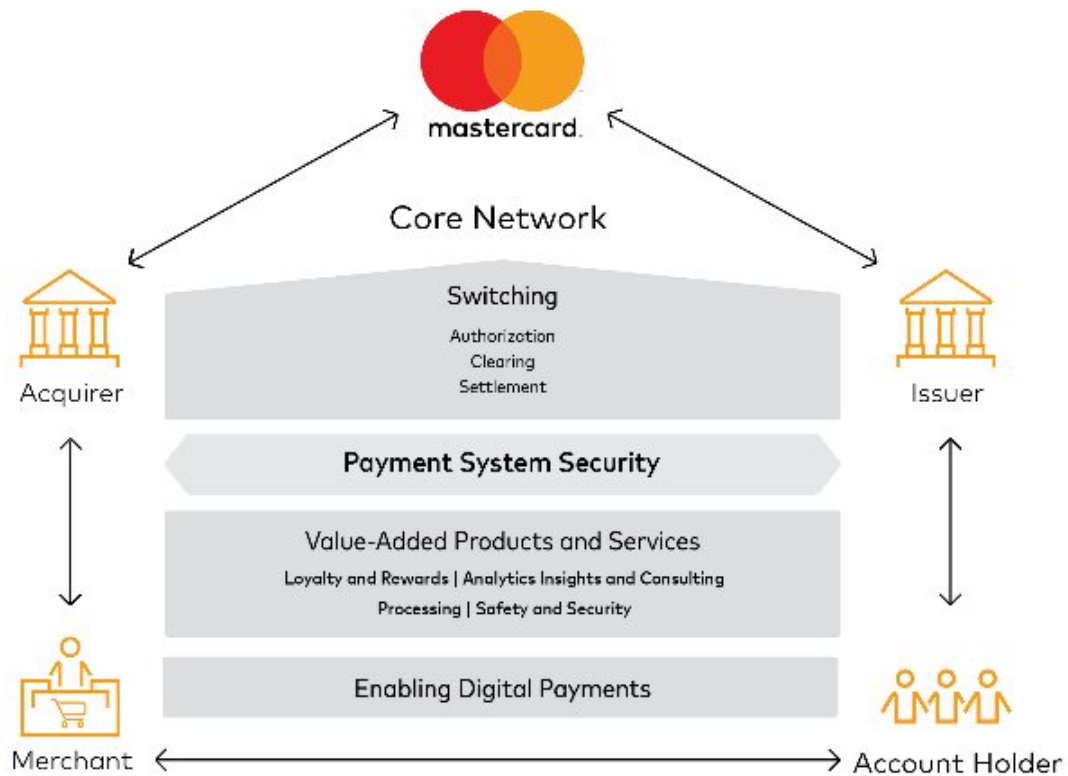
payment from the defendants. We took a charge during 2018 to reflect our share of this payment. Under the agreement, Mastercard and its customer financial institutions will receive a release of all damages claims that were alleged, or could have been alleged by the merchant class members concerning our interchange and fee structure and merchant acceptance rules. This release covers all retrospective claims, as well as prospective claims for a period of five years after the resolution of all appeals relating to court approval of the agreement. In January 2019, the district court issued an order granting preliminary approval of the settlement. The agreement does not relate to the merchants' claims seeking changes to business practices. Separate settlement negotiations for those claims are ongoing. See Note 20 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8 for further discussion.

Our Business

Our Operations and Network

We operate a unique and proprietary global payments network, our core network, that links issuers and acquirers around the globe to facilitate the switching of transactions, permitting account holders to use a Mastercard product at millions of acceptance locations worldwide. Our core 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 core network for our issuer customers in more than 150 currencies and in more than 210 countries and territories. Vocalink expands our range of payment capabilities beyond our core network into real-time account-based payments.

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



In a typical transaction, an account holder purchases goods or services from a merchant using one of our payment products. 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 account holder's account. The acquirer pays the amount of the purchase, net of a discount (referred to as the "merchant discount" rate), 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 incur. 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. These costs are incurred by issuers in providing services that benefit all participants in the system, including acquirers and merchants, whose participation in the network enables increased sales to their existing and new customers, efficiencies in the delivery of existing and new products, guaranteed payments and improved experience for their customers. 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.
- **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 account holders fees for the transaction, including, for example, fees for extending revolving credit.

Switched Transactions

- **Authorization, Clearing and Settlement.** Through our core 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 core network switches transactions throughout the world when the acquirer country and issuer country are different ("cross-border transactions"), providing account holders with the ability to use, and merchants to accept, our products and services across country borders. We also provide switched transaction services to customers where the acquirer country and the issuer country are the same ("domestic transactions"). We switch more than half of all transactions for 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.

Core Network Architecture. Our core network features a globally integrated structure that provides scale for our issuers, enabling them to expand into regional and global markets. It is based largely on a distributed (peer-to-peer) architecture with an intelligent edge that enables the network to adapt to the needs of each transaction. Our core network accomplishes this by performing intelligent routing and applying multiple value-added services (such as fraud scoring or rewards at the point of sale) to appropriate transactions in real time. Our core 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.

Real-time Account-based Payment Systems. Augmenting our core network, we now offer real-time account-based payment capabilities through our acquisition of Vocalink, which enables payments between bank accounts in near real-time in countries in which it has been deployed.

Payments System Security. Our payment solutions and products are designed to ensure safety and security for the global payments system. The core network and additional platforms incorporate multiple layers of protection, both for continuity purposes and to provide best-in-class security protection. We engage in many 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.

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 (e.g., EMV) for safe and secure transactions.

Digital Payments. Our networks support and enable 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.

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

Our Products and Services

We provide a wide variety of integrated products and services that support payment products that customers can offer to their account holders. These offerings facilitate transactions on our core network among account holders, merchants, financial institutions, businesses, governments and other organizations in markets globally.



Core Products

Consumer Credit. We offer a number of programs that enable issuers to provide consumers with credit 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 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 one of our payment products. 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 reloadable programs for consumers 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, midsize companies, small businesses and government entities. Our solutions streamline procurement and payment processes, manage information and expenses (such as travel and entertainment) and reduce administrative costs. Our card offerings include travel, small business (debit and credit), purchasing and fleet cards. Our SmartData platform provides expense management and reporting capabilities. Our Mastercard In Control™ platform generates virtual account numbers which provide businesses with enhanced controls, more security and better data.

The following chart provides GDV and number of cards featuring our brands in 2018 for select programs and solutions:

| | Year Ended December 31, 2018 | | | As of December 31, 2018 | |
|--|------------------------------|----------------|----------------|-------------------------|--|
| | GDV | | | Cards | |
| | (in billions) | Growth (Local) | % of Total GDV | (in millions) | Percentage Increase from December 31, 2017 |
| Mastercard Branded Programs 1,2 | | | | | |
| Consumer Credit | \$ 2,520 | 11% | 43% | 824 | 8% |
| Consumer Debit and Prepaid | 2,724 | 17% | 46% | 1,126 | 15% |
| Commercial Credit and Debit | 657 | 13% | 11% | 73 | 11% |

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

2 Prepaid includes both consumer and commercial prepaid.

Additional Platforms. In addition to the switching capabilities of our core network, we offer additional platforms with payment capabilities that extend to new payment flows:

- We offer commercial payment products and solutions, such as the Mastercard B2B Hub, which enables small and mid-sized businesses to optimize their invoice and payment processes.
- With Vocalink, we offer real-time account-based payments for ACH transactions. This platform enables payments between bank accounts in real-time and provides enhanced data and messaging capabilities, making them particularly well-suited for B2B and bill payment flows.

Value-Added Products and Services

We provide additional integrated products and services to our customers and stakeholders, including financial institutions, retailers and governments that enhance the value proposition of our products and solutions.

Safety and Security. We offer integrated products and services to prevent, detect and respond to fraud and cyber-attacks and to ensure the safety of transactions made using Mastercard products. We do this using a multi-layered safety and security strategy:

- The “Prevent” layer protects infrastructure, devices and data from attacks. We have continued to grow global usage of EMV chip and contactless security technology, helping to reduce fraud. Greater usage of this technology has increased

the number of EMV cards issued and the transaction volume on EMV cards. While this technology is prevalent in Europe, the U.S. market has been adopting this technology in recent years.

- The “Identify” layer allows us to help banks and merchants verify genuine consumers during the payment process. Examples of solutions under this layer include Mastercard Identity Check™, a fingerprint, face and iris scanning biometric technology to verify online purchases on mobile devices, and our recently launched Biometric Card which has a fingerprint scanner built in to the card and is compatible with existing EMV payment terminals.
- The “Detect” layer spots fraudulent behavior and cyber-attacks and takes action to stop these activities once detected. Examples of our capabilities under this layer include our Early Detection System, Decision Intelligence and Safety Net™ services and technologies.
- The “Experience” layer improves the security experience for our stakeholders in areas from the speed of transactions, enhancing approvals for online and card-on-file payments, to the ability to differentiate legitimate consumers from fraudulent ones. Our offerings in this space include Mastercard In Control, for consumer alerts and controls and our suite of digital token services available through our Mastercard Digital Enablement Service (“MDES”).

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.

Loyalty and Rewards . We have built a scalable rewards platform that enables financial institutions to provide consumers with a variety of benefits and services, such as personalized offers and rewards, access to a global airline lounge network, concierge services, insurance services, emergency card replacement, emergency cash advances and a 24-hour account holder service center. For merchants, we provide campaigns with targeted offers and rewards, management services for publishing offers, and accelerated points programs for co-brand and rewards program members.

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 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.

Analytics Insights and Consulting . We provide 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.

Our capabilities incorporate payments expertise and analytical and executional skills to create end-to-end solutions which are increasingly delivered via platforms embedded in our customers’ day-to-day operations. By observing patterns of payments behavior based on billions of transactions switched globally, we leverage anonymized and aggregated information and a consultative approach to help our customers make better business decisions. Our executional skills such as marketing, digital implementation and staff augmentation allow us to assist clients implement actions based on these insights.

Increasingly, we have been helping financial institutions, retailers and governments innovate. Drawing on rapid prototyping methodologies from our global innovation and development arm, Mastercard Labs, we offer “Launchpad,” a five day app prototyping workshop. Through our Applied Predictive Technology business, a software as a service platform, we can help our customers conduct disciplined business experiments for in-market tests.

Digital Enablement

Leveraging our global innovations capability, we work to digitize payment services across all channels and devices:

- **Delivering better digital experiences everywhere.** We are using our 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. 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. The successful implementation of our loyalty and reward programs is an important part of enabling these digital purchasing experiences.

- **Securing more transactions.** We are leveraging tokenization, biometrics and machine learning technologies in our push to secure every transaction. These efforts include driving EMV-level security and benefits through all our payment channels.
- **Digitizing personal and business payments.** We provide solutions that enable our customers to offer consumers the ability to send and receive money quickly and securely domestically and around the world. These solutions allow our customers to address new payment flows from any funding source, such as cash, card, bank account or mobile money account, to any destination globally, securely and in real time.
- **Simplifying access to, and integration of, our digital assets.** Our Mastercard Developer platform makes it easy for customers and partners to leverage our many digital assets and services. By providing a single access point with tools and capabilities to find what we believe are some of the best-in-class Application Program Interfaces (“APIs”) across a broad range of Mastercard services, we enable easy integration of our services into new and existing solutions.
- **Identifying and experimenting with future technologies, start-ups and trends.** Through Mastercard Labs, our global innovation and development arm, we continue to bring customers and partners access to thought leadership, innovation methodologies, new technologies and relevant early-stage fintech players.

Brand



Our family of well-known brands includes Mastercard, Maestro and Cirrus. We manage and promote our brands through advertising, promotions and sponsorships, as well as digital, mobile and social media initiatives, in order to increase people’s 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 account holders globally. Our “Priceless®” advertising campaign, which has run in 52 languages in 120 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.

Revenue Sources

We generate revenues primarily from assessing our customers based on GDV on the products 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 assessments, cross-border volume fees, transaction processing, 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 us 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 on a royalty-free basis in connection with our customers’ issuing and merchant acquiring businesses. In addition, we own a number of patents and patent applications relating to payment solutions, transaction processing, smart cards, contactless, mobile, biometrics, AI, security systems, blockchain 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, Check and Legacy ACH** . Cash and checks continue to represent one of the most widely used forms of payment. However, an even larger share of payments on a U.S. dollar volume basis are made via legacy, or “slow,” ACH platforms.
- **General Purpose Payment Networks** . We compete worldwide with payment networks such as Visa, American Express, JCB, China UnionPay and Discover, among others. Some competitors have more market share than we do in certain jurisdictions. Some also have different business models that may provide an advantage in pricing, regulatory compliance burdens or otherwise. In addition, several governments are promoting, or considering promoting, local networks for domestic switching. See “Risk Factors” in Part I, Item 1A for a more detailed discussion of the risks related to payments system regulation and government actions that may prevent us from competing effectively.
- **Debit and Local Networks**. We compete with ATM and point-of-sale debit networks in various countries. 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 focused mostly on debit (e.g., MIR in Russia).
- **Competition for Customer Business** . We compete intensely with other payments companies 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 merchants, governments and mobile providers.
- **Real-time Account-based Payment Systems**. Through Vocalink, we face competition in the real-time account-based payment space from other companies that provide these payment solutions. In addition, real-time account-based payments face competition from other payment methods, such as cash and checks, cards, electronic, mobile and e-commerce payment platforms, cryptocurrencies and other payments networks.
- **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, real-time account-based payment networks or global or local networks. Examples include digital wallet providers (such as Paytm, 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. In addition, our integrated products and services offerings face competition and potential displacement from transaction processors throughout the world, which are seeking to enhance their networks that link issuers directly with point-of-sale devices for payment transaction authorization and processing services. Regulatory initiatives could also lead to increased competition in this space.

Our competitive advantages include our:

- globally recognized brands
- highly adaptable global acceptance network built over 50 years which can reach a variety of parties enabling payments
- global payments network with world-class operating performance
- expertise in real-time account-based payments through our Vocalink business
- adoption of innovative products and digital solutions
- safety and security solutions embedded in our networks
- analytics insights and consulting services 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

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 integrated products and services are used. See “Risk Factors” in Part I, Item 1A for more detail and examples.

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. Actions by these organizations could influence other organizations around the world to adopt or consider adopting similar oversight. As a result, Mastercard could be subject to new regulation, supervisions and examination requirements. For example, in the U.K., the Bank of England has expanded its oversight of systemically important payment systems to include service providers, as well. Also, in the EEA, the implementation of PSD2 will require financial institutions to provide third party payment processors access to consumer payment accounts, which may enable these processors to route transactions away from Mastercard products by offering certain services directly to people who currently use our products. PSD2 will also require a new standard for authentication of transactions, which necessitates additional verification information from consumers to complete transactions. This may increase the number of transactions that consumers abandon if we are unable to ensure a frictionless authentication experience under the new standards.

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 and European Union legislation capping consumer credit and debit interchange fees on payments issued and acquired within the EEA. For more detail, see our risk factors in “Risk Factors-Regulations Related to Our Participation in the Payments Industry” in Part I, Item 1A. Also see Note 20 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8.

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. For example, governments in some countries mandate switching of domestic payments either entirely in that country or by only domestic companies. In China, we are currently excluded from domestic switching and are seeking market access, which is uncertain and subject to a number of factors, including receiving regulatory approval. We are in active discussions to explore different solutions.

Payment Systems Regulation . Regulators in several countries around the world either have, or are seeking to establish, authority to regulate certain aspects of the payment systems in their countries. Such authority has resulted in regulation of various aspects of our business. 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 PSR (Vocalink and Mastercard are both participants in the payments system and are therefore subject to the PSR’s duties and powers), India (which has also

designated us as a payments system subject to regulation), the National Bank of Belgium and regulators in Brazil, Hong Kong, Mexico and Russia.

Anti-Money Laundering, Counter Terrorist Financing, Economic Sanctions and Anti-Corruption. We are subject to anti-money laundering (“AML”) and counter terrorist financing (“CTF”) laws and regulations globally, including the U.S. Bank Secrecy Act and the USA PATRIOT Act, as well as the various economic sanctions programs, including those imposed and administered by the U.S. Office of Foreign Assets Control (“OFAC”). We have implemented a comprehensive AML/CTF program, comprised of policies, procedures and internal controls, including the designation of a compliance officer, which is designed to prevent our payment network from being used to facilitate money laundering and other illicit activity and to address these legal and regulatory requirements and assist in managing money laundering and terrorist financing risks. The economic sanctions programs administered by OFAC restrict financial transactions and other dealings with certain countries and geographies (specifically Crimea, Cuba, Iran, North Korea and Syria) and with persons and entities included in OFAC sanctions lists including its list of Specially Designated Nationals and Blocked Persons (the “SDN List”). We take measures to prevent transactions that do not comply with OFAC and other applicable sanctions, including establishing a risk-based compliance program that has policies, procedures and controls designed to prevent us from having unlawful business dealings with prohibited countries, regions, individuals or entities. As part of this program, we obligate issuers and acquirers to comply with their local sanctions obligations and the U.S. sanctions programs, including requiring the screening of account holders and merchants, respectively, against OFAC sanctions lists (including the SDN List). Iran, Sudan and Syria have been identified by the U.S. State Department as terrorist-sponsoring states, and we have no offices, subsidiaries or affiliated entities located in any of these countries or geographies and do not license entities domiciled there. We are also subject to anti-corruption laws and regulations globally, including the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act, which, among other things, generally prohibit giving or offering payments or anything of value for the purpose of improperly influencing a business decision or to gain an unfair business advantage. We have implemented policies, procedures and internal controls to proactively manage corruption risk.

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. In addition, we are or may be subject to regulation by a number of agencies charged with oversight of, among other things, consumer protection, financial and banking matters. The regulators have supervisory and independent examination authority as well as enforcement authority that we may be subject to because of the services we provide to financial institutions that issue and acquire our products.

Issuer Practice Legislation and 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 us as a consequence. Such regulations and investigations have been related to payment card add-on products, campus cards, bank overdraft practices, fees issuers charge to account holders and the transparency of terms and conditions. Additionally, regulations such as PSD2 in the EEA require financial institutions to provide third-party payment-processors access to consumer payment accounts, enabling them to provide payment initiation and account information services directly to consumers.

Regulation of Internet and Digital Transactions . Various jurisdictions have enacted or have proposed regulation related to internet transactions. The legislation applies to payments system participants, including us 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 and copyright and trademark infringement.

Privacy, Data Protection and Information Security. Aspects of our operations or business are subject to increasingly complex 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. In the European Union, we are subject to the GDPR, which requires a comprehensive privacy and data protection program to protect the personal and sensitive data of EEA residents. A number of regulators and policymakers around the globe are using the GDPR as a reference to adopt new or updated privacy and data protection laws, including in the U.S. (California), Argentina, Brazil, Chile, India, Indonesia and Kenya. Some jurisdictions are currently considering adopting “data localization” requirements, which mandate the collection, processing, and/or storage of data within their borders, including India, Kenya and Vietnam. Due to constant changes to the nature of data and the use of emerging technologies such as artificial intelligence, regulations in this area are constantly evolving with regulatory and legislative authorities in numerous parts of the world adopting proposals to protect information. In addition, the interpretation and application of these privacy and data protection laws are often uncertain and in a state of flux, thus requiring constant monitoring for compliance.

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, identity theft, account management guidelines, disclosure rules, security and marketing that would impact our customers directly.

Seasonality

We do not experience meaningful seasonality.

Employees

As of December 31, 2018 , we employed approximately 14,800 persons, of whom approximately 8,800 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, 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 15 (Stockholders' Equity) to the consolidated financial statements included in Part II, Item 8.

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. You can also visit "Investor Alerts" in the investor relations section to enroll your email address to automatically receive email alerts and other information about Mastercard.

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. Our filings are also available electronically from the SEC at www.sec.gov.

ITEM 1A. RISK FACTORS



Legal and Regulatory

Payments Industry Regulation

Global regulatory and legislative activity directly related to the payments industry may have a material adverse impact on our overall business and results of operations.

Regulators increasingly seek to regulate certain aspects of payments systems such as ours, or establish or expand their authority to do so. Many jurisdictions have enacted such regulations. These regulations have established, and could further expand, obligations or restrictions with respect to the types of products and services that we may offer to financial institutions for consumers, the countries in which our integrated 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 products or services. New regulations and oversight could also relate to our clearing and settlement activities (including risk management policies and procedures, collateral requirements, participant default policies and procedures, the ability to complete timely switching of financial transactions, and capital and financial resource requirements). In addition, 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 and, in some cases, are considering designating certain payments networks as “systemically important payment systems” or “critical infrastructure.”

These obligations, designations and restrictions may further expand and could conflict with each other as more jurisdictions impose oversight of payment systems.

Some enacted regulations require financial institutions to provide third party payment processors access to consumer payment accounts. This may enable these third party payment processors to route transactions away from Mastercard products by offering account information or payment initiation services directly to people who currently use our products. This may also allow these processors to commoditize the data that are included in the transactions. New authentication standards have been enacted requiring additional verification information from consumers to complete transactions. This may increase the number of transactions that consumers abandon if we are unable to ensure a frictionless authentication experience. An increase in the rate of abandoned transactions could adversely impact our volumes or other operational metrics.

Increased regulation and oversight of payment systems may result in costly compliance burdens or otherwise increase our costs. Such laws or compliance burdens could result in issuers and acquirers being less willing to participate in our payments system, reduce the benefits offered in connection with the use of our products (making our products less desirable to consumers), reduce the volume of domestic and cross-border transactions or other operational metrics, disintermediate us, impact our profitability and limit our ability to innovate or offer differentiated products and services, all of which could materially and adversely impact our financial performance. Regulators could also require us to obtain prior approval for changes to its system rules, procedures or operations, or could require customization with regard to such changes, which could impact market participant risk and therefore risk to us. Such regulatory changes could lead to new or different criteria for participation in and access to our payments system by financial institutions or other customers. Moreover, failure to comply with the laws and regulations to which we are subject could result in fines, sanctions, civil damages 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.

Increased regulatory, legislative and litigation activity with respect to interchange rates could have an adverse impact on our business.

Interchange rates are a significant component of the costs that merchants pay in connection with the acceptance of our products. Although we do not earn revenues from interchange, interchange rates can impact the volume of transactions we see on our payment products. 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 integrated products and services, eliminate or reduce loyalty rewards programs or other account holder benefits (e.g., free checking or low interest rates on balances), or charge fees to account holders (e.g., annual fees or late payment fees).

Governments and merchant groups in a number of countries have implemented or are seeking interchange rate reductions through legislation, competition law, central bank regulation and litigation. See “Government Regulation” and Note 20 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8 for more details.

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, potential changes to interregional interchange fees as a result of the proposed resolution of the European Commission’s investigation 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 payment programs by seeking a reduction in the fees that we charge to them, particularly if regulation has a disproportionate impact on us as compared to 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 of these activities could have a more positive or negative impact on us relative to our 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 (and in some cases has resulted) in us being fined and/or having to pay civil damages, the amount of which could be material.

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 replicate other regulators' approaches with regard to the regulation of payments and other industries. Consequently, regulation in any one country, state or region may influence regulatory approaches in other countries, states or regions. Similarly, new laws and regulations within a country, state or region involving one product may lead to regulation of similar or related products. 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 within any particular jurisdiction. These include matters like interchange rates, potential direct regulation of our 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.

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 our 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.

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 have acted, or in the future may act, to provide resources, preferential treatment or other protection to selected national payment and switching 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 switching of domestic payments either entirely in that country or by only domestic companies.
- Some jurisdictions are considering requirements to collect, process and/or store data within their borders, as well as prohibitions on the transfer of data abroad, leading to technological and operational implications.
- Geopolitical events and resulting OFAC sanctions, adverse trade policies or other types of government actions could lead jurisdictions affected by those sanctions to take actions in response that could adversely affect our business.
- Regional groups of countries are considering, or may consider, efforts to restrict our participation in the switching of regional transactions.

Such developments prevent us from utilizing our global switching 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.

Privacy, Data Protection and Security

Regulation of privacy, data protection, security and the digital economy could increase our costs, as well as negatively impact our growth.

We are subject to increasingly complex 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 integrated

products and services to meet the needs of a changing marketplace, as well as acquire new companies, we may expand our information profile through the collection of additional data from additional sources and across multiple channels. This expansion could amplify the impact of these regulations on our business. Regulation of privacy and data protection and information security often times require monitoring of and changes to our data practices in regard to the collection, use, disclosure, storage, transfer and/or security of personal and sensitive information. We are also subject to enhanced compliance and operational requirements in the European Union, and policymakers around the globe are using these requirements as a reference to adopt new or updated privacy laws that could result in similar or stricter requirements in other jurisdictions. Some jurisdictions are also considering requirements to collect, process and/or store data within their borders, as well as prohibitions on the transfer of data abroad, leading to technological and operational implications. Other jurisdictions are considering adopting sector-specific regulations for the payments industry, including forced data sharing requirements or additional verification requirements that overlap or conflict with, or diverge from, general privacy rules. 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 or reinterpretations of existing requirements in these areas, or the development of new regulatory schemes related to the digital economy in general, may also increase our costs and could impact the products and services we offer and other 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 payment products that they issue. Moreover, due to account data compromise events and privacy abuses by other companies, as well as the disclosure of monitoring activities by certain governmental agencies in combination with the use of artificial intelligence and new technologies, there has been heightened legislative and regulatory scrutiny around the world that could lead to further regulation and requirements and/or future enforcement. Those developments have also raised public attention on companies' data practices and have changed consumer and societal expectations for enhanced privacy and data protection. Any of these developments could materially and adversely affect our overall business and results of operations.

In addition, fraudulent activity could encourage regulatory intervention, which could damage our reputation and reduce the use and acceptance of our integrated products and services or increase our compliance costs. Criminals are using increasingly sophisticated methods to capture consumer account information to engage in illegal activities such as counterfeiting or other fraud. As outsourcing and specialization become common in the payments industry, there are more third parties involved in processing transactions using our payment products. While we are taking measures to make card and digital payments more secure, increased fraud levels involving our integrated products and services, or misconduct or negligence by third parties switching or otherwise servicing our integrated products and services, could lead to regulatory intervention, such as enhanced security requirements, as well as damage to our reputation.

Other Regulation

Regulations that directly or indirectly apply to Mastercard as a result of our participation in 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 integrated products and services 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:

- **Anti-Money Laundering, Counter Terrorist Financing, Economic Sanctions and Anti-Corruption** - We are subject to AML and CTF laws and regulations globally, including the U.S. Bank Secrecy Act and the USA PATRIOT Act, as well as the various economic sanctions programs, including those imposed and administered by OFAC. The economic sanctions programs administered by OFAC restrict financial transactions and other dealings with certain countries and geographies (specifically Crimea, Cuba, Iran, North Korea and Syria) and with persons and entities included in OFAC sanctions lists including the SDN List. Iran, Sudan and Syria have been identified by the U.S. State Department as terrorist-sponsoring states. We are also subject to anti-corruption laws and regulations globally, including the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act, which, among other things, generally prohibit giving or offering payments or anything of value for the purpose of improperly influencing a business decision or to gain an unfair business advantage. A violation and subsequent judgment or settlement against us, or those with whom we may be associated, under these laws could subject us to substantial monetary penalties, damages, and/or have a significant reputational impact.

- **Account-based Payment Systems** – In the U.K., the Treasury has expanded the Bank of England’s oversight of certain payment system providers that are systemically important to U.K.’s payment network. As a result of these changes, aspects of our Vocalink business are now subject to the U.K. payment system oversight regime and are directly overseen by the Bank of England.
- **Issuer Practice Legislation and Regulation** - Our financial institution customers are subject to numerous regulations, which impact us as a consequence. In addition, certain regulations (such as PSD2 in the EEA) may disintermediate issuers. If our customers are disintermediated in their business, we could face diminished demand for our integrated products and services. In addition, existing or new regulations in these or other areas may diminish the attractiveness of our products to our customers.
- **Regulation of Internet and Digital Transactions** - Proposed legislation in various jurisdictions relating to Internet gambling and other digital areas such as cyber-security and copyright and trademark infringement 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, or may otherwise impact the competitiveness of our products. Actions by regulators could influence other organizations around the world to enact or consider adopting similar measures, amplifying any potential compliance burden. 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.

We could be subject to adverse changes in tax laws, regulations and interpretations or challenges to our tax positions.

We are subject to tax laws and regulations of the U.S. federal, state and local governments as well as various non-U.S. jurisdictions. Potential changes in existing tax laws, including future regulatory guidance, may impact our effective tax rate and tax payments. There can be no assurance that changes in tax laws or regulations, both within the U.S. and the other jurisdictions in which we operate, will not materially and adversely affect our effective tax rate, tax payments, financial condition and results of operations. Similarly, changes in tax laws and regulations that impact our customers and counterparties or the economy generally may also impact our financial condition and results of operations.

In addition, tax laws and regulations are complex and subject to varying interpretations, and any significant failure to comply with applicable tax laws and regulations in all relevant jurisdictions could give rise to substantial penalties and liabilities. Any changes in enacted tax laws, rules or regulatory or judicial interpretations; any adverse outcome in connection with tax audits in any jurisdiction; or any change in the pronouncements relating to accounting for income taxes could materially and adversely impact our effective tax rate, tax payments, financial condition and results of operations.

Litigation

Liabilities we may incur or limitations on our business related to any litigation or litigation settlements 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 20 (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.

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.

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:

- 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 operate three-party payments systems with direct connections to both merchants and consumers and these competitors may derive competitive advantages from their business models. 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.

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 switch (and in some cases are switching) 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 switching the entire transaction on their own network, thereby disintermediating us.
- Regulation in the EEA may disintermediate us by enabling third-party providers opportunities to route payment transactions away from our networks 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 networks 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. This risk is heightened when we have relationships with these entities where we share Mastercard data. While we share this data in a controlled manner subject to applicable anonymization and privacy and data protection standards, without proper oversight we could inadvertently share too much data which could give the partner a competitive advantage.
- 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 switching and payments offerings or could force us to change our pricing or practices for these offerings. In addition, governments that develop national payment platforms may promote their platforms in such a way that could put us at a competitive disadvantage in those markets.

- 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 products and 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 products and services, 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 switch 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, cryptocurrency and block chain technology, machine learning and AI, 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 products that could place us at a competitive disadvantage and that could reduce the use of our products.
- 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 our 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.

Operating a real-time account-based payment network presents risks that could materially affect our business.

Our acquisition of Vocalink in 2017 added real-time account-based payment technology to the suite of capabilities we offer. While expansion into this space presents business opportunities, there are also regulatory and operational risks associated with administering a real-time account-based payment network.

British regulators have designated this platform to be “critical national infrastructure” and regulators in other countries may in the future expand their regulatory oversight of real-time account-based payment systems in similar ways. In addition, any prolonged service outage on this network could result in quickly escalating impacts, including potential intervention by the Bank of England and significant reputational risk to Vocalink and us. For a discussion of the regulatory risks related to our real-time account-based payment platform, see our risk factor in “Risk Factors - Payments Industry Regulation” in this Part I, Item 1A. Furthermore, the complexity of this payment technology requires careful management to address security vulnerabilities that are different from those faced on our core network. Operational difficulties, such as the temporary unavailability of our services or products, or security breaches on our real-time account-based payment network could cause a loss of business for these products and services, result in potential liability for us and adversely affect our reputation.

Working with new customers and end users as we expand our integrated products and services can present operational challenges, be costly and result in reputational damage if the new products or services do not perform as intended.

The payments markets in which we compete are characterized by rapid technological change, new product introductions, evolving industry standards and changing customer and consumer needs. In order to remain competitive and meet the needs of the payments market, we are continually involved in diversifying our integrated products and services. These efforts carry the risks associated with any diversification initiative, including cost overruns, delays in delivery and performance problems. These projects also carry risks associated with working with different types of customers, for example organizations such as corporations that are not financial institutions and non-governmental organizations (“NGOs”), and end users than those we have traditionally worked with. These differences may present new operational challenges in the development and implementation of our new products or services.

Our failure to render these integrated products and services could make our other integrated products and services less desirable to customers, or put us at a competitive disadvantage. In addition, if there is a delay in the implementation of our products or services or if our products or services do not perform as anticipated, we could face additional regulatory scrutiny, fines, sanctions or other penalties, which could materially and adversely affect our overall business and results of operations, as well as negatively impact our brand and reputation.

Information Security and Service Disruptions

Information security incidents or account data compromise events could disrupt our business, damage our reputation, increase our costs and cause losses.

Information security risks for payments and technology companies such as ours 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 and could lead to the misappropriation of consumer account and other information and identity theft.

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 account holders, rely on our digital technologies, computer systems, software and networks to conduct their operations. In addition, to access our

integrated products and services, our customers and account holders increasingly use personal smartphones, tablet PCs and other mobile devices that may be beyond our control. We, like other financial technology organizations, routinely are subject to cyber-threats and our technologies, systems and networks have been subject to attempted 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 integrated 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 services), 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 us (such as repairing systems, adding new personnel or protection technologies or compliance costs), regulatory penalties, financial losses to both us and our customers and partners and the loss of customers and business opportunities. If such attacks are not detected immediately, their effect could be compounded.

Despite various mitigation efforts that we undertake, 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, our prominent size and scale 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 account holders 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.

In addition to information security risks for our systems, we also routinely encounter account data compromise events involving merchants and third-party payment processors that process, store or transmit payment transaction data, which affect millions of Mastercard, Visa, Discover, American Express and other types of account holders. Further events of this type may subject us to reputational damage and/or lawsuits involving payment products 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 integrated products and services. Such events could also slow or reverse the trend toward electronic payments. In addition to reputational concerns, the cumulative impact of multiple account data compromise events could increase the impact of the fraud resulting from such events by, among other things, making it more difficult to identify consumers. Moreover, 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. Such events 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 on us.

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 switching 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 switching 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 payment products, 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.

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 account holders and merchants to support our programs and services. Furthermore, we depend on our issuing partners and acquirers to continue to innovate to maintain competitiveness in the market. We do not issue cards or other payment devices, extend credit to account holders or determine the interest rates or other fees charged to account holders. 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, including economic conditions in global financial markets or their disintermediation by competitors or emerging technologies, as well as regulation. 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 Obligations" 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 switching services in these countries and do not, as described above, have direct relationships with account holders, 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.

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 integrated products and services. 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 "Risk Factors – Risks Related to Our Participation in the Payments Industry" 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 products. 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.

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, as well as other contractual obligations, expose us to risk of loss or illiquidity.

We are a guarantor of certain third-party obligations, including those of certain of our customers. In this capacity, we are exposed to credit and liquidity risk from these customers and certain service providers. We may incur significant losses in connection with transaction settlements if a customer fails to fund its daily settlement obligations due to technical problems, liquidity shortfalls, insolvency or other reasons. 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 results of operations.

We have significant contractual indemnification obligations with certain customers. Should an event occur that triggers these obligations, such an event could materially and adversely affect our overall business and result of operations.

Global Economic and Political Environment

Global economic, political, financial and societal events or conditions could result in a material and adverse impact on our overall business and results of operations.

Adverse economic trends in key countries in which we operate may adversely affect our financial performance. Such impact may include, but is not limited to, the following:

- Customers mitigating their economic exposure by limiting the issuance of new Mastercard products and requesting greater incentive or greater cost stability from us.
- Consumers and businesses lowering spending, which could impact cross-border travel patterns (on which a significant portion of our revenues is dependent).
- 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, that 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 that could impact the ability of participating financial institutions to lend to us under the terms of our credit facility.

Additionally, we switch 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 switching 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, as well as major environmental events. The uncertainty that could result from such events could decrease cross-border activity. Additionally, any regulation of interregional interchange fees could also negatively impact our cross-border activity. In each case, decreased cross-border activity could decrease the revenue we receive.

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

Adverse currency fluctuations and foreign exchange controls could negatively impact our results of operations.

During 2018, approximately 67% 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 devaluation 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, such as what we have experienced in Venezuela.

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

The United Kingdom's proposed withdrawal from the European Union could harm our business and financial results.

In June 2016, voters in the United Kingdom approved the withdrawal of the U.K. from the E.U. (commonly referred to as "Brexit"). The U.K. government triggered Article 50 of the Lisbon Treaty on March 29, 2017, which commenced the official E.U. withdrawal process. Uncertainty over the terms of the U.K.'s departure from the E.U. could cause political and economic uncertainty in the U.K. and the rest of Europe, which could harm our business and financial results.

Brexit could lead to legal uncertainty and potentially divergent national laws and regulations in the U.K. and E.U. We, as well as our clients who have significant operations in the U.K., may incur additional costs and expenses as we adapt to potentially divergent regulatory frameworks from the rest of the E.U. We may also face additional complexity with regard to immigration and travel rights for our employees located in the U.K. and the E.U. These factors may impact our ability to operate in the E.U. and U.K. seamlessly. Any of these effects of Brexit, among others, could harm our business and financial results.

Brand and 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, merchants or other organizations that impact the perception of our brands or the payments industry in general. 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”. 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, our products or merchants or other end users who utilize our products. 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. Such perception and damage to our reputation could have a material and adverse effect to our overall business.

Lack of visibility of our brand in our products and services, or in the products and services of our partners who use our technology, may materially and adversely affect our business.

As more players enter the global payments system, the layers between our brand and consumers and merchants increase. In order to compete with other powerful consumer brands that are also becoming part of the consumer payment experience, we often partner with those brands on payment solutions. These brands include large digital companies and other technology companies who are our customers and use our networks to build their own acceptance brands. In some cases, our brand may not be featured in the payment solution or may be secondary to other brands. Additionally, as part of our relationships with some issuers, our payment brand is only included on the back of the card. As a result, our brand may either be invisible to consumers or may not be the primary brand with which consumers associate the payment experience. This brand invisibility, or any consumer confusion as to our role in the consumer payment experience, could decrease the value of our brand, which could adversely affect our business.

Talent and Culture

We may not be able to attract, hire and retain a highly qualified and diverse workforce, or maintain our corporate culture, which could impact our ability to grow effectively.

Our performance largely depends on the talents and efforts of our employees, particularly our key personnel and senior management. We may be unable to retain or to attract highly qualified employees. The market for key personnel is highly competitive, particularly in technology and other skill areas significant to our business. Additionally, changes in immigration and work permit laws and regulations and related enforcement have made it difficult for employees to work in, or transfer among, jurisdictions in which we have operations and could impair our ability to attract and retain qualified employees. Failure to attract, hire, develop, motivate and retain highly qualified and diverse employee talent, or to maintain a corporate culture that fosters innovation, creativity and teamwork could harm our overall business and results of operations.

We rely on key personnel to lead with integrity. To the extent our leaders behave in a manner that is not consistent with our values, we could experience significant impact to our brand and reputation, as well as to our corporate culture.

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 Mastercard Foundation is disqualified from service on our board of directors

Mastercard 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 8, 2019, Mastercard Foundation owned 112,181,762 shares of Class A common stock, representing approximately 11.1% of our general voting power. Mastercard Foundation may not sell or otherwise transfer its shares of Class A common stock prior to May 1, 2027, except to the extent necessary to satisfy its charitable disbursement requirements, for which purpose earlier sales are permitted. Mastercard Foundation is permitted to sell all of its remaining shares after May 1, 2027, subject to certain conditions. The directors of Mastercard Foundation are required to be independent of us and our customers. The ownership of Class A common stock by Mastercard 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 Mastercard 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, 2018, Mastercard and its subsidiaries owned or leased 169 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. Our leased properties in the United States are located in nine states and in the District of Columbia. We also lease and own properties in 74 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 Note 12 (Accrued Expenses and Accrued Litigation) and Note 20 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

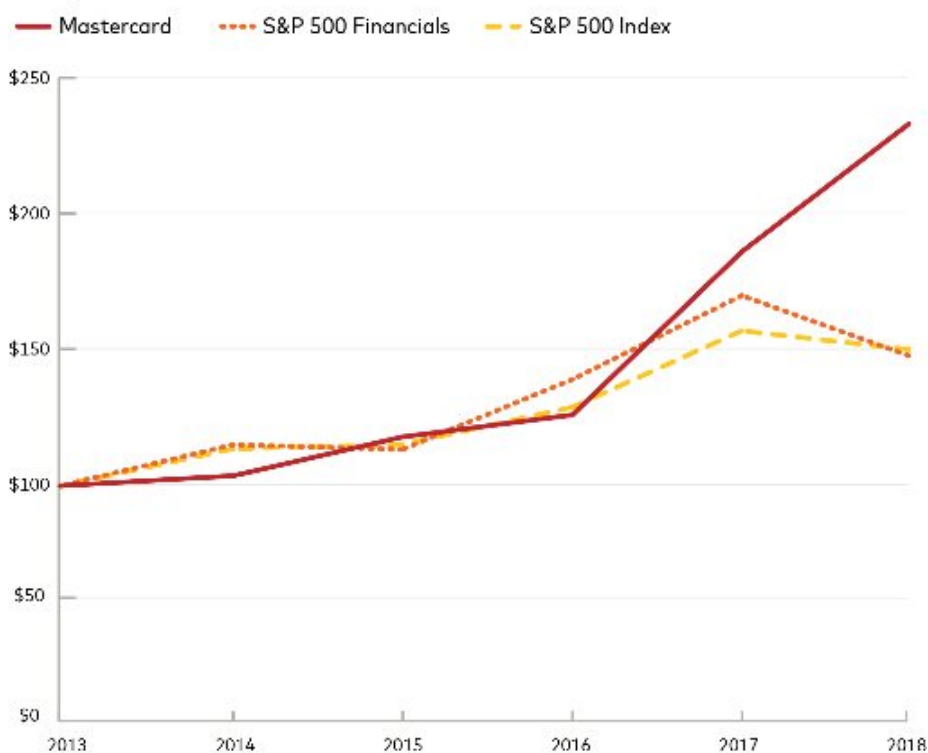
Our Class A common stock trades on the New York Stock Exchange under the symbol “MA”. At February 8, 2019, we had 73 stockholders of record for our Class A common stock. We believe that the number of beneficial owners is substantially greater than the number of record holders because a large portion of our Class A common stock is held in “street name” by brokers.

There is currently no established public trading market for our Class B common stock. There were approximately 287 holders of record of our non-voting Class B common stock as of February 8, 2019, constituting approximately 1.1% of our total outstanding equity.

Stock Performance Graph

The graph and table below compare the cumulative total stockholder return of Mastercard’s Class A common stock, the S&P 500 Financials and the S&P 500 Index for the five-year period ended December 31, 2018. The graph assumes a \$100 investment in our Class A common stock and both of the indices and the reinvestment of dividends. Mastercard’s Class B common stock is not publicly traded or listed on any exchange or dealer quotation system.

Comparison of Cumulative Five-Year Total Return



Total returns to stockholders for each of the years presented were as follows:

| Company/Index | Indexed Returns | | | | | |
|--------------------|---------------------|----------------------------------|-----------|-----------|-----------|-----------|
| | Base period 2013 | For the Years Ended December 31, | | | | |
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| Mastercard | \$ 100.00 | \$ 103.73 | \$ 118.05 | \$ 126.20 | \$ 186.37 | \$ 233.56 |
| S&P 500 Financials | 100.00 | 115.20 | 113.44 | 139.31 | 170.21 | 148.03 |
| S&P 500 Index | 100.00 | 113.69 | 115.26 | 129.05 | 157.22 | 150.33 |

Dividend Declaration and Policy

During the years ended December 31, 2018 and 2017, we paid the following quarterly cash dividends per share on our Class A common stock and Class B common stock:

| | Dividend per Share | |
|----------------|--------------------|---------|
| | 2018 | 2017 |
| First Quarter | \$ 0.25 | \$ 0.22 |
| Second Quarter | 0.25 | 0.22 |
| Third Quarter | 0.25 | 0.22 |
| Fourth Quarter | 0.25 | 0.22 |

On December 4, 2018, our Board of Directors declared a quarterly cash dividend of \$0.33 per share paid on February 8, 2019 to holders of record on January 9, 2019 of our Class A common stock and Class B common stock. On February 5, 2019, our Board of Directors declared a quarterly cash dividend of \$0.33 per share payable on May 9, 2019 to holders of record on April 9, 2019 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 4, 2017, our Board of Directors approved a share repurchase program authorizing us to repurchase up to \$4 billion of our Class A common stock (the "2017 Share Repurchase Program"). This program became effective in 2018. On December 4, 2018, our Board of Directors approved a share repurchase program authorizing us to repurchase up to \$6.5 billion of our Class A common stock (the "2018 Share Repurchase Program"). This program became effective in January 2019.

During the fourth quarter of 2018, we repurchased a total of approximately 4.4 million shares for \$888 million at an average price of \$201.20 per share of Class A common stock. Our repurchase activity during the fourth quarter of 2018 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 | 2,390,996 | \$ 206.39 | 2,390,996 | \$ 695,528,134 |
| November 1 – 30 | 1,027,633 | 197.12 | 1,027,633 | 492,962,254 |
| December 1 – 31 | 996,945 | 192.94 | 996,945 | 6,800,613,788 |
| Total | 4,415,574 | 201.20 | 4,415,574 | |

¹ Dollar value of shares that may yet be purchased under the 2017 Share Repurchase Program and the 2018 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, 2018, 2017 and 2016 , and the balance sheet data as of December 31, 2018 and 2017 , 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, 2015 and 2014 , and the balance sheet data as of December 31, 2016 , 2015 and 2014 , 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, | | | | |
|--|--------------------------------------|----------------|----------------|----------------|----------------|
| | 2018 | 2017 | 2016 | 2015 | 2014 |
| | (in millions, except per share data) | | | | |
| Statement of Operations Data: | | | | | |
| Net revenue | \$ 14,950 | \$ 12,497 | \$ 10,776 | \$ 9,667 | \$ 9,441 |
| Total operating expenses | 7,668 | 5,875 | 5,015 | 4,589 | 4,335 |
| Operating income | 7,282 | 6,622 | 5,761 | 5,078 | 5,106 |
| Net income | 5,859 | 3,915 | 4,059 | 3,808 | 3,617 |
| Basic earnings per share | 5.63 | 3.67 | 3.70 | 3.36 | 3.11 |
| Diluted earnings per share | 5.60 | 3.65 | 3.69 | 3.35 | 3.10 |
| Balance Sheet Data: | | | | | |
| Total assets | \$ 24,860 | \$ 21,329 | \$ 18,675 | \$ 16,250 | \$ 15,329 |
| Long-term debt | 5,834 | 5,424 | 5,180 | 3,268 | 1,494 |
| Total equity | 5,418 | 5,497 | 5,684 | 6,062 | 6,824 |
| Cash dividends declared per share | \$ 1.08 | \$ 0.91 | \$ 0.79 | \$ 0.67 | \$ 0.49 |

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. Certain prior period amounts have been reclassified to conform to the 2018 presentation. For 2017 and 2016, \$127 million and \$113 million, respectively, of expenses were reclassified from advertising and marketing expenses to general and administrative expenses. The reclassification had no impact on total operating expenses, operating income or net income. 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.

Business Overview

Mastercard is a technology company in the global payments industry that connects consumers, financial institutions, merchants, governments, digital partners, businesses and other organizations worldwide, enabling them to use electronic forms of payment instead of cash and checks. 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 are a multi-rail network. Through our core global payments processing network, we facilitate the switching (authorization, clearing and settlement) of payment transactions and deliver related products and services. With additional payment capabilities that include real-time account based payments (including automated clearing house ("ACH") transactions), we offer customers one partner to turn to for their payment needs for both domestic and cross-border transactions across multiple payment flows. We also provide value-added offerings such as safety and security products, information and analytics services, consulting, loyalty and reward programs and issuer and acquirer processing. Our payment solutions are designed to ensure safety and security for the global payments system.

A typical transaction on our core network involves four participants in addition to us: account holder (a consumer who holds a card or uses another device enabled for payment), issuer (the account holder's financial institution), merchant 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 account holders by issuers, or establish the rates charged by acquirers in connection with merchants' acceptance of our branded products. In most cases, account holder relationships belong to, and are managed by, our financial institution customers.

Financial Results Overview

The following tables provide a summary of our operating results:

| | Year ended December 31, | | Increase/ (Decrease) | Year ended December 31, | | Increase/ (Decrease) |
|---|-------------------------|-----------|-------------------------|-------------------------|-----------|-------------------------|
| | 2018 | 2017 | | 2017 | 2016 | |
| (\$ in millions, except per share data) | | | | | | |
| Net revenue | \$ 14,950 | \$ 12,497 | 20% | \$ 12,497 | \$ 10,776 | 16% |
| Operating expenses | \$ 7,668 | \$ 5,875 | 31% | \$ 5,875 | \$ 5,015 | 17% |
| Operating income | \$ 7,282 | \$ 6,622 | 10% | \$ 6,622 | \$ 5,761 | 15% |
| Operating margin | 48.7% | 53.0% | (4.3) ppt | 53.0% | 53.5% | (0.5) ppt |
| Income tax expense | \$ 1,345 | \$ 2,607 | (48)% | \$ 2,607 | \$ 1,587 | 64% |
| Effective income tax rate | 18.7% | 40.0% | (21.3) ppt | 40.0% | 28.1% | 11.9 ppt |
| Net income | \$ 5,859 | \$ 3,915 | 50% | \$ 3,915 | \$ 4,059 | (4)% |
| Diluted earnings per share | \$ 5.60 | \$ 3.65 | 53% | \$ 3.65 | \$ 3.69 | (1)% |
| Diluted weighted-average shares outstanding | 1,047 | 1,072 | (2)% | 1,072 | 1,101 | (3)% |

Summary of Non-GAAP Results ¹:

| | Year ended December 31, | | Increase/(Decrease) | | Year ended December 31, | | Increase/(Decrease) | |
|---|-------------------------|-----------|---------------------|------------------|-------------------------|-----------|---------------------|------------------|
| | 2018 | 2017 | As adjusted | Currency-neutral | 2017 | 2016 | As adjusted | Currency-neutral |
| (\$ in millions, except per share data) | | | | | | | | |
| Net revenue | \$ 14,950 | \$ 12,497 | 20% | 20% | \$ 12,497 | \$ 10,776 | 16% | 15% |
| Adjusted operating expenses | \$ 6,540 | \$ 5,693 | 15% | 15% | \$ 5,693 | \$ 4,898 | 16% | 16% |
| Adjusted operating margin | 56.2% | 54.4% | 1.8 ppt | 1.8 ppt | 54.4% | 54.5% | (0.1) ppt | (0.2) ppt |
| Adjusted effective income tax rate | 18.5% | 26.8% | (8.3) ppt | (8.2) ppt | 26.8% | 28.1% | (1.3) ppt | (1.3) ppt |
| Adjusted net income | \$ 6,792 | \$ 4,906 | 38% | 38% | \$ 4,906 | \$ 4,144 | 18% | 17% |
| Adjusted diluted earnings per share | \$ 6.49 | \$ 4.58 | 42% | 41% | \$ 4.58 | \$ 3.77 | 21% | 21% |

Note: Tables may not sum due to rounding.

¹ The Summary of Non-GAAP Results excludes the impact of Special Items (subsequently defined) and/or foreign currency. See "Non-GAAP Financial Information" for further information on the Special Items, the impact of foreign currency and the reconciliation to GAAP reported amounts.

Key highlights for 2018 were as follows:

- Net revenue increased 20% both as reported and on a currency-neutral basis, in 2018 versus 2017. Current year results include growth of 4 percentage points from the impact of the adoption of the new revenue standard and an additional 0.5 percentage points from our prior year acquisitions. The remaining 15 percentage points of growth was primarily driven by:
 - Switched transaction growth of 17%, adjusted for the impact of the Venezuela deconsolidation ¹
 - Cross-border growth of 18% on a local currency basis ¹

¹ Adjusted to normalize for the effects of differing switching days between periods.

- Gross dollar volume growth of 14% on a local currency basis
- These increases were partially offset by higher rebates and incentives, which increased 18% both as reported and on a currency-neutral basis.
- Operating expenses increased 31% in 2018 versus 2017 . Excluding the impact of Special Items (defined below), operating expenses increased 15% both as adjusted and on a currency-neutral basis, primarily driven by:
 - 3 percentage point increase from the adoption of the new revenue guidance
 - 2 percentage point increase from acquisitions
 - 2 percentage point increase from the \$100 million contribution to the Mastercard Impact Fund (formerly referred to as Mastercard’s Center for Inclusive Growth Fund), a non-profit charitable organization.

The remaining 8 percentage points of growth was primarily related to our continued investment in strategic initiatives and higher operating costs.

- The effective income tax rate was 18.7% in 2018 versus 40.0% in 2017. The lower effective tax rate for the period was primarily due to additional tax expense in 2017 attributable to comprehensive U.S. tax legislation (“U.S. Tax Reform”) passed on December 22, 2017, a lower enacted statutory tax rate in the U.S. and Belgium and a more favorable geographic mix of earnings. The lower effective tax rate for the period was also attributable to discrete tax benefits, relating primarily to the carryback of foreign tax credits due to transition rules, along with provisions for legal matters in the United States. These benefits were partially offset by the non-deductible fine issued by the European Commission.

Other financial highlights for 2018 were as follows:

- We generated net cash flows from operations of \$6.2 billion .
- We completed a debt offering for an aggregate principal amount of \$1.0 billion .
- We repurchased 26 million shares of our common stock for \$4.9 billion and paid dividends of \$1.0 billion .
- We recorded litigation provision charges of \$1.1 billion . See Note 20 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8 for further discussion.

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”). Our non-GAAP financial measures exclude the impact of the following special items (“Special Items”).

Litigation provisions

- During 2018, we recorded pre-tax charges of \$1,128 million (\$1,008 million after tax, or \$0.96 per diluted share) related to litigation provisions which included pre-tax charges of:
 - \$654 million related to a fine issued by the European Commission
 - \$237 million related to both the U.S. merchant class litigation and the filed and anticipated opt-out U.S. merchant cases
 - \$237 million related to litigation settlements with U.K. and Pan-European merchants.
- During 2017, we recorded pre-tax charges of \$15 million (\$10 million after tax, or \$0.01 per diluted share) related to a litigation settlement with Canadian merchants.
- During 2016, we recorded pre-tax charges of \$117 million (\$85 million after tax, or \$0.08 per diluted share) related to litigation settlements with U.K. merchants.

Tax act

- During 2018, we recorded a \$75 million net tax benefit (\$0.07 per diluted share) which included a \$90 million benefit (\$0.09 per diluted share) related to the carryback of foreign tax credits due to transition rules, offset by a net \$15 million expense (\$0.01 per diluted share) primarily related to the true-up to our 2017 mandatory deemed repatriation tax on accumulated foreign earnings.
- During 2017, we recorded additional tax expense of \$873 million (\$0.81 per diluted share) which includes \$825 million of provisional charges attributable to a one-time deemed repatriation tax on accumulated foreign earnings (the “Transition Tax”), the remeasurement of our net deferred tax asset in the U.S. and the recognition of a deferred tax liability related to a change in assertion regarding reinvestment of foreign earnings, as well as \$48 million additional tax expense related to a foregone foreign tax credit benefit on 2017 repatriations.

Venezuela charge

- ⑩ During 2017, we recorded a pre-tax charge of \$167 million (\$108 million after tax, or \$0.10 per diluted share) in general and administrative expenses related to the deconsolidation of our Venezuelan subsidiaries.

See Note 1 (Summary of Significant Accounting Policies) , Note 19 (Income Taxes) and Note 20 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8 for further discussion.

We excluded these Special Items as management evaluates the underlying operations and performance of the Company separately from litigation judgments and settlements related to interchange and other one-time items, as well as the related tax impacts.

In addition, we present growth rates adjusted for the impact of foreign currency, which is a non-GAAP financial measure. Currency-neutral growth rates 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. 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. We believe the presentation of the impact of foreign currency provides relevant information.

We believe that the non-GAAP financial measures presented facilitate an understanding of our operating performance and provide a meaningful comparison of our results between periods. We use non-GAAP financial measures to, among other things, evaluate our ongoing operations in relation to historical results, for internal planning and forecasting purposes and in the calculation of performance-based compensation.

Operating expenses, operating margin, effective income tax rate, net income and diluted earnings per share, adjusted for Special Items, are non-GAAP financial measures and should not be relied upon as substitutes for measures calculated in accordance with GAAP. The following tables reconcile our as-reported financial measures calculated in accordance with GAAP to the respective non-GAAP adjusted financial measures:

| Year ended December 31, 2018 | | | | | |
|---|------------------|---------------------------|--------|------------|----------------------------|
| Operating expenses | Operating margin | Effective income tax rate | | Net income | Diluted earnings per share |
| (\$ in millions, except per share data) | | | | | |
| Reported - GAAP | \$ 7,668 | 48.7% | 18.7 % | \$ 5,859 | \$ 5.60 |
| Litigation provisions | (1,128) | 7.5% | (1.1)% | 1,008 | 0.96 |
| Tax act | ** | ** | 0.9 % | (75) | (0.07) |
| Non-GAAP | \$ 6,540 | 56.2% | 18.5 % | \$ 6,792 | \$ 6.49 |

| Year ended December 31, 2017 | | | | | |
|---|------------------|---------------------------|---------|------------|----------------------------|
| Operating expenses | Operating margin | Effective income tax rate | | Net income | Diluted earnings per share |
| (\$ in millions, except per share data) | | | | | |
| Reported - GAAP | \$ 5,875 | 53.0% | 40.0 % | \$ 3,915 | \$ 3.65 |
| Tax act | ** | ** | (13.4)% | 873 | 0.81 |
| Venezuela charge | (167) | 1.3% | 0.2 % | 108 | 0.10 |
| Litigation provisions | (15) | 0.1% | — % | 10 | 0.01 |
| Non-GAAP | \$ 5,693 | 54.4% | 26.8 % | \$ 4,906 | \$ 4.58 |

| Year ended December 31, 2016 | | | | | |
|---|------------------|---------------------------|-------|------------|----------------------------|
| Operating expenses | Operating margin | Effective income tax rate | | Net income | Diluted earnings per share |
| (\$ in millions, except per share data) | | | | | |
| Reported - GAAP | \$ 5,015 | 53.5% | 28.1% | \$ 4,059 | \$ 3.69 |
| Litigation provisions | (117) | 1.0% | —% | 85 | 0.08 |
| Non-GAAP | \$ 4,898 | 54.5% | 28.1% | \$ 4,144 | \$ 3.77 |

Note: Tables may not sum due to rounding.

** Not applicable

Net revenue, operating expenses, operating margin, effective income tax rate, net income and diluted earnings per share, adjusted for Special Items and/or the impact of foreign currency, are non-GAAP financial measures and should not be relied upon as substitutes for measures calculated in accordance with GAAP. The following tables represent the reconciliation of our growth rates reported under GAAP to our Non-GAAP growth rates:

| Year Ended December 31, 2018 as compared to the Year Ended December 31, 2017 | | | | | | | |
|--|---------------------|--------------------|------------------|---------------------------|------------|----------------------------|--|
| | Increase/(Decrease) | | | | | | |
| | Net revenue | Operating expenses | Operating margin | Effective income tax rate | Net income | Diluted earnings per share | |
| Reported - GAAP | 20 % | 31 % | (4.3) ppt | (21.3) ppt | 50 % | 53 % | |
| Litigation provisions | ** | (19)% | 7.4 ppt | (1.0) ppt | 25 % | 26 % | |
| Tax act | ** | ** | ** | 14.2 ppt | (33)% | (34)% | |
| Venezuela charge | ** | 3 % | (1.3) ppt | (0.2) ppt | (3)% | (3)% | |
| Non-GAAP | 20 % | 15 % | 1.8 ppt | (8.3) ppt | 38 % | 42 % | |
| Foreign currency ¹ | — % | — % | — ppt | 0.1 ppt | — % | — % | |
| Non-GAAP - currency-neutral | 20 % | 15 % | 1.8 ppt | (8.2) ppt | 38 % | 41 % | |

| Year Ended December 31, 2017 as compared to the Year Ended December 31, 2016 | | | | | | | |
|--|---------------------|--------------------|------------------|---------------------------|------------|----------------------------|--|
| | Increase/(Decrease) | | | | | | |
| | Net revenue | Operating expenses | Operating margin | Effective income tax rate | Net income | Diluted earnings per share | |
| Reported - GAAP | 16 % | 17 % | (0.5) ppt | 11.9 ppt | (4)% | (1)% | |
| Tax act | ** | ** | ** | (13.4) ppt | 21 % | 22 % | |
| Venezuela charge | ** | (3)% | 1.3 ppt | 0.2 ppt | 3 % | 3 % | |
| Litigation provisions | ** | 3 % | (1.0) ppt | — ppt | (2)% | (3)% | |
| Non-GAAP | 16 % | 16 % | (0.1) ppt | (1.3) ppt | 18 % | 21 % | |
| Foreign currency ¹ | (1)% | (1)% | (0.1) ppt | — ppt | (1)% | 1 % | |
| Non-GAAP - currency-neutral | 15 % | 16 % | (0.2) ppt | (1.3) ppt | 17 % | 21 % | |

Note: Tables may not sum due to rounding.

** Not applicable

¹ Represents the foreign currency translational and transactional impact.

Impact of Foreign Currency Rates

Our primary revenue functional currencies are the U.S. dollar, euro, Brazilian real and the British pound. 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 2018, GDV on a U.S. dollar-converted basis increased 13.0%, while GDV

on a local currency basis increased 14.0% versus 2017 . In 2017 , GDV on a U.S. dollar-converted basis increased 8.5% , while GDV on a local currency basis increased 8.4% versus 2016 . 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.

We incur 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. We manage foreign currency balance sheet remeasurement and cash flow risk through our foreign exchange risk management activities, which are discussed further in Note 22 (Foreign Exchange Risk Management) to the consolidated financial statements included in Part II, Item 8. Since we do not designate foreign currency derivatives as hedging instruments pursuant to the accounting standards for derivative instruments and hedging activities, we record gains and losses on foreign exchange derivatives immediately in current-period earnings, with the related hedged item being recognized as the exposures materialize.

We are exposed to currency devaluation in certain countries. In addition, we are subject to exchange control regulations that restrict the conversion of financial assets into U.S. dollars. While these revenues and assets are not material to us on a consolidated basis, we can be negatively impacted should there be a continued and sustained devaluation of local currencies relative to the U.S. dollar and/or a continued and sustained deterioration of economic conditions in these countries. Specifically, in 2017, due to foreign exchange regulations which were restricting access to U.S. dollars in Venezuela, an other-than-temporary lack of exchangeability between the Venezuela bolivar and the U.S. dollar impacted our ability to manage risk, process cross-border transactions and satisfy U.S. dollar denominated liabilities related to our Venezuelan operations. As a result of these factors, we concluded that, effective December 31, 2017, we did not meet the accounting criteria for consolidation of these subsidiaries, and therefore we transitioned to the cost method of accounting. This accounting change resulted in a pre-tax charge of \$167 million (\$108 million after tax, or \$0.10 per diluted share) in 2017. We continue to operate and serve our Venezuelan issuers, acquirers, merchants and account holders with our products and services. See Note 1 (Summary of Significant Accounting Policies) to the consolidated financial statements included in Part II, Item 8 for further discussion.

Financial Results

Revenue

Gross revenue increased 19% and 18% , or 19% and 17% on a currency-neutral basis, in 2018 and 2017 , respectively, versus the prior year. The increase in both 2018 and 2017 was primarily driven by an increase in transactions, dollar volume of activity on cards carrying our brands for both domestic and cross-border transactions and other payment-related products and services.

Rebates and incentives increased 18% and 22% in 2018 and 2017 , respectively, versus the prior year, both as reported and on a currency-neutral basis. The increases in rebates and incentives in 2018 and 2017 were primarily due to the impact from new and renewed agreements and increased volumes.

Our net revenue increased 20% and 16% , or 20% and 15% on a currency-neutral basis, in 2018 and 2017 , respectively, versus the prior year. Current year results include growth of 4 percentage points from the impact of the adoption of the new revenue standard and an additional 0.5 percentage points from our prior year acquisitions.

See Note 1 (Summary of Significant Accounting Policies) to the consolidated financial statements included in Part II, Item 8 for a further discussion of the new revenue guidance. Additionally, see Note 3 (Revenue) to the consolidated financial statements included in Part II, Item 8 for a further discussion of how we recognize revenue.

The significant components of our net revenue were as follows:

| | For the Years Ended December 31, | | | Percent Increase (Decrease) | |
|---|----------------------------------|-----------|-----------|-----------------------------|------|
| | 2018 | 2017 | 2016 | 2018 | 2017 |
| | (\$ in millions) | | | | |
| Domestic assessments | \$ 6,138 | \$ 5,130 | \$ 4,411 | 20% | 16% |
| Cross-border volume fees | 4,954 | 4,174 | 3,568 | 19% | 17% |
| Transaction processing | 7,391 | 6,188 | 5,143 | 19% | 20% |
| Other revenues | 3,348 | 2,853 | 2,431 | 17% | 17% |
| Gross revenue | 21,831 | 18,345 | 15,553 | 19% | 18% |
| Rebates and incentives (contra-revenue) | (6,881) | (5,848) | (4,777) | 18% | 22% |
| Net revenue | \$ 14,950 | \$ 12,497 | \$ 10,776 | 20% | 16% |

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

| | For the Years Ended December 31, | | | | | | | | | | | |
|--------------------------|----------------------------------|------|--------------|------|--------------------|------|--------------------|------|-------------------|------------------|-------|------|
| | Volume | | Acquisitions | | Revenue Standard 1 | | Foreign Currency 2 | | Other 3 | | Total | |
| | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 |
| Domestic assessments | 14% | 10% | — % | —% | 6 % | —% | (1)% | 1% | 2 % ⁴ | 6% ⁴ | 20% | 16% |
| Cross-border volume fees | 17% | 14% | — % | —% | 1 % | —% | 1 % | —% | — % | 3% | 19% | 17% |
| Transaction processing | 14% | 15% | — % | 1% | — % | —% | — % | 1% | 5 % | 4% | 19% | 20% |
| Other revenues | ** | ** | 2 % | 7% | — % | —% | (1)% | 1% | 16 % ⁵ | 9% ⁵ | 17% | 17% |
| Rebates and incentives | 10% | 10% | — % | —% | (2)% | —% | (1)% | 1% | 11 % ⁶ | 11% ⁶ | 18% | 22% |
| Net revenue | 14% | 11% | 0.5 % | 2% | 4 % | —% | — % | 1% | 2 % | 2% | 20% | 16% |

Note: Table may not sum due to rounding

** Not applicable

1 Represents the impact of our adoption of the new revenue guidance. For a more detailed discussion on the impact of the new revenue guidance, refer to Note 1 (Summary of Significant Accounting Policies) to the consolidated financial statements included in Part II, Item 8.

2 Represents the foreign currency translational and transactional impact versus the prior year.

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

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

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

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

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

| | Years Ended December 31, | | | |
|-------------------------------------|--------------------------|----------------|--------------|----------------|
| | 2018 | | 2017 | |
| | Growth (USD) | Growth (Local) | Growth (USD) | Growth (Local) |
| Mastercard-branded GDV ¹ | 13% | 14% | 8% | 8% |
| Asia Pacific/Middle East/Africa | 13% | 13% | 8% | 9% |
| Canada | 10% | 10% | 13% | 10% |
| Europe | 18% | 19% | 10% | 10% |
| Latin America | 8% | 17% | 17% | 15% |
| United States | 10% | 10% | 5% | 5% |
| Cross-border volume ¹ | | | 19% | 15% |
| Switched transactions | | | 13% | 17% |

¹ Excludes volume generated by Maestro and Cirrus cards.

In 2016, our GDV was impacted by the EU Interchange Fee Regulation related to card payments which became effective in June 2016. The regulation requires that we no longer collect fees on domestic European Economic Area payment transactions that do not use our network brand. Prior to that, we 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, | |
|---|----------------------------------|------|
| | 2018 | 2017 |
| | Growth (Local) | |
| GDV ¹ | | |
| Worldwide as reported | 14% | 8% |
| Worldwide as adjusted for EU Regulation | 14% | 10% |
| Europe as reported | 19% | 10% |
| Europe as adjusted for EU Regulation | 19% | 16% |

¹ Excludes volume generated by Maestro and Cirrus cards.

The following table reflects cross-border volume and switched transactions growth rates. For comparability purposes, we normalized the growth rates for the effects of differing switching days between periods. Additionally, we adjusted the switched transactions growth rate for the deconsolidation of our Venezuelan subsidiaries in 2017. For a more detailed discussion of the deconsolidation of our Venezuelan subsidiaries, refer to Note 1 (Summary of Significant Accounting Policies) to the consolidated financial statements included in Part II, Item 8.

| | For the Years Ended December 31, | |
|--|----------------------------------|------|
| | 2018 | 2017 |
| | Growth (Local) | |
| Cross-border volume as reported | 19% | 15% |
| Cross-border volume, normalized | 18% | 15% |
| Switched transactions as reported | 13% | 17% |
| Switched transactions, normalized ¹ | 17% | 16% |

¹ Adjusted for the deconsolidation of Venezuela subsidiaries.

