UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURS	SUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF	1934
	For the fiscal year ended December 31, 2016	
	OR	
□ TRANSITION REPORT PU	RSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT ()F 1934
	For the transition period from to	
	Commission file number 001-11073	
_	FIRST Data STREET DATA CORPORATION	
DELAWARE	47-0731996	
(State of incorporation)	(I.R.S. Employer Identification No.)	
225 LIBE	CRTY STREET, 29th FLOOR, NEW YORK, NEW YORK 10281 (Address of principal executive offices) (Zip Code)	
R	egistrant's telephone number, including area code (800) 735-3362	
_	Securities registered pursuant to Section 12(b) of the Act: None	
	Securities registered pursuant to Section 12(g) of the Act: None	
Indicate by check mark if the registrant is a well-known seasone	d issuer, as defined in Rule 405 of the Securities Act. Yes ■ No □	
Indicate by check mark if the registrant is not required to file rep	orts pursuant to Section 13 or 15(d) of the Act. Yes □ No 🗷	
	ports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceports), and (2) has been subject to such filing requirements for the past 90 days. Yes \square No \square	ding 12 months (or fo
	tronically and posted on its corporate Web site, if any, every Interactive Data File required to be submit the preceding 12 months (or for such shorter period that the registrant was required to submit and post s	
	t to Item 405 of Regulation S-K (\S 229.405 of this chapter) is not contained herein, and will not be contained by reference in Part III of this Form 10-K or any amendment to this Form 10-K. \square	ined, to the best of
Indicate by check mark whether the registrant is a large accelera "accelerated filer" and "smaller reporting company" in Rule 12b	ted filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "la-2 of the Exchange Act.	arge accelerated filer
Large accelerated filer ⊠	Accelerated filer □	

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class A Common Stock, \$0.01 par value per share

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

Class B Common Stock, \$0.01 par value per share

Class

Non-accelerated filer □

Outstanding at January 31, 2017 371,975,017 shares

Smaller Reporting Company □

544,031,779 shares

As of June 30, 2016 (the last business day of the registrant's most recently completed second fiscal quarter), the aggregate market value of the Class A Common Stock held by non-affiliates of the registrant was \$3.7 billion (based on the closing price of the registrant's Class A Common Stock on that date as reported on the New York Stock Exchange).

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for the Annual Meeting of Shareholders to be held on April 25, 2017 are incorporated by reference in Part III.

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Unless otherwise indicated or the context otherwise requires, financial data in this Form 10-K reflects the consolidated business and operations of First Data Corporation and its consolidated subsidiaries. Unless the context otherwise requires, all references herein to "First Data," "FDC," the "Company," "we," "our," or "us" refer to First Data Corporation and its consolidated subsidiaries.

Amounts in this Form 10-K and the consolidated financial statements included in this Form 10-K are presented in U.S. Dollars rounded to the nearest million, unless otherwise noted.

Forward-Looking Statements

Certain matters we discuss in this Form 10-K and in other public statements may constitute forward-looking statements. You can identify forward-looking statements because they contain words such as "believes," "expects," "may," "will," "should," "seeks," "intends," "plans," "estimates," or "anticipates" or similar expressions which concern our strategy, plans, projections or intentions. Examples of forward-looking statements include, but are not limited to, all statements we make relating to revenue, earnings before net interest expense, income taxes, depreciation, and amortization (EBITDA), earnings, margins, growth rates, and other financial results for future periods. By their nature, forward-looking statements speak only as of the date they are made; are not statements of historical fact or guarantees of future performance; and are subject to risks, uncertainties, assumptions or changes in circumstances that are difficult to predict or quantify. Actual results could differ materially and adversely from our forward-looking statements due to a variety of factors, including the following: (1) adverse impacts from global economic, political, and other conditions affecting trends in consumer, business, and government spending; (2) our ability to anticipate and respond to changing industry trends, including technological changes and increasing competition; (3) our ability to successfully renew existing client contracts on favorable terms and obtain new clients; (4) our ability to prevent a material breach of security of any of our systems; (5) our ability to implement and improve processing systems to provide new products, improve functionality, and increase efficiencies; (6) the successful management of our merchant alliance program which involves several alliances not under our sole control and each of which acts independently of the others; (7) our successful management of credit and fraud risks in our business units and merchant alliances, particularly in the context of eCommerce and mobile markets; (8) consolidation among financial institution clients or other client groups that impacts our client relationships; (9) our ability to use our net operating losses without restriction to offset income for US tax purposes; (10) our ability to improve our profitability and maintain flexibility in our capital resources through the implementation of cost savings initiatives; (11) the acquisition or disposition of a material business or assets; (12) our high degree of leverage; (13) adverse impacts from currency exchange rates or currency controls imposed by any government or otherwise; (14) changes in the interest rate environment that increase interest on our borrowings or the interest rate at which we can refinance our borrowings; (15) the impact of new or changes in current laws, regulations, credit card association rules, or other industry standards; and (16) new lawsuits, investigations, or proceedings, or changes to our potential exposure in connection with pending lawsuits, investigations or proceedings, and various other factors discussed throughout this report, including but not limited to, Item 1 - Business, Item 1A - Risk Factors, and Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations. Except as required by law, we do not intend to revise or update any forward-looking statement as a result of new information, future developments or otherwise.

ITEM 1. BUSINESS

General

First Data Corporation sits at the center of global electronic commerce. We believe we offer our clients the most complete array of integrated solutions in the industry, covering their needs across next-generation commerce technologies, merchant acquiring, issuing, and network solutions. We serve our clients in over 100 countries, reaching over 6 million business locations and over 4,000 financial institutions. We believe we have the industry's largest distribution network, driven by our partnerships with many of the world's leading financial institutions, our direct sales force, and a network of distribution partners. We are the largest merchant acquirer, issuer processor, and independent network services provider in the world, enabling businesses to accept electronic payments, helping financial institutions issue credit, debit and prepaid cards, and routing secure transactions between them. In 2016, we processed 88 billion transactions globally, or approximately 2,800 per second. In our largest market, the United States, we acquired approximately \$1.9 trillion of payment volume, accounting for over 10% of United States gross domestic product (GDP) last year.

On October 15, 2015, we filed a Prospectus for our Initial Public Offering with the Securities and Exchange Commission pursuant to Rule 424(b). We issued 176,076,869 shares of Class A common stock and began trading on the New York Stock Exchange under the symbol "FDC". The net proceeds to us from the offering, after deducting underwriting discounts and commissions were \$2.7 billion.

On October 13, 2015, First Data Holdings Inc. (FDH), our direct parent company, merged with and into First Data Corporation, with First Data Corporation being the surviving entity (HoldCo Merger). All outstanding shares of FDH were converted into Class B common stock, which are entitled to ten votes per share. All of First Data's outstanding common stock was eliminated upon the merger. We accounted for the HoldCo Merger as a transfer of assets between entities under common control and reflected the transaction in our financial statements on a prospective basis.

On October 13, 2015, we amended our certificate of incorporation which affected a reverse stock split of our authorized, issued and outstanding Class B common stock, on the basis of 1 new share of Class B common stock for each 3.16091 old shares of common stock.

We have operations and offices located within the United States (U.S.) (domestic) and outside of the U.S. (international) where sales, customer service and/or administrative personnel are based. Total revenues from processing domestic and international transactions as a percentage of total revenues and total long lived assets attributable to domestic and international operations as a percentage of total long lived assets, are displayed in the below table.

	Yes	Year ended December 31,				
	2016	2015	2014			
Total generated from processing transactions:						
Domestic	85%	86%	85%			
International	15%	14%	15%			
Long-lived assets attributable to operations:						
Domestic	89%	89%	88%			
International	11%	11%	12%			

No single international country is greater than 10% of our total revenues or long-lived assets during any of the years presented in the above table. Further financial information relating to our international and domestic revenues and long-lived assets is set forth in note 7 "Segment Information" to our consolidated financial statements in Part II, Item 8 of this Form 10-K.

Our business is characterized by transaction and account related fees, multi-year contracts, and a diverse client base, which allows us to grow alongside our clients. Our multi-year contracts allow us to achieve a high level of recurring revenues with the same clients. While the contracts typically do not specify fixed revenues to be realized thereunder, they do provide a framework for revenues to be generated based on volume of services provided during such contract's term. Our business also generally requires minimal incremental capital expenditures and working capital to support additional revenue within our existing business lines.

Products and Services Segments Information

We provide a range of solutions to businesses and financial institutions across the value chain of commerce-enabling services and technologies. We create our value-added solutions from a suite of proprietary technology products, software, cloud-based applications, processing services, security offerings, and customer support programs that we configure to meet our clients' individual needs.

We operate three segments: Global Business Solutions (GBS), Global Financial Solutions (GFS), and Network & Security Solutions (NSS). Our segments are designed to establish global lines of businesses that support our global client base and allow us to further globalize our solutions while working seamlessly with our geographic teams across our regions: the United States and Canada (North America); Europe, Middle East, and Africa (EMEA); Latin America (LATAM); and Asia Pacific (APAC) and be supported by a corporate team focused on companywide issues.

- Global Business Solutions GBS provides retail point-of-sale merchant acquiring and eCommerce services as well as next-generation offerings such as mobile payment services, webstore-in-a-box solutions, and our cloud-based *Clover* point-of-sale operating system, which includes a marketplace for proprietary and third-party business applications.
- Global Financial Solutions GFS provides credit solutions for bank and non-bank issuers. These include credit and retail private-label card processing within the United States and international markets, as well as licensed financial software systems, such as our *VisionPLUS* bank processing application, and lending solutions. GFS also provides financial institutions with a suite of related services including card personalization and embossing, statement printing, client service, and remittance processing.
- Network & Security Solutions NSS provides a wide range of value-added solutions that we sell to clients in our GBS and GFS segments, smaller financial institutions, and other enterprise clients. These solutions include our EFT network solutions, such as our STAR Network, our debit card processing solutions, our Stored Value Network solutions, such as Money Network, Gift Solutions and our Security and Fraud solutions, such as TransArmor and TeleCheck. NSS also supports our other digital strategies, including online and mobile banking, and our business supporting mobile wallets.

See "Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations" for a detailed explanation of our operating results.

Segment products and services are illustrated below:

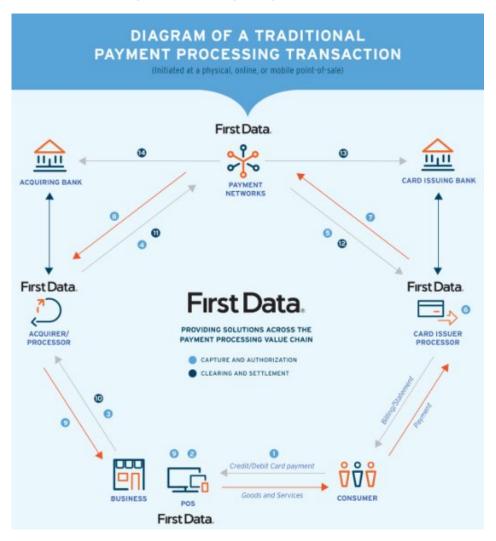
	Global Business Solutions (GBS)	Global Financial Solutions (GFS)	Network & Security Solutions (NSS)
Clients:	Businesses and business owners of all types and sizes	Financial Institutions and other issuers of all sizes	GBS and GFS clients, small banks, and other enterprises
Goals:	To help businesses grow commerce at the retail, online, and mobile POS	To help issuers empower their customers to transact	To help connect, manage, protect, and secure our clients' data
Key Solutions:	Merchant Acquiring eCommerce Clover POS technology Business Software Marketing/Loyalty	Credit/Retail Private Label Issuer Processing Output Services VisionPLUS Software Marketing/Loyalty	EFT Network solutions (STAR, debit processing) Stored Value Network Solutions (Gift Solutions and MoneyNetwork) Security/Risk Management
2016 Segment Revenue:	\$4.1 billion, down 1% from 2015	\$1.6 billion, up 7% from 2015	\$1.5 billion, up 1% from 2015
Adjusted EBITDA:	\$1.7 billion, up 3% from 2015	\$646 million, up 17% from 2015	\$666 million, up 4% from 2015

The segments' profit measure is a form of EBITDA (earnings before net interest expense, income taxes, depreciation, and amortization). A discussion of factors potentially affecting our operations is set forth in Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Form 10-K.

We do not have any significant customers that account for 10% or more of total consolidated revenues.

Overview of Payment Processing

The processing of a traditional card transaction includes two sub-processes: (1) capture and authorization and (2) clearing and settlement. Below is an illustrative diagram of the flow of a typical card transaction and an explanation of each step in the process.



Capture and Authorization

In the capture and authorization process, the business obtains approval for payment from the card issuing bank. This process includes the following steps:

- 1. Once the consumer is ready to make a purchase, he or she presents their card for payment;
- 2. The card is swiped in the Point-of-Sale (POS) device at the business location, which captures the account information contained on the card's magnetic stripe or Europay, MasterCard and Visa (EMV) compliant chip;
 - In a mobile commerce transaction facilitated by a mobile wallet, such as Apple Pay, the appropriate card details are stored virtually on an
 application on the phone and transmitted to the POS device through a chip equipped with near-field communication (NFC) technology;
 - In an eCommerce transaction, the POS device is replaced by a virtual terminal application and the consumer types the card number into the check-out page of the online storefront. In some circumstances, an online wallet, such as PayPal, may be used to transmit the appropriate payment credentials;
- The customer's card details are transmitted from the POS to the merchant acquirer, or the merchant acquirer's processor, via an internet connection or a phone line;

- In an eCommerce transaction, the information is encrypted and then transmitted to the merchant acquirer, or merchant acquirer's processor, via an online gateway;
- 4. The merchant acquirer, or the merchant acquirer's processor, identifies the appropriate payment network affiliated with the card, such as Visa, MasterCard, or STAR, and forwards the card details to the appropriate network;
- 5. The payment network receives the request for payment authorization, identifies the appropriate card issuing bank, and routes the transaction to the bank or its issuer processor;
- 6. The card issuing bank, or its issuer processor, receives the request and then executes a series of inquiries into its account systems to assess the potential risk of fraud for the transaction, establish that the account is in good standing, and verify that the cardholder has sufficient credit or adequate funds to cover the amount of the transaction;
- 7. The card issuing bank, or its issuer processor, approves or declines the transaction and sends back the response to the payment network. In this example the transaction is approved;
- 8. The payment network receives the approval and forwards the authorization to the merchant acquirer, or merchant acquirer's processor; and
- 9. The merchant acquirer, or merchant acquirer's processor, sends the authorization back to the POS device at the business location, which provides an approval confirmation and prints a receipt;
 - In a mobile commerce transaction, the approval confirmation and receipt may also be transmitted to the consumer's mobile wallet application or to the consumer via email;
 - In an eCommerce transaction, the authorization is sent to the online storefront, which communicates the approval to the consumer on the screen, and may provide the receipt for printing online or via email.

Clearing and Settlement

In the clearing and settlement process, a request for payment is initiated, funds are transferred and the transaction is posted to the business owner's and the consumer's account statements. The clearing and settlement process includes the following steps:

- 10. Typically at the end of the day, the business submits a batch of all of its approved authorizations to the merchant acquirer, or the merchant acquirer's processor, through a function on its POS device:
 - In the case of an eCommerce business, the online storefront's gateway sends the batch to the merchant acquirer, or to the merchant acquirer's processor;
- 11. The merchant acquirer, or the merchant acquirer's processor, receives the batch, notes the final amounts due for settlement, and routes the batch of approved authorizations to each applicable payment network;
- 12. Each payment network sends the batch of approved authorizations to the applicable card issuing bank, or its issuer processor, which posts the transaction to the consumer's statement;
- 13. Typically within 48 hours, the payment network calculates net settlement positions for the merchant acquirer and the card issuing bank, sends advisements to the merchant acquirer and card issuing bank, and submits a fund transfer order to a settlement bank; and
- 14. The settlement bank facilitates the exchange of funds between the merchant acquirer and the card issuing bank; and the merchant acquirer transfers the funds to the business owner's account.

Global Business Solutions Segment

The following table presents GBS information as a percentage of total segment revenue and segment EBITDA:

		Year ended December 31,				
	2016	2015	2014			
Segment revenue	57%	58%	58%			
Segment EBITDA	60%	62%	63%			

See note 7 "Segment Information" to our consolidated financial statements in Part II, Item 8 of this Form 10-K for a detail of segment revenue and segment EBITDA results.

Global Business Solutions Operations Our largest segment, GBS, provides businesses of all sizes and types with a wide range of solutions at the point of sale, including merchant acquiring, eCommerce, mobile commerce, POS, and other business solutions. We served approximately 3.6 million business locations in the United States and 2.4 million outside the United States. GBS' largest service is merchant acquiring, which facilitates the acceptance of commercial transactions at the POS, whether a retail transaction at a physical business location, a mobile commerce transaction through a mobile or tablet device, or an eCommerce transaction over the Internet. In 2016, we acquired \$1.9 trillion of payment volume in the United States and over \$250 billion of payment volume outside the United States.

GBS employs a variety of go-to-market strategies. GBS operates direct sales teams and also partners with indirect non-bank sales forces, such as independent sales agents, independent sales organizations (ISOs), independent software vendors (ISVs), value added retailers (VARs), and payment services providers (PSPs) to sell our commerce solutions to Small and Medium Sized Business (SMBs). In addition, GBS leverages the powerful sales capabilities of its bank partners to go to market through several structures, including joint venture equity alliances, revenue sharing alliances, and referral partnerships.

GBS segment revenues are primarily derived from processing credit and debit card transactions for merchants and other business clients and includes fees for providing processing, loyalty and software services, and sales and leases of POS devices. Revenues are generated from a variety of sources, including:

- Discount fees charged to a merchant, net of credit and debit card interchange and assessment fees charged by the payment networks. The discount fee is typically either a percentage of the purchase amount or an interchange fee plus a fixed dollar amount;
- Processing fees charged to our alliances;
- Processing fees charged to merchant acquirers who have outsourced their transaction processing to us;
- Sales and leases of POS devices;
- Fees from providing reporting and other services; and
- Software fees such as security applications and *Clover* related fees.

We typically provide these services as part of a broader commerce-enabling solution to our business clients across multiple channels, including:

- Retail POS Physical businesses or storefront locations, such as retailers, supermarkets, restaurants, and petroleum stations, with brick and mortar facilities;
- Mobile POS Physical businesses with remote or wireless storefront locations, such as small retailers and service providers that use mobile devices to accept electronic payments; and
- Online POS (eCommerce) Online businesses or website locations, such as retailers, digital content providers, and mobile app developers with Internet-based storefronts that can be accessed through a personal computer or a mobile device.

Clover Operating System We acquired Clover, an open architecture, integrated POS operating system, in December 2012 and invested in the technology to significantly enhance and expand its capabilities. Our goal with Clover is to create for business owners the largest open architecture platform of commerce-enabling solutions and applications in the world. We have expanded the family of Clover products to include the Clover Station, Clover Mobile, Clover Mini, and Clover Go and each device provides a broad range of next-generation features and software applications designed to help business clients conduct commerce. Through December 31, 2016, we had sold over 500,000 Clover devices. Within Clover, we also offer a cloud-based Clover App Market for business applications. Our software marketplace is designed specifically to provide business clients with integrated software applications that they can download and install quickly and easily on their Clover devices. Business applications can be developed internally by us, such as Insightics, or by third party developers. As of December 31, 2016, the Clover App Market has 238 active business applications and 667 in development.

In addition to enhancing our ability to drive core acquiring sales, *Clover* allows us to earn incremental revenue from business clients. Currently, certain versions of *Clover* charge a recurring software-as-a-service fee, and we also earn revenue from the *Clover App Market*, where we typically have a revenue share arrangement on paid applications with the application developer.

We also believe *Clover* can help enhance client retention because we believe it will become core to our clients' businesses, and position us as a value-added partner. For example, business owners may use applications in the *Clover App Market* to manage their employees' work schedules, operate customer loyalty programs, integrate transaction information directly into their accounting software, manage inventory, and provide analytics on their business.

Global Business Solutions Competition GBS competes with merchant acquirers that include Vantiv, Worldpay, and Global Payments, in addition to financial institutions that provide acquiring and processing services to businesses on their own, such as Chase Paymentech Solutions, Elavon (a subsidiary of U.S. Bancorp), and Barclaycard. In many cases, our alliance and commercial partners compete against each other. Additionally, payment networks such as Visa and MasterCard are increasingly offering products and services that compete with our suite of solutions. Competitors of our next-generation services include PayPal, Braintree (a subsidiary of PayPal), CyberSource (a subsidiary of Visa Inc.), Adyen, and Stripe, along with integrated point of sale providers such as Micros, Square, and others.

The primary competitive factors impacting GBS are brand, data security, breadth of features and functionality, ease of technological integration, strength of financial institution partnerships, price, and servicing capability. Other factors impacting GBS include consolidation among large businesses and financial institutions, the pace of integrated point of sale solution development, and the creation of new payment methods and related technologies.