No individual country, other than the United States, generated more than 10% of total net revenue in any such period. A significant portion of our revenue is concentrated among our five largest customers. In 2018, the net revenue from these customers was approximately \$3.1 billion, or 21%, of total net revenue. The loss of any of these customers or their significant card programs could adversely impact our revenue.

Operating Expenses

Operating expenses increased 31% and 17% in 2018 and 2017, respectively, versus the prior year. Excluding the impact of the Special Items, adjusted operating expenses increased 15% and 16% in 2018 and 2017, respectively, versus the prior year, both as adjusted and on a currency-neutral basis. Acquisitions contributed 2 percentage points of growth in 2018.

The components of operating expenses were as follows:

| | Year ended December 31, | | | Increase (Decrease) | |
|---|-------------------------|----------|----------|---------------------|------|
| | 2018 | 2017 | 2016 | 2018 | 2017 |
| | (\$ in millions) | | | | |
| General and administrative | \$ 5,174 | \$ 4,653 | \$ 3,827 | 11% | 22% |
| Advertising and marketing | 907 | 771 | 698 | 18% | 11% |
| Depreciation and amortization | 459 | 436 | 373 | 5% | 17% |
| Provision for litigation | 1,128 | 15 | 117 | ** | ** |
| Total operating expenses | 7,668 | 5,875 | 5,015 | 31% | 17% |
| Special Items ¹ | (1,128) | (182) | (117) | ** | ** |
| Adjusted total operating expenses (excluding Special Items ¹) | \$ 6,540 | \$ 5,693 | \$ 4,898 | 15% | 16% |

Note: Table may not sum due to rounding.

** Not meaningful

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

The following table summarizes the primary drivers of changes in operating expenses in 2018 and 2017 :

| | For the Years Ended December 31, | | | | | | | | | | | | | |
|-------------------------------|----------------------------------|------|----------------------------|------|--------------|------|-------------------------------|------|-------------------------------------|------|-------------------------------|------|-------|------|
| | Operational | | Special Items ¹ | | Acquisitions | | Revenue Standard ² | | Mastercard Impact Fund ³ | | Foreign Currency ⁴ | | Total | |
| | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 |
| General and administrative | 11 % | 11% | (4)% | 5% | 1% | 6% | —% | —% | 2% | —% | —% | 1 % | 11% | 22% |
| Advertising and marketing | (4)% | 9% | — % | —% | —% | 1% | 21% | —% | —% | —% | —% | 1 % | 18% | 11% |
| Depreciation and amortization | (5)% | —% | — % | —% | 10% | 17% | —% | —% | —% | —% | —% | — % | 5% | 17% |
| Provision for litigation | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| Total operating expenses | 8 % | 10% | 16 % | 1% | 2% | 6% | 3% | —% | 2% | —% | —% | 1 % | 31% | 17% |

Note: Table may not sum due to rounding.

** Not meaningful

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

² Represents the impact of our adoption of the new revenue guidance. For a more detailed discussion on the impact of the new revenue guidance, refer to Note 1 (Summary of Significant Accounting Policies) to the consolidated financial statements included in Part II, Item 8.

³ Represents contribution to a non-profit entity.

⁴ Represents the foreign currency translational and transactional impact versus the prior year.

General and Administrative

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

| | For the Years Ended December 31, | | | Percent Increase (Decrease) | |
|--|----------------------------------|----------|----------|-----------------------------|------|
| | 2018 | 2017 | 2016 | 2018 | 2017 |
| | (\$ in millions) | | | | |
| Personnel | \$ 3,214 | \$ 2,687 | \$ 2,225 | 20% | 21% |
| Professional fees | 377 | 355 | 337 | 6% | 5% |
| Data processing and telecommunications | 600 | 504 | 420 | 19% | 20% |
| Foreign exchange activity ¹ | (36) | 106 | 34 | ** | ** |
| Other | 1,019 | 1,001 | 811 | 2% | 23% |
| General and administrative expenses | 5,174 | 4,653 | 3,827 | 11% | 22% |
| Special Item ² | — | (167) | — | ** | ** |
| Adjusted general and administrative expenses (excluding Special Item) ² | \$ 5,174 | \$ 4,486 | \$ 3,827 | 15% | 17% |

Note: Table may not sum due to rounding.

** Not meaningful

¹ 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 22 (Foreign Exchange Risk Management) to the consolidated financial statements included in Part II, Item 8 for further discussion.

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

The primary drivers of general and administrative expenses in 2018 and 2017, versus the prior year, were as follows:

- Personnel expenses increased 20% and 21% , or 19% and 20% on a currency-neutral basis, respectively. The 2018 and 2017 increases were driven by a higher number of employees to support our continued investment in the areas of real-time account-based payments, digital, services, data analytics and geographic expansion. The impact of acquisitions contributed 2 and 6 percentage points of growth for 2018 and 2017 , respectively.
- Data processing and telecommunication expenses increased 19% and 20% , respectively, both as reported and on a currency-neutral basis, due to capacity growth of our business. Acquisitions contributed 3 and 8 percentage points, respectively.
- Foreign exchange activity contributed a benefit of 3 percentage points in 2018 related to gains from our foreign exchange activity for derivative contracts primarily due to the strengthening of the U.S. dollar, partially offset by balance sheet remeasurement losses. In 2017, foreign exchange activity had a negative impact of 2 percentage points due to greater losses from foreign exchange derivative contracts.
- Other expenses increased 2% and 23% , or 2% and 25% on a currency-neutral basis, respectively. In 2018 , other expenses increased primarily due to the \$100 million contribution to the Mastercard Impact Fund. The remaining increase was due to costs to support our strategic development efforts. These increases were primarily offset by the non-recurring Venezuela charge of \$167 million recorded in 2017 which was the primary driver of growth for that period. Other expenses include costs to provide loyalty and rewards solutions, travel and meeting expenses and rental expense for our facilities and other costs associated with our business.

Advertising and Marketing

In 2018 , advertising and marketing expenses increased 18% both as reported and on a currency-neutral basis versus 2017 , primarily due to a change in accounting for certain marketing fund arrangements as a result of our adoption of the new revenue guidance, partially offset by a net decrease in spending on certain marketing campaigns. For a more detailed discussion on the impact of the new revenue guidance, refer to Note 1 (Summary of Significant Accounting Policies) . In 2017 , advertising and marketing expenses increased 11% , or 10% on a currency-neutral basis versus 2016 , mainly due to higher marketing spend primarily related to certain marketing campaigns.

Depreciation and Amortization

Depreciation and amortization expenses increased 5% and 17% in 2018 and 2017, respectively, versus the prior year, both as reported and on a currency-neutral basis. The increase in 2018 was primarily due to the impact of acquisitions partially offset by the full amortization of certain intangible assets. In 2017, the increase was primarily due to the impact of acquisitions.

Provision for Litigation

In 2018, we recorded pre-tax charges of \$1,128 million which includes \$654 million related to a fine issued by the European Commission, \$237 million related to both the U.S. merchant class litigation and the filed and anticipated opt-out U.S. merchant cases and \$237 million related to litigation settlements with U.K. and Pan-European merchants. During 2017 and 2016, we recorded pre-tax charges of \$15 million and \$117 million related to litigations with merchants in Canada and the U.K., respectively. See Note 20 (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 \$22 million to \$78 million in 2018 versus \$100 million in 2017 due to higher investment income partially offset by higher interest expense related to our debt issuance in February 2018 and higher equity losses in the current year. Total other expense decreased \$15 million to \$100 million in 2017 versus \$115 million in 2016 due to lower impairment charges taken on certain investments last year and a gain on an investment recorded in 2017, partially offset by higher interest expense from debt issued in the fourth quarter of 2017.

Income Taxes

On December 22, 2017, U.S. Tax Reform was enacted into law with the effective date for most provisions being January 1, 2018. U.S. Tax Reform represents significant changes to the U.S. internal revenue code and, among other things:

- lowered the corporate income tax rate from 35% to 21%
- imposed a one-time deemed repatriation tax on accumulated foreign earnings
- provides for a 100% dividends received deduction on dividends from foreign affiliates
- requires a current inclusion in U.S. federal taxable income of earnings of foreign affiliates that are determined to be global intangible low taxed income or "GILTI"
- creates the base erosion anti-abuse tax, or "BEAT"
- provides for an effective tax rate of 13.125% for certain income derived from outside of the U.S. (referred to as foreign derived intangible income or "FDII")
- introduced further limitations on the deductibility of executive compensation
- permits 100% expensing of qualifying fixed assets acquired after September 27, 2017
- limits the deductibility of interest expense in certain situations and
- eliminates the domestic production activities deduction.

While the effective date of the law for most provisions was January 1, 2018, GAAP requires the effects of changes in tax rates be accounted for in the reporting period of enactment, which was the 2017 reporting period.

The effective tax rates for the years ended December 31, 2018, 2017 and 2016 were 18.7%, 40.0% and 28.1%, respectively. The effective income tax rate for 2018 was lower than the effective income tax rate for 2017 primarily due to additional tax expense of \$873 million attributable to U.S. Tax Reform in 2017, a lower 2018 statutory tax rate in the U.S. and Belgium and a more favorable geographic mix of earnings. The lower effective tax rate is also attributable to discrete tax benefits, relating primarily to \$90 million of foreign tax credits generated in 2018, which can be carried back and utilized in 2017 under transition rules in the proposed foreign tax credit regulations issued on November 28, 2018, along with provisions for legal matters in the United States. These benefits were partially offset by the nondeductible nature of the fine issued by the European Commission. Excluding the impact of Special Items, the 2018 adjusted effective income tax rate improved by 8.3 percentage points to 18.5% from 26.8% in 2017 primarily due to the lower tax rate in the U.S. and a more favorable geographical mix of earnings.

The effective income tax rate for 2017 was higher than the effective income tax rate for 2016 primarily due to additional tax expense of \$873 million attributable to U.S. Tax reform, which included provisional amounts of \$825 million related to the Transition Tax, the remeasurement of our net deferred tax asset balance in the U.S. and the recognition of a deferred tax liability related to a change in assertion regarding the indefinite reinvestment of a substantial amount of our foreign earnings, as well as \$48 million due to a foregone foreign tax credit benefit on current year repatriations. Excluding the impact of U.S. Tax Reform and other Special Items, the 2017 adjusted effective income tax rate improved by 1.3 percentage points to 26.8% from 28.1% in 2016 primarily due to a more favorable geographical mix of earnings, partially offset by a lower U.S. foreign tax credit benefit.

The provision for income taxes differs from the amount of income tax determined by applying the U.S. federal statutory income tax rate of 21% for 2018 and 35.0% for 2017 and 2016 to pretax income for the years ended December 31, as a result of the following:

| | For the Years Ended December 31, | | | | | |
|--|----------------------------------|---------|----------|---------|----------|---------|
| | 2018 | | 2017 | | 2016 | |
| | Amount | Percent | Amount | Percent | Amount | Percent |
| | (\$ in millions) | | | | | |
| Income before income taxes | \$ 7,204 | | \$ 6,522 | | \$ 5,646 | |
| Federal statutory tax | 1,513 | 21.0 % | 2,283 | 35.0 % | 1,976 | 35.0 % |
| State tax effect, net of federal benefit | 46 | 0.6 % | 43 | 0.7 % | 22 | 0.4 % |
| Foreign tax effect | (92) | (1.3)% | (380) | (5.8)% | (188) | (3.3)% |
| European Commission fine | 194 | 2.7 % | — | — % | — | — % |
| Foreign tax credits ¹ | (110) | (1.5)% | (27) | (0.4)% | (141) | (2.5)% |
| Transition Tax | 22 | 0.3 % | 629 | 9.6 % | — | — % |
| Remeasurement of deferred taxes | (7) | (0.1)% | 157 | 2.4 % | — | — % |
| Windfall benefit | (72) | (1.0)% | (43) | (0.7)% | — | — % |
| Other, net | (149) | (2.0)% | (55) | (0.8)% | (82) | (1.5)% |
| Income tax expense | \$ 1,345 | 18.7 % | \$ 2,607 | 40.0 % | \$ 1,587 | 28.1 % |

¹ Included within the impact of the 2018 foreign tax credits is a \$90 million tax benefit relating to the carry back of certain foreign tax credits. Additionally, included in 2016 is a \$116 million benefit associated with the repatriation of 2016 foreign earnings. There was no benefit associated with the repatriation of foreign earnings in 2018 and 2017 due to the enactment of U.S. Tax Reform.

Our GAAP effective income tax rates for 2018, 2017 and 2016 were affected by the tax benefits related to the Special Items as previously discussed.

Our unrecognized tax benefits related to positions taken during the current and prior periods were \$164 million and \$183 million, as of December 31, 2018 and 2017, respectively, all of which would reduce our effective tax rate if recognized. 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.

In 2010, in connection with the expansion of our operations in the Asia Pacific, Middle East and Africa region, our subsidiary in Singapore, Mastercard Asia Pacific Pte. Ltd. ("MAPPL"), received an incentive grant from the Singapore Ministry of Finance.

See Note 19 (Income Taxes) to the consolidated financial statements included in Part II, Item 8 for further discussion.

Liquidity and Capital Resources

We rely on existing liquidity, cash generated from operations 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 following table summarizes the cash, cash equivalents, investments and credit available to us at December 31 :

| | 2018 | | 2017 |
|---|---------------|-----|--------|
| | (in billions) | | |
| Cash, cash equivalents and investments ¹ | \$ | 8.4 | \$ 7.8 |
| Unused line of credit | | 4.5 | 3.8 |

¹ Investments include available-for-sale securities and short-term held-to-maturity securities. At December 31, 2018 and 2017, this amount excludes restricted cash related to the U.S. merchant class litigation settlement of \$553 million and \$546 million, respectively. This amount also excludes restricted security deposits held for customers of \$1.1 billion at both December 31, 2018 and 2017.

In 2017, as a result of U.S. Tax Reform, among other things, we changed our assertion regarding the indefinite reinvestment of foreign earnings outside the U.S. for certain of our foreign affiliates and recognized a provisional deferred tax liability of \$36 million. In 2018, we completed our analysis of global working capital and cash needs. It is our present intention to indefinitely reinvest approximately \$0.9 billion of our historic undistributed accumulated earnings associated with certain foreign subsidiaries outside of the U.S. See Note 19 (Income Taxes) to the consolidated financial statements included in Part II, Item 8 for further discussion.

Our liquidity and access to capital could be negatively impacted by global credit market conditions. We guarantee the settlement of many of the transactions between our customers. See Note 21 (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 potential future losses. 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. For additional discussion of these and other risks facing our business, see our risk factor in "Risk Factors - Legal and Regulatory Risks" in Part I, Item 1A and Note 20 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8; and Part II, Item 7 (Business Environment).

Cash Flow

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

| | 2018 | | 2017 | | 2016 |
|---|---------------|---------|------|---------|----------|
| | (in millions) | | | | |
| Cash Flow Data: | | | | | |
| Net cash provided by operating activities | \$ | 6,223 | \$ | 5,664 | \$ 4,637 |
| Net cash used in investing activities | | (506) | | (1,781) | (1,163) |
| Net cash used in financing activities | | (4,966) | | (4,764) | (2,344) |

Net cash provided by operating activities increased \$559 million in 2018 versus 2017, primarily due to higher net income as adjusted for non-cash items, partially offset by deferred payments associated with U.S. Tax Reform in the prior year and the timing of settlement with customers. Net cash provided by operating activities in 2017 versus 2016, increased by \$1.0 billion, primarily due to higher net income as adjusted for non-cash items and deferred payments associated with U.S. Tax Reform.

Net cash used in investing activities decreased \$1.3 billion in 2018 versus 2017, primarily due to 2017 acquisitions. Net cash used in investing activities increased \$618 million in 2017 versus 2016, primarily due to 2017 acquisitions and investments in nonmarketable equity investments, partially offset by higher net proceeds of investment securities.

Net cash used in financing activities increased \$202 million in 2018 versus 2017, primarily due to higher repurchases of our Class A common stock and dividends paid, partially offset by the proceeds from debt issued in the current year. Net cash used in financing activities increased \$2.4 billion in 2017 versus 2016, primarily due to proceeds from debt issued in 2016, higher repurchases of our Class A common stock and dividends paid.

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

| | 2018 | 2017 |
|----------------------------|---------------|-----------|
| | (in millions) | |
| Balance Sheet Data: | | |
| Current assets | \$ 16,171 | \$ 13,797 |
| Current liabilities | 11,593 | 8,793 |
| Long-term liabilities | 7,778 | 6,968 |
| Equity | 5,418 | 5,497 |

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

Debt and Credit Availability

In February 2018, we issued \$500 million principal amount of notes due in 2028 and an additional \$500 million principal amount of notes due in 2048. Our total debt outstanding (including the current portion) was \$6.3 billion and \$5.4 billion at December 31, 2018 and 2017 , respectively, with the earliest maturity of \$500 million of principal occurring in April 2019.

As of December 31, 2018, we have a commercial paper program (the “Commercial Paper Program”), under which we are authorized to issue up to \$4.5 billion in outstanding notes, with maturities up to 397 days from the date of issuance. In conjunction with the Commercial Paper Program, we have a committed unsecured \$4.5 billion revolving credit facility (the “Credit Facility”) which expires in November 2023.

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 our customers. In addition, we may borrow and repay amounts under these facilities for business continuity purposes. We had no borrowings outstanding under the Commercial Paper Program or the Credit Facility at December 31, 2018 and 2017 .

In March 2018, we filed a universal shelf registration statement (replacing a previously filed shelf registration statement that was set to expire) to provide additional access to capital, if needed. Pursuant to the shelf registration statement, we may from time to time offer to sell debt securities, guarantees of debt securities, preferred stock, Class A common stock, depository shares, purchase contracts, units or warrants in one or more offerings.

See Note 14 (Debt) to the consolidated financial statements included in Part II, Item 8 for further discussion on our debt, the Commercial Paper Program and the Credit Facility.

Dividends and Share Repurchases

We have historically paid quarterly dividends on our 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, | | |
|--------------------------|--------------------------------------|---------|---------|
| | 2018 | 2017 | 2016 |
| | (in millions, except per share data) | | |
| Cash dividend, per share | \$ 1.00 | \$ 0.88 | \$ 0.76 |
| Cash dividends paid | \$ 1,044 | \$ 942 | \$ 837 |

On December 4, 2018, our Board of Directors declared a quarterly cash dividend of \$0.33 per share paid on February 8, 2019 to holders of record on January 9, 2019 of our Class A common stock and Class B common stock. The aggregate amount of this dividend was \$340 million .

On February 5, 2019, our Board of Directors declared a quarterly cash dividend of \$0.33 per share payable on May 9, 2019 to holders of record on April 9, 2019 of our Class A common stock and Class B common stock. The aggregate amount of this dividend is estimated to be \$339 million .

Repurchased shares of our common stock 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 2018, 2017 and 2016, our Board of Directors approved share repurchase programs authorizing us to repurchase up to \$6.5 billion , \$4 billion and \$4 billion , respectively, of our Class A common stock. The program approved in 2018 became effective in January 2019 after completion of the share repurchase program authorized in 2017. The following table summarizes our share repurchase authorizations of our Class A common stock through December 31, 2018 , under the plans approved in 2018, 2017 and 2016:

| | (in millions, except per share data) | |
|--|--------------------------------------|--------|
| Board authorization | \$ | 14,500 |
| Remaining authorization at December 31, 2017 | \$ | 5,234 |
| Dollar-value of shares repurchased in 2018 | \$ | 4,933 |
| Remaining authorization at December 31, 2018 | \$ | 6,801 |
| Shares repurchased in 2018 | | 26.2 |
| Average price paid per share in 2018 | \$ | 188.26 |

See Note 15 (Stockholders' Equity) to the consolidated financial statements included in Part II, Item 8 for further discussion.

Off-Balance Sheet Arrangements

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

Future Obligations

The following table summarizes our obligations as of December 31, 2018 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 | 2019 | 2020 - 2021 | 2022 - 2023 | 2024 and thereafter |
| | (in millions) | | | | |
| Debt | \$ 6,389 | \$ 500 | \$ 650 | \$ 801 | \$ 4,438 |
| Interest on debt | 2,072 | 166 | 323 | 288 | 1,295 |
| Capital leases | 8 | 4 | 4 | — | — |
| Operating leases | 676 | 72 | 151 | 126 | 327 |
| Other obligations ¹ | | | | | |
| Sponsorship, licensing and other ² | 691 | 350 | 279 | 62 | — |
| Employee benefits ³ | 273 | 72 | 49 | 46 | 106 |
| Transition Tax ⁴ | 509 | — | 47 | 156 | 306 |
| Redeemable non-controlling interests ⁵ | 73 | — | 73 | — | — |
| Total ⁶ | \$ 10,691 | \$ 1,164 | \$ 1,576 | \$ 1,479 | \$ 6,472 |

¹ The table does not include the \$1.6 billion provision as of December 31, 2018 related to litigation as the timing of payments is not fixed and determinable. See Note 20 (Legal and Regulatory Proceedings) to the consolidated financial statements included in Part II, Item 8 for further discussion. The table also does not include the \$219 million accrual as of December 31, 2018 related to the contingent consideration attributable to acquisitions made in 2017, which is pending our final assessment in accordance with the terms of the purchase agreement. This payment is expected to be completed in 2019. See Note 7 (Fair Value and Investment Securities) to the consolidated financial statements included in Part II, Item 8 for further discussion.

² 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 \$4.1 billion as of December 31, 2018 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 Amounts relate to the U.S. tax liability on the Transition Tax on accumulated non-U.S. earnings of U.S. entities. See Note 19 (Income Taxes) to the consolidated financial statements included in Part II, Item 8 for further discussion.

⁵ Amount relates to the fixed-price put option for the Vocalink remaining shareholders to sell their ownership interest to Mastercard on the third and fifth anniversaries of the transaction and quarterly thereafter. See Note 2 (Acquisitions) to the consolidated financial statements included in Part II, Item 8 for further discussion.

⁶ We have recorded a liability for unrecognized tax benefits of \$164 million at December 31, 2018. Within the next twelve months, we believe 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

We do not experience meaningful seasonality. No individual quarter in 2018 , 2017 or 2016 accounted for more than 30% of net revenue.

Critical Accounting Estimates

The application of GAAP requires us to make estimates and assumptions about certain items and future events that directly affect our 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 we consider to be the most critical to our 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 our financial condition. Senior management has discussed the development, selection and disclosure of these estimates with the Audit Committee of our Board of Directors. Our 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 GAAP related to the measurement and recognition of revenue requires us 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 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 our 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

We are currently involved in various claims and legal proceedings. We regularly review the status of each significant matter and assess its potential financial exposure. If the potential loss from any claim or legal proceeding is considered probable and the amount can be reasonably estimated, we accrue 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, we reassess the potential liability related to pending claims and litigation and may revise our 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 20 (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, we will have offsetting tax credits or taxes in other jurisdictions.

Deferred taxes are established on the estimated foreign exchange gains or losses for foreign earnings that are not considered permanently reinvested, which will be recognized through cumulative translation adjustments as incurred. Ultimately, the working capital requirements of foreign affiliates will determine the amount of cash to be remitted from respective jurisdictions.

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 us 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 utilizing a quantitative assessment. We use market capitalization for estimating the fair value of our reporting unit. If the fair value exceeds the carrying value, goodwill is not impaired. If the carrying value exceeds the fair value, then goodwill is impaired and the excess of the reporting unit's carrying value over the fair value is recognized as an impairment charge.

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 these qualitative assessments, 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 assessments indicate that it is more likely than not that the fair value of the indefinite-lived intangible assets is less than their carrying amounts, we must perform a quantitative impairment test.

Our 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 and foreign currency exchange rates. Our exposure to market risk from changes in interest rates and foreign exchange rates 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 exchange rates could result in a fair value loss of approximately \$113 million on our foreign currency derivative contracts outstanding at December 31, 2018 related to the hedging program. In addition, a 100 basis point adverse change in interest rates would not have a material impact on our investments at December 31, 2018 and 2017 .

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 foreign currency 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 22 (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, 2018 , the majority of derivative contracts to hedge foreign currency fluctuations had been entered into with our customers. Our derivative contracts are summarized below:

| | December 31, 2018 | | December 31, 2017 | |
|--|-------------------|----------------------|-------------------|----------------------|
| | Notional | Estimated Fair Value | Notional | Estimated Fair Value |
| | (in millions) | | | |
| Commitments to purchase foreign currency | \$ 34 | \$ (1) | \$ 27 | \$ — |
| Commitments to sell foreign currency | 1,066 | 26 | 968 | (26) |
| Options to sell foreign currency | 25 | 4 | 27 | 2 |

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 translated 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 and scheduled annual maturities of the principal is included in Note 14 (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 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 our available-for-sale investments for fixed income securities as of December 31 was as follows:

| Financial Instrument | Summary Terms | Fair Market Value at December 31, 2018 | Maturity | | | | | |
|----------------------------------|---------------------------|--|---------------|---------------|---------------|---------------|-------------|-------------------------|
| | | | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 and there-after |
| (in millions) | | | | | | | | |
| Municipal securities | Fixed / Variable Interest | \$ 15 | \$ 13 | \$ 2 | \$ — | \$ — | \$ — | \$ — |
| Government and agency securities | Fixed / Variable Interest | 157 | 84 | 28 | 45 | — | — | — |
| Corporate securities | Fixed / Variable Interest | 1,043 | 271 | 381 | 316 | 71 | 3 | 1 |
| Asset-backed securities | Fixed / Variable Interest | 217 | 8 | 77 | 93 | 33 | 6 | — |
| Total | | \$ 1,432 | \$ 376 | \$ 488 | \$ 454 | \$ 104 | \$ 9 | \$ 1 |

| Financial Instrument | Summary Terms | Fair Market Value at December 31, 2017 | Maturity | | | | | |
|----------------------------------|---------------------------|--|---------------|---------------|---------------|---------------|--------------|-------------------------|
| | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 and there-after |
| (in millions) | | | | | | | | |
| Municipal securities | Fixed / Variable Interest | \$ 17 | \$ 12 | \$ 5 | \$ — | \$ — | \$ — | \$ — |
| Government and agency securities | Fixed / Variable Interest | 185 | 87 | 59 | 16 | 23 | — | — |
| Corporate securities | Fixed / Variable Interest | 876 | 212 | 277 | 287 | 76 | 23 | 1 |
| Asset-backed securities | Fixed / Variable Interest | 70 | 3 | 24 | 35 | 8 | — | — |
| Total | | \$ 1,148 | \$ 314 | \$ 365 | \$ 338 | \$ 107 | \$ 23 | \$ 1 |

We also have time deposits that are classified as held-to-maturity securities. At December 31, 2018 and 2017, the cost which approximates fair value, of our short-term held-to-maturity securities was \$264 million and \$700 million, respectively.

At December 31, 2018, 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 14 (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, 2018, 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. Borrowing 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 14 (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, 2018 and 2017.

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, 2018 . 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, 2018 . The effectiveness of Mastercard's internal control over financial reporting as of December 31, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears on the next page.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
of Mastercard Incorporated:

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Mastercard Incorporated and its subsidiaries (the "Company") as of December 31, 2018 and 2017 and the related consolidated statements of operations, comprehensive income, changes in equity and cash flows for each of the three years in the period ended December 31, 2018, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 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, 2018, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated 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 the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. 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.

Definition and Limitations of Internal Control over Financial Reporting

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 13, 2019

We have served as the Company's auditor since 1989.

MASTERCARD INCORPORATED
CONSOLIDATED BALANCE SHEET

| | December 31, | |
|--|------------------|------------------|
| | 2018 | 2017 |
| (in millions, except per share data) | | |
| ASSETS | | |
| Cash and cash equivalents | \$ 6,682 | \$ 5,933 |
| Restricted cash for litigation settlement | 553 | 546 |
| Investments | 1,696 | 1,849 |
| Accounts receivable | 2,276 | 1,969 |
| Settlement due from customers | 2,452 | 1,375 |
| Restricted security deposits held for customers | 1,080 | 1,085 |
| Prepaid expenses and other current assets | 1,432 | 1,040 |
| Total Current Assets | 16,171 | 13,797 |
| Property, plant and equipment, net | 921 | 829 |
| Deferred income taxes | 570 | 250 |
| Goodwill | 2,904 | 3,035 |
| Other intangible assets, net | 991 | 1,120 |
| Other assets | 3,303 | 2,298 |
| Total Assets | \$ 24,860 | \$ 21,329 |
| LIABILITIES, REDEEMABLE NON-CONTROLLING INTERESTS AND EQUITY | | |
| Accounts payable | \$ 537 | \$ 933 |
| Settlement due to customers | 2,189 | 1,343 |
| Restricted security deposits held for customers | 1,080 | 1,085 |
| Accrued litigation | 1,591 | 709 |
| Accrued expenses | 4,747 | 3,931 |
| Current portion of long-term debt | 500 | — |
| Other current liabilities | 949 | 792 |
| Total Current Liabilities | 11,593 | 8,793 |
| Long-term debt | 5,834 | 5,424 |
| Deferred income taxes | 67 | 106 |
| Other liabilities | 1,877 | 1,438 |
| Total Liabilities | 19,371 | 15,761 |
| Commitments and Contingencies | | |
| Redeemable Non-controlling Interests | 71 | 71 |
| Stockholders' Equity | | |
| Class A common stock, \$0.0001 par value; authorized 3,000 shares, 1,387 and 1,382 shares issued and 1,019 and 1,040 outstanding, respectively | — | — |
| Class B common stock, \$0.0001 par value; authorized 1,200 shares, 12 and 14 issued and outstanding, respectively | — | — |
| Additional paid-in-capital | 4,580 | 4,365 |
| Class A treasury stock, at cost, 368 and 342 shares, respectively | (25,750) | (20,764) |
| Retained earnings | 27,283 | 22,364 |
| Accumulated other comprehensive income (loss) | (718) | (497) |
| Total Stockholders' Equity | 5,395 | 5,468 |
| Non-controlling interests | 23 | 29 |
| Total Equity | 5,418 | 5,497 |
| Total Liabilities, Redeemable Non-controlling Interests and Equity | \$ 24,860 | \$ 21,329 |

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

MASTERCARD INCORPORATED
CONSOLIDATED STATEMENT OF OPERATIONS

| | For the Years Ended December 31, | | |
|---|----------------------------------|-----------------|-----------------|
| | 2018 | 2017 | 2016 |
| (in millions, except per share data) | | | |
| Net Revenue | \$ 14,950 | \$ 12,497 | \$ 10,776 |
| Operating Expenses | | | |
| General and administrative | 5,174 | 4,653 | 3,827 |
| Advertising and marketing | 907 | 771 | 698 |
| Depreciation and amortization | 459 | 436 | 373 |
| Provision for litigation | 1,128 | 15 | 117 |
| Total operating expenses | 7,668 | 5,875 | 5,015 |
| Operating income | 7,282 | 6,622 | 5,761 |
| Other Income (Expense) | | | |
| Investment income | 122 | 56 | 43 |
| Interest expense | (186) | (154) | (95) |
| Other income (expense), net | (14) | (2) | (63) |
| Total other income (expense) | (78) | (100) | (115) |
| Income before income taxes | 7,204 | 6,522 | 5,646 |
| Income tax expense | 1,345 | 2,607 | 1,587 |
| Net Income | \$ 5,859 | \$ 3,915 | \$ 4,059 |
| Basic Earnings per Share | \$ 5.63 | \$ 3.67 | \$ 3.70 |
| Basic weighted-average shares outstanding | 1,041 | 1,067 | 1,098 |
| Diluted Earnings per Share | \$ 5.60 | \$ 3.65 | \$ 3.69 |
| Diluted weighted-average shares outstanding | 1,047 | 1,072 | 1,101 |

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

MASTERCARD INCORPORATED
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

| | For the Years Ended December 31, | | |
|--|----------------------------------|-----------------|-----------------|
| | 2018 | 2017 | 2016 |
| | (in millions) | | |
| Net Income | \$ 5,859 | \$ 3,915 | \$ 4,059 |
| Other comprehensive income (loss): | | | |
| Foreign currency translation adjustments | (319) | 565 | (275) |
| Income tax effect | 40 | 2 | (11) |
| Foreign currency translation adjustments, net of income tax effect | (279) | 567 | (286) |
| Translation adjustments on net investment hedge | 96 | (236) | 60 |
| Income tax effect | (21) | 83 | (22) |
| Translation adjustments on net investment hedge, net of income tax effect | 75 | (153) | 38 |
| Defined benefit pension and other postretirement plans | (18) | 15 | (2) |
| Income tax effect | 3 | (1) | — |
| Defined benefit pension and other postretirement plans, net of income tax effect | (15) | 14 | (2) |
| Investment securities available-for-sale | (3) | (3) | 3 |
| Income tax effect | 1 | 2 | (1) |
| Investment securities available-for-sale, net of income tax effect | (2) | (1) | 2 |
| Other comprehensive income (loss), net of income tax effect | (221) | 427 | (248) |
| Comprehensive Income | <u>\$ 5,638</u> | <u>\$ 4,342</u> | <u>\$ 3,811</u> |

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

MASTERCARD INCORPORATED
CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

| | Stockholders' Equity | | | | | | | Non-Controlling Interests | Total Equity |
|---|--------------------------------------|-------------|----------------------------|------------------------|-------------------|---|--------------|---------------------------|--------------|
| | Common Stock | | Additional Paid-In Capital | Class A Treasury Stock | Retained Earnings | Accumulated Other Comprehensive Income (Loss) | | | |
| | Class A | Class B | | | | | | | |
| | (in millions, except per share data) | | | | | | | | |
| Balance at December 31, 2015 | \$ — | \$ — | \$ 4,004 | \$ (13,522) | \$ 16,222 | \$ (676) | \$ 34 | \$ 6,062 | |
| 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) | — | — | (863) | |
| Purchases of treasury stock | — | — | — | (3,503) | — | — | — | (3,503) | |
| Share-based payments | — | — | 179 | 4 | — | — | — | 183 | |
| Conversion of Class B to Class A common stock | — | — | — | — | — | — | — | — | |
| Balance at December 31, 2016 | — | — | 4,183 | (17,021) | 19,418 | (924) | 28 | 5,684 | |
| Net income | — | — | — | — | 3,915 | — | — | 3,915 | |
| Activity related to non-controlling interests | — | — | — | — | — | — | 1 | 1 | |
| Other comprehensive income (loss), net of tax | — | — | — | — | — | 427 | — | 427 | |
| Cash dividends declared on Class A and Class B common stock, \$0.91 per share | — | — | — | — | (969) | — | — | (969) | |
| Purchases of treasury stock | — | — | — | (3,747) | — | — | — | (3,747) | |
| Share-based payments | — | — | 182 | 4 | — | — | — | 186 | |
| Conversion of Class B to Class A common stock | — | — | — | — | — | — | — | — | |
| Balance at December 31, 2017 | — | — | 4,365 | (20,764) | 22,364 | (497) | 29 | 5,497 | |
| Adoption of revenue standard | — | — | — | — | 366 | — | — | 366 | |
| Adoption of intra-entity asset transfers standard | — | — | — | — | (183) | — | — | (183) | |
| Net income | — | — | — | — | 5,859 | — | — | 5,859 | |
| Activity related to non-controlling interests | — | — | — | — | — | — | (6) | (6) | |
| Other comprehensive income (loss), net of tax | — | — | — | — | — | (221) | — | (221) | |
| Cash dividends declared on Class A and Class B common stock, \$1.08 per share | — | — | — | — | (1,123) | — | — | (1,123) | |
| Purchases of treasury stock | — | — | — | (4,991) | — | — | — | (4,991) | |
| Share-based payments | — | — | 215 | 5 | — | — | — | 220 | |
| Conversion of Class B to Class A common stock | — | — | — | — | — | — | — | — | |
| Balance at December 31, 2018 | <u>\$ —</u> | <u>\$ —</u> | <u>\$ 4,580</u> | <u>\$ (25,750)</u> | <u>\$ 27,283</u> | <u>\$ (718)</u> | <u>\$ 23</u> | <u>\$ 5,418</u> | |

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

MASTERCARD INCORPORATED
CONSOLIDATED STATEMENT OF CASH FLOWS

| | For the Years Ended December 31, | | |
|--|----------------------------------|----------|----------|
| | 2018 | 2017 | 2016 |
| | (in millions) | | |
| Operating Activities | | | |
| Net income | \$ 5,859 | \$ 3,915 | \$ 4,059 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | | |
| Amortization of customer and merchant incentives | 1,235 | 1,001 | 860 |
| Depreciation and amortization | 459 | 437 | 373 |
| Share-based compensation | 196 | 176 | 149 |
| Tax benefit for share-based payments | — | — | (48) |
| Deferred income taxes | (244) | 86 | (20) |
| Venezuela charge | — | 167 | — |
| Other | 31 | 59 | 29 |
| Changes in operating assets and liabilities: | | | |
| Accounts receivable | (317) | (445) | (338) |
| Income taxes receivable | (120) | (8) | (1) |
| Settlement due from customers | (1,078) | (281) | (10) |
| Prepaid expenses | (1,769) | (1,402) | (1,073) |
| Accrued litigation and legal settlements | 869 | (12) | 17 |
| Restricted security deposits held for customers | (6) | 94 | 96 |
| Accounts payable | 101 | 290 | 145 |
| Settlement due to customers | 849 | 394 | 66 |
| Accrued expenses | 439 | 589 | 520 |
| Long-term taxes payable | (20) | 577 | — |
| Net change in other assets and liabilities | (261) | 27 | (187) |
| Net cash provided by operating activities | 6,223 | 5,664 | 4,637 |
| Investing Activities | | | |
| Purchases of investment securities available-for-sale | (1,300) | (714) | (957) |
| Purchases of investments held-to-maturity | (509) | (1,145) | (867) |
| Proceeds from sales of investment securities available-for-sale | 604 | 304 | 277 |
| Proceeds from maturities of investment securities available-for-sale | 379 | 500 | 339 |
| Proceeds from maturities of investments held-to-maturity | 929 | 1,020 | 456 |
| Purchases of property, plant and equipment | (330) | (300) | (215) |
| Capitalized software | (174) | (123) | (167) |
| Acquisition of businesses, net of cash acquired | — | (1,175) | — |
| Investment in nonmarketable equity investments | (91) | (147) | (31) |
| Other investing activities | (14) | (1) | 2 |
| Net cash used in investing activities | (506) | (1,781) | (1,163) |
| Financing Activities | | | |
| Purchases of treasury stock | (4,933) | (3,762) | (3,511) |
| Proceeds from debt | 991 | — | 1,972 |
| Payment of debt | — | (64) | — |
| Dividends paid | (1,044) | (942) | (837) |
| Tax benefit for share-based payments | — | — | 48 |
| Tax withholdings related to share-based payments | (80) | (47) | (51) |
| Cash proceeds from exercise of stock options | 104 | 57 | 37 |
| Other financing activities | (4) | (6) | (2) |
| Net cash used in financing activities | (4,966) | (4,764) | (2,344) |
| Effect of exchange rate changes on cash, cash equivalents, restricted cash and restricted cash equivalents | (6) | 200 | (50) |
| Net increase (decrease) in cash, cash equivalents, restricted cash and restricted cash equivalents | 745 | (681) | 1,080 |
| Cash, cash equivalents, restricted cash and restricted cash equivalents - beginning of period | 7,592 | 8,273 | 7,193 |

| | | | |
|---|----------|----------|----------|
| Cash, cash equivalents, restricted cash and restricted cash equivalents - end of period | \$ 8,337 | \$ 7,592 | \$ 8,273 |
|---|----------|----------|----------|

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

MASTERCARD INCORPORATED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Summary of Significant Accounting Policies

Organization

Mastercard Incorporated and its consolidated subsidiaries, including Mastercard International Incorporated (“Mastercard International” and together with Mastercard Incorporated, “Mastercard” or the “Company”), is a technology company in the global payments industry that connects consumers, financial institutions, merchants, governments, digital partners, businesses and other organizations worldwide, enabling them to use electronic forms of payment instead of cash and checks. The Company makes payments easier and more efficient by creating a wide range of payment solutions and services through a family of well-known brands, including Mastercard®, Maestro® and Cirrus®. The Company is a multi-rail network. Through its core global payments processing network, Mastercard facilitates the switching (authorization, clearing and settlement) of payment transactions, and delivers related products and services. With additional payment capabilities that include real-time account based payments (including automated clearing house (“ACH”) transactions), Mastercard offers customers one partner to turn to for their payment needs for both domestic and cross-border transactions across multiple payment flows. The Company also provides value-added offerings such as safety and security products, information and analytics services, consulting, loyalty and reward programs and issuer and acquirer processing. The Company’s payment solutions are designed to ensure safety and security for the global payments system.

A typical transaction on the Company’s core network involves four participants in addition to the Company: account holder (a consumer who holds a card or uses another device enabled for payment), issuer (the account holder’s financial institution), merchant and acquirer (the merchant’s financial institution). The Company does not issue cards, extend credit, determine or receive revenue from interest rates or other fees charged to account holders by issuers, or establish the rates charged by acquirers in connection with merchants’ acceptance of the Company’s branded products. In most cases, account holder relationships belong to, and are managed by, the Company’s financial institution customers.

Significant Accounting Policies

Consolidation and basis of presentation - The consolidated financial statements include the accounts of Mastercard and its majority-owned and controlled entities, including any variable interest entities (“VIEs”) for which the Company is the primary beneficiary. Investments in VIEs for which the Company is not considered the primary beneficiary are not consolidated and are accounted for as equity method or cost method investments and recorded in other assets on the consolidated balance sheet. At December 31, 2018 and 2017, there were no significant VIEs which required consolidation and the investments were not considered material to the consolidated financial statements. Intercompany transactions and balances have been eliminated in consolidation. Certain prior period amounts have been reclassified to conform to the 2018 presentation. For 2017 and 2016, \$127 million and \$113 million, respectively, of expenses were reclassified from advertising and marketing expenses to general and administrative expenses. The reclassification had no impact on total operating expenses, operating income or net income. The Company follows accounting principles generally accepted in the United States of America (“GAAP”).

Prior to December 31, 2017, the Company included the financial results from its Venezuela subsidiaries in the consolidated financial statements using the consolidation method of accounting. In 2017, due to foreign exchange regulations restricting access to U.S. dollars in Venezuela, an other-than-temporary lack of exchangeability between the Venezuelan bolivar and U.S. dollar impacted the Company’s ability to manage risk, process cross-border transactions and satisfy U.S. dollar denominated liabilities related to operations in Venezuela. As a result of these factors, Mastercard concluded that effective December 31, 2017, it did not meet the accounting criteria for consolidation of these Venezuelan subsidiaries, and therefore would transition to the cost method of accounting as of December 31, 2017. This accounting change resulted in a pre-tax charge of \$167 million (\$108 million after tax or \$0.10 per diluted share) that was recorded in general and administrative expenses on the consolidated statement of operations for the year ended December 31, 2017.

Non-controlling interests represent the equity interest not owned by the Company and are recorded for consolidated entities in which the Company owns less than 100% of the interests. Changes in a parent’s ownership interest while the parent retains its controlling interest are accounted for as equity transactions, and upon loss of control, retained ownership interests are remeasured at fair value, with any gain or loss recognized in earnings. For 2018, 2017 and 2016, losses from non-controlling interests were de minimis and, as a result, amounts are included on the consolidated statement of operations within other income (expense).

The Company accounts for investments in common stock or in-substance common stock under the equity method of accounting when it has the ability to exercise significant influence over the investee, generally when it holds between 20% and 50% ownership

MASTERCARD INCORPORATED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

in the entity. In addition, investments in flow-through entities such as limited partnerships and limited liability companies are also accounted for under the equity method when the Company has the ability to exercise significant influence over the investee, generally when the investment ownership percentage is equal to or greater than 5% of the outstanding ownership interest. The excess of the cost over the underlying net equity of investments accounted for under the equity method is allocated to identifiable tangible and intangible assets and liabilities based on fair values at the date of acquisition. The amortization of the excess of the cost over the underlying net equity of investments and Mastercard's share of net earnings or losses of entities accounted for under the equity method of accounting is included in other income (expense) on the consolidated statement of operations.

The Company accounts for investments in common stock or in-substance common stock under the cost method of accounting when it does not exercise significant influence, generally when it holds less than 20% ownership in the entity or when the interest in a limited partnership or limited liability company is less than 5% and the Company has no significant influence over the operation of the investee. Investments in companies that Mastercard does not control, but that are not in the form of common stock or in-substance common stock, are also accounted for under the cost method of accounting. These investments for which there is no readily determinable fair value and the cost method of accounting is used are adjusted for changes resulting from observable price changes in orderly transactions for identical or similar investments of the same issuer.

Investments for which the equity method or cost method of accounting is used are classified as nonmarketable equity investments and recorded in other assets on the consolidated balance sheet.

Use of estimates - The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting periods. Future events and their effects cannot be predicted with certainty; accordingly, accounting estimates require the exercise of judgment. The accounting estimates used in the preparation of the Company's consolidated financial statements may change as new events occur, as more experience is acquired, as additional information is obtained and as the Company's operating environment changes. Actual results may differ from these estimates.

Revenue recognition - Revenue is recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the Company expects to be entitled to in exchange for those goods or services. Revenue is generated by charging fees to issuers, acquirers and other stakeholders for providing switching services, as well as by assessing customers based primarily on the dollar volume of activity, or gross dollar volume, on the cards and other devices that carry the Company's brands. Revenue is generally derived from transactional information accumulated by Mastercard's systems or reported by customers.

Volume-based revenue (domestic assessments and cross-border volume fees) is recorded as revenue in the period it is earned, which is when the related volume is generated on the cards. Certain volume-based revenue is based upon information reported by customers. Transaction-based revenue is primarily based on the number and type of transactions and is recognized as revenue in the same period in which the related transactions occur. Other payment-related products and services are recognized as revenue in the period in which the related services are performed or transactions occur.

Mastercard has business agreements with certain customers that provide for rebates or other support when the customers meet certain volume hurdles as well as other support incentives such as marketing, which are tied to performance. Rebates and incentives are recorded as a reduction of revenue primarily when volume- and transaction-based revenues are recognized over the contractual term. Rebates and incentives are calculated based upon estimated performance and the terms of the related business agreements. In addition, Mastercard may make payments to a customer directly related to entering into an agreement, which are generally capitalized and amortized over the life of the agreement on a straight-line basis.

Contract assets include unbilled consideration typically resulting from executed consulting, data analytic and research services performed for customers in connection with Mastercard's payment network service arrangements. Collection for these services typically occurs over the contractual term. Contract assets are included in prepaid expenses and other current assets and other assets on the consolidated balance sheet.

The Company defers the recognition of revenue when consideration has been received prior to the satisfaction of performance obligations. As these performance obligations are satisfied, revenue is subsequently recognized. Deferred revenue is primarily derived from consulting, data analytic and research services. Deferred revenue is included in other current liabilities and other liabilities on the consolidated balance sheet.

Business combinations - The Company accounts for business combinations under the acquisition method of accounting. The Company measures the tangible and intangible identifiable assets acquired, liabilities assumed and any non-controlling interest

MASTERCARD INCORPORATED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

in the acquiree, at their fair values at the acquisition date. Acquisition-related costs are expensed as incurred and are included in general and administrative expenses. Any excess of purchase price over the fair value of net assets acquired, including identifiable intangible assets, is recorded as goodwill.

Goodwill and other intangible assets - Indefinite-lived intangible assets consist of goodwill, which represents the synergies expected to arise after the acquisition date and the assembled workforce, and customer relationships. Finite-lived intangible assets consist of capitalized software costs, trademarks, tradenames, customer relationships and other intangible assets. Intangible assets with finite useful lives are amortized over their estimated useful lives, on a straight-line basis, which range from one to twenty years. Capitalized software includes internal and external costs incurred directly related to the design, development and testing phases of each capitalized software project.

Impairment of assets - Goodwill and indefinite-lived intangible assets are not amortized but are tested annually for impairment in the fourth quarter, or sooner when circumstances indicate an impairment may exist. The impairment evaluation for goodwill utilizes a quantitative assessment. If the fair value of a reporting unit exceeds the carrying value, goodwill is not impaired. If the fair value of the reporting unit is less than its carrying value, then goodwill is impaired and the excess of the reporting unit's carrying value over the fair value is recognized as an impairment charge.

The impairment test for indefinite-lived intangible assets consists of a qualitative assessment to evaluate relevant events and circumstances that could affect the significant inputs used to determine the fair value of indefinite-lived intangible assets. If the qualitative assessment indicates that it is more likely than not that indefinite-lived intangible assets are impaired, then a quantitative assessment is required.

Long-lived assets, other than goodwill and indefinite-lived intangible assets, are tested for impairment whenever events or circumstances indicate that their carrying amount may not be recoverable. If the carrying value of the asset cannot be recovered from estimated future cash flows, undiscounted and without interest, the fair value of the asset is calculated using the present value of estimated net future cash flows. If the carrying amount of the asset exceeds its fair value, an impairment is recorded.

Impairment charges, if any, are recorded in general and administrative expenses on the consolidated statement of operations.

Litigation - The Company is a party to certain legal and regulatory proceedings with respect to a variety of matters. The Company evaluates the likelihood of an unfavorable outcome of all legal or regulatory proceedings to which it is a party and accrues a loss contingency when the loss is probable and reasonably estimable. These judgments are subjective based on the status of the legal or regulatory proceedings, the merits of its defenses and consultation with in-house and external legal counsel. Legal costs are expensed as incurred and recorded in general and administrative expenses on the consolidated statement of operations.

Settlement and other risk management - Mastercard's rules guarantee the settlement of many of the transactions between its customers. Settlement exposure is the outstanding settlement risk to customers under Mastercard's rules due to the difference in timing between the payment transaction date and subsequent settlement. While the term and amount of the guarantee are unlimited, the duration of settlement exposure is short term and typically limited to a few days.

The Company also enters into agreements in the ordinary course of business under which the Company agrees to indemnify third parties against damages, losses and expenses incurred in connection with legal and other proceedings arising from relationships or transactions with the Company. As the extent of the Company's obligations under these agreements depends entirely upon the occurrence of future events, the Company's potential future liability under these agreements is not determinable.

The Company accounts for each of its guarantees by recording the guarantee at its fair value at the inception or modification date through earnings.

Income taxes - The Company follows an asset and liability based approach in accounting for income taxes as required under GAAP. Deferred income tax assets and liabilities are recorded to reflect the tax consequences on future years of temporary differences between the financial statement carrying amounts and income tax bases of assets and liabilities. Deferred income taxes are displayed separately as noncurrent assets and liabilities on the consolidated balance sheet. Valuation allowances are provided against assets which are not more likely than not to be realized. The Company recognizes all material tax positions, including uncertain tax positions in which it is more likely than not that the position will be sustained based on its technical merits and if challenged by the relevant taxing authorities. At each balance sheet date, unresolved uncertain tax positions are reassessed to determine whether subsequent developments require a change in the amount of recognized tax benefit. The allowance for uncertain tax positions is recorded in other current and noncurrent liabilities on the consolidated balance sheet. The Company

MASTERCARD INCORPORATED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

records interest expense related to income tax matters as interest expense on the consolidated statement of operations. The Company includes penalties related to income tax matters in the income tax provision.

The Company will recognize earnings of foreign affiliates that are determined to be global intangible low taxed income (“GILTI”) in the period it arises and it will not recognize deferred taxes for basis differences that may reverse as GILTI in future years.

Cash and cash equivalents - Cash and cash equivalents include certain investments with daily liquidity and with a maturity of three months or less from the date of purchase. Cash equivalents are recorded at cost, which approximates fair value.

Restricted cash - The Company classifies cash and cash equivalents as restricted when it is unavailable for withdrawal or use in its general operations. The Company has the following types of restricted cash and restricted cash equivalents:

- *Restricted cash for litigation settlement* - The Company has restricted cash for litigation within a qualified settlement fund related to a preliminary settlement agreement for the U.S. merchant class litigation. The funds continue to be restricted for payments until the litigation matter is resolved.
- *Restricted security deposits held for customers* - The Company requires collateral from certain customers for settlement of their transactions. The majority of collateral for settlement is in the form of standby letters of credit and bank guarantees which are not recorded on the consolidated balance sheet. Additionally, the Company holds cash deposits and certificates of deposit from certain customers as collateral for settlement of their transactions, which are recorded as assets on the consolidated balance sheet. These assets are fully offset by corresponding liabilities included on the consolidated balance sheet. These security deposits are typically held for the duration of the agreement with the customers.
- *Other restricted cash balances* - The Company has other restricted cash balances which include contractually restricted deposits, as well as cash balances that are restricted based on the Company’s intention with regard to usage. These funds are classified on the consolidated balance sheet within prepaid expenses and other current assets and other assets.

Fair value - The Company measures certain financial assets and liabilities at fair value on a recurring basis by estimating the price that would be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between market participants. The Company classifies these recurring fair value measurements into a three-level hierarchy (“Valuation Hierarchy”).

The Valuation Hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. A financial instrument’s categorization within the Valuation Hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The three levels of the Valuation Hierarchy are as follows:

- Level 1 - inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2 - inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in inactive markets and inputs that are observable for the asset or liability.
- Level 3 - inputs to the valuation methodology are unobservable and cannot be directly corroborated by observable market data.

Certain assets are measured at fair value on a nonrecurring basis. The Company’s non-financial assets measured at fair value on a nonrecurring basis include property, plant and equipment, goodwill and other intangible assets. These assets are subject to fair value adjustments in certain circumstances, such as when there is evidence of impairment.

The valuation methods for goodwill and other intangible assets acquired in business combinations involve assumptions concerning comparable company multiples, discount rates, growth projections and other assumptions of future business conditions. The Company uses various valuation techniques to determine fair value, primarily discounted cash flows analysis, relief-from-royalty, and multi-period excess earnings for estimating the fair value of its intangible assets. The Company uses market capitalization for estimating the fair value of its reporting unit. As the assumptions employed to measure these assets are based on management’s judgment using internal and external data, these fair value determinations are classified in Level 3 of the Valuation Hierarchy.

MASTERCARD INCORPORATED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Contingent consideration - Certain business combinations involve the potential for future payment of consideration that is contingent upon the achievement of performance milestones. These liabilities are classified within Level 3 of the Valuation Hierarchy as the inputs used to measure fair value are unobservable and require management's judgment. The fair value of the contingent consideration at the acquisition date and subsequent periods is determined utilizing an income approach based on a Monte Carlo technique and is recorded in other current liabilities and other liabilities on the consolidated balance sheet. Changes to projected performance milestones of the acquired businesses could result in a higher or lower contingent consideration liability. Measurement period adjustments, if any, to the preliminary estimated fair value of contingent consideration as of the acquisition date will be recorded to goodwill, however, changes in fair value as a result of updated assumptions will be recorded in general and administrative expenses on the consolidated statement of operations.

Investment securities - The Company classifies investments in debt securities as available-for-sale. Available-for-sale securities that are available to meet the Company's current operational needs are classified as current assets. Available-for-sale securities that are not available to meet the Company's current operational needs are classified as non-current assets on the consolidated balance sheet.

The investments in debt securities are carried at fair value, with unrealized gains and losses, net of applicable taxes, recorded as a separate component of accumulated other comprehensive income (loss) on the consolidated statement of comprehensive income. Net realized gains and losses on debt securities are recognized in investment income on the consolidated statement of operations. The specific identification method is used to determine realized gains and losses.

The Company evaluates its debt securities for other-than-temporary impairment on an ongoing basis. When there has been a decline in fair value of a debt security below the amortized cost basis, the Company recognizes an other-than-temporary impairment if: (1) it has the intent to sell the security; (2) it is more likely than not that it will be required to sell the security before recovery of the amortized cost basis; or (3) it does not expect to recover the entire amortized cost basis of the security. The credit loss component of the impairment would be recognized in other income (expense), net on the consolidated statement of operations while the non-credit loss would remain in accumulated other comprehensive income (loss) until realized from a sale or an other-than-temporary impairment.

The Company classifies time deposits with maturities greater than three months as held-to-maturity. Held-to-maturity securities that mature within one year are classified as current assets while held-to-maturity securities with maturities of greater than one year are classified as non-current assets. Time deposits are carried at amortized cost on the consolidated balance sheet and are intended to be held until maturity.

Derivative financial instruments - The Company's derivative financial instruments are recorded as either assets or liabilities on the balance sheet and measured at fair value. The Company's foreign exchange forward and option contracts are included in Level 2 of the Valuation Hierarchy as the fair value of these contracts are based on inputs, which are observable based on broker quotes for the same or similar instruments. As the Company does not elect hedge accounting for any derivative instruments, realized and unrealized gains and losses from the change in fair value of these contracts are recognized immediately in current-period earnings. The Company's derivative contracts hedge foreign exchange risk and are not entered into for trading or speculative purposes. The Company did not have any derivative contracts accounted for under hedge accounting as of December 31, 2018 and 2017 .

The Company has numerous investments in its foreign subsidiaries. The net assets of these subsidiaries are exposed to volatility in foreign currency exchange rates. The Company uses foreign currency denominated debt to hedge a portion of its net investment in foreign operations against adverse movements in exchange rates. The effective portion of the foreign currency gains and losses related to the foreign currency denominated debt are reported in accumulated other comprehensive income (loss) on the consolidated balance sheet as part of the cumulative translation adjustment component of equity. The ineffective portion, if any, is recognized in earnings in the current period. The Company evaluates the effectiveness of the net investment hedge each quarter.

Settlement due from/due to customers - The Company operates systems for clearing and settling payment transactions among customers. Net settlements are generally cleared daily among customers through settlement cash accounts by wire transfer or other bank clearing means. However, some transactions may not settle until subsequent business days, resulting in amounts due from and due to customers.

Property, plant and equipment - Property, plant and equipment are stated at cost less accumulated depreciation and amortization. Depreciation and amortization is computed using the straight-line method over the estimated useful lives of the assets.

MASTERCARD INCORPORATED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Depreciation of leasehold improvements and amortization of capital leases is included in depreciation and amortization expense on the consolidated statement of operations.

The useful lives of the Company's assets are as follows:

| Asset Category | Estimated Useful Life |
|--------------------------------------|--|
| Buildings | 30 years |
| Building equipment | 10 - 15 years |
| Furniture and fixtures and equipment | 3 - 5 years |
| Leasehold improvements | Shorter of life of improvement or lease term |
| Capital leases | Shorter of life of the asset or lease term |

Leases - The Company enters into operating and capital leases for the use of premises and equipment. Rent expense related to lease agreements that contain lease incentives is recorded on a straight-line basis over the term of the lease.

Pension and other postretirement plans - The Company recognizes the funded status of its single-employer defined benefit pension plans and postretirement plans as assets or liabilities on its consolidated balance sheet and recognizes changes in the funded status in the year in which the changes occur through accumulated other comprehensive income (loss). The funded status is measured as the difference between the fair value of plan assets and the projected benefit obligation at December 31, the measurement date. Overfunded plans, if any, are aggregated and recorded in other assets, while underfunded plans are aggregated and recorded as accrued expenses and other liabilities on the consolidated balance sheet.

Net periodic pension and postretirement benefit cost/(income), excluding the service cost component, is recognized in other income (expense) on the consolidated statement of operations. These costs include interest cost, expected return on plan assets, amortization of prior service costs or credits and gains or losses previously recognized as a component of accumulated other comprehensive income (loss). The service cost component is recognized in general and administrative expenses on the consolidated statement of operations.

Defined contribution plans - The Company's contributions to defined contribution plans are recorded when employees render service to the Company. The charge is recorded in general and administrative expenses on the consolidated statement of operations.

Advertising and marketing - Expenses incurred to promote Mastercard's products, services and brand are recognized in advertising and marketing on the consolidated statement of operations. The cost of media advertising is expensed when the advertising takes place. Advertising production costs are expensed as incurred. Promotional items are expensed at the time the promotional event occurs. Sponsorship costs are recognized over the period of benefit.

Foreign currency remeasurement and translation - Monetary assets and liabilities are remeasured to functional currencies using current exchange rates in effect at the balance sheet date. Non-monetary assets and liabilities are recorded at historical exchange rates. Revenue and expense accounts are remeasured at the weighted-average exchange rate for the period. Resulting exchange gains and losses related to remeasurement are included in general and administrative expenses on the consolidated statement of operations.

Where a non-U.S. currency is the functional currency, translation from that functional currency to U.S. dollars is performed for balance sheet accounts using current exchange rates in effect at the balance sheet date and for revenue and expense accounts using a weighted-average exchange rate for the period. Resulting translation adjustments are reported as a component of accumulated other comprehensive income (loss).

Treasury stock - The Company records the repurchase of shares of its common stock at cost on the trade date of the transaction. These shares are considered treasury stock, which is a reduction to stockholders' equity. Treasury stock is included in authorized and issued shares but excluded from outstanding shares.

Share-based payments - The Company measures share-based compensation expense at the grant date, based on the estimated fair value of the award and uses the straight-line method of attribution, net of estimated forfeitures, for expensing awards over the requisite employee service period. The Company estimates the fair value of its non-qualified stock option awards ("Options") using a Black-Scholes valuation model. The fair value of restricted stock units ("RSUs") is determined and fixed on the grant date based on the Company's stock price, adjusted for the exclusion of dividend equivalents. The Monte Carlo simulation valuation

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

model is used to determine the grant date fair value of performance stock units (“PSUs”) granted. All share-based compensation expenses are recorded in general and administrative expenses on the consolidated statement of operations.

Redeemable non-controlling interests - The Company’s business combinations may include provisions allowing non-controlling equity owners the ability to require the Company to purchase additional interests in the subsidiary at their discretion. These interests are initially recorded at fair value and in subsequent reporting periods are accreted or adjusted to their estimated redemption value. These adjustments to the redemption value will impact retained earnings or additional paid-in capital on the consolidated balance sheet, but will not impact the consolidated statement of operations. The redeemable non-controlling interests are considered temporary and reported outside of permanent equity on the consolidated balance sheet at the greater of the carrying amount adjusted for the non-controlling interest’s share of net income (loss) or its redemption value.

Earnings per share - The Company calculates basic earnings per share (“EPS”) by dividing net income by the weighted-average number of common shares outstanding during the year. Diluted EPS is calculated by dividing net income by the weighted-average number of common shares outstanding during the year, adjusted for the potentially dilutive effect of stock options and unvested stock units using the treasury stock method. The Company may be required to calculate EPS using the two-class method as a result of its redeemable non-controlling interests. If redemption value exceeds the fair value of the redeemable non-controlling interests, the excess would be a reduction to net income for the EPS calculation. For 2018, 2017 and 2016, there was no impact to EPS for adjustments related to redeemable non-controlling interests.

Recently adopted accounting pronouncements

Disclosure requirements for defined benefit plans - In August 2018, the Financial Accounting Standards Board (the “FASB”) issued accounting guidance which modifies disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans by removing, modifying and adding certain disclosures. This guidance is required to be applied retrospectively and is effective for periods ending after December 15, 2020, with early adoption permitted. The Company adopted this guidance effective December 31, 2018, which did not result in a material impact on the Company’s current year consolidated financial statements.

Income taxes - In March 2018, the FASB incorporated the Securities and Exchange Commission’s (the “SEC’s”) interpretive guidance from Staff Accounting Bulletin No. 118 (“SAB 118”), issued on December 22, 2017, into the income tax accounting codification under GAAP. The guidance allows for the recognition of provisional amounts related to 2017 U.S. tax reform (“U.S. Tax Reform”) during a one year measurement period with changes recorded as a component of income tax expense. This guidance was effective upon issuance. Refer to Note 19 (Income Taxes) for further discussion.

Net periodic pension cost and net periodic postretirement benefit cost - In March 2017, the FASB issued accounting guidance to improve the presentation of net periodic pension cost and net periodic postretirement benefit cost. Under this guidance, the service cost component is required to be reported in the same line item as other compensation costs arising from services rendered by employees during the period. The other components of the net periodic benefit costs are required to be presented on the consolidated statement of operations separately from the service cost component and outside of operating income. This guidance is required to be applied retrospectively and is effective for periods beginning after December 15, 2017. The Company adopted this guidance effective January 1, 2018, which did not result in a material impact on the Company’s current year consolidated financial statements. The Company did not apply this guidance retrospectively, as the impact was de minimis to the prior year consolidated financial statements. Refer to Note 13 (Pension, Postretirement and Savings Plans) for the components of the Company’s net periodic pension cost and net periodic postretirement benefit costs.

Restricted cash - In November 2016, the FASB issued accounting guidance to address diversity in the classification and presentation of changes in restricted cash on the consolidated statement of cash flows. Under this guidance, companies are required to present restricted cash and restricted cash equivalents with cash and cash equivalents when reconciling the beginning-of-period and end-of-period amounts shown on the consolidated statement of cash flows. This guidance is required to be applied retrospectively and is effective for periods beginning after December 15, 2017, with early adoption permitted. The Company adopted this guidance effective January 1, 2018. In accordance with the adoption of this standard, the Company includes restricted cash, which currently consists of restricted cash for litigation settlement, restricted security deposits held for customers and other restricted cash balances in its reconciliation of beginning-of-period and end-of-period amounts shown on the consolidated statement of cash flows. Refer to Note 5 (Cash, Cash Equivalents, Restricted Cash and Restricted Cash Equivalents) for related disclosures.

Intra-entity asset transfers - In October 2016, the FASB issued accounting guidance to simplify the accounting for income tax consequences of intra-entity transfers of assets other than inventory. Under this guidance, companies are required to recognize

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the income tax consequences of an intra-entity asset transfer when the transfer occurs. This guidance must be applied on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of the period of adoption. The guidance is effective for periods beginning after December 15, 2017. The Company adopted this guidance effective January 1, 2018. Refer to Note 19 (Income Taxes) for further discussion. See the section in this note entitled Cumulative Effect of the Adopted Accounting Pronouncements for a summary of the cumulative impact of adopting this standard as of January 1, 2018.

Financial instruments - In January 2016, the FASB issued accounting guidance to amend certain aspects of recognition, measurement, presentation and disclosure of financial instruments, including the requirement to measure certain equity investments at fair value with changes in fair value recognized in income. This guidance is required to be applied by means of a cumulative-effect adjustment to the balance sheet as of the beginning of the fiscal year of adoption. Amendments related to equity securities without readily determinable fair values should be applied prospectively to equity investments that exist as of the date of adoption. The guidance is effective for periods beginning after December 15, 2017. The Company adopted this guidance effective January 1, 2018. The cumulative effect of the adoption of the standard was de minimis to the Company's balance sheet upon adoption. For the year ended December 31, 2018, the Company recorded a gain on non-marketable equity investments, which resulted in a pre-tax increase of \$12 million .

Revenue recognition - In May 2014, the FASB issued accounting guidance that provides a single, comprehensive revenue recognition model for all contracts with customers and supersedes most of the existing revenue recognition requirements. Under this guidance, an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The Company adopted this guidance effective January 1, 2018 under the modified retrospective transition method, applying the standard to contracts not completed as of January 1, 2018 and considered the aggregate amount of modifications. See the section in this note entitled Cumulative Effect of the Adopted Accounting Pronouncements for a summary of the cumulative impact of adopting this standard as of January 1, 2018.

This new revenue guidance impacts the timing of certain customer incentives recognized in the Company's consolidated statement of operations, as they are recognized over the life of the contract. Previously, such incentives were recognized when earned by the customer. The new revenue guidance also impacts the Company's accounting recognition for certain market development fund contributions and expenditures. Historically, these items were recorded on a net basis in net revenue and will now be recognized on a gross basis, resulting in an increase to both revenues and expenses.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The following tables summarize the impact of the revenue standard on the Company's consolidated statement of operations for the year ended December 31, 2018 and consolidated balance sheet as of December 31, 2018 :

| | Year Ended December 31, 2018 | | |
|---|--|-------------------------------|-------------|
| | Balances excluding revenue standard | Impact of revenue standard | As reported |
| | (in millions) | | |
| Net Revenue | \$ 14,471 | \$ 479 | \$ 14,950 |
| Operating Expenses | | | |
| Advertising and marketing | 743 | 164 | 907 |
| Income before income taxes | 6,889 | 315 | 7,204 |
| Income tax expense | 1,278 | 67 | 1,345 |
| Net Income | 5,611 | 248 | 5,859 |
| | December 31, 2018 | | |
| | Balances excluding revenue standard | Impact of revenue standard | As reported |
| | (in millions) | | |
| Assets | | | |
| Accounts receivable | \$ 2,214 | \$ 62 | \$ 2,276 |
| Prepaid expenses and other current assets | 1,176 | 256 | 1,432 |
| Deferred income taxes | 666 | (96) | 570 |
| Other assets | 2,388 | 915 | 3,303 |
| Liabilities | | | |
| Accounts payable | 959 | (422) | 537 |
| Accrued expenses | 4,375 | 372 | 4,747 |
| Other current liabilities | 1,085 | (136) | 949 |
| Other liabilities | 1,145 | 732 | 1,877 |
| Equity | | | |
| Retained earnings | 26,692 | 591 | 27,283 |

For a more detailed discussion on revenue recognition, refer to Note 3 (Revenue) .