Global Business Solutions Seasonality GBS experiences a modest level of seasonality, with the first quarter representing the lowest level of sales and the fourth quarter representing the highest level of sales. Over the past eight quarters, GBS' quarterly revenue as a percentage of total yearly revenue has ranged between 24% and 26% each quarter.

Global Business Solutions Geographic Mix and Revenues GBS generates approximately 78% of its revenues from clients in our North America region, 14% from clients in the EMEA region, 4% from clients in our APAC region, and 4% from clients in our LATAM region. GBS revenues and earnings are impacted by the number of transactions and payment volume, the mix of consumer usage of credit cards, debit cards, and the size of the business.

Global Business Solutions Acquisitions and Dispositions On September 30, 2016, we completed the sale of our Australian ATM business, which was reported as part of GBS. Associated with the transaction, we recognized a \$34 million loss on the sale. The loss is comprised of investments of \$72 million reduced by cash proceeds of \$38 million.

Global Financial Solutions Segment

The following table presents GFS information as a percentage of total segment revenue and segment EBITDA:

		Year ended December 31,					
	2016	2015	2014				
Segment revenue	22%	21%	22%				
Segment EBITDA	22%	20%	20%				

See note 7 "Segment Information" to our consolidated financial statements in Part II, Item 8 of this Form 10-K for a detail of segment revenue and segment EBITDA results.

Global Financial Solutions Operations GFS provides financial institutions, which include bank and non-bank issuers such as retailers with proprietary card portfolios, with a broad range of solutions that enable them to offer financial products and solutions to their customers. GFS serves approximately 1,400 financial institutions globally and delivers value to clients through a variety of channels, including end-to-end outsourced processing, managed services, and various software delivery models utilizing our proprietary VisionPLUS application. GFS' services include credit card and loan processing, commercial payments, and related supporting products. In 2016, we processed 9.7 billion transactions on our platforms. As of December 31, 2016, GFS managed 855 million card accounts on file in North America, up 5% over 2015 and 151 million card accounts on file outside the United States, up 12% over 2015.

GFS' clients include some of the world's largest financial institutions, which we serve in nearly 100 countries. Our largest service in GFS is issuer processing, which helps banks and non-bank issuers provide credit, commercial, and retail card programs to their account holders. GFS also provides licensed and managed platforms for processing activities to financial institutions globally. Depending on the market, our solutions are often bundled with related offerings, such as statement printing and personalization of plastic cards, settlement and back office support, outsourced billing, remittance processing, and customer support call center services. As part of these solutions, we also provide custom programming and development to clients.

GFS' revenues are primarily derived from credit and retail card processing services, print, plastics, and remittance services, and loyalty and software services provided to financial institutions. GFS' revenues are typically generated on the basis of number of accounts on file, statements/letters printed and mailed, and personalized plastics issued.

Processing Services and Licensing Processing services and licensing provide solutions to financial institutions and other issuers of credit, such as banks, group service providers, retailers, consumer finance companies, and credit unions that enable these issuers to process transactions on behalf of customers. Depending on our clients' needs, we deliver these solutions through our proprietary outsourced services platforms, software application licenses, or software-as-a-service hosted in the cloud. Services in our proprietary platform include transaction authorization and posting, account maintenance, and settlement. Our VisionPLUS software is used globally as both a processing solution and a licensed software solution that enables clients to process their own transactions, depending on the market. We also enable merchants and financial institutions to offer next generation payment solutions to their clients, such as Apple Pay, Android Pay, and Samsung Pay.

Revenues for card issuing processing services are derived from fees payable under contracts that depend primarily on the number of cardholder accounts on file. More revenue is derived from active accounts (those accounts on file that had a balance or any monetary posting or authorization activity during a specified period) than inactive accounts. Revenues are also derived from licensing fees for our *VisionPLUS* application, as well as cardholder and data transactions and professional services such as programming.

Account Support Services Along with our processing and licensing solutions, we provide a variety of supporting services throughout the life cycle of each account. Services include processing a card application, initiating service for the cardholder, accumulating the card's transactions into a monthly billing statement, and posting cardholder payments. Other services provided include customized communications to cardholders, plastics personalization and mailing, information verification associated with granting credit, debt collection, remittance processing, and client service on behalf of financial institutions. We also provide programming and customization to enhance and tailor our solutions to clients' needs through professional services.

Global Financial Solutions Competition GFS competes with card issuer processors, such as Total System Services, Vantiv, Fidelity National Information Services, Fisery, Worldline, Equens, and SIX Payment Services, as well as the card issuer processing businesses of the global payment networks such as UnionPay Data. In addition, we compete with various software or custom-designed solutions that some financial institutions use to perform these services in-house.

The primary competitive factors impacting GFS are system performance and reliability, data security, breadth of features and functionality, disaster recovery capabilities and business continuity preparedness, platform scalability and flexibility, price, and servicing capability. Another factor impacting GFS is financial institution consolidation.

Global Financial Solutions Seasonality GFS experiences a modest level of seasonality, with the first quarter representing the lowest level of sales and the fourth quarter representing the highest level of sales. Over the past eight quarters, GFS' quarterly revenue as a percentage of total yearly revenue has ranged between 24% and 26%.

Global Financial Solutions Geographic Mix and Revenues GFS generates approximately 60% of its revenues from clients in our North America region, 27% from clients in our EMEA region, 8% from clients in our LATAM region, and 5% from clients in our APAC region. Within the United States, revenues are diversified across financial institutions of all sizes and are spread across the country.

Network & Security Solutions Segment

The following table presents NSS information as a percentage of total segment revenue and segment EBITDA:

	Year ended December 31,					
	2016	2015	2014			
Segment revenue	21%	21%	20%			
Segment EBITDA	23%	23%	23%			

See note 7 "Segment Information" to our consolidated financial statements in Part II, Item 8 of this Form 10-K for a detail of segment revenue and segment EBITDA results.

Network & Security Solutions Operations NSS provides a range of network solutions and security, risk and fraud management solutions to business and financial institution clients in our GBS and GFS segments, and independently to financial institutions, businesses, governments, processors and other clients. Our EFT Network Solutions manage debit card and account processing solutions and facilitate EFT commerce, such as PIN debit, PIN-less debit, and ATM transactions. Our STAR Network enables clients to encrypt, route, and decrypt various types of financial data, process debit and ATM transactions, and provide access to demand deposit accounts. In 2016, our STAR Network routed approximately 4.2 billion transactions in the United States. Our Stored Value Network Solutions facilitate stored value commerce, such as (1) closed-loop prepaid transactions, which are initiated by various types of prepaid cards issued by enterprises, such as retailers, that issue enterprise-branded cards that can generally be used only at the enterprise issuing the card or account, and (2) open-loop prepaid transactions, which are initiated by various types of prepaid cards issued by a bank and carry a network association brand, such as Visa, MasterCard and STAR, enabling them to be used at multiple merchant locations. NSS also includes our Data and Analytics Solutions, Online and Mobile Banking Solutions, Healthcare Solutions, and Government Solutions.

EFT Network Solutions enables our business and financial institution clients to route secure, encrypted data between themselves. Our STAR Network is connected to approximately 3,400 financial institutions and community banks, approximately 1.1 million POS and ATM locations, and numerous third-party payment processors, ATM processors, and card processors that participate in the network. When a business, a merchant acquirer, or an ATM owner acquires a STAR Network transaction, it sends the transaction data to the network switch, which is operated by us, which in turn routes the encrypted information to the appropriate financial institution for authorization. To be routed through the STAR Network, a transaction must be initiated with a card participating in the STAR Network at an ATM or POS device also participating in the STAR Network.

Revenues related to the STAR Network are derived from fees payable under contracts and negotiated rate structures but are driven more by the data transactions processed than by accounts on file. In a situation in which a debit transaction uses our network and we are the debit card processor for the financial institution as well as the merchant acquirer for the business, we are eligible to receive one or more of the following:

- a fee from the card issuing financial institution for running the transaction through the STAR Network;
- a fee from the card issuer for obtaining the authorization;
- a fee from the business for acquiring the transaction, recognized in GBS; and
- a network acquirer fee from the business for accessing the STAR Network.

There are other possible configurations of transactions that result in us receiving multiple fees for a transaction, depending on the role we play.

Stored Value Network manages prepaid stored-value card issuance and processing services (i.e. gift cards) for retailers and others. The full-service stored-value/gift card program offers transaction processing services, card issuance, and customer service for over 200 national brands and several thousand small and mid-tier merchants. We also provide program management and processing services for association-branded, bank-issued, open loop (a card that can be used at multiple merchants), stored-value, reloadable, and one time prepaid card products. Revenues are generated from a variety of sources including processing fees for transactions processed and fees for card production and shipments.

Our commercial prepaid offerings are primarily sold to businesses and are comprised of:

- Gift Solutions Includes ValueLink, Gyft, and Transaction Wireless.
 - ValueLink Provides card and account issuing, program management, and transaction processing services for a range of prepaid card programs.
 Our closed-loop prepaid programs include gift, incentive, and rebate cards. We serve over 200 brands globally and several thousand SMBs. Our programs include reloadable and non-reloadable prepaid cards, and may be used with a variety of mobile applications.
 - Gyft A leading digital platform that enables consumers to buy, send, manage, and redeem virtual closed-loop cards using mobile devices. The
 Gyft solution, combined with our leadership in prepaid issuing solutions, creates a unique combination to support growth in a rapidly expanding
 market for virtual cards.
 - Transaction Wireless A leading digital platform that enables businesses to sell virtual gift cards online, either to consumers through an integration with their eCommerce storefront, or to other businesses through a proprietary business-to-business solution.
- Payroll Solutions Includes Money Network which provides open-loop electronic payroll distribution solutions that reduce or eliminate an employer's expense associated with traditional paper paychecks and helps employees without bank accounts avoid check cashing fees. The solution also provides important employee security as the funds are stored on the account, not as cash that can be lost or stolen. Money Network accounts can be used at any business location that accepts Visa, MasterCard, or STAR branded cards, includes a packet of checks to be used to pay bills and avoid the cost of money orders, and offers a web portal to track account activity.

Security and Fraud Solutions provide a range of security, risk, and fraud management solutions that help businesses and financial institutions securely run and grow their business by protecting their data, managing risk, and preventing fraud. Our solutions include TransArmor, our encryption, tokenization, and PCI compliance solution for POS data in-transit, Fraud Predictor Plus, our solution to detect fraud at the POS through a machine-learning based predictive model, and TeleCheck, the industry-leading database of check-writers activity. Revenues for our security solutions are earned on a licensed basis or per transaction.