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Cumulative Effect of the Adopted Accounting Pronouncements

The following table summarizes the cumulative impact of the changes made to the January 1, 2018 consolidated balance sheet for the adoption of the new accounting standards pertaining to revenue recognition and intra-entity asset transfers. The prior periods have not been restated and have been reported under the accounting standards in effect for those periods.

| | Balance at December 31, 2017 | Impact of revenue standard | Impact of intra-entity asset transfers standard | Balance at January 1, 2018 |
|---|---------------------------------|-------------------------------|--|-------------------------------|
| (in millions) | | | | |
| Assets | | | | |
| Accounts receivable | \$ 1,969 | \$ 44 | \$ — | \$ 2,013 |
| Prepaid expenses and other current assets | 1,040 | 181 | (17) | 1,204 |
| Deferred income taxes | 250 | (69) | 186 | 367 |
| Other assets | 2,298 | 690 | (352) | 2,636 |
| Liabilities | | | | |
| Accounts payable | 933 | (495) | — | 438 |
| Accrued expenses | 3,931 | 391 | — | 4,322 |
| Other current liabilities | 792 | (44) | — | 748 |
| Other liabilities | 1,438 | 628 | — | 2,066 |
| Equity | | | | |
| Retained earnings | 22,364 | 366 | (183) | 22,547 |

Recent accounting pronouncements not yet adopted

Implementation costs incurred in a hosting arrangement that is a service contract - In August 2018, the FASB issued accounting guidance which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. This guidance is effective for periods beginning after December 15, 2019 and early adoption is permitted. Companies are required to adopt this guidance either retrospectively or by prospectively applying the guidance to all implementation costs incurred after the date of adoption. The Company is in the process of evaluating when it will adopt this guidance and the potential effects this guidance will have on its consolidated financial statements.

Disclosure requirements for fair value measurement - In August 2018, the FASB issued accounting guidance which modifies disclosure requirements for fair value measurements by removing, modifying and adding certain disclosures. This guidance is effective for periods beginning after December 15, 2019. Companies are permitted to early adopt the removed or modified disclosures and delay adoption of added disclosures until the effective date. Companies are required to adopt the guidance for certain added disclosures prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption and all other amendments retrospectively to all periods presented upon their effective date. The Company is in the process of evaluating when it will adopt this guidance and the potential effects this guidance will have on its disclosures.

Comprehensive income - In February 2018, the FASB issued accounting guidance that allows for a one-time reclassification from accumulated other comprehensive income (loss) to retained earnings for stranded tax effects resulting from U.S. Tax Reform. The guidance is effective for periods beginning after December 15, 2018, with early adoption permitted. The Company will adopt this guidance effective January 1, 2019 and does not expect the impacts of this standard to be material.

Derivatives and hedging - In August 2017, the FASB issued accounting guidance to improve and simplify existing guidance to allow companies to better reflect their risk management activities in the financial statements. The guidance expands the ability to hedge nonfinancial and financial risk components, eliminates the requirement to separately measure and recognize hedge ineffectiveness and eases requirements of an entity's assessment of hedge effectiveness. This guidance is effective for periods beginning after December 15, 2018 and early adoption is permitted. The Company currently does not account for its foreign currency derivative contracts under hedge accounting. The Company will adopt this guidance effective January 1, 2019 and does not expect the impacts of this standard to be material. For a more detailed discussion of the Company's foreign exchange risk management activities, refer to Note 22 (Foreign Exchange Risk Management).

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Credit losses - In June 2016, the FASB issued accounting guidance to amend the measurement of credit losses for financial instruments. The guidance requires all expected credit losses for most financial assets held at the reporting date to be measured based on historical experience, current conditions, and reasonable and supportable forecasts, generally resulting in the earlier recognition of allowance for losses. The guidance is effective for periods beginning after December 15, 2019, with early adoption permitted. The Company is required to apply the provisions of this guidance as a cumulative effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is adopted. The Company will adopt this guidance effective January 1, 2020 and does not expect the impacts of this standard to be material.

Leases - In February 2016, the FASB issued accounting guidance that will change how companies account for and present lease arrangements. This guidance requires companies to recognize leased assets and liabilities for both financing and operating leases. This guidance is effective for periods beginning after December 15, 2018. The Company will adopt this guidance effective January 1, 2019 using the modified retrospective approach as of the date of adoption with the available practical expedients. Upon adoption of the standard, the estimated impact on the Company's consolidated financial statements is expected to be an increase in non-current assets with a corresponding increase in current and non-current liabilities. The Company estimates that the increase in assets and liabilities will represent approximately 2% of the Company's total assets and total liabilities as of December 31, 2018 and expects no significant impact to retained earnings.

Note 2. Acquisitions

In 2017, the Company acquired businesses for total consideration of \$1.5 billion, representing both cash and contingent consideration. For the businesses acquired, Mastercard allocated the values associated with the assets, liabilities and redeemable non-controlling interests based on their respective fair values on the acquisition dates. Refer to Note 1 (Summary of Significant Accounting Policies), for the valuation techniques Mastercard utilizes to fair value the assets and liabilities acquired in business combinations. The residual value allocated to goodwill is not expected to be deductible for local tax purposes.

The Company has finalized the purchase accounting for businesses acquired during 2017. The final fair values of the purchase price allocations, as of the acquisition dates, are noted below:

| | (in millions) |
|--|-----------------|
| Cash consideration | \$ 1,286 |
| Contingent consideration | 202 |
| Redeemable non-controlling interests | 69 |
| Gain on previously held minority interest | 14 |
| Total fair value of businesses acquired | \$ 1,571 |
| Assets: | |
| Cash and cash equivalents | \$ 111 |
| Other current assets | 110 |
| Other intangible assets | 488 |
| Goodwill | 1,135 |
| Other assets | 91 |
| Total assets | 1,935 |
| Liabilities: | |
| Short-term debt ¹ | 64 |
| Other current liabilities | 170 |
| Net pension liability | 66 |
| Other liabilities | 64 |
| Total liabilities | 364 |
| Net assets acquired | \$ 1,571 |

¹ The short-term debt assumed through acquisitions was repaid during 2017.

The following table summarizes the identified intangible assets acquired:

| | Acquisition Date Fair Value | Weighted-Average Useful Life |
|-------------------------|--------------------------------|---------------------------------|
| | (in millions) | (Years) |
| Developed technologies | \$ 319 | 7.5 |
| Customer relationships | 166 | 9.9 |
| Other | 3 | 1.4 |
| Other intangible assets | <u>\$ 488</u> | 8.3 |

For the businesses acquired in 2017, the largest acquisition relates to Vocalink, a payment systems and ATM switching platform operator, located principally in the U.K. On April 28, 2017, Mastercard acquired 92.4% controlling interest in Vocalink for cash consideration of £719 million (\$929 million as of the acquisition date). In addition, the Vocalink sellers have the potential to earn additional contingent consideration of £169 million (approximately \$214 million as of December 31, 2018), upon meeting 2018 revenue targets in accordance with terms of the purchase agreement. Refer to Note 7 (Fair Value and Investment Securities) for additional information related to the fair value of contingent consideration.

A majority of Vocalink’s shareholders have retained a 7.6% ownership for at least three years , which is recorded as redeemable non-controlling interests on the consolidated balance sheet. These remaining shareholders have a put option to sell their ownership interest to Mastercard on the third and fifth anniversaries of the transaction and quarterly thereafter (the “Third Anniversary Option” and “Fifth Anniversary Option”, respectively). The Third Anniversary Option is exercisable at a fixed price of £58 million (approximately \$73 million as of December 31, 2018) (“Fixed Price”). The Fifth Anniversary Option is exercisable at the greater of the Fixed Price or fair value. Additionally, Mastercard has a call option to purchase the remaining interest from Vocalink’s shareholders on the fifth anniversary of the transaction and quarterly thereafter, which is exercisable at the greater of the Fixed Price or fair value. The fair value of the redeemable non-controlling interests was determined utilizing a market approach, which extrapolated the consideration transferred that was discounted for lack of control and marketability.

The consolidated financial statements include the operating results of the acquired businesses from the dates of their respective acquisition. Pro forma information related to the acquisitions was not included because the impact on the Company’s consolidated results of operations was not considered to be material.

Note 3. Revenue

Mastercard’s business model involves four participants in addition to the Company: account holders, issuers (the account holders’ financial institutions), merchants and acquirers (the merchants’ financial institutions). Revenue from contracts with customers is recognized when services are performed in an amount that reflects the consideration to which the Company expects to be entitled to in exchange for those services. Revenue recognized from domestic assessments, cross-border volume fees and transaction processing are derived from Mastercard’s payment network services. Revenue is generated by charging fees to issuers, acquirers and other stakeholders for providing switching services, as well as by assessing customers based primarily on the dollar volume of activity, or gross dollar volume, on the cards and other devices that carry the Company’s brands. Revenue is generally derived from transactional information accumulated by Mastercard’s systems or reported by customers. In addition, the Company recognizes revenue from other payment-related products and services in the period in which the related transactions occur or services are performed.

The price structure for Mastercard’s products and services is dependent on the nature of volumes, types of transactions and type of products and services offered to customers. Net revenue can be impacted by the following:

- domestic or cross-border transactions
- geographic region or country in which the transaction occurs
- volumes/transactions subject to tiered rates
- processed or not processed by the Company
- amount of usage of the Company’s 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 the Company's brands where the acquirer country and the issuer country are the same. Revenue from domestic assessments is recorded as revenue in the period it is earned, which is when the related volume is generated on the cards or other devices that carry the Company's brands.

Cross-border volume fees are charged to issuers and acquirers based on the dollar volume of activity on cards and other devices that carry the Company's brands where the acquirer country and the issuer country are different. Revenue from cross-border volume is recorded as revenue in the period it is earned, which is when the related volume is generated on the cards or other devices that carry the Company's brands.

Transaction processing revenue is recognized for both domestic and cross-border transactions in the period in which the related transactions occur. Transaction processing includes the following:

- *Switched transaction* revenue is generated from the following products and services:
 - Authorization is the process by which a transaction is routed to the issuer for approval. In certain circumstances, such as when the issuer's systems are unavailable or cannot be contacted, Mastercard or others approve such transactions on behalf of the issuer 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 a transaction has been successfully conducted at the point of interaction. Transactions are cleared among customers through Mastercard's central and regional processing systems.
 - Settlement is facilitating the exchange of funds between parties.
- *Connectivity fees* are charged to issuers, acquirers and other financial institutions 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.
- *Other processing fees* include issuer and acquirer processing solutions; payment gateways for e-commerce merchants; mobile gateways for mobile initiated transactions; and safety and security.

Other revenues consist of value added service offerings that are typically sold with the Company's payment service offerings and are recognized in the period in which the related services are performed or transactions occur. Other revenues include the following:

- Consulting, data analytic and research fees.
- Safety and security services fees are for products and services offered to prevent, detect and respond to fraud and to ensure the safety of transactions made primarily on Mastercard products.
- 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. Loyalty and reward solution fees also include rewards campaigns and management services.
- 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.
- Bank account-based payment services relating to ACH transactions and other ACH related services.
- Other payment-related products and services, including account and transaction enhancement services, rules compliance and publications.

Rebates and incentives (contra-revenue) are provided to customers that meet certain volume targets and can be in the form of a rebate or other support incentives, which are tied to performance. Rebates and incentives are recorded as a reduction of revenue primarily when volume- and transaction-based revenues are recognized over the contractual term. In addition,

Mastercard may make incentive payments to a customer directly related to entering into an agreement, which are generally capitalized and amortized over the life of the agreement on a straight-line basis.

The following table disaggregates the Company's net revenue by source and geographic region for the year ended December 31, 2018 :

| | (in millions) | |
|---|---------------|---------|
| Revenue by source: | | |
| Domestic assessments | \$ | 6,138 |
| Cross-border volume fees | | 4,954 |
| Transaction processing | | 7,391 |
| Other revenues | | 3,348 |
| Gross revenue | | 21,831 |
| Rebates and incentives (contra-revenue) | | (6,881) |
| Net revenue | \$ | 14,950 |
| Net revenue by geographic region: | | |
| North American Markets | \$ | 5,311 |
| International Markets | | 9,441 |
| Other ¹ | | 198 |
| Net revenue | \$ | 14,950 |

¹ Includes revenues managed by corporate functions.

Receivables from contracts with customers of \$2.1 billion and \$1.9 billion as of December 31, 2018 and 2017 , respectively, are recorded within accounts receivable on the consolidated balance sheet. The Company's customers are billed quarterly or more frequently dependent upon the nature of the performance obligation and the underlying contractual terms. The Company does not offer extended payment terms to customers.

Contract assets are included in prepaid expenses and other current assets and other assets on the consolidated balance sheet at December 31, 2018 in the amounts of \$40 million and \$92 million , respectively. The Company did not have contract assets at December 31, 2017 .

Deferred revenue is included in other current liabilities and other liabilities on the consolidated balance sheet at December 31, 2018 in the amounts of \$218 million and \$101 million , respectively. The comparable amounts included in other current liabilities and other liabilities at December 31, 2017 were \$230 million and \$17 million , respectively. Revenue recognized from such performance obligations satisfied during 2018 was \$904 million .

The Company's remaining performance periods for its contracts with customers for its payment network services are typically long-term in nature (generally up to 10 years). As a payment network service provider, the Company provides its customers with continuous access to its global payment processing network and stands ready to provide transaction processing and related services over the contractual term. Consideration is variable based upon the number of transactions processed and volume activity on the cards and other devices that carry the Company's brands. The Company has elected the optional exemption to not disclose the remaining performance obligations related to its payment network services. The Company also earns revenues from other value added services comprised of bank account-based payment services, consulting and research fees, loyalty programs and other payment-related products and services. At December 31, 2018 , the estimated aggregate consideration allocated to unsatisfied performance obligations for these other value added services is \$1.0 billion , which is expected to be recognized through 2022. The estimated remaining performance obligations related to these revenues are subject to change and are affected by several factors, including modifications and terminations and are not expected to be material to any future annual period.

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Note 4. Earnings Per Share

The components of basic and diluted EPS for common shares for each of the years ended December 31 were as follows:

| | 2018 | 2017 | 2016 |
|--|--------------------------------------|----------|----------|
| | (in millions, except per share data) | | |
| Numerator | | | |
| Net income | \$ 5,859 | \$ 3,915 | \$ 4,059 |
| Denominator | | | |
| Basic weighted-average shares outstanding | 1,041 | 1,067 | 1,098 |
| Dilutive stock options and stock units | 6 | 5 | 3 |
| Diluted weighted-average shares outstanding ¹ | 1,047 | 1,072 | 1,101 |
| Earnings per Share | | | |
| Basic | \$ 5.63 | \$ 3.67 | \$ 3.70 |
| Diluted | \$ 5.60 | \$ 3.65 | \$ 3.69 |

Note: Table may not sum due to rounding.

¹ For the years presented, the calculation of diluted EPS excluded a minimal amount of anti-dilutive share-based payment awards.

Note 5. Cash, Cash Equivalents, Restricted Cash and Restricted Cash Equivalents

The following table provides a reconciliation of cash, cash equivalents, restricted cash and restricted cash equivalents reported on the consolidated balance sheet that total to the amounts shown on the consolidated statement of cash flows.

| | December 31, | | | |
|---|---------------|----------|----------|----------|
| | 2018 | 2017 | 2016 | 2015 |
| | (in millions) | | | |
| Cash and cash equivalents | \$ 6,682 | \$ 5,933 | \$ 6,721 | \$ 5,747 |
| Restricted cash and restricted cash equivalents | | | | |
| Restricted cash for litigation settlement | 553 | 546 | 543 | 541 |
| Restricted security deposits held for customers | 1,080 | 1,085 | 991 | 895 |
| Prepaid expenses and other current assets | 22 | 28 | 3 | — |
| Other assets | — | — | 15 | 10 |
| Cash, cash equivalents, restricted cash and restricted cash equivalents | \$ 8,337 | \$ 7,592 | \$ 8,273 | \$ 7,193 |

Note 6. Supplemental Cash Flows

The following table includes supplemental cash flow disclosures for each of the years ended December 31:

| | 2018 | 2017 | 2016 |
|---|---------------|----------|----------|
| | (in millions) | | |
| Cash paid for income taxes, net of refunds | \$ 1,790 | \$ 1,893 | \$ 1,579 |
| Cash paid for interest | 153 | 135 | 74 |
| Cash paid for legal settlements | 260 | 47 | 101 |
| Non-cash investing and financing activities | | | |
| Dividends declared but not yet paid | 340 | 263 | 238 |
| Capital leases and other | 10 | 30 | 3 |
| Fair value of assets acquired, net of cash acquired | — | 1,825 | — |
| Fair value of liabilities assumed related to acquisitions | — | 365 | — |

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Note 7. Fair Value and Investment Securities
Financial Instruments - Recurring Measurements

The Company classifies its fair value measurements of financial instruments within the Valuation Hierarchy. There were no transfers made among the three levels in the Valuation Hierarchy for 2018 .

The distribution of the Company's financial instruments measured at fair value on a recurring basis within the Valuation Hierarchy were as follows:

| | December 31, 2018 | | | | December 31, 2017 | | | |
|--|--|---|--|--------|--|---|--|---------|
| | Quoted Prices in Active Markets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) | Total | Quoted Prices in Active Markets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) | Total |
| (in millions) | | | | | | | | |
| Assets | | | | | | | | |
| Investment securities available for sale ¹ : | | | | | | | | |
| Municipal securities | \$ — | \$ 15 | \$ — | \$ 15 | \$ — | \$ 17 | \$ — | \$ 17 |
| Government and agency securities | 65 | 92 | — | 157 | 81 | 104 | — | 185 |
| Corporate securities | — | 1,043 | — | 1,043 | — | 876 | — | 876 |
| Asset-backed securities | — | 217 | — | 217 | — | 70 | — | 70 |
| Equity securities | — | — | — | — | 1 | — | — | 1 |
| Derivative instruments ² : | | | | | | | | |
| Foreign currency derivative assets | — | 35 | — | 35 | — | 6 | — | 6 |
| Deferred compensation plan ³ : | | | | | | | | |
| Deferred compensation assets | 54 | — | — | 54 | 55 | — | — | 55 |
| Liabilities | | | | | | | | |
| Derivative instruments ² : | | | | | | | | |
| Foreign currency derivative liabilities | \$ — | \$ (6) | \$ — | \$ (6) | \$ — | \$ (30) | \$ — | \$ (30) |
| Deferred compensation plan ⁴ : | | | | | | | | |
| Deferred compensation liabilities | (54) | — | — | (54) | (54) | — | — | (54) |

¹ The Company's U.S. government securities and marketable equity securities are classified within Level 1 of the Valuation Hierarchy as the fair values are based on unadjusted quoted prices for identical assets in active markets. The fair value of the Company's available-for-sale municipal securities, government and agency securities, corporate securities and asset-backed securities are based on observable inputs such as quoted prices, benchmark yields and issuer spreads for similar assets in active markets and are therefore included in Level 2 of the Valuation Hierarchy.

² The Company's foreign currency derivative asset and liability contracts have been classified within Level 2 of the Valuation Hierarchy as the fair value is based on observable inputs such as broker quotes relating to foreign currency exchange rates for similar derivative instruments. See Note 22 (Foreign Exchange Risk Management) for further details.

³ The Company has a nonqualified deferred compensation plan where assets are invested primarily in mutual funds held in a rabbi trust, which is restricted for payments to participants of the plan. The Company has elected to use the fair value option for these mutual funds, which are measured using quoted prices of identical instruments in active markets and are included in prepaid expenses and other current assets on the consolidated balance sheet.

⁴ The deferred compensation liabilities are measured at fair value based on the quoted prices of identical instruments to the investment vehicles selected by the participants. These are included in other liabilities on the consolidated balance sheet.

Settlement and Other Guarantee Liabilities

The Company estimates the fair value of its settlement and other guarantees using market assumptions for relevant though not directly comparable undertakings, as the latter are not observable in the market given the proprietary nature of such guarantees. At December 31, 2018 and 2017 , the carrying value and fair value of settlement and other guarantee liabilities were not material

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

and accordingly are not included in the Valuation Hierarchy table above. Settlement and other guarantee liabilities are classified within Level 3 of the Valuation Hierarchy as their valuation requires substantial judgment and estimation of factors that are not observable in the market. See Note 21 (Settlement and Other Risk Management) for additional information regarding the Company's settlement and other guarantee liabilities.

Financial Instruments - Non-Recurring Measurements

Held-to-Maturity Securities

Investments on the consolidated balance sheet include both available-for-sale and short-term held-to-maturity securities. Held-to-maturity securities are not measured at fair value on a recurring basis and are not included in the Valuation Hierarchy table above. At December 31, 2018 and 2017, the Company held \$264 million and \$700 million, respectively, of held-to-maturity securities due within one year. The cost of these securities approximates fair value.

Nonmarketable Equity Investments

The Company's nonmarketable equity investments are measured at fair value at initial recognition. In addition, nonmarketable equity investments accounted for under the cost method of accounting are adjusted for changes resulting from identifiable price changes in orderly transactions for the identical or similar investments of the same issuer. Nonmarketable equity investments are classified within Level 3 of the Valuation Hierarchy due to the absence of quoted market prices, the inherent lack of liquidity, and the fact that inputs used to measure fair value are unobservable and require management's judgment. The Company uses discounted cash flows and market assumptions to estimate the fair value of its nonmarketable equity investments when certain events or circumstances indicate that impairment may exist. These investments are included in other assets on the consolidated balance sheet. See Note 8 (Prepaid Expenses and Other Assets) for further details.

Debt

The Company estimates the fair value of its long-term debt based on market quotes. These debt instruments are not traded in active markets and are classified as Level 2 of the Valuation Hierarchy. At December 31, 2018, the carrying value and fair value of total long-term debt (including the current portion) was \$6.3 billion and \$6.5 billion, respectively. At December 31, 2017, the carrying value and fair value of long-term debt was \$5.4 billion and \$5.7 billion, respectively.

Other Financial Instruments

Certain financial instruments are carried on the consolidated balance sheet at cost, which approximates fair value due to their short-term, highly liquid nature. These instruments include cash and cash equivalents, restricted cash, accounts receivable, settlement due from customers, restricted security deposits held for customers, accounts payable, settlement due to customers and other accrued liabilities.

Contingent Consideration

The contingent consideration attributable to acquisitions made in 2017 is primarily based on the achievement of 2018 revenue targets and is measured at fair value on a recurring basis. This contingent consideration liability is included in other current liabilities on the consolidated balance sheet and is classified within Level 3 of the Valuation Hierarchy due to the absence of quoted market prices. The activity of the Company's contingent consideration liability for 2018 was as follows:

| | (in millions) |
|------------------------------|---------------|
| Balance at December 31, 2017 | \$ 219 |
| Net change in valuation | 19 |
| Payments | (5) |
| Foreign currency translation | (14) |
| Balance at December 31, 2018 | <u>\$ 219</u> |

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Amortized Costs and Fair Values – Available-for-Sale Investment Securities

The major classes of the Company's available-for-sale investment securities, for which unrealized gains and losses are recorded as a separate component of other comprehensive income (loss) on the consolidated statement of comprehensive income, and their respective amortized cost basis and fair values as of December 31, 2018 and 2017 were as follows:

| | December 31, 2018 | | | | December 31, 2017 | | | |
|----------------------------------|-------------------|-----------------------|-----------------------|-----------------|-------------------|-----------------------|-----------------------|-----------------|
| | Amortized Cost | Gross Unrealized Gain | Gross Unrealized Loss | Fair Value | Amortized Cost | Gross Unrealized Gain | Gross Unrealized Loss | Fair Value |
| | (in millions) | | | | | | | |
| Municipal securities | \$ 15 | \$ — | \$ — | \$ 15 | \$ 17 | \$ — | \$ — | \$ 17 |
| Government and agency securities | 157 | — | — | 157 | 185 | — | — | 185 |
| Corporate securities | 1,044 | 1 | (2) | 1,043 | 875 | 2 | (1) | 876 |
| Asset-backed securities | 217 | — | — | 217 | 70 | — | — | 70 |
| Equity securities | — | — | — | — | — | 1 | — | 1 |
| Total | \$ 1,433 | \$ 1 | \$ (2) | \$ 1,432 | \$ 1,147 | \$ 3 | \$ (1) | \$ 1,149 |

The Company's available-for-sale investment securities held at December 31, 2018 and 2017, primarily carried a credit rating of A-, or better. The municipal securities are primarily comprised of tax-exempt bonds and are diversified across states and sectors. Government and agency securities include U.S. government bonds, U.S. government sponsored agency bonds and foreign government bonds with similar credit quality to that of the U.S. government bonds. Corporate securities are comprised of commercial paper and corporate bonds. The asset-backed securities are investments in bonds which are collateralized primarily by automobile loan receivables.

Investment Maturities:

The maturity distribution based on the contractual terms of the Company's investment securities at December 31, 2018 was as follows:

| | Available-For-Sale | |
|------------------------------------|--------------------|-----------------|
| | Amortized Cost | Fair Value |
| | (in millions) | |
| Due within 1 year | \$ 376 | \$ 376 |
| Due after 1 year through 5 years | 1,056 | 1,055 |
| Due after 5 years through 10 years | 1 | 1 |
| Total | \$ 1,433 | \$ 1,432 |

Investment Income

Investment income primarily consists of interest income generated from cash, cash equivalents and investments. Gross realized gains and losses are recorded within investment income on the Company's consolidated statement of operations. The gross realized gains and losses from the sales of available-for-sale securities for 2018, 2017 and 2016 were not significant.

Note 8. Prepaid Expenses and Other Assets

Prepaid expenses and other current assets consisted of the following at December 31 :

| | 2018 | 2017 |
|--|-----------------|-----------------|
| | (in millions) | |
| Customer and merchant incentives | \$ 778 | \$ 464 |
| Prepaid income taxes | 51 | 77 |
| Other | 603 | 499 |
| Total prepaid expenses and other current assets | \$ 1,432 | \$ 1,040 |

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Other assets consisted of the following at December 31 :

| | 2018 | 2017 |
|----------------------------------|-----------------|-----------------|
| | (in millions) | |
| Customer and merchant incentives | \$ 2,458 | \$ 1,434 |
| Nonmarketable equity investments | 337 | 249 |
| Prepaid income taxes | — | 352 |
| Income taxes receivable | 298 | 178 |
| Other | 210 | 85 |
| Total other assets | <u>\$ 3,303</u> | <u>\$ 2,298</u> |

Customer and merchant incentives represent payments made to customers and merchants under business agreements. Costs directly related to entering into such an agreement are generally deferred and amortized over the life of the agreement. The increase in customer and merchant incentives and the decrease in prepaid income taxes at December 31, 2018 from December 31, 2017 are primarily due to the impact from the adoption of the new accounting standards pertaining to revenue recognition and intra-entity asset transfers, respectively. See Note 1 (Summary of Significant Accounting Policies) for additional information on the cumulative impact of the adoption of these accounting pronouncements.

Note 9. Property, Plant and Equipment

Property, plant and equipment consisted of the following at December 31 :

| | 2018 | 2017 |
|---|---------------|---------------|
| | (in millions) | |
| Building, building equipment and land | \$ 481 | \$ 455 |
| Equipment | 987 | 841 |
| Furniture and fixtures | 85 | 81 |
| Leasehold improvements | 215 | 166 |
| Property, plant and equipment | <u>1,768</u> | <u>1,543</u> |
| Less: accumulated depreciation and amortization | <u>(847)</u> | <u>(714)</u> |
| Property, plant and equipment, net | <u>\$ 921</u> | <u>\$ 829</u> |

As of December 31, 2018 and 2017 , capital leases of \$33 million and \$32 million , respectively, were included in equipment. Accumulated amortization of these capital leases was \$24 million and \$18 million as of December 31, 2018 and 2017 , respectively.

Depreciation and amortization expense for the above property, plant and equipment was \$209 million , \$185 million and \$151 million for 2018 , 2017 and 2016 , respectively.

Note 10. Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2018 and 2017 were as follows:

| | 2018 | 2017 |
|------------------------------|-----------------|-----------------|
| | (in millions) | |
| Beginning balance | \$ 3,035 | \$ 1,756 |
| Additions | 2 | 1,136 |
| Foreign currency translation | (133) | 143 |
| Ending balance | <u>\$ 2,904</u> | <u>\$ 3,035</u> |

The Company had no accumulated impairment losses for goodwill at December 31, 2018 . Based on annual impairment testing, the Company's goodwill is not impaired.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Note 11. Other Intangible Assets

The following table sets forth net intangible assets, other than goodwill, at December 31 :

| | 2018 | | | 2017 | | |
|---|-----------------------|--------------------------|---------------------|-----------------------|--------------------------|---------------------|
| | Gross Carrying Amount | Accumulated Amortization | Net Carrying Amount | Gross Carrying Amount | Accumulated Amortization | Net Carrying Amount |
| | (in millions) | | | | | |
| Finite-lived intangible assets | | | | | | |
| Capitalized software | \$ 1,514 | \$ (898) | \$ 616 | \$ 1,572 | \$ (888) | \$ 684 |
| Customer relationships | 439 | (232) | 207 | 473 | (214) | 259 |
| Other | 46 | (45) | 1 | 57 | (55) | 2 |
| Total | 1,999 | (1,175) | 824 | 2,102 | (1,157) | 945 |
| Indefinite-lived intangible assets | | | | | | |
| Customer relationships | 167 | — | 167 | 175 | — | 175 |
| Total | \$ 2,166 | \$ (1,175) | \$ 991 | \$ 2,277 | \$ (1,157) | \$ 1,120 |

The decrease in the gross carrying amount of amortized intangible assets in 2018 was primarily related to the retirement of fully amortized intangible assets, partially offset by additions to capitalized software. Certain intangible assets are denominated in foreign currencies. As such, the change in intangible assets includes a component attributable to foreign currency translation. Based on the qualitative assessment performed in 2018 , it was determined that the Company's indefinite-lived intangible assets were not impaired.

Amortization on the assets above amounted to \$250 million , \$252 million and \$221 million in 2018, 2017 and 2016 , respectively. The following table sets forth the estimated future amortization expense on finite-lived intangible assets on the consolidated balance sheet at December 31, 2018 for the years ending December 31 :

| | (in millions) |
|---------------------|---------------|
| 2019 | \$ 248 |
| 2020 | 187 |
| 2021 | 127 |
| 2022 | 51 |
| 2023 and thereafter | 211 |
| | <u>\$ 824</u> |

Note 12. Accrued Expenses and Accrued Litigation

Accrued expenses consisted of the following at December 31 :

| | 2018 | 2017 |
|----------------------------------|-----------------|-----------------|
| | (in millions) | |
| Customer and merchant incentives | \$ 3,275 | \$ 2,648 |
| Personnel costs | 744 | 613 |
| Advertising | 103 | 88 |
| Income and other taxes | 158 | 194 |
| Other | 467 | 388 |
| Total accrued expenses | \$ 4,747 | \$ 3,931 |

Customer and merchant incentives represent amounts to be paid to customers under business agreements. The increase in customer and merchant incentives is due to the adoption of the new accounting standard pertaining to revenue recognition and timing of payments to customers. See Note 1 (Summary of Significant Accounting Policies) for additional information on the cumulative impact of the adoption of the revenue recognition guidance.

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As of December 31, 2018 and 2017, the Company's provision for litigation was \$1,591 million and \$709 million, respectively. These amounts are not included in the accrued expenses table above and are separately reported as accrued litigation on the consolidated balance sheet. See Note 20 (Legal and Regulatory Proceedings) for additional information regarding the Company's accrued litigation.

Note 13. Pension, Postretirement and Savings Plans

The Company and certain of its subsidiaries maintain various pension and other postretirement plans that cover substantially all employees worldwide.

Defined Contribution Plans

The Company sponsors defined contribution retirement plans. The primary plan is the Mastercard Savings Plan, a 401(k) plan for substantially all of the Company's U.S. employees, which is subject to the provisions of the Employee Retirement Income Security Act of 1974 ("ERISA"), as amended. In addition, the Company has several defined contribution plans outside of the U.S. The Company's total expense for its defined contribution plans was \$98 million, \$84 million and \$73 million in 2018, 2017 and 2016, respectively.

Defined Benefit and Other Postretirement Plans

The Company sponsors pension and postretirement plans for certain non-U.S. employees (the "non-U.S. Plans") that cover various benefits specific to their country of employment. In 2017, the Company acquired a majority interest in Vocalink. Vocalink has a defined benefit pension plan (the "Vocalink Plan") which was permanently closed to new entrants and future accruals as of July 21, 2013, however, plan participants' obligations are adjusted for future salary changes. The Company has agreed to make contributions of £15 million (approximately \$18 million as of December 31, 2018) annually until March 2020. The term "Pension Plans" includes the non-U.S. Plans and the Vocalink Plan.

The Company maintains a postretirement plan providing health coverage and life insurance benefits for substantially all of its U.S. employees hired before July 1, 2007 (the "Postretirement Plan").

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The Company uses a December 31 measurement date for the Pension Plans and its Postretirement Plan (collectively the “Plans”). The Company recognizes the funded status of its Plans, measured as the difference between the fair value of the plan assets and the projected benefit obligation, in the consolidated balance sheet. The following table sets forth the Plans’ funded status, key assumptions and amounts recognized in the Company’s consolidated balance sheet at December 31 :

| | Pension Plans | | Postretirement Plan | |
|---|---------------|---------|---------------------|---------|
| | 2018 | 2017 | 2018 | 2017 |
| (\$ in millions) | | | | |
| Change in benefit obligation | | | | |
| Benefit obligation at beginning of year | \$ 468 | \$ 46 | \$ 61 | \$ 59 |
| Benefit obligation acquired during the year | — | 410 | — | — |
| Service cost | 9 | 9 | 1 | 1 |
| Interest cost | 12 | 8 | 2 | 2 |
| Actuarial (gain) loss | (7) | (44) | (2) | 3 |
| Benefits paid | (22) | (12) | (5) | (4) |
| Transfers in | 1 | 3 | — | — |
| Foreign currency translation | (23) | 48 | — | — |
| Benefit obligation at end of year | 438 | 468 | 57 | 61 |
| Change in plan assets | | | | |
| Fair value of plan assets at beginning of year | 427 | 33 | — | — |
| Fair value of plan assets acquired during the year | — | 344 | — | — |
| Actual (loss) gain on plan assets | (8) | (4) | — | — |
| Employer contributions | 33 | 23 | 5 | 4 |
| Benefits paid | (23) | (12) | (5) | (4) |
| Transfers in | 2 | 3 | — | — |
| Foreign currency translation | (21) | 40 | — | — |
| Fair value of plan assets at end of year | 410 | 427 | — | — |
| Funded status at end of year | \$ (28) | \$ (41) | \$ (57) | \$ (61) |
| Amounts recognized on the consolidated balance sheet consist of: | | | | |
| Other liabilities, short-term | \$ — | \$ — | \$ (3) | \$ (3) |
| Other liabilities, long-term | (28) | (41) | (54) | (58) |
| | \$ (28) | \$ (41) | \$ (57) | \$ (61) |
| Accumulated other comprehensive income consists of: | | | | |
| Net actuarial (gain) loss | \$ (5) | \$ (22) | \$ (7) | \$ (5) |
| Prior service credit | 1 | — | (6) | (8) |
| Balance at end of year | \$ (4) | \$ (22) | \$ (13) | \$ (13) |
| Weighted-average assumptions used to determine end of year benefit obligations | | | | |
| Discount rate | | | | |
| Non-U.S. Plans | 1.80% | 1.80% | * | * |
| Vocalink Plan | 3.10% | 2.80% | * | * |
| Postretirement Plan | * | * | 4.25% | 3.50% |
| Rate of compensation increase | | | | |
| Non-U.S. Plans | 2.60% | 2.60% | * | * |
| Vocalink Plan | 4.00% | 3.85% | * | * |
| Postretirement Plan | * | * | 3.00% | 3.00% |

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Each of the Pension Plans had benefit obligations in excess of plan assets at December 31, 2018 and 2017 . Information on the Pension Plans were as follows:

| | 2018 | 2017 |
|--------------------------------|---------------|--------|
| | (in millions) | |
| Projected benefit obligation | \$ 438 | \$ 468 |
| Accumulated benefit obligation | 430 | 428 |
| Fair value of plan assets | 410 | 427 |

For the year ended December 31, 2018, the Company's projected benefit obligation related to its Pension Plans decreased \$30 million attributable primarily to foreign currency translation and benefits paid. For the year ended December 31, 2017, the Company's projected benefit obligation related to its Pension Plans increased \$422 million attributable primarily to the acquisition of Vocalink.

Components of net periodic benefit cost recorded in earnings were as follows for the Plans for each of the years ended December 31 :

| | Pension Plans | | | Postretirement Plan | | |
|--------------------------------------|---------------|-------------|--------------|---------------------|-------------|-------------|
| | 2018 | 2017 | 2016 | 2018 | 2017 | 2016 |
| | (in millions) | | | | | |
| Service cost | \$ 9 | \$ 9 | \$ 10 | \$ 1 | \$ 1 | \$ 1 |
| Interest cost | 12 | 8 | 1 | 2 | 2 | 2 |
| Expected return on plan assets | (20) | (13) | (1) | — | — | — |
| Curtailement gain | — | — | — | — | — | — |
| Amortization of actuarial loss | — | — | — | — | — | — |
| Amortization of prior service credit | — | — | — | (2) | (2) | (1) |
| Pension settlement charge | — | — | — | — | — | — |
| Net periodic benefit cost | <u>\$ 1</u> | <u>\$ 4</u> | <u>\$ 10</u> | <u>\$ 1</u> | <u>\$ 1</u> | <u>\$ 2</u> |

Net periodic benefit cost, excluding the service cost component, is recognized in other income (expense) on the consolidated statement of operations. The service cost component is recognized in general and administrative expenses on the consolidated statement of operations.

Other changes in plan assets and benefit obligations recognized in other comprehensive income for the years ended December 31 were as follows:

| | Pension Plans | | | Postretirement Plan | | |
|---|---------------|----------------|--------------|---------------------|-------------|-------------|
| | 2018 | 2017 | 2016 | 2018 | 2017 | 2016 |
| | (in millions) | | | | | |
| Curtailement gain | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — |
| Current year actuarial loss (gain) | 17 | (22) | 1 | (2) | 5 | — |
| Current year prior service credit | 1 | — | — | — | — | — |
| Amortization of prior service credit | — | — | — | 2 | 2 | 1 |
| Pension settlement charge | — | — | — | — | — | — |
| Total other comprehensive loss (income) | <u>\$ 18</u> | <u>\$ (22)</u> | <u>\$ 1</u> | <u>\$ —</u> | <u>\$ 7</u> | <u>\$ 1</u> |
| Total net periodic benefit cost and other comprehensive loss (income) | <u>\$ 19</u> | <u>\$ (18)</u> | <u>\$ 11</u> | <u>\$ 1</u> | <u>\$ 8</u> | <u>\$ 3</u> |

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Assumptions

Weighted-average assumptions used to determine net periodic benefit cost were as follows for the years ended December 31 :

| | Pension Plans | | | Postretirement Plan | | |
|---------------------------------------|---------------|-------|-------|---------------------|-------|-------|
| | 2018 | 2017 | 2016 | 2018 | 2017 | 2016 |
| Discount rate | | | | | | |
| Non-U.S. Plans | 1.80% | 1.60% | 1.85% | * | * | * |
| Vocalink Plan | 2.80% | 2.50% | * | * | * | * |
| Postretirement Plan | * | * | * | 3.50% | 4.00% | 4.25% |
| Expected return on plan assets | | | | | | |
| Non-U.S. Plans | 3.00% | 3.25% | 3.25% | * | * | * |
| Vocalink Plan | 4.75% | 4.75% | * | * | * | * |
| Rate of compensation increase | | | | | | |
| Non-U.S. Plans | 2.60% | 2.59% | 2.64% | * | * | * |
| Vocalink Plan | 3.85% | 3.95% | * | * | * | * |
| Postretirement Plan | * | * | * | 3.00% | 3.00% | 3.00% |

* Not applicable

The Company's discount rate assumptions are based on yield curves derived from high quality corporate bonds, which are matched to the expected cash flows of each respective plan. The expected return on plan assets assumptions are derived using the current and expected asset allocations of the Pension Plans' assets and considering historical as well as expected returns on various classes of plan assets. The rates of compensation increases are determined by the Company, based upon its long-term plans for such increases.

The following additional assumptions were used at December 31 in accounting for the Postretirement Plan:

| | 2018 | 2017 |
|--|-------|-------|
| Health care cost trend rate assumed for next year | 6.00% | 6.50% |
| Ultimate trend rate | 5.00% | 5.00% |
| Year that the rate reaches the ultimate trend rate | 2 | 3 |

Assets

Plan assets are managed taking into account the timing and amount of future benefit payments. The Vocalink Plan assets are managed within the following target asset allocations: non-government fixed income 39% , government securities (including U.K. governmental bonds) 28% , investment funds 25% and other 8% . The investment funds are currently comprised of approximately 44% derivatives, 28% equity, 16% fixed income and 12% other. For the non-U.S. Plans, the assets are concentrated primarily in insurance contracts.

The Valuation Hierarchy of the Pension Plans' assets is determined using a consistent application of the categorization measurements for the Company's financial instruments. See Note 1 (Summary of Significant Accounting Policies) for additional information.

Cash and cash equivalents and other public investment vehicles (including certain mutual funds and government and agency securities) are valued at quoted market prices, which represent the net asset value of the shares held by the Vocalink Plan, and are therefore included in Level 1 of the Valuation Hierarchy. Certain other mutual funds (including commingled funds), governmental and agency securities and insurance contracts are valued at unit values provided by investment managers, which are based on the fair value of the underlying investments utilizing public information, independent external valuation from third-party services or third-party advisors, and are therefore included in Level 2 of the Valuation Hierarchy. Asset-backed securities are classified as Level 3 due to a lack of observable inputs in measuring fair value.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The following tables set forth by level, within the Valuation Hierarchy, the Pension Plans' assets at fair value as of December 31, 2018 and 2017 :

| | December 31, 2018 | | | | December 31, 2017 | | | |
|----------------------------------|---|--|--|---------------|---|---|--|---------------|
| | Quoted Prices in Active Markets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) | Fair Value | Quoted Prices in Active Markets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) | Fair Value |
| | (in millions) | | | | | | | |
| Cash and cash equivalents | \$ 22 | \$ — | \$ — | \$ 22 | \$ 21 | \$ — | \$ — | \$ 21 |
| Government and agency securities | — | 88 | — | 88 | 21 | 95 | — | 116 |
| Mutual funds | 154 | 30 | — | 184 | 146 | 28 | — | 174 |
| Insurance contracts | — | 57 | — | 57 | — | 45 | — | 45 |
| Asset-backed securities | — | — | 34 | 34 | — | — | 31 | 31 |
| Other | — | 25 | — | 25 | 2 | 16 | 22 | 40 |
| Total | \$ 176 | \$ 200 | \$ 34 | \$ 410 | \$ 190 | \$ 184 | \$ 53 | \$ 427 |

The following table summarizes expected benefit payments through 2028 for the Pension Plans and the Postretirement Plan, including those payments expected to be paid from the Company's general assets. Actual benefit payments may differ from expected benefit payments.

| | Pension Plans | | Postretirement Plan | |
|-------------|---------------|----|---------------------|----|
| | (in millions) | | | |
| 2019 | \$ | 14 | \$ | 3 |
| 2020 | | 10 | | 4 |
| 2021 | | 11 | | 4 |
| 2022 | | 14 | | 4 |
| 2023 | | 13 | | 4 |
| 2024 - 2028 | | 64 | | 20 |

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Note 14. Debt

Long-term debt consisted of the following at December 31:

| Notes | Issuance Date | Interest Payment Terms | Maturity Date | Aggregate Principal Amount | Stated Interest Rate | Effective Interest Rate | 2018 | 2017 |
|--|---------------|------------------------|---------------|----------------------------|----------------------|-------------------------|-----------------|-----------------|
| (in millions, except percentages) | | | | | | | | |
| 2018 USD Notes | February 2018 | Semi-annually | 2028 | \$ 500 | 3.500% | 3.598% | \$ 500 | \$ — |
| | | | 2048 | \$ 500 | 3.950% | 3.990% | 500 | — |
| | | | | <u>\$ 1,000</u> | | | | |
| 2016 USD Notes | November 2016 | Semi-annually | 2021 | \$ 650 | 2.000% | 2.236% | 650 | 650 |
| | | | 2026 | 750 | 2.950% | 3.044% | 750 | 750 |
| | | | 2046 | 600 | 3.800% | 3.893% | 600 | 600 |
| | | | | <u>\$ 2,000</u> | | | | |
| 2015 Euro Notes | December 2015 | Annually | 2022 | € 700 | 1.100% | 1.265% | 801 | 839 |
| | | | 2027 | 800 | 2.100% | 2.189% | 916 | 958 |
| | | | 2030 | 150 | 2.500% | 2.562% | 172 | 180 |
| | | | | <u>€ 1,650</u> | | | | |
| 2014 USD Notes | March 2014 | Semi-annually | 2019 | \$ 500 | 2.000% | 2.178% | 500 | 500 |
| | | | 2024 | 1,000 | 3.375% | 3.484% | 1,000 | 1,000 |
| | | | | <u>\$ 1,500</u> | | | | |
| | | | | | | 6,389 | 5,477 | |
| Less: Unamortized discount and debt issuance costs | | | | | | | (55) | (53) |
| Total debt outstanding | | | | | | | 6,334 | 5,424 |
| Less: Current portion ¹ | | | | | | | (500) | — |
| Long-term debt | | | | | | | <u>\$ 5,834</u> | <u>\$ 5,424</u> |

¹ Relates to the current portion of the 2014 USD Notes, due in April 2019, classified as current portion of long-term debt on the consolidated balance sheet.

In February 2018, the Company issued \$500 million principal amount of notes due February 2028 and \$500 million principal amount of notes due February 2048 (collectively the “2018 USD Notes”). The net proceeds from the issuance of the 2018 USD Notes, after deducting the original issue discount, underwriting discount and offering expenses, were \$991 million .

The net proceeds, after deducting the original issue discount, underwriting discount and offering expenses, from the issuance of the 2016 USD Notes, the 2015 Euro Notes and the 2014 USD Notes, were \$1.969 billion , \$1.723 billion and \$1.484 billion , respectively.

The outstanding debt, described above, is not subject to any financial covenants and it may be redeemed in whole, or in part, at the Company’s option at any time for a specified make-whole amount. These notes are senior unsecured obligations and would rank equally with any future unsecured and unsubordinated indebtedness. The proceeds of the notes are to be used for general corporate purposes.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Scheduled annual maturities of the principal portion of long-term debt outstanding at December 31, 2018 are summarized below.

| | (in millions) | |
|--------------|---------------|--------------|
| 2019 | \$ | 500 |
| 2020 | | — |
| 2021 | | 650 |
| 2022 | | 801 |
| 2023 | | — |
| Thereafter | | 4,438 |
| Total | \$ | 6,389 |

On November 15, 2018, the Company increased its commercial paper program (the “Commercial Paper Program”) from \$3.75 billion to \$4.5 billion under which the Company is authorized to issue unsecured commercial paper notes with maturities of up to 397 days from the date of issuance. The Commercial Paper Program is available in U.S. dollars.

In conjunction with the Commercial Paper Program, the Company entered into a committed five-year unsecured \$4.5 billion revolving credit facility (the “Credit Facility”) on November 15, 2018. The Credit Facility, which expires on November 15, 2023, amended and restated the Company’s prior \$3.75 billion credit facility which was set to expire in October 2022. Borrowings under the Credit Facility are available in U.S. dollars and/or euros. The facility fee under the Credit Facility is determined according to the Company’s credit rating and is payable on the average daily commitment, regardless of usage, per annum. In addition to the facility fee, interest rates on borrowings under the Credit Facility would be based on prevailing market interest rates plus applicable margins that fluctuate based on the Company’s credit rating. The Credit Facility contains customary representations, warranties, events of default and affirmative and negative covenants, including a financial covenant limiting the maximum level of consolidated debt to earnings before interest, taxes, depreciation and amortization (“EBITDA”). The Company was in compliance in all material respects with the covenants of the Credit Facility at December 31, 2018 and 2017. The majority of Credit Facility lenders are customers or affiliates of customers of Mastercard.

Borrowings under the Commercial Paper Program and the Credit Facility are used to provide liquidity for general corporate purposes, including providing liquidity in the event of one or more settlement failures by the Company’s customers. The Company may borrow and repay amounts under the Commercial Paper Program and Credit Facility from time to time. The Company had no borrowings under the Credit Facility and the Commercial Paper Program at December 31, 2018 and 2017.

In March 2018, the Company filed a universal shelf registration statement (replacing a previously filed shelf registration statement that was set to expire) 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, guarantees of debt securities, preferred stock, Class A common stock, depository shares, purchase contracts, units or warrants in one or more offerings.

Note 15. Stockholders’ Equity

Classes of Capital Stock

Mastercard’s amended and restated certificate of incorporation authorizes the following classes of capital stock:

| Class | Par Value Per Share | Authorized Shares (in millions) | Dividend and Voting Rights |
|-----------|---------------------|------------------------------------|--|
| A | \$0.0001 | 3,000 | One vote per share Dividend rights |
| B | \$0.0001 | 1,200 | Non-voting Dividend rights |
| Preferred | \$0.0001 | 300 | No shares issued or outstanding at December 31, 2018 and 2017, respectively. Dividend and voting rights are to be determined by the Board of Directors of the Company upon issuance. |

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Ownership and Governance Structure

Equity ownership and voting power of the Company's shares were allocated as follows as of December 31 :

| | 2018 | | 2017 | |
|---|------------------|----------------------|------------------|----------------------|
| | Equity Ownership | General Voting Power | Equity Ownership | General Voting Power |
| Public Investors (Class A stockholders) | 88.0% | 89.0% | 88.0% | 89.2% |
| Principal or Affiliate Customers (Class B stockholders) | 1.1% | —% | 1.4% | —% |
| Mastercard Foundation (Class A stockholders) | 10.9% | 11.0% | 10.6% | 10.8% |

Class B Common Stock Conversions

Shares of Class B common stock are convertible on a one-for-one basis into shares of Class A common stock. Entities eligible to hold Mastercard's Class B common stock are defined in the Company's amended and restated certificate of incorporation (generally the Company's principal or affiliate customers), and they are restricted from retaining ownership of shares of Class A common stock. Class B stockholders are required to subsequently sell or otherwise transfer any shares of Class A common stock received pursuant to such a conversion.

Mastercard Foundation

In connection and simultaneously with its 2006 initial public offering (the "IPO"), the Company issued and donated 135 million newly authorized shares of Class A common stock to Mastercard Foundation. Mastercard Foundation is a private charitable foundation incorporated in Canada that is controlled by directors who are independent of the Company and its principal customers. Under the terms of the donation, Mastercard Foundation became able to resell the donated shares in May 2010 to the extent necessary to meet charitable disbursement requirements dictated by Canadian tax law. Under Canadian tax law, Mastercard Foundation is generally required to disburse at least 3.5% of its assets not used in administration each year for qualified charitable disbursements. However, Mastercard Foundation obtained permission from the Canadian tax authorities to defer the giving requirements until 2021. Mastercard Foundation, at its discretion, may decide to meet its disbursement obligations on an annual basis or to settle previously accumulated obligations during any given year. Mastercard Foundation will be permitted to sell all of its remaining shares beginning May 1, 2027, subject to certain conditions.

Stock Repurchase Programs

The Company's Board of Directors have approved share repurchase programs authorizing the Company to repurchase shares of its Class A Common Stock. These programs become effective after the completion of the previously authorized share repurchase program.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The following table summarizes the Company's share repurchase authorizations of its Class A common stock through December 31, 2018, as well as historical purchases:

| Board authorization dates | December 2018 | December 2017 | December 2016 | December 2015 | December 2014 | |
|---|------------------|------------------|------------------|------------------|------------------|-----------|
| Date program became effective | January 2019 | March 2018 | April 2017 | February 2016 | January 2015 | Total |
| (in millions, except average price data) | | | | | | |
| Board authorization | \$ 6,500 | \$ 4,000 | \$ 4,000 | \$ 4,000 | \$ 3,750 | \$ 22,250 |
| Dollar-value of shares repurchased in 2016 | \$ — | \$ — | \$ — | \$ 3,004 | \$ 507 | \$ 3,511 |
| Remaining authorization at December 31, 2016 | \$ — | \$ — | \$ 4,000 | \$ 996 | \$ — | \$ 4,996 |
| Dollar-value of shares repurchased in 2017 | \$ — | \$ — | \$ 2,766 | \$ 996 | \$ — | \$ 3,762 |
| Remaining authorization at December 31, 2017 | \$ — | \$ 4,000 | \$ 1,234 | \$ — | \$ — | \$ 5,234 |
| Dollar-value of shares repurchased in 2018 | \$ — | \$ 3,699 | \$ 1,234 | \$ — | \$ — | \$ 4,933 |
| Remaining authorization at December 31, 2018 | \$ 6,500 | \$ 301 | \$ — | \$ — | \$ — | \$ 6,801 |
| Shares repurchased in 2016 | — | — | — | 31.2 | 5.7 | 36.9 |
| Average price paid per share in 2016 | \$ — | \$ — | \$ — | \$ 96.15 | \$ 89.76 | \$ 95.18 |
| Shares repurchased in 2017 | — | — | 21.0 | 9.1 | — | 30.1 |
| Average price paid per share in 2017 | \$ — | \$ — | \$ 131.97 | \$ 109.16 | \$ — | \$ 125.05 |
| Shares repurchased in 2018 | — | 19.0 | 7.2 | — | — | 26.2 |
| Average price paid per share in 2018 | \$ — | \$ 194.77 | \$ 171.11 | \$ — | \$ — | \$ 188.26 |
| Cumulative shares repurchased through December 31, 2018 | — | 19.0 | 28.2 | 40.4 | 40.8 | 128.4 |
| Cumulative average price paid per share | \$ — | \$ 194.77 | \$ 141.99 | \$ 99.10 | \$ 92.03 | \$ 120.44 |

The following table presents the changes in the Company's outstanding Class A and Class B common stock for the years ended December 31 :

| | Outstanding Shares | |
|---|--------------------|---------|
| | Class A | Class B |
| | (in millions) | |
| Balance at December 31, 2015 | 1,095.0 | 21.3 |
| Purchases of treasury stock | (36.9) | — |
| Share-based payments | 2.3 | — |
| Conversion of Class B to Class A common stock | 2.0 | (2.0) |
| Balance at December 31, 2016 | 1,062.4 | 19.3 |
| Purchases of treasury stock | (30.1) | — |
| Share-based payments | 2.2 | — |
| Conversion of Class B to Class A common stock | 5.2 | (5.2) |
| Balance at December 31, 2017 | 1,039.7 | 14.1 |
| Purchases of treasury stock | (26.2) | — |
| Share-based payments | 2.8 | — |
| Conversion of Class B to Class A common stock | 2.3 | (2.3) |
| Balance at December 31, 2018 | 1,018.6 | 11.8 |

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Note 16. Accumulated Other Comprehensive Income (Loss)

The changes in the balances of each component of accumulated other comprehensive income (loss), net of tax, for the years ended December 31, 2018 and 2017 were as follows:

| | Foreign Currency Translation Adjustments ¹ | Translation Adjustments on Net Investment Hedge | Defined Benefit Pension and Other Postretirement Plans ² | Investment Securities Available-for-Sale ³ | Accumulated Other Comprehensive Income (Loss) |
|-----------------------------------|---|---|---|--|---|
| | (in millions) | | | | |
| Balance at December 31, 2016 | \$ (949) | \$ 12 | \$ 11 | \$ 2 | \$ (924) |
| Other comprehensive income (loss) | 567 | (153) | 14 | (1) | 427 |
| Balance at December 31, 2017 | (382) | (141) | 25 | 1 | (497) |
| Other comprehensive income (loss) | (279) | 75 | (15) | (2) | (221) |
| Balance at December 31, 2018 | \$ (661) | \$ (66) | \$ 10 | \$ (1) | \$ (718) |

¹ During 2017, the decrease in the accumulated other comprehensive loss related to foreign currency translation adjustments was driven primarily by the appreciation of the euro. During 2018, the increase in the accumulated other comprehensive loss related to foreign currency translation adjustments was driven primarily by the devaluation of the euro, British pound and Brazilian real.

² During 2017, the increase in the accumulated other comprehensive gain related to the Company's postretirement plans was driven primarily by the addition of the Vocalink Plan. Deferred gains related to the Company's postretirement plans, reclassified from accumulated other comprehensive income (loss) to earnings, were \$2 million before tax and \$1 million after tax. During 2018, the decrease in the accumulated other comprehensive gain related to the Company's postretirement plans was driven primarily by an actuarial loss related to the Vocalink Plan. Deferred gains related to the Company's postretirement plans, reclassified from accumulated other comprehensive income (loss) to earnings, were \$1 million before and after tax. See Note 13 (Pension, Postretirement and Savings Plans) for additional information.

³ During 2017 and 2018, gains and losses on available-for-sale investment securities, reclassified from accumulated other comprehensive income (loss) to investment income, were not significant.

Note 17. Share-Based Payments

In May 2006, the Company implemented the Mastercard Incorporated 2006 Long Term Incentive Plan, which was amended and restated as of June 5, 2012 (the "LTIP"). The LTIP is a stockholder-approved plan that permits the grant of various types of equity awards to employees.

The Company has granted Options, RSUs and PSUs under the LTIP. The Options, which expire ten years from the date of grant, generally vest ratably over four years from the date of grant. The RSUs and PSUs generally vest after three years. The Company uses the straight-line method of attribution for expensing equity awards. Compensation expense is recorded net of estimated forfeitures. Estimates are adjusted as appropriate.

For all awards granted prior to March 2017, a participant's unvested awards are forfeited upon termination of employment. For all awards granted on or after March 1, 2017, in the event of termination due to job elimination (as defined by the Company), a participant will retain a pro-rata portion of the unvested awards for services performed through the date of termination. In the event a participant terminates employment due to disability or retirement more than six months (seven months for those granted on or after March 1, 2017) after receiving the award, the participant retains all of their awards without providing additional service to the Company. Retirement eligibility is dependent upon age and years of service. Compensation expense is recognized over the shorter of the vesting periods stated in the LTIP or the date the individual becomes eligible to retire but not less than six months (or seven months for grants awarded on or after March 1, 2017).

There are approximately 116 million shares of Class A common stock authorized for equity awards under the LTIP. Although the LTIP permits the issuance of shares of Class B common stock, no such shares have been authorized for issuance. Shares issued as a result of Option exercises and the conversions of RSUs and PSUs were funded primarily with the issuance of new shares of Class A common stock.

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Stock Options

The fair value of each Option is estimated on the date of grant using a Black-Scholes option pricing model. The following table presents the weighted-average assumptions used in the valuation and the resulting weighted-average fair value per option granted for the years ended December 31:

| | 2018 | 2017 | 2016 |
|--|----------|----------|----------|
| Risk-free rate of return | 2.7% | 2.0% | 1.3% |
| Expected term (in years) | 6.00 | 5.00 | 5.00 |
| Expected volatility | 19.7% | 19.3% | 23.3% |
| Expected dividend yield | 0.6% | 0.8% | 0.8% |
| Weighted-average fair value per Option granted | \$ 40.90 | \$ 21.23 | \$ 18.58 |

The risk-free rate of return was based on the U.S. Treasury yield curve in effect on the date of grant. The expected term and the expected volatility were based on historical Mastercard information. The expected dividend yields were based on the Company's expected annual dividend rate on the date of grant.

The following table summarizes the Company's option activity for the year ended December 31, 2018 :

| | Options (in millions) | Weighted-Average Exercise Price | Weighted-Average Remaining Contractual Term (in years) | Aggregate Intrinsic Value (in millions) |
|--|--------------------------|------------------------------------|---|--|
| Outstanding at January 1, 2018 | 8.6 | \$ 77 | | |
| Granted | 0.9 | \$ 173 | | |
| Exercised | (1.8) | \$ 57 | | |
| Forfeited/expired | (0.1) | \$ 112 | | |
| Outstanding at December 31, 2018 | 7.6 | \$ 93 | 6.4 | \$ 726 |
| Exercisable at December 31, 2018 | 4.3 | \$ 72 | 5.2 | \$ 505 |
| Options vested and expected to vest at December 31, 2018 | 7.6 | \$ 93 | 6.4 | \$ 723 |

As of December 31, 2018, there was \$34 million of total unrecognized compensation cost related to non-vested Options. The cost is expected to be recognized over a weighted-average period of 2.1 years.

Restricted Stock Units

The following table summarizes the Company's RSU activity for the year ended December 31, 2018 :

| | Units (in millions) | Weighted-Average Grant- Date Fair Value | Aggregate Intrinsic Value (in millions) |
|--|------------------------|--|--|
| Outstanding at January 1, 2018 | 4.1 | \$ 97 | |
| Granted | 0.9 | \$ 171 | |
| Converted | (1.1) | \$ 90 | |
| Forfeited | (0.2) | \$ 110 | |
| Outstanding at December 31, 2018 | 3.7 | \$ 117 | \$ 702 |
| RSUs expected to vest at December 31, 2018 | 3.6 | \$ 116 | \$ 680 |

The fair value of each RSU is the closing stock price on the New York Stock Exchange of the Company's Class A common stock on the date of grant, adjusted for the exclusion of dividend equivalents. Upon vesting, a portion of the RSU award may be withheld to satisfy the minimum statutory withholding taxes. The remaining RSUs will be settled in shares of the Company's Class A

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common stock after the vesting period. As of December 31, 2018, there was \$153 million of total unrecognized compensation cost related to non-vested RSUs. The cost is expected to be recognized over a weighted-average period of 1.7 years.

Performance Stock Units

The following table summarizes the Company's PSU activity for the year ended December 31, 2018:

| | Units (in millions) | Weighted-Average Grant-Date Fair Value | Aggregate Intrinsic Value (in millions) |
|--|------------------------|---|--|
| Outstanding at January 1, 2018 | 0.5 | \$ 105 | |
| Granted | 0.1 | \$ 226 | |
| Converted | (0.3) | \$ 99 | |
| Other ¹ | 0.3 | \$ 94 | |
| Outstanding at December 31, 2018 | 0.6 | \$ 120 | \$ 119 |
| PSUs expected to vest at December 31, 2018 | 0.6 | \$ 119 | \$ 118 |

¹ Represents additional shares issued in March 2018 related to the 2015 PSU grant based on performance and market conditions achieved over the three-year measurement period. These shares vested upon issuance.

Since 2013, PSUs containing performance and market conditions have been issued. Performance measures used to determine the actual number of shares that vest after three years include net revenue growth, EPS growth and relative total shareholder return ("TSR"). Relative TSR is considered a market condition, while net revenue and EPS growth are considered performance conditions. The Monte Carlo simulation valuation model is used to determine the grant-date fair value.

Compensation expenses for PSUs are recognized over the requisite service period if it is probable that the performance target will be achieved and subsequently adjusted if the probability assessment changes. As of December 31, 2018, there was \$13 million of total unrecognized compensation cost related to non-vested PSUs. The cost is expected to be recognized over a weighted-average period of 1.3 years.

Additional Information

The following table includes additional share-based payment information for each of the years ended December 31:

| | 2018 | 2017 | 2016 |
|---|---|--------|--------|
| | (in millions, except weighted-average fair value) | | |
| Share-based compensation expense: Options, RSUs and PSUs | \$ 196 | \$ 176 | \$ 148 |
| Income tax benefit recognized for equity awards | 41 | 57 | 49 |
| Income tax benefit realized related to Options exercised | 53 | 36 | 31 |
| <i>Options:</i> | | | |
| Total intrinsic value of Options exercised | 242 | 106 | 86 |
| <i>RSUs:</i> | | | |
| Weighted-average grant-date fair value of awards granted | 171 | 112 | 91 |
| Total intrinsic value of RSUs converted into shares of Class A common stock | 194 | 131 | 122 |
| <i>PSUs:</i> | | | |
| Weighted-average grant-date fair value of awards granted | 226 | 126 | 92 |
| Total intrinsic value of PSUs converted into shares of Class A common stock | 40 | 13 | 25 |

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Note 18. Commitments

At December 31, 2018, the Company had the following future minimum payments due under non-cancelable agreements:

| | Total | Capital Leases | Operating Leases | Sponsorship, Licensing & Other |
|--------------|-----------------|-------------------|---------------------|--------------------------------------|
| | (in millions) | | | |
| 2019 | \$ 426 | \$ 4 | \$ 72 | \$ 350 |
| 2020 | 259 | 4 | 75 | 180 |
| 2021 | 175 | — | 76 | 99 |
| 2022 | 121 | — | 68 | 53 |
| 2023 | 67 | — | 58 | 9 |
| Thereafter | 327 | — | 327 | — |
| Total | \$ 1,375 | \$ 8 | \$ 676 | \$ 691 |

Included in the table above are capital leases with a net present value of minimum lease payments of \$8 million. In addition, at December 31, 2018, \$25 million of the future minimum payments in the table above for sponsorship, licensing and other agreements was accrued. Consolidated rental expense for the Company's leased office space was \$94 million, \$77 million and \$62 million for 2018, 2017 and 2016, respectively. Consolidated lease expense for automobiles, computer equipment and office equipment was \$20 million, \$22 million and \$19 million for 2018, 2017 and 2016, respectively.

Note 19. Income Taxes

On December 22, 2017, U.S. Tax Reform was enacted into law with the effective date for most provisions being January 1, 2018. U.S. Tax Reform represents significant changes to the U.S. internal revenue code and, among other things:

- lowered the corporate income tax rate from 35% to 21%
- imposed a one-time deemed repatriation tax on accumulated foreign earnings (the "Transition Tax")
- provides for a 100% dividends received deduction on dividends from foreign affiliates
- requires a current inclusion in U.S. federal taxable income of earnings of foreign affiliates that are determined to be global intangible low taxed income or "GILTI"
- creates the base erosion anti-abuse tax, or "BEAT"
- provides for an effective tax rate of 13.125% for certain income derived from outside of the U.S. (referred to as foreign derived intangible income or "FDII")
- introduced further limitations on the deductibility of executive compensation
- permits 100% expensing of qualifying fixed assets acquired after September 27, 2017
- limits the deductibility of interest expense in certain situations and
- eliminates the domestic production activities deduction.

While the effective date of the law for most provisions was January 1, 2018, GAAP requires the effects of changes in tax rates be accounted for in the reporting period of enactment, which was the 2017 reporting period.

Components of Income and Income tax expense

The domestic and foreign components of income before income taxes for the years ended December 31 are as follows:

| | 2018 | 2017 | 2016 |
|-----------------------------------|-----------------|-----------------|-----------------|
| | (in millions) | | |
| United States | \$ 3,510 | \$ 3,482 | \$ 3,736 |
| Foreign | 3,694 | 3,040 | 1,910 |
| Income before income taxes | \$ 7,204 | \$ 6,522 | \$ 5,646 |

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The total income tax provision for the years ended December 31 is comprised of the following components:

| | 2018 | 2017 | 2016 |
|---------------------------|-----------------|-----------------|-----------------|
| | (in millions) | | |
| Current | | | |
| Federal | \$ 649 | \$ 1,704 | \$ 1,074 |
| State and local | 69 | 65 | 36 |
| Foreign | 871 | 752 | 497 |
| | <u>1,589</u> | <u>2,521</u> | <u>1,607</u> |
| Deferred | | | |
| Federal | (228) | 134 | (6) |
| State and local | (11) | 1 | (2) |
| Foreign | (5) | (49) | (12) |
| | <u>(244)</u> | <u>86</u> | <u>(20)</u> |
| Income tax expense | <u>\$ 1,345</u> | <u>\$ 2,607</u> | <u>\$ 1,587</u> |

Effective Income Tax Rate

A reconciliation of the effective income tax rate to the U.S. federal statutory income tax rate for the years ended December 31, is as follows:

| | 2018 | | 2017 | | 2016 | |
|--|-----------------------------------|---------------|-----------------|---------------|-----------------|---------------|
| | Amount | Percent | Amount | Percent | Amount | Percent |
| | (in millions, except percentages) | | | | | |
| Income before income taxes | \$ 7,204 | | \$ 6,522 | | \$ 5,646 | |
| Federal statutory tax | 1,513 | 21.0 % | 2,283 | 35.0 % | 1,976 | 35.0 % |
| State tax effect, net of federal benefit | 46 | 0.6 % | 43 | 0.7 % | 22 | 0.4 % |
| Foreign tax effect | (92) | (1.3)% | (380) | (5.8)% | (188) | (3.3)% |
| European Commission fine | 194 | 2.7 % | — | — % | — | — % |
| Foreign tax credits ¹ | (110) | (1.5)% | (27) | (0.4)% | (141) | (2.5)% |
| Transition Tax | 22 | 0.3 % | 629 | 9.6 % | — | — % |
| Remeasurement of deferred taxes | (7) | (0.1)% | 157 | 2.4 % | — | — % |
| Windfall benefit | (72) | (1.0)% | (43) | (0.7)% | — | — % |
| Other, net | (149) | (2.0)% | (55) | (0.8)% | (82) | (1.5)% |
| Income tax expense | <u>\$ 1,345</u> | <u>18.7 %</u> | <u>\$ 2,607</u> | <u>40.0 %</u> | <u>\$ 1,587</u> | <u>28.1 %</u> |

¹ Included within the impact of the 2018 foreign tax credits is a \$90 million tax benefit relating to the carryback of certain foreign tax credits. Additionally, included in 2016 is a \$116 million benefit associated with the repatriation of 2016 foreign earnings. There was no benefit associated with the repatriation of foreign earnings in 2018 and 2017 due to the enactment of U.S. Tax Reform.

The effective tax rates for the years ended December 31, 2018, 2017 and 2016 were 18.7% , 40.0% and 28.1% , respectively. The effective income tax rate for 2018 was lower than the effective income tax rate for 2017 primarily due to additional tax expense of \$873 million attributable to U.S. Tax Reform in 2017, a lower 2018 statutory tax rate in the U.S. and Belgium and a more favorable geographic mix of earnings. The lower effective tax rate is also attributable to discrete tax benefits, relating primarily to \$90 million of foreign tax credits generated in 2018, which can be carried back and utilized in 2017 under transition rules in the proposed foreign tax credit regulations issued on November 28, 2018, along with provisions for legal matters in the United States. These benefits were partially offset by the nondeductible nature of the fine issued by the European Commission. See Note 20 (Legal and Regulatory Proceedings) for further discussion of the European Commission fine and U.S. merchant class litigation. The impact of U.S. Tax Reform for the period ending December 31, 2018 resulted in a net \$75 million non-recurring tax benefit due to the carry back of certain foreign tax credits, incremental transition tax and the remeasurement of deferred taxes.

The effective income tax rate for 2017 was higher than the effective income tax rate for 2016 primarily due to additional tax expense of \$873 million attributable to U.S. Tax reform, which included provisional amounts of \$825 million related to the Transition Tax, the remeasurement of the Company's net deferred tax asset balance in the U.S. and the recognition of a deferred tax liability related to a change in assertion regarding the indefinite reinvestment of a substantial amount of the Company's foreign earnings, as well as \$48 million due to a foregone foreign tax credit benefit on 2017 repatriations. In addition, the

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Company's 2017 effective income tax rate versus 2016 was impacted by a more favorable geographic mix of earnings in 2017, partially offset by a lower U.S. foreign tax credit benefit.

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The Company was able to make reasonable estimates at December 31, 2017 and had recorded a provisional charge of \$629 million related to the Transition Tax, \$157 million for the remeasurement of the Company's net deferred tax asset in the U.S. and \$36 million related to the change in assertion regarding the indefinite reinvestment of foreign earnings. However, these amounts were adjusted during the measurement period due to evolving analysis and interpretations of law, including issuance by the Internal Revenue Service (the "IRS") and Treasury of Notices and regulations, discussions with the Department of Treasury ("Treasury"), as well as interpretations of how accounting for income taxes should be applied.

At the close of the measurement period, the Company has finalized its assessment of the impact of U.S. Tax Reform resulting in a Transition Tax liability of \$687 million and a \$150 million charge related to the remeasurement of the Company's net deferred tax assets in the U.S. In 2018, the Company recorded an increase in the transition tax liability of \$36 million, with an offsetting decrease to its deferred tax liabilities. The Company recorded additional Transition Tax expense of \$22 million and has recorded a \$7 million reduction to the charge for the remeasurement of its net deferred tax assets. The adjustments in 2018 were primarily the result of additional administrative guidance and proposed regulations issued by the IRS and Treasury.

The Transition Tax will be paid over eight annual installments. The initial installment of \$55 million was due and paid by April 15, 2018. Additionally, the overpayment appearing on the 2017 U.S. federal tax return has been applied against the Company's Transition Tax liability. Approximately \$509 million of the remaining tax due is recorded in other liabilities on the consolidated balance sheet at December 31, 2018. At December 31, 2017 the Company had reflected a current liability of \$52 million and an other liability of \$577 million. Under U.S. Tax Reform, for purposes of IRS examination of the Transition Tax, the statute of limitations is extended to six years.

Singapore Income Tax Rate

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 in 2010. The incentive had provided MAPPL with, among other benefits, a reduced income tax rate for the 10 -year period commencing January 1, 2010 on taxable income in excess of a base amount. The Company continued to explore business opportunities in this region, resulting in an expansion of the incentives being granted by the Ministry of Finance, including a further reduction to the income tax rate on taxable income in excess of a revised fixed base amount commencing July 1, 2011 and continuing through December 31, 2025. Without the incentive grant, MAPPL would have been subject to the statutory income tax rate on its earnings. For 2018, 2017 and 2016, the impact of the incentive grant received from the Ministry of Finance resulted in a reduction of MAPPL's income tax liability of \$212 million, or \$0.20 per diluted share, \$104 million, or \$0.10 per diluted share, and \$49 million, or \$0.04 per diluted share, respectively.

Intra-entity asset transfers

During 2014, the Company implemented an initiative to better align its legal entity and tax structure with its 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. The Company recorded a deferred charge related to the income tax expense on intercompany profits that resulted from the transfer. The tax associated with the transfer was deferred and amortized utilizing a 25 -year life. The deferred charge was included in other current assets and other assets on the consolidated balance sheet at December 31, 2017 in the amounts of \$17 million and \$352 million, respectively. The aforementioned deferred charge of \$369 million at December 31, 2017, was written off to retained earnings as a component of the cumulative-effect adjustment as of January 1, 2018. In addition, deferred taxes are a component of the cumulative-effect adjustment whereby the Company has recorded a \$186 million deferred tax asset in this regard. See Note 1 (Summary of Significant Accounting Policies) for additional information related to this guidance.

Indefinite Reinvestment

In 2017, as a result of U.S. Tax Reform, among other things, the Company changed its assertion regarding the indefinite reinvestment of foreign earnings outside the U.S. for certain of our foreign affiliates and recognized a provisional deferred tax liability of \$36 million. In 2018, the Company completed its analysis of global working capital and cash needs. It is the Company's

MASTERCARD INCORPORATED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

present intention to indefinitely reinvest a portion of its historic undistributed accumulated earnings associated with certain foreign subsidiaries outside of the U.S.

As part of its analysis, the Company determined that approximately \$5.8 billion of the approximately \$6.7 billion of unremitted foreign earnings as of December 31, 2017, were no longer permanently reinvested. Notwithstanding the fact that some earnings continue to be permanently reinvested, all historical earnings, approximately \$7.0 billion, were taxed in the U.S. as part of transition tax pursuant to U.S. Tax Reform, of which \$267 million was repatriated in 2017.

Additionally, during 2018, the Company repatriated approximately \$3.3 billion. As of December 31, 2018, the Company had approximately \$2.5 billion of accumulated earnings to be repatriated in the future, for which \$8 million of deferred tax benefit was recorded. The tax effect is primarily related to the estimated foreign exchange impact recognized when earnings are repatriated. The Company expects that foreign withholding taxes associated with these future repatriated earnings will not be material. Earnings of approximately \$0.9 billion remain permanently reinvested and the Company estimates that an immaterial U.S. federal and state and local income tax benefit would result, primarily from foreign exchange, if these earnings were to be repatriated.

Deferred Taxes

Deferred tax assets and liabilities represent the expected future tax consequences of temporary differences between the carrying amounts and the tax basis of assets and liabilities. The components of deferred tax assets and liabilities at December 31 are as follows:

| | 2018 | 2017 |
|--|---------------|---------------|
| | (in millions) | |
| Deferred Tax Assets | | |
| Accrued liabilities | \$ 297 | \$ 158 |
| Compensation and benefits | 210 | 127 |
| State taxes and other credits | 30 | 28 |
| Net operating and capital losses | 104 | 105 |
| Unrealized gain/loss - 2015 Euro Notes | 28 | 48 |
| Recoverable basis of deconsolidated entities | — | 35 |
| Intangible assets ¹ | 170 | — |
| Previously taxed earnings and profits | 7 | — |
| Other items | 80 | 83 |
| Less: Valuation allowance | (94) | (91) |
| Total Deferred Tax Assets | 832 | 493 |
| Deferred Tax Liabilities | | |
| Prepaid expenses and other accruals | 89 | 48 |
| Intangible assets | 125 | 151 |
| Property, plant and equipment | 97 | 83 |
| Previously taxed earnings and profits | — | 36 |
| Other items | 18 | 31 |
| Total Deferred Tax Liabilities | 329 | 349 |
| Net Deferred Tax Assets | \$ 503 | \$ 144 |

¹ On January 1, 2018 a \$186 million deferred tax asset was established related to intra-entity transfers as discussed above.

Both the 2018 and 2017 valuation allowances relate primarily to the Company's ability to recognize tax benefits associated with certain foreign net operating losses. The recognition of the foreign losses is dependent upon the future taxable income in such jurisdictions and the ability under tax law in these jurisdictions to utilize net operating losses following a change in control.

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A reconciliation of the beginning and ending balance for the Company's unrecognized tax benefits for the years ended December 31, is as follows:

| | 2018 | 2017 | 2016 |
|----------------------------------|---------------|---------------|---------------|
| | (in millions) | | |
| Beginning balance | \$ 183 | \$ 169 | \$ 181 |
| Additions: | | | |
| Current year tax positions | 23 | 21 | 20 |
| Prior year tax positions | 5 | 9 | 13 |
| Reductions: | | | |
| Prior year tax positions | (17) | (1) | (28) |
| Settlements with tax authorities | (18) | (4) | (2) |
| Expired statute of limitations | (12) | (11) | (15) |
| Ending balance | <u>\$ 164</u> | <u>\$ 183</u> | <u>\$ 169</u> |

The entire unrecognized tax benefit of \$164 million, if recognized, would reduce the effective tax rate. During 2018, there was a reduction to the balance of the Company's unrecognized tax benefits. This was primarily due to a favorable court decision and 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.

The Company is subject to tax in the U.S., Belgium, Singapore, the United Kingdom and various other foreign jurisdictions, as well as state and local jurisdictions. Uncertain tax positions are reviewed on an ongoing basis and are adjusted after considering facts and circumstances, including progress of tax audits, developments in case law and closing of statutes of limitation. 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. While such a change may be significant, it is not possible to provide a range of the potential change until the examinations progress further or the related statutes of limitation expire. The Company has effectively settled its U.S. federal income tax obligations through 2011. With limited exception, the Company is no longer subject to state and local or foreign examinations by tax authorities for years before 2010.

At December 31, 2018 and 2017, the Company had a net income tax-related interest payable of \$8 million and \$10 million, respectively, in its consolidated balance sheet. Tax-related interest income/(expense) in the periods 2018, 2017 and 2016, were not material. In addition, as of December 31, 2018 and 2017, the amounts the Company has recognized for penalties payable in its consolidated balance sheet were not material.

Note 20. Legal and Regulatory Proceedings

Mastercard is a party to legal and regulatory proceedings with respect to a variety of matters in the ordinary course of business. Some of these proceedings are based on complex claims involving substantial uncertainties and unascertainable damages. Accordingly, except as discussed below, it is not possible to determine the probability of loss or estimate damages, and therefore, Mastercard has not established reserves for any of these proceedings. When the Company determines that a loss is both probable and reasonably estimable, Mastercard records a liability and discloses the amount of the liability if it is material. When a material loss contingency is only reasonably possible, Mastercard does not record a liability, but instead discloses the nature and the amount of the claim, and an estimate of the loss or range of loss, if such an estimate can be made. Unless otherwise stated below with respect to these matters, Mastercard cannot provide an estimate of the possible loss or range of loss based on one or more of the following reasons: (1) actual or potential plaintiffs have not claimed an amount of monetary damages or the amounts are unsupported or exaggerated, (2) the matters are in early stages, (3) there is uncertainty as to the outcome of pending appeals or motions, (4) there are significant factual issues to be resolved, (5) the existence in many such proceedings of multiple defendants or potential defendants whose share of any potential financial responsibility has yet to be determined and/or (6) there are novel legal issues presented. Furthermore, except as identified with respect to the matters below, Mastercard does not believe that the outcome of any individual existing legal or regulatory proceeding to which it is a party will have a material adverse effect on its results of operations, financial condition or overall business. However, an adverse judgment or other outcome or settlement with respect to any proceedings discussed below could result in fines or payments by Mastercard and/or could require Mastercard to change its business practices. In addition, an adverse outcome in a regulatory proceeding could lead to the filing of civil damage claims and possibly result in significant damage awards. Any of these events could have a material adverse effect on Mastercard's results of operations, financial condition and overall business.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Interchange Litigation and Regulatory Proceedings

Mastercard's interchange fees and other practices are subject to regulatory, legal review and/or challenges in a number of jurisdictions, including the proceedings described below. When taken as a whole, the resulting decisions, regulations and legislation with respect to interchange fees and acceptance practices may have a material adverse effect on the Company's prospects for future growth and its overall results of operations, financial position and cash flows.

United States. In June 2005, the first of a series of complaints were filed on behalf of merchants (the majority of the complaints were styled as class actions, although a few complaints were filed on behalf of individual merchant plaintiffs) against Mastercard International, Visa U.S.A., Inc., Visa International Service Association and a number of financial institutions. Taken together, the claims in the complaints were generally brought under both Sections 1 and 2 of the Sherman Act, which prohibit monopolization and attempts or conspiracies to monopolize a particular industry, and some of these complaints contain unfair competition law claims under state law. The complaints allege, among other things, that Mastercard, Visa, and certain financial institutions conspired to set the price of interchange fees, enacted point of sale acceptance rules (including the no surcharge rule) in violation of antitrust laws and engaged in unlawful tying and bundling of certain products and services. The cases were consolidated for pre-trial proceedings in the U.S. District Court for the Eastern District of New York in MDL No. 1720. The plaintiffs filed a consolidated class action complaint that seeks treble damages.

In July 2006, the group of purported merchant class plaintiffs filed a supplemental complaint alleging that Mastercard's initial public offering of its Class A Common Stock in May 2006 (the "IPO") and certain purported agreements entered into between Mastercard and financial institutions in connection with the IPO: (1) violate U.S. antitrust laws and (2) constituted a fraudulent conveyance because the financial institutions allegedly attempted to release, without adequate consideration, Mastercard's right to assess them for Mastercard's litigation liabilities. The class plaintiffs sought treble damages and injunctive relief including, but not limited to, an order reversing and unwinding the IPO.

In February 2011, Mastercard and Mastercard International entered into each of: (1) an omnibus judgment sharing and settlement sharing agreement with Visa Inc., Visa U.S.A. Inc. and Visa International Service Association and a number of financial institutions; and (2) a Mastercard settlement and judgment sharing agreement with a number of financial institutions. The agreements provide for the apportionment of certain costs and liabilities which Mastercard, the Visa parties and the financial institutions may incur, jointly and/or severally, in the event of an adverse judgment or settlement of one or all of the cases in the merchant litigations. Among a number of scenarios addressed by the agreements, in the event of a global settlement involving the Visa parties, the financial institutions and Mastercard, Mastercard would pay 12% of the monetary portion of the settlement. In the event of a settlement involving only Mastercard and the financial institutions with respect to their issuance of Mastercard cards, Mastercard would pay 36% of the monetary portion of such settlement.

In October 2012, the parties entered into a definitive settlement agreement with respect to the merchant class litigation (including with respect to the claims related to the IPO) and the defendants separately entered into a settlement agreement with the individual merchant plaintiffs. The settlements included cash payments that were apportioned among the defendants pursuant to the omnibus judgment sharing and settlement sharing agreement described above. Mastercard also agreed to provide class members with a short-term reduction in default credit interchange rates and to modify certain of its business practices, including its "no surcharge" rule. The court granted final approval of the settlement in December 2013, and objectors to the settlement appealed that decision to the U.S. Court of Appeals for the Second Circuit. In June 2016, the court of appeals vacated the class action certification, reversed the settlement approval 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. As a result of the appellate court ruling, the district court divided the merchants' claims into two separate classes - monetary damages claims (the "Damages Class") and claims seeking changes to business practices (the "Rules Relief Class"). The court appointed separate counsel for each class.

Prior to the reversal of the settlement approval, merchants representing slightly more than 25% of the Mastercard and Visa purchase volume over the relevant period chose to opt out of the class settlement. Mastercard had anticipated that most of the larger merchants who opted out of the settlement would initiate separate actions seeking to recover damages, and over 30 opt-out complaints have been filed on behalf of numerous merchants in various jurisdictions. Mastercard has executed settlement agreements with a number of opt-out merchants. Mastercard believes these settlement agreements are not impacted by the ruling of the court of appeals. The defendants have consolidated all of these matters in front of the same federal district court that approved the merchant class settlement. In July 2014, the district court denied the defendants' motion to dismiss the opt-out merchant complaints for failure to state a claim.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

In September 2018, the parties to the Damages Class litigation entered into a class settlement agreement to resolve the Damages Class claims. Mastercard increased its reserve by \$237 million during 2018 to reflect both its expected financial obligation under the Damages Class settlement agreement and the filed and anticipated opt-out merchant cases. In January 2019, the district court issued an order granting preliminary approval of the settlement and authorized notice of the settlement to class members. Damages Class members will now have the opportunity to opt out of the class settlement agreement, after which the district court will schedule a hearing on final approval. The settlement agreement does not relate to the Rules Relief Class claims. Separate settlement negotiations with the Rules Relief Class are ongoing.

As of December 31, 2018 and 2017, Mastercard had accrued a liability of \$915 million and \$708 million, respectively, as a reserve for both the merchant class litigation and the filed and anticipated opt-out merchant cases. As of December 31, 2018 and 2017, Mastercard had \$553 million and \$546 million, respectively, in a qualified cash settlement fund related to the merchant class litigation and classified as restricted cash on its consolidated balance sheet. Mastercard believes the reserve for both the merchant class litigation and the filed and anticipated opt-out merchants represents its best estimate of its probable liabilities in these matters. The portion of the accrued liability relating to both the opt-out merchants and the merchant class litigation settlement does not represent an estimate of a loss, if any, if the matters were litigated to a final outcome. Mastercard cannot estimate the potential liability if that were to occur.

Canada. In December 2010, a proposed class action complaint was commenced against Mastercard in Quebec on behalf of Canadian merchants. The suit essentially repeated the allegations and arguments of a previously filed application by the Canadian Competition Bureau to the Canadian Competition Tribunal (dismissed in Mastercard's favor) concerning certain Mastercard rules related to point-of-sale acceptance, including the "honor all cards" and "no surcharge" rules. The Quebec suit sought compensatory and punitive damages in unspecified amounts, as well as injunctive relief. In the first half of 2011, additional purported class action lawsuits were commenced in British Columbia and Ontario against Mastercard, Visa and a number of large Canadian financial institutions. The British Columbia suit sought compensatory damages in unspecified amounts, and the Ontario suit sought compensatory damages of \$5 billion on the basis of alleged conspiracy and various alleged breaches of the Canadian Competition Act. Additional purported class action complaints were commenced in Saskatchewan and Alberta with claims that largely mirror those in the other suits. In June 2017, Mastercard entered into a class settlement agreement to resolve all of the Canadian class action litigation. The settlement, which requires Mastercard to make a cash payment and modify its "no surcharge" rule, has received court approval in each Canadian province. Objectors to the settlement have sought to appeal the approval orders. In 2017, Mastercard recorded a provision for litigation of \$15 million related to this matter.

Europe. In July 2015, the European Commission ("EC") issued a Statement of Objections related to Mastercard's interregional interchange fees and central acquiring rule within the European Economic Area (the "EEA"). The Statement of Objections, which followed an investigation opened in 2013, included preliminary conclusions concerning the alleged anticompetitive effects of these practices. In December 2018, Mastercard announced the anticipated resolution of the EC's investigation. With respect to interregional interchange fees, Mastercard made a settlement proposal whereby it would make changes to its interregional interchange fees. The proposed settlement is subject to market testing by the EC before it is made binding in an EC decision. The EC has announced that Visa has entered into a parallel proposed settlement. In addition, with respect to Mastercard's historic central acquiring rule, the EC issued a negative decision in January 2019. The EC's negative decision covers a period of time of less than two years before the rule's modification. The rule was modified in late 2015 to comply with the requirements of the EEA Interchange Fee Regulation. The decision does not require any modification of Mastercard's current business practices but includes a fine of €571 million. Mastercard incurred a charge of \$654 million in the fourth quarter of 2018 in relation to this matter.

Since May 2012, a number of United Kingdom ("U.K.") 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 (the "U.K. Merchant claimants"). In addition, Mastercard, has faced similar filed or threatened litigation by merchants with respect to interchange rates in other countries in Europe (the "Pan-European Merchant claimants"). In aggregate, the alleged damages claims from the U.K. and Pan-European Merchant claimants were in the amount of approximately £3 billion (approximately \$4 billion as of December 31, 2018). Mastercard has resolved over £2 billion (approximately \$3 billion as of December 31, 2018) of these damages claims through settlement or judgment. Since June 2015, Mastercard has recorded litigation provisions for settlements, judgments and legal fees relating to these claims, including charges of \$237 million and \$117 million in 2018 and 2016, respectively. There were no litigation charges relating to U.K. and Pan-European Merchant claimants in 2017. As detailed below, Mastercard continues to litigate with the remaining U.K. and Pan-European Merchant claimants and it has submitted statements of defense disputing liability and damages claims.

In January 2017, Mastercard received a liability judgment in its favor on all significant matters in a separate action brought by ten of the U.K. Merchant claimants. Three of the U.K. Merchant claimants appealed the judgment, and these appeals were

MASTERCARD INCORPORATED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

combined with Mastercard's appeal of a 2016 judgment in favor of one U.K. merchant. In July 2018, the U.K. appellate court ruled against both Mastercard and Visa on two of the three legal issues being considered, concluding that U.K. interchange rates restricted competition and that they were not objectively necessary for the payment networks. The appellate court sent the cases back to trial for reconsideration on the remaining issue concerning the "lawful" level of interchange. Mastercard and Visa have been granted permission to appeal the appellate court ruling to the U.K. Supreme Court. Mastercard expects the litigation process to be delayed pending the resolution of its appeal to the U.K. Supreme Court.

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. The complaint, which seeks to leverage the European Commission's 2007 decision on intra-EEA interchange fees, claims damages in an amount that exceeds £14 billion (approximately \$18 billion as of December 31, 2018). In July 2017, the court denied the plaintiffs' application for the case to proceed as a collective action. The plaintiffs were granted permission to appeal the denial of their collective action application and the appellate court heard an oral argument on the appeal in February 2019.

ATM Non-Discrimination Rule Surcharge Complaints

In October 2011, a trade association of independent Automated Teller Machine ("ATM") operators and 13 independent ATM operators filed a complaint styled as a class action lawsuit in the U.S. District Court for the District of Columbia against both Mastercard and Visa (the "ATM Operators Complaint"). Plaintiffs seek to represent a class of non-bank operators of ATM terminals that operate in the United States with the discretion to determine the price of the ATM access fee for the terminals they operate. Plaintiffs allege that Mastercard and Visa have violated Section 1 of the Sherman Act by imposing rules that require ATM operators to charge non-discriminatory ATM surcharges for transactions processed over Mastercard's and Visa's respective networks that are not greater than the surcharge for transactions over other networks accepted at the same ATM. Plaintiffs seek both injunctive and monetary relief equal to treble the damages they claim to have sustained as a result of the alleged violations and their costs of suit, including attorneys' fees. Plaintiffs have not quantified their damages although they allege that they expect damages to be in the tens of millions of dollars.

Subsequently, multiple related complaints were filed in the U.S. District Court for the District of Columbia alleging both federal antitrust and multiple state unfair competition, consumer protection and common law claims against Mastercard and Visa on behalf of putative classes of users of ATM services (the "ATM Consumer Complaints"). The claims in these actions largely mirror the allegations made in the ATM Operators Complaint, although these complaints seek damages on behalf of consumers of ATM services who pay allegedly inflated ATM fees at both bank and non-bank ATM operators as a result of the defendants' ATM rules. Plaintiffs seek both injunctive and monetary relief equal to treble the damages they claim to have sustained as a result of the alleged violations and their costs of suit, including attorneys' fees. Plaintiffs have not quantified their damages although they allege that they expect damages to be in the tens of millions of dollars.

In January 2012, the plaintiffs in the ATM Operators Complaint and the ATM Consumer Complaints filed amended class action complaints that largely mirror their prior complaints. In February 2013, the district court granted Mastercard's motion to dismiss the complaints for failure to state a claim. On appeal, the Court of Appeals reversed the district court's order in August 2015 and sent the case back for further proceedings.

U.S. Liability Shift Litigation

In March 2016, a proposed U.S. merchant class action complaint was filed in federal court in California alleging that Mastercard, Visa, American Express and Discover (the "Network Defendants"), EMVCo and a number of issuing banks (the "Bank Defendants") engaged in a conspiracy to shift fraud liability for card present transactions from issuing banks to merchants not yet in compliance with the standards for EMV chip cards in the United States (the "EMV Liability Shift"), in violation of the Sherman Act and California law. Plaintiffs allege damages equal to the value of all chargebacks for which class members became liable as a result of the EMV Liability Shift on October 1, 2015. The plaintiffs seek treble damages, attorney's fees and costs and an injunction against future violations of governing law, and the defendants have filed a motion to dismiss. In September 2016, the court denied the Network Defendants' motion to dismiss the complaint, but granted such a motion for EMVCo and the Bank Defendants. In May 2017, the court transferred the case to New York so that discovery could be coordinated with the U.S. merchant class interchange litigation described above. The plaintiffs have filed a renewed motion for class certification, following the district court's denial of their initial motion.

MASTERCARD INCORPORATED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Telephone Consumer Protection Class Action

Mastercard is a defendant in a Telephone Consumer Protection Act (“TCPA”) class action pending in Florida. The plaintiffs are individuals and businesses who allege that approximately 381,000 unsolicited faxes were sent to them advertising a Mastercard co-brand card issued by First Arkansas Bank (“FAB”). The TCPA provides for uncapped statutory damages of \$500 per fax. Mastercard has asserted various defenses to the claims, and has notified FAB of an indemnity claim that it has (which FAB has disputed). In June 2018, the court granted Mastercard’s motion to stay the proceedings until the Federal Communications Commission makes a decision on the application of the TCPA to online fax services.

Note 21. Settlement and Other Risk Management

Mastercard’s rules guarantee the settlement of many of the transactions between its customers (“settlement risk”). Settlement exposure is the settlement risk to customers under Mastercard’s rules due to the difference in timing between the payment transaction date and subsequent settlement. While the term and amount of the guarantee are unlimited, the duration of settlement exposure is short term and typically limited to a few days.

Gross settlement exposure is estimated using the average daily payment volume during the three months ended December 31, 2018 multiplied by the estimated number of days of exposure. The Company has global risk management policies and procedures, which include risk standards, to provide a framework for managing the Company’s settlement risk and exposure. In the event of a failed customer, Mastercard may pursue one or more remedies available under our rules to recover potential losses. Historically, the Company has experienced a low level of losses from customer failures.

As part of its policies, Mastercard requires certain customers that are not in compliance with the Company’s risk standards to post collateral, typically in the form of cash, letters of credit, or guarantees. This requirement is based on a review of the individual risk circumstances for each customer. Mastercard monitors its credit risk portfolio on a regular basis and the adequacy of collateral on hand. Additionally, from time to time, the Company reviews its risk management methodology and standards. As such, the amounts of estimated settlement exposure are revised as necessary.

The Company’s estimated settlement exposure was as follows:

| | December 31, 2018 | December 31, 2017 |
|--|----------------------|-------------------|
| | (in millions) | |
| Gross settlement exposure | \$ 49,666 | \$ 47,002 |
| Collateral held for settlement exposure | (4,711) | (4,360) |
| Net uncollateralized settlement exposure | <u>\$ 44,955</u> | <u>\$ 42,642</u> |

Mastercard also provides guarantees to customers and certain other counterparties indemnifying them from losses stemming from failures of third parties to perform duties. This includes guarantees of Mastercard-branded travelers cheques issued, but not yet cashed of \$377 million and \$395 million at December 31, 2018 and 2017, respectively, of which \$297 million and \$313 million at December 31, 2018 and 2017, respectively, is mitigated by collateral arrangements. In addition, the Company enters into agreements in the ordinary course of business under which the Company agrees to indemnify third parties against damages, losses and expenses incurred in connection with legal and other proceedings arising from relationships or transactions with the Company. Certain indemnifications do not provide a stated maximum exposure. As the extent of the Company’s obligations under these agreements depends entirely upon the occurrence of future events, the Company’s potential future liability under these agreements is not determinable. Historically, payments made by the Company under these types of contractual arrangements have not been material.

Note 22. Foreign Exchange Risk Management

The Company monitors and manages its foreign currency exposures as part of its overall risk management program which focuses on the unpredictability of financial markets and seeks to reduce the potentially adverse effects that the volatility of these markets may have on its operating results. A primary objective of the Company’s risk management strategies is to reduce the financial impact that may arise from volatility in foreign currency exchange rates principally through the use of both foreign currency derivative contracts (Derivatives) and foreign currency denominated debt (Net Investment Hedge).

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Derivatives

The Company enters into foreign currency derivative contracts to manage risk associated with anticipated receipts and disbursements which are valued based on currencies other than the functional currencies of the entity. The Company may also enter into foreign currency derivative contracts to offset possible changes in value due to foreign exchange fluctuations of earnings, assets and liabilities. The objective of these activities is to reduce the Company's exposure to gains and losses resulting from fluctuations of foreign currencies against its functional currencies.

As of December 31, 2018 and 2017, 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, 2018 | | December 31, 2017 | |
|--|-------------------|----------------------|-------------------|----------------------|
| | Notional | Estimated Fair Value | Notional | Estimated Fair Value |
| | (in millions) | | | |
| Commitments to purchase foreign currency | \$ 34 | \$ (1) | \$ 27 | \$ — |
| Commitments to sell foreign currency | 1,066 | 26 | 968 | (26) |
| Options to sell foreign currency | 25 | 4 | 27 | 2 |
| <i>Balance sheet location</i> | | | | |
| Accounts receivable ¹ | | \$ — | | \$ 6 |
| Prepaid expenses and other current assets ¹ | | 35 | | — |
| Other current liabilities ¹ | | (6) | | (30) |

¹ The derivative contracts are subject to enforceable master netting arrangements, which contain various netting and setoff provisions.

The amount of gain (loss) recognized on the consolidated statement of operations for the contracts to purchase and sell foreign currency is summarized below:

| | Year Ended December 31, | | |
|---------------------------------------|-------------------------|---------|--------|
| | 2018 | 2017 | 2016 |
| | (in millions) | | |
| Foreign currency derivative contracts | | | |
| General and administrative | \$ 53 | \$ (75) | \$ (6) |

The fair value of the foreign currency derivative contracts generally reflects the estimated amounts that the Company would receive (or pay), on a pre-tax basis, to terminate the contracts. The terms of the foreign currency derivative contracts are generally less than 18 months. The Company had no deferred gains or losses related to foreign exchange contracts in accumulated other comprehensive income as of December 31, 2018 and 2017, as these contracts were not accounted for under hedge accounting.

The Company's derivative financial instruments are subject to both market and counterparty credit 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 foreign currency exchange rates, interest rates and other related variables. The effect of a hypothetical 10% adverse change in U.S. dollar forward rates could result in a fair value loss of approximately \$113 million on the Company's foreign currency derivative contracts outstanding at December 31, 2018. Counterparty credit risk is the risk of loss due to failure of the counterparty to perform its obligations in accordance with contractual terms. To mitigate counterparty credit risk, the Company enters into derivative contracts with a diversified group of selected financial institutions based upon their credit ratings and other factors. Generally, the Company does not obtain collateral related to derivatives because of the high credit ratings of the counterparties.

Net Investment Hedge

The Company uses foreign currency denominated debt to hedge a portion of its 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). In 2015, the Company designated its €1.65 billion euro-denominated debt as a net investment hedge for a portion of its net investment in European foreign operations. As of December 31, 2018, the Company had a net foreign currency transaction pre-tax loss of \$120 million in accumulated other comprehensive income (loss) associated with hedging activity. There was no ineffectiveness in the current period.

MASTERCARD INCORPORATED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Note 23. Segment Reporting

Mastercard has concluded it has one operating and reportable segment, “Payment Solutions.” Mastercard’s President and Chief Executive Officer has been identified as the chief operating decision-maker. All of the Company’s activities are interrelated, and each activity is dependent upon and supportive of the other. Accordingly, all significant operating decisions are based upon analysis of Mastercard at the consolidated level.

Revenue by geographic market is based on the location of the Company’s customer that issued the card, as well as the location of the merchant acquirer where the card is being used. Revenue generated in the U.S. was approximately 33% of total revenue in 2018 , 35% in 2017 and 38% in 2016 . No individual country, other than the U.S., generated more than 10% of total revenue in those periods.

Mastercard did not have any individual customer that generated greater than 10% of net revenue in 2018 , 2017 or 2016 . The following table reflects the geographical location of the Company’s property, plant and equipment, net, as of December 31:

| | 2018 | 2017 | 2016 |
|-----------------|---------------|---------------|---------------|
| | (in millions) | | |
| United States | \$ 613 | \$ 572 | \$ 504 |
| Other countries | 308 | 257 | 229 |
| Total | <u>\$ 921</u> | <u>\$ 829</u> | <u>\$ 733</u> |

MASTERCARD INCORPORATED
SUMMARY OF QUARTERLY DATA (Unaudited)

| | 2018 Quarter Ended | | | | 2018 Total |
|---|--------------------------------------|----------|--------------|-------------|------------|
| | March 31 | June 30 | September 30 | December 31 | |
| | (in millions, except per share data) | | | | |
| Net revenue | \$ 3,580 | \$ 3,665 | \$ 3,898 | \$ 3,807 | \$ 14,950 |
| Operating income | 1,825 | 1,936 | 2,287 | 1,234 | 7,282 |
| Net income | 1,492 | 1,569 | 1,899 | 899 | 5,859 |
| Basic earnings per share | \$ 1.42 | \$ 1.50 | \$ 1.83 | \$ 0.87 | \$ 5.63 |
| Basic weighted-average shares outstanding | 1,051 | 1,043 | 1,037 | 1,032 | 1,041 |
| Diluted earnings per share | \$ 1.41 | \$ 1.50 | \$ 1.82 | \$ 0.87 | \$ 5.60 |
| Diluted weighted-average shares outstanding | 1,057 | 1,049 | 1,043 | 1,038 | 1,047 |

| | 2017 Quarter Ended | | | | 2017 Total |
|---|--------------------------------------|----------|--------------|-------------|------------|
| | March 31 | June 30 | September 30 | December 31 | |
| | (in millions, except per share data) | | | | |
| Net revenue | \$ 2,734 | \$ 3,053 | \$ 3,398 | \$ 3,312 | \$ 12,497 |
| Operating income | 1,506 | 1,653 | 1,941 | 1,522 | 6,622 |
| Net income | 1,081 | 1,177 | 1,430 | 227 | 3,915 |
| Basic earnings per share | \$ 1.00 | \$ 1.10 | \$ 1.34 | \$ 0.21 | \$ 3.67 |
| Basic weighted-average shares outstanding | 1,078 | 1,070 | 1,063 | 1,057 | 1,067 |
| Diluted earnings per share | \$ 1.00 | \$ 1.10 | \$ 1.34 | \$ 0.21 | \$ 3.65 |
| Diluted weighted-average shares outstanding | 1,082 | 1,075 | 1,068 | 1,063 | 1,072 |

Note: Tables may not sum due to rounding.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission and to ensure that information required to be disclosed is accumulated and communicated to management, including our President and Chief Executive Officer and our Chief Financial Officer, to allow timely decisions regarding disclosure. The President and Chief Executive Officer and the Chief Financial Officer, with assistance from other members of management, have reviewed the effectiveness of our disclosure controls and procedures as of December 31, 2018 and, based on their evaluation, have concluded that the disclosure controls and procedures were effective as of such date.

Internal Control over Financial Reporting

In addition, Mastercard Incorporated’s management assessed the effectiveness of Mastercard’s internal control over financial reporting as of December 31, 2018. Management’s report on internal control over financial reporting is included in Part II, Item 8. PricewaterhouseCoopers LLP, an independent registered public accounting firm, has audited the consolidated financial statements included in this Annual Report on Form 10-K and, as part of their audit, has issued their report, included herein, on the effectiveness of our internal control over financial reporting.

Changes in Internal Control over Financial Reporting

There was no change in Mastercard’s internal control over financial reporting that occurred during the three months ended December 31, 2018 that has materially affected, or is reasonably likely to materially affect, Mastercard’s internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

Pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012, we hereby incorporate by reference herein the disclosure contained in Exhibit 99.1 of this Report.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item with respect to our directors and executive officers, code of ethics, procedures for recommending nominees, audit committee, audit committee financial experts and compliance with Section 16(a) of the Exchange Act will appear in our definitive proxy statement to be filed with the SEC and delivered to stockholders in connection with the Annual Meeting of Stockholders to be held on June 25, 2019 (the "Proxy Statement").

The aforementioned information in the Proxy Statement is incorporated by reference into this Report.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item with respect to executive officer and director compensation will appear in the Proxy Statement and is incorporated by reference into this Report.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item with respect to security ownership of certain beneficial owners and management equity and compensation plans will appear in the Proxy Statement and is incorporated by reference into this Report.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this Item with respect to transactions with related persons, the review, approval or ratification of such transactions and director independence will appear in the Proxy Statement and is incorporated by reference into this Report.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this Item with respect to auditors' services and fees will appear in the Proxy Statement and is incorporated by reference into this Report.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this Report:

- 1 Consolidated Financial Statements

See Index to Consolidated Financial Statements in Part II, Item 8.

- 2 Consolidated Financial Statement Schedules

None.

- 3 The following exhibits are filed as part of this Report or, where indicated, were previously filed and are hereby incorporated by reference:

Refer to the Exhibit Index included herein.

ITEM 16. FORM 10-K SUMMARY

None.

EXHIBIT INDEX

| Exhibit Number | Exhibit Description |
|------------------------|--|
| 3.1(a) | Amended and Restated Certificate of Incorporation of Mastercard Incorporated (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed September 29, 2016 (File No. 001-32877)). |
| 3.1(b) | Amended and Restated Bylaws of Mastercard Incorporated (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed September 29, 2016 (File No. 001-32877)). |
| 4.1 | Indenture, dated as of March 31, 2014, between the Company and Deutsche Bank Trust Company Americas, as trustee (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed on March 31, 2014 (File No. 001-32877)). |
| 4.2 | Officer's Certificate of the Company, dated as of March 31, 2014 (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K filed on March 31, 2014 (File No. 001-32877)). |
| 4.3 | Form of Global Note representing the Company's 2.000% Notes due 2019 (included in Exhibit 4.2) (incorporated by reference to Exhibit 4.3 of the Company's Current Report on Form 8-K filed on March 31, 2014 (File No. 001-32877)). |
| 4.4 | Form of Global Note representing the Company's 3.375% Notes due 2024 (included in Exhibit 4.2) (incorporated by reference to Exhibit 4.4 of the Company's Current Report on Form 8-K filed on March 31, 2014 (File No. 001-32877)). |
| 4.5 | Officer's Certificate of the Company, dated as of December 1, 2015 (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed on December 1, 2015 (File No. 001-32877)). |
| 4.6 | Form of Global Note representing the Company's 1.100% Notes due 2022 (included in Exhibit 4.1) (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K filed on December 1, 2015 (File No. 001-32877)). |
| 4.7 | Form of Global Note representing the Company's 2.100% Notes due 2027 (included in Exhibit 4.1) (incorporated by reference to Exhibit 4.3 of the Company's Current Report on Form 8-K filed on December 1, 2015 (File No. 001-32877)). |
| 4.8 | Form of Global Note representing the Company's 2.500% Notes due 2030 (included in Exhibit 4.1) (incorporated by reference to Exhibit 4.4 of the Company's Current Report on Form 8-K filed on December 1, 2015 (File No. 001-32877)). |
| 4.9 | Officer's Certificate of the Company, dated as of November 21, 2016 (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed on November 21, 2016 (File No. 001-32877)). |
| 4.10 | Form of Global Note representing the Company's 2.000% Notes due 2021 (included in Exhibit 4.1) (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K filed on November 21, 2016 (File No. 001-32877)). |
| 4.11 | Form of Global Note representing the Company's 2.950% Notes due 2026 (included in Exhibit 4.1) (incorporated by reference to Exhibit 4.3 of the Company's Current Report on Form 8-K filed on November 21, 2016 (File No. 001-32877)). |
| 4.12 | Form of Global Note representing the Company's 3.800% Notes due 2046 (included in Exhibit 4.1) (incorporated by reference to Exhibit 4.4 of the Company's Current Report on Form 8-K filed on November 21, 2016 (File No. 001-32877)). |
| 4.13 | Officer's Certificate of the Company, dated as of February 26, 2018 (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed on February 26, 2018 (File No. 001-32877)). |
| 4.14 | Form of Global Note representing the Company's 3.5% Notes due 2028 (included in Exhibit 4.1) (incorporated by reference to Exhibit 4.1 of the of the Company's Current Report on Form 8-K filed on February 26, 2018 (File No. 001-32877)). |
| 4.15 | Form of Global Note representing the Company's 3.95% Notes due 2048 (included in Exhibit 4.1) (incorporated by reference to Exhibit 4.1 of the of the Company's Current Report on Form 8-K filed on February 26, 2018 (File No. 001-32877)). |
| 10.1* | \$4,500,000,000 Amended and Restated Credit Agreement, dated as of November 15, 2018, among Mastercard Incorporated, the several lenders and agents from time to time party thereto, Citibank, N.A., as managing administrative agent and JPMorgan |

[Chase Bank, N.A. as administrative agent.](#)

- [10.2+](#) [Employment Agreement between Mastercard International Incorporated and Ajay Banga, dated as of July 1, 2010 \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed July 8, 2010 \(File No. 001-32877\)\).](#)
- [10.3+](#) [Employment Agreement between Martina Hund-Mejean and Mastercard International, amended and restated as of December 24, 2012 \(incorporated by reference to Exhibit 10.5 to the Company's Annual Report on Form 10-K filed February 14, 2013 \(File No. 001-32877\)\).](#)
- [10.3.1+](#) [Amendment to Amended and Restated Employment Agreement between Martina Hund-Mejean and Mastercard International, dated as of December 21, 2017 \(incorporated by reference to Exhibit 10.3.1 to the Company's Annual Report on Form 10-K filed February 14, 2018 \(File No. 001-32877\)\).](#)
- [10.4+](#) [Description of Employment Arrangement with Gary Flood \(incorporated by reference to Exhibit 10.11 to the Company's Annual Report on Form 10-K filed February 18, 2010 \(File No. 001-32877\)\).](#)
- [10.5+](#) [Contract of Employment between Mastercard UK Management Services Limited and Ann Cairns, amended and restated as of April 5, 2018 \(incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed May 2, 2018 \(File No. 001-32877\)\).](#)
- [10.5.1+](#) [Deed of Employment between Mastercard UK Management Services Limited and Ann Cairns, dated July 6, 2011 \(incorporated by reference to Exhibit 10.8.2 to the Company's Annual Report on Form 10-K filed February 16, 2012 \(File No. 001-32877\)\).](#)
- [10.6+](#) [Description of Employment Arrangement with Craig Vosburg \(incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed May 2, 2018 \(File No. 001-32877\)\).](#)
- [10.7+](#) [Mastercard International Senior Executive Annual Incentive Compensation Plan, as amended and restated effective June 9, 2015 \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed June 10, 2015 \(File No. 001-32877\)\).](#)
- [10.8+](#) [Mastercard International Incorporated Restoration Program, as amended and restated January 1, 2007 unless otherwise provided \(incorporated by reference to Exhibit 10.22 to the Company's Annual Report on Form 10-K filed February 19, 2009 \(File No. 001-32877\)\).](#)
- [10.9+](#) [Mastercard Incorporated Deferral Plan, as amended and restated effective December 1, 2008 for account balances established after December 31, 2004 \(incorporated by reference to Exhibit 10.25 to the Company's Annual Report on Form 10-K filed February 19, 2009 \(File No. 001-32877\)\).](#)
- [10.10+](#) [Mastercard Incorporated 2006 Long Term Incentive Plan, amended and restated effective June 5, 2012 \(incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed August 1, 2012 \(File No. 001-32877\)\).](#)
- [10.11+](#) [Form of Restricted Stock Unit Agreement for awards under 2006 Long Term Incentive Plan \(effective for awards granted on and subsequent to March 1, 2017\) \(incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed May 2, 2017 \(File No. 001-32877\)\).](#)
- [10.12+](#) [Form of Stock Option Agreement for awards under 2006 Long Term Incentive Plan \(effective for awards granted on and subsequent to March 1, 2017\) \(incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed May 2, 2017 \(File No. 001-32877\)\).](#)
- [10.13+](#) [Form of Performance Unit Agreement for awards under 2006 Long Term Incentive Plan \(effective for awards granted on and subsequent to March 1, 2017\) \(incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed May 2, 2017 \(File No. 001-32877\)\).](#)
- [10.14+](#) [Form of Mastercard Incorporated Long Term Incentive Plan Non-Competition and Non-Solicitation Agreement for named executive officers \(incorporated by reference to Exhibit 10.17 to the Company's Annual Report on Form 10-K filed February 16, 2012 \(File No. 001-32877\)\).](#)
- [10.15+](#) [Amended and Restated Mastercard International Incorporated Executive Severance Plan, amended and restated as of April 10, 2018 \(incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed May 2, 2018 \(File No. 001-32877\)\).](#)
- [10.16+](#) [Amended and Restated Mastercard International Incorporated Change in Control Severance Plan, amended and restated as of June 25, 2018 \(incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed July 26, 2018 \(File No. 001-32877\)\).](#)

- [10.17](#) [Schedule of Non-Employee Directors' Annual Compensation effective as of June 26, 2018 \(incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed July 26, 2018 \(File No. 001-32877\)\)](#)).
- [10.18](#) [2006 Non-Employee Director Equity Compensation Plan, amended and restated effective as of June 26, 2018 \(incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed July 26, 2018 \(File No. 001-32877\)\)](#)).
- [10.19](#) [Form of Deferred Stock Unit Agreement for awards under 2006 Non-Employee Director Equity Compensation Plan, amended and restated effective June 5, 2012 \(effective for awards granted on and subsequent to June 27, 2017\) \(incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed July 27, 2017 \(File No. 001-32877\)\)](#)).
- [10.20](#) [Form of Restricted Stock Agreement for awards under 2006 Non-Employee Director Equity Compensation Plan, amended and restated effective June 5, 2012 \(effective for awards granted on and subsequent to June 27, 2017\) \(incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed July 27, 2017 \(File No. 001-32877\)\)](#)).
- [10.21](#) [Form of Indemnification Agreement between Mastercard Incorporated and certain of its directors \(incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed May 2, 2006 \(File No. 000-50250\)\)](#)).
- [10.22](#) [Form of Indemnification Agreement between Mastercard Incorporated and certain of its director nominees \(incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed May 2, 2006 \(File No. 000-50250\)\)](#)).
- [10.23](#) [Deed of Gift between Mastercard Incorporated and Mastercard Foundation \(incorporated by reference to Exhibit 10.28 to Pre-Effective Amendment No. 5 to the Company's Registration Statement on Form S-1 filed May 3, 2006 \(File No. 333-128337\)\)](#)).
- [10.24](#) [Settlement Agreement, dated as of June 4, 2003, between Mastercard International Incorporated and Plaintiffs in the class action litigation entitled In Re Visa Check/MasterMoney Antitrust Litigation \(incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed August 8, 2003 \(File No. 000-50250\)\)](#)).
- [10.25](#) [Stipulation and Agreement of Settlement, dated July 20, 2006, between Mastercard Incorporated, the several defendants and the plaintiffs in the consolidated federal class action lawsuit titled In re Foreign Currency Conversion Fee Antitrust Litigation \(MDL 1409\), and the California state court action titled Schwartz v. Visa Int'l Corp., et al. \(incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed November 1, 2006 \(File No. 001-32877\)\)](#)).
- [10.26](#) [Omnibus Agreement Regarding Interchange Litigation Judgment Sharing and Settlement Sharing, dated as of February 7, 2011, by and among Mastercard Incorporated, Mastercard International Incorporated, Visa Inc., Visa U.S.A. Inc., Visa International Service Association and Mastercard's customer banks that are parties thereto \(incorporated by reference to Exhibit 10.33 to Amendment No.1 to the Company's Annual Report on Form 10-K/A filed on November 23, 2011\)](#)).
- [10.26.1](#) [Amendment to Omnibus Agreement Regarding Interchange Litigation Judgment Sharing and Settlement Sharing, dated as of August 25, 2014, by and among Mastercard Incorporated, Mastercard International Incorporated, Visa Inc., Visa U.S.A. Inc., Visa International Service Association and Mastercard's customer banks that are parties thereto \(incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed October 30, 2014 \(File No. 001-32877\)\)](#)).
- [10.26.2](#) [Second Amendment to Omnibus Agreement Regarding Interchange Litigation Judgment Sharing and Settlement Sharing, dated as of October 22, 2015, by and among Mastercard Incorporated, Mastercard International Incorporated, Visa Inc., Visa U.S.A. Inc., Visa International Service Association and Mastercard's customer banks that are parties thereto \(incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed October 29, 2015 \(File No. 001-32877\)\)](#)).
- [10.27**](#) [Mastercard Settlement and Judgment Sharing Agreement, dated as of February 7, 2011, by and among Mastercard Incorporated, Mastercard International Incorporated and Mastercard's customer banks that are parties thereto \(incorporated by reference to Exhibit 10.34 to Amendment No.1 to the Company's Annual Report on Form 10-K/A filed on November 23, 2011\)](#)).
- [10.27.1](#) [Amendment to Mastercard Settlement and Judgment Sharing Agreement, dated as of August 26, 2014, by and among Mastercard Incorporated, Mastercard International Incorporated and Mastercard's customer banks that are parties thereto \(incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed October 30, 2014 \(File No. 001-32877\)\)](#)).
- [10.27.2](#) [Second Amendment to Mastercard Settlement and Judgment Sharing Agreement, dated as of October 22, 2015, by and among Mastercard Incorporated, Mastercard International Incorporated and Mastercard's customer banks that are parties thereto \(incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed October 29, 2015 \(File No. 001-32877\)\)](#)).
- [10.28](#) [Superseding and Amended Class Settlement Agreement, dated September 17, 2018, by and among Mastercard Incorporated and Mastercard International Incorporated; Visa, Inc., Visa U.S.A. Inc. and Visa International Service Association; the Class](#)

[Plaintiffs defined therein; and the Customer Banks defined therein \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed September 18, 2018 \(File No. 001-32877\)\)](#).

| | |
|-----------------------|---|
| 21* | List of Subsidiaries of Mastercard Incorporated. |
| 23.1* | Consent of PricewaterhouseCoopers LLP. |
| 31.1* | Certification of Ajay Banga, President and Chief Executive Officer, pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 31.2* | Certification of Martina Hund-Mejean, Chief Financial Officer, pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 32.1* | Certification of Ajay Banga, President and Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 32.2* | Certification of Martina Hund-Mejean, Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 99.1* | Disclosure pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012. |
| 101.INS* | XBRL Instance Document |
| 101.SCH* | XBRL Taxonomy Extension Schema Document |
| 101.CAL* | XBRL Taxonomy Extension Calculation Linkbase Document |
| 101.DEF* | XBRL Taxonomy Extension Definition Linkbase Document |
| 101.LAB* | XBRL Taxonomy Extension Label Linkbase Document |
| 101.PRE* | XBRL Taxonomy Extension Presentation Linkbase Document |

+ Management contracts or compensatory plans or arrangements.

* Filed or furnished herewith.

** Exhibit omits certain information that has been filed separately with the U.S. Securities and Exchange Commission and has been granted confidential treatment.

The agreements and other documents filed as exhibits to this report are not intended to provide factual information or other disclosure other than with respect to the terms of the agreements or other documents themselves, and should not be relied upon for that purpose. In particular, any representations and warranties made by the Company in these agreements or other documents were made solely within the specific context of the relevant agreement or document and may not describe the actual state of affairs as of the date they were made or at any other time.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

MASTERCARD INCORPORATED

(Registrant)

Date: February 13, 2019

By: /s/ AJAY BANGA

Ajay Banga

President and Chief Executive Officer

(Principal Executive Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Date: February 13, 2019

By: /s/ AJAY BANGA

Ajay Banga

President and Chief Executive Officer; Director

(Principal Executive Officer)

Date: February 13, 2019

By: /s/ MARTINA HUND-MEJEAN

Martina Hund-Mejean

Chief Financial Officer

(Principal Financial Officer)

Date: February 13, 2019

By: /s/ SANDRA ARKELL

Sandra Arkell

Corporate Controller

(Principal Accounting Officer)

Date: February 13, 2019

By: /s/ SILVIO BARZI

Silvio Barzi

Director

Date: February 13, 2019

By: /s/ DAVID R. CARLUCCI

David R. Carlucci

Director

Date: February 13, 2019

By: /s/ RICHARD K. DAVIS

Richard K. Davis

Director

Date: February 13, 2019

By: /s/ STEVEN J. FREIBERG

Steven J. Freiberg

Director

Date: February 13, 2019

By: /s/ JULIUS GENACHOWSKI

Julius Genachowski

Director

Date: February 13, 2019

By: _____
Choon Phong Goh
Director

Date: February 13, 2019

By: _____
Richard Haythornthwaite
Chairman of the Board; Director

Date: February 13, 2019

By: _____
Merit E. Janow
Director

Date: February 13, 2019

By: _____
Nancy Karch
Director

Date: February 13, 2019

By: _____
Oki Matsumoto
Director

Date: February 13, 2019

By: _____
Rima Qureshi
Director

Date: February 13, 2019

By: _____
José Octavio Reyes Lagunes
Director

Date: February 13, 2019

By: _____
Gabrielle Sulzberger
Director

Date: February 13, 2019

By: _____
Jackson Tai
Director

\$4,500,000,000

SECOND AMENDED AND RESTATED CREDIT AGREEMENT

Dated as of November 15, 2018

among

MASTERCARD INCORPORATED,

as Company

The Subsidiary Borrowers from Time to Time Parties Hereto

The Several Lenders from Time to Time Parties Hereto

CITIBANK, N.A.,

as Managing Administrative Agent

and

JPMORGAN CHASE BANK, N.A.,

as Administrative Agent

CITIBANK, N.A. and JPMORGAN CHASE BANK, N.A.,

as Joint Lead Arrangers, Joint Book Managers and Global Coordinators

BANK OF CHINA, NEW YORK BRANCH,

as Joint Lead Arranger, Joint Book Manager, Syndication Agent and Regional Coordinator (Asia)

DEUTSCHE BANK SECURITIES INC.,

as Joint Lead Arranger, Joint Book Manager, Syndication Agent and Regional Coordinator (Europe)

U.S. BANK, NATIONAL ASSOCIATION,

as Joint Lead Arranger, Joint Book Manager, Syndication Agent and Regional Coordinator (North America)

**BARCLAYS BANK PLC, GOLDMAN SACHS BANK USA, HSBC BANK USA, N.A., INDUSTRIAL AND
COMMERCIAL BANK OF CHINA LIMITED, NEW YORK BRANCH, LLOYDS BANK CORPORATE MARKETS PLC,
MERRILL LYNCH, PIERCE, FENNER & SMITH INCORPORATED, MIZUHO BANK, LTD., MUFG BANK, LTD.,
NATWEST MARKETS PLC, SANTANDER BANK, N.A., and SOCIETE GENERALE,**

as Joint Lead Arrangers and Joint Book Managers

**BARCLAYS BANK PLC, GOLDMAN SACHS BANK USA, HSBC BANK USA, N.A., INDUSTRIAL AND
COMMERCIAL BANK OF CHINA LIMITED, NEW YORK BRANCH, LLOYDS BANK CORPORATE MARKETS PLC,
BANK OF AMERICA, N.A., MIZUHO BANK, LTD., MUFG BANK, LTD., NATWEST MARKETS PLC, SANTANDER
BANK, N.A. and SOCIETE GENERALE,**

as Documentation Agents

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- H Form of Assignment and Acceptance
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SECOND AMENDED AND RESTATED CREDIT AGREEMENT, dated as of November 15, 2018 among MASTERCARD INCORPORATED, a Delaware corporation (the “Company”), the Subsidiary Borrowers from time to time parties hereto, the several banks and other financial institutions from time to time parties to this Agreement (the “Lenders”), CITIBANK, N.A., as managing administrative agent for the Lenders hereunder (in such capacity, the “Managing Administrative Agent”), and JPMORGAN CHASE BANK, N.A. as administrative agent for the Lenders hereunder (in such capacity, the “Administrative Agent”).

WHEREAS, the Company, the Managing Administrative Agent, the Administrative Agent and the lenders party thereto (the “Existing Lenders”) entered into an Amended and Restated Credit Agreement dated as of October 21, 2015 (as amended, supplemented or otherwise modified, and as in effect immediately before giving effect to, the amendment and restatement thereof contemplated hereby to occur on and as of the Second Restatement Effective Date, the “Existing Credit Agreement”);

WHEREAS, the Company has requested that the Existing Lenders, the Managing Administrative Agent and the Administrative Agent, as applicable, agree to amend and restate the Existing Credit Agreement in its entirety pursuant to this Agreement, and the Existing Lenders, the Managing Administrative Agent and the Administrative Agent are willing to do so, on the terms and subject to the conditions contained herein;

WHEREAS, Citibank, N.A., JPMorgan Chase Bank, N.A. and the other Lenders party hereto (together with Existing Lenders that are not Lenders but have consented hereto) constitute the Managing Administrative Agent, the Administrative Agent and the Lenders, as applicable, under (and each as defined in) the Existing Credit Agreement immediately prior to the Second Restatement Effective Date for purposes of Section 9.1 of the Existing Credit Agreement and have consented to such amendment and restatement of the Existing Credit Agreement;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the parties hereto, such parties hereby agree that the Existing Credit Agreement shall, upon the satisfaction of the conditions precedent specified in Section 4.1 on the Second Restatement Effective Date, be amended and restated in its entirety to read as follows:

SECTION 1. DEFINITIONS

1.1 Defined Terms. As used in this Agreement, the following terms shall have the following meanings:

“ABR”: a fluctuating interest rate per annum in effect from time to time, which rate per annum shall at all times be equal to the highest of:

- (i) the rate of interest announced publicly by Citibank in New York City from time to time as Citibank’s base rate; and
- (ii) for any day, 1.00% per annum above the London Interbank Offered Base Rate that would be in effect for a LIBOR Loan denominated in Dollars and having an Interest Period of one month that commences on the second Business Day following such day; and
- (iii) for any day, 0.50% per annum above the New York Fed Bank Rate in effect on such day.

Each change in any interest rate provided for herein based upon the ABR resulting from a change in the ABR shall take effect at the time of such change in the ABR.

“ABR Loans”: Revolving Credit Loans hereunder denominated in Dollars and the rate of interest applicable to which is based upon the ABR.

“Administrative Agent”: as defined in the preamble hereof.

“Administrative Questionnaire”: an Administrative Questionnaire in a form supplied by the Managing Administrative Agent.

“Affected Currency”: as defined in subsection 2.11(c).

“Affiliate”: as to any Person, any other Person (other than a Subsidiary) which, directly or indirectly, is in control of, is controlled by, or is under common control with, such Person. For purposes of this definition, “control” of a Person means the power, directly or indirectly, either to (a) vote 25% or more of the securities having ordinary voting power for the election of directors of such Person or (b) direct or cause the direction of the management and policies of such Person, whether by contract or otherwise.

“Agreement”: this Second Amended and Restated Credit Agreement, as further amended, supplemented or otherwise modified from time to time.

“Anti-Corruption Laws”: all laws, rules, and regulations of any jurisdiction applicable to the Company or its Subsidiaries from time to time concerning or relating to bribery or corruption (including, without limitation, the Foreign Corrupt Practices Act).

“Applicable Facility Fee Rate”: for any Rating Level Period, the rate per annum set forth below opposite the reference to such Rating Level Period:

| <u>Rating Level Period</u> | <u>Applicable Facility Fee Rate</u> |
|----------------------------|-------------------------------------|
| Rating Level 1 Period | 0.05% |
| Rating Level 2 Period | 0.06% |
| Rating Level 3 Period | 0.08% |
| Rating Level 4 Period | 0.09% |
| Rating Level 5 Period | 0.125% |

Each change in the Applicable Facility Fee Rate resulting from a Rating Level Change shall be effective on the effective date of such Rating Level Change.

“Applicable Margin”: for any Loan of any Type and while any particular Rating Level Period applies, the rate per annum set forth below opposite the reference to the relevant Rating Level Period for Loans of such Type:

| <u>Rating Level Period</u> | <u>Applicable Margin</u> | |
|----------------------------|--------------------------|------------------|
| | <u>LIBOR Loans</u> | <u>ABR Loans</u> |
| Rating Level 1 Period | 0.575% | 0.0% |
| Rating Level 2 Period | 0.69% | 0.0% |
| Rating Level 3 Period | 0.795% | 0.0% |
| Rating Level 4 Period | 0.91% | 0.0% |
| Rating Level 5 Period | 1.00% | 0.0% |

Each change in the Applicable Margin resulting from a Rating Level Change shall be effective on the effective date of such Rating Level Change.

“Assignee”: as defined in subsection 9.6(c).

“Assignment and Acceptance”: an assignment and acceptance entered into by a Lender and an assignee (with the consent of any party whose consent is required by Section 9.6), and accepted by the Managing Administrative Agent, substantially in the form of Exhibit H or any other form approved by the Managing Administrative Agent.

“Available Commitment”: as to any Lender on any day, an amount equal to the excess, if any, of (a) the amount of such Lender’s Commitment then in effect over (b) the aggregate of (i) the aggregate principal amount of all Revolving Credit Loans made by such Lender then outstanding and (ii) an amount equal to the Swing Line Exposure of such Lender (including, as applicable (but without duplication), in its capacity as Swing Line Lender) (after giving effect to any repayment of Swing Line Loans on such day).

“Bail-In Action”: the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution.

“Bail-In Legislation”: with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule.

“Beneficial Ownership Certification”: as defined in subsection 4.1(i).

“Beneficial Ownership Regulation”: 31 C.F.R. § 1010.230.

“Benefit Plan”: any of (a) an “employee benefit plan” (as defined in ERISA) that is subject to Title I of ERISA, (b) a “plan” as defined in and subject to Section 4975 of the Code or (c) any Person whose assets include (for purposes of ERISA Section 3(42) or otherwise for purposes of Title I of ERISA or Section 4975 of the Code) the assets of any such “employee benefit plan” or “plan”.

“Board”: the Board of Governors of the Federal Reserve System of the United States (or any successor).

“Borrower” and “Borrowers”: the Company and each Subsidiary Borrower.

“Borrowing Date”: any Business Day specified in a notice pursuant to Sections 2.2 or 2.13 as a date on which any Borrower requests the Lenders or a Swing Line Lender, as the case may be, to make Loans hereunder.

“Business”: as defined in subsection 3.17(b).

“Business Day”: a day other than a Saturday, Sunday or other day on which commercial banks in New York City are authorized or required by law to close; provided that when such term is used to describe a day on which a borrowing, payment or interest rate determination is to be made in respect of a LIBOR Loan, such day shall also be a day on which dealings in dollar deposits and exchange between banks may be carried on in London, England; provided, further, that if such day relates to a borrowing or continuation of, a payment or prepayment of principal of or interest on, or the Interest Period for, any Loan denominated in Euro, that is also a Target Operating Day.

“Capital Lease”: as applied to any Person, any lease of any property (whether real, personal or mixed) by that Person as lessee which, in conformity with GAAP, is, or is required to be, accounted for as a capital lease on the balance sheet of that Person.

“Capitalized Lease Obligations”: all obligations under Capital Leases of any Person, in each case taken at the amount thereof accounted for as liabilities in accordance with GAAP.

“Capital Stock”: any and all shares, interests, participations or other equivalents (however designated) of capital stock of a corporation, any and all equivalent ownership interests in a Person other than a corporation and any and all warrants or options to purchase any of the foregoing.

“Citibank”: Citibank, N.A.

“Code”: the Internal Revenue Code of 1986, as amended from time to time.

“Commitment”: as to any Lender, the obligation of such Lender to make Revolving Credit Loans to the Borrowers hereunder in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Lender’s name in part (a) of Schedule 1.2, as such amount may be reduced or increased from time to time in accordance with the provisions of this Agreement. The aggregate amount of the Commitments of all Lenders on the date hereof is \$4,500,000,000.

“Commitment Increase Offer”: as defined in subsection 2.18(a).

“Commitment Increase Supplement”: as defined in subsection 2.18(c).

“Commitment Percentage”: as to any Lender at any time, the percentage which such Lender’s Commitment then constitutes of the aggregate Commitments (or, at any time after the Commitments shall have expired or terminated, the percentage which the aggregate principal amount of such Lender’s Revolving Credit Loans then outstanding constitutes of the aggregate principal amount of the Revolving Credit Loans then outstanding).

“Commitment Period”: the period from and including the date hereof to but not including the Revolving Credit Termination Date or such earlier date on which the Commitments shall terminate as provided herein.

“Commonly Controlled Entity”: an entity, whether or not incorporated, which is under common control with the Company within the meaning of Section 4001(a)(14) of ERISA or is part of a group which includes the Company and which is treated as a single employer under Section 414(b) or (c) of the Code.

“Company”: as defined in the preamble hereof.

“Confidential Information”: information that the Company or any of its Subsidiaries (or any of their representatives) furnishes to the Managing Administrative Agent or any Lender, but does not include any such information that is or becomes generally available to the public (other than as a result of a breach of this Agreement) or that was available to the Managing Administrative Agent or such Lender on a non-confidential basis prior to its being furnished by the Company or any of its Subsidiaries (other than as a result of a breach of this Agreement or to the extent obtained from a source known to the Managing Administrative Agent or such Lender to be bound by a confidentiality agreement with the Company or any of its Subsidiaries and to be in breach of such confidentiality agreement).

“Consolidated Adjusted Debt”: at any date of determination thereof, the sum of Indebtedness for the Company and its Subsidiaries determined without duplication to the extent that such Indebtedness would appear on a consolidated balance sheet (including footnotes, with items disclosed only in footnotes having the amounts for purpose of this definition equal to the amounts, if any, disclosed in such footnotes) of the Company and its Subsidiaries as of such date prepared in accordance with GAAP.

“Consolidated EBITDA”: for any period, Consolidated Net Income for such period plus, without duplication and (except with respect to clause (j) below) to the extent reflected as a charge in the statement of such Consolidated Net Income for such period, the sum of the following items: (a) income tax expense, (b) interest expense, amortization or write-off of debt discount and debt issuance costs and commissions, discounts and other fees and charges associated with indebtedness, (c) depreciation and amortization expense, (d) amortization, write-down or write-off of intangibles (including, but not limited to, goodwill) and organization costs, (e) any extraordinary expenses or losses, (f) any restructuring charges or expenses, provided that, to the extent any amounts are added pursuant to this clause (f) in determining Consolidated EBITDA in any period, at the Company’s discretion as exercised from time to time, Consolidated EBITDA may be reduced (i) in the quarter in which such charges or expenses are incurred and in each of the immediately following seven quarters by an amount equal to 1/8 of the amount of such charges or expenses so added back or (ii) in the quarter in which such charges or expenses are incurred by the entire amount of such charges and expenses so added back, (g) charges in connection with litigation, settlements or judgments, and out of pocket expenses incurred during such period in connection with the litigation, settlements or judgments resulting in such charges during such period, (h) other expenses or charges to the extent that such expenses or charges do not represent a cash item in such period, (i) non-recurring expenses incurred in connection with any acquisition or other investment (including joint ventures), disposition or issuance or incurrence of equity or debt, and (j) cash receipts in respect of income and gains subtracted from Consolidated EBITDA for any prior period pursuant to clause (iii) below minus, (i) to the extent included in the statement of such Consolidated Net Income for such period, any extraordinary income or gains, (ii) cash payments made during such period in respect of items added back to Consolidated EBITDA for any prior period pursuant to clause (h) above, (iii) to the extent included in the statement of such Consolidated Net Income for such period, income and gains to the extent that such income and gains do not represent a cash item with respect to such period and (iv) the reversal of any reserve established for any prior period pursuant to clause (g) above. For the purposes of calculating Consolidated EBITDA for any period of four consecutive fiscal quarters (each, a “Reference Period”), (x) if at any time during such Reference Period, the Company or any of its Subsidiaries shall have made any Material Disposition (as defined below), the Consolidated EBITDA for such Reference Period shall be reduced by an amount equal to the Consolidated EBITDA (if positive) attributable to the property that is the subject of such Material Disposition for such Reference Period (as determined by the Company in its reasonable good faith business judgment) or increased by an amount equal to the Consolidated EBITDA (if negative) attributable thereto for such Reference Period (as determined by the Company in its reasonable good faith business judgment) and (y) if during such Reference Period, the Company or any of its Subsidiaries shall have made a Material Acquisition (as defined below) during such Reference Period, Consolidated EBITDA for such Reference Period shall be calculated after giving pro forma effect (as determined by the Company in its reasonable good faith business judgment) to such Material Acquisition as if such acquisition occurred on the first day of such Reference Period. As used in this definition, “Material Acquisition” means any acquisition of property or series of related acquisitions of property that (A) constitutes assets comprising all or substantially all of an operating unit of a business or constitutes all or substantially all of the common equity interests of a business enterprise and (B) involves the payment of consideration by the Company and its Subsidiaries in excess of \$500,000,000; and “Material Disposition” means any disposition of property or series of related dispositions of property that yields gross proceeds to the Company or any of its Subsidiaries in excess of \$500,000,000.