TeleCheck offers check verification, settlement, and guarantee services using our proprietary database system to assist merchants in deciding whether accepting checks at the POS is a reasonable risk, or, further, to guarantee checks presented to merchants if they are approved. These services include risk management services, which utilize software, information, and analysis to assist

the merchant in the decision process and include identity fraud prevention and reduction. Revenues are earned by charging merchant fees for check verification or guarantee services.

Network & Security Solutions Competition NSS competes with networks such as Visa, MasterCard, and Discover for debit network services, and with Fidelity National Information Services for debit network and check verification and guarantee services. We also face competition from regional operators of debit networks. Our portfolio of analytics, information, security and risk management solutions competes with a wide range of providers across multiple disciplines, including Visa, MasterCard, Voltage, Verisk, Equifax, Experian, TransUnion, and Fair Isaac.

The primary competitive factors impacting NSS are system performance and reliability, data security, breadth of features and functionality, platform scalability and flexibility, price, and financial institution consolidation. Other factors impacting NSS include increasingly powerful and affordable technology capacity, improved data management and analytic tools, and emergence of cloud-based delivery models.

Network & Security Solutions Seasonality NSS experiences a modest level of seasonality, with the first quarter representing the lowest level of sales and the fourth quarter representing the highest level of sales. Over the past eight quarters, NSS' quarterly revenue as a percentage of total yearly revenue has ranged between 23% and 27%.

Network & Security Solutions Geographic Mix and Revenues NSS is comprised of more than 95% domestic businesses.

Network & Security Solutions Acquisitions and Dispositions We have recently made the following acquisitions and product developments:

Transaction Wireless Inc. In 2015, we acquired Transaction Wireless, Inc. (TWI) a provider of digital stored value products that offer gift card programs, loyalty incentives, and integrated marketing solutions for retailers, partners, and consumers.

Gyft In 2014, we acquired Gyft, Inc. (Gyft), the leading digital platform that enables consumers to buy, send, manage, and redeem gift cards using mobile devices. Gyft's exceptional capabilities, combined with our long-standing leadership in prepaid solutions, create a distinct combination in a rapidly growing market for virtual gift cards.

In 2014, we completed the sale of our 30% minority interest in a transportation payments business, Electronic Funds Source LLC (EFS).

Corporate

Corporate operations include corporate-wide governance functions such as our executive management team, tax, treasury, internal audit, corporate strategy, and certain accounting, human resources and legal costs related to supporting the corporate function. Costs incurred by Corporate that are attributable to a segment are allocated to the respective segment.

Global Regions

Over the past 15 plus years, we have established a global leadership position. We currently have operations in 37 countries and serve businesses and financial institutions in over 100 countries around the world as illustrated on the following map:



We deliver our solutions throughout the world via four regions:

North America

North America (United States and Canada) is our largest region. We are the largest merchant acquirer, issuer processor, and third largest U.S. debit network. The United States is our largest market and accounts for the majority of our activity in the region. In 2016, we processed approximately 72 billion commercial transactions and acquired \$1.9 trillion of payment volume in the United States, accounting for over 10% of U.S. GDP.

Europe, Middle East, and Africa (EMEA)

We have operations in 20 countries and serve clients in 66 countries in this region. We are a leading acquirer processor in EMEA and provide our suite of next-generation commerce-enabling solutions to businesses and financial institutions of all sizes and types.

Latin America (LATAM)

We have operations in 7 countries and serve clients in 32 countries in this region. We are a leading merchant acquirer, issuer processor, and eCommerce processor to businesses and financial institutions of all sizes and types in the region.

Asia Pacific (APAC)

We have operations in 8 countries and serve clients in 17 countries in this region. We are a leading merchant acquirer, issuer processor, and eCommerce processor to businesses and financial institutions of all sizes and types in the region and have begun to introduce other commerce-enabling solutions in selected markets.

Intellectual Property

We own a global portfolio of many trademarks, trade names, patents, and other intellectual property that are important to our future success. The only intellectual property rights that are individually material to us are the *First Data* trademark and trade name, and the *STAR* trademark and trade name. The *First Data* trademark and trade name are associated with quality and reliable electronic commerce and payments solutions. The *STAR* trademark and trade name are used in NSS. Financial institutions and merchants associate the *STAR* trademark and trade name with quality and reliable debit network services and processing services. Loss of the proprietary use of the *First Data* or *STAR* trademarks and trade names or a diminution in the perceived quality associated with these names could harm the growth of our businesses.

Employees and Labor

As of December 31, 2016, we had approximately 24,000 employees. The majority of the employees of our subsidiaries outside of the United States are subject to the terms of individual employment agreements. One of our wholly owned subsidiaries has approximately 1,600 employees in the United Kingdom, a portion of whom are members of the Unite trade union. Employees of our subsidiaries in Vienna, Austria; Frankfurt, Germany; and Nürnberg, Germany are also represented by local work councils. The Vienna workforce and a portion of the Frankfurt workforce are also covered by a union contract. Certain employees of our Korean subsidiary are represented by a Labor-Management council. In Brazil, all employees are unionized and covered by the terms of industry-specific collective agreements. Employees in certain other countries are also covered by the terms of industry-specific national collective agreements. None of our employees are otherwise represented by any labor organization in the United States. We believe that our relations with our employees and the labor organizations identified above are in good standing.

Available Information

Our principal executive offices are located at 225 Liberty Street, 29th Floor, New York, NY 10281, telephone (800) 735-3362. 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 free of charge to shareholders and other interested parties through the "Investor Relations" portion of our website at http://investor.firstdata.com as soon as reasonably practical after they are filed with the Securities and Exchange Commission (SEC). The SEC maintains a website, www.sec.gov, which contains reports and other information filed electronically with the SEC by us. Various corporate governance documents, including our Audit Committee Charter, Governance, Compensation and Nominations Committee Charter, and Code of Ethics for Senior Financial Officers are available without charge through the "About Us" "Investor Relations" "Corporate Governance" portion of our investor relations website, listed above.

Government Regulations

Various aspects of our service areas are subject to U.S. federal, state, and local regulation, as well as regulation outside the United States. Failure to comply with regulations may result in the suspension or revocation of licenses or registrations, the limitation, suspension or termination of service, and/or the imposition of civil and criminal penalties, including fines. Certain of our services also are subject to rules promulgated by various payment networks and banking authorities as more fully described below.

The Dodd-Frank Act In July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) was signed into law in the United States. The Dodd-Frank Act has resulted in significant structural and other changes to the regulation of the financial services industry. Among other things, Title X of the Dodd-Frank Act established a new, independent regulatory agency known as the Consumer Financial Protection Bureau (CFPB) to regulate consumer financial products and services (including some offered by our clients). The CFPB may also have authority over us as a provider of services to regulated financial institutions in connection with consumer financial products. Recently the CFPB released rules amending federal Regulation E and Regulation Z. The rules clarify the regulatory prepaid landscape for consumer access to disclosures, fees and statements, error resolution, limited liability and overdrafts. The rules have a limited impact to our subsidiary Money Network Financial LLC (Money Network) for disclosure, fees and error resolution processing. Separately, under the Dodd-Frank Act, debit interchange transaction fees that a card issuer receives and are established by a payment card network for an electronic debit transaction are now regulated by the Board of Governors of the Federal Reserve System (Federal Reserve Board), and must be "reasonable and proportional" to the cost incurred by the card issuer in authorizing, clearing, and settling the transaction. Effective October 1, 2011, the Federal Reserve Board capped debit interchange rates for card issuers operating in the United States with

assets of \$10 billion or more. In addition, the new regulations contain non-exclusivity provisions that ban debit payment card networks from prohibiting an issuer from contracting with any other payment card network that may process an electronic debit transaction involving an issuer's debit cards and prohibit card issuers and payment networks from inhibiting the ability of merchants to direct the routing of debit card transactions over any network that can process the transaction. Beginning April 1, 2012, all debit card issuers in the United States were required to participate in at least two unaffiliated debit payment card networks. On April 1, 2013, the ban on network exclusivity arrangements became effective for prepaid card and healthcare debit card issuers, with certain exceptions for prepaid cards issued before that date.

Effective July 22, 2010, merchants were allowed to set minimum dollar amounts (not to exceed \$10) for the acceptance of a credit card (while federal governmental entities and institutions of higher education may set maximum amounts for the acceptance of credit cards). They were also allowed to provide discounts or incentives to entice consumers to pay with an alternative payment method, such as cash, checks or debit cards. In addition, the Dodd-Frank Act created a new entity, the Financial Stability Oversight Council, and authorized it to require that a nonbank financial company that is deemed to pose a systemic risk to the U.S. financial system become subject to consolidated, prudential supervision by the Federal Reserve Board. At this point it is unclear whether we would be subject to additional systemic risk related oversight.

Association and Network Rules We are subject to rules of MasterCard, Visa, INTERAC, PULSE, and other payment networks. In order to provide processing services, a number of our subsidiaries are registered with Visa and/or MasterCard as service providers for member institutions. Various subsidiaries of ours are also processor level members of numerous debit and electronic benefits transaction networks or are otherwise subject to various network rules in connection with processing services and other services we provide. As such, we are subject to applicable card association, network, and national scheme rules that could subject us to fines or penalties. We are also subject to network operating rules promulgated by the National Automated Clearing House Association relating to payment transactions processed by us using the Automated Clearing House Network and to various state and federal laws regarding such operations, including laws pertaining to electronic benefits transaction.

Our subsidiary in Germany, TeleCash GmbH & Co. KG, is certified and regulated as a processor for domestic German debit card transactions by the Deutsche Kreditwirtschaft (DK), the German Banking Industry Committee. Failure to comply with the technical requirements set forth by the DK may result in suspension or termination of services.

Banking Regulations Because a number of our subsidiary businesses provide data processing services for financial institutions, we are subject to examination by the Federal Financial Institutions Examination Council (FFIEC), which examines large data processors in order to identify and mitigate risks associated with significant service providers.

FDR Limited is authorized and regulated in the United Kingdom by the Financial Conduct Authority, one of the two principal financial markets regulators in the United Kingdom. FDR Limited is authorized by the Financial Conduct Authority to arrange and advise on certain insurance contracts for the purpose of arranging insurance taken out by its issuer clients' cardholders. FDR Limited is also required to obtain permission from the Financial Conduct Authority by March 31, 2016 in respect of certain consumer credit related activities in order to continue to carry on such activities after that date for the purposes of its issuer services and merchant terminal leasing businesses. FDR Limited has applied for this permission and, in the meantime, the Financial Conduct Authority has granted FDR Limited an interim consumer credit permission effective April 1, 2014 (being the date when the Financial Conduct Authority took over as the regulatory body for consumer credit). As a firm authorized by the Financial Conduct Authority, FDR Limited is required to comply with certain prudential, conduct of business and reporting requirements.