“Consolidated Leverage Ratio”: as at the end of any fiscal quarter of the Company, the ratio of (a) Consolidated Adjusted Debt on the last day of such fiscal quarter to (b) Consolidated EBITDA for the period of four consecutive fiscal quarters ended on such day.

“Consolidated Net Income”: for any period, the consolidated net income (or loss) of the Company and its Subsidiaries, determined on a consolidated basis in accordance with GAAP.

“Contractual Obligation”: as to any Person, any provision of any security issued by such Person or of any agreement, instrument or other undertaking to which such Person is a party or by which it or any of its property is legally bound.

“Currency”: with respect to any jurisdiction, the lawful money of such jurisdiction.

“Currency Valuation Notice”: as defined in subsection 2.6(b)(ii).

“Declined Amount”: as defined in subsection 2.18(a).

“Declining Lender”: as defined in subsection 2.18(a).

“Default”: any of the events specified in Section 7, whether or not any requirement for the giving of notice, the lapse of time, or both, or any other condition, has been satisfied.

“Defaulting Lender”: at any time, a Lender as to which the Managing Administrative Agent has notified the Company that (i) such Lender has failed to comply with its obligations under this Agreement to make a Loan, and/or make a payment to any Swing Line Lender and/or make a payment to the Managing Administrative Agent hereunder (each a “funding obligation”), in each case within two Business Days of the date required under the terms of the Loan Documents (unless such Lender notifies the Managing Administrative Agent in writing that such failure is the result of such Lender’s good faith determination that one or more conditions precedent to funding (each of which conditions precedent, together with any applicable default, shall be specifically identified in such writing) has not been satisfied (unless waived)), (ii) such Lender has notified the Managing Administrative Agent in writing, or has stated publicly, that it will not comply with any such funding obligation hereunder, or has defaulted on its funding obligations, or has stated publicly that it does not intend to comply with its funding obligations, under other loan agreements or credit agreements or other similar agreements generally (unless such writing or public statement relates to such Lender’s obligation to fund a Loan hereunder and indicates that such position is based on such Lender’s good faith determination that a condition precedent (specifically identified and including any applicable default), to funding a Loan cannot be satisfied (unless waived)), (iii) such Lender has, for not less than three Business Days, failed to confirm in writing to the Managing Administrative Agent and the Company, in response to a written request of the Managing Administrative Agent or the Company, that it will comply with its funding obligations hereunder, provided that such Lender shall cease to be a Defaulting Lender upon receipt of such confirmation by the Managing Administrative Agent and the Company, or (iv) a Lender Insolvency Event has occurred and is continuing with respect to such Lender (provided that neither the reallocation of funding obligations provided for in Section 2.21 as a result of a Lender’s being a Defaulting Lender nor the performance by Non-Defaulting Lenders of such reallocated funding obligations will cause the relevant Defaulting Lender to become a Non-Defaulting Lender) or such Lender has become the subject of a Bail-In Action. Any determination that a Lender is a Defaulting Lender under any one or more of clauses (i) through (iv) above will be made by the Managing Administrative Agent in its reasonable discretion acting in good faith. If the Company believes in good faith that a Lender should be determined by the Managing Administrative Agent to be a Defaulting Lender and so notifies the Managing Administrative Agent, citing the reasons therefor, the Managing Administrative Agent shall determine in its reasonable discretion acting in good faith whether or not such Lender is a Defaulting Lender. The Managing Administrative Agent will promptly send to all parties hereto a copy of any notice to the Company provided for in this definition.

“Dollar Equivalent”: with respect to any Loans denominated in Euros, the amount of Dollars that would be required to purchase the amount of Euros of such Loans on the date two Business Days prior to the date of such borrowing (or, in the case of any determination made under Section 2.6(b) or redenomination under the last sentence of Section 2.12(a), on the date of determination or redenomination therein referred to), based upon the spot selling rate at which the Managing Administrative Agent offers to sell such Euros for Dollars in the London foreign exchange market at approximately 11:00 a.m., London time, for delivery two Business Days later.

“Dollars” and “\$”: dollars in lawful currency of the United States.

“EEA Financial Institution”: (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

“EEA Member Country”: any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

“EEA Resolution Authority”: any public administrative authority or any person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

“Eligible Foreign Currency”: Euros, so long as at such time (a) such Currency is dealt with in the London interbank deposit market, (b) such Currency is freely transferable and convertible into Dollars in the international interbank market and (c) such currency is freely traded and readily available.

“Eligible Foreign Jurisdiction”: (a) on the Second Restatement Effective Date, Belgium and Singapore and (b) thereafter, each additional jurisdiction of organization of a Non-U.S. Subsidiary that has become a Subsidiary Borrower party hereto pursuant to Section 2.23(b); provided that, upon the delivery of a Lender Objection Notice pursuant to Section 2.23(d)(ii) in respect of any Eligible Foreign Jurisdiction, such jurisdiction shall cease to be an Eligible Foreign Jurisdiction hereunder.

“EMU”: economic and monetary union as contemplated in the Treaty on European Union.

“EMU Legislation”: legislative measures of the European Council for the introduction of, changeover to or operation of a single or unified European currency (whether known as the euro or otherwise), being in part the implementation of the third stage of EMU.

“Environmental Laws”: any and all foreign, Federal, state, local or municipal laws, rules, orders, regulations, statutes, ordinances, codes, decrees, requirements of any Governmental Authority or other Requirements of Law (including common law) regulating, relating to or imposing liability or standards of conduct concerning protection of human health or the environment, as now or may at any time hereafter be in effect.

“Equity Interests” means, as to any Person, the shares of capital stock of (or other ownership, distribution, profit or similar interests in) such Person, all of the warrants, options or other rights for the purchase or acquisition from such Person of shares of capital stock of (or ownership, distribution, profit or similar interests in) such Person, all of the securities that may be exchanged or converted for shares of capital stock of (or ownership, distribution, profit or similar interests in) such Person or warrants, rights or options for the purchase or acquisition from such Person of such shares (or such other interests), and all of

the other ownership or profit interests in such Person (including partnership, member or trust interests therein), in each case, whether voting or nonvoting, and whether or not such shares, warrants, options, rights or other interests are outstanding on any date of determination.

“ERISA”: the Employee Retirement Income Security Act of 1974, as amended, and the rules and regulations promulgated thereunder.

“EU Bail-In Legislation Schedule”: the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor person), as in effect from time to time.

“Euro Equivalent”: with respect to any amount in Dollars, the amount of Euros that could be purchased with such amount of Dollars using the reciprocal of the foreign exchange rate specified in the definition of the term “Dollar Equivalent”, as determined by the Managing Administrative Agent.

“Eurocurrency Reserve Requirements”: for any day as applied to a LIBOR Loan, the aggregate (without duplication) of the rates (expressed as a decimal fraction) of reserve requirements in effect on such day (including, without limitation, basic, supplemental, marginal and emergency reserves under any regulations of the Board or other Governmental Authority having jurisdiction with respect thereto) dealing with reserve requirements prescribed for eurocurrency funding (currently referred to as “Eurocurrency Liabilities” in Regulation D of the Board) maintained by a member bank of such system.

“Euros”: the single currency of Participating Member States of the European Union, which shall be a Foreign Currency under this Agreement.

“Event of Default”: any of the events specified in Section 7, provided that any requirement for the giving of notice, the lapse of time, or both, or any other condition, has been satisfied.

“Excluded Taxes”: any of the following Taxes imposed on or with respect to the Managing Administrative Agent or any Lender or required to be withheld or deducted from any amounts payable to the Managing Administrative Agent or any Lender:

(i) Taxes that are net income taxes (however denominated), branch profits taxes, and franchise taxes imposed on the Managing Administrative Agent or any Lender as a result of (A) a present or former connection between the Managing Administrative Agent or such Lender and the jurisdiction of the Governmental Authority imposing such tax or any political subdivision or taxing authority thereof or therein (other than any such connection arising solely from the Managing Administrative Agent or such Lender having executed, delivered or performed its obligations or received a payment under, or enforced, this Agreement or any Note), or (B) the Managing Administrative Agent or such Lender being organized under the laws of, or having its principal office or, in the case of any Lender, its applicable lending office located in, the jurisdiction of the Governmental Authority imposing such tax or any political subdivision or taxing authority thereof or therein,

(ii) Taxes that are attributable to such Lender’s failure to comply with the requirements of Section 2.16(b) or (c);

(iii) Withholding taxes imposed by the United States resulting from any Requirement of Law in effect on the date on which such Lender becomes a party to this Agreement, except to the extent that such Lender’s assignor (if any) was entitled, at the time of assignment, to receive additional amounts from any Borrower with respect to such United States withholding taxes under Section 2.16(a);

(iv) Withholding Taxes imposed by the United States attributable to such Lender changing its lending office, except to the extent that such Lender was entitled, at the time of the designation of a new lending office, to receive additional amounts from any Borrower with respect to such Taxes under Section 2.16(a); and

(v) Withholding taxes imposed under FATCA.

“Existing Credit Agreement”: as defined in the recitals hereto.

“Existing Lender”: as defined in the recitals hereto.

“Extending Lender”: as defined in subsection 2.19(b).

“FATCA”: Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future regulations or official interpretations thereof, any agreements entered into pursuant to Section 1471(b)(1) of the Code and any law, regulation, rule, promulgation or official agreement implementing an intergovernmental agreement with respect to the foregoing in any jurisdiction.

“Federal Funds Rate”: for any day, the rate calculated by the New York Fed based on such day’s federal funds transactions by depository institutions (as determined in such manner as the New York Fed shall set forth on its public website from time to time) and published on the next succeeding Business Day by the New York Fed as the federal funds effective rate.

“Foreign Currency”: any Currency other than Dollars.

“GAAP”: generally accepted accounting principles in the United States in effect from time to time.

“Governmental Authority”: any nation or government, any state or other political subdivision thereof and any entity exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to government.

“Guarantee”: as to any Person (the “guaranteeing person”), any obligation of (a) the guaranteeing person or (b) another Person (including, without limitation, any bank under any letter of credit) to induce the creation of which the guaranteeing person has issued a reimbursement, counterindemnity or similar obligation, in either case guaranteeing or in effect guaranteeing any Indebtedness, leases, dividends or other obligations (the “primary obligations”) of any other third Person (the “primary obligor”) in any manner, whether directly or indirectly, including, without limitation, any obligation of the guaranteeing person, whether or not contingent, (i) to purchase any such primary obligation or any property constituting direct or indirect security therefor, (ii) to advance or supply funds (1) for the purchase or payment of any such primary obligation or (2) to maintain working capital or equity capital of the primary obligor or otherwise to maintain the net worth or solvency of the primary obligor, (iii) to purchase property, securities or services primarily for the purpose of assuring the owner of any such primary obligation of the ability of the primary obligor to make payment of such primary obligation or (iv) otherwise to assure or hold harmless the owner of any such primary obligation against loss in respect thereof; provided, however, that the term Guarantee shall not include endorsements of instruments for deposit or collection in the ordinary course of business or obligations of the Company or its Subsidiaries in respect of settlement failures by one or more of its customers. The amount of any Guarantee of any guaranteeing person shall be deemed to be the lower of (a) an amount equal to the stated or determinable amount of the primary obligation in respect of which such Guarantee is made and (b) the maximum amount for which such guaranteeing person may be liable pursuant to the terms of the instrument embodying such Guarantee,

unless such primary obligation and the maximum amount for which such guaranteeing person may be liable are not stated or determinable, in which case the amount of such Guarantee shall be such guaranteeing person's maximum reasonably anticipated liability in respect thereof as determined by the Company in good faith.

“Guaranteed Obligations”: as defined in Section 10.1.

“Guarantor”: as defined in Section 10.1.

“Increasing Lender”: as defined in subsection 2.19(d).

“Indebtedness”: (a) all obligations for borrowed money (other than overdrafts incurred in the ordinary course of business), (b) the deferred purchase price of assets or services which in accordance with GAAP would be shown on the liability side of the consolidated balance sheet of the Company and its Subsidiaries, (c) indebtedness of others secured by any lien on any property owned by the Company or any of its Subsidiaries, whether or not such indebtedness has been assumed, (d) all Capitalized Lease Obligations, (e) all outstanding reimbursement obligations resulting from payments made under letters of credit, (f) all Guarantees of Indebtedness of others (excluding Guarantees entered into in the ordinary course of business relating to settlement failures between customers of the Company and Guarantees in respect of obligations that have been fully collateralized by the primary obligor), (g) the aggregate unpaid amounts owed with respect to settlements related to actual litigation or disputes underlying threatened litigation and final, non appealable judgments (it being understood that amounts deposited in escrow with respect to any payments under any such settlements and judgments shall not be owed until such time as such settlement and judgments are final and non appealable) and (h) other than for purposes of the definition of “Consolidated Adjusted Debt”, all obligations under Interest Rate Agreements; provided that (x) Indebtedness shall not include (i) trade payables and accrued expenses arising in the ordinary course of business, (ii) indebtedness for borrowed money incurred in the ordinary course of business with respect to any settlement failure by one or more customers of the Company, including failure by one or more of its customers to meet merchant payment obligations, so long as such indebtedness is repaid within six Business Days after the date such indebtedness is incurred and is not re-incurred within five Business Days after such repayment, (iii) settlements due to customers in the ordinary course of business (excluding settlements referred to in clause (g) above), (iv) deferred taxes, (v) restricted security deposits held for customers in the ordinary course of business, (vi) underfunded pension liabilities and (vii) obligations with respect to settlements and judgments (other than settlements and judgments referred to in clause (g) above) and (y) the amount of Indebtedness pursuant to clause (h) above shall be the amount that would be payable upon termination of the relevant Interest Rate Agreement (after giving effect to netting).

“Indemnified Taxes”: any Taxes imposed on or with respect to any amounts payable to the Managing Administrative Agent or any Lender under this Agreement or any Notes, other than Excluded Taxes.

“Ineligible Person”: (a) a natural Person, (b) any Borrower or any Affiliate or Subsidiary of a Borrower or (c) a company, investment vehicle or trust for, or owned and operated for the primary benefit of, a natural Person.

“Insolvency”: with respect to any Multiemployer Plan, the condition that such Multiemployer Plan is insolvent within the meaning of Section 4245 of ERISA.

“Insolvent”: pertaining to a condition of Insolvency.

“Intellectual Property”: as defined in Section 3.9.

“ Interest Payment Date ”: (a) as to any Loan, the rate of interest applicable to which is based upon the ABR, each Quarterly Date and the Revolving Credit Termination Date, (b) as to any LIBOR Loan having an Interest Period of three months or less, the last day of such Interest Period and (c) as to any LIBOR Loan having an Interest Period longer than three months, each day which is three months, or a whole multiple thereof, after the first day of such Interest Period and the last day of such Interest Period.

“ Interest Period ”: with respect to any LIBOR Loan:

(i) initially, the period commencing on the borrowing or conversion date, as the case may be, with respect to such LIBOR Loan and ending one week or one, two, three or six months thereafter, as selected by any Borrower in its notice of borrowing or notice of conversion, as the case may be, given with respect thereto; and

(ii) thereafter, each period commencing on the last day of the next preceding Interest Period applicable to such LIBOR Loan and ending one week or one, two, three or six months thereafter, as selected by any Borrower by irrevocable notice to the Managing Administrative Agent not less than three Business Days prior to the last day of the then current Interest Period with respect thereto;

provided that all of the foregoing provisions relating to Interest Periods are subject to the following:

(A) if any Interest Period would otherwise end on a day that is not a Business Day, such Interest Period shall be extended to the next succeeding Business Day unless the result of such extension would be to carry such Interest Period into another calendar month in which event such Interest Period shall end on the immediately preceding Business Day;

(B) any Interest Period that would otherwise extend beyond the Revolving Credit Termination Date shall end on the Revolving Credit Termination Date; and

(C) any Interest Period that begins on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the calendar month at the end of such Interest Period) shall end on the last Business Day of a calendar month.

“ Interest Rate Agreement ”: any interest rate swap agreement, interest rate cap agreement, interest rate collar agreement, interest rate futures contract, interest rate option contract or other similar agreement or arrangement designed to protect any Person against fluctuations in interest rates.

“ International ”: Mastercard International Incorporated.

“ Legal Entity Customer ”: as defined in 31 C.F.R. 1010.230(e)(2).

“ Lender ”: as defined in the preamble hereof.

“ Lender Insolvency Event ”: (i) a Lender or its Parent Company has been adjudicated as, or determined by any Governmental Authority having regulatory authority over such Person or its assets to be, insolvent, or (ii) a Lender or its Parent Company is the subject of a bankruptcy, insolvency, reorganization, liquidation or similar proceeding, or a receiver, trustee, conservator, intervenor or sequestrator or the like has been appointed for a Lender or its Parent Company, or a Lender or its Parent Company has taken any action in furtherance of or indicating its consent to or acquiescence in any such proceeding or appointment; provided that a Lender shall not be a Defaulting Lender solely by virtue of the ownership or acquisition of any equity interest in that Lender or any direct or indirect Parent Company thereof by a Governmental Authority, so long as such ownership interest does not result in or provide such Lender with immunity from the jurisdiction of courts within the United States or from the enforcement of

judgments or writs of attachment on its assets or permits such Lender (or such Governmental Authority) to reject or repudiate, disavow or disaffirm any contracts or agreements made with such Lender.

“Lender Objection Notice”: as defined in subsection 2.23(d).

“Leverage Ratio Step-Up”: as defined in Section 6.1.

“LIBOR Loans”: Revolving Credit Loans hereunder the rate of interest applicable to which is based upon the London Interbank Offered Base Rate.

“LIBOR Successor Rate”: as defined in subsection 2.11(f).

“LIBOR Successor Rate Conforming Changes”: with respect to any proposed LIBOR Successor Rate, any conforming changes to the definition of ABR, Interest Period, timing and frequency of determining rates and making payments of interest and other administrative matters as may be appropriate, in the reasonable discretion of the Managing Administrative Agent, to reflect the adoption of such LIBOR Successor Rate and to permit the administration thereof by the Managing Administrative Agent in a manner substantially consistent with market practice (or, if the Managing Administrative Agent determines that adoption of any portion of such market practice is not administratively feasible or that no market practice for the administration of such LIBOR Successor Rate exists, in such other manner of administration as the Managing Administrative Agent determines in consultation with the Company).

“Lien”: any mortgage, pledge, hypothecation, assignment, deposit arrangement, encumbrance, lien (statutory or other), charge or other security interest or any preference, priority or other security agreement or preferential arrangement of any kind or nature whatsoever intended to protect creditors against loss (including, without limitation, any conditional sale or other title retention agreement and any Capital Lease having substantially the same economic effect as any of the foregoing).

“Loan”: any Revolving Credit Loan or Swing Line Loan made by any Lender pursuant to this Agreement.

“Loan Documents”: this Agreement, any Notes issued hereunder, each Subsidiary Borrower Designation, each amendment or waiver hereof or thereof and each other document that the Managing Administrative Agent and the Company shall agree in writing is a “Loan Document” for all purposes hereunder.

“Local Time”: (i) with respect to any Loan denominated in Dollars or any payment to be made in Dollars, New York City time, and (ii) with respect to any Loan denominated in Euros or any payment to be made in Euros, London time.

“London Interbank Offered Base Rate”: with respect to each day during each Interest Period pertaining to a LIBOR Loan denominated in Dollars or Euros, the rate appearing on the Screen at approximately 11:00 A.M., London time, two Business Days prior to the commencement of such Interest Period, as the rate for deposits in such Currency with a maturity comparable to such Interest Period. If such rate is not available on the Screen at such time for any reason (or, if the Screen shall cease to be publicly available or if the information contained on the Screen, in the Managing Administrative Agent’s reasonable judgment, shall cease accurately to reflect such interbank offered rates for deposits in such Currency, as reported by any publicly available source of similar market data selected by the Managing Administrative Agent that, in the Managing Administrative Agent’s reasonable judgment, accurately reflects such interbank offered rates for deposits in such Currency, then, if there are at least three Reference Banks, subject to Section 2.11, the London Interbank Offered Base Rate for such Interest Period shall be the arithmetic average of quotations obtained by the Administrative Agent from the

Reference Banks for the rate at which the relevant Reference Bank could borrow funds in the London interbank market in the relevant currency and for the relevant period, were it to do so by asking for and then accepting interbank offers in reasonable market size in that currency and for that period; provided, that if any such rate is below zero, the London Interbank Offered Base Rate will be deemed to be zero.

“Managing Administrative Agent”: as defined in the preamble hereof.

“Managing Administrative Agent’s Account”: for each relevant Currency, an account in respect of such Currency designated by the Managing Administrative Agent in a notice to the Company and the Lenders.

“Margin Stock”: margin stock within the meaning of Regulation U.

“Material Acquisition”: as defined in the definition of “Consolidated EBITDA.”

“Material Adverse Effect”: a material adverse effect on (a) the business, assets, operations, property or financial condition of the Company and its Subsidiaries taken as a whole (excluding those disclosed in any of the audited 2017 financial statements of the Company, the most recent Annual Report on Form 10-K of the Company and any Quarterly Report on Form 10-Q of the Company and any Current Report on Form 8-K of the Company filed with the SEC subsequent to the date of the Company’s most recent Annual Report on Form 10-K prior to the date hereof or in any Schedules to this Agreement as in effect on the date hereof and it being understood that a settlement failure by one or more customers of the Company shall not constitute an event, development or circumstance that has a “Material Adverse Effect”) or (b) the validity or enforceability of any of the Loan Documents or the material rights or remedies of the Managing Administrative Agent or the Lenders thereunder, taken as a whole.

“Material Disposition”: as defined in the definition of “Consolidated EBITDA.”

“Material Subsidiary”: at any time, (i) a “significant subsidiary” as defined in Regulation S-X under the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended and (ii) each Subsidiary Borrower.

“Materials of Environmental Concern”: any gasoline or petroleum (including crude oil or any fraction thereof) or petroleum products or any hazardous or toxic substances, materials or wastes, defined or regulated as such in or under any Environmental Law, including, without limitation, asbestos, polychlorinated biphenyls and urea-formaldehyde insulation.

“Moody’s”: Moody’s Investors Service, Inc., and its successors.

“Moody’s Rating”: at any time, the long-term issuer rating (or, if such rating is not available, the counterparty rating) of the Company then most recently announced and effective by Moody’s.

“Multiemployer Plan”: a Plan which is a multiemployer plan as defined in Section 4001 (a)(3) of ERISA and which is subject to Title IV of ERISA, to which the Company or any Commonly Controlled Entity is making or accruing an obligation to make contributions, or has within any of the preceding six plan years made or accrued an obligation to make contributions.

“New Lender”: as defined in subsection 2.18(b).

“New Lender Supplement”: as defined in subsection 2.18(b).

“New York Fed”: the Federal Reserve Bank of New York.

“New York Fed Bank Rate”: for any day, the greater of (a) the Federal Funds Rate in effect on such day and (b) the Overnight Bank Funding Rate in effect on such day; provided that if both such rates are not so published for any day that is a Business Day, the term “New York Fed Bank Rate” means the rate quoted for such day for a federal funds transaction at 11:00 a.m. on such day received by the Administrative Agent from a Federal funds broker of recognized standing selected by it; provided, further, that if any of the aforesaid rates shall be less than zero, such rate shall be deemed to be zero.

“Non-Defaulting Lender”: at any time, a Lender that is not a Defaulting Lender.

“Notes”: the collective reference to the Revolving Credit Notes and the Swing Line Note.

“Non-U.S. Lender”: as defined in Section 2.16(b).

“Non-U.S. Subsidiary”: any Subsidiary that is not a U.S. Subsidiary.

“Non-U.S. Subsidiary Borrower”: any Subsidiary Borrower that is not a U.S. Subsidiary.

“Notice of Proposed Subsidiary Borrower Designation”: as defined in subsection 2.23(a).

“Objecting Lender”: as defined in subsection 2.23(d).

“Outstanding Swing Line Loans”: as defined in Section 2.13(c).

“Overnight Bank Funding Rate”: for any day, the rate comprised of both overnight Federal funds and overnight Eurodollar borrowings by U.S.-managed banking offices of depository institutions (as such composite rate shall be determined by the New York Fed as set forth on its public website from time to time) and published on the next succeeding Business Day by the New York Fed as an overnight bank funding rate (from and after such date as the New York Fed shall commence to publish such composite rate).

“Parent Company”: with respect to a Lender, the bank holding company (as defined in Regulation Y), if any, of such Lender, and/or any Person owning, beneficially or of record, directly or indirectly, a majority of the shares of such Lender.

“Participant”: as defined in subsection 9.6(b).

“Participating Member State”: each state so described in any EMU Legislation.

“PBGC”: the Pension Benefit Guaranty Corporation established pursuant to Subtitle A of Title IV of ERISA.

“Person”: an individual, partnership, corporation, business trust, joint stock company, trust, unincorporated association, joint venture, Governmental Authority or other entity of whatever nature.

“Plan”: at a particular time, any employee benefit plan which is covered by ERISA and in respect of which the Company or a Commonly Controlled Entity is (or, if such plan were terminated at such time, would under Section 4069 of ERISA be deemed to be) an “employer” as defined in Section 3(5) of ERISA.

“Properties”: as defined in subsection 3.17(a).

“PTE”: a prohibited transaction class exemption issued by the U.S. Department of Labor, as any such exemption may be amended from time to time.

“Quarterly Dates”: the last Business Day of March, June, September and December in each year, the first of which shall be the first such day after the date hereof.

“Rating Level Change”: a change in the S&P Rating or the Moody’s Rating, as applicable (other than as a result of a change in the rating system of S&P or Moody’s, as applicable) that results in the change from one Rating Level Period to another, which Rating Level Change shall be effective on the date on which the relevant change in the S&P Rating or the Moody’s Rating, as applicable, is first announced and effective by S&P or Moody’s, as applicable. If the rating system of Moody’s or S&P shall change, the Company and the Managing Administrative Agent shall negotiate in good faith to amend this definition with the consent of the Required Lenders to reflect such changed rating system and, pending the effectiveness of any such amendment, the Rating Level Period shall be determined by reference to the rating assigned by the other rating agency. If the rating systems of both Moody’s and S&P shall change, the Company and the Managing Administrative Agent shall negotiate in good faith to amend this definition with the consent of the Required Lenders to reflect such changed rating systems and (i) pending the effectiveness of any such amendment, the Rating Level Period shall be determined by reference to the rating most recently in effect prior to such change and (ii) upon the effectiveness of any such amendment, such amendment shall be deemed to have become effective on the date of such change in the rating systems of Moody’s and S&P (with any additional amount owing by any Borrower hereunder by reason of any retroactive adjustment in the Applicable Facility Fee Rate or the Applicable Margin to be paid by the applicable Borrower not later than ten Business Days after such effectiveness and any amount to be refunded to any Borrower by any Lender hereunder by reason of any such retroactive adjustment to be deducted by such Borrower from its next payments hereunder to or for the account of such Lender).

“Rating Level Period”: a Rating Level 1 Period, a Rating Level 2 Period, a Rating Level 3 Period, a Rating Level 4 Period or a Rating Level 5 Period; provided that:

- (i) “Rating Level 1 Period”: a period during which the S&P Rating is AA- or better or the Moody’s Rating is Aa3 or better;
- (ii) “Rating Level 2 Period”: a period during which the S&P Rating is A+ or the Moody’s Rating is A1;
- (iii) “Rating Level 3 Period”: a period during which the S&P Rating is A or the Moody’s Rating is A2;
- (iv) “Rating Level 4 Period”: a period during which the S&P Rating is A- or the Moody’s Rating is A3;
- (v) “Rating Level 5 Period”: a period that is neither a Rating Level 1 Period, a Rating Level 2 Period, a Rating Level 3 Period nor a Rating Level 4 Period;
- (vi) If during any period both an S&P Rating and a Moody’s Rating have been announced and are effective, if such S&P Rating and Moody’s Rating shall not be equivalent to each other, the higher such rating shall be used to determine the Rating Level Period, provided that, if such S&P Rating and Moody’s Rating shall be separated by more than one level (it being acknowledged and agreed by way of example that the ratings of “BBB+” and “BBB” are separated by one level), the lower such rating, adjusted up by one level, shall be used to determine the Rating Level Period.

If Moody’s or S&P shall cease to issue debt ratings generally, then the Managing Administrative Agent and the Company shall negotiate in good faith to agree upon a substitute rating agency (and to correlate the system of ratings of such substitute agency with that of the rating agency for which it is substituting)

with the consent of the Required Lenders and (i) until such substitute rating agency is agreed upon, the foregoing Rating Level Period (and any Rating Level Change) will be determined on the basis of the rating assigned by the other rating agency and (ii) after such substitute agency is agreed upon, the Rating Level Period will be determined on the basis of the rating assigned by the other rating agency and such substitute rating agency.

“Reference Banks”: Citibank, U.S. Bank National Association, Lloyds Bank Corporate Markets plc and each other Lender that agrees from time to time, in its sole discretion, to act as a Reference Bank.

“Reference Period”: as defined in the definition of “Consolidated EBITDA.”

“Register”: as defined in subsection 9.6(d).

“Regulation U”: Regulation U of the Board as in effect from time to time.

“Regulation X”: Regulation X of the Board as in effect from time to time.

“Regulation Y”: Regulation Y of the Board as in effect from time to time.

“Relevant Jurisdiction”: with respect to any Subsidiary Borrower, the jurisdiction of its organization.

“Reorganization”: with respect to any Multiemployer Plan, the condition that such plan is in reorganization within the meaning of Section 4241 of ERISA.

“Reportable Event”: any of the events set forth in Section 4043(c) of ERISA, other than those events as to which the thirty day notice period is waived under PBGC Reg. § 4043.

“Required Lenders”: at any time, Lenders the Commitment Percentages of which aggregate more than 50%.

“Requirement of Law”: as to any Person, the certificate of incorporation and by-laws or other organizational or governing documents of such Person, and any law, treaty, rule or regulation or determination of an arbitrator or a court or other Governmental Authority, in each case applicable to or binding upon such Person or any of its property or to which such Person or any of its property is subject.

“Responsible Officer”: the president and chief executive officer and the chief operating officer of the Company and, with respect to financial matters, the chief financial officer or the Treasurer or Assistant Treasurer of the Company.

“Revolving Credit Exposure”: with respect to any Lender at any time, the sum of the outstanding principal amount of such Lender’s Revolving Credit Loans and its Swing Line Exposure at such time.

“Revolving Credit Loans”: as defined in subsection 2.1(a).

“Revolving Credit Note”: as defined in subsection 2.5(e).

“Revolving Credit Termination Date”: November 15, 2023, as extended from time to time pursuant to Section 2.19, or such earlier date as the Commitments shall terminate pursuant to the terms hereof; provided that if the Revolving Credit Termination Date would otherwise fall on a day that is not a Business Day, the Revolving Credit Termination Date shall be the immediately preceding Business Day.

“S&P”: Standard & Poor’s Financial Services LLC, and its successors.

“S&P Rating”: at any time, the long-term issuer rating (or, if such rating is not available, the counterparty rating) of the Company then most recently announced and effective by S&P.

“Sale Leaseback”: any arrangement with any Person providing for the leasing by the Company or any Subsidiary of any real or tangible personal property, which property has been or is to be sold or transferred by the Company or such Subsidiary to such Person in contemplation of such leasing.

“Sanctions”: economic or financial sanctions or trade embargoes imposed, administered or enforced from time to time by (a) the U.S. government, including those administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State, or (b) the United Nations Security Council, the European Union or Her Majesty’s Treasury of the United Kingdom.

“Sanctioned Country”: at any time, a country, region or territory which is the subject or target of any Sanctions.

“Sanctioned Person”: at any time, (a) any Person listed in any Sanctions-related list of designated Persons maintained by the Office of Foreign Assets Control of the U.S. Department of the Treasury, the U.S. Department of State, or by the United Nations Security Council, the European Union or any EU member state, (b) any Person operating, organized or resident in a Sanctioned Country or (c) any Person controlled or 50% or more owned by any such Person or group of such Persons.

“Scheduled Unavailability Date”: as defined in subsection 2.11(f).

“Screen”: for any Currency, the relevant display page for LIBOR for such Currency (as determined by the Managing Administrative Agent) on the ICE Benchmark Administration Limited LIBOR Rate (“ICE LIBOR”), as published by Bloomberg (or another commercially available source providing quotations of ICE LIBOR as designated by the Managing Administrative Agent from time to time).

“Second Currency”: as defined in Section 9.17.

“Second Restatement Effective Date”: the date on which the conditions precedent set forth in Section 4.1 shall be satisfied.

“Single Employer Plan”: any Plan which is covered by Title IV of ERISA, but which is not a Multiemployer Plan.

“Specified Currency”: as defined in Section 9.17.

“Specified Place”: as defined in Section 9.17.

“Step-Up Period”: as defined in Section 6.1.

“Subsidiary”: as to any Person, a corporation, partnership or other entity of which a majority of the Voting Shares are at the time owned, directly or indirectly through one or more intermediaries, or both, by such Person. Unless otherwise qualified, all references to a “Subsidiary” or to “Subsidiaries” in this Agreement shall refer to a Subsidiary or Subsidiaries of the Company.

“Subsidiary Borrower”: each Subsidiary of the Company that shall become a Subsidiary Borrower pursuant to Section 2.23, so long as any such Subsidiary shall remain a Subsidiary Borrower hereunder.

“Subsidiary Borrower Designation”: a Subsidiary Borrower Designation entered into by the Company and a Subsidiary of the Company pursuant to Section 2.23, pursuant to which such Subsidiary

shall (subject to the terms and conditions of Section 2.23(b)) be designated as a Borrower hereunder, substantially in the form of Exhibit E-1 or any other form approved by the Managing Administrative Agent and the Company.

“ Subsidiary Borrower Termination Notice ”: as defined in subsection 2.23(c).

“ Swing Line Commitment ”: a Swing Line Lender’s obligation to make Swing Line Loans pursuant to Section 2.13. The amount of each Swing Line Lender’s Swing Line Commitment on the date hereof is set forth in part (b) of Schedule 1.2.

“ Swing Line Commitment Shortfall ”: as defined in subsection 2.13(a).

“ Swing Line Exposure ”: at any time, the aggregate principal amount of all Swing Line Loans outstanding at such time. The Swing Line Exposure of any Swing Line Lender at any time shall be the aggregate principal amount of all Swing Line Loans of such Swing Line Lender outstanding at such time. The Swing Line Exposure of any Lender at any time shall be its Commitment Percentage of the total Swing Line Exposure at such time.

“ Swing Line Lenders ”: Citibank, JPMorgan Chase Bank, N.A., Bank of China, New York Branch, Deutsche Bank AG New York Branch, U.S. Bank National Association, Bank of America, N.A., Barclays Bank PLC, Goldman Sachs Bank USA, HSBC Bank USA, N.A., Industrial and Commercial Bank of China Limited, New York Branch, Lloyds Bank Corporate Markets plc, Mizuho Bank, Ltd. MUFG Bank, Ltd., NatWest Markets Plc, Santander Bank, N.A. and Societe Generale, each in its capacity as a provider of Swing Line Loans, as well as each Lender designated to be a Swing Line Lender in accordance with subsection 2.13(a) and each Lender that is the assignee of a Swing Line Commitment assigned pursuant to Section 9.6(c).

“ Swing Line Loan Participation Certificate ”: a certificate in substantially the form of Exhibit D.

“ Swing Line Loans ”: as defined in subsection 2.13(a).

“ Swing Line Note ”: as defined in subsection 2.13(b).

“ Target Operating Day ”: any day that is not (i) a Saturday or Sunday, (ii) Christmas Day or New Year’s Day or (iii) any other day on which the Trans-European Automated Real-time Gross Settlement Express Transfer system (or any successor settlement system) is not scheduled to operate (as determined by the Managing Administrative Agent).

“ Taxes ”: any present or future income, stamp or other taxes, levies, imposts, duties, charges, fees, deductions or withholdings, now or hereafter imposed, levied, collected, withheld or assessed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

“ Tranche ”: the collective reference to LIBOR Loans of a single Currency the then current Interest Periods with respect to all of which begin on the same date and end on the same later date (whether or not such loans shall originally have been made on the same day); Tranches may be identified as “ LIBOR Tranches ”.

“ Transferee ”: as defined in subsection 9.6(f).

“ Treaty on European Union ”: the Treaty of Rome of March 25, 1957, as amended by the Single European Act 1986 and the Maastricht Treaty (which was signed at Maastricht on February 7, 1992, and came into force on November 1, 1993).

“Type”: as to any Revolving Credit Loan, its nature as an ABR Loan, a LIBOR Loan denominated in Dollars or a LIBOR Loan denominated in Euros.

“United States”: the United States of America.

“U.S. Subsidiary”: any Subsidiary of the Company that is organized under the laws of any State of the United States or the District of Columbia.

“Voting Shares”: as to any Person, shares of stock of or other ownership interests in such Person having ordinary voting power (other than such stock or other ownership interests having such power only by reason of the happening of a contingency) to elect a majority of the board of directors (or similar managers) of such Person.

“Write-Down and Conversion Powers”: with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule.

1.2 Other Definitional Provisions. (a) Unless otherwise specified therein, all terms defined in this Agreement shall have the defined meanings when used in any Notes or any certificate or other document made or delivered pursuant hereto.

(b) As used herein and in any Notes, and any certificate or other document made or delivered pursuant hereto, accounting terms relating to the Company and its Subsidiaries not defined in Section 1.1 and accounting terms partly defined in Section 1.1, to the extent not defined, shall have the respective meanings given to them under GAAP, as in effect from time to time. If the Company notifies the Managing Administrative Agent that the Company requests an amendment to any provision hereof to eliminate or modify the effect of (x) any change occurring after the date hereof in GAAP or in the application or interpretation thereof on the operation of such provision or (y) any change in the last day of the first three fiscal quarters of the Company in any fiscal year from March 31, June 30 or September 30 or the last day of the fiscal year of the Company from December 31 (or if the Managing Administrative Agent notifies the Company that the Required Lenders request an amendment to any provision hereof for such purpose), regardless of whether any such notice is given before or after such change in GAAP or in the application thereof or in the last day of any fiscal quarter or fiscal year, then such provision shall be interpreted (i) on the basis of GAAP, as in effect and applied immediately before such change shall have become effective or (ii) disregarding any such change in the last day of the fiscal quarter or fiscal year of the Company, as the case may be, in each case until such notice shall have been withdrawn or such provision amended in accordance herewith. Notwithstanding anything to the contrary contained herein or any reference to determination in accordance with GAAP, any lease that is treated as an operating lease (and any future lease, if it were in effect as of the Closing Date) shall be treated as an operating lease in each case for purposes of this Agreement, notwithstanding any change in GAAP (or the implementation thereof) after the Closing Date.

(c) The words “hereof”, “herein” and “hereunder” and words of similar import when used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement, and Section, subsection, Schedule and Exhibit references are to this Agreement unless otherwise specified.

(d) The meanings given to terms defined herein shall be equally applicable to both the singular and plural forms of such terms.

(e) The words “asset” and “property” shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights.

1.3 Currencies; Currency Equivalents. For the purposes of determining (i) whether the amount of any requested Loan, together with all other Loans then outstanding or to be borrowed at the same time as such Loan, would exceed the aggregate amount of the Commitments, (ii) the aggregate unutilized amount of the Commitments and (iii) the outstanding aggregate principal amount of Loans, the outstanding principal amount of any Loan that is denominated in Euros shall be deemed to be the Dollar Equivalent of the amount of Euros of such Loan determined as of the date on which such Loan is made. For the purposes of determining the date on which the London Interbank Offered Base Rate is determined under this Agreement for the Interest Period for any Loan denominated in Euros (or in any National Currency), references in this Agreement to Business Days shall be deemed to be references to Target Operating Days.

1.4 Divisions. For all purposes under the Loan Documents, in connection with any division or plan of division under Delaware law (or any comparable event under a different jurisdiction’s laws): (a) if any asset, right, obligation or liability of any Person becomes the asset, right, obligation or liability of a different Person, then it shall be deemed to have been transferred from the original Person to the subsequent Person, and (b) if any new Person comes into existence, such new Person shall be deemed to have been organized on the first date of its existence by the holders of its Equity Interests at such time.

SECTION 2. AMOUNT AND TERMS OF LOANS

2.1. Revolving Credit Commitments. (a) Subject to the terms and conditions hereof, each Lender severally agrees to make revolving credit loans (“Revolving Credit Loans”) in Dollars or in Euros (with respect to Euros, so long as Euros constitute an Eligible Foreign Currency) to any Borrower from time to time during the Commitment Period in an aggregate principal amount at any one time outstanding, when added to such Lender’s Swing Line Exposure (including, as applicable, in its capacity as Swing Line Lender) (after giving effect to any repayment of Swing Line Loans on such day), not to exceed the amount of such Lender’s Commitment, provided that the aggregate principal amount of all Loans outstanding at any time (after giving effect any repayment of Swing Line Loans on such day) shall not exceed the aggregate amount of the Commitments at such time. During the Commitment Period any Borrower may use the Commitments by borrowing, prepaying the Revolving Credit Loans in whole or in part, and reborrowing, all in accordance with the terms and conditions hereof.

(b) The Revolving Credit Loans may from time to time be LIBOR Loans denominated in Dollars, LIBOR Loans denominated in Euros, ABR Loans denominated in Dollars, or a combination thereof, as determined by any Borrower and notified to the Managing Administrative Agent in accordance with Sections 2.2 and 2.7.

2.2. Procedure for Revolving Credit Borrowing. Any Borrower may borrow under the Commitments during the Commitment Period on any Business Day, provided that such Borrower shall give the Managing Administrative Agent irrevocable notice (which notice must be received by the Managing Administrative Agent prior to (a) 4:00 P.M., New York City time, three Business Days prior to the requested Borrowing Date, if all or any part of the requested Revolving Credit Loans are to be initially LIBOR Loans or (b) 3:00 P.M., New York City time, on the same Business Day of the requested Borrowing Date, otherwise), specifying (i) the amount and Currency to be borrowed, (ii) the requested Borrowing Date, (iii) whether the borrowing is to be of LIBOR Loans, ABR Loans, or a combination thereof and (iv) if the borrowing is to be entirely or partly of LIBOR Loans, the respective amounts of each such Type of Revolving Credit Loan and the respective lengths of the initial Interest Periods therefor.

Each borrowing in Dollars under the Commitments shall be in an amount equal to at least \$10,000,000 or a whole multiple of \$1,000,000 in excess thereof (or, if the then aggregate Available Commitments are less than \$10,000,000, such lesser amount). Each borrowing under the Commitments in Euros shall be in an amount equal to at least €10,000,000 or a whole multiple of €1,000,000 in excess thereof (or, if the then aggregate Available Commitments are less than \$10,000,000, the Euro Equivalent of such lesser amount).

If no election as to the Currency of a borrowing is specified, then the requested borrowing shall be denominated in Dollars. If no election as to the Type of a borrowing is specified, then the requested borrowing shall be in ABR Loans unless Euros have been specified, in which case the requested borrowing shall be in LIBOR Loans denominated in Euros. If no Interest Period is specified with respect to any requested LIBOR Loan, the applicable Borrower shall be deemed to have selected an Interest Period of one month's duration.

Upon receipt of any such notice from any Borrower, the Managing Administrative Agent shall promptly notify each Lender thereof. Except as contemplated by subsection 2.13(c), each Lender will make the amount of its pro rata share of each borrowing available to the Managing Administrative Agent for the account of the applicable Borrower at the Managing Administrative Agent's Account prior to 2:00 P.M., Local Time, to the extent the requested Revolving Credit Loans are to be initially LIBOR Loans, or 4:00 P.M., New York City time, otherwise, on the Borrowing Date requested by the applicable Borrower in funds immediately available to the Managing Administrative Agent. Such borrowing will then be made available to the applicable Borrower by the Managing Administrative Agent crediting the account of such Borrower on the books of such office with the aggregate of the amounts made available to the Managing Administrative Agent by the Lenders and in like funds as received by the Managing Administrative Agent.

2.3. Facility Fee. The Company agrees to pay to the Managing Administrative Agent for the account of each Lender a facility fee for the period from and including the first day of the Commitment Period to the Revolving Credit Termination Date, computed at a rate per annum equal to the Applicable Facility Fee Rate on the average daily Commitment of such Lender, whether or not utilized, from and including the first day of the Commitment Period until the Revolving Credit Termination Date. Such facility fee shall be payable quarterly in Dollars in arrears on each Quarterly Date, on the Revolving Credit Termination Date or such earlier date as the Commitments shall terminate as provided herein, commencing on the first of such dates to occur after the date hereof.

Anything herein to the contrary notwithstanding, during any period as a Lender is a Defaulting Lender, such Defaulting Lender will not be entitled to any facility fees accruing during such period pursuant to this Section 2.3 on the amount of its Commitment equal to the average daily unutilized portion thereof during such period (without prejudice to the rights of the Swing Line Lenders in respect of such facility fees).

2.4. Termination or Reduction of Commitments. The Company shall have the right, upon not less than one Business Day's notice to the Managing Administrative Agent, to terminate the Commitments or, from time to time, to reduce the amount of the Commitments, provided that (a) after giving effect to such termination or reduction, the aggregate outstanding principal amount of the Loans shall not exceed the aggregate Commitments and (b) a notice of termination of the Commitments delivered by the Company may state that such notice is conditioned upon the effectiveness of other credit facilities, in which case such notice (and any required prepayments) may be revoked by the Company (by notice to the Managing Administrative Agent on or prior to the specified effective date) if such condition is not satisfied. Any such reduction shall be in an amount equal to \$10,000,000 or a whole multiple of \$1,000,000 in excess thereof and shall reduce permanently the Commitments then in effect.

2.5. Repayment of Revolving Credit Loans; Evidence of Debt. (a) Each Borrower hereby unconditionally promises to pay to the Managing Administrative Agent for the account of each Lender the unpaid principal amount of each Revolving Credit Loan made to such Borrower by such Lender on the Revolving Credit Termination Date (or such earlier date on which the Revolving Credit Loans become due and payable pursuant to Section 7), in the Currency in which such Revolving Credit Loan was made. Each Borrower hereby further agrees to pay interest on the unpaid principal amount of the Revolving Credit Loans from time to time outstanding from the date hereof until payment in full thereof in the same currency in which such Revolving Credit Loan was made and at the rates per annum, and on the dates, set forth in Section 2.9.

(b) Each Lender shall maintain in accordance with its usual practice appropriate records evidencing indebtedness of each Borrower to such Lender resulting from each Revolving Credit Loan of such Lender from time to time, including the amounts of principal and interest payable and paid to such Lender from time to time under this Agreement.

(c) The Managing Administrative Agent shall maintain the Register pursuant to subsection 9.6(d), and a record therein for each Lender, in which shall be recorded (i) the amount and Currency of each Revolving Credit Loan made hereunder, the Type thereof and each Interest Period applicable thereto, (ii) the amount of any principal or interest due and payable or to become due and payable from each Borrower to each Lender hereunder and (iii) both the amount of any sum received by the Managing Administrative Agent hereunder from each Borrower and each Lender's share thereof.

(d) The entries made in the Register and the records of each Lender maintained pursuant to subsection 2.5(b) shall, to the extent permitted by applicable law, be conclusive evidence (absent manifest error) of the existence and amounts of the obligations of the applicable Borrower therein recorded; provided, however, that the failure of any Lender or the Managing Administrative Agent to maintain the Register or any such record, or any error therein, shall not in any manner affect the obligation of each Borrower to repay (with applicable interest) the Revolving Credit Loans made to such Borrower by such Lender in accordance with the terms of this Agreement.

(e) Each Borrower agrees that, upon request to the Managing Administrative Agent by any Lender, each Borrower will execute and deliver to such Lender a promissory note of such Borrower evidencing the Revolving Credit Loans of such Lender, substantially in the form of Exhibit A with appropriate insertions as to date and principal amount (a "Revolving Credit Note").

2.6. Prepayment of Loans. (a) Optional Prepayments. Any Borrower may at any time and from time to time prepay the Revolving Credit Loans, in whole or in part, without premium or penalty, subject to the requirements of this Section 2.6 and Section 2.17, in the Currency in which such Revolving Credit Loan was made.

(b) Mandatory Prepayments.

(i) Determination of Amount Outstanding. On each Quarterly Date and promptly upon the receipt by the Managing Administrative Agent of a Currency Valuation Notice (as defined below), the Managing Administrative Agent shall determine the aggregate Revolving Credit Exposure. For the purpose of this determination, the outstanding principal amount of any Revolving Credit Loan that is denominated in Euros shall be deemed to be the Dollar Equivalent of the amount in Euros of such Revolving Credit Loan, determined as of such Quarterly Date or, in the case of a Currency Valuation Notice received by the Managing Administrative Agent prior to 11:00 a.m., New York City time, on a Business Day, on such Business Day or, in the case of a Currency Valuation Notice otherwise received, on the first Business Day after such Currency

Valuation Notice is received. Upon making such determination, the Managing Administrative Agent shall promptly notify the Lenders and the Company thereof.

(ii) Prepayment. If, on the date of such determination the aggregate Revolving Credit Exposure exceeds 105% of the aggregate amount of the Commitments as then in effect, the Managing Administrative Agent shall notify the Company and within three Business Days of the delivery of such notice each applicable Borrower shall prepay its Revolving Credit Loans or Swing Line Loans in such amounts as shall be necessary so that after giving effect thereto the aggregate Revolving Credit Exposure does not exceed the aggregate amount of the Commitments as then in effect.

For purposes hereof, “Currency Valuation Notice” means a notice given by the Required Lenders to the Managing Administrative Agent stating that such notice is a “Currency Valuation Notice” and requesting that the Managing Administrative Agent determine the aggregate Revolving Credit Exposure. The Managing Administrative Agent shall not be required to make more than one valuation determination pursuant to Currency Valuation Notices within any three-month period.

Any prepayment pursuant to this paragraph (b) shall be applied, first, to Swing Line Loans outstanding and second, to Revolving Credit Loans outstanding.

(c) Notices, Etc. Prepayments pursuant to Section 2.6(a) may be made upon at least two Business Days’ irrevocable notice from the applicable Borrower to the Managing Administrative Agent, if such prepayment is to be applied in whole or in part to LIBOR Loans denominated in Dollars, upon at least three Business Days’ irrevocable notice if such prepayment is to be applied in whole or in part to LIBOR Loans denominated in Euros, and upon same day notice otherwise (which notices shall be made on the relevant day not later than 11:00 A.M., New York City time or, in the case of a LIBOR Loan denominated in Euros, 11:00 A.M., London time), specifying the date, Currency and amount of prepayment and whether the prepayment is of LIBOR Loans, or a combination of LIBOR and ABR Loans, and, if of a combination thereof, the amount allocable to each. Upon receipt of any such notice the Managing Administrative Agent shall promptly notify each Lender thereof. If any such notice is given, the amount specified in such notice shall be due and payable on the date specified therein, together with any accrued interest to such date on the amount prepaid and any other amounts payable pursuant to Section 2.17, provided that a notice of prepayment delivered by the applicable Borrower may state that such notice is conditioned upon the effectiveness of other credit facilities, in which case such notice may be revoked by such Borrower (by notice to the Managing Administrative Agent on or prior to the specified effective date) if such condition is not satisfied. Partial prepayments shall be in an aggregate principal amount of (i) with respect to Loans denominated in Dollars, \$10,000,000 or a whole multiple of \$1,000,000 in excess thereof and (ii) with respect to Loans denominated in Euros, €10,000,000 or a whole multiple of €1,000,000 in excess thereof. Prepayments of any Swing Line Loan shall be as provided in subsection 2.13(a).

2.7. Conversion and Continuation Options. (a) Any Borrower may elect from time to time to convert LIBOR Loans denominated in Dollars to ABR Loans by giving the Managing Administrative Agent at least three Business Days’ prior irrevocable notice of such election, provided that any such conversion of such LIBOR Loans may only be made on the last day of an Interest Period with respect thereto. Any Borrower may elect from time to time to convert ABR Loans to LIBOR Loans by giving the Managing Administrative Agent at least three Business Days’ prior irrevocable notice of such election. Any such notice of conversion to LIBOR Loans shall specify the length of the initial Interest Period or Interest Periods therefor. Upon receipt of any such notice the Managing Administrative Agent shall

promptly notify each Lender thereof. All or any part of outstanding LIBOR Loans and ABR Loans may be converted as provided herein, provided that (i) no Revolving Credit Loan may be converted into a LIBOR Loan when any Event of Default has occurred and is continuing and the Managing Administrative Agent has or the Required Lenders have determined that such a conversion is not appropriate, (ii) no Swing Line Loan may be converted into a loan that bears interest at any rate other than the ABR, (iii) a Revolving Credit Loan denominated in one Currency may not be converted to a Revolving Credit Loan in a different Currency and (iv) a LIBOR Loan denominated in Euros may not be converted to a Loan of a different Type.

(b) Any LIBOR Loans may be continued as such upon the expiration of the then current Interest Period with respect thereto by the applicable Borrower giving notice to the Managing Administrative Agent, in accordance with the applicable provisions of the term "Interest Period" set forth in Section 1.1, of the length of the next Interest Period to be applicable to such Revolving Credit Loans, provided that (i) no LIBOR Loan denominated in Dollars may be continued as such when any Event of Default has occurred and is continuing and the Managing Administrative Agent has or the Required Lenders have determined that such a continuation is not appropriate, (ii) no LIBOR Loan denominated in Euros may have an Interest period of more than one month's duration when any Event of Default has occurred and is continuing and the Managing Administrative Agent has or the Required Lenders have made such determination, (iii) a Revolving Credit Loan denominated in one Currency may not be continued as a Loan in a different Currency, but instead must be prepaid in the original Currency of such Revolving Credit Loan and reborrowed in the other Currency and (iv) no LIBOR Loan denominated in Euros may be continued if, after giving effect thereto, the aggregate Revolving Credit Exposures would exceed the aggregate Commitments; and provided, further, that if the applicable Borrower shall fail to give such notice or if such continuation is not permitted such Revolving Credit Loans shall (in the case of failure to give such notice, if such Borrower would have then been entitled to select a one month Interest Period for such LIBOR Loan) be automatically converted to LIBOR Loans with an Interest Period of one month on the last day of such then expiring Interest Period or, in all other cases (if such Loan is denominated in Dollars), be converted to ABR Loans.

2.8. Minimum Amounts of Tranches. All borrowings, conversions and continuations of Revolving Credit Loans hereunder and all selections of Interest Periods hereunder shall be in such amounts and be made pursuant to such elections so that, after giving effect thereto, the aggregate principal amount of the Revolving Credit Loans comprising each LIBOR Tranche shall be equal to (i) in the case of Revolving Credit Loans denominated in Dollars, \$10,000,000 or a whole multiple of \$1,000,000 in excess thereof (except as necessary to apply fully the required amount of a mandatory prepayment) and (i) in the case of Revolving Credit Loans denominated in Euros, €10,000,000 or a whole multiple of €1,000,000 in excess thereof (except as necessary to apply fully the required amount of a mandatory prepayment). In no event shall there be more than ten LIBOR Tranches outstanding at any time.

2.9. Interest Rates and Payment Dates. (a) Each LIBOR Loan shall bear interest for each day during each Interest Period with respect thereto at a rate per annum equal to the applicable London Interbank Offered Base Rate for such Interest Period plus the Applicable Margin.

(b) Each ABR Loan and Swing Line Loan shall bear interest at a rate per annum equal to the ABR plus the Applicable Margin.

(c) If all or a portion of (i) any principal of any Revolving Credit Loan or Swing Line Loan, (ii) any interest payable thereon, (iii) any facility fee or (iv) any other amount payable hereunder shall not be paid when due (whether at the stated maturity, by acceleration or otherwise), any such overdue amount shall bear interest at a rate per annum which is (x) in the case of any such overdue principal, the

rate that would otherwise be applicable thereto pursuant to the foregoing provisions of this Section plus 2% per annum or (y) in the case of any such overdue interest, facility fee or other amount, the rate applicable to ABR Loans pursuant to subsection 2.9(b) plus 2% per annum, in each case from the date of such non-payment until such overdue principal, interest, facility fee or other amount is paid in full (as well after as before judgment).

(d) Interest on Revolving Credit Loans and Swing Line Loans shall be payable in arrears on each Interest Payment Date, provided that interest accruing pursuant to paragraph (c) of this Section shall be payable from time to time on demand.

(e) Payments of interest on the Revolving Credit Loans shall be made in the same Currency in which the Revolving Credit Loan was made.

2.10. Computation of Interest and Fees. (a) Whenever it is calculated by reference to the defined term “ABR”, interest shall be calculated on the basis of a 365- (or 366-, as the case may be) day year for the actual days elapsed; and, otherwise, interest and the facility fee shall be calculated on the basis of a 360-day year for the actual days elapsed. The Managing Administrative Agent shall as soon as practicable notify the Company and the Lenders of each determination of a London Interbank Offered Base Rate. Any change in the interest rate on a Loan resulting from a change in the ABR or the Eurocurrency Reserve Requirements shall become effective as of the opening of business on the day on which such change becomes effective. The Managing Administrative Agent shall as soon as practicable notify the Company and the Lenders of the effective date and the amount of each such change in interest rate.

(b) Each determination of an interest rate by the Managing Administrative Agent pursuant to any provision of this Agreement shall be conclusive and binding on each Borrower and the Lenders in the absence of manifest error.

2.11. Interest Rate Determination. (a) Each Reference Bank agrees to furnish to the Managing Administrative Agent timely information for the purpose of determining each London Interbank Offered Base Rate in the event that (i) such rate is not available on the Screen for any reason and (ii) there are at least three Reference Banks. If any one or more of the Reference Banks shall not furnish such timely information to the Managing Administrative Agent for the purpose of determining any such interest rate, the Managing Administrative Agent shall determine such interest rate on the basis of timely information furnished by the remaining Reference Banks (provided that no Reference Bank shall have a contractual obligation to provide such rate and no fewer than three Reference Banks have provided such rate).

(b) The Managing Administrative Agent shall give to the Company and the Lenders prompt notice of the applicable interest rate determined by the Managing Administrative Agent for purposes of Section 2.9(a) and the applicable rate, if any, furnished by each Reference Bank for the purpose of determining the applicable interest rate under Section 2.9(a). In addition, the Managing Administrative Agent shall, at the request of the Company, deliver to the Company a statement showing the quotations used by the Managing Administrative Agent in determining any interest rate pursuant to subsection 2.9(a) or 2.7(b).

(c) If prior to the first day of any Interest Period for Revolving Credit Loans denominated in any Currency (the Currency of such Loans herein called the “Affected Currency”):

(i) fewer than three Reference Banks furnish timely information to the Managing Administrative Agent for determining the London Interbank Offered Base Rate of the

Affected Currency with respect to an Interest Period for which the London Interbank Offered Base Rate is not available on the Screen; or

(ii) the Required Lenders notify the Managing Administrative Agent that the London Interbank Offered Base Rate for any Interest Period for such Affected Currency will not adequately and fairly reflect the cost to such Required Lenders of funding or maintaining their respective LIBOR Loans for such Interest Period

the Managing Administrative Agent shall give telecopy or telephonic notice thereof to the applicable Borrower and the Lenders as soon as practicable thereafter. If such notice is given, and during such period until such circumstances described in paragraph (i) and (ii) above cease to exist, (x) if the Affected Currency is Dollars, any LIBOR Loans requested to be made on the first day of such Interest Period shall be made as ABR Loans, (y) if the Affected Currency is Euros, any request to make LIBOR Loans in the Affected Currency shall be ineffective, (z) any conversion or continuation request that requests the conversion of any Revolving Credit Loans to, or the continuation of any Revolving Credit Loans as, LIBOR Loans denominated in the Affected Currency shall be ineffective and if the Affected Currency is Dollars, such Revolving Credit Loans (unless prepaid) shall be continued as, or converted to, ABR Loans. Until such notice has been withdrawn by the Managing Administrative Agent (it being understood that the Managing Administrative Agent shall promptly withdraw any such notice if the circumstances described in paragraphs (i) and (ii) above cease to exist) (A) no further LIBOR Loans denominated in the Affected Currency shall be made or continued as such, nor (B) if the Affected Currency is Dollars, shall any Borrower have the right to convert ABR Loans to LIBOR Loans. Notwithstanding the foregoing, if the Managing Administrative Agent has made the determination described in clause (i) or (ii) above with respect to Euros, the Managing Administrative Agent, in consultation with the Company and the Lenders, may establish an alternative interest rate for LIBOR Loans denominated in Euros, in which case, such alternative rate of interest shall apply with respect to any outstanding LIBOR Loans denominated in Euros, until (1) the Managing Administrative Agent revokes the notice delivered with respect to the first sentence of this Section 2.11(c), (2) the Managing Administrative Agent or the Required Lenders notify the Company (and, if such notice is given by the Required Lenders, the Managing Administrative Agent) that such alternative interest rate does not adequately and fairly reflect the cost to such Lenders of funding the LIBOR Loans denominated in Euros, or (3) any Lender determines that any law has made it unlawful, or that any Governmental Authority has asserted that it is unlawful, for such Lender or its applicable lending office to fund or maintain Loans whose interest is determined by reference to such alternative rate of interest or to determine or charge interest rates based upon such rate or any Governmental Authority has imposed material restrictions on the authority of such Lender to do any of the foregoing and provides the Managing Administrative Agent and the Borrowers written notice thereof.

(d) Each Reference Bank may resign at any time. If any Reference Bank shall resign, then the Company and the Managing Administrative Agent shall consult and use reasonable efforts to agree on a replacement Reference Bank, provided that (i) in the event that no such agreement is reached within thirty days, the Managing Administrative Agent may designate a Lender as such replacement Reference Bank, subject to such Lenders agreeing, in its sole discretion, to act as a Reference Bank and (ii) such Reference Bank's resignation shall be effective whether or not a replacement Reference Bank has been previously appointed.

(e) Each Borrower agrees to maintain the confidentiality of any information relating to a rate provided by a Reference Bank, except that such information may be disclosed (a) to its and its Affiliates' directors, officers, employees and agents, including accountants, legal counsel and other advisors on a confidential and need-to-know basis, (b) as consented to by the applicable Reference Bank, (c) to the extent required by applicable laws or regulations or by any subpoena or similar legal process,

provided that in connection with any such requirement by a subpoena or similar legal process, the applicable Reference Bank is given prior notice to the extent such prior notice is permissible under the circumstances (or if prior notice is not practicable or permitted by law, notice of such disclosure as promptly thereafter as practicable to the extent permitted by law), (d) in connection with the exercise of any remedies hereunder or any suit, action or proceeding relating to this Agreement or the enforcement of rights hereunder or (e) to the extent such information (i) becomes publicly available other than as a result of a breach of this Section 2.11 or (ii) becomes available to the Company or a Subsidiary Borrower on a nonconfidential basis from a source other than the Managing Administrative Agent or the applicable Reference Bank or its Affiliates.

(f) Notwithstanding anything to the contrary in this Agreement or any other Loan Documents, if the Managing Administrative Agent determines (which determination shall be conclusive absent manifest error), or the Required Lenders notify the Managing Administrative Agent (with a copy to the Company) that the Required Lenders have determined, that:

(i) adequate and reasonable means do not exist for ascertaining the London Interbank Offered Base Rate for any requested Interest Period, including, without limitation, because the London Interbank Offered Base Rate is not available or published on a current basis and such circumstances are unlikely to be temporary; or

(ii) the supervisor for the administrator of the London Interbank Offered Base Rate or a Governmental Authority having jurisdiction over the Managing Administrative Agent has made a public statement identifying a specific date after which the London Interbank Offered Base Rate shall no longer be made available, or used for determining the interest rate of loans (such specific date, the “Scheduled Unavailability Date”),

then, after such determination by the Managing Administrative Agent or receipt by the Managing Administrative Agent of such notice, as applicable, the Managing Administrative Agent and the Company may amend this Agreement to replace London Interbank Offered Base Rate with an alternate benchmark rate (including any mathematical or other adjustments to the benchmark (if any) incorporated therein) that has been broadly accepted by the syndicated loan market in the United States in lieu of the London Interbank Offered Base Rate (any such proposed rate, a “LIBOR Successor Rate”), together with any proposed LIBOR Successor Rate Conforming Changes and, notwithstanding anything to the contrary in Section 9.1, any such amendment shall become effective at 5:00 p.m. (New York time) on the fifth Business Day after the Managing Administrative Agent shall have posted such proposed amendment to all Lenders and the Company unless, prior to such time, Lenders comprising the Required Lenders have delivered to the Managing Administrative Agent notice that such Required Lenders do not accept such amendment.

If no LIBOR Successor Rate has been determined and the circumstances under clause (i) above exist, the obligation of the Lenders to make or maintain LIBOR Loans shall be suspended (to the extent of the affected LIBOR Loans or Interest Periods). Upon receipt of such notice, the Company may revoke any pending request for a borrowing of, conversion to or continuation of LIBOR Loans (to the extent of the affected LIBOR Loans or Interest Periods) or, failing that, will be deemed to have converted such request into a request for a borrowing of ABR Loans in the amount specified therein.

2.12. Pro Rata Treatment and Payments. (a) Except as provided in Section 2.18(d), each borrowing of Revolving Credit Loans by each Borrower from the Lenders hereunder, each payment by the Company on account of any facility fee hereunder and any reduction of the Commitments of the Lenders shall be made pro rata according to the respective Commitment Percentages of the Lenders. Each payment (including each prepayment) by each Borrower on account of principal of and interest on any Loans shall be made pro rata according to the respective outstanding principal amounts of such Loans then

held by the Lenders. All payments (including prepayments) to be made by each Borrower hereunder, whether on account of principal, interest, fees or otherwise, shall be made without set-off or counterclaim and shall be made prior to 2:00 P.M., Local Time, on the due date thereof to the Managing Administrative Agent, for the account of the Lenders, at the Managing Administrative Agent's Account, in immediately available funds. The Managing Administrative Agent shall distribute such payments to the relevant Lenders promptly upon receipt in like funds as received. If any payment hereunder becomes due and payable on a day other than a Business Day, such payment shall be extended to the next succeeding Business Day, and, with respect to payments of principal, interest thereon shall be payable at the then applicable rate during such extension. All amounts owing under this Agreement (including facility fees, payments required under Section 2.15 and payments required under Sections 2.16 and 2.17 relating to any Loan denominated in Dollars, but not including principal of, and interest on, any Loan denominated in Euros or payments relating to any such Loan required under Section 2.16 or 2.17, which are payable in Euros) are payable in Dollars.