As a result of the implementation of the Payment Services Directive (2007/64/EC) in the European Union, a number of our subsidiaries in GBS hold payment institution licenses in the European Union member states in which such subsidiaries do business. As payment institutions, we are subject to regulation and oversight in the applicable European Union member state, which includes (amongst other obligations) a requirement to maintain specified regulatory capital. In July 2013, the European Commission proposed legislation in two parts, covering a wide range of proposed regulatory reforms affecting the payments industry across the European Union. The first part was a proposed European Union-wide regulation on interchange fees for card-based payment transactions (Interchange Fee Regulation). The Interchange Fee Regulation (2015/751) was published in May 2015 and entered into effect in June 2015. The second part consisted of a recasting of the Payment Services Directive. The European Commission's PSD2 proposal has been considered by the two other main European Union legislative institutions, the Council of the European Union and the European Parliament. The Council of the European Union published its final compromise proposal on the PSD2 in June 2015.

First Data Trust Company, LLC (FDTC) engages in trust activities previously conducted by the trust department of a former banking subsidiary of ours and is subject to regulation, examination, and oversight by the Division of Banking of the Colorado Department of Regulatory Agencies. Since FDTC is not a "bank" under the Bank Holding Company Act of 1956, as amended

(BHCA), our affiliation with FDTC does not cause us to be regulated as a bank holding company or financial holding company under the BHCA.

Further, several subsidiaries provide services such as factoring or settlement that make them subject to regulation by local banking agencies, including the National Bank of Slovakia, the National Bank of Poland and the German Federal Financial Supervision Agency.

Privacy and Information Security Regulations We provide services that may be subject to various state, federal, and foreign privacy laws and regulations, including, among others, the Gramm-Leach-Bliley Act, the Health Insurance Portability and Accountability Act, Directive 95/46/EC, the Australian Privacy Act, the Personal Information Protection and Electronic Documents Act in Canada, the Personal Data (Privacy) Ordinance in Hong Kong, the Malaysian Data Protection Act 2010, and the Singapore Data Protection Act 2012. These laws and their implementing regulations govern certain collection, processing, storage, use, and disclosure of personal information, can require notice to entities or individuals of privacy incidents, and provide individuals with certain rights relating to the use and disclosure of protected information. These laws also impose requirements for the safeguarding and proper destruction of personal information through the issuance of data security standards or guidelines. Certain federal and state laws impose similar privacy obligations and, in certain circumstances, obligations to notify affected individuals, state officers, the media, and consumer reporting agencies, as well as businesses and governmental agencies that own the information, of security breaches affecting personal information. In addition, there are state laws restricting the ability to collect and utilize certain types of information social Security and driver's license numbers. In February 2013, the European Commission proposed additional European Union-wide legislation regarding cyber security in the form of the proposed Network and Information Security Directive (NIS Directive). The NIS Directive is currently being considered by the two other main European Union legislative institutions, the Council of the European Union and the European Parliament. On June 29, 2015, the Council of the European Union announced that agreement had been reached in informal negotiations on the main principles of the NIS Directive. Similarly, the

Credit Reporting and Debt Collections Regulations *TeleCheck* is subject to the Federal Fair Credit Reporting Act and various similar state laws based on *TeleCheck's* maintenance of a database containing the check-writing histories of consumers and the use of that information in connection with its check verification and guarantee services.

The collection business within TRS Recovery Services, Inc. (TRS) is subject to the Federal Fair Debt Collection Practices Act and various similar state laws. TRS has licenses in a number of states in order to engage in collection in those states. In the United Kingdom, FDR Limited has a license under the Consumer Credit Act of 1974 (CCA) to enable it to undertake, among other things, credit administration and debt collections activities on behalf of its card issuing clients through calls and correspondence with the cardholders. FDR Limited is also licensed under the CCA to carry on the activity of a consumer hire business for the purpose of leasing devices to merchants.

TeleCheck and TRS are subject to regulation, supervision, and examination from the CFPB. Further regulations may be imposed in the future as state governments and federal agencies identify and consider supplementary consumer financial protection, including laws regulating activities with respect to current or emerging technology such as automated dialers or pre-recorded messaging or calls to cellular phones, which could impair the collection by TRS of returned checks and those purchased under TeleCheck's guarantee services. Moreover, reducing or eliminating access to and use of information on drivers licenses, requiring blocking of access to credit reports or scores, mandating score or scoring methodology disclosure and proscribing the maintenance or use of consumer databases could reduce the effectiveness of TeleCheck's risk management tools or otherwise increase its costs of doing business.

In addition, several of our subsidiaries are subject to comparable local laws regarding collection activities and obtaining credit reports.

Unfair Trade Practice Regulations We and our clients are subject to various federal, state, and international laws prohibiting unfair or deceptive trade practices, such as Section 5 of the Federal Trade Commission Act. Various regulatory enforcement agencies, including the Federal Trade Commission (FTC) and state attorneys general, have authority to take action against parties that engage in unfair or deceptive trade practices or violate other laws, rules, and regulations and to the extent we are processing payments for a client that may be in violation of laws, rules, and regulations, we may be subject to enforcement actions and incur losses and liabilities that may impact our business. For example, *TeleCheck* and TRS are subject to a consent decree with the FTC which, among other items, addresses the timeliness of certain actions that they take.

Anti-Money Laundering, Anti-Bribery, Sanctions, and Counter-Terrorist Regulations We are subject to anti-money laundering laws and regulations, including the Bank Secrecy Act, as amended by the USA PATRIOT Act of 2001 (collectively, BSA). Among other things, the BSA requires money services businesses (such as money transmitters, issuers of money orders

and official checks, and providers of prepaid access) to develop and implement risk-based anti-money laundering programs, report large cash transactions and suspicious activity, and to maintain transaction records. Money Network provides prepaid access for various open loop prepaid programs for which it is the program manager and therefore must meet the requirements of the Financial Crimes Enforcement Network (FinCEN), the agency that enforces the BSA. Recently FinCEN released rules requiring the collection and verification of beneficial owners holding equal to or greater than 25% equity interest. We will be required to comply with the new rules, which have a mandatory compliance date of May 2018.

We are also subject to anti-corruption laws and regulations, including the United States Foreign Corrupt Practices Act (FCPA) and other laws, that prohibit the making or offering of improper payments to foreign government officials and political figures and includes anti-bribery provisions enforced by the Department of Justice and accounting provisions enforced by the Securities and Exchange Commission (SEC). The FCPA has a broad reach and requires maintenance of appropriate records and adequate internal controls to prevent and detect possible FCPA violations. Many other jurisdictions where we conduct business also have similar anticorruption laws and regulations. We have policies, procedures, systems, and controls designed to identify and address potentially impermissible transactions under such laws and regulations.

We are also subject to certain economic and trade sanctions programs that are administered by the Treasury Department's Office of Foreign Assets Control (OFAC), which prohibit or restrict transactions to or from or dealings with specified countries, their governments, and in certain circumstances, their nationals, and with individuals and entities that are specially-designated nationals of those countries, narcotics traffickers, and terrorists or terrorist organizations. Other group entities may be subject to additional local sanctions requirements in other relevant jurisdictions.

Similar anti-money laundering and counter terrorist financing and proceeds of crime laws apply to movements of currency and payments through electronic transactions and to dealings with persons specified in lists maintained by the country equivalents to OFAC lists in several other countries and require specific data retention obligations to be observed by intermediaries in the payment process. Our businesses in those jurisdictions are subject to those data retention obligations. In the European Union, for example, certain of our businesses are subject to requirements under the Third Money Laundering Directive (2005/60/EC) (MLD3) as implemented in relevant European Union member states. MLD3 was repealed and replaced by the Fourth Money Laundering Directive ((EU) 2015/849) (MLD4), when the latter entered into force on June 25, 2015. European Union member states are required to implement MLD4 into national law by June 26, 2017.

Money Transmission and Payment Instrument Licensing and Regulations We are subject to various U.S. federal, state, and foreign laws and regulations governing money transmission and the issuance and sale of payment instruments, including some of our prepaid products.

In the United States, most states license money transmitters and issuers of payment instruments. Many states exercise authority over the operations of our services related to money transmission and payment instruments and, as part of this authority, subject us to periodic examinations. Many states require, among other things, that proceeds from money transmission activity and payment instrument sales be invested in high-quality marketable securities before the settlement of the transactions. Such licensing laws also may cover matters such as regulatory approval of consumer forms, consumer disclosures and the filing of periodic reports by the licensee, and require the licensee to demonstrate and maintain levels of net worth. Many states also require money transmitters, issuers of payment instruments, and their agents to comply with federal and/or state anti-money laundering laws and regulations.

Escheatment Regulations We are subject to unclaimed or abandoned property (escheat) laws both in the United States and abroad that require us to turn over to certain government authorities the property of others held by us that has been unclaimed for a specified period of time such as, in the Integrated Payment Systems (IPS) business, payment instruments that have not been presented for payment or, in GBS, account balances that cannot be returned to a merchant following discontinuation of its relationship with us. A number of our subsidiaries hold property subject to escheat laws and we have an ongoing program to comply with those laws. We are subject to audit by individual U.S. states with regard to our escheatment practices.

Telephone Consumer Protection Act We are subject to the Federal Telephone Consumer Protection Act and various state laws to the extent we place telephone calls and short message service (SMS) messages to clients and consumers. The Telephone Consumer Protection Act regulates certain telephone calls and SMS messages placed using automatic telephone dialing systems or artificial or prerecorded voices.

Indirect Regulatory Requirements A number of our clients are financial institutions that are directly subject to various regulations and compliance obligations issued by the CFPB, the Office of the Comptroller of the Currency and other agencies responsible for regulating financial institutions. While these regulatory requirements and compliance obligations do not apply directly to us, many of these requirements materially affect the services we provide to our clients and us overall. To remain competitive, we expend significant resources to assist our clients in meeting their various compliance obligations, including the cost of updating our systems

and services as necessary to allow our clients to comply with applicable laws and regulations, and the cost of dedicating sufficient resources to assist our clients in meeting their new and enhanced oversight and audit requirements established by the CFPB, the Office of the Comptroller of the Currency and others. The banking agencies, including the Office of the Comptroller of the Currency, also have imposed requirements on regulated financial institutions to manage their third-party service providers. Among other things, these requirements include performing appropriate due diligence when selecting third-party service providers; evaluating the risk management, information security, and information management systems of third-party service providers; imposing contractual protections in agreements with third-party service providers (such as performance measures, audit and remediation rights, indemnification, compliance requirements, confidentiality and information security obligations, insurance requirements, and limits on liability); and conducting ongoing monitoring of the performance of third-party service providers. Accommodating these requirements applicable to our clients imposes additional costs and risks in connection with our financial institution relationships. We expect to expend significant resources on an ongoing basis in an effort to assist our clients in meeting their legal requirements.

Other Stored-value services we offer to issuers in the United States and internationally are subject to various federal, state, and foreign laws and regulations, which may include laws and regulations related to consumer and data protection, licensing, escheat, anti-money laundering, banking, trade practices and competition, and wage and employment. These laws and regulations are evolving, unclear, and sometimes inconsistent and subject to judicial and regulatory challenge and interpretation, and therefore the extent to which these laws and rules have application to, and their impact on, us, financial institutions, merchants or others is in flux. At this time we are unable to determine the impact that the clarification of these laws and their future interpretations, as well as new laws, may have on us, financial institutions, merchants or others in a number of jurisdictions. These services may also be subject to the rules and regulations of the various international, domestic and regional schemes, networks, and associations in which we and the card issuers participate.

In addition, the Housing Assistance Tax Act of 2008 included an amendment to the Internal Revenue Code that requires information returns to be made for each calendar year by merchant acquiring entities and third-party settlement organizations with respect to payments made in settlement of payment card transactions and third-party payment network transactions occurring in that calendar year. Reportable transactions are also subject to backup withholding requirements. We could be liable for penalties if we are not in compliance with these rules.

ITEM 1A. RISK FACTORS

The following are certain risks that could affect our business and our results of operations. The risks identified below are not all encompassing but should be considered in establishing an opinion of our future operations.

Business and Operational Risks

Global economic, political, and other conditions may adversely affect trends in consumer, business, and government spending, which may adversely impact the demand for our services and our revenue and profitability.

Financial services, payments, and technology industries in which we operate depend heavily upon the overall level of consumer, business, and government spending. A sustained deterioration in the general economic conditions (including distress in financial markets, turmoil in specific economies around the world, and additional government intervention), particularly in the United States or Europe, or increases in interest rates in key countries in which we operate may adversely affect our financial performance by reducing the number or average purchase amount of transactions involving payment cards. A reduction in the amount of consumer spending could result in a decrease of our revenue and profits. The current threats to global economic growth include geopolitical instability in Brazil, Venezuela, Russia, Ukraine, the Middle East, and other oil producing countries. Instability in these regions could affect economic conditions in the Eurozone and the U.S.

Adverse economic trends may accelerate the timing, or increase the impact of, risks to our financial performance. Such trends may include, but are not limited to, the following:

- Declining economies, foreign currency fluctuations, and the pace of economic recovery can change consumer spending behaviors, such as cross-border travel patterns, on which a significant portion of our revenues are dependent.
- Low levels of consumer and business confidence typically associated with recessionary environments and those markets experiencing relatively high unemployment, may cause decreased spending by cardholders.
- Budgetary concerns in the United States and other countries around the world could affect the United States and other specific sovereign credit ratings, impact consumer confidence and spending, and increase the risks of operating in those countries.
- Emerging market economies tend to be more volatile than the more established markets we serve in the United States and Europe, and adverse economic
 trends may be more pronounced in such emerging markets.
- Financial institutions may restrict credit lines to cardholders or limit the issuance of new cards to mitigate cardholder defaults.
- Uncertainty and volatility in the performance of our clients' businesses may make estimates of our revenues, rebates, incentives, and realization of prepaid assets less predictable.
- Our clients may decrease spending for value-added services.
- Government intervention, including the effect of laws, regulations, and /or government investments in our clients, may have potential negative effects on our business and our relationships with our clients or otherwise alter their strategic direction away from our products.

A weakening in the economy could also force some retailers to close, resulting in exposure to potential credit losses and declines in transactions, and reduced earnings on transactions due to a potential shift to large discount merchants. Additionally, credit card issuers may reduce credit limits and become more selective in their card issuance practices. Changes in economic conditions could adversely impact our future revenues and profits and result in a downgrade of our debt ratings, which may lead to termination or modification of certain contracts and make it more difficult for us to obtain new business. Any of these developments could have a material adverse impact on our overall business and results of operations.

Our ability to anticipate and respond to changing industry trends and the needs and preferences of our clients and consumers may affect our competitiveness or demand for our products, which may adversely affect our operating results.

Financial services, payments, and technology industries are subject to rapid technological advancements, new products and services, including mobile payment applications, evolving competitive landscape, developing industry standards, and changing client and consumer needs and preferences. We expect that new services and technologies applicable to the financial services, payments, and technology industries will continue to emerge. These changes in technology may limit the competitiveness of and demand for our services. Also, our clients and their customers continue to adopt new technology for business and personal uses. We must anticipate and respond to these changes in order to remain competitive within our relative markets. For example, our ability to provide innovative point-of-sale technology to our merchant clients could have an impact on our Global Business Solutions business.

Failure to develop value-added services that meet the needs and preferences of our clients could have an adverse effect on our ability to compete effectively in our industry. Furthermore, clients' and their customers' potential negative reaction to our products and services can spread quickly through social media and damage our reputation before we have the opportunity to respond. If we are unable to anticipate or respond to technological changes or evolving industry standards on a timely basis, our ability to remain competitive could be materially adversely affected.

Substantial and increasingly intense competition worldwide in the financial services, payments, and technology industries may materially and adversely affect our overall business and operations.

Financial services, payments, and technology industries are highly competitive and our payment solutions compete against all forms of financial services and payment systems, including cash and checks, and electronic, mobile, and eCommerce payment platforms. If we are unable to differentiate ourselves from our competitors, drive value for our clients and/or effectively align our resources with our goals and objectives, we may not be able to compete effectively. Our competitors may introduce their own value-added or other services or solutions more effectively than we do, which could adversely impact our growth. We also compete against new entrants that have developed alternative payment systems, eCommerce payment systems, and payment systems for mobile devices. Failure to compete effectively against any of these competitive threats could have a material adverse effect on us. In addition, the highly competitive nature of our industry could lead to increased pricing pressure which could have a material impact on our overall business and results of operations.

Potential changes in the competitive landscape, including disintermediation from other participants in the payments value chain, could harm our business.

We expect that the competitive landscape will continue to change, including:

- Rapid and significant changes in technology, resulting in new and innovative payment methods and programs that could place us at a competitive disadvantage and that could reduce the use of our products.
- Competitors, clients, governments, and other industry participants may develop products that compete with or replace our value-added products and services.
- Participants in the financial services, payments, and technology industries may merge, create joint ventures, or form other business combinations that may
 strengthen their existing business services or create new payment services that compete with our services.
- New services and technologies that we develop may be impacted by industry-wide solutions and standards related to migration to EMV chip technology, tokenization, or other safety and security technologies.

Failure to compete effectively against any of these competitive threats could have a material adverse effect on us.

We depend, in part, on our merchant relationships and alliances to grow our Global Business Solutions business. If we are unable to maintain these relationships and alliances, our business may be adversely affected.

Our alliance structures take on different forms, including consolidated subsidiaries, equity method investments, and revenue sharing arrangements. Under our alliance program, a bank or other institution forms an alliance with us on an exclusive basis, either contractually or through a separate legal entity. Merchant contracts may be contributed to the alliance by us and/or the bank or institution. The banks and other institutions generally provide card association sponsorship, clearing, and settlement services and typically act as a merchant referral source when the institution has an existing banking or other relationship with such merchant. We provide transaction processing and related functions. Both we and our alliance partners may also provide management, sales, marketing, and other administrative services. The alliance structure allows us to be the processor for multiple financial institutions, any one of which may be selected by the merchant as its bank partner. We rely on the growth of our merchant relationships, alliances, and other distribution channels to support our business. There can be no guarantee that we will achieve this growth. In addition, our contractual arrangements with our merchants and merchant alliance partners are for fixed terms and may also allow for early termination upon the occurrence of certain events. There can be no assurance that we will be able to renew our contractual arrangements with these merchants or merchant alliance partners on similar terms or at all. The loss of merchant relationships or alliance and financial institution partners could negatively impact our business and result in a reduction of our revenue and profit.

Risk Relating to the Referendum of the United Kingdom's Membership of the European Union

The announcement of the Referendum of the United Kingdom's Membership of the European Union (referred to as Brexit), advising for the exit of the United Kingdom from the European Union, could, among other outcomes, disrupt the free movement of goods, services, and people between the U.K. and the E.U., undermine bilateral cooperation in key policy areas, and significantly disrupt trade between the U.K. and the E.U. The effects of Brexit will depend in part on any agreements the U.K. makes to retain

access to E.U. markets. These agreements could potentially disrupt the markets we serve and the tax jurisdictions in which we operate and adversely change tax benefits or liabilities in these or other jurisdictions. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the U.K. determines which E.U. laws to replace or replicate. Given the lack of comparable precedent, it is unclear what financial, trade, and legal implications the withdrawal of the U.K. from the E.U. would have and how such withdrawal would affect us.

In addition, Brexit has introduced additional volatility and uncertainty in global stock markets and currency exchange rate fluctuations that resulted in the strengthening of the U.S. dollar against foreign currencies in which we conduct business. We translate revenue denominated in foreign currency into U.S. dollars for our financial statements. During periods of a strengthening dollar, our reported international revenue is reduced because foreign currencies translate into fewer U.S. dollars.

Any of these effects of Brexit, among others, could materially adversely affect our relationships with our existing and future clients and suppliers, which could have an adverse effect on our business, financial results, and business opportunities.

Failure to obtain new clients or renew client contracts on favorable terms could adversely affect results of operations and financial condition.

Most of our sales involve long-term contracts, which generally require a notice period prior to their scheduled expiration if a client chooses not to renew. Some of these contracts may also allow for early termination upon the occurrence of certain events such as a change in control. While a vast majority of our contracts remain in effect through their scheduled expiration, we may face pricing pressure in obtaining and retaining our larger clients. Some of our competitors may offer more attractive fees to our current and prospective clients, or other services that we do not offer. Larger clients may be able to seek lower prices from us when they renew a contract, when a contract is extended, or when the client's business has significant volume changes. They may also reduce services if they decide to move services in-house. Further, our SMB clients may exert pricing pressure due to pricing competition or other economic needs or pressures such clients experience from their customers. On some occasions, this pricing pressure results in lower revenue from a client than we had anticipated based on our previous agreement with that client. This reduction in revenue could result in an adverse effect on our business, operating results, and financial condition.