(b) Unless the Managing Administrative Agent shall have been notified in writing by any Lender prior to a borrowing that such Lender will not make the amount that would constitute its allocable share of such borrowing available to the Managing Administrative Agent, the Managing Administrative Agent may assume that such Lender is making such amount available to the Managing Administrative Agent, and the Managing Administrative Agent may, in reliance upon such assumption, make available to the applicable Borrower a corresponding amount. If such amount is not made available to the Managing Administrative Agent by the required time on the Borrowing Date therefor, such Lender shall pay to the Managing Administrative Agent, on demand, such amount with interest thereon at a rate equal to the daily average New York Fed Bank Rate (or, with respect to amounts denominated in Euros, at the average rate per annum at which overnight deposits in Euros in an amount approximately equal to the amount which respect to which such rate is being determined, would be offered for such day by a branch or Affiliate of the Managing Administrative Agent in the applicable offshore interbank market for such Currency to major banks in such interbank market) for the period until such Lender makes such amount immediately available to the Managing Administrative Agent. A certificate of the Managing Administrative Agent submitted to any Lender with respect to any amounts owing under this Section shall be conclusive in the absence of manifest error. If such Lender's Commitment Percentage of such borrowing is not made available to the Managing Administrative Agent by such Lender within three Business Days of such Borrowing Date, the Managing Administrative Agent shall also be entitled to recover such amount with interest thereon at the rate per annum applicable to ABR Loans hereunder (or, with respect to amounts denominated in Euros, at the rate per annum applicable to LIBOR Loans denominated in Euros), on demand, from the applicable Borrower. If any such Lender shall subsequently pay its Commitment Percentage of such borrowing with interest thereon to the Managing Administrative Agent, the Managing Administrative Agent shall promptly remit to the applicable Borrower the amount of such interest paid by such Borrower for such period pursuant to the immediately preceding sentence.

2.13. Swing Line Commitment. (a) Subject to the terms and conditions hereof, each Swing Line Lender agrees to make swing line loans ("Swing Line Loans") in Dollars to the Company from time to time during the Commitment Period in an aggregate principal amount at any one time outstanding not to exceed the amount of such Swing Line Lender's Swing Line Commitment, provided that (i) the aggregate principal amount of all Loans outstanding at any one time shall not exceed the aggregate amount of the Commitments at such time, (ii) the aggregate principal amount of Revolving Credit Loans of such Lender outstanding at any time, when added to such Lender's Swing Line Exposure (including, as applicable, in its capacity as Swing Line Lender) shall not exceed the aggregate amount of the Commitment of such Lender at such time and (iii) the aggregate principal amount of all Swing Line Loans outstanding at any one time shall not exceed \$2,000,000,000. If the aggregate amount of all Swing Line Commitments is at

any time less than \$2,000,000,000 (such shortfall, the “Swing Line Commitment Shortfall”), the Company may designate one or more of the other existing Lenders as Swing Line Lenders (it being understood that the Swing Line Commitments of any such Lender may, at the option of such Lender, exceed its Commitment), having Swing Line Commitments in an aggregate amount not exceeding the Swing Line Commitment Shortfall; provided that no Lender may be so designated unless it agrees in its sole discretion to act in such capacity. The Swing Line Commitment of each Swing Line Lender (unless otherwise agreed by such Swing Line Lender) shall be reduced as follows: (x) upon any reduction of the Commitment of any Lender that is also a Swing Line Lender pursuant to Section 2.4, the Swing Line Commitment of such Swing Line Lender shall be reduced by the same proportion as such Commitment is so reduced and (y) upon any assignment by such Swing Line Lender of all or any portion of its Swing Line Commitment pursuant to subsection 9.6(c) and the assumption by the relevant assignee of the amount of such Swing Line Commitment so assigned, the Swing Line Commitment of such Swing Line Lender shall be reduced by the amount of its Swing Line Commitment so assigned. During the Commitment Period, the Company may use the Swing Line Commitment by borrowing, prepaying the Swing Line Loans in whole or in part, and reborrowing, all in accordance with the terms and conditions hereof. All Swing Line Loans shall bear interest based upon the ABR and shall not be entitled to be converted into loans that bear interest at any other rate. The Company shall give the relevant Swing Line Lender (with a copy to the Managing Administration Agent) irrevocable notice (which notice must be received by the Swing Line Lender prior to 4:00 P.M., New York City time, on the requested Borrowing Date specifying the amount of the requested Swing Line Loan which shall be in a minimum amount of \$100,000 or a whole multiple of \$50,000 in excess thereof). The proceeds of the Swing Line Loan will be made available by such Swing Line Lender to the Company at the office of such Swing Line Lender by 5:00 P.M., New York City time, on the Borrowing Date by crediting the account of the Company at such office with such proceeds. The Company may, at any time and from time to time, prepay the Swing Line Loans of such Swing Line Lender, in whole or in part, without premium or penalty, by notifying such Swing Line Lender prior to 4:00 P.M., New York City time, on any Business Day of the date and amount of prepayment. If any such notice is given, the amount specified in such notice shall be due and payable on the date specified therein. Partial prepayments shall be in an aggregate principal amount of \$100,000 or a whole multiple of \$50,000 in excess thereof.

(b) The Company hereby unconditionally promises to pay to the Managing Administrative Agent for the account of each Swing Line Lender the unpaid principal amount of each Swing Line Loan of such Swing Line Lender on the Revolving Credit Termination Date (or such earlier date on which the Swing Line Loans become due and payable pursuant to Section 7). The Swing Line Loans shall, at the request of any Swing Line Lender, be evidenced by and repayable with interest in accordance with a promissory note of the Company substantially in the form of Exhibit B to this Agreement, with appropriate insertions (a “Swing Line Note”), payable to such Swing Line Lender and representing the obligation of the Company to pay the amount of the Swing Line Commitment of such Swing Line Lender or, if less, the unpaid principal amount of the Swing Line Loans owing to such Swing Line Lender, with interest thereon as prescribed in Section 2.9. Each Swing Line Lender is hereby authorized to record the Borrowing Date, the amount of each Swing Line Loan made by such Swing Line Lender and the date and amount of each payment or prepayment of principal thereof, on the schedule annexed to and constituting a part of the Swing Line Note of such Swing Line Lender and any such recordation shall constitute conclusive evidence (absent manifest error) of the accuracy of the information so recorded, provided that the failure by such Swing Line Lender to make any such recordation shall not affect any of the obligations of the Company under such Swing Line Note or this Agreement. Each Swing Line Note shall (a) be dated the Second Restatement Effective Date, (b) be stated to mature on the Revolving Credit Termination Date and (c) bear interest for the period from the date thereof until paid in full on the unpaid principal amount

thereof from time to time outstanding at the applicable interest rate per annum determined as provided in, and payable as specified in, Section 2.9.

(c) Any Swing Line Lender at any time in its sole and absolute discretion may, on behalf of the Company (which hereby irrevocably directs each Swing Line Lender to act on its behalf) request each Lender, including each Swing Line Lender, to make a Revolving Credit Loan that shall be initially an ABR Loan in an amount equal to such Lender's Commitment Percentage of the amount of the Swing Line Loans of such Swing Line Lender outstanding on the date such notice is given (the "Outstanding Swing Line Loans"). Unless any of the events described in paragraph (f) of Section 7 shall have occurred with respect to the Company (in which event the procedures of paragraph (e) of this Section shall apply) each Lender shall make the proceeds of its Revolving Credit Loan available to the Managing Administrative Agent for the account of such Swing Line Lender at the Managing Administrative Agent's Account prior to 12:00 Noon, New York City time, in funds immediately available on the Business Day next succeeding the date such notice is given. The proceeds of such Revolving Credit Loans shall be immediately applied to repay such outstanding Swing Line Loans. Effective on the day such Revolving Credit Loans are made, the portion of the Swing Line Loans so paid shall no longer be outstanding as Swing Line Loans, shall no longer be due under each Swing Line Note of such Swing Line Lender and shall be evidenced as provided in subsection 2.5(b).

(d) Notwithstanding anything herein to the contrary, no Swing Line Lender shall be obligated to make any Swing Line Loans if the conditions set forth in Section 4.2 have not been satisfied.

(e) If prior to the making of a Revolving Credit Loan pursuant to subsection 2.13(c) one of the events described in paragraph (f) of Section 7 shall have occurred and be continuing with respect to the Company, each Lender will, on the date such Revolving Credit Loan was to have been made pursuant to the notice in subsection 2.13(c), purchase an undivided participating interest in each Outstanding Swing Line Loan in an amount equal to (i) its Commitment Percentage *times* (ii) the principal amount of such Swing Line Loan then outstanding. Each Lender will immediately transfer to the relevant Swing Line Lender, in immediately available funds, the amount of its participation, and upon receipt thereof such Swing Line Lender will deliver to such Lender a Swing Line Loan Participation Certificate dated the date of receipt of such funds and in such amount.

(f) Whenever, at any time after any Lender has purchased a participating interest in a Swing Line Loan of any Swing Line Lender, such Swing Line Lender receives any payment on account thereof, such Swing Line Lender will distribute to such Lender its participating interest in such amount (appropriately adjusted, in the case of interest payments, to reflect the period of time during which such Lender's participating interest was outstanding and funded); provided, however, that in the event that such payment received by the Swing Line Lender is required to be returned, such Lender will return to such Swing Line Lender any portion thereof previously distributed by such Swing Line Lender to it.

(g) Each Lender's obligation to make the Revolving Credit Loans referred to in subsection 2.13(c) and to purchase participating interests pursuant to subsection 2.13(e) shall be absolute and unconditional and shall not be affected by any circumstance, including, without limitation, (i) any set-off, counterclaim, recoupment, defense or other right which such Lender or the Company may have against any Swing Line Lender, the Company, any Subsidiary Borrower or any other Person for any reason whatsoever, (ii) the occurrence or continuance of a Default or an Event of Default or termination of the Commitments; (iii) any adverse change in the condition (financial or otherwise) of the Company; (iv) any breach of this Agreement or any other Loan Document by the Company, any Subsidiary or any other Lender; or (v) any other circumstance, happening or event whatsoever, whether or not similar to any of the foregoing.

(h) If a Lender becomes, and during the period it remains, a Defaulting Lender, any Swing Line Lender may, upon prior written notice to the Company and the Managing Administrative Agent, resign as a Swing Line Lender, effective at the close of business New York time on a date specified in such notice (which date may not be less than three Business Days after the date of such notice); provided that (i) no Swing Line Lender may so resign unless both (x) such Defaulting Lender's Swing Line Exposure cannot be fully reallocated under Section 2.21(c)(i) and (y) the Company fails to comply with its obligations under Section 2.21(c)(ii) and (ii) such resignation by a Swing Line Lender will have no effect on its rights in respect of any outstanding Swing Line Loans or on the obligations of the Company, any Lender or any other Swing Line Lender under this Agreement with respect to any such outstanding Swing Line Loans.

2.14. Illegality. Notwithstanding any other provision herein, if the adoption of or any change in any Requirement of Law or in the interpretation or application thereof shall make it unlawful for any Lender to make or maintain LIBOR Loans denominated in any Currency as contemplated by this Agreement then, on notice by such Lender to the Company through the Managing Administrative Agent, (a) the commitment of such Lender hereunder to make LIBOR Loans denominated in such Currency, continue LIBOR Loans denominated in such Currency as such and, if such Currency is Dollars, convert ABR Loans to LIBOR Loans shall forthwith be cancelled, (b) if such Currency is Dollars, such Lender's Loans then outstanding as LIBOR Loans denominated in Dollars, if any, shall be converted automatically to ABR Loans on the respective last days of the then current Interest Periods with respect to such Loans or within such earlier period as required by law and (c) if such Currency is Euros, such Lender's Loans then outstanding as LIBOR Loans denominated in Euros, if any, shall be repaid on the respective last days of the then current Interest Periods with respect to such Loans or within such earlier period as required by law. If any such conversion or repayment of a LIBOR Loan occurs on a day which is not the last day of the then current Interest Period with respect thereto, the applicable Borrower shall pay to such Lender such amounts, if any, as may be required pursuant to Section 2.17.

2.15. Requirements of Law. (a) If the adoption of or any change in any Requirement of Law or in the interpretation or application thereof or compliance by any Lender with any request or directive (whether or not having the force of law) from any central bank or other Governmental Authority made subsequent to the date hereof:

(i) shall subject any Lender to any tax of any kind whatsoever with respect to this Agreement, any Note or any LIBOR Loan made by it, or change the basis of taxation of payments to such Lender in respect thereof (except for Indemnified Taxes, Excluded Taxes and changes in the rate of tax on the overall net income of such Lender);

(ii) shall impose, modify or hold applicable any reserve, special deposit, compulsory loan or similar requirement against assets held by, deposits or other liabilities in or for the account of, advances, loans or other extensions of credit by, or any other acquisition of funds by, any office of such Lender which is not otherwise included in the determination of the London Interbank Offered Base Rate hereunder; or

(iii) shall impose on such Lender any other condition;

and the result of any of the foregoing is to increase the cost to such Lender, by an amount which such Lender deems to be material, of making, converting into, continuing or maintaining LIBOR Loans or to reduce any amount receivable hereunder in respect thereof, then, in any such case, the Company shall promptly pay such Lender in Dollars such additional amount or amounts as will compensate such Lender for such increased cost or reduced amount receivable.

(b) If any Lender shall have determined that the adoption of or any change in any Requirement of Law regarding liquidity or capital adequacy requirements or in the interpretation or application thereof or compliance by such Lender or any corporation controlling such Lender with any request or directive regarding liquidity or capital adequacy requirements (whether or not having the force of law) from any Governmental Authority made subsequent to the date hereof shall have the effect of reducing the rate of return on such Lender's or such corporation's capital as a consequence of its obligations hereunder to a level below that which such Lender or such corporation could have achieved but for such adoption, change or compliance (taking into consideration such Lender's or such corporation's policies with respect to capital adequacy and liquidity) by an amount deemed by such Lender to be material, then from time to time, the Company shall promptly pay to such Lender in Dollars such additional amount or amounts as will compensate such Lender for such reduction.

(c) If any Lender becomes entitled to claim any additional amounts pursuant to paragraphs (a) or (b) of this Section 2.15, it shall promptly notify the Company (with a copy to the Managing Administrative Agent) of the event by reason of which it has become so entitled and of the basis for the calculation of such additional amounts; provided that the Company shall not be required to compensate a Lender pursuant to such paragraph for any increased costs incurred more than 180 days prior to the date that such Lender notifies the Company of the change giving rise to such increased costs and of such Lender's intention to claim compensation therefor; provided, further that, if the change giving rise to such increased costs is retroactive, then the 180-day period referred to above shall be extended to include the period of retroactive effect thereof, and provided, further, that no Lender shall claim any additional amounts pursuant to paragraphs (a) or (b) of this Section 2.15 unless such Lender is generally seeking similar reimbursement from similarly situated borrowers and the compensation claimed pursuant to such paragraphs is not in excess of the corresponding amounts that such Lender is seeking from such similarly situated borrowers. A certificate as to any additional amounts payable pursuant to this Section submitted by such Lender to the Company (with a copy to the Managing Administrative Agent), describing the basis for the calculation of such amounts, shall be conclusive in the absence of manifest error. The agreements in this Section shall survive the termination of this Agreement and the payment of the Loans and all other amounts payable hereunder.

(d) For purposes of Section 2.14 and this Section 2.15, (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all rules, regulations, orders, requests, guidelines or directives in connection therewith and (ii) rules, regulations, orders, requests, guidelines or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to have been adopted and gone into effect after the date of this Agreement.

(e) Each Lender agrees that, upon the occurrence of any event giving rise to the operation of Section 2.14, 2.15(a), (b) or (c) or payment of additional amounts under Section 2.16 with respect to such Lender, it will, if requested by the Company, use reasonable efforts (subject to overall policy considerations of such Lender) to designate another lending office for any Loans affected by such event with the object of avoiding the consequences of such event or reducing additional amounts payable under Section 2.16; provided that such designation is made on terms that, in the sole judgment of such Lender, would not subject such Lender to any unreimbursed cost or expense and would not otherwise cause such Lender and its lending office(s) to suffer no economic, legal or regulatory disadvantage, and provided, further, that nothing in this Section shall affect or postpone any of the obligations of any Borrower or the rights of any Lender pursuant to Section 2.14, 2.15(a), (b) or (c), or 2.16.

(f) For the purposes of this Section 2.15, each reference to the defined term “Lender” shall be deemed to include each Swing Line Lender.

2.16. Taxes. (a) All payments made by any Borrower under this Agreement and any Notes shall be made free and clear of, and without deduction or withholding for or on account of any Taxes, unless required by applicable law. If any such Taxes are required to be withheld from any amounts payable to the Managing Administrative Agent or any Lender hereunder or under any Note, (i) the relevant Borrower or the Managing Administrative Agent shall be entitled to make such withholding and shall pay the full amount withheld to the relevant Governmental Authority in accordance with applicable law, and (ii) if such Taxes are Indemnified Taxes, the amounts so payable to the Managing Administrative Agent or such Lender shall be increased to the extent necessary to yield to the Managing Administrative Agent or such Lender (after payment of all Indemnified Taxes) interest or any such other amounts payable hereunder at the rates or in the amounts specified in this Agreement. Whenever any Indemnified Taxes are payable by the relevant Borrower, as promptly as possible thereafter such Borrower shall send to the Managing Administrative Agent for its own account or for the account of such Lender, as the case may be, a certified copy of an original official receipt received by the Borrower showing payment thereof or other evidence of such payment reasonably satisfactory to the Managing Administrative Agent. If the relevant Borrower fails to pay any Indemnified Taxes when due to the appropriate taxing authority or fails to remit to the Managing Administrative Agent the required receipts or other required documentary evidence, such Borrower shall indemnify the Managing Administrative Agent and the Lenders for any incremental taxes, interest or penalties that may become payable by the Managing Administrative Agent or any Lender as a result of any such failure. The relevant Borrower shall timely pay to the relevant Governmental Authority in accordance with applicable law, or at the option of the Managing Administrative Agent timely reimburse it for the payment of, any present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Loan Document; provided that such Borrower shall not pay any such Taxes that are imposed with respect to an assignment (other than an assignment made pursuant to Section 2.20) that result from a present or former connection between a Lender and the jurisdiction imposing such Tax, other than a connection arising from such Lender having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Loan or Loan Document. The agreements in this Section shall survive the termination of this Agreement and the payment of the Loans and all other amounts payable hereunder.

(b) Any Lender that is entitled to an exemption from or reduction of withholding Tax with respect to payments made under any Loan Document shall deliver to the Company and the Managing Administrative Agent, at the time or times reasonably requested by the Borrower or the Managing Administrative Agent, such properly completed and executed documentation reasonably requested by the Company or the Managing Administrative Agent as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender, if reasonably requested by the Company or the Managing Administrative Agent, shall deliver such other documentation prescribed by applicable law or reasonably requested by the Company or the Managing Administrative Agent as will enable the Company or the Managing Administrative Agent to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation (other than such documentation set forth in Section 2.16(b)(i)(x) and (i)(y) below) shall not be required if in the Lender’s reasonable judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial

position of such Lender. Without limiting the generality of the foregoing, each Lender that is a “United States person” as defined in Section 7701(a)(30) of the Code shall deliver to the Company and the Managing Administrative Agent, on or before the date on which it becomes a party to this Agreement (and from time to time thereafter upon the reasonable request of the Company or the Managing Administrative Agent), two properly completed and duly signed copies of United States Internal Revenue Service Form W-9 (or any subsequent versions or successors thereto) certifying that such Lender is exempt from United States federal withholding tax. To the extent it is legally entitled to do so, each Lender that is not a “United States person” as defined in Section 7701(a)(30) of the Code (a “Non-U.S. Lender”) shall:

(i) on or before the date such Lender becomes a party to this Agreement (and from time to time thereafter upon the reasonable request of the Company or the Managing Administrative Agent), deliver to the Company and the Managing Administrative Agent (x) two duly completed copies of United States Internal Revenue Service Form W-8BEN, W-8BEN-E, W-8ECI or W-8IMY, as applicable (together with any applicable underlying United States Internal Revenue Service forms and other certification documents), or any subsequent versions or successors thereto, (y) in the case of a Non-U.S. Lender claiming, in each case, exemption from United States federal withholding tax under Section 871(h) or 881(c) of the Code with respect to payments of “portfolio interest”, a statement substantially in the form of Exhibit K-1, K-2, K-3 or K-4 (as applicable) and the applicable United States Internal Revenue Service Form W-8 or any subsequent versions thereof or successors thereto, properly completed and duly executed by such Non-U.S. Lender claiming complete exemption from, or a reduced rate of, United States federal withholding tax on all payments by such Borrower under this Agreement and the other Loan Documents, or (z) any other form prescribed by applicable requirements of United States federal income tax law as a basis for claiming exemption from or a reduction in United States federal withholding tax duly completed together with such documentation as may be prescribed by applicable Requirements of Law to permit the Company and the Managing Administrative Agent to determine the withholding or deduction required to be made;

(ii) deliver to the Company and the Managing Administrative Agent two further copies of any such form or certification on or before the date that any such form or certification expires or becomes obsolete and after the occurrence of any event requiring a change in the most recent form previously delivered by it to the Company or the Managing Administrative Agent; and

(iii) obtain such extensions of time for filing and complete such forms or certifications as may reasonably be requested by the Company or the Managing Administrative Agent;

unless in any such case an event (including, without limitation, any change in treaty, law or regulation) has occurred prior to the date on which any such delivery would otherwise be required which renders all such forms inapplicable or which would prevent such Lender from duly completing and delivering any such form with respect to it and such Lender so advises the Company and the Managing Administrative Agent. Such Lender shall, to the extent it is legally entitled to do so, certify that it is entitled to receive payments under this Agreement without deduction or withholding of any United States federal income taxes. Each Person that shall become a Lender or a Participant pursuant to Section 9.6 shall, upon the effectiveness of the related transfer, be required to provide all of the forms and statements required pursuant to this Section, provided that in the case of a Participant such Participant shall furnish all such required forms and statements to the Lender from which the related participation shall have been purchased.

(c) If a payment made to the Managing Administrative Agent or any Lender under this Agreement and any Notes would be subject to United States federal withholding Tax imposed by FATCA

if the Managing Administrative Agent or any Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), the Managing Administrative Agent or such Lender shall deliver to the Company and the Managing Administrative Agent at the time or times prescribed by law and at such time or times reasonably requested by the Company or the Managing Administrative Agent such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Company or the Managing Administrative Agent as may be necessary for the Borrowers and the Managing Administrative Agent to comply with their obligations under FATCA and to determine that the Managing Administrative Agent or such Lender has complied with its obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this clause (c), “FATCA” shall include any amendments made to FATCA after the date of this Agreement.

(d) If the Managing Administrative Agent or any Lender determines, in its sole discretion, exercised in good faith, that it has received a refund (including a refund that the Managing Administrative Agent or any Lender, as applicable, has elected to apply on its tax return for the following year) of any Indemnified Taxes as to which it has been indemnified by the Borrowers or with respect to which any Borrower has paid additional amounts pursuant to this Section 2.16, it shall pay over such refund to such Borrower (but only to the extent of indemnity payments made, or additional amounts paid, by the Borrowers under this Section 2.16 with respect to the Indemnified Taxes giving rise to such refund), net of all out-of-pocket expenses of the Managing Administrative Agent or such Lender and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund); provided that such Borrower, upon the request of the Managing Administrative Agent or such Lender, agrees to repay the amount paid over to such Borrower (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) to the Managing Administrative Agent or such Lender in the event the Managing Administrative Agent or such Lender is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this paragraph (d), in no event will the Managing Administrative Agent or any Lender be required to pay any amount to the Borrowers pursuant to this paragraph (d) the payment of which would place the Managing Administrative Agent or any Lender in a less favorable net after-Tax position than the Managing Administrative Agent or any Lender would have been in if the Tax subject to indemnification or payment of additional amounts and giving rise to such refund had not been deducted, withheld or otherwise imposed and the indemnification payments or additional amounts with respect to such Tax had never been paid. This paragraph shall not be construed to require the Managing Administrative Agent or any Lender to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to the Borrowers or any other Person.

(e) For the purposes of this Section 2.16, each reference to the defined term “Lender” shall be deemed to include each Swing Line Lender.

(f) For the purposes of determining withholding Taxes imposed under FATCA, from and after the Second Restatement Effective Date, the Borrowers and the Administrative Agent shall treat (and the Lenders hereby authorize the Administrative Agent to treat) this Agreement as not qualifying as a “grandfathered obligation” within the meaning of Treasury Regulation Section 1.1471-2(b)(2)(i).

2.17. Indemnity. Each Borrower agrees to indemnify each Lender and to hold each Lender harmless from any loss or expense which such Lender may sustain or incur as a consequence of (a) default by such Borrower in making either (i) a borrowing of LIBOR Loans or (ii) a conversion into or continuation of LIBOR Loans, in each case after such Borrower has given a notice requesting the same in accordance with the provisions of this Agreement, (b) default by such Borrower in making any

prepayment after such Borrower has given a notice thereof in accordance with the provisions of this Agreement (regardless of whether such notice is permitted to be revocable under Section 2.4 or 2.6 and is revoked in accordance herewith) or (c) the making of either (i) a prepayment of LIBOR Loans or (ii) a conversion of LIBOR Loans, in each case on a day which is not the last day of an Interest Period with respect thereto. Such indemnification shall constitute an amount equal to the excess, if any, of (i) the amount of interest which would have accrued on the amount of such Loan denominated in the Currency of such Loan so prepaid, or not so borrowed, converted or continued, for the period from the date of such prepayment or of such failure to borrow, convert or continue to the last day of such Interest Period (or, in the case of a failure to borrow, convert or continue, the Interest Period that would have commenced on the date of such failure) in each case at the applicable rate of interest for such Loans denominated in such Currency provided for herein (excluding, however, the Applicable Margin included therein, if any) over (ii) the amount of interest (as reasonably determined by such Lender) which would have accrued to such Lender on such amount by placing such amount denominated in such Currency on deposit for a comparable period with leading banks in the interbank eurocurrency market. A certificate as to any amounts payable pursuant to this Section shall be submitted to the applicable Borrower by such Lender. This covenant shall survive the termination of this Agreement and the payment of the Loans and all other amounts payable hereunder.

2.18. Commitment Increases. (a) In the event that the Company wishes to increase the aggregate Commitments, it shall notify the Lenders (through the Managing Administrative Agent) of the amount of such proposed increase (such notice, a “Commitment Increase Offer”). Each Commitment Increase Offer shall offer the Lenders the opportunity to participate in the increased Commitments ratably in accordance with their respective Commitment Percentages. In the event that any Lender (each, a “Declining Lender”) shall fail to accept in writing a Commitment Increase Offer within 10 Business Days after receiving notice thereof, all or any portion of the proposed increase in the Commitments offered to the Declining Lenders (the aggregate of such offered amounts, the “Declined Amount”) may instead be allocated to any one or more additional banks, financial institutions or other entities pursuant to paragraph (b) below and/or to any one or more existing Lenders pursuant to paragraph (c)(ii) below.

(b) Any additional bank, financial institution or other entity (each, a “New Lender”) which, with the consent of the Company and the Managing Administrative Agent, elects to become a party to this Agreement and obtain a Commitment in an amount equal to all or any portion of a Declined Amount, shall execute a New Lender Supplement (each, a “New Lender Supplement”) with the Company and the Managing Administrative Agent, substantially in the form of Exhibit J-1, whereupon such New Lender shall become a Lender for all purposes and to the same extent as if originally a party hereto and shall be bound by and entitled to the benefits of this Agreement, and Schedule 1.2 shall be deemed to be amended to add the name and Commitment of such New Lender.

(c) Any Lender which (i) accepts a Commitment Increase Offer pursuant to subsection 2.18(a) or (ii) with the consent of the Company elects to increase its Commitment by an amount equal to all or any portion of a Declined Amount shall, in each case, execute a Commitment Increase Supplement (each, a “Commitment Increase Supplement”) with the Company and the Managing Administrative Agent, substantially in the form of Exhibit J-2, whereupon such Lender shall be bound by and entitled to the benefits of this Agreement with respect to the full amount of its Commitment as so increased, and Schedule 1.2 shall be deemed to be amended to so increase the Commitment of such Lender.

(d) If on the date upon which a bank, financial institution or other entity becomes a New Lender pursuant to subsection 2.18(b) or upon which a Lender’s Commitment is increased pursuant to subsection 2.18(c) there is an unpaid principal amount of Revolving Credit Loans, each Borrower shall

borrow Revolving Credit Loans from the Lenders and/or (subject to compliance by the applicable Borrower with Section 2.17) prepay Revolving Credit Loans of the Lenders (which borrowings and prepayments may be on a non-ratable basis) such that, after giving effect thereto, the Revolving Credit Loans (including, without limitation, the Types thereof and Interest Periods with respect thereto) shall be held by the Lenders (including for such purposes the New Lenders) pro rata according to their respective Commitment Percentages.

(e) Notwithstanding anything to the contrary in this Section, (i) in no event shall any transaction effected pursuant to this Section cause (x) the aggregate Commitments to exceed an amount equal to 150% of the aggregate amount of the Commitments in effect on the Second Restatement Effective Date or (y) unless otherwise agreed by the Managing Administrative Agent, an increase in the aggregate Commitments of an amount less than \$50,000,000, (ii) the aggregate amount of any increase in Commitments pursuant to subsection 2.18(b) and (c)(ii) shall be limited to the relevant Declined Amount and (iii) no Lender shall have any obligation to increase its Commitment unless it agrees to do so in its sole discretion.

2.19. Commitment Extensions. (a) The Company may, not earlier than 75 days and not later than 45 days before any anniversary of the Second Restatement Effective Date (each, an “Anniversary Date”), but no more than twice in total, by notice to the Managing Administrative Agent, request that the Revolving Credit Termination Date then in effect (the “Existing Revolving Credit Termination Date”) be extended to the date 364 days after the Existing Revolving Credit Termination Date. The Managing Administrative Agent shall promptly notify the Lenders of such request.

(b) Each Lender, in its sole discretion, shall advise the Managing Administrative Agent whether or not such Lender agrees to such extension. If a Lender agrees to such extension (an “Extending Lender”), it shall notify the Managing Administrative Agent, in writing, of its decision to do so no later than 30 days prior to such Anniversary Date. A Lender that determines not to so extend its Commitment shall so notify the Managing Administrative Agent promptly after making such determination and is herein called a “Non-Extending Lender”. If a Lender does not give timely notice to the Managing Administrative Agent of whether or not such Lender agrees to such extension, it shall be deemed to be a Non-Extending Lender; provided that any Non-Extending Lender may, with the consent of the Company and the Managing Administrative Agent (such consent of the Managing Administrative Agent not to be unreasonably withheld), subsequently become an Extending Lender by notice to the Managing Administrative Agent and the Company.

(c) The Managing Administrative Agent shall promptly notify the Company of each Lender’s determination not earlier than 30 days and not later than 20 days prior to the relevant Anniversary Date.

(d) The Company shall have the right to accept Commitments from New Lenders, each of which shall be acceptable to the Managing Administrative Agent, in an aggregate amount not exceeding the aggregate amount of the Commitments of the Non-Extending Lenders, provided that the Company may in its sole discretion, offer to Extending Lenders the option to increase their Commitments (each such Lender being herein called an “Increasing Lender”) up to the aggregate amount of the Non-Extending Lenders’ Commitments before substituting any New Lenders for Non-Extending Lenders.

(e) If and only if (i) more than 50% of the total of the Commitments is extended or otherwise committed to by Extending Lenders and any New Lenders, and (ii) immediately prior to the relevant Anniversary Date no Default has occurred and is continuing and the representations and warranties of the Company set forth in Section 3 shall be true and correct in all material respects on and as of such Anniversary Date as though made on and as of such date, and subject to each New Lender having

executed a New Lender Supplement (on the effective date of which such New Lender shall become a Lender for all purposes and to the same extent as if originally a party hereto and shall be bound by and entitled to the benefits of this Agreement), then effective on such Anniversary Date the Commitment of each Extending Lender shall be extended to the date 364 days after the Existing Revolving Credit Termination Date (or, if such day is not a Business Day, the immediately preceding Business Day) which date shall thereafter be the Revolving Credit Termination Date; the increased Commitment of each Increasing Lender and the new Commitment of each New Lender shall take effect on such Anniversary Date; the Commitments of the Non-Extending Lenders shall be reduced pro rata on such Anniversary Date to the extent of such increased and new commitments and appropriate adjustments shall be made on such Anniversary Date to cause any then-outstanding Loans of the Lenders to be held on a pro rata basis among all Lenders; the remaining Commitment of each Non-Extending Lender (including, if such Non-Extending Lender is a Swing Line Lender, such Lender's Swing Line Commitment) shall terminate on the Existing Revolving Credit Termination Date; and each applicable Borrower shall pay in full on the Existing Revolving Credit Termination Date all amounts payable to each Non-Extending Lender hereunder.

2.20. Replacement of Lenders. If any Lender requests compensation under Section 2.15, or if the Company is required to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 2.16, or if any Lender is a Defaulting Lender or an Objecting Lender, or if any Lender is a Non-Extending Lender, or, so long as no Default or Event of Default has occurred and is continuing, a Lender does not consent to a proposed change, waiver, discharge or termination with respect to any Loan Document that has been approved by the Required Lenders as provided in Section 9.1 but requires the consent of all Lenders or all affected Lenders, then the Company may, at its sole expense and effort, upon notice to such Lender and the Managing Administrative Agent, require such Lender to assign and delegate, without recourse (in accordance with and subject to the restrictions contained in, and consents required by, Section 9.6), all of its interests, rights and obligations under this Agreement and the related Loan Documents to an assignee that shall assume such obligations (which assignee may be another Lender, if a Lender accepts such assignment) and consents to such change, waiver, discharge or termination, as the case may be, provided that:

- (i) the Managing Administrative Agent shall have received the assignment fee specified in Section 9.6(e);
- (ii) such Lender shall have received payment of an amount equal to the outstanding principal of its Loans and accrued interest thereon, accrued fees and all other amounts payable to it hereunder and under the other Loan Documents (including any amounts under Section 2.17) from the assignee (to the extent of such outstanding principal and accrued interest and fees) or the Company (in the case of all other amounts);
- (iii) in the case of any such assignment resulting from a claim for compensation under Section 2.15 or payments required to be made pursuant to Section 2.16, such assignment will result in a reduction in such compensation or payments thereafter; and
- (iv) such assignment does not conflict with applicable law.

A Lender shall not be required to make any such assignment or delegation if, prior thereto, as a result of a waiver by such Lender or otherwise, the circumstances entitling the Company to require such assignment and delegation cease to apply.

2.21. Defaulting Lenders. If a Lender becomes, and during the period it remains, a Defaulting Lender, the following provisions shall apply:

(a) the facility fees set forth in Section 2.3 shall cease to accrue on the unutilized Commitment of such Defaulting Lender as provided in said Section 2.3;

(b) to the extent permitted by applicable law, any prepayment of Loans shall, if the Company so directs at the time of the making of such prepayment, be applied to the Loans of other Lenders as if such Defaulting Lender had no Loans outstanding;

(c) if any Swing Line Loan is outstanding at the time a Lender becomes a Defaulting Lender then:

(i) the Swing Line Exposure of such Defaulting Lender will, subject to the limitation in the first proviso below, automatically be reallocated (effective on the day such Lender becomes a Defaulting Lender) among the Non-Defaulting Lenders pro rata in accordance with their respective Commitments (without giving effect to such Defaulting Lender's Commitment); provided that (i) the sum of the total outstanding principal amounts of each Non-Defaulting Lender's Revolving Credit Loans and its Swing Line Exposure (including, as applicable, in its capacity as Swing Line Lender) may not in any event exceed the Commitment of such Non-Defaulting Lender as in effect at the time of such reallocation and (ii) subject to Section 9.21, neither such reallocation nor any payment by a Non-Defaulting Lender pursuant thereto will constitute a waiver or release of any claim any Borrower, the Managing Administrative Agent, any Swing Line Lender or any other Lender may have against such Defaulting Lender or cause such Defaulting Lender to be a Non-Defaulting Lender; and

(ii) to the extent that any portion (the "unreallocated portion") of the Defaulting Lender's Swing Line Exposure cannot be so reallocated, whether by reason of the proviso in clause (a) above or otherwise, the Company will, not later than five Business Days after demand by the Managing Administrative Agent (at the direction of the Swing Line Lenders) either, at its option, (A) prepay (subject to clause (d) below) in full the unreallocated portion thereof or (B) cash collateralize such Defaulting Lender's Swing Line Exposure (after giving effect to any partial reallocation pursuant to clause (i) above) in accordance with procedures reasonably acceptable to the Managing Administrative Agent and the Swing Line Lenders for so long as such Swing Line Exposure is outstanding, such prepayment and cash collateralization to be applied ratably to the outstanding Swing Line Loans of all of the Swing Line Lenders (and, until such prepayment and cash collateralization shall occur, the facility fees that would otherwise have been payable to such Defaulting Lender but for the last sentence of Section 2.3 and Section 2.21(a) shall instead be paid ratably to the Swing Line Lenders).

(d) any amount paid by any Borrower for the account of a Defaulting Lender under this Agreement (whether on account of principal, interest, fees, indemnity payments or other amounts) will not be paid or distributed to such Defaulting Lender, but will instead be retained by the Managing Administrative Agent in a segregated non-interest bearing account until (subject to Section 2.22) the termination of the Commitments and payment in full of all obligations of the Borrowers hereunder and will be applied by the Managing Administrative Agent, to the fullest extent permitted by law, to the making of payments from time to time in the following order of priority: first to the payment of any amounts owing by such Defaulting Lender to the Managing Administrative Agent under this Agreement, second to the payment of any amounts owing by such Defaulting Lender to the Swing Line Lenders (pro rata as to the respective amounts owing to each of them) under this Agreement, third if so determined by the Managing Administrative Agent or requested by a Swing Line Lender, held in such account as cash collateral for future funding obligations of the Defaulting Lender in respect of any existing or future participating interest in any Swing Line Loan, fourth, to the funding of any Loan in respect of which such

Defaulting Lender has failed to fund its portion thereof as required by this Agreement, as determined by the Managing Administrative Agent, fifth, if so determined by the Managing Administrative Agent and the Company, held in such account as cash collateral for future funding obligations of the Defaulting Lender in respect of any Loans under this Agreement, and sixth after the termination of the Commitments and payment in full of all obligations of the Borrowers hereunder, to pay amounts owing under this Agreement to such Defaulting Lender or as a court of competent jurisdiction may otherwise direct.

(e) so long as any Lender is a Defaulting Lender, no Swing Line Lender shall be required to fund any Swing Line Loan unless it is satisfied that the related exposure of the Defaulting Lender will be 100% covered by the Commitments of the Non-Defaulting Lenders and/or cash collateral will be provided by the Company in accordance with paragraph (c)(ii) of this Section, and participating interests in any such newly made Swing Line Loan shall be allocated among non-Defaulting Lenders in a manner consistent with paragraph (c)(i) and (c)(ii) of this Section.

(f) the Company may (a) terminate the unused amount of the Commitment of a Defaulting Lender upon not less than one (1) Business Day's prior notice to the Managing Administrative Agent (which will promptly notify the Lenders hereof), and in such event the provisions of this Section will apply to all amounts thereafter paid by any Borrower for the account of such Defaulting Lender under this Agreement (whether on account of principal, interest, fees, indemnity or other amounts); provided that such termination will not be deemed to be a waiver or release of any claim any Borrower, the Managing Administrative Agent, any Swing Line Lender or any Lender may have against such Defaulting Lender.

2.22. Defaulting Lender Cure. If the Company, the Managing Administrative Agent and the Swing Line Lenders agree in writing in their discretion that a Lender that is a Defaulting Lender should no longer be deemed to be a Defaulting Lender, the Managing Administrative Agent will so notify the parties hereto, whereupon as of the effective date specified in such notice and subject to any conditions set forth therein (which may include arrangements with respect to any amounts then held in the segregated account referred to in Section 2.21(c), such Lender will, to the extent applicable, purchase at par such portion of outstanding Loans of the other Lenders and/or make such other adjustments as the Managing Administrative Agent may determine to be necessary to cause the total outstanding principal amounts of Revolving Credit Loans and the Swing Line Loans of the Lenders to be on a pro rata basis in accordance with their respective Commitments, whereupon such Lender will cease to be a Defaulting Lender and will be a Non-Defaulting Lender (and such outstanding principal amount of the Revolving Credit Loans of each Lender and the Swing Line Loans will automatically be adjusted on a prospective basis to reflect the foregoing); provided that no adjustments will be made retroactively with respect to fees accrued or payments made by or on behalf of any Borrower while such Lender was a Defaulting Lender; and provided, further, that except to the extent otherwise expressly agreed by the affected parties, no change hereunder from Defaulting Lender to Non-Defaulting Lender will constitute a waiver or release of any claim of any party hereunder arising from such Lender's having been a Defaulting Lender.

2.23. Designation of Subsidiary Borrowers.

(a) Designation of Subsidiary Borrowers. Subject to the terms and conditions of this Section 2.23, the Company may, at any time and from time to time upon not less than 15 Business Days' notice (a "Notice of Proposed Subsidiary Borrower Designation") to the Managing Administrative Agent (or such shorter period which is reasonably acceptable to the Managing Administrative Agent), request that a Subsidiary specified in such notice become a party to this Agreement as a Borrower. Each Notice of Proposed Subsidiary Borrower Designation shall specify the name of such Subsidiary and its jurisdiction of organization, the proposed effective date of such designation and such other information relating thereto reasonably requested by the Managing Administrative Agent. The Managing Administrative Agent

shall upon receipt of a Notice of Proposed Subsidiary Borrower Designation from the Company promptly notify each Lender thereof. Upon the satisfaction of the conditions specified in paragraph (b) of this Section 2.23 (but subject to the paragraph (d) of this Section 2.23), such Subsidiary shall become a party to this Agreement as a Borrower hereunder and shall be entitled to borrow Revolving Credit Loans on and subject to the terms and conditions of this Agreement, and the Managing Administrative Agent shall promptly notify the Lenders of such designation. If the designation of such Subsidiary Borrower obligates the Managing Administrative Agent or any Lender to comply with “know your customer” or other similar checks and identification requirements and procedures under any applicable laws, rules and regulations with respect to such Subsidiary Borrower in circumstances where the necessary information is not already available to it, the Company shall (or shall cause such Subsidiary Borrower to), promptly upon the request of the Managing Administrative Agent or any Lender (through the Managing Administrative Agent), supply such documentation and other evidence as is reasonably requested by the Managing Administrative Agent or any Lender in order for the Managing Administrative Agent or such Lender to comply therewith (but which in no event shall be more onerous, taken as a whole, than the equivalent documents delivered by the Company on the date hereof).

(b) Conditions Precedent to Designation Effectiveness. The designation by the Company of any Subsidiary as a Borrower hereunder shall become effective on the date on which the Managing Administrative Agent shall have received each of the following documents (each of which shall be reasonably satisfactory to the Managing Administrative Agent in form and substance, but which in to event shall be more onerous, taken as a whole, than the equivalent documents delivered by the Company on the date hereof), provided that the Managing Administrative Agent shall not have received a Lender Objection Notice pursuant to this Section that has not been withdrawn by the relevant Lender:

- (i) Subsidiary Borrower Designation. A Subsidiary Borrower Designation, duly completed and executed by the Company and the relevant Subsidiary, delivered to the Managing Administrative Agent;
- (ii) Opinion of Counsel. If requested by the Managing Administrative Agent, a favorable written opinion of external counsel to such Subsidiary Borrower (such counsel to be reasonably satisfactory to the Managing Administrative Agent), as to such matters as the Managing Administrative Agent may request, and the Company and such Subsidiary Borrower hereby instruct such counsel to deliver any such opinion;
- (iii) Corporate Documents. Such documents and certificates as the Managing Administrative Agent may reasonably request (including certified copies of the organizational documents of such Subsidiary and of resolutions of its board of directors authorizing such Subsidiary becoming a Borrower hereunder, and of all documents evidencing all other necessary corporate or other action required with respect to such Subsidiary becoming party to this Agreement); and
- (iv) Other Documents. Receipt of such other documents relating thereto as the Managing Administrative Agent or its counsel may reasonably request (including any information requested by the Managing Administrative Agent or any Lender pursuant to the last sentence of paragraph (a) of this Section 2.23).

(c) Termination of Subsidiary Borrowers. The Company may, at any time, terminate a Subsidiary Borrower as a Borrower hereunder by delivering to the Managing Administrative Agent a written notice thereof (each a “Subsidiary Borrower Termination Notice”), substantially in the form of Exhibit E-2 or any other form approved by the Managing Administrative Agent, such approval not to be unreasonably withheld or delayed. Any Subsidiary Borrower Termination Notice furnished hereunder

shall be effective upon receipt thereof by the Managing Administrative Agent (which shall promptly so notify the Lenders), whereupon all commitments of the Lenders to make Revolving Credit Loans to such Subsidiary hereunder shall terminate and such Subsidiary shall cease to be a Borrower hereunder. If, at the time of any such termination, any Revolving Credit Loans or any other amounts hereunder or under any other Loan Documents are outstanding to the relevant Subsidiary, the Company shall assume all such obligations as primary obligations pursuant to an instrument in form and substance satisfactory to the Managing Administrative Agent, and upon such assumption, such Subsidiary shall be automatically released from such obligations without any further action by any party.

(d) Lender Objection. Any Lender may object to the designation or continuation of a Non-U.S. Subsidiary as a Subsidiary Borrower hereunder by notifying the Company and the Managing Administrative Agent thereof in writing (such Lender, an “Objecting Lender”, and such notice, a “Lender Objection Notice”) in the following circumstances:

(i) with respect to any designation of a Non-U.S. Subsidiary as a Subsidiary Borrower in a jurisdiction other than an Eligible Foreign Jurisdiction, if such Lender may not legally lend to, establish credit for the account of and/or do any business whatsoever with such Non-U.S. Subsidiary because of its jurisdiction of organization or whose internal policies preclude any such lending, establishing credit and/or doing business with respect to such Non-U.S. Subsidiary because of its jurisdiction of organization, and any Lender Objection Notice delivered as a result of the circumstances in this clause (i) shall be delivered as soon as practicable (but in any event not more than five Business Days) following such Lender’s receipt of a Notice of Proposed Subsidiary Borrower Designation with respect to such Non-U.S. Subsidiary, or

(ii) with respect to the designation or continuation of a Non-U.S. Subsidiary as a Subsidiary Borrower in any jurisdiction, if the adoption of or any change in any Requirement of Law or in the interpretation or application thereof or compliance by any Lender with any request or directive (whether or not having the force of law) from any central bank or other Governmental Authority made subsequent to the date hereof shall make it illegal for any Lender to lend to, establish credit for the account of and/or do any business whatsoever with a Non-U.S. Subsidiary organized in such jurisdiction;

provided that (x) any Lender which is relying solely on such internal policies as the basis for providing an such an objection pursuant to clause (i) above may provide a Lender Objection Notice only if such policies are being applied by such Lender to all similarly situated borrowers seeking loans or other extensions of credit from or with respect to doing business in such jurisdiction; (y) prior to the delivery of a Lender Objection Notice, each Lender that may be an Objecting Lender shall use reasonable efforts to designate (or identify) a different lending office for funding or booking its Loans to such Non-U.S. Subsidiary hereunder or to assign (or identify for purposes of assignment of) its rights and obligations hereunder to make its Revolving Credit Loans to such Non-U.S. Subsidiary hereunder to another of its offices, branches or affiliates, if, in the judgment of such Lender, such designation or assignment would eliminate the need for a Lender Objection Notice and, in the sole judgment of such Lender, would not otherwise be disadvantageous to such Lender and would not subject such Lender to any unreimbursed cost or expense; and (z) if, pursuant to clause (y) above, such Lender shall assign its rights and obligations hereunder to make its Revolving Credit Loans to such Non-U.S. Subsidiary hereunder to an Affiliate, such Lender shall, to the extent of Revolving Credit Loans made to such Non-U.S. Subsidiary Borrower, be deemed for all purposes hereof to have pro tanto assigned such Revolving Credit Loans to such Affiliate in compliance with the provisions of Section 9.6 (provided that, at the request of the Managing Administrative Agent, such Lender and such Affiliate shall deliver an Assignment and Acceptance with respect to such deemed assignment).

In the event that the Company and the Managing Administrative Agent receive a Lender Objection Notice with respect to any Non-U.S. Subsidiary that has not been withdrawn by the applicable Objecting Lender, then (A) in the case of a Lender Objection Notice delivered pursuant to clause (i) above, the Company may not deliver a Subsidiary Borrower Designation with respect to such Non-U.S. Subsidiary Borrower pursuant to paragraph (b) of this Section 2.23 (and any such Subsidiary Borrower Designation shall be ineffective) and (B) in the case of a Lender Objection Notice delivered pursuant to clause (ii) above, (1) all commitments of the Lenders to make Revolving Credit Loans to such Subsidiary hereunder shall terminate and such Non-U.S. Subsidiary shall cease to be a Subsidiary Borrower hereunder (and any request by such Non-U.S. Subsidiary to borrow or continue Revolving Credit Loans hereunder shall be ineffective), (2) if, at the time of any such termination, any Revolving Credit Loans or any other amounts hereunder or under any other Loan Documents are outstanding to such Non-U.S. Subsidiary, the Company be deemed to have automatically assumed all such obligations as primary obligations (and, if so requested by the Managing Administrative Agent, the Company shall execute and deliver an instrument of assumption in form and substance satisfactory to the Managing Administrative Agent, whereupon such Subsidiary shall be released from such obligations without any further action by any party) and (3) the Managing Administrative Agent shall promptly notify the Lenders of the delivery of such Lender Designation Notice and such termination.

Subject to the requirements of this Section 2.23 (including the provisions of paragraph (a) hereof and this paragraph (d)), nothing herein shall preclude the Company from submitting thereafter another request for designation of such Non-U.S. Subsidiary as a Subsidiary Borrower hereunder.

(e) Notices. Each Subsidiary of the Company that is or becomes a “Subsidiary Borrower” pursuant to this Section 2.23 hereby irrevocably appoints the Company as its agent for all purposes relevant to this Agreement and each of the other Loan Documents, including (i) the giving and receipt of notices, (ii) the execution and delivery of all documents, instruments and certificates contemplated herein and all modifications hereto, and (iii) the receipt of the proceeds of any Loans made by the Lenders to any such Subsidiary Borrower hereunder. Any acknowledgment, consent, direction, certification or other action which might otherwise be valid or effective only if given or taken by all Borrowers, or by each Borrower acting singly, shall be valid and effective if given or taken only by the Company, whether or not any such other Borrower joins therein.

(f) Liability Several and Not Joint. The Subsidiary Borrowers shall be liable solely for the obligations under the Loan Documents directly incurred by such Subsidiary Borrower and shall not be responsible for the obligations of the Company under the Loan Documents.

SECTION 3. REPRESENTATIONS AND WARRANTIES

To induce the Managing Administrative Agent and the Lenders to enter into this Agreement and to make the Loans, the Company hereby represents and warrants to the Managing Administrative Agent and each Lender, and, to the extent that any Non-U.S. Subsidiary Borrower is a party hereto, such Non-U.S. Subsidiary Borrower represents and warrants (solely as to itself and solely with respect to the representations set forth in Section 3.19) to the Managing Administrative Agent and each Lender that:

3.1 Financial Condition. The consolidated balance sheet of the Company and its consolidated Subsidiaries as at December 31, 2017 and the related consolidated statements of income and of cash flows for the fiscal year ended on such date, reported on by PricewaterhouseCoopers LLP copies of which have heretofore been furnished to each Lender, are complete and correct in all material respects and present fairly the consolidated financial condition of the Company and its consolidated Subsidiaries as at such date, and the consolidated results of their operations and their consolidated cash flows for the fiscal year then ended. All such financial statements have been prepared in accordance with GAAP applied

consistently throughout the periods involved (except as approved by such accountants or Responsible Officer, as the case may be, and as disclosed therein).

3.2 No Change. Since December 31, 2017 there has been no development or event which has had or could reasonably be expected to have a Material Adverse Effect.

3.3 Existence; Compliance with Law. Each of the Company and its Subsidiaries (a) is an entity duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization (provided that no representation is made under this clause (a) with respect to any Subsidiary of the Company (other than any Subsidiary Borrower) if the failure of such Subsidiary to be duly organized, validly existing or in good standing as aforesaid could not reasonably be expected to have a Material Adverse Effect), (b) has the power and authority, and the legal right, to own and operate its property, to lease the property it operates as lessee and to conduct the business in which it is currently engaged, (c) is duly qualified as a foreign entity and in good standing under the laws of each jurisdiction (other than that of its organization) where its ownership, lease or operation of property or the conduct of its business requires such qualification and (d) is in compliance with all Requirements of Law, except in the case of clause (b), (c) or (d) above, to the extent that the failure to have such power, authority and legal right, to qualify as a foreign entity or to be in good standing or to comply with any Requirement of Law could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

3.4 Corporate Power; Authorization; Enforceable Obligations. The Company and each Subsidiary Borrower has the corporate power and authority, and the legal right, to make, deliver, and perform the Loan Documents and to borrow hereunder and has taken all necessary corporate action to authorize the borrowings on the terms and conditions of this Agreement and any Notes and to authorize the execution, delivery and performance of the Loan Documents. No consent or authorization of, filing with, notice to or other act by or in respect of, any Governmental Authority or any other Person is required in connection with the borrowings hereunder or with the execution, delivery, performance, validity or enforceability of the Loan Documents except consents, authorizations, filings or notices that if not obtained or made, could not reasonably be expected to have a Material Adverse Effect. This Agreement has been, and each other Loan Document will be, duly executed and delivered on behalf of the Company and each Subsidiary Borrower. This Agreement constitutes, and each other Loan Document when executed and delivered will constitute, a legal, valid and binding obligation of the Company and each Subsidiary Borrower enforceable against the Company and each Subsidiary Borrower in accordance with its terms, subject to the effects of bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar laws relating to or affecting creditors' rights generally, general equitable principles (whether considered in a proceeding in equity or at law) and an implied covenant of good faith and fair dealing.

3.5 No Legal Bar. The execution, delivery and performance of the Loan Documents to which the Company and each Subsidiary Borrower is a party, the borrowings hereunder and the use of the proceeds thereof will not violate any Requirement of Law or Contractual Obligation of the Company or any Subsidiary Borrower and will not result in, or require, the creation or imposition of any Lien on any of its or their respective properties or revenues pursuant to any such Requirement of Law or Contractual Obligation, except to the extent that such violation or imposition of Liens could not reasonably be expected to have a Material Adverse Effect.

3.6 No Material Litigation. Except as listed on Schedule 3.6 or as disclosed in any public filing made by the Company prior to the date hereof, no litigation, investigation or proceeding of or before any arbitrator or Governmental Authority is pending or, to the knowledge of the Company, threatened by or against the Company or any of its Subsidiaries or against any of its or their respective properties or

revenues (a) with respect to any of the Loan Documents or any of the transactions contemplated hereby or thereby, or (b) which could, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

3.7 No Default. Neither the Company nor any of its Subsidiaries is in default under or with respect to any of its Contractual Obligations in any respect which could, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. No Default or Event of Default has occurred and is continuing.

3.8 Ownership of Property; Liens. Each of the Company and its Subsidiaries has good record and marketable title in fee simple to, or a valid leasehold interest in, all its real property material to the business of the Company and its Subsidiaries, taken as a whole, and good title to, or a valid leasehold interest in, all its other property material to the business of the Company and its Subsidiaries, taken as a whole, and none of such property is subject to any Lien except as permitted by Section 6.2, except in any such case to the extent that it could not reasonably be expected to have a Material Adverse Effect.

3.9 Intellectual Property. The Company and each of its Subsidiaries owns, or is licensed to use, all trademarks, tradenames, copyrights, technology, know-how and processes necessary for the conduct of its business as currently conducted except for those the failure to own or license which could not reasonably be expected to have a Material Adverse Effect (the “Intellectual Property”). No claim has been asserted and is pending by any Person challenging or questioning the use of any such Intellectual Property or the validity or effectiveness of any such Intellectual Property, nor does the Company know of any valid basis for any such claim, except for such claims that, in the aggregate, could not reasonably be expected to have a Material Adverse Effect. The use of such Intellectual Property by the Company and its Subsidiaries does not infringe on the rights of any Person, except for such claims and infringements that, in the aggregate, could not reasonably be expected to have a Material Adverse Effect.

3.10 No Burdensome Restrictions. No Requirement of Law or Contractual Obligation of the Company or any of its Subsidiaries could reasonably be expected to have a Material Adverse Effect.

3.11 Taxes. Each of the Company and its Subsidiaries has filed or caused to be filed all tax returns which, to the knowledge of the Company, are required to be filed and has paid all taxes shown to be due and payable on said returns or on any assessments made against it or any of its property and all other taxes, fees or other charges imposed on it or any of its property by any Governmental Authority, except (a) the amount or validity of which are currently being contested in good faith by appropriate proceedings and with respect to which reserves in conformity with GAAP have been provided on the books of the Company or its Subsidiaries, as the case may be or (b) to the extent that the failure to do so could not reasonably be expected to have a Material Adverse Effect; no tax Lien has been filed, and, to the knowledge of the Company, no claim is being asserted, with respect to any such tax, fee or other charge other than any Lien permitted under Section 6.2(a) or any Lien that could not reasonably be expected to have a Material Adverse Effect.

3.12 Federal Margin Regulations. Neither the Company nor any of its Subsidiaries is engaged principally, or as one of its important activities, in the business of extending credit for the purpose (whether immediate, incidental or ultimate) of buying or carrying Margin Stock. No part of the proceeds of any Loans will be used directly or indirectly for the purpose (whether immediate, incidental or ultimate) of buying or carrying Margin Stock in violation of the regulations of the Board. If requested by any Lender or the Managing Administrative Agent, the Company will furnish to each Lender and the Managing Administrative Agent a statement in conformity with the requirements of Federal Reserve Form FR U-1 or FR G-3, as appropriate, referred to in Regulation U, to demonstrate the compliance of any borrowing hereunder with Regulation U.

3.13 ERISA. Neither a Reportable Event nor an “accumulated funding deficiency” (within the meaning of Section 412 of the Code or Section 302 of ERISA) has occurred during the five-year period prior to the date on which this representation is made or deemed made with respect to any Single Employer Plan that could reasonably be expected to have a Material Adverse Effect, and each Plan has complied with the applicable provisions of ERISA and the Code, except to the extent that the failure to comply could not reasonably be expected to have a Material Adverse Effect. No termination of a Single Employer Plan has occurred (other than via a “standard termination” as defined in Section 4041(b) of ERISA), and no Lien in favor of the PBGC or a Single Employer Plan has arisen, during such five-year period that could reasonably be expected to have a Material Adverse Effect. The excess, if any, of the present value of all accrued benefits under each Single Employer Plan (based on those assumptions used to fund such Single Employer Plans), as of the last annual valuation date prior to the date on which this representation is made or deemed made, over the value of the assets of such Single Employer Plan allocable to such accrued benefits could not reasonably be expected to have a Material Adverse Effect. Neither the Company nor any Commonly Controlled Entity has had a complete or partial withdrawal from any Multiemployer Plan that could reasonably be expected to have a Material Adverse Effect, and neither the Company nor any Commonly Controlled Entity would become subject to any liability under ERISA that could reasonably be expected to have a Material Adverse Effect if the Company or any such Commonly Controlled Entity were to withdraw completely from all Multiemployer Plans as of the valuation date most closely preceding the date on which this representation is made or deemed made. To the best knowledge of the Company, no such Multiemployer Plan is in Reorganization or Insolvent. The excess, if any, of the present value (determined using actuarial and other assumptions which are reasonable in respect of the benefits provided and the employees participating) of the liability of the Company for post retirement benefits to be provided to their current and former employees under Plans which are welfare benefit plans (as defined in Section 3(l) of ERISA) over the assets under all such Plans allocable to such benefits could not reasonably be expected to have a Material Adverse Effect.

3.14 Investment Company Act; Other Regulations. Neither the Company nor any Subsidiary Borrower is an “investment company”, or a company “controlled” by an “investment company”, within the meaning of the Investment Company Act of 1940, as amended. Neither the Company nor any Subsidiary Borrower is subject to regulation under any Federal or State statute or regulation (other than Regulation X of the Board) which limits its ability to incur Indebtedness.

3.15 Material Subsidiaries. As of the Second Restatement Effective Date, Schedule 3.15 lists each Material Subsidiary of the Company (and the direct and indirect ownership interest of the Company therein), in each case existing on September 30, 2018.

3.16 Purpose of Loans. The proceeds of the Loans shall be used by the Company and its Subsidiaries solely for general corporate purposes of the Company and its Subsidiaries.

3.17 Environmental Matters. Except to the extent any of the following could not reasonably be expected to have a Material Adverse Effect:

(a) To the best knowledge of the Company, the facilities and properties owned, leased or operated by the Company or any of its Subsidiaries (the “Properties”) do not contain, and have not previously contained, any Materials of Environmental Concern in amounts or concentrations which (i) constitute or constituted a violation of, or (ii) could reasonably be expected to give rise to liability under, any Environmental Law.

(b) The Properties and all operations at the Properties are in compliance in all material respects with all applicable Environmental Laws, and there is no contamination at, under or about the Properties or violation of any Environmental Law with respect to the Properties or the business operated

by the Company or any of its Subsidiaries (the “Business”) which could materially interfere with the continued operation of the Properties or materially impair the fair saleable value thereof.

(c) Neither the Company nor any of its Subsidiaries has received any notice of violation, alleged violation, non-compliance, liability or potential liability regarding environmental matters or compliance with Environmental Laws with regard to any of the Properties or the Business, nor does the Company have knowledge or reason to believe that any such notice will be received or is being threatened.

(d) No judicial proceeding or governmental or administrative action is pending or, to the knowledge of the Company, threatened, under any Environmental Law to which the Company or any Subsidiary is or will be named as a party with respect to the Properties or the Business, nor are there any consent decrees or other decrees, consent orders, administrative orders or other orders, or other administrative or judicial requirements outstanding under any Environmental Law with respect to the Properties or the Business.

3.18 Anti-Corruption Laws and Sanctions. The Company has implemented and maintains in effect policies and procedures designed to ensure compliance by the Company, its Subsidiaries and their respective directors, officers, employees and agents with Anti-Corruption Laws and applicable Sanctions, and the Company, its Subsidiaries and their respective officers and directors and, to the knowledge of the Company, its employees, affiliates and agents are in compliance with Anti-Corruption Laws and applicable Sanctions in all material respects. None of (a) the Company, any Subsidiary or any of their respective directors or officers, or (b) to the knowledge of the Company, any employee, affiliate or agent of the Company or any Subsidiary that will act in any capacity in connection with or benefit from the credit facility established hereby, is a Sanctioned Person. No borrowing, use of proceeds or other transaction contemplated by this Agreement will violate Anti-Corruption Laws or applicable Sanctions.

3.19 Representations and Warranties of Non-U.S. Subsidiary Borrowers. Each Non-U.S. Subsidiary Borrower severally represents and warrants that:

(a) to ensure the validity, enforceability and admissibility in evidence of this Agreement against such Non-U.S. Subsidiary Borrower, it is not necessary that this Agreement or any other document be filed or recorded with any Governmental Authority other than such filings and recordations that have already been made; and (b) this Agreement is in proper legal form under the law of the Relevant Jurisdiction of such Subsidiary Borrower for the enforcement thereof against such Subsidiary Borrower, subject to the effects of bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar laws relating to or affecting creditor’s rights generally, general equitable principles (whether considered in a proceeding in equity or at law) and an implied covenant of good faith and fair dealing, and all formalities required in the Relevant Jurisdiction of such Subsidiary Borrower for the validity, enforceability and admissibility in evidence of this Agreement have been accomplished, and no notarization is required, for the validity, enforceability and admissibility in evidence thereof, except as has been obtained and is in full force and effect or unless not required to be made until the relevant document is sought to be enforced.

(b) this Agreement and the obligations evidenced hereby are and will at all times be direct and unconditional general obligations of such Subsidiary Borrower, and rank and will at all times rank in right of payment and otherwise at least pari passu with all other unsecured Indebtedness of such Subsidiary Borrower, whether now existing or hereafter outstanding. There exists no Lien (including any Lien arising out of any attachment, judgment or execution), nor any segregation or other preferential arrangement of any kind, on, in or with respect to any of the property or revenues of such Subsidiary Borrower or any of its Subsidiaries, except as expressly permitted by Section 6.2.

(c) such Subsidiary Borrower is subject to civil and commercial law with respect to its obligations under this Agreement. The execution, delivery and performance by such Subsidiary Borrower of this Agreement constitute private and commercial acts rather than public or government acts. Neither such Subsidiary Borrower, nor any of its properties or revenues, is entitled to any right of immunity in any jurisdiction from suit, court jurisdiction, judgment, attachment (whether before or after judgment), setoff or execution of a judgment or from any other legal process or remedy relating to the obligations of such Subsidiary Borrower under this Agreement.

3.20 Beneficial Ownership Certification. If applicable, as of the date hereof, the information included in any Beneficial Ownership Certification required to be provided is true and correct in all material respects.

SECTION 4. CONDITIONS PRECEDENT

4.1 Conditions to Initial Loan. The amendment and restatement of the Existing Credit Agreement and the agreement of each Lender to make the initial Loan requested to be made by it is subject to the satisfaction of the following conditions precedent (or until such conditions are waived pursuant to Section 9.1):

(a) Loan Documents. The Managing Administrative Agent shall have received (i) this Agreement, executed and delivered by a duly authorized officer of the Company and (ii) for the account of any Swing Line Lender that requested a Swing Line Note, such Swing Line Note, conforming to the requirements hereof and for the account of any Lender that requested a Revolving Credit Note, such Revolving Credit Note, conforming to the requirements hereof, each executed by a duly authorized officer of the Company.

(b) Closing Certificate. The Managing Administrative Agent shall have received, with a copy for each Lender, a closing certificate of the Company, dated the Second Restatement Effective Date, substantially in the form of Exhibit C, with appropriate insertions and attachments, satisfactory in form and substance to the Managing Administrative Agent, executed by the President or his designee or any Vice President or Treasurer or Assistant Treasurer and the Secretary or any Assistant Secretary of the Company.

(c) Corporate Proceedings. The Managing Administrative Agent shall have received a copy of the resolutions, in form and substance reasonably satisfactory to the Managing Administrative Agent, of the Board of Directors of the Company authorizing (i) the execution, delivery and performance by the Company of this Agreement and the other Loan Documents and (ii) the making of the borrowings and the uses of the proceeds contemplated hereunder certified by its Secretary or an Assistant Secretary as of the Second Restatement Effective Date, which certificate shall be in form and substance satisfactory to the Managing Administrative Agent and shall state that the resolutions thereby certified have not been amended, modified, revoked or rescinded.

(d) Incumbency Certificate. The Managing Administrative Agent shall have received a certificate of the Company, dated the Second Restatement Effective Date, as to the incumbency and signature of its officers executing any Loan Document, satisfactory in form and substance to the Managing Administrative Agent, executed by its President or any Vice President and its Secretary or any Assistant Secretary.

(e) Corporate Documents. The Managing Administrative Agent shall have received true and complete copies of the certificate of incorporation and by-laws of the Company, certified as of the

Second Restatement Effective Date as complete and correct copies thereof by the Secretary or an Assistant Secretary of the Company.

(f) Fees. The Managing Administrative Agent shall have received the fees to be received on the Second Restatement Effective Date.

(g) Legal Opinions. The Managing Administrative Agent shall have received (i) the executed legal opinion of Timothy Murphy, General Counsel of the Company, substantially in the form of Exhibit F-1, and (ii) the executed legal opinion of Milbank, Tweed, Hadley & McCloy LLP, special New York counsel to the Managing Administrative Agent, substantially in the form of Exhibit F-2, each dated the Second Restatement Effective Date and covering such other matters incident to the transactions contemplated by this Agreement as the Managing Administrative Agent may reasonably require.

(h) Existing Credit Agreement. Any outstanding principal, accrued interest, accrued facility fees and other amounts owing under the Existing Credit Agreement shall have been paid in full as of the Second Restatement Effective Date. The Existing Lenders hereby waive any requirement to deliver prior notice of any prepayment or termination of existing commitments under the Existing Credit Agreement.

(i) Beneficial Ownership Certification. Each Lender that has reasonably requested a certification regarding beneficial ownership in relation to the Company and each Subsidiary Borrower, in each case, as required by the Beneficial Ownership Regulation (a “Beneficial Ownership Certification”) shall have received such Beneficial Ownership Certification; provided, for the avoidance of doubt, a Beneficial Ownership Certification shall not be required for an entity that is not a Legal Entity Customer.

(j) Other. The Managing Administrative Agent shall have received such other documents in connection with this Agreement as the Managing Administrative Agent may reasonably request.

4.2 Conditions to Each Loan. The agreement of each Lender to make any Loan requested to be made by it on any date (including, without limitation, its initial Loan, but except as otherwise provided in Section 2.13(c)) is subject to the satisfaction of the following conditions precedent:

(a) Representations and Warranties. Each of the representations and warranties made by the Company and (if such borrowing is being made by a Subsidiary Borrower) such Subsidiary Borrower (to the extent applicable under Section 3) pursuant to Section 3 of this Agreement (excluding the representations and warranties made by the Company in Sections 3.2 and 3.6) shall be true and correct in all material respects (except that such representations and warranties that are qualified as to materiality, “Material Adverse Effect” or similar language shall be true and correct in all respects) on and as of such date as if made on and as of such date (immediately before and immediately after giving effect to such Loan and to the application of the proceeds therefrom) except for representations and warranties expressly stated to relate to a specific earlier date, in which case such representations and warranties were true and correct as of such earlier date.

(b) No Default. No Default or Event of Default shall have occurred and be continuing on such date or after giving effect to the Loans requested to be made on such date.

Each borrowing by any Borrower hereunder shall constitute a representation and warranty by the Company as of the date thereof that the conditions contained in this Section have been satisfied.

SECTION 5. AFFIRMATIVE COVENANTS

The Company hereby agrees that, so long as the Commitments remain in effect or any amount is owing to any Lender or the Managing Administrative Agent hereunder or under any other Loan Document (other than contingent indemnification and expense reimbursement obligations not due and payable), the Company shall and (except in the case of delivery of financial information, reports and notices) shall cause each of its Subsidiaries to:

5.1 Financial Statements. Furnish to each Lender:

(a) as soon as available, but in any event within 120 days after the end of each fiscal year of the Company, a copy of the consolidated balance sheet of the Company and its consolidated Subsidiaries as at the end of such year and the related consolidated statements of income and retained earnings and of cash flows for such year, setting forth in each case in comparative form the figures for the previous year, reported on without a “going concern” or like qualification or exception, or qualification arising out of the scope of the audit, by PricewaterhouseCoopers LLP or other independent certified public accountants of nationally recognized standing; and

(b) as soon as available, but in any event not later than 60 days after the end of each of the first three quarterly periods of each fiscal year of the Company, the unaudited consolidated balance sheet of the Company and its consolidated Subsidiaries as at the end of such quarter and the related unaudited consolidated statements of income and retained earnings of such quarter and of cash flows of the Company and its consolidated Subsidiaries for the portion of the fiscal year through the end of such quarter, setting forth in each case in comparative form the figures for the previous year or, in the case of such consolidated balance sheet, for the last day of the prior fiscal year, certified by a Responsible Officer as being fairly stated in all material respects (subject to normal year-end audit adjustments);

all such financial statements shall be complete and correct in all material respects and shall be prepared in reasonable detail and in accordance with GAAP applied consistently throughout the periods reflected therein and with prior periods (except as approved by such accountants or officer, as the case may be, and disclosed therein). Information required to be delivered pursuant to this Section 5.1 shall be deemed to have been delivered to the Lenders on the date on which the Company provides written notice to the Managing Administrative Agent that such information has been posted on the Company’s website on the Internet at <http://www.mastercard.com> or in an internet or intranet website to which each Lender has access or is available on the website of the Securities and Exchange Commission or any successor at <http://www.sec.gov> (to the extent such information has been posted or is available as described in such notice).

5.2 Certificates; Other Information. Furnish to the Managing Administrative Agent:

(a) concurrently with the delivery of the financial statements referred to in subsections 5.1(a) and (b), a certificate of a Responsible Officer, substantially in the form of Exhibit I, stating that, to the best of such Responsible Officer’s knowledge, during such period the Company has observed or performed all of its covenants and other agreements, and satisfied every condition, contained in this Agreement and the other Loan Documents to be observed, performed or satisfied by it, and that such Responsible Officer has obtained no knowledge of any Default or Event of Default except as specified in such certificate;

(b) within five days after the same are filed, copies of all financial statements and reports which the Company files with the Securities and Exchange Commission or any successor Governmental Authority; provided that any such financial statement or report shall be deemed to have been delivered on

the date that the Company notifies the Managing Administrative Agent that such financial statement or report is available on “EDGAR”, the Electronic Data Gathering, Analysis and Retrieval system of the Securities and Exchange Commission, or at <http://www.sec.gov/edgar.shtml> or at another relevant website identified to the Lenders and accessible to such Lenders;

(c) promptly, such additional financial and other information (including, for the avoidance of doubt, information related to the Beneficial Ownership Regulation) (other than any non-public information (except to the extent such non-public information is reasonably required to comply with ongoing obligations under applicable Anti-Corruption Laws) or materials pertaining to the Company’s proprietary new products, systems or services, proprietary marketing programs, strategies or plans, or any member specific billing, contractual or other arrangements) as the Managing Administrative Agent or any Lender through the Managing Administrative Agent may from time to time reasonably request.

Notwithstanding the foregoing, the Company will not be required to provide any information to the extent that the provision thereof would violate or constitute a waiver of any attorney-client privilege or violate any law, rule or regulation, or any obligation of confidentiality binding the Company or any of its Affiliates; provided that the Company shall (i) provide prompt notice to the Managing Administrative Agent that it intends to withhold such information on the basis that providing such information would violate or constitute a waiver of attorney-client privilege or violate a law, rule or regulation, or an obligation of confidentiality binding the Company or any of its Affiliates and (ii) use commercially reasonable efforts to communicate to the Managing Administrative Agent, to the extent permitted, the applicable information in a way that would not violate such restrictions.

5.3 Payment of Obligations . Pay, discharge or otherwise satisfy at or before maturity or before they become delinquent, as the case may be, all its obligations of whatever nature, except (i) where the amount or validity thereof is currently being contested in good faith by appropriate proceedings and reserves in conformity with GAAP with respect thereto have been provided on the books of the Company or its Subsidiaries, as the case may be or (ii) to the extent that failure to comply therewith could not, in the aggregate, be reasonably expected to have a Material Adverse Effect.

5.4 Conduct of Business and Maintenance of Existence . (a) Continue to engage in business of the same general type as now conducted by it; (b) preserve, renew and keep in full force and effect its existence and take all reasonable action to maintain all rights, privileges and franchises necessary or desirable in the normal conduct of its business except as otherwise permitted pursuant to Section 6.3 unless the failure to do so could not reasonably be expected to have a Material Adverse Effect; and (c) comply with all Contractual Obligations and Requirements of Law except to the extent that failure to comply therewith could not, in the aggregate, be reasonably expected to have a Material Adverse Effect.

5.5 Maintenance of Property; Insurance . Keep all property material to the business of the Company and its Subsidiaries taken as a whole in good working order and condition ordinary wear and tear excepted; maintain with financially sound and reputable insurance companies or through a self-insurance program deemed reasonable by the Company insurance on all its property in at least such amounts and against at least such risks as are, to the Company’s knowledge, usually insured against in the same general area by companies engaged in the same or a similar business.

5.6 Inspection of Property; Books and Records; Discussions . Keep proper books of records and account in which full, true and correct entries in conformity with GAAP (or such other commonly accepted accounting practice which has been previously disclosed to the Managing Administrative Agent) shall be made of all dealings and transactions in relation to its business and activities; and permit representatives of any Lender (coordinated through the Managing Administrative Agent) to visit and inspect any of its properties and examine and make abstracts from any of its books and records (other than

any non-public information or materials pertaining to (i) its proprietary new products, systems or services, (ii) its proprietary marketing programs, strategies or plans, or (iii) any member specific billing, contractual or other arrangements) and to discuss the business, operations, properties and financial and other condition of the Company and its Subsidiaries with officers and employees of the Company and its Subsidiaries and with its independent certified public accountants, in each case during regular business hours upon reasonable advance notice and at any reasonable time but not more than once per fiscal year; provided that if a Default or Event of Default shall have occurred and be continuing, such visits and inspections (coordinated through the Managing Administrative Agent) may be conducted at any time upon reasonable notice.

5.7 Notices. Promptly give notice to the Managing Administrative Agent for distribution to the Lenders of:

(a) the occurrence of any Default or Event of Default;

(b) if the Company ceases to be a public reporting company under the Securities Exchange Act of 1934, as amended, any (i) default or event of default under any Contractual Obligation of the Company or any of its Subsidiaries or (ii) litigation, investigation or proceeding which may exist at any time between the Company or any of its Subsidiaries and any Governmental Authority, which in either case, could reasonably be expected to have a Material Adverse Effect;

(c) if the Company ceases to be a public reporting company under the Securities Exchange Act of 1934, as amended, any litigation or proceeding affecting the Company or any of its Subsidiaries as to which the Company determines that there is a reasonable probability of an adverse judgment and in which the amount involved is \$50,000,000 or more and not covered by insurance or in which injunctive or similar relief is sought;

(d) the following events, as soon as possible and in any event within 30 days after the Company knows or has reason to know thereof: (i) the occurrence of any Reportable Event with respect to any Single Employer Plan, a failure to make any required contribution to any “pension plan” (as defined in Section 3(2) of ERISA), the creation of any Lien in favor of the PBGC or a Single Employer Plan, in each case that could reasonably be expected to result in a liability or Lien in excess of \$10,000,000 or (ii) the institution of proceedings or the taking of any other action by the PBGC or the Company or any Commonly Controlled Entity or any Multiemployer Plan with respect to the withdrawal from, or the terminating, Reorganization or Insolvency of, any Multiemployer Plan, except where the termination, Reorganization or Insolvency of any Multiemployer Plan could not reasonably be expected to result in a liability in excess of \$10,000,000;

(e) any material adverse change in the business, operations, property or financial condition of the Company and its Subsidiaries taken as a whole; and

(f) any change in the current last day of the fiscal quarter or the fiscal year of the Company, prior to giving effect to any such change.

Each notice pursuant to this Section shall be accompanied by a statement of a Responsible Officer setting forth details of the occurrence referred to therein (other than under paragraph (f)) and stating what action the Company proposes to take with respect thereto. Notices and other communications to the Lenders required pursuant to paragraphs (b), (c), (d), (e) and (f) of this Section 5.7 may be delivered or furnished by electronic communications (including e-mail and Internet or intranet websites) pursuant to procedures approved by the Managing Administrative Agent.

5.8 Environmental Laws. (a) Comply with, and ensure compliance by all tenants and subtenants, if any, with, all applicable Environmental Laws and obtain and comply in all material respects with and maintain, and ensure that all tenants and subtenants obtain and comply in all material respects with and maintain, any and all licenses, approvals, notifications, registrations or permits required by applicable Environmental Laws except to the extent that failure to do so could not be reasonably expected to have a Material Adverse Effect.

(b) Conduct and complete all investigations, studies, sampling and testing, and all remedial, removal and other actions required under Environmental Laws and promptly comply in all material respects with all lawful orders and directives of all Governmental Authorities regarding Environmental Laws except to the extent that the failure to do so could not reasonably be expected to have a Material Adverse Effect.

5.9 Compliance with Anti-Corruption Laws and Sanctions. Maintain in effect and enforce policies and procedures designed to ensure compliance by the Company, its Subsidiaries and their respective directors, officers, employees and agents with Anti-Corruption Laws and applicable Sanctions.

SECTION 6. NEGATIVE COVENANTS

The Company hereby agrees that, so long as the Commitments remain in effect or any amount is owing to any Lender or the Managing Administrative Agent hereunder or under any other Loan Document (other than contingent indemnification and expense reimbursement obligations not due and payable), the Company shall not and shall not permit any of its Subsidiaries to, directly or indirectly:

6.1 Consolidated Leverage Ratio. Permit the Consolidated Leverage Ratio to be greater than 3.75 to 1.00 on the last day of any fiscal quarter of the Company; provided that if the Company consummates one or more acquisitions permitted hereunder for which the aggregate consideration paid in the preceding four fiscal quarters exceeds \$300,000,000, a Consolidated Leverage Ratio of 4.25:1.00 (the "Leverage Ratio Step-Up") shall apply and continue for the fiscal quarter in which the Leverage Ratio Step-Up occurs and the two immediately succeeding fiscal quarters (the "Step-Up Period"). Following any Step-Up Period, there shall be at least two fiscal quarters during which the Leverage Ratio Step-Up shall not apply.

6.2 Limitation on Liens. Create, incur, assume or suffer to exist any Lien upon any of its property, assets or revenues, whether now owned or hereafter acquired, except for:

(a) Liens for taxes and other governmental charges not yet due or which are being contested in good faith by appropriate proceedings, provided that adequate reserves with respect thereto are maintained on the books of the Company or its Subsidiaries, as the case may be, in conformity with GAAP;

(b) carriers', warehousemen's, mechanics', materialmen's, repairmen's, landlord's or other like Liens arising in the ordinary course of business which are not overdue for a period of more than 60 days or which are being contested in good faith by appropriate proceedings;

(c) pledges, deposits or similar liens in connection with workers' compensation, unemployment insurance and other social security legislation or regulation and deposits securing liability to insurance carriers under insurance or self-insurance arrangements;

(d) (A) deposits to secure the performance of bids, trade contracts (other than for borrowed money), leases or subleases, statutory obligations, utilities, surety and appeal bonds, performance bonds and other obligations of a like nature incurred in the ordinary course of business and (B) deposits and

Liens on financial assets in each case to secure swaps or other derivatives or other funding management transactions, entered into by the Company or any of its Subsidiaries to hedge against risks or for funding management purposes, in each case arising in the ordinary course of business and on commercially reasonable terms negotiated on an arms-length basis in connection with transactions not prohibited under this Agreement (and not entered into for speculative purposes);

(e) easements, rights-of-way, restrictions and other similar encumbrances which, in the aggregate, do not in any case materially detract from the value of the property subject thereto or materially interfere with the ordinary conduct of the business of the Company and its Subsidiaries taken as a whole;

(f) Liens in existence on the date hereof listed on Schedule 6.2(f), provided that no such Lien is spread to cover any additional property after the Second Restatement Effective Date and that the amount of Indebtedness secured thereby is not increased;

(g) Liens securing Indebtedness of the Company and its Subsidiaries incurred to finance the acquisition of fixed or capital assets (or any refinancing thereof that does not increase the amount of such Indebtedness outstanding at the time of such refinancing plus fees and expenses incurred in connection with such refinancing), provided that (i) such Liens shall be created at or not later than 180 days after the acquisition of such fixed or capital assets and (ii) such Liens do not at any time encumber any property other than the property financed by such Indebtedness;

(h) bankers' liens or other liens of financial institutions, in each case arising by operation of law in the ordinary course of business;

(i) Liens on the property or assets of a Person which becomes a Subsidiary on or after the date hereof securing Indebtedness of such Person or liens on any property or assets acquired after the Second Restatement Effective Date, provided that (i) such Liens existed at the time such Person became a Subsidiary or at the time of such acquisition, as the case may be (the "relevant time"), and were not created in anticipation thereof and (ii) any such Lien is not spread to cover any additional property or assets after the relevant time, other than proceeds of such property or assets to the extent such proceeds were covered by the grant of security in existence at the relevant time and such grant was not created in anticipation thereof;

(j) (A) Liens arising out of judgments or awards (x) which are stayed or bonded pending appeal or (y) with respect to which an appeal or a proceeding for review is being prosecuted in good faith and adequate reserves have been provided for the payment of such judgment or award and (B) Liens constituting escrow deposits or similar deposit arrangements (including, without limitation, a "Qualified Settlement Fund" within the meaning of Treasury Regulation § 1.468B-1 and any analogous local, state, and/or foreign statute, law, regulation, or rule) with respect to the payment of settlements that are not yet final or that remain subject to appeal;

(k) Liens in favor of the Company which secure the obligation of any Subsidiary to the Company;

(l) Liens attaching to deposits in connection with any letter of intent, purchase agreement or similar agreement in connection with acquisitions;

(m) any interest or title of a lessor or lessee under any lease entered in the ordinary course of business and covering only the assets so leased, to the extent that the same would constitute a Lien;

(n) Liens (not otherwise permitted hereunder) which secure obligations not exceeding (as to the Company and all Subsidiaries) in aggregate an amount equal to the greater of: (x) \$600,000,000

and (y) 4.0% of consolidated total assets of the Company and its Subsidiaries as of the end of the fiscal quarter for which financial statements have been delivered pursuant to Section 5.1 most recently prior to the time the latest such Lien is incurred.

For purposes of determining compliance with this Section 6.2, the amount of obligations secured by Liens denominated in any currency other than Dollars shall be calculated based on customary currency exchange rates in effect on the latest date that obligations secured by such Liens were incurred.

6.3 Limitation on Fundamental Changes. Enter into any merger, consolidation or amalgamation, or liquidate, wind up or dissolve itself (or suffer any liquidation or dissolution), or convey, sell, lease, assign, transfer or otherwise dispose of, all or substantially all of its property, business or assets, except:

(a) if no Default or Event of Default shall have occurred and be continuing or would result therefrom, including without limitation under Section 7(i), the Company may be merged or consolidated with or into any other Person subject to the satisfaction of the following conditions: (i) the Company shall be the continuing or surviving corporation or (ii) (x) the survivor shall be organized under the laws of a state in the United States and shall assume the Company's obligations under this Agreement and the other Loan Documents under an agreement in form and substance reasonably satisfactory to the Managing Administrative Agent, (y) at the request of any Lender, the survivor shall furnish to the Lenders all information necessary for them to comply with the Act (as defined in Section 9.19) and (z) if the Managing Administrative Agent so requests, it shall receive a legal opinion from outside counsel to the survivor reasonably satisfactory to the Managing Administrative Agent;

(b) if no Default or Event of Default shall have occurred and be continuing or would result therefrom, a Subsidiary Borrower may be merged or consolidated with or into any other Person subject to the satisfaction of the following conditions: (i) such Subsidiary Borrower shall be the continuing or surviving corporation or (ii) (x) the survivor shall be organized under the laws of the same jurisdiction as the jurisdiction of organization of such Subsidiary Borrower or under the laws of a state in the United States and shall assume such Subsidiary Borrower's obligations under this Agreement and the other Loan Documents under an agreement in form and substance reasonably satisfactory to the Managing Administrative Agent, (y) at the request of any Lender, the survivor shall furnish to the Lenders all information necessary for them to comply with the Act (as defined in Section 9.19) and (z) if the Managing Administrative Agent so requests, it shall receive a legal opinion from outside counsel to the survivor reasonably satisfactory to the Managing Administrative Agent;

(c) (i) any Subsidiary (other than a Subsidiary Borrower) may sell, lease, transfer or dispose of any or all of its assets (upon voluntary liquidation, winding up, dissolution or otherwise) to a wholly owned Subsidiary or the Company, and (ii) any Subsidiary Borrower may sell, lease or dispose of any or all of its assets (upon voluntary liquidation, winding up, dissolution or otherwise) to another Subsidiary Borrower or the Company; and

(d) as permitted by Section 6.4 (including by way of merger, voluntary liquidation, winding up, dissolution or otherwise).

6.4 Limitation on Transfer or Disposition of Assets. Convey, sell, lease, assign, transfer or otherwise dispose of any of its property, business or assets (including, without limitation, receivables and leasehold interests), whether now owned or hereafter acquired, or, in the case of any Subsidiary, issue or sell any shares of such Subsidiary's Capital Stock to any Person other than the Company or any wholly-owned Subsidiary, except:

(a) the sale or other disposition of obsolete or worn out property in the ordinary course of business;

(b) the sale of cash and cash equivalents and similar investments in the ordinary course of business in connection with cash management activities or the use of proceeds thereof;

(c) the sale or other disposition of any property (including the issuance of shares of any Subsidiary's Capital Stock); provided that the aggregate book value of all assets so sold or disposed of pursuant to this clause (c) in any period of twelve consecutive months shall not exceed an amount equal to 25% of consolidated total assets of the Company and its Subsidiaries as at the beginning of such twelve-month period;

(d) the sale or disposition of any real property (including, for the avoidance of doubt, by way of Sale Leaseback);

(e) the sale of inventory in the ordinary course of business;

(f) the sale or discount without recourse of accounts receivable arising in the ordinary course of business in connection with the compromise or collection thereof; and

(g) as permitted by subsection 6.3 (a) or (b).

6.5 Limitation on Transactions with Affiliates. Enter into any transaction, including, without limitation, any purchase, sale, lease or exchange of property or the rendering of any service, with any Affiliate (other than any transaction permitted by the terms of this Agreement and any transaction between the Company and its consolidated Subsidiaries) unless such transaction is upon fair and reasonable terms.

6.6 Limitation on Violation of Anti-Corruption Laws and Sanctions. Request any borrowing, or use, or permit its Subsidiaries and its or their respective directors, officers, employees and agents to use the proceeds of any Loan (a) in furtherance of an offer, payment, promise to pay, or authorization of the payment or giving of money, or anything else of value, to any Person in violation of any Anti-Corruption Laws, (b) for the purpose of funding, financing or facilitating any activities, business or transaction of or with, or for the benefit of, any Sanctioned Person, or in any Sanctioned Country, or (c) in any manner that would result in the violation of any Sanctions by any party hereto.

SECTION 7. EVENTS OF DEFAULT

If any of the following events shall occur and be continuing:

(a) Any Borrower shall fail to pay any principal of any Loan when due in accordance with the terms hereof; or any Borrower shall fail to pay any interest on any Loan, or any other amount payable hereunder (other than principal), within five days after any such interest or other amount becomes due in accordance with the terms hereof; or

(b) Any representation or warranty made or deemed made by the Company or (to the extent applicable) any Subsidiary Borrower herein or in any other Loan Document or which is contained in any certificate furnished by it at any time under or in connection with this Agreement shall prove to have been incorrect in any material respect (or, in the case of any such representation and warranty that is qualified as to materiality, in any respect) on or as of the date made or deemed made; or

(c) The Company shall default in the observance or performance of any agreement contained in Section 5.7(a) or Section 6; or

(d) the Company or any Subsidiary Borrower shall default in the observance or performance of any other term, covenant or agreement contained in this Agreement (other than as provided in paragraphs (a) through (c) of this Section), and such default shall continue unremedied for a period of 30 days after notice to the Company by the Managing Administrative Agent or the Required Lenders; or

(e) The Company or any of its Subsidiaries shall (i) default in any payment of principal of or interest on any Indebtedness (other than the Loans) in excess of \$300,000,000 in the aggregate, beyond the period of grace (not to exceed 30 days), if any, provided in the instrument or agreement under which such Indebtedness was created, or (ii) fail to observe or perform any other agreement or condition relating to any such Indebtedness or contained in any instrument or agreement evidencing, securing or relating thereto, or any other event shall occur or condition exist, the effect of which failure or other event or condition is to cause such Indebtedness to become due prior to its stated maturity, provided that this paragraph (e) shall not apply to Indebtedness that becomes due, or under which a default occurs, as a result of the voluntary sale or transfer of property or assets if such sale or transfer is permitted hereunder and such Indebtedness is paid by the relevant obligor; or

(f) (i) The Company or any of its Material Subsidiaries shall commence any case, proceeding or other action (A) under any existing or future law of any jurisdiction, domestic or foreign, relating to bankruptcy, insolvency, reorganization or relief of debtors, seeking to have an order for relief entered with respect to it, or seeking to adjudicate it as bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, winding-up, liquidation, dissolution, composition or other relief with respect to it or its debts, or (B) seeking appointment of a receiver, trustee, custodian, conservator or other similar official for it or for all or any substantial part of its assets, or the Company or any of its Material Subsidiaries shall make a general assignment for the benefit of its creditors; or (ii) there shall be commenced against the Company or any of its Material Subsidiaries any case, proceeding or other action of a nature referred to in clause (i) above which (A) results in the entry of an order for relief or any such adjudication or appointment or (B) remains undismissed, undischarged or unbonded for a period of 90 days; or (iii) there shall be commenced against the Company or any of its Material Subsidiaries any case, proceeding or other action seeking issuance of a warrant of attachment, execution, distraint or similar process against all or any substantial part of its assets which results in the entry of an order for any such relief which shall not have been vacated, discharged, or stayed or bonded pending appeal within 60 days from the entry thereof; or (iv) the Company or any of its Material Subsidiaries shall take any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any of the acts set forth in clause (i), (ii), or (iii) above; or (v) the Company or any of its Material Subsidiaries shall generally not, or shall be unable to, or shall admit in writing its inability to, pay its debts as they become due; or

(g) (i) Any Person shall engage in any “prohibited transaction” (as defined in Section 406 of ERISA or Section 4975 of the Code) involving any Single Employer Plan, (ii) any “accumulated funding deficiency” (as defined in Section 302 of ERISA), whether or not waived, shall exist with respect to any Single Employer Plan or any Lien in favor of the PBGC or a Single Employer Plan shall arise on the assets of the Company, (iii) a Reportable Event shall occur with respect to, or proceedings shall commence to have a trustee appointed, or a trustee shall be appointed, to administer or to terminate, any Single Employer Plan, which Reportable Event or commencement of proceedings or appointment of a trustee is likely to result in the termination of such Plan for purposes of Title IV of ERISA, (iv) any Single Employer Plan shall terminate for purposes of Title IV of ERISA or (v) the Company or any Commonly Controlled Entity shall incur any liability in connection with a withdrawal from, or the Insolvency or Reorganization of, a Multiemployer Plan; and in each case in clauses (i) through (v) above, such event or

condition, together with all other such events or conditions, if any, could reasonably be expected to have a Material Adverse Effect; or

(h) One or more judgments or decrees shall be entered against the Company or any of its Subsidiaries involving a liability (to the extent not paid or fully covered by insurance) of \$300,000,000 or more in the aggregate for all such judgments and decrees, and all such judgments or decrees shall not have been vacated, discharged, satisfied, stayed or bonded pending appeal within 90 days from the entry thereof; or

(i) Any Person or “group” (within the meaning of Section 13(d) or 14(d) of the Securities Exchange Act of 1934, as amended) (i) shall have acquired beneficial ownership of Capital Stock representing 35% or more of the aggregate ordinary voting power in the election of directors of the Company or (ii) shall obtain the power (whether or not exercised) to elect a majority of the Company’s directors; or the Company shall cease to own, beneficially and of record, the sole Class B membership interest in International or shall cease to have power to elect a majority of International’s directors; or

(j) the Guarantee of the Company under Section 10 shall cease to be in full force and effect at any time, or the validity or enforceability thereof shall be contested by the Company or any Subsidiary Borrower at any time;

then, and in any such event, (A) if such event is an Event of Default specified in clause (i) or (ii) of paragraph (f) of this Section with respect to the Company or any Subsidiary Borrower, automatically the Commitments shall immediately terminate and the Loans hereunder (with accrued interest thereon) and all other amounts owing under this Agreement and the Notes shall immediately become due and payable, and (B) if such event is any other Event of Default, either or both of the following actions may be taken: (i) with the consent of the Required Lenders, the Managing Administrative Agent may, or upon the request of the Required Lenders, the Managing Administrative Agent shall, by notice to the Company declare the Commitments to be terminated forthwith, whereupon the Commitments shall immediately terminate; and (ii) with the consent of the Required Lenders, the Managing Administrative Agent may, or upon the request of the Required Lenders, the Managing Administrative Agent shall, by notice to the Company, declare the Loans hereunder (with accrued interest thereon) and all other amounts owing under this Agreement and the Notes to be due and payable forthwith, whereupon the same shall immediately become due and payable. Except as expressly provided above in this Section, presentment, demand, protest and all other notices of any kind are hereby expressly waived.

SECTION 8. THE MANAGING ADMINISTRATIVE AGENT

8.1 Appointment. Each Lender hereby irrevocably designates and appoints the Managing Administrative Agent as the agent of such Lender under this Agreement and the other Loan Documents, and each such Lender irrevocably authorizes the Managing Administrative Agent, in such capacity, to take such action on its behalf under the provisions of this Agreement and the other Loan Documents and to exercise such powers and perform such duties as are expressly delegated to the Managing Administrative Agent by the terms of this Agreement and the other Loan Documents, together with such other powers as are reasonably incidental thereto. Notwithstanding any provision to the contrary elsewhere in this Agreement, the Managing Administrative Agent shall not have any duties or responsibilities, except those expressly set forth herein, or any fiduciary relationship with any Lender, and no implied covenants, functions, responsibilities, duties, obligations or liabilities shall be read into this Agreement or any other Loan Document or otherwise exist against the Managing Administrative Agent.

8.2 Delegation of Duties. The Managing Administrative Agent may execute any of its duties under this Agreement and the other Loan Documents by or through agents or attorneys-in-fact and shall be

entitled to advice of counsel concerning all matters pertaining to such duties. The Managing Administrative Agent shall not be responsible for the negligence or misconduct of any agents or attorneys-in-fact selected by it with reasonable care.

8.3 Exculpatory Provisions. Neither the Managing Administrative Agent nor any of its officers, directors, employees, agents, attorneys-in-fact or Affiliates shall be (i) liable for any action lawfully taken or omitted to be taken by it or such Person under or in connection with this Agreement or any other Loan Document (except for its or such Person's own gross negligence, bad faith or willful misconduct) or (ii) responsible in any manner to any of the Lenders for any recitals, statements, representations or warranties made by the Company or any Subsidiary Borrower or any officer thereof contained in this Agreement or any other Loan Document or in any certificate, report, statement or other document referred to or provided for in, or received by the Managing Administrative Agent under or in connection with, this Agreement or any other Loan Document or for the value, validity, effectiveness, genuineness, enforceability or sufficiency of this Agreement or any other Loan Document or for any failure of any Borrower to perform its obligations hereunder or thereunder. The Managing Administrative Agent shall not be under any obligation to any Lender to ascertain or to inquire as to the observance or performance of any of the agreements contained in, or conditions of, this Agreement or any other Loan Document, or to inspect the properties, books or records of the Company or any of its Subsidiaries.

8.4 Reliance by Managing Administrative Agent. The Managing Administrative Agent shall be entitled to rely, and shall be fully protected in relying, upon any Note, writing, resolution, notice, consent, certificate, affidavit, letter, teletype message, statement, order or other document or conversation believed by it to be genuine and correct and to have been signed, sent or made by the proper Person or Persons and upon advice and statements of legal counsel (including, without limitation, counsel to the Company or any Subsidiary Borrower), independent accountants and other experts selected by the Managing Administrative Agent. The Managing Administrative Agent may deem and treat the payee of any Note as the owner thereof for all purposes unless a written notice of assignment, negotiation or transfer thereof shall have been filed with the Managing Administrative Agent. The Managing Administrative Agent shall be fully justified in failing or refusing to take any action under this Agreement or any other Loan Document unless it shall first receive such advice or concurrence of the Required Lenders (or such other Lenders as may be required hereunder) as it deems appropriate or it shall first be indemnified to its satisfaction by the Lenders against any and all liability and expense which may be incurred by it by reason of taking or continuing to take any such action. The Managing Administrative Agent shall in all cases be fully protected in acting, or in refraining from acting, under this Agreement and the other Loan Documents in accordance with a request of the Required Lenders (or such other Lenders as may be required hereunder), and such request and any action taken or failure to act pursuant thereto shall be binding upon all the Lenders and all future holders of the Loans.

8.5 Notice of Default. The Managing Administrative Agent shall not be deemed to have knowledge or notice of the occurrence of any Default or Event of Default (other than an Event of Default consisting of failure of any Borrower to pay when due any principal of or interest on a Loan) hereunder unless the Managing Administrative Agent has received notice from a Lender or any Borrower referring to this Agreement, describing such Default or Event of Default and stating that such notice is a "notice of default". In the event that the Managing Administrative Agent receives such a notice, the Managing Administrative Agent shall give prompt notice thereof to the Lenders. The Managing Administrative Agent shall take such action with respect to such Default or Event of Default as shall be reasonably directed by the Required Lenders; provided that unless and until the Managing Administrative Agent shall have received such directions, the Managing Administrative Agent may (but shall not be obligated to) take such action, or refrain from taking such action, with respect to such Default or Event of Default as it shall deem advisable in the best interests of the Lenders.

8.6 Non-Reliance on Managing Administrative Agent and Other Lenders. Each Lender expressly acknowledges that neither the Managing Administrative Agent nor any of its officers, directors, employees, agents, attorneys-in-fact or Affiliates has made any representations or warranties to it and that no act by the Managing Administrative Agent hereinafter taken, including any review of the affairs of the Company or any of its Subsidiaries, shall be deemed to constitute any representation or warranty by the Managing Administrative Agent to any Lender. Each Lender represents to the Managing Administrative Agent that it has, independently and without reliance upon the Managing Administrative Agent or any other Lender, and based on such documents and information as it has deemed appropriate, made its own appraisal of and investigation into the business, operations, property, financial and other condition and creditworthiness of the Company and its Subsidiaries and made its own decision to make its Loans hereunder and enter into this Agreement. Each Lender also represents that it will, independently and without reliance upon the Managing Administrative Agent or any other Lender, and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit analysis, appraisals and decisions in taking or not taking action under the Loan Documents, and to make such investigation as it deems necessary to inform itself as to the business, operations, property, financial and other condition and creditworthiness of the Company or any of its Subsidiaries. Except for notices, reports and other documents expressly required to be furnished to the Lenders by the Managing Administrative Agent hereunder, the Managing Administrative Agent shall not have any duty or responsibility to provide any Lender with any credit or other information concerning the business, operations, property, condition (financial or otherwise), prospects or creditworthiness of the Company or any of its Subsidiaries which may come into the possession of the Managing Administrative Agent or any of its officers, directors, employees, agents, attorneys-in-fact or Affiliates.

8.7 Indemnification. The Lenders agree to indemnify the Managing Administrative Agent in its capacity as such (to the extent not reimbursed by the Company and without limiting the obligation of the Company to do so), ratably according to their respective Commitment Percentages in effect on the date on which indemnification is sought, from and against any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements of any kind whatsoever which may at any time (including, without limitation, at any time following the payment of the Loans) be imposed on, incurred by or asserted against the Managing Administrative Agent in any way relating to or arising out of, the Commitments, this Agreement, (including, without limitation, enforcement of the Managing Administrative Agent's rights under this Section) any of the other Loan Documents or any documents contemplated by or referred to herein or therein or the transactions contemplated hereby or thereby or any action taken or omitted by the Managing Administrative Agent under or in connection with any of the foregoing; provided that no Lender shall be liable for the payment of any portion of such liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements resulting from the Managing Administrative Agent's gross negligence or willful misconduct. The agreements in this Section shall survive the payment of the Loans and all other amounts payable hereunder.

8.8 Managing Administrative Agent in Its Individual Capacity. The Managing Administrative Agent and its Affiliates may make loans to, accept deposits from and generally engage in any kind of business with any Borrower as though the Managing Administrative Agent were not the Managing Administrative Agent hereunder and under the other Loan Documents. With respect to the Loans made by it, the Managing Administrative Agent shall have the same rights and powers under this Agreement and the other Loan Documents as any Lender and may exercise the same as though it were not the Managing Administrative Agent, and the terms "Lender" and "Lenders" shall include the Managing Administrative Agent in its individual capacity.

8.9 Successor Managing Administrative Agent. The Managing Administrative Agent may resign as Managing Administrative Agent upon 15 days' notice to the Lenders, and the Managing Administrative Agent may be removed at any time with or without cause by the Required Lenders. Upon any such resignation or removal, the Required Lenders shall appoint from among the Lenders a successor agent for the Lenders, which successor agent (provided that it shall have been approved by the Company (such approval not to be unreasonably withheld)), shall succeed to the rights, powers and duties of the Managing Administrative Agent hereunder. Effective upon such appointment and approval, the term "Managing Administrative Agent" shall mean such successor agent, and the former Managing Administrative Agent's rights, powers and duties as Managing Administrative Agent shall be terminated, without any other or further act or deed on the part of such former Managing Administrative Agent or any of the parties to this Agreement or any holders of the Loans. After any retiring Managing Administrative Agent's resignation or removal as Managing Administrative Agent, the provisions of this Section 8 shall inure to its benefit as to any actions taken or omitted to be taken by it while it was Managing Administrative Agent under this Agreement and the other Loan Documents.

8.10 Substitute Managing Administrative Agent. If at any time Citibank or the Company reasonably determines that Citibank is prevented from carrying out its functions as Managing Administrative Agent hereunder as contemplated hereby, Citibank or the Company, as the case may be, shall forthwith so notify the Company or Citibank, as the case may be, and the Administrative Agent (and Citibank shall promptly so notify the Lenders), and the Administrative Agent shall thereupon automatically assume and perform all of the functions of the Managing Administrative Agent and shall be entitled to all of the rights and benefits of the Managing Administrative Agent hereunder, until and only until such time as Citibank and the Company determine, and notify the Administrative Agent (which shall promptly notify the Lenders) that Citibank is no longer prevented from carrying out its functions as Managing Administrative Agent hereunder as contemplated hereby, whereupon Citibank shall automatically resume and perform all of the functions of the Managing Administrative Agent hereunder. Each Lender agrees to the foregoing and authorizes the Administrative Agent to assume and perform the functions of the Managing Administrative Agent under the circumstances set forth above.

8.11 Arrangers, Etc. The parties designated on the cover page hereof as "Joint Lead Arranger", "Joint Book Manager", "Global Coordinator", "Regional Coordinator", "Syndication Agent" or "Documentation Agent" shall have, in their capacities as such, no responsibilities or liabilities under or in connection with this Agreement.

8.12 Certain ERISA Matters.

(a) Each Lender (x) represents and warrants, as of the date such Person became a Lender party hereto, to, any (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the benefit of, the Managing Administrative Agent and not, for the avoidance of doubt, to or for the benefit of the Borrower or any Subsidiary or Subsidiary Borrower party to this Agreement, that at least one of the following is and will be true:

(i) such Lender is not using "plan assets" (within the meaning of Section 3(42) of ERISA or otherwise) of one or more Benefit Plans with respect to such Lender's entrance into, participation in, administration of and performance of the Loans, the Commitments or this Agreement,

(ii) the transaction exemption set forth in one or more PTEs, such as PTE 84-14 (a class exemption for certain transactions determined by independent qualified professional asset managers), PTE 95-60 (a class exemption for certain transactions involving insurance company general accounts), PTE 90-1 (a class exemption for certain transactions involving insurance

company pooled separate accounts), PTE 91-38 (a class exemption for certain transactions involving bank collective investment funds) or PTE 96-23 (a class exemption for certain transactions determined by in-house asset managers), is applicable with respect to such Lender's entrance into, participation in, administration of and performance of the Loans, the Commitments and this Agreement,

(iii) (A) such Lender is an investment fund managed by a "Qualified Professional Asset Manager" (within the meaning of Part VI of PTE 84-14), (B) such Qualified Professional Asset Manager made the investment decision on behalf of such Lender to enter into, participate in, administer and perform the Loans, the Commitments and this Agreement, (C) the entrance into, participation in, administration of and performance of the Loans, the Commitments and this Agreement satisfies the requirements of sub-sections (b) through (g) of Part I of PTE 84-14 and (D) to the best knowledge of such Lender, the requirements of subsection (a) of Part I of PTE 84-14 are satisfied with respect to such Lender's entrance into, participation in, administration of and performance of the Loans, the Commitments and this Agreement, or

(iv) such other representation, warranty and covenant as may be agreed in writing between the Managing Administrative Agent, in its sole discretion, and such Lender.

(b) In addition, unless either (1) sub-clause (i) in the immediately preceding clause (a) is true with respect to a Lender or (2) a Lender has provided another representation, warranty and covenant in accordance with sub-clause (iv) in the immediately preceding clause (a), such Lender further (x) represents and warrants, as of the date such Person became a Lender party hereto, to, and (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the benefit of, the Managing Administrative Agent and not, for the avoidance of doubt, to or for the benefit of the Company or any Subsidiary or Subsidiary Borrower party to this Agreement, that the Managing Administrative Agent is not a fiduciary with respect to the assets of such Lender involved in such Lender's entrance into, participation in, administration of and performance of the Loans, the Commitments and this Agreement (including in connection with the reservation or exercise of any rights by the Managing Administrative Agent under this Agreement, any Loan Document or any documents related hereto or thereto).

SECTION 9. MISCELLANEOUS

9.1 Amendments and Waivers. Neither this Agreement nor any other Loan Document, nor any terms hereof or thereof may be amended, supplemented or modified except in accordance with the provisions of this Section or as provided in Section 2.18 or 2.19. The Required Lenders may, or, with the written consent of the Required Lenders, the Managing Administrative Agent may, from time to time, (a) enter into with the Borrowers written amendments, supplements or modifications hereto and to the other Loan Documents for the purpose of adding any provisions to this Agreement or the other Loan Documents or changing in any manner the rights of the Lenders or of the Borrowers hereunder or thereunder or (b) waive, on such terms and conditions as the Required Lenders or the Managing Administrative Agent, as the case may be, may specify in such instrument, any of the requirements of this Agreement or the other Loan Documents or any Default or Event of Default and its consequences; provided, however, that no such waiver and no such amendment, supplement or modification shall (i) reduce the amount or extend the scheduled date of maturity of any Loan or reduce the stated rate of any interest or fee payable hereunder or extend the scheduled date of any payment thereof or increase the amount or extend the expiration date of any Lender's Commitment, in each case without the written consent of each Lender affected thereby, or (ii) reduce the voting rights of any Lender under this Section or amend, modify or waive subsection 9.6(a) or reduce the percentage specified in the definition of

Required Lenders, or consent to the assignment or transfer by the Company or any Subsidiary Borrower of any of its rights and obligations under this Agreement and the other Loan Documents, or release or terminate the obligations of the Company under Section 10, so long as any Subsidiary Borrower is a party hereto or the Company has the right to so designate a Subsidiary Borrower hereunder, in each case without the written consent of all the Lenders, or (iii) amend, modify or waive any provision of Section 8 without the written consent of the then Managing Administrative Agent and the Administrative Agent, or (iv) amend, modify or waive any provision of any Loan Document that adversely affects any Swing Line Lender in its capacity as such without the written consent of such Swing Line Lender or (v) amend, modify or waive Section 2.12 of this Agreement in a manner that would alter the pro rata payment and sharing provisions contained therein, without the consent of each Lender affected thereby. Any such waiver and any such amendment, supplement or modification shall apply equally to each of the Lenders and shall be binding upon the Borrowers, the Lenders, the Managing Administrative Agent and all future holders of the Loans. In the case of any waiver, the Borrowers, the Lenders and the Managing Administrative Agent shall be restored to their former positions and rights hereunder and under the other Loan Documents, and any Default or Event of Default waived shall be deemed to be cured and not continuing; no such waiver shall extend to any subsequent or other Default or Event of Default or impair any right consequent thereon.

Anything herein to the contrary notwithstanding, during such period as a Lender is a Defaulting Lender, to the fullest extent permitted by applicable law, such Lender will not be entitled to vote in respect of amendments and waivers hereunder and the Commitment and the outstanding Loans of such Lender hereunder will not be taken into account in determining whether the Required Lenders or all of the Lenders, as required, have approved any such amendment or waiver (and the definition of "Required Lenders" will automatically be deemed modified accordingly for the duration of such period); provided that any such amendment or waiver that would increase or extend the term of the Commitment of such Defaulting Lender, extend the date fixed for the payment of principal or interest owing to such Defaulting Lender hereunder, reduce the principal amount of any obligation owing to such Defaulting Lender, reduce the amount of or the rate or amount of interest on any amount owing to such Defaulting Lender or of any fee payable to such Defaulting Lender hereunder, alter the terms of this proviso, or require consent of all the Lenders will require the consent of such Defaulting Lender.

Notwithstanding anything to the contrary herein, any provision of this Agreement may be amended by an agreement in writing entered into by the Managing Administrative Agent and the Company to (x) effect administrative changes of a technical nature or (y) cure any mistake, defect or inconsistency (as reasonably determined by the Managing Administrative Agent and the Company).

9.2 Notices. (a) All notices, requests and demands to or upon the respective parties hereto to be effective shall be in writing and, unless otherwise expressly provided herein, shall be deemed to have been duly given or made (i) in the case of delivery by hand, when delivered, or (ii) in the case of delivery by mail, three Business Days after being deposited in the mails, certified or registered postage prepaid, addressed as follows in the case of the Company, any Subsidiary Borrower and the Managing Administrative Agent, and as set forth in an Administrative Questionnaire delivered to the Managing Administrative Agent in the case of the Lenders, or to such other address as may be hereafter notified by the respective parties hereto:

| | |
|---------|--|
| Company | Mastercard Incorporated 2000 Purchase Street Purchase, New York 10577-2509 Attention: Corporate Treasurer |
|---------|--|

Any Subsidiary Borrower: c/o Mastercard Incorporated
2000 Purchase Street
Purchase, New York 10577-2509
Attention: Corporate Treasurer
Telephone: 914-249-2771

The Managing Administrative
Agent or the Swing Line Lender: Citibank Delaware
1615 Brett Road
OPS III
New Castle, Delaware 19720
Fax: (646) 274-5080
Telephone: (302) 894-6010

and

Citibank, N.A.
Attention: Citi FI Team
388 Greenwich Street
New York, New York 10013
Fax: (646) 688-6821
Telephone: (212) 816-0852

and

Citibank, N.A.
Attn: Citi Loan Ops
1615 Brett Road, Building No. 3
New Castle, Delaware 19720
Fax: 212-994-0961
Telephone: 302-323-2478
Electronic mail: glagentofficeops@citi.com

and, if such notice or other communication relates to borrowings of, or payments or prepayments of, or the duration of Interest Periods for, Loans denominated in Euros, also to:

Citibank, N.A.
1615 Brett Road
OPS III
New Castle, DE 19720
Attn: Agency Operations
Fax: (646) 274-5080
Telephone: (302) 894-6010

Borrower inquiries only: AgencyABTFSupport@citi.com
Borrower notifications: GI-AgentOfficeOps@Citi.com

The Administrative Agent or the
Swing Line Lender:

JPMorgan Chase Bank, N.A.
JPM-Delaware Loan Operations
Attention: Deepak Krishna
500 Stanton Christiana Road, Ops 2/3
Newark, Delaware 19713-2107
Fax: 201-244-3885 (Send all notices by fax)
Phone: +91-80-67905013

The Swing Line Lender

Bank of China, New York Branch
Attention: Wenzhen Zhang
1045 Avenue of the Americas
New York, NY 10018
Fax: 212-371-4185
Phone: 646-231-3143
Electronic mail: synloanadmin.nyb@bocusa.com

or

Bank of China, New York Branch
Attention: Huijuan (Summer) Shi
1045 Avenue of the Americas
New York, NY 10018
Fax: 212-371-4185
Phone: 212-293-3964
Electronic mail: synloanadmin.nyb@bocusa.com

The Swing Line Lender

Deutsche Bank AG New York Branch
Attention: Virginia Cosenza
60 Wall Street
New York, NY 10005
Fax: 212-797-4420
Phone: 212-250-2169
Electronic mail: N/A

The Swing Line Lender

U.S. Bank, National Association
Attention: Elizabeth (Beth) Correll
Senior Account Representative, Operations
800 Nicollet Mall, 3rd Floor
Minneapolis, MN 55402
Fax: 612-303-3851

Phone: 612-303-3867

The Swing Line Lender

Bank of America, N.A.
Attention: Priyanka Singh
One Bryant Park
New York, NY 10036
Fax: 214-290-9459
Phone: 415-436-3683

The Swing Line Lender

Barclays Bank plc
Attention: Kevin Murphy
745 7th Avenue
New York, NY 10019
Fax: 212-659-3325
Phone: 212-526-9431
Electronic mail: N/A

The Swing Line Lender

Goldman Sachs Bank USA
Attention: Michelle Latzoni
200 West Street
New York, NY 10282
Fax: 917-977-3966
Phone: 212-902-1099
DO NOT EMAIL NOTICES - SEND TO FAX #

The Swing Line Lender

HSBC Bank USA, N.A.
452 Fifth Avenue
New York, NY 10018
Fax: 847-793-3415
Telephone: 212-525-1529
Email: ctlanyloanadminqueries@us.hsbc.com

The Swing Line Lender

Industrial and Commercial Bank of China Limited, New York Branch
Attention: Liming Woo, Assistant Vice President
680 5th Avenue, 16th Floor
New York, NY 10019
Fax: 212-956-3631
Phone: 646-381-6615
Electronic mail: loanadmin@us.icbc.com.cn

or

Attention: Ying Liao, Executive Director

680 5th Avenue, 16th Floor
New York, NY 10019
Fax: 212-956-3631
Phone: 646-381-6651
Electronic mail: loanadmin@us.icbc.com.cn

The Swing Line Lender

Lloyds Corporate Markets plc
Attention: Ali AIDamlouji - Sr. Analyst, Banking Operations
Winnie Yan - Sr. Analyst, Banking Operations
1095 Avenue of the Americas
New York, NY 10036
Fax: 212-479-2807 or 212-930-5033
Phone: 212-930-5092 (AIDamlouji) or 212-450-0856 (Yan)
Electronic mail: N/A

The Swing Line Lender

Mizuho Bank, Ltd.
Attention: Pamela Chen
1800 Plaza Ten, Harborside Financial Ctr.
Jersey City, NJ 07311
Fax: 201-626-9941
Phone: 201-626-9302
Electronic mail: LAU_USCorp1@mizuhocbus.com

The Swing Line Lender

MUFG Bank, Ltd.
Attention: Steven Williams
Loan Operations Department
1251 Avenue of the Americas, 12th Floor
New York, NY 10020-1104
Fax: 201-521-2304 or 201-521-2305
Phone: 201-413-8520
Electronic mail: N/A

The Swing Line Lender

NatWest Markets
Attn: LIBOR Lending US Support
250 Bishopsgate
London
EC2M 4AA
Email: LIBORLendingUSSupport@rbs.com

With a copy to:

NatWest Markets
Attn: James Ashe
250 Bishopsgate

London
EC2M 4AA
Tel: 44 (0) 207 085 7556
Email: LIBORLendingUSSupport@rbs.com

The Swing Line Lender

Primary Contact

Name: Jennifer Kuli
Company: Santander Bank, N.A.
Title: Coml Ops Lead Specialist
Address: 601 Penn Street
Reading, PA 19601
Telephone: 610-378-6661
Facsimile: 484-338-2831
E-Mail Address: Participations@santander.us

OR

Secondary Contact

Name: Global Corp Middle Office
Company: Santander Bank, N.A.
Address: 28 State Street
Boston, MA 02109
Telephone: 617-217-0187
Facsimile: 610-208-6123
E-Mail Address: gbbra@santander.us

The Swing Line Lender

Societe Generale
480 Washington Blvd
Jersey City, NJ 07310
Fax: 201-693-4233 (Notice Should be Faxed)
Phone: 201-839-8460
Group E-mail: oper-fin-serv.us@sgss.socgen.com

provided that any notice, request or demand to or upon the Managing Administrative Agent or the Lenders pursuant to Section 2.2, 2.4, 2.6, 2.7, 2.12, 2.13, 2.19 or 2.23 shall not be effective until received; and provided, further, that if any notice or other communication is received after a recipient's normal business hours, then such notice or other communication shall be deemed received upon the opening of the recipient's next business day.

(b) The Company hereby agrees that it will provide to the Managing Administrative Agent all information, documents and other materials that it is obligated to furnish to the Managing Administrative Agent pursuant to the Loan Documents, including, without limitation, all notices, requests, financial statements, financial and other reports, certificates and other information materials, but excluding any such communication that (i) requests, or converts or continues under Section 2.7 hereof, a borrowing or relates to the payment of any principal or other amount due under this Agreement prior to the scheduled

date therefor, (ii) provides notice of any Default or Event of Default under this Agreement, (iii) is required to be delivered to satisfy any condition precedent to the occurrence of the Second Restatement Effective Date and/or any borrowing, or (iv) initiates or responds to legal process (all such non-excluded communications being referred to herein collectively as “Communications”), by transmitting the Communications in an electronic/soft medium (including Internet or intranet websites) in a format acceptable to the Managing Administrative Agent to oploanswebadmin@citi.com. In addition, the Company agrees to continue to provide the Communications to the Managing Administrative Agent in the manner specified in the Loan Documents but only to the extent requested by the Managing Administrative Agent.

(c) The Company further agrees that the Managing Administrative Agent may make the Communications available to the Lenders by posting the Communications on Intralinks or a substantially similar electronic transmission system (the “Platform”). THE PLATFORM IS PROVIDED “AS IS” AND “AS AVAILABLE”. THE AGENT PARTIES (AS DEFINED BELOW) DO NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE COMMUNICATIONS, OR THE ADEQUACY OF THE PLATFORM AND EXPRESSLY DISCLAIM LIABILITY FOR ERRORS OR OMISSIONS IN THE COMMUNICATIONS. NO WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR STATUTORY, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OF THIRD PARTY RIGHTS OR FREEDOM FROM VIRUSES OR OTHER CODE DEFECTS, IS MADE BY THE AGENT PARTIES IN CONNECTION WITH THE COMMUNICATIONS OR THE PLATFORM. IN NO EVENT SHALL THE MANAGING ADMINISTRATIVE AGENT OR ANY OF ITS AFFILIATES OR ANY OF THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, ADVISORS OR REPRESENTATIVES (COLLECTIVELY, THE “AGENT PARTIES”) HAVE ANY LIABILITY TO ANY BORROWER, ANY LENDER OR ANY OTHER PERSON OR ENTITY FOR DAMAGES OF ANY KIND, INCLUDING, WITHOUT LIMITATION, DIRECT OR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSSES OR EXPENSES (WHETHER IN TORT, CONTRACT OR OTHERWISE) ARISING OUT OF THE COMPANY’S OR THE MANAGING ADMINISTRATIVE AGENT’S TRANSMISSION OF COMMUNICATIONS THROUGH THE INTERNET, EXCEPT TO THE EXTENT THE LIABILITY OF ANY AGENT PARTY IS FOUND IN A FINAL NON-APPEALABLE JUDGMENT BY A COURT OF COMPETENT JURISDICTION TO HAVE RESULTED PRIMARILY FROM SUCH AGENT PARTY’S GROSS NEGLIGENCE, BAD FAITH OR WILLFUL MISCONDUCT.

(d) The Managing Administrative Agent agrees that the receipt of the Communications by the Managing Administrative Agent at its e-mail address set forth above shall constitute effective delivery of the Communications to the Managing Administrative Agent for purposes of the Loan Documents. Each Lender agrees that notice to it (as provided in the next sentence) specifying that the Communications have been posted to the Platform shall constitute effective delivery of the Communications to such Lender for purposes of the Loan Documents, provided that the notice is received by such Lender during its normal business hours. Each Lender agrees (i) to provide to the Managing Administrative Agent in writing (including by electronic communication), promptly after the date of this Agreement, an e-mail address to which the foregoing notice may be sent by electronic transmission and (ii) that the foregoing notice may be sent to such e-mail address.

(e) Nothing herein shall prejudice the right of the Managing Administrative Agent or any Lender to give any notice or other communication pursuant to any Loan Document in any other manner specified in such Loan Document.

9.3 No Waiver; Cumulative Remedies. No failure to exercise and no delay in exercising, on the part of the Managing Administrative Agent or any Lender, any right, remedy, power or privilege hereunder or under the other Loan Documents shall operate as a waiver thereof; nor shall any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege. The rights, remedies, powers and privileges herein provided are cumulative and not exclusive of any rights, remedies, powers and privileges provided by law.

9.4 Survival of Representations and Warranties. All representations and warranties made hereunder, in the other Loan Documents and in any document, certificate or statement delivered pursuant hereto or in connection herewith shall survive the execution and delivery of this Agreement and the making of the Loans hereunder.

9.5 Payment of Expenses and Taxes. The Company agrees (a) to pay or reimburse the Managing Administrative Agent for all reasonable and documented fees, charges and disbursements of a single primary counsel and, to the extent reasonably necessary, a single local counsel in each Relevant Jurisdiction, incurred in connection with this Agreement and the other Loan Documents or the amendment, modification or waiver thereof, (b) to pay or reimburse each Lender, each Swing Line Lender and the Managing Administrative Agent for all its costs and expenses incurred in connection with the enforcement or preservation of any rights under this Agreement (including, without limitation, this Section), the other Loan Documents and any such other documents, including, without limitation, the reasonable fees and disbursements of a single primary counsel and, to the extent reasonably necessary, a single local counsel in each Relevant Jurisdiction (except that in the case of a conflict of interest, the Company shall pay the costs and expenses of one additional counsel for each group of similarly situated Lenders, taken as a whole) to the Lenders and the Managing Administrative Agent, (c) to pay, indemnify, and hold harmless each Lender, each Swing Line Lender, the Managing Administrative Agent, their respective Affiliates and their respective officers, directors, employees, agents and advisors (each, an “Indemnitee”) from, any and all recording and filing fees and any and all liabilities with respect to, or resulting from any delay in paying, stamp, excise and other taxes, if any, which may be payable or determined to be payable in connection with the execution and delivery of, or consummation or administration of any of the transactions contemplated by, or any amendment, supplement or modification of, or any waiver or consent under or in respect of, this Agreement, the other Loan Documents and any such other documents, and (d) to pay, indemnify, and hold harmless each Indemnitee from and against any and all other claims, liabilities, obligations, losses, damages and expenses (including, without limitation, reasonable fees and disbursements of counsel) with respect to the execution, delivery, enforcement, performance and administration of this Agreement (including, without limitation, this Section), the other Loan Documents and any such other documents, including, without limitation, any investigative, administrative or judicial proceeding relating to the foregoing whether or not such investigation, litigation or proceeding is brought by the Company, any of its directors, security holders or creditors, an Indemnitee or any other person or an Indemnitee is otherwise a party thereto, or any of the foregoing relating to any actual or proposed use of proceeds of the Loans or the violation of, noncompliance with or liability under, any Environmental Law applicable to the operations of the Company, any of its Subsidiaries or any of the Properties or arising out of the Commitments (all the foregoing in this clause (d), collectively, the “indemnified liabilities”), provided that the Company shall have no obligation hereunder to any Indemnitee with respect to indemnified liabilities or expense (i) arising from the gross negligence, bad faith or willful misconduct of such Indemnitee or its officers, directors, employees, agents, advisors or Affiliates, or arises primarily out of a material breach by such Indemnified Party of its obligations under this Agreement, as determined by a final non-appealable judgment of a court of competent jurisdiction or (ii) resulting from any investigative, administrative or judicial proceeding that does not involve an act or

omission by the Company or any of its Affiliates and that is solely among Indemnified Parties (other than claims against the Managing Administrative Agent or Swing Line Lender in its capacity or in fulfilling its roles as such hereunder). No Indemnitee shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed by it through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Loan Documents or the transactions contemplated hereby or thereby (except to the extent (i) such unintended recipients received such information or materials as a result of such Indemnitee's violation of its confidentiality obligations hereunder or (ii) as a result of such Indemnitee, its officers, directors, employees, agents, advisors or Affiliates' gross negligence, bad faith or willful misconduct). The Company and each Subsidiary Borrower waives, to the maximum extent not prohibited by law, any right it may have to claim or recover in any legal action or proceeding referred to in this Section any special, indirect, punitive or consequential damages. The agreements in this Section shall survive repayment of the Loans and all other amounts payable hereunder.

9.6 Successors and Assigns; Participations and Assignments.

(a) This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns, except that (i) neither the Company nor any Subsidiary Borrower may assign or transfer any of its rights or obligations under this Agreement without the prior written consent of each Lender (and any attempted assignment or transfer by any Borrower without such consent shall be null and void), except that pursuant to Section 2.23(c) any Subsidiary Borrower may assign its rights and obligations hereunder to the Company pursuant to an assignment and assumption agreement in form and substance reasonably satisfactory to the Managing Administrative Agent, and (ii) no Lender may assign or transfer any of its rights or obligations under this Agreement to a Defaulting Lender.

(b) Any Lender may, in the ordinary course of its commercial banking business and in accordance with applicable law, at any time sell to one or more banks or other entities (other than Ineligible Persons) (“Participants”) participating interests in any Loan owing to such Lender, any Commitment or Swing Line Commitment of such Lender or any other interest of such Lender hereunder and under the other Loan Documents. In the event of any such sale by a Lender of a participating interest to a Participant, such Lender's obligations under this Agreement to the other parties to this Agreement shall remain unchanged, such Lender shall remain solely responsible for the performance thereof, such Lender shall remain the holder of any such Loan for all purposes under this Agreement and the other Loan Documents, and the Borrowers and the Managing Administrative Agent shall continue to deal solely and directly with such Lender in connection with such Lender's rights and obligations under this Agreement and the other Loan Documents. No Lender shall be entitled to create in favor of any Participant, in the participation agreement pursuant to which such Participants participating interest shall be created or otherwise, any right to vote on, consent to or approve any matter relating to this Agreement or any other Loan Document except for those specified in clauses (i), (ii), (iii) and (v) of the proviso to Section 9.1. The Company and each Subsidiary Borrower agrees that if amounts outstanding under this Agreement are due or unpaid, or shall have been declared or shall have become due and payable upon the occurrence of an Event of Default, each Participant shall, to the maximum extent permitted by applicable law, be deemed to have the right of set-off in respect of its participating interest in amounts owing under this Agreement to the same extent as if the amount of its participating interest were owing directly to it as a Lender under this Agreement, provided that, in purchasing such participating interest, such Participant shall be deemed to have agreed to share with the Lenders the proceeds thereof as provided in subsection 9.7(a) as fully as if it were a Lender hereunder. The Company also agrees that each Participant shall be entitled to the benefits of Sections 2.12, 2.13, 2.15 and 2.16 with respect to its participation in the Commitments, Swing Line Commitments and the Loans outstanding from time to time as if it was a Lender; provided that, in the case of Section 2.16, such Participant shall have complied with the

requirements of said Section and provided, further, that no Participant shall be entitled to receive any greater amount pursuant to any such Section than the transferor Lender would have been entitled to receive in respect of the amount of the participation transferred by such transferor Lender to such Participant had no such transfer occurred. Each Lender that sells a participation shall, acting solely for this purpose as a non-fiduciary agent of the applicable Borrower, maintain a register on which it enters the name and address of each Participant and the principal amounts (and stated interest) of each Participant's interest in the Loans or other obligations under the Loan Documents (the "Participant Register"); provided that no Lender shall have any obligation to disclose all or any portion of the Participant Register to any Person (including the identity of any Participant or any information relating to a Participant's interest in any Commitments, Loans, or its other obligations under any Loan Document) except to the extent that such disclosure is necessary to establish that such Commitment, Loan, or other obligation is in registered form under Section 5f.103-1(c) of the United States Treasury Regulations. The entries in the Participant Register shall be conclusive absent manifest error, and such Lender shall treat each Person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement notwithstanding any notice to the contrary.

(c) Any Lender may, in the ordinary course of its commercial banking business and in accordance with applicable law, at any time and from time to time assign to one or more banks or other financial institutions, including a finance company or fund (whether a corporation, partnership or other entity) which is engaged in making, purchasing or otherwise investing in commercial loans in the ordinary course of its business, and having total assets in excess of \$500,000,000 (other than Ineligible Persons) (such bank or financial institution, an "Assignee") all or any part of its rights and obligations under this Agreement and the other Loan Documents; provided, however, that

(i) except in the case of an assignment to a Lender or, subject to giving prior written notice thereof to the Company and the Managing Administrative Agent, an Affiliate of a Lender which is a bank or financial institution, each of the Managing Administrative Agent, each Swing Line Lender and (except when a Default or Event of Default shall have occurred and be continuing) the Company must give its consent to such assignment (which in each case shall not be unreasonably withheld or delayed); provided that the Company shall be deemed to have consented to any such assignment unless it shall object thereto by written notice to the Managing Administrative Agent within ten Business Days after written notice of such assignment shall have delivered to the Company to the attention of its Treasurer and Assistant Treasurer;

(ii) the rights and obligations of each Swing Line Lender relating to its Swing Line Loans and Swing Line Commitment may be assigned or retained, at its option, independently of any of its other rights and obligations under the Loan Documents in connection with any assignment otherwise permitted hereunder;

(iii) in the case of any assignment to any Assignee that is not a Lender or an Affiliate thereof, the sum of the aggregate principal amount of the Loans and the aggregate amount of the Commitments and Swing Line Commitments being assigned and, if such assignment is of less than all of the rights and obligations of the assigning Lender, the sum of the aggregate principal amount of the Loans and the aggregate amount of the Commitments and Swing Line Commitments remaining with the assigning Lender are each not less than \$5,000,000 (or such lesser amount as may be agreed to by the Company and the Managing Administrative Agent); and

(iv) such assignment shall be evidenced by an Assignment and Acceptance, substantially in the form of Exhibit H, executed by such Assignee, such assigning Lender (and, in the case of an Assignee that is not then a Lender or an Affiliate thereof, by the Company and the

Managing Administrative Agent) and delivered to the Managing Administrative Agent for its acceptance and recording in the Register.

Upon such execution, delivery, acceptance and recording, from and after the effective date determined pursuant to such Assignment and Acceptance, (x) the Assignee thereunder shall be a party hereto and, to the extent provided in such Assignment and Acceptance, have the rights and obligations of a Lender hereunder with a Commitment or Swing Line Commitment as set forth therein, and (y) the assigning Lender thereunder shall, to the extent provided in such Assignment and Acceptance, be released from its obligations under this Agreement (and, in the case of an Assignment and Acceptance covering all or the remaining portion of an assigning Lender's rights and obligations under this Agreement such assigning Lender shall cease to be a party hereto). Notwithstanding any provision of this paragraph (c) and paragraph (f) of this Section, the consent of the Company shall not be required, and, unless requested by the Assignee and/or the assigning Lender, new Notes shall not be required to be executed and delivered by any Borrower, for any assignment which occurs at any time when any of the events described in Section 7(f) shall have occurred and be continuing.

(d) The Managing Administrative Agent, acting solely for this purpose as non-fiduciary agent of the Borrowers, shall maintain at the address of the Managing Administrative Agent referred to in Section 9.2 a copy of each Assignment and Acceptance delivered to it and a register (the "Register") for the recordation of the names and addresses of the Lenders and the Commitment of, and principal amount (and stated interest) and Currency of the Loans owing to, each Lender from time to time. The entries in the Register shall be conclusive, in the absence of manifest error, and each Borrower, the Managing Administrative Agent and the Lenders shall treat each Person whose name is recorded in the Register as the owner of a Loan or other obligation hereunder as the owner thereof for all purposes of this Agreement and the other Loan Documents, notwithstanding any notice or any other provisions hereof to the contrary. Any assignment of any Loan or other obligation hereunder shall be effective only upon appropriate entries with respect thereto being made in the Register. The Register shall be available for inspection by the Company or any Lender at any reasonable time and from time to time upon reasonable prior notice.

(e) Upon its receipt of an Assignment and Acceptance executed by an assigning Lender and an Assignee (and, in the case of an Assignee that is not then a Lender or an Affiliate thereof, by the Company and the Managing Administrative Agent) together with payment to the Managing Administrative Agent of a registration and processing fee of \$3,500 and (if the Assignee is not a Lender) delivery to the Managing Administrative Agent of such Assignee's Administrative Questionnaire, the Managing Administrative Agent shall (i) promptly accept such Assignment and Acceptance and (ii) on the effective date determined pursuant thereto record the information contained therein in the Register and give notice of such acceptance and recordation to the Lenders and the applicable Borrower.

(f) The Company authorizes each Lender to disclose to any Participant or Assignee (each, a "Transferee") and any prospective Transferee any and all financial information in such Lender's possession concerning the Company and its Subsidiaries and Affiliates which has been delivered to such Lender by or on behalf of the Company or any of its Subsidiaries pursuant to this Agreement or which has been delivered to such Lender by or on behalf of the Company or any of its Subsidiaries in connection with such Lender's credit evaluation of the Company and its Subsidiaries and Affiliates prior to becoming a party to this Agreement.

(g) For avoidance of doubt, the parties to this Agreement acknowledge that the provisions of this Section concerning assignments of Loans and Notes relate only to absolute assignments and that such provisions do not prohibit assignments creating security interests, including, without limitation, any

pledge or assignment by a Lender of any Loan or Note to any Federal Reserve Bank or any other central bank in accordance with applicable law.

9.7 Adjustments; Set-off. (a) If any Lender (a “benefitted Lender”) shall at any time receive any payment of all or part of its Loans, or interest thereon, or receive any collateral in respect thereof (whether voluntarily or involuntarily, by set-off, pursuant to events or proceedings of the nature referred to in Section 7(f), or otherwise), in a greater proportion than any such payment to or collateral received by any other Lender, if any, in respect of such other Lender’s Loans, or interest thereon, such benefitted Lender shall purchase for cash from the other Lenders a participating interest in such portion of each such other Lender’s Loan, or shall provide such other Lenders with the benefits of any such collateral, or the proceeds thereof, as shall be necessary to cause such benefitted Lender to share the excess payment or benefits of such collateral or proceeds ratably with each of the Lenders; provided, however, that if all or any portion of such excess payment or benefits is thereafter recovered from such benefitted Lender, such purchase shall be rescinded, and the purchase price and benefits returned, to the extent of such recovery, but without interest.

(b) In addition to any rights and remedies of the Lenders provided by law, each Lender shall have the right, without prior notice to the Company or any Subsidiary Borrower, any such notice being expressly waived by each of them to the extent permitted by applicable law, upon any amount becoming due and payable by any Borrower hereunder (whether at stated maturity, by acceleration or otherwise) to set off and appropriate and apply against such amount any and all deposits (general or special, time or demand, provisional or final), in any currency, and any other credits, indebtedness or claims, in any currency, in each case whether direct or indirect, absolute or contingent, matured or unmatured, at any time held or owing by such Lender or any branch or agency thereof to or for the credit or the account of the Company or such relevant Borrower; provided that no such set-off and application may be made against amounts attributable to the clearing and settlement services provided by the Company and its Subsidiaries. Each Lender agrees promptly to notify the Company and the Managing Administrative Agent after any such set-off and application made by such Lender, provided that the failure to give such notice shall not affect the validity of such set-off and application.