For potential clients of our business segments, switching from one vendor of core processing or related software and services (or from an internally-developed system) to a new vendor is a significant undertaking. As a result, potential clients often resist change. We seek to overcome this resistance through strategies such as making investments to enhance the functionality of our software. However, there can be no assurance that our strategies for overcoming potential clients' reluctance to change vendors will be successful, and this resistance may adversely affect our growth.

Security breaches or attacks on our systems may have a significant effect on our business.

In order to provide our services, we process, store, and transmit sensitive business information and personal consumer information, including, but not limited to, names, bankcard numbers, home or business addresses, social security numbers, driver's license numbers, and bank account numbers. Under the card network rules, various federal, state and international laws, and client contracts, we are responsible for information provided to us by financial institutions, merchants, ISOs, third-party service providers, and others. The confidentiality of such sensitive business information and personal consumer information that resides on our systems is critical to our business. We cannot be certain that the security measures and procedures we have in place to protect this sensitive data will be successful or sufficient to counter all current and emerging technology threats designed to breach our systems in order to gain access to confidential information. The increasing sophistication of cyber criminals may increase the risk of a security breach of our systems. A breach of our products or systems processing or storing sensitive business information or personal consumer information could lead to claims against us, reputational damage, lost clients and lost revenue, substantial additional costs (including costs of notification of consumers, credit monitoring, card reissuance, contact centers and forensics), loss of our financial institution sponsorship, loss of clients' and their customers' confidence, as well as imposition of fines and damages, or potential restrictions imposed by card networks on our ability to process transactions, all of which could have a material adverse effect on our revenues, profitability, financial condition, and future growth. In addition, as security threats continue to evolve we may be required to invest additional resources to modify the security of our systems, which could have a material adverse effect on our results of operations.

We may experience breakdowns in our processing systems that could damage client relations and expose us to liability.

Our core business depends heavily on the reliability of our processing systems. A system outage could have a material adverse effect on our business, financial condition, and results of operations. Not only would we suffer damage to our reputation in the event of a system outage, but we may also be liable to third parties. Many of our contractual agreements with clients require us to pay penalties if our systems do not meet certain operating standards. To successfully operate our business, we must be able to

protect our processing and other systems from interruption, including from events that may be beyond our control. Events that could cause system interruptions include, but are not limited to, fire, natural disaster, unauthorized entry, power loss, telecommunications failure, computer viruses, terrorist acts, and war. Although we have taken steps to protect against data loss and system failures, there is still risk that we may lose critical data or experience system failures. To help protect against these events, we perform the vast majority of disaster recovery operations ourselves, but we also utilize select third parties for certain operations, particularly outside of the United States. To the extent we outsource our disaster recovery, we are at risk of the vendor's unresponsiveness or other failures in the event of breakdowns in our systems. In addition, our property and business interruption insurance may not be adequate to compensate us for all losses or failures that may occur.

We may experience software defects, computer viruses, and development delays, which could damage client relations, our potential profitability and expose us to liability.

Our products are based on sophisticated software and computing systems that often encounter development delays, and the underlying software may contain undetected errors, viruses, or defects. Defects in our software products and errors or delays in our processing of electronic transactions could result in additional development costs, diversion of technical and other resources from our other development efforts, loss of credibility with current or potential clients, harm to our reputation, fines imposed by card networks, or exposure to liability claims. In addition, we rely on technologies supplied to us by third parties that may also contain undetected errors, viruses or defects that could have a material adverse effect on our business, financial condition and results of operations. Although we attempt to limit our potential liability for warranty claims through disclaimers in our software documentation and limitation-of-liability provisions in our license and other agreements with our clients, we cannot assure that these measures will be successful in limiting our liability.

Our merchants may be unable to satisfy obligations for which we may also be liable.

We are subject to the risk of our merchants being unable to satisfy obligations for which we may also be liable. For example, we and our merchants acquiring alliances may be subject to contingent liability for transactions originally acquired by us that are disputed by the cardholder and charged back to the merchants. If we or the alliance is unable to collect this amount from the merchant because of the merchant's insolvency or other reasons, we or the alliance will bear the loss for the amount of the refund paid to the cardholder. We have an active program to manage our credit risk and often mitigate our risk by obtaining collateral. It is possible, however, that a default on such obligations by one or more of our merchants could have a material adverse effect on our business. For further information on our merchant credit losses, see note 1 "Summary of Significant Policies" to our consolidated financial statements in Part II, Item 8 of this Form 10-K.

Fraud by merchants or others could have a material adverse effect on our business, financial condition, and results of operations.

We may be subject to potential liability for fraudulent electronic payment transactions or credits initiated by merchants or others. Examples of merchant fraud include when a merchant or other party knowingly uses a stolen or counterfeit credit, debit or prepaid card, card number, or other credentials to record a false sales transaction, processes an invalid card, or intentionally fails to deliver the merchandise or services sold in an otherwise valid transaction. Criminals are using increasingly sophisticated methods to engage in illegal activities such as counterfeiting and fraud. It is possible that incidents of fraud could increase in the future. Failure to effectively manage risk and prevent fraud would increase our chargeback liability or other liability. Increases in chargebacks or other liability could have a material adverse effect on our business, financial condition, and results of operations.

Future consolidation of financial institution clients or other client groups may adversely affect our financial condition.

In recent years, we have been negatively affected by the substantial consolidation in the bank industry. Bank industry consolidation affects existing and potential clients in our service areas. Our alliance strategy could also be negatively affected by consolidations, especially where the banks involved are committed to their internal merchant processing businesses that compete with us. Bank consolidation has led to an increasingly concentrated client base, resulting in a changing client mix as well as increased price compression. Further consolidation in the bank industry or other client base could have a negative impact on us, including a loss of revenue and price compression.

We rely on various financial institutions to provide clearing services in connection with our settlement activities. If we are unable to maintain clearing services with these financial institutions and are unable to find a replacement, our business may be adversely affected.

We rely on various financial institutions to provide clearing services in connection with our settlement activities. If such financial institutions should stop providing clearing services we must find other financial institutions to provide those services. If we are

unable to find a replacement financial institution we may no longer be able to provide processing services to certain clients, which could negatively impact our revenue and earnings.

Because we rely on third-party vendors to provide products and services, we could be adversely impacted if they fail to fulfill their obligations.

Our business is dependent on third-party vendors to provide us with certain products and services. The failure of these vendors to perform their obligations in a timely manner could adversely affect our operations and profitability. In addition, if we are unable to renew our existing contracts with our most significant vendors, we might not be able to replace the related product or service at the same cost, which would negatively impact our profitability.

Changes in card association and debit network fees or products could increase costs or otherwise limit our operations.

From time to time, card associations and debit networks increase the organization and/or processing fees (known as interchange fees) that they charge. It is possible that competitive pressures will result in us absorbing a portion of such increases in the future, which would increase our operating costs, reduce our profit margin, and adversely affect our business, operating results, and financial condition. In addition, the various card associations and networks prescribe certain capital requirements. Any increase in the capital level required would further limit our use of capital for other purposes.

Our business may be adversely affected by geopolitical and other risks associated with operations outside of the United States and, as we continue to expand internationally, we may incur higher than anticipated costs and may become more susceptible to these risks.

We offer merchant acquiring, processing and issuing services outside of the United States, including in the United Kingdom, Germany, Argentina, Greece, India, and Australia, where our principal non-U.S. operations are located. Our revenues derived from these and other non-U.S. operations are subject to additional risks, including those resulting from social and geopolitical instability and unfavorable political or diplomatic developments, all of which could negatively impact our financial results.

As we expand internationally and grow our non-U.S. client base, we may face challenges due to the presence of more established competitors and our lack of experience in such non-U.S. markets, and we may also incur higher than anticipated costs. For example, we expanded our presence in Brazil in the third quarter of 2014 by launching our acquiring solution developed specifically for Brazil. If we are unable to successfully manage expenses relating to the international expansion of our business, our financial position and results of operations could be negatively impacted.

Cost savings initiatives may not produce the savings expected and may negatively impact our other initiatives and efforts to grow our business.

In recent years, we have implemented measures aimed at improving our profitability and maintaining flexibility in our capital resources, including restructuring efforts to align the business with our strategic objectives and the introduction of cost savings initiatives. We expect to continue to take measures to improve our profitability and cash flows from operating activities. However, there can be no assurance that the cost control measures will be successful. In addition, these and any future spending reductions, if any, may negatively impact our other initiatives or our efforts to grow our business, which may negatively impact our future results of operations and increase the burden on existing management, systems, and resources.

The ability to recruit, retain and develop qualified personnel is critical to our success and growth.

All of our businesses function at the intersection of rapidly changing technological, social, economic, and regulatory developments that requires a wide range of expertise and intellectual capital. For us to successfully compete and grow, we must retain, recruit, and develop the necessary personnel who can provide the needed expertise across the entire spectrum of our intellectual capital needs. In addition, we must develop our personnel to provide succession plans capable of maintaining continuity in our business. The market for qualified personnel, however, is competitive and we may not succeed in recruiting additional personnel or may fail to effectively replace current personnel who depart with qualified or effective successors. Our effort to retain and develop personnel may also result in significant additional expenses, which could adversely affect our profitability. We cannot assure that key personnel, including executive officers, will continue to be employed or that we will be able to attract and retain qualified personnel in the future. Failure to retain or attract key personnel could have a material adverse effect on us.

Acquisitions and integrating such acquisitions create certain risks and may affect our operating results.

We have actively acquired businesses and may continue to make acquisitions of businesses or assets in the future. The acquisition and integration of businesses or assets involves a number of risks. The core risks are valuation (negotiating a fair price for the business), integration (managing the process of integrating the acquired company's people, products, technology, and other assets to extract the value and synergies projected to be realized in connection with the acquisition), regulation (obtaining necessary regulatory or other government approvals that may be necessary to complete acquisitions), and diligence (identifying undisclosed or unknown liabilities or restrictions that will be assumed in the acquisition).

In addition, acquisitions outside of the United States often involve additional or increased risks including, for example:

- managing geographically separated organizations, systems and facilities;
- integrating personnel with diverse business backgrounds and organizational cultures;
- complying with non-U.S. regulatory requirements;
- fluctuations in currency exchange rates;
- enforcement of intellectual property rights in some non-U.S. countries;
- difficulty entering new non-U.S. markets due to, among other things, consumer acceptance and business knowledge of these new markets; and
- general economic and political conditions.

The process of integrating operations could cause an interruption of, or loss of momentum in, the activities of one or more of our combined businesses and the possible loss of key personnel. The diversion of management's attention and any delays or difficulties encountered in connection with acquisitions and the integration of the two companies' operations could have an adverse effect on our business, results of operations, financial condition or prospects.

Financial Risks

Our substantial leverage could adversely affect our ability to raise additional capital to fund our operations, limit our ability to react to changes in the economy or our industry, expose us to interest rate risk to the extent of our variable rate debt and prevent us from meeting our debt obligations.

We are highly leveraged. As of December 31, 2016, we had \$18.5 billion of total debt. Our high degree of leverage could have important consequences, including:

- increasing our vulnerability to adverse economic, industry or competitive developments;
- requiring a substantial portion of cash flow from operations to be dedicated to the payment of principal and interest on our indebtedness, therefore reducing our ability to use cash flow to fund our operations, capital expenditures, and future business opportunities;
- making it more difficult for us to satisfy our obligations with respect to our indebtedness, and any failure to comply with the obligations of our
 debt instruments, including restrictive covenants and borrowing conditions, could result in an event of default under the agreements governing
 such indebtedness;
- restricting us from making strategic acquisitions or causing us to make non-strategic divestitures;
- making it more difficult for us to obtain network sponsorship and clearing services from financial institutions or to obtain or retain other business with financial institutions;
- limiting our ability to obtain additional financing for working capital, capital expenditures, product development, debt service requirements, acquisitions, and general corporate or other purposes; and
- limiting our flexibility in planning for, or reacting to, changes in our business or market conditions and placing us at a competitive disadvantage compared to our competitors who are less highly leveraged and who, therefore, may be able to take advantage of opportunities that our leverage prevents us from exploiting.

Our financial condition and results of operations are dependent in part upon our ongoing ability to refinance our maturing indebtedness at attractive interest rates.

Successful execution of our business strategy is dependent in part upon our ability to manage our capital structure to minimize interest expense and enhance free cash flow generation. Our senior secured revolving credit facility has \$1.25 billion in commitments that are scheduled to mature in June 2020. In addition, approximately \$1.7 billion of obligations under our existing long term borrowings are scheduled to mature prior to December 31, 2020. We may not be able to refinance our senior secured credit facilities or our other existing indebtedness at or prior to their maturity at attractive rates of interest because of our high levels of debt, debt incurrence restrictions under our debt agreements or because of adverse conditions in credit markets generally.

An increase in interest rates may negatively impact our operating results and financial condition.

Certain of our borrowings, including borrowings under our senior secured credit facilities to the extent the interest rate is not fixed by an interest rate swap, are at variable rates of interest. An increase in interest rates would have a negative impact on our results of operations by causing an increase in interest expense.

As of December 31, 2016, we had \$8.1 billion aggregate principal amount of variable rate long-term indebtedness, of which we have fixed interest rate collar contracts on \$3.0 billion in notional amount. The interest rate collar contracts mitigate exposure to interest rate fluctuations, but are subject to contractual ceilings and floors. The interest rate collar swaps provide for interest rate protection if one month LIBOR rises above 150 basis points. As a result, as of December 31, 2016, the impact of a 100 basis point increase in short-term interest rates on an annualized basis compared to the interest rates as of December 31, 2016, which for the one month LIBOR was 0.7717%, and a corresponding and parallel shift in the remainder of the yield curve, would result in a \$74 million increase in interest expense. See the discussion of our interest rate collar contracts in note 13 "Derivative Financial Instruments" to our consolidated financial statements in Part II, Item 8 of this Form 10-K.

Our debt agreements contain restrictions that limit our flexibility in operating our business.

The agreements governing our indebtedness contain various covenants that limit our ability to engage in specified types of transactions. These covenants limit our and certain of our subsidiaries' ability to, among other things:

- incur additional indebtedness or issue certain preferred shares;
- pay dividends on, repurchase, or make distributions in respect of, our capital stock or make other restricted payments;
- make certain investments:
- sell certain assets;
- create liens;
- · consolidate, merge, sell, or otherwise dispose of all or substantially all of our assets; and
- enter into certain transactions with our affiliates.

A breach of any of these covenants could result in a default under one or more of these agreements, including as a result of cross-default provisions and, in the case of our senior secured revolving credit facility, permit the lenders to cease making loans to us. Upon the occurrence of an event of default under these agreements, the holders of our debt could elect to declare all amounts outstanding thereunder to be immediately due and payable and, in the case of our senior secured revolving credit facility, terminate all commitments to extend further credit. Such actions by these holders could cause cross-defaults under our other indebtedness. If we were unable to repay those amounts, the lenders under our senior secured credit facilities or holders of our senior secured notes could proceed against the collateral securing such debt. We have pledged a significant portion of our assets as collateral under our senior secured credit facilities and our senior secured notes. If the holders of our debt accelerate the repayment of borrowings, we may not have sufficient assets to repay our senior secured credit facilities or any other debt that may become due as a result of that acceleration and we could experience a material adverse effect on our financial condition and results of operations.

Our consolidated balance sheet includes significant amounts of goodwill and intangible assets. The impairment of a significant portion of these assets would negatively affect our financial condition and results of operations.

Our consolidated balance sheet includes goodwill and intangible assets that represent approximately 50% of our total assets as of December 31, 2016. These assets consist primarily of goodwill and client relationship intangible assets associated with our acquisitions. We also expect to engage in additional acquisitions, which may result in our recognition of additional goodwill and intangible assets. Under current accounting standards, we are required to amortize certain intangible assets over the useful life of the asset, while goodwill and certain other intangible assets are not amortized. On a regular basis we assess whether there have been impairments in the carrying value of goodwill and certain intangible assets. If the carrying value of the asset is determined to be impaired, then it is written down to fair value by a charge to operating earnings. An impairment of a significant portion of goodwill or intangible assets could have a material adverse effect on our financial condition and results of operations.

Our results of operations may be adversely affected by changes in foreign currency exchange rates.

We are subject to risks related to the changes in currency rates as a result of our investments in non-U.S. operations and from revenues generated in currencies other than the U.S. dollar. Revenue and profit generated by such non-U.S. operations will increase or decrease compared to prior periods as a result of changes in foreign currency exchange rates. From time to time, we utilize foreign currency forward contracts or other derivative instruments to mitigate the market value risks associated with foreign currency-denominated transactions. These hedge contracts may not, however, eliminate all of the risks related to foreign currency translation. In addition, we may become subject to exchange control regulations that restrict or prohibit the conversion of our other

revenue currencies into U.S. dollars. Any of these factors could decrease the value of revenues and earnings we derive from our non-U.S. operations and have a material adverse impact on our business.

Unfavorable resolution of tax contingencies could adversely affect our results of operations and cash flows from operations.

Our tax returns and positions are subject to review and audit by federal, state, local, and international taxing authorities. An unfavorable outcome to a tax audit could result in higher tax expense, thereby negatively impacting our results of operations as well as our cash flows from operations. We have established contingency reserves for material, known tax exposures relating to deductions, transactions, and other matters involving some uncertainty as to the proper tax treatment of the item. These reserves reflect what we believe to be reasonable assumptions as to the likely final resolution of each issue if raised by a taxing authority. While we believe that the reserves are adequate to cover reasonably expected tax risks, there is no assurance that, in all instances, an issue raised by a tax authority will be finally resolved at a financial cost not in excess of any related reserve. An unfavorable resolution, therefore, could negatively impact our effective tax rate, financial position, results of operations, and cash flows in the current and/or future periods. Refer to note 8 "Income Taxes" to our consolidated financial statements included in Part II, Item 8 of this Form 10-K for more information.

Changes in tax laws and regulations could adversely affect our results of operations and cash flows from operations.

Our operations are subject to tax by federal, state, local, and international taxing jurisdictions. Changes in tax laws, in our significant tax jurisdictions could materially increase the amount of taxes we owe, thereby negatively impacting our results of operations as well as our cash flows from operations. For example, restriction on the deductibility of interest expense in the US jurisdiction without a corresponding reduction in statutory tax rates could negatively impact our effective tax rate, financial position, results of operations, and cash flows in the period that such a change occurs and future periods.

Regulatory and Legal Risks

Failure to comply with, or changes in, laws, regulations and enforcement activities may adversely affect the products, services, and markets in which we operate.

We and our clients are subject to laws and regulations that affect the electronic payments industry in the many countries in which our services are used. In particular, our clients are subject to numerous laws and regulations applicable to banks, financial institutions, and card issuers in the United States and abroad, and, consequently, we are at times affected by these federal, state, and local laws and regulations. The United States government has increased its scrutiny of a number of credit card and other loan practices, from which some of our clients derive significant revenue. Regulation of the payments industry, including regulations applicable to us and our clients, has increased significantly in recent years. Failure to comply with laws and regulations applicable to our business may result in the suspension or revocation of licenses or registrations, the limitation, suspension or termination of services, and/or the imposition of consent orders or civil and criminal penalties, including fines which could have an adverse effect on our results of operation and financial condition.

We are subject to U.S. and international financial services regulations, a myriad of consumer protection laws, economic sanctions, laws and regulations, and anticorruption laws, escheat regulations and privacy and information security regulations to name only a few. Changes to legal rules and regulations, or interpretation
or enforcement of them, could have a negative financial effect on us. In particular, the Dodd-Frank Act significantly changed the United States financial regulatory
system by, among other things, creating the CFPB to regulate consumer financial products and services (including many offered by our clients), restrict debit card
fees paid by merchants to issuer banks and allow merchants to offer discounts for different payment methods. CFPB rules, examinations, and enforcement actions
may require us to adjust our activities and may increase our compliance costs. The regulations under the Dodd-Frank Act require all debit card issuing financial
institutions to participate in at least two, unaffiliated debit networks (banning exclusivity agreements between one debit network and one debit card issuer) and
prohibit card issuers and payment networks from inhibiting the ability of merchants to choose among the enabled debit networks for the routing of each debit card
transaction. Changes to the Dodd-Frank Act or regulations could adversely impact our debit network business. Changing regulations or standards in the area of
privacy and data protection could also adversely impact us. In addition, certain of our alliance partners are subject to regulation by federal and state authority and,
as a result, could pass through some of those compliance obligations to us.

Failure to comply with the U.S. Foreign Corrupt Practices Act, anti-money laundering, economic and trade sanctions regulations, and