9.8 Counterparts. This Agreement may be executed by one or more of the parties to this Agreement on any number of separate counterparts (including by facsimile transmission), and all of said counterparts taken together shall be deemed to constitute one and the same instrument.

9.9 Severability. Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction.

9.10 Integration. This Agreement and the other Loan Documents represent the entire agreement of the Borrowers, the Managing Administrative Agent and the Lenders with respect to the subject matter hereof, and there are no promises, undertakings, representations or warranties by the Managing Administrative Agent or any Lender relative to subject matter hereof not expressly set forth or referred to herein or in the other Loan Documents.

9.11 Termination of Commitments and Swing Line Commitments. The Commitments and Swing Line Commitments shall terminate if the conditions to closing set forth in Section 4.1 shall not be satisfied on or before November 30, 2018.

9.12 **GOVERNING LAW. THIS AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK.**

9.13 **Submission To Jurisdiction; Waivers.** The Company and each Subsidiary Borrower hereby irrevocably and unconditionally:

(a) submits for itself and its property in any legal action or proceeding relating to this Agreement and the other Loan Documents, or for recognition and enforcement of any judgment in respect thereof, to the exclusive general jurisdiction of the courts of the State and County of New York, the courts of the United States for the Southern District of New York, and appellate courts from any thereof;

(b) consents that any such action or proceeding may be brought in such courts and waives any objection that it may now or hereafter have to the venue of any such action or proceeding in any such court or that such action or proceeding was brought in an inconvenient court and agrees not to plead or claim the same;

(c) agrees that service of process in any such action or proceeding may be effected by mailing a copy thereof by registered or certified mail (or any substantially similar form of mail), postage prepaid, to it at its address set forth in Section 9.2 or at such other address of which the Managing Administrative Agent shall have been notified pursuant thereto;

(d) agrees that nothing herein shall affect the right to effect service of process in any other manner permitted by law or shall limit the right to sue in any other jurisdiction; and

(e) waives, to the maximum extent not prohibited by law, any right it may have to claim or recover in any legal action or proceeding referred to in this Section any special, indirect, punitive or consequential damages.

(f) Each Non-U.S. Subsidiary Borrower irrevocably designates and appoints the Company as its authorized agent, to accept and acknowledge on its behalf, service of any and all process which may be served in any suit, action or proceeding of the nature referred to in paragraph (b) of this Section in any court referred to therein. The Company hereby agrees to accept such appointment by each Subsidiary Borrower party hereto from time to time and to give such Subsidiary Borrower prompt notice upon receipt of, and to forward promptly to such Subsidiary Borrower, all papers served upon the Company pursuant to such appointment. Such designation and appointment shall be irrevocable by each Subsidiary Borrower until such Subsidiary Borrower shall have been terminated as a Borrower hereunder pursuant to Section 2.23(c). If the Company shall cease so to act as such agent, each such Subsidiary Borrower covenants and agrees to notify the Managing Administrative Agent promptly thereof and to designate irrevocably and appoint without delay another such agent satisfactory to the Managing Administrative Agent and to deliver promptly to the Managing Administrative Agent evidence in writing of such other agent's acceptance of such appointment.

9.14 **Acknowledgements.** The Company and each Subsidiary Borrower hereby acknowledges that:

(a) it has been advised by counsel in the negotiation, execution and delivery of this Agreement and the other Loan Documents;

(b) neither the Managing Administrative Agent nor any Lender has any fiduciary relationship with or duty to it arising out of or in connection with this Agreement or any of the other Loan

Documents, and the relationship between Managing Administrative Agent and Lenders, on one hand, and the Borrowers, on the other hand, in connection herewith or therewith is solely that of debtor and creditor;

(c) no joint venture is created hereby or by the other Loan Documents or otherwise exists by virtue of the transactions contemplated hereby among the Lenders or among the Borrowers and the Lenders; and

(d) the Managing Administrative Agent, the Administrative Agent, each Lender, each Swing Line Lender and each of their respective Affiliates may have conflicting economic interests with those of the Borrower, its stockholders, its Subsidiaries and each of their respective Affiliates.

9.15 WAIVERS OF JURY TRIAL. EACH OBLIGOR, THE MANAGING ADMINISTRATIVE AGENT AND THE LENDERS HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVE TRIAL BY JURY IN ANY LEGAL ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT AND FOR ANY COUNTERCLAIM THEREIN.

9.16 Waiver of Immunity. To the fullest extent permitted by applicable law, to the extent that any Non-U.S. Subsidiary Borrower may be or become entitled to claim for itself or its property any immunity on the ground of sovereignty or the like from suit, court jurisdiction, attachment prior to judgment, attachment in aid of execution of a judgment or execution of a judgment, and to the extent that in any such jurisdiction there may be attributed such an immunity (whether or not claimed), such Non-U.S. Subsidiary Borrower hereby irrevocably agrees not to claim and hereby irrevocably waives such immunity with respect to its obligations under this Agreement.

9.17 Judgment Currency. This is an international loan transaction in which the specification of Dollars or any Foreign Currency, as the case may be (the "Specified Currency"), and payment in New York City or the country of the Specified Currency, as the case may be (the "Specified Place"), is of the essence. The payment obligations of the Borrowers under this Agreement in any Specified Currency shall not be discharged or satisfied by an amount paid in another currency or in another place, whether pursuant to a judgment or otherwise, to the extent that the amount so paid on conversion to the Specified Currency and transfer to the Specified Place under normal banking procedures does not yield the amount of the Specified Currency at the Specified Place due hereunder. If for the purpose of obtaining judgment in any court it is necessary to convert a sum due hereunder in the Specified Currency into another currency (the "Second Currency"), the rate of exchange that shall be applied shall be the rate at which in accordance with normal banking procedures the Managing Administrative Agent could purchase the Specified Currency with the Second Currency on the Business Day next preceding the day on which such judgment is rendered. The obligation of each Borrower in respect of any such sum due from it to the Managing Administrative Agent or any Lender hereunder (in this Section called an "Entitled Person") shall, notwithstanding the rate of exchange actually applied in rendering such judgment, be discharged only to the extent that on the Business Day following receipt by such Entitled Person of any sum adjudged to be due hereunder in the Second Currency such Entitled Person may in accordance with normal banking procedures purchase and transfer to the Specified Place the Specified Currency with the amount of the Second Currency so adjudged to be due; and each Borrower hereby, as a separate obligation and notwithstanding any such judgment, agrees to indemnify such Entitled Person against, and to pay such Entitled Person on demand, in the Specified Currency, the amount (if any) by which the sum originally due to such Entitled Person in the Specified Currency hereunder exceeds the amount of the Specified Currency so purchased and transferred.

9.18 Confidentiality. Neither the Managing Administrative Agent nor any Lender shall disclose any Confidential Information to any Person without the consent of the Company, other than (a) to the

Managing Administrative Agent's or such Lender's Affiliates and the Managing Administrative Agent's, such Lender's and their respective Affiliates' officers, directors, employees, agents, and advisors on a confidential basis, (b) to actual or prospective assignees and participants, (c) to any direct or indirect contractual counterparties (or the professional advisors thereto) to any swap transaction relating to the Company and its obligations under this Agreement so long as such counterparties agree to comply with confidentiality requirements at least as strict as the requirements of this Section for the benefit of the Company (with notice of such compliance given to the Company), (d) to the extent required by any applicable law, rule or regulation or judicial process, (e) to any rating agency or self-regulatory body when required by it, (f) to any other party hereto, (g) in connection with the exercise of any remedies hereunder, (h) as requested or required by any state, federal or foreign authority or examiner regulating banks or other financial institutions or banking, (i) with the prior written consent of the Company and (j) to the extent such Confidential Information (1) becomes publicly available other than as a result of a breach of this Section or (2) becomes available to any Lender or Managing Administrative Agent or any of their respective Affiliates on a nonconfidential basis from a source other than the Company, which source is not known to such Lender, Managing Administrative Agent or any of their respective Affiliates to be otherwise bound by a confidentiality agreement with the Company or its Affiliates.

9.19 USA PATRIOT Act. Each Lender and the Managing Administrative Agent (for itself and not on behalf of any Lender) hereby notifies the Company and each Subsidiary Borrower that pursuant to the requirements of the USA PATRIOT Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)) (the "Act"), it is required to obtain, verify and record information that identifies each Borrower, which information includes the name and address of such Borrower and other information that will allow such Lender or the Managing Administrative Agent, as applicable, to identify such Borrower in accordance with the Act. Each Borrower shall, promptly following a request by the Managing Administrative Agent or any Lender, provide all documentation and other information that the Managing Administrative Agent or such Lender requests in order to comply with its ongoing obligations under applicable "know your customer" and anti-money laundering rules and regulations, including the Act.

9.20 Termination of Agreement. Upon termination of the Commitments, the repayment in full of the principal of all Loans outstanding hereunder and the payment in full of all accrued interest and fees and any other amounts then due and payable hereunder, this Agreement shall terminate except for the provisions which expressly survive the termination of this Agreement.

9.21 Acknowledgment and Consent to Bail-In of EEA Financial Institutions. Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any EEA Financial Institution arising under any Loan Document, to the extent such liability is unsecured, may be subject to the write-down and conversion powers of an EEA Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by an EEA Resolution Authority to any such liabilities arising hereunder which may be payable to it by any party hereto that is an EEA Financial Institution; and

(b) the effects of any Bail-In Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such EEA Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares

or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of any EEA Resolution Authority.

SECTION 10. GUARANTEE

10.1 Guarantee. The Company (for purposes of this Section 10, the “Guarantor”) hereby guarantees to each Lender, each Swing Line Lender and the Managing Administrative Agent and their respective successors and assigns the prompt payment in full when due (whether by acceleration or otherwise) of the principal of and interest on the Loans made by the Lenders to each Subsidiary Borrower, and all other amounts from time to time owing to the Lenders or the Managing Administrative Agent by each Subsidiary Borrower under this Agreement and the other Loan Documents, in each case strictly in accordance with the terms thereof (such obligations being herein collectively called the “Guaranteed Obligations”). The Guarantor hereby further agrees that if any Subsidiary Borrower shall fail to pay in full when due (whether by acceleration or otherwise) any of the Guaranteed Obligations, the Guarantor will promptly pay the same, without any demand or notice whatsoever, and that in the case of any extension of time of payment or renewal of any of the Guaranteed Obligations, the same will be promptly paid in full when due (whether by acceleration or otherwise) in accordance with the terms of such extension or renewal. The Guarantor agrees that this guarantee is a guarantee of payment and not of collection.

10.2 Obligations Unconditional. The obligations of the Guarantor under Section 10.1 are absolute, unconditional and irrevocable, irrespective of the value, genuineness, validity, regularity or enforceability of the obligations of any Subsidiary Borrower under this Agreement, the other Loan Documents or any other agreement or instrument referred to herein, or any substitution, release or exchange of any other guarantee of or security for any of the Guaranteed Obligations, and, to the fullest extent permitted by applicable law, irrespective of any other circumstance whatsoever that might otherwise constitute a legal or equitable discharge or defense of a surety or guarantor, it being the intent of this Section 10 that the obligations of the Guarantor hereunder shall be absolute, unconditional and irrevocable under any and all circumstances. Notwithstanding the foregoing, the liability of the Guarantor with respect to the Guaranteed Obligations shall be limited to an aggregate amount equal to the largest amount that would not render its obligations hereunder subject to avoidance under Section 548 of the United States Bankruptcy Code or any comparable provisions of any applicable state law. Without limiting the generality of the foregoing, it is agreed that, to the fullest extent permitted by applicable law, the occurrence of any one or more of the following shall not alter or impair the liability of the Guarantor hereunder, which shall remain absolute and unconditional as described above:

(i) at any time or from time to time, without notice to the Guarantor, the time for any performance of or compliance with any of the Guaranteed Obligations shall be extended, or such performance or compliance shall be waived;

(ii) any of the acts mentioned in any of the provisions of this Agreement or any other agreement or instrument referred to herein shall be done or omitted; or

(iii) the maturity of any of the Guaranteed Obligations shall be accelerated, or any of the Guaranteed Obligations shall be modified, supplemented or amended in any respect, or any right under this Agreement or any other agreement or instrument referred to herein shall be waived or any other guarantee of any of the Guaranteed Obligations or any security therefor shall be released or exchanged in whole or in part or otherwise dealt with.

The Guarantor, to the fullest extent permitted by applicable law, hereby expressly waives diligence, presentment, demand of payment, protest and all notices whatsoever, and any requirement that the Managing Administrative Agent or any Lender exhaust any right, power or remedy or proceed against any Subsidiary Borrower under this Agreement or any other agreement or instrument referred to herein, or against any other Person under any other guarantee of, or security for, any of the Guaranteed Obligations.

10.3 Reinstatement. The obligations of the Guarantor under this Section 10 shall be automatically reinstated if and to the extent that for any reason any payment by or on behalf of any Subsidiary Borrower in respect of the Guaranteed Obligations is rescinded or must be otherwise restored by any holder of any of the Guaranteed Obligations, whether as a result of any proceedings in bankruptcy or reorganization or otherwise, and the Guarantor agrees that it will indemnify the Managing Administrative Agent and each Lender on demand for all reasonable costs and expenses (including reasonable fees of counsel) incurred by the Managing Administrative Agent or such Lender in connection with such rescission or restoration pursuant to the terms of the indemnity set forth in Section 9.5.

10.4 Subrogation. The Guarantor hereby agrees that until the payment and satisfaction in full of all Guaranteed Obligations and the expiration and termination of the Commitments of the Lenders under this Agreement it shall not exercise any right or remedy arising by reason of any performance by it of its guarantee in Section 10.1, whether by subrogation or otherwise, against any Subsidiary Borrower or any other guarantor of any of the Guaranteed Obligations or any security for any of the Guaranteed Obligations.

10.5 Remedies. The Guarantor agrees that, to the fullest extent permitted by applicable law, as between the Guarantor on the one hand and the Managing Administrative Agent and the Lenders on the other, the obligations of any Subsidiary Borrower under this Agreement may be declared to be forthwith due and payable as provided in Section 7 (and shall be deemed to have become automatically due and payable in the circumstances provided in Section 7) for purposes of Section 10.1 notwithstanding any stay, injunction or other prohibition preventing such declaration (or such obligations from becoming automatically due and payable) as against any Subsidiary Borrower and that, in the event of such declaration (or such obligations being deemed to have become automatically due and payable), such obligations (whether or not due and payable by such Subsidiary Borrower) shall forthwith become due and payable by the Guarantor for purposes of Section 10.1.

10.6 Continuing Guarantee. The guarantee in this Section 10 is a continuing guarantee, and shall apply to all Guaranteed Obligations whenever arising until the expiration or termination of the Commitments and payment in full of the principal of and interest on each Loan and all fees and other amounts payable hereunder.

[Signature Pages to Follow]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered by their proper and duly authorized officers as of the day and year first above written.

MASTERCARD INCORPORATED

By: /s/ Alfred Kibe

Name: Alfred Kibe

Title: Corporate Treasurer

Signature Page to the Credit Agreement

CITIBANK, N.A.,
as Managing Administrative Agent and as Lender
By: /s/ Maureen Maroney
Name: Maureen Maroney
Title: Vice President

Signature Page to the Credit Agreement

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent and as Lender

By: /s/ Keiko Kiyohara

Name: Keiko Kiyohara

Title: Vice President

Signature Page to the Credit Agreement

BANK OF CHINA, NEW YORK BRANCH,

as Lender

By: /s/ Chen Xu

Name: Chen Xu

Title: President & CEO

Signature Page to the Credit Agreement

DEUTSCHE BANK AG NEW YORK BRANCH,
as Lender

By: /s/ Ming K Chu

Name: Ming K Chu

Title: Director

By: /s/ Virginia Cosenza

Name: Virginia Cosenza

Title: Vice President

Signature Page to the Credit Agreement

U.S. BANK NATIONAL ASSOCIATION,

as Lender

By: /s/ Matt S Scullin

Name: Matt S Scullin

Title: Senior Vice President

Signature Page to the Credit Agreement

BANK OF AMERICA, N.A.,

as Lender

By: /s/ Stefanie Brown

Name: Stefanie Brown

Title: Vice President

Signature Page to the Credit Agreement

BARCLAYS BANK PLC,

as Lender

By: /s/ David J Williams

Name: David J Williams

Title: Director

Executed in New York

Signature Page to the Credit Agreement

GOLDMAN SACHS BANK USA,

as Lender

By: /s/ Ryan Durkin

Name: Ryan Durkin

Title: Authorized Signatory

Signature Page to the Credit Agreement

HSBC BANK USA, N.A.,

as Lender

By: /s/ Scott Yeager

Name: Scott Yeager

Title: Managing Director

Signature Page to the Credit Agreement

INDUSTRIAL AND COMMERCIAL
BANK OF CHINA LIMITED, NEW
YORK BRANCH,

as Lender

By: /s/ Letian Yan

Name: Letian Yan

Title: Assistant Vice President

By: /s/ Jeffrey Roth

Name: Jeffery Roth

Title: Executive Director

LLOYDS BANK CORPORATE
MARKETS PLC,

as Lender

By: /s/ Erin Walsh

Name: Erin Walsh

Title: Assistant Vice President

By: /s/ Daven Popat

Name: Daven Popat

Title: Senior Vice President

Signature Page to the Credit Agreement

MIZUHO BANK, LTD.,

as Lender

By: /s/ Donna DeMagistris

Name: Donna DeMagistris

Title: Authorized Signatory

Signature Page to the Credit Agreement

MUFG BANK, LTD.,

as Lender

By: /s/ Jacob Ulevich

Name: Jacob Ulevich

Title: Director

Signature Page to the Credit Agreement

NATWEST MARKETS PLC,

as Lender

By: /s/ Sinead Collister

Name: Sinead Collister

Title: Director

Signature Page to the Credit Agreement

SANTANDER BANK, N.A.,

as Lender

By: /s/ Xavier Ruiz Sena

Name: Xavier Ruiz Sena

Title: Managing Director

Signature Page to the Credit Agreement

SOCIÉTÉ GÉNÉRALE,

as Lender

By: /s/ John Hogan

Name: John Hogan

Title: Director

Signature Page to the Credit Agreement

BANK OF MONTREAL,

as Lender

By: /s/ Chris Clark

Name: Chris Clark

Title: Director

Signature Page to the Credit Agreement

Commonwealth Bank of Australia

as Lender

By: /s/ Emma Lazenby

Name: Emma Lazenby

Title: Associate Director

Signature Page to the Credit Agreement

COMMERZBANK AG, NEW YORK
BRANCH,

as Lender

By: /s/ Patrizia Lloyd

Name: Patrizia Lloyd

Title: Director

By: /s/ Michael McCarthy

Name: Michael McCarthy

Title: Managing Director

Signature Page to the Credit Agreement

Morgan Stanley Bank, N.A.,

as Lender

By: /s/ Michael King

Name: Michael King

Title: Authorized Signatory

Signature Page to the Credit Agreement

PNC Bank, N.A.,

as Lender

By: /s/ Eleanor Orlando

Name: Eleanor Orlando

Title: Vice President

Signature Page to the Credit Agreement

Standard Chartered Bank,

as Lender

By: /s/ Daniel Mattern

Name: Daniel Mattern

Title: Associate Director

Signature Page to the Credit Agreement

WELLS FARGO BANK, NATIONAL
ASSOCIATION

as Lender

By: /s/ Tracy Moosbrugger

Name: Tracy Moosbrugger

Title: Managing Director

Signature Page to the Credit Agreement

MATERIAL LITIGATION

None.

MATERIAL SUBSIDIARIES

| Name | Jurisdiction |
|---|---------------------|
| Global Mastercard Holdings LP | United Kingdom |
| Mastercard A&M Investment Holdings, LLC | Delaware |
| Mastercard Asia/Pacific Pte. Ltd. | Singapore |
| MasterCard Brasil Soluções de Pagamento Ltda. | Brazil |
| Mastercard/Europay U.K. Limited | United Kingdom |
| Mastercard Europe SA | Belgium |
| Mastercard Europe Services Limited | United Kingdom |
| Mastercard European Holding LLC | Delaware |
| Mastercard European Maatschap | Belgium |
| Mastercard European Share Holding B.V. | Netherlands |
| Mastercard Financing Pte. Ltd. | Singapore |
| Mastercard Financing Solutions LLC | Delaware |
| Mastercard Financing UK LP | United Kingdom |
| Mastercard Global Partners LP | Singapore |
| Mastercard Holdings LP | United Kingdom |
| Mastercard International Global Maatschap | Belgium |
| Mastercard International Incorporated | Delaware |
| Mastercard Netherlands B.V. | Netherlands |
| Mastercard Partners II LLC | Delaware |
| Mastercard Payment Gateway Services Group Limited | United Kingdom |
| Mastercard Technologies, LLC | Delaware |
| Mastercard UK Holdco Limited | United Kingdom |
| Mastercard US Holdings LLC | Delaware |
| Purchase Street Research, LLC | Delaware |

EXISTING LIENS

| | Debtor | Secured Party | Filing Jurisdiction | Filing Number Filing Date | Collateral Description/Comments |
|-----|------------------------------|-----------------------------|-------------------------------|---|--|
| 1. | Mastercard Technologies, LLC | IBM Credit LLC | Delaware - Secretary of State | UCC-1 #2012 5048063 12/26/2012 | Precautionary filing in connection with IBM equipment |
| 2. | Mastercard Technologies, LLC | IBM Credit LLC | Delaware - Secretary of State | UCC-1 #2013 1134361 03/25/2013 | Precautionary filing in connection with IBM equipment |
| 3. | Mastercard Technologies, LLC | IBM Credit LLC | Delaware - Secretary of State | UCC-1 #2013 3392868 08/29/2013 | Precautionary filing in connection with IBM equipment |
| 4. | Mastercard Technologies, LLC | IBM Credit LLC | Delaware - Secretary of State | UCC-1 #2013 3618890 09/17/2013 | Precautionary filing in connection with IBM equipment |
| 5. | Mastercard Technologies, LLC | IBM Credit LLC | Delaware - Secretary of State | UCC-1 #2014 1226984 03/28/2014 | Precautionary filing in connection with IBM equipment |
| 6. | Mastercard Technologies, LLC | IBM Credit LLC | Delaware - Secretary of State | UCC-1 #2014 2467405 06/23/2014 | Precautionary filing in connection with IBM equipment |
| 7. | Mastercard Technologies, LLC | IBM Credit LLC | Delaware - Secretary of State | UCC-1 # 2015 1286813 03/26/2015 | Precautionary filing in connection with IBM equipment |
| 8. | Mastercard Technologies, LLC | IBM Credit LLC | Delaware - Secretary of State | UCC-1 #2015 1350296 03/31/2015 | Precautionary filing in connection with IBM equipment |
| 9. | Mastercard Technologies, LLC | IBM Credit LLC | Delaware - Secretary of State | UCC-1 #2015 3631123 08/20/2015 | Precautionary filing in connection with IBM equipment |
| 10. | Mastercard Technologies, LLC | IBM Credit LLC | Delaware - Secretary of State | UCC-1 #2016 1971058 04/04/2016 | Precautionary filing in connection with IBM equipment |
| 11. | Mastercard Technologies, LLC | AT&T Corp. | Delaware - Secretary of State | UCC-1 #2018 5828872 08/23/2018 | Precautionary filing in connection with AT&T equipment |
| 12. | Mastercard Technologies, LLC | AT&T Capital Services, Inc. | Delaware - Secretary of State | UCC-3 Assignment #2018 5828872 08/23/2018 | Precautionary filing in connection with AT&T equipment |

[FORM OF REVOLVING CREDIT NOTE]

THIS NOTE MAY NOT BE TRANSFERRED EXCEPT IN COMPLIANCE WITH THE TERMS AND PROVISIONS OF THE CREDIT AGREEMENT REFERRED TO BELOW. TRANSFERS OF THIS NOTE (OTHER THAN PLEDGES OR ASSIGNMENTS HEREOF TO ANY FEDERAL RESERVE BANK) MUST BE RECORDED IN THE REGISTER MAINTAINED BY THE MANAGING ADMINISTRATIVE AGENT PURSUANT TO THE TERMS OF SUCH CREDIT AGREEMENT .

REVOLVING CREDIT NOTE

[\$][€] _____ New York, New York

_____, 20__

FOR VALUE RECEIVED, the undersigned, [MASTERCARD INCORPORATED, a Delaware corporation (the “Company”), [[Name of Subsidiary Borrower], a [Jurisdiction] [Organization] (the “Borrower”), hereby unconditionally promises to pay in immediately available funds and in the respective Currencies in which such Revolving Credit Loans are denominated, on the Revolving Credit Termination Date the aggregate unpaid principal amount of all Revolving Credit Loans made by _____ (the “Lender”) to the [Company][Borrower] into the Managing Administrative Agent’s Account, in the applicable Currency and in immediately available funds, on the Revolving Credit Termination Date the principal amount of _____ [DOLLARS][EUROS] ([\$][€] _____), or, if less, the aggregate unpaid principal amount of all Revolving Credit Loans made by the Lender to the [Company][Borrower] pursuant to Section 2.1 of the Credit Agreement (as defined below). The [Company][Borrower] further agrees to pay interest in like money at such office on the unpaid principal amount of Revolving Credit Loans made by the Lender from time to time outstanding at the rates and on the dates specified in the Credit Agreement.

The holder of this Note is authorized to record on Schedule A annexed hereto and made a part hereof or on a continuation thereof which shall be attached hereto and made a part hereof the date, Type, Currency and amount of each Revolving Credit Loan made by the Lender and the date and amount of each payment or prepayment of principal thereof, each conversion of all or a portion thereof to another Type, each continuation of all or a portion thereof as the same Type and, in the case of LIBOR Loans, the length of each Interest Period and the London Interbank Offered Rate with respect thereto. Each such recordation shall, to the extent permitted by applicable law, constitute conclusive evidence (absent manifest error) of the accuracy of the information so recorded, provided that the failure to make any such recordation shall not affect the obligation of the [Company][Borrower] to repay (with applicable interest) Revolving Credit Loans made by the Lender pursuant to the Credit Agreement.

This Note (a) is one of the Revolving Credit Notes referred to in the Second Amended and Restated Credit Agreement, dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), among Mastercard Incorporated, the Subsidiary Borrowers from time to time parties thereto, the Lenders, the other banks and financial institutions from time to time parties thereto, Citibank, N. A., as Managing Administrative Agent and JPMorgan Chase Bank, N.A., as Administrative Agent, (b) is subject to the provisions of the Credit Agreement and (c) is subject to optional and mandatory prepayment in whole or in part as provided in the Credit Agreement.

Upon the occurrence of any one or more of the Events of Default, all amounts then remaining unpaid on this Note shall become, or may be declared to be, immediately due and payable, all as provided in the Credit Agreement.

All parties now and hereafter liable with respect to this Note, whether maker, principal, surety, guarantor, endorser or otherwise, hereby waive presentment, demand, protest and all other notices of any kind.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

THIS NOTE SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK .

[MASTERCARD INCORPORATED][NAME OF
SUBSIDIARY BORROWER]

By: _____

Name:

Title:

**Schedule A
to Revolving Credit Note**

LOANS, CONTINUATIONS, CONVERSIONS AND REPAYMENTS OF LIBOR LOANS

| Date | Amount of LIBOR Loans | Amount Converted to or Continued as LIBOR Loans | Interest Period and London Interbank Offered Rate with Respect Thereto | Amount of Principal of LIBOR Loans Repaid | Amount of LIBOR Loans Converted to ABR Loans | Unpaid Principal Balance of LIBOR Loans | Notation Made By |
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[FORM OF SWING LINE NOTE]

THIS NOTE MAY NOT BE TRANSFERRED EXCEPT IN COMPLIANCE WITH THE TERMS AND PROVISIONS OF THE CREDIT AGREEMENT REFERRED TO BELOW. TRANSFERS OF THIS NOTE (OTHER THAN PLEDGES OR ASSIGNMENTS HEREOF TO ANY FEDERAL RESERVE BANK) MUST BE RECORDED IN THE REGISTER MAINTAINED BY THE MANAGING ADMINISTRATIVE AGENT PURSUANT TO THE TERMS OF SUCH CREDIT AGREEMENT .

SWING LINE NOTE

\$ _____

New York, New York

_____, 20__

FOR VALUE RECEIVED, the undersigned, MASTERCARD INCORPORATED, a Delaware corporation (the “Company”), hereby unconditionally promises to pay [CITIBANK, N.A.] / [] (the “Swing Line Lender”), at its office located at [_____] in lawful money of the United States and in immediately available funds, on the Revolving Credit Termination Date, the principal amount of _____ DOLLARS (\$____) or, if less, the aggregate unpaid principal amount of the Swing Line Loans made by the Swing Line Lender to the Company pursuant to Section 2.13 of the Credit Agreement (as defined below). The Company further agrees to pay interest in like money at said office on the unpaid principal amount of Swing Line Loans from time to time outstanding at the rates and on the dates specified in the Credit Agreement.

The Swing Line Lender is authorized to record the date and the amount of each Swing Line Loan made by the Swing Line Lender to the Company pursuant to Section 2.13 of the Credit Agreement and the date and amount of each payment or prepayment of principal thereof on Schedule A annexed hereto and made a part hereof and any such recordation shall, to the extent permitted by applicable law, constitute conclusive evidence (absent manifest error) of the accuracy of the information so recorded, provided that any failure by the Swing Line Lender to make such recordation shall not affect the obligation of the Company to repay (with applicable interest) the Swing Line Loans made by the Swing Line Lender pursuant to the Credit Agreement.

This Note (a) is one of the Swing Line Notes referred to in the Second Amended and Restated Credit Agreement, dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), among the Company, the Subsidiary Borrowers from time to time parties thereto, the Swing Line Lender, the other banks and financial institutions from time to time parties thereto, Citibank, N.A., as Managing Administrative Agent and JPMorgan Chase Bank, N.A., as Administrative Agent, (b) is subject to the provisions of the Credit Agreement and (c) is subject to optional and mandatory prepayment in whole or in part as provided in the Credit Agreement.

Upon the occurrence of any one or more of the Events of Default, all amounts then remaining unpaid on this Note shall become, or may be declared to be, immediately due and payable, all as provided in the Credit Agreement.

All parties now and hereafter liable with respect to this Note, whether maker, principal, surety, guarantor, endorser or otherwise, hereby waive presentment, demand, protest and all other notices of any kind.

Unless otherwise defined herein terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

THIS NOTE SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK.

MASTERCARD INCORPORATED

By: _____

Name:

Title:

LOANS AND REPAYMENTS

| Date | Amount of Swing Line Loans Made | Amount of Swing Line Loans Repaid | Unpaid Principal Balance of Swing Line Loans | Notation Made By |
|------|---------------------------------|-----------------------------------|--|------------------|
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[FORM OF CLOSING CERTIFICATE]**MASTERCARD INCORPORATED - 2018 SECOND AMENDED AND RESTATED CREDIT AGREEMENT
CLOSING CERTIFICATE
AS OF NOVEMBER 15, 2018**

Pursuant to subsections 4.1 (b), 4.1(c), 4.1(d) and 4.1(e) of the Second Amended and Restated Credit Agreement, dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), among Mastercard Incorporated, a Delaware corporation the “Company”), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions from time to time parties thereto (the “Lenders”), Citibank, N.A., as Managing Administrative Agent for the Lenders, JPMorgan Chase Bank, N.A., as Administrative Agent for the Lenders, the undersigned, the Corporate Treasurer of Company, hereby certifies as follows:

1. The representations and warranties of the Company set forth in the Credit Agreement and each of the other Loan Documents are true and correct in all material respects (except that such representations and warranties that are qualified as to materiality are true and correct in all respects) on and as of the date hereof as if made on and as of the date hereof, except for representations and warranties expressly stated to relate to a specific earlier date, in which case such representations and warranties were true and correct as of such earlier date;

2. No Default or Event of Default has occurred and is continuing as of the date hereof or will occur after giving effect to the making of the Loans on the date hereof or the consummation of each of the transactions contemplated by the Loan Documents; and

3. Seth Pruss is and at all times since June 28, 2016, has been the duly elected and qualified Assistant Corporate Secretary of the Company and the signature set forth on the signature line for such officer below is such officer’s true and genuine signature and such officer is duly authorized to execute and deliver on behalf of the Company, this certificate;

and the undersigned Assistant Corporate Secretary of the Company hereby certifies as follows:

4. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of Delaware and attached hereto as Exhibit A is a certificate issued by the Secretary of State of the State of Delaware certifying as to the good standing of the Company;

5. (i) Attached hereto as Exhibit B is a true and complete copy of resolutions duly adopted by the Board of Directors of the Company on September 17, 2018, approving and authorizing the execution, delivery and performance of the Credit Agreement and the other Loan Documents (all in compliance with the description and indicative terms of the Future Credit Facility as set forth in the Credit Facility Presentation, as these terms are referred to therein); such resolutions have not in any way been amended, modified, revoked or rescinded and have been in full force and effect since their adoption to and including the date hereof and are now in full force and effect; such resolutions are the only corporate proceedings of the Company now in force relating to or affecting the matters referred to therein;

(ii) attached hereto as Exhibit C is a true and complete copy of the by-laws of the Company as amended or restated on or prior to the date hereof and as in effect at all times since September 29, 2016, to and including the date hereof, and

(iii) attached hereto as Exhibit D is a true and complete copy of the certificate of incorporation of the Company, as amended or restated on or prior to the date hereof and as in effect at all times since September 29, 2016, to and including the date hereof; and

6. The following person is now a duly elected and qualified officer of the Company, holding the office indicated next to his name below, and such officer has held such office with the Company at all times since April 17, 2017, to and including the date hereof, and the signature appearing opposite his name below is the true and genuine signature of such officer, and such officer is duly authorized to execute and deliver on behalf of the Company, the Credit Agreement and the other Loan Documents and any certificate or other document to be delivered by the Company pursuant to the Credit Agreement or any such Loan Document:

| <u>Name</u> | <u>Office</u> | <u>Signature</u> |
|-------------|---------------------|------------------|
| Alfred Kibe | Corporate Treasurer | _____ |

Unless otherwise defined herein, capitalized terms which are defined in the Credit Agreement and used herein are so used as so defined.

[*remainder of page intentionally blank*]

IN WITNESS WHEREOF, the undersigned have hereunto set our names as of the date first set forth above.

MASTERCARD INCORPORATED

By: _____

Name: Alfred Kibe

Title: Corporate Treasurer

By: _____

Name: Seth Pruss

Title: Assistant Corporate Secretary

[FORM OF SWING LINE LOAN PARTICIPATION CERTIFICATE]

SWING LINE LOAN PARTICIPATION CERTIFICATE

_____, 20__

[Name of Lender]

Ladies and Gentlemen:

Pursuant to subsection 2.13(e) of the Second Amended and Restated Credit Agreement, dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”; unless otherwise defined herein, terms defined in the Credit Agreement are used herein as therein defined), among Mastercard Incorporated, a Delaware corporation (the “Company”), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions from time to time parties thereto (the “Lenders”), Citibank, N.A., as Managing Administrative Agent for the Lenders thereunder (in such capacity, the “Managing Administrative Agent”), and JPMorgan Chase Bank, N.A., as Administrative Agent for the Lenders thereunder (in such capacity, the “Administrative Agent”), the undersigned, as Swing Line Lender under the Credit Agreement, hereby acknowledges receipt from you on the date hereof of _____ DOLLARS (\$____) as payment for a participating interest in the following Swing Line Loan:

Date of Swing Line Loan: _____

Principal Amount of Swing Line Loan Participating Interest: \$ _____

Very truly yours,

[SWING LINE LENDER]

By: _____
Name:
Title:

[FORM OF SUBSIDIARY BORROWER DESIGNATION]**SUBSIDIARY BORROWER DESIGNATION**

_____, 201_

Citibank, N.A.,
 as Managing Administrative Agent
 1615 Brett Road,
 OPS III
 New Castle, Delaware 19720
 Attention: Agency Department

JPMorgan Chase Bank, N.A.,
 as Administrative Agent
 500 Stanton Christiana Road, Ops 2/3
 Newark, Delaware 19713-2107
 Attention: JPM-Delaware Loan Operations, Deepak Krishna
 Fax: 201-244-3885 (Send all notices by fax)

Re: Subsidiary Borrower Designation

Ladies and Gentlemen:

Reference is made to the Second Amended and Restated Credit Agreement, dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), among Mastercard Incorporated, a Delaware corporation (the “Company”), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions from time to time parties thereto (the “Lenders”), Citibank, N.A., as Managing Administrative Agent for the Lenders (in such capacity, the “Managing Administrative Agent”) and JPMorgan Chase Bank, N.A., as Administrative Agent for the Lenders (in such capacity, the “Administrative Agent”). Unless otherwise defined herein, capitalized terms used herein have the meanings provided in the Credit Agreement.

The Company hereby designates [_____] (the “Subject Subsidiary”), a Subsidiary of the Company and a [corporation] duly organized under the laws of [_____] , as a Subsidiary Borrower in accordance with Section 2.23(a) of the Credit Agreement until such designation is terminated in accordance with Section 2.23(c) of the Credit Agreement.

The Subject Subsidiary hereby accepts the above designation and hereby expressly and unconditionally accepts the obligations of a Subsidiary Borrower under the Credit Agreement, adheres to the Credit Agreement and agrees and confirms that, upon your execution and return to the Company of the enclosed copy of this Subsidiary Borrower Designation, it shall be a Subsidiary Borrower for purposes of the Credit Agreement and agrees to be bound by and perform and comply with the terms and provisions of the Credit Agreement applicable to it as if it had originally executed the Credit Agreement as a Subsidiary Borrower.

The Company hereby confirms and agrees that after giving effect to this Subsidiary Borrower Designation the Guarantee of the Company contained in Section 10 of the Credit Agreement shall apply to all of the obligations of the Subject Subsidiary under the Credit Agreement.

The Company and the Subject Subsidiary (as applicable pursuant to Section 3.19) hereby represents and warrants to the Managing Administrative Agent and each Lender that each of the representations and warranties set forth in Section 3 of the Credit Agreement is true and correct in all material respects (or, in the case of any such representations and warranties qualified as to materiality, in all respects) as of the Joinder Effective Date (as defined below).

The Subject Subsidiary's addresses for notices, other communications and service of process provided for in the Credit Agreement shall be given in the manner, and with the effect, specified in Section 9.2 of the Credit Agreement to it at its "Address for Notices" specified on the signature pages below.

The Subject Subsidiary shall deliver to the Administrative Agent the documents and certificates set forth in, or required by, Section 2.23(b) of the Credit Agreement.

The designation of the Subject Subsidiary as a Subsidiary Borrower under the Credit Agreement shall become effective as of the date (the "Joinder Effective Date") on which the Administrative Agent accepts this Subsidiary Borrower Designation as provided on the signature pages below. As of the Joinder Effective Date, the Subject Subsidiary shall be entitled to the rights, and subject to the obligations, of a Subsidiary Borrower. Except as expressly herein provided, the Credit Agreement shall remain unchanged and in full force and effect.

The Subject Subsidiary hereby agrees that this Subsidiary Borrower Designation, the Credit Agreement and the Notes shall be governed by, and construed and interpreted in accordance with, the law of the State of New York. The Subsidiary Borrower hereby irrevocably and unconditionally submits for itself and its property in any legal action or proceeding relating to this Agreement and the other Loan Documents, or for recognition and enforcement of any judgment in respect thereof, to the exclusive general jurisdiction of the courts of the State and County of New York, the courts of the United States for the Southern District of New York, and appellate courts from any thereof, and consents that any such action or proceeding may be brought in such courts and waives any objection that it may now or hereafter have to the venue of any such action or proceeding in any such court or that such action or proceeding was brought in an inconvenient court and agrees not to plead or claim the same. THE SUBJECT SUBSIDIARY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS SUBSIDIARY BORROWER DESIGNATION, THE CREDIT AGREEMENT OR THE TRANSACTIONS CONTEMPLATED THEREBY.

This Subsidiary Borrower Designation may be executed in any number of counterparts, all of which taken together shall constitute one and the same agreement.

IN WITNESS WHEREOF, the Company and the Subject Subsidiary have caused this Subsidiary Borrower Designation to be duly executed and delivered as of the day and year first above written.

MASTERCARD INCORPORATED

By: _____
Name:
Title:

[NAME OF SUBSIDIARY
BORROWER]

By: _____
Name:
Title:

Address for Notices
c/o Mastercard Incorporated
2000 Purchase Street
Purchase, New York 10577-2509
Attention: Corporate Treasurer
Telephone: 914-249-2771

ACCEPTED:

CITIBANK, N.A.,
as Managing Administrative Agent

By: _____
Name:
Title:

[FORM OF SUBSIDIARY BORROWER TERMINATION NOTICE]**SUBSIDIARY BORROWER TERMINATION NOTICE**

[Date]

To: Citibank, N.A. (the “Managing Administrative Agent”) and JPMorgan Chase Bank, N.A. (the “Administrative Agent”)

From: Mastercard Incorporated (the “Company”)

Reference is made to the Second Amended and Restated Credit Agreement, dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), among Mastercard Incorporated, a Delaware corporation (the “Company”), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions from time to time parties thereto (the “Lenders”), Citibank, N.A., as Managing Administrative Agent for the Lenders (in such capacity, the “Managing Administrative Agent”) and JPMorgan Chase Bank, N.A., as Administrative Agent for the Lenders (in such capacity, the “Administrative Agent”). Unless otherwise defined herein, capitalized terms used herein have the meanings provided in the Credit Agreement.

The Company hereby gives notice pursuant to Section 2.23(c) of the Credit Agreement that, effective as of the date hereof, [_____] (the “Subject Subsidiary”) is terminated as a Subsidiary Borrower under the Credit Agreement and all commitments by the Lenders to make Loans to such Subsidiary Borrower under the Credit Agreement are hereby terminated.

Pursuant to Section 2.23(c) of the Credit Agreement, the Company hereby certifies that there are no outstanding Loans made to or Letters of Credit for the account of the Subject Subsidiary, or unpaid interest thereon or other amounts owing by the Subject Subsidiary under the Credit Agreement.

All obligations of Subject Subsidiary arising in respect of any period in which Subject Subsidiary was, or on account of any action or inaction taken by Subject Subsidiary as, a Subsidiary Borrower under the Credit Agreement shall survive the termination effected by this notice.

MASTERCARD
INCORPORATED

By: _____
Name:
Title:

[FORM OF OPINION OF GENERAL COUNSEL OF THE COMPANY]

Attached

[FORM OF OPINION OF SPECIAL NEW YORK COUNSEL TO THE MANAGING ADMINISTRATIVE AGENT]

Attached

[FORM OF BORROWING NOTICE]**BORROWING NOTICE**

Citibank, N.A.,
 as Managing Administrative Agent
 1615 Brett Road,
 OPS III
 New Castle, Delaware 19720
 Attention: Agency Department

JPMorgan Chase Bank, N.A.,
 as Administrative Agent
 500 Stanton Christiana Road, Ops 2/3
 Newark, Delaware 19713-2107
 Attention: JPM-Delaware Loan Operations, Deepak Krishna
 Fax: 201-244-3885 (Send all notices by fax)

Dear Sirs:

This Borrowing Notice is delivered to you by the undersigned (the [Company][Borrower]) in connection with Section 2.2 of the Second Amended and Restated Credit Agreement, dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Mastercard Incorporated (the "Company"), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions from time to time parties thereto (the "Lenders"), Citibank, N.A., as Managing Administrative Agent for the Lenders and JPMorgan Chase Bank, N.A., as Administrative Agent for the Lenders. Unless otherwise defined herein, capitalized terms used herein have the meanings provided in the Credit Agreement.

The [Company][Borrower] hereby requests that Loans be made in the aggregate principal amount of [\$/€]_____ on _____, 20__ (the "Borrowing Date"). The [Company][Borrower] requests that such Loans be made as ¹ [LIBOR Loans in a principal amount of [\$/€]_____ having an initial Interest Period of [one week][____ months][ABR Loans in a principal amount of \$_____]. The [Company][Borrower] requests that the Loans requested be paid into account at [bank].

¹ Insert appropriate interest rate option, and, if applicable, interest period. If Loans are to be a combination of LIBOR and ABR Loans, specify the respective amounts of each type.

The Company [and the Borrower (as applicable pursuant to Section 3.19 of the Credit Agreement)] hereby certifies that the representations and warranties contained in Section 3 of the Credit Agreement (excluding the representations and warranties made in Section 3.2 and 3.6) will be true and correct in all material respects (except that such representations and warranties that are qualified as to materiality will be true and correct in all respects) on and as of the Borrowing Date with the same effect as if made on and as of such date both before and after giving effect to the Loans to be made on the Borrowing Date and that no event has occurred or will be continuing on the Borrowing Date, or will result from the making of the Loans to be made on the Borrowing Date, which constitutes a Default or an Event of Default.

IN WITNESS WHEREOF, the [Company][Borrower] has caused this request and certificate to be executed and delivered by its duly authorized officer this _____ day of _____, 20__.

MASTERCARD INCORPORATED

By: _____
Name:
Title:

[NAME OF SUBSIDIARY
BORROWER]

By: _____
Name:
Title:

[FORM OF ASSIGNMENT AND ACCEPTANCE]**ASSIGNMENT AND ACCEPTANCE**

Reference is made to the Second Amended and Restated Credit Agreement, dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), among Mastercard Incorporated, a Delaware corporation (the “Company”), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions from time to time parties thereto (the “Lenders”), Citibank, N.A., as Managing Administrative Agent for the Lenders (in such capacity, the “Managing Administrative Agent”) and JPMorgan Chase Bank, N.A., as Administrative Agent for the Lenders (in such capacity, the “Administrative Agent”). Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

_____ (the “Assignor”) and _____ (the “Assignee”) agree as follows:

- i. The Assignor hereby irrevocably sells and assigns to the Assignee without recourse to the Assignor, and the Assignee hereby irrevocably purchases and assumes from the Assignor without recourse to the Assignor, as of the Effective Date (as defined below) (but not prior to the registration of the information contained herein in the Register pursuant to subsection 9.6(e) of the Credit Agreement), an interest (the “Assigned Interest”) in and to the Assignor’s rights and obligations under the Credit Agreement with respect to those credit facilities contained in the Credit Agreement as are set forth on Schedule 1 (individually, an “Assigned Facility”; collectively, the “Assigned Facilities”), in a principal amount for each Assigned Facility as set forth on Schedule 1.
- ii. The Assignor (a) makes no representation or warranty and assumes no responsibility with respect to any statements, warranties or representations made in or in connection with the Credit Agreement, any other Loan Document or any other instrument or document furnished pursuant thereto, or with respect to the execution, legality, validity, enforceability, genuineness, sufficiency or value of the Credit Agreement, any other Loan Document or any other instrument or document furnished pursuant thereto, other than that the Assignor has not created any adverse claim upon the interest being assigned by it hereunder and that such interest is free and clear of any such adverse claim; (b) makes no representation or warranty and assumes no responsibility with respect to the financial condition of the Company, any of its Subsidiaries or any other obligor or the performance or observance by the Company, any of its Subsidiaries or any other obligor of any of their respective obligations under the Credit Agreement or any other Loan Document or any other instrument or document furnished pursuant hereto or thereto; and (c) (i) requests that the Managing Administrative Agent, upon request by the Assignee, (a) exchange any attached Notes for a new Note or Notes payable to the Assignee or, (b) if the Assignor does not hold any Notes, issue a new Note or Notes payable to the Assignee if so requested and (ii) if (A) the Assignor has retained any interest in the Assigned Facility and (B) the Assignor holds any Notes, requests that the Managing Administrative Agent exchange the attached Notes for a new Note or Notes payable to the Assignor, in each case in amounts which reflect the assignment being made hereby (and after giving effect to any other assignments which have become effective on the Effective Date).
- iii. The Assignee (a) represents and warrants that it is legally authorized to enter into this Assignment and Acceptance; (b) confirms that, to the extent it has so required, it has received a copy of the Credit Agreement, together with copies of the financial statements referred to in or delivered pursuant to Sections 3.1 and 5.1 thereof and such other documents and information as it has deemed

appropriate to make its own credit analysis and decision to enter into this Assignment and Acceptance; (c) agrees that it will, independently and without reliance upon the Assignor, the Managing Administrative Agent or any other Lender and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under the Credit Agreement, the other Loan Documents or any other instrument or document furnished pursuant hereto or thereto; (d) appoints and authorizes the Managing Administrative Agent to take such action as Managing Administrative Agent on its behalf and to exercise such powers and discretion under the Credit Agreement, the other Loan Documents or any other instrument or document furnished pursuant hereto or thereto as are delegated to the Managing Administrative Agent by the terms thereof, together with such powers as are incidental thereto; and (e) agrees that, with respect to the Assigned Interest, it will be a party to and bound by the provisions of the Credit Agreement and will perform in accordance with its terms all the obligations which by the terms of the Credit Agreement are required to be performed by it as a Lender including, if it is organized under the laws of a jurisdiction outside the United States, its obligations pursuant to subsection 2.16(b) of the Credit Agreement.

iv. The effective date of this Assignment and Acceptance shall be _____, 20__ (the “Effective Date”). Following the execution of this Assignment and Acceptance and the consent hereto by the Company to the extent required under the Credit Agreement, it will be delivered to the Managing Administrative Agent for acceptance by it and recording by the Managing Administrative Agent pursuant to the Credit Agreement, effective as of the Effective Date (which shall not, unless otherwise agreed to by the Managing Administrative Agent, be earlier than five Business Days after the date of such acceptance and recording by the Managing Administrative Agent).

v. Upon such acceptance and recording, from and after the Effective Date, the Managing Administrative Agent shall make all payments in respect of the Assigned Interest (including payments of principal, interest, fees and other amounts) to the Assignor and Assignee. The Assignor and the Assignee shall make all appropriate adjustments in payments by the Managing Administrative Agent for periods prior to the Effective Date or with respect to the making of this assignment directly between themselves.

vi. From and after the Effective Date, (a) the Assignee shall, with respect to the Assigned Interest, be a party to the Credit Agreement and, to the extent provided in this Assignment and Acceptance, have the rights and obligations of a Lender thereunder and under the other Loan Documents and shall be bound by the provisions thereof and (b) the Assignor shall, to the extent provided in this Assignment and Acceptance, relinquish its rights (except pursuant to Sections 2.14, 2.15 and 9.5 of the Credit Agreement) and be released from its obligations under the Credit Agreement.

vii. This Assignment and Acceptance shall be governed by and construed in accordance with the law of the State of New York.

viii. This Agreement may be executed by one or more of the parties to this Agreement on any number of separate counterparts (including by facsimile transmission), and all of said counterparts taken together shall be deemed to constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Assignment and Acceptance to be executed as of the date first above written by their respective duly authorized officers on Schedule 1 hereto.

Schedule 1 to Assignment and Acceptance

Re: Assignment and Acceptance relating to the Second Amended and Restated Credit Agreement, dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), among Mastercard Incorporated, a Delaware corporation (the “Company”), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions from time to time parties thereto (the “Lenders”), Citibank, N.A., as Managing Administrative Agent for the Lenders (in such capacity, the “Managing Administrative Agent”) and JPMorgan Chase Bank, N.A., as Administrative Agent for the Lenders (in such capacity, the “Administrative Agent”).

Name of Assignor:

Name of Assignee:

Effective Date of Assignment:

Credit Facility Assigned
Revolving Credit

Principal Amount Assigned
\$ _____

The terms set forth above are hereby agreed to by:

[NAME OF ASSIGNEE]

[NAME OF ASSIGNOR]

By

By

Name:

Name:

Title:

Title:

[Consented to and] ² Accepted:

[Consented To:] ³

CITIBANK, N.A., as Managing Administrative Agent

MASTERCARD INCORPORATED

By

By

Name:

Name:

Title:

Title:

[Consented To:] ⁴

CITIBANK, N.A., as Swing Line Lender

[] , as Swing Line Lender

By

By

Name:

Name:

Title:

Title:

² If required of the Managing Administrative Agent by Section 9.6(c)(i) of the Credit Agreement.

³ If required of the Company by Section 9.6(c)(i) of the Credit Agreement.

⁴ If required of the Swing Line Lenders by Section 9.6(c)(i) of the Credit Agreement.

[FORM OF COMPLIANCE CERTIFICATE]

COMPLIANCE CERTIFICATE

Pursuant to subsection 5.2(a) of the Second Amended and Restated Credit Agreement, dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), among Mastercard Incorporated, a Delaware corporation (the “Company”), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions from time to time parties thereto (the “Lenders”), Citibank, N.A., as Managing Administrative Agent for the Lenders and JPMorgan Chase Bank, N.A., as Administrative Agent for the Lenders, the undersigned, _____ of the Company, hereby certifies that during the period from [_____] to [_____] (the “Reporting Period”), except as set forth on Schedule I hereto:

1. To the best of my knowledge, during Reporting Period, the Company has observed or performed all of its covenants and other agreements, and satisfied every condition, contained in the Credit Agreement, including the negative covenant set forth in Section 6.1 of the Credit Agreement, and the other Loan Documents to be observed, performed or satisfied by it.
2. No Default or Event of Default has occurred and is continuing as of the date hereof.
3. Attached are true and correct calculations demonstrating compliance with Section 6.1 of the Credit Agreement.

Unless otherwise defined herein, capitalized terms which are defined in the Credit Agreement and used herein are so used as so defined.

IN WITNESS WHEREOF, the undersigned has hereunto set his or her name and affixed the corporate seal.

MASTERCARD
INCORPORATED

By: _____
Name:
Title:

Date: _____,
20____

[Disclosure]

[FORM OF NEW LENDER SUPPLEMENT]**NEW LENDER SUPPLEMENT**

SUPPLEMENT, dated _____, to the Second Amended and Restated Credit Agreement dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), among MASTERCARD INCORPORATED, a Delaware corporation (the “Company”), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions parties thereto (the “Lenders”), CITIBANK, N.A., as Managing Administrative Agent (in such capacity, the “Managing Administrative Agent”) for the Lenders and JPMorgan Chase Bank, N.A., as Administrative Agent (in such capacity, the “Administrative Agent”) for the Lenders.

WITNESSETH:

WHEREAS, the Credit Agreement provides in subsection 2.18(b) thereof that any bank, financial institution or other entity, although not originally a party thereto, may become a party to the Credit Agreement with the consent of the Company and the Managing Administrative Agent by executing and delivering to the Company and the Managing Administrative Agent a supplement to the Credit Agreement in substantially the form of this Supplement; and

WHEREAS, the undersigned was not an original party to the Credit Agreement but now desires to become a party thereto;

NOW, THEREFORE, the undersigned hereby agrees as follows:

1. The undersigned agrees to be bound by the provisions of the Credit Agreement, and agrees that it shall, on the date this Supplement is accepted by the Company and the Managing Administrative Agent, become a Lender for all purposes of the Credit Agreement to the same extent as if originally a party thereto, with a Commitment of \$_____.

2. The undersigned (a) represents and warrants that it is legally authorized to enter into this Supplement; (b) confirms that it has received a copy of the Credit Agreement, together with copies of the financial statements delivered pursuant to Sections 3.1 and 5.1 thereof and such other documents and information as it has deemed appropriate to make its own credit analysis and decision to enter into this Supplement; (c) agrees that it has made and will, independently and without reliance upon the Managing Administrative Agent or any other Lender and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under the Credit Agreement or any instrument or document furnished pursuant hereto or thereto; (d) appoints and authorizes the Managing Administrative Agent to take such action as Managing Administrative Agent on its behalf and to exercise such powers and discretion under the Credit Agreement or any instrument or document furnished pursuant hereto or thereto as are delegated to the Managing Administrative Agent by the terms thereof, together with such powers as are incidental thereto; and (e) agrees that it will be bound by the provisions of the Credit Agreement and will perform in accordance with its terms all the obligations which by the terms of the Credit Agreement are required to be performed by it as a Lender including, without limitation, if it is organized under the laws of a jurisdiction outside the United States, its obligation pursuant to subsection 2.16(b) of the Credit Agreement.

3. The undersigned's address for notices for the purposes of the Credit Agreement is as follows:

4. Terms defined in the Credit Agreement shall have their defined meanings when used herein.

IN WITNESS WHEREOF, the undersigned has caused this Supplement to be executed and delivered by a duly authorized officer on the date first above written.

[INSERT NAME OF
LENDER]

By: _____
Name: _____
Title: _____

Accepted this _____ day of
_____, _____.

MASTERCARD INCORPORATED

By: _____
Name: _____
Title: _____

Accepted this _____ day of
_____, _____.

CITIBANK, N.A., as Managing Administrative Agent

By: _____
Name: _____
Title: _____

[FORM OF COMMITMENT INCREASE SUPPLEMENT]**COMMITMENT INCREASE SUPPLEMENT**

SUPPLEMENT, dated _____, to the Second Amended and Restated Credit Agreement dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), among MASTERCARD INCORPORATED, a Delaware corporation (the “Company”), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions parties thereto (the “Lenders”), CITIBANK, N.A., as Managing Administrative Agent (in such capacity, the “Managing Administrative Agent”) for the Lenders and JPMorgan Chase Bank, N.A., as Administrative Agent (in such capacity, the “Administrative Agent”) for the Lenders.

WITNESSETH:

WHEREAS, the Credit Agreement provides in subsection 2.18(c) thereof that any Lender with (when applicable) the consent of the Company may increase the amount of its Commitment by executing and delivering to the Company and the Managing Administrative Agent a supplement to the Credit Agreement in substantially the form of this Supplement; and

WHEREAS, the undersigned now desires to increase the amount of its Commitment under the Credit Agreement;

NOW THEREFORE, the undersigned hereby agrees as follows:

1. The undersigned agrees, subject to the terms and conditions of the Credit Agreement, that on the date this Supplement is accepted by the Company and the Managing Administrative Agent it shall have its Commitment increased by \$ _____, thereby making the total amount of its Commitment \$ _____.
2. Terms defined in the Credit Agreement shall have their defined meanings when used herein.

[remainder of page intentionally blank]

IN WITNESS WHEREOF, the undersigned has caused this Supplement to be executed and delivered by a duly authorized officer on the date first above written.

[INSERT NAME OF
LENDER]

By: _____
Name: _____
Title: _____

Accepted this _____ day of
_____, _____.

MASTERCARD INCORPORATED

By: _____
Name: _____
Title: _____

Accepted this _____ day of
_____, _____.

CITIBANK, N.A., as Managing Administrative Agent

By: _____
Name: _____
Title: _____

[FORM OF U.S. TAX CERTIFICATE]

U.S. TAX CERTIFICATE

(For Non-U.S. Lenders That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Second Amended and Restated Credit Agreement, dated as of November 15, 2018, (as amended, supplemented or otherwise modified from time to time, the "Credit Agreement"), among MASTERCARD INCORPORATED, a Delaware corporation (the "Company"), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions from time to time parties to the Credit Agreement (the "Lenders"), CITIBANK, N.A., as managing administrative agent for the Lenders under the Credit Agreement (in such capacity, the "Managing Administrative Agent"), and JPMorgan Chase Bank, N.A., as administrative agent for the Lenders under the Credit Agreement (in such capacity, the "Administrative Agent").

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Company within the meaning of Section 871(h)(3)(B) of the Code, (iv) it is not a controlled foreign corporation related to the Company as described in Section 881(c)(3)(C) of the Code and (v) the interest payments in question are not effectively connected with the undersigned's conduct of a U.S. trade or business.

The undersigned has furnished the Managing Administrative Agent and the Company with a certificate of its non-U.S. person status on United States Internal Revenue Service Form W-8BEN or W-8BEN-E, as applicable. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Company and the Managing Administrative Agent and (2) the undersigned shall have at all times furnished the Company and the Managing Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF LENDER]

By: _____

Name:

Title:

Date: _____, 20____

[FORM OF U.S. TAX CERTIFICATE]**U.S. TAX CERTIFICATE**

(For Non-U.S. Lenders That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Second Amended and Restated Credit Agreement, dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), among MASTERCARD INCORPORATED, a Delaware corporation (the “Company”), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions from time to time parties to the Credit Agreement (the “Lenders”), CITIBANK, N.A., as managing administrative agent for the Lenders under the Credit Agreement (in such capacity, the “Managing Administrative Agent”), and JPMorgan Chase Bank, N.A., as administrative agent for the Lenders under the Credit Agreement (in such capacity, the “Administrative Agent”).

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such Loan(s) (as well as any Note(s) evidencing such Loan(s)), (iii) with respect to the extension of credit pursuant to this Credit Agreement, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of the Company within the meaning of Section 871(h)(3)(B) of the Code, (v) none of its direct or indirect partners/members is a controlled foreign corporation related to the Company as described in Section 881(c)(3)(C) of the Code, and (vi) the interest payments in question are not effectively connected with the undersigned’s or its direct or indirect partners/members’ conduct of a U.S. trade or business.

The undersigned has furnished the Managing Administrative Agent and the Company with United States Internal Revenue Service Form W-8IMY accompanied by one of the following forms from each of its partners/members claiming the portfolio interest exemption: (i) a United States Internal Revenue Service Form W-8BEN or W-8BEN-E, as applicable, or (ii) a United States Internal Revenue Service Form W-8IMY accompanied by a United States Internal Revenue Service Form W-8BEN or W-8BEN-E, as applicable, from each of such partner’s/member’s beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Company and the Managing Administrative Agent and (2) the undersigned shall have at all times furnished the Company and the Managing Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF LENDER]

By: _____
Name:
Title:

Date: _____, 20__

[FORM OF U.S. TAX CERTIFICATE]

U.S. TAX CERTIFICATE

(For Non-U.S. Participants That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Second Amended and Restated Credit Agreement, dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), among MASTERCARD INCORPORATED, a Delaware corporation (the “Company”), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions from time to time parties to the Credit Agreement (the “Lenders”), CITIBANK, N.A., as managing administrative agent for the Lenders under the Credit Agreement (in such capacity, the “Managing Administrative Agent”), and JPMorgan Chase Bank, N.A., as administrative agent for the Lenders under the Credit Agreement (in such capacity, the “Administrative Agent”).

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the participation in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Company within the meaning of Section 871(h)(3)(B) of the Code, (iv) it is not a controlled foreign corporation related to the Company as described in Section 881(c)(3)(C) of the Code, and (v) the interest payments in question are not effectively connected with the undersigned’s conduct of a U.S. trade or business.

The undersigned has furnished its participating Lender with a certificate of its non-U.S. person status on United States Internal Revenue Service Form W-8BEN or W-8BEN-E, as applicable. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender in writing and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF PARTICIPANT]

By: _____
Name:
Title:

Date: _____, 20 ____

[FORM OF U.S. TAX CERTIFICATE]

U.S. TAX CERTIFICATE

(For Non-U.S. Participants That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Second Amended and Restated Credit Agreement, dated as of November 15, 2018 (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), among MASTERCARD INCORPORATED, a Delaware corporation (the “Company”), the Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions from time to time parties to the Credit Agreement (the “Lenders”), CITIBANK, N.A., as managing administrative agent for the Lenders under the Credit Agreement (in such capacity, the “Managing Administrative Agent”), and JPMorgan Chase Bank, N.A., as administrative agent for the Lenders under the Credit Agreement (in such capacity, the “Administrative Agent”).

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the participation in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such participation, (iii) with respect such participation, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of the Company within the meaning of Section 871(h)(3)(B) of the Code, (v) none of its direct or indirect partners/members is a controlled foreign corporation related to the Company as described in Section 881(c)(3)(C) of the Code, and (vi) the interest payments in question are not effectively connected with the undersigned’s or its direct or indirect partners/members’ conduct of a U.S. trade or business.

The undersigned has furnished its participating Lender with United States Internal Revenue Service Form W-8IMY accompanied by one of the following forms from each of its partners/members claiming the portfolio interest exemption: (i) a United States Internal Revenue Service Form W-8BEN or W-8BEN-E, as applicable, or (ii) a United States Internal Revenue Service Form W-8IMY accompanied by a United States Internal Revenue Service Form W-8BEN or W-8BEN-E, as applicable, from each of such partner’s/member’s beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF PARTICIPANT]

By: _____
 Name:
 Title:

Date: _____, 20____

LIST OF SUBSIDIARIES OF MASTERCARD INCORPORATED

The following is a list of subsidiaries of Mastercard Incorporated as of December 31, 2018 , omitting subsidiaries which, considered in the aggregate, would not constitute a significant subsidiary:

| <u>Name</u> | <u>Jurisdiction</u> |
|---|---------------------|
| Global Mastercard Holdings LP | United Kingdom |
| Mastercard A&M Investment Holdings, LLC | Delaware |
| Mastercard Asia/Pacific Pte. Ltd. | Singapore |
| Mastercard/Europay U.K. Limited | United Kingdom |
| Mastercard Europe SA | Belgium |
| Mastercard Europe Services Limited | United Kingdom |
| Mastercard European Holding LLC | Delaware |
| Mastercard European Maatschap | Belgium |
| Mastercard European Share Holding B.V. | Netherlands |
| Mastercard AP Financing Pte. Ltd. | Singapore |
| Mastercard Financing Solutions LLC | Delaware |
| Mastercard Financing UK LP | United Kingdom |
| Mastercard Global Partners LP | Singapore |
| Mastercard Holdings LP | United Kingdom |
| Mastercard International Global Maatschap | Belgium |
| Mastercard International Incorporated | Delaware |
| Mastercard Netherlands B.V. | Netherlands |
| Mastercard Partners II LLC | Delaware |
| Mastercard Payment Gateway Services Group Limited | United Kingdom |
| Mastercard Technologies, LLC | Delaware |
| Mastercard UK Holdco Limited | United Kingdom |
| Mastercard US Holdings LLC | Delaware |
| Purchase Street Research LLC | Delaware |

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-135572; 333-136460 and 333-143777) and Form S-3 (No. 333-223679) of Mastercard Incorporated of our report dated February 13, 2019 relating to the consolidated financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
New York, New York
February 13, 2019

**CERTIFICATION PURSUANT TO
RULE 13a-14(a)/15d-14(a),
AS ADOPTED PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002**

I, Martina Hund-Mejean, certify that:

1. I have reviewed this annual report on Form 10-K of Mastercard Incorporated;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 13, 2019

By: _____ /s/ Martina Hund-Mejean

**Martina Hund-Mejean
Chief Financial Officer**

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Mastercard Incorporated (the "Company") on Form 10-K for the period ended December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Ajay Banga, certify, pursuant to 18 U.S.C. section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 13, 2019

/s/ Ajay Banga

Ajay Banga
President and Chief Executive Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Mastercard Incorporated (the "Company") on Form 10-K for the period ended December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Martina Hund-Mejean, certify, pursuant to 18 U.S.C. section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 13, 2019

/s/ Martina Hund-Mejean

Martina Hund-Mejean
Chief Financial Officer

Section 13(r) Disclosure

Mastercard Incorporated ("Mastercard") has established a risk-based compliance program designed to prevent us from having business dealings with Iran, as well as other prohibited countries, regions, individuals or entities. This includes obligating issuers and acquirers to screen account holders and merchants, respectively, against the U.S. Office of Foreign Assets Control's ("OFAC") sanctions lists, including the List of Specially Designated Nationals ("SDN list").

We identified through our compliance program that for the period covered by this Report, Mastercard processed transactions resulting from:

- certain acquirers located in the Asia Pacific, European and Middle Eastern regions having acquired transactions for consular services with Iranian embassies located in Australia, Austria, Finland, France, Hungary, Malaysia, Oman, Spain, Sweden and Switzerland that accepted Mastercard cards (and during some or all of the six years ended December 31, 2017, Mastercard processed additional transactions related to the Iranian embassies in Australia, Canada, Finland, Hungary, Malaysia, Oman, Sweden, Switzerland, the United Kingdom and Venezuela (collectively, the "Additional Jurisdictions"))
- certain acquirers located in the European and Middle Eastern regions having acquired transactions for Iran Air, which accepted Mastercard cards in Austria, France and Qatar

OFAC regulations and other legal authorities provide exemptions for certain activities involving dealings with Iran. However, Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 requires us to disclose whether we, or any of our affiliates, have knowingly engaged in certain transactions or dealings involving the Government of Iran or with certain persons or entities found on the SDN list, regardless of whether these dealings constitute a violation of OFAC regulations. We intend to allow our acquirers to continue to engage in these transactions to the extent permitted by law.

We do not calculate net revenues or net profits associated with specific merchants (our customers' customers). However, we used our fee schedule and the aggregate number and amount of transactions involving the Iranian embassies and Iran Air to estimate the net revenue and net profit we obtained during the three months and year ended December 31, 2018 and (as to the transactions related to the Iranian embassies in the Additional Jurisdictions) the six years ended December 31, 2017. Both the number of transactions and our estimated net revenue and net profits for this period are de minimis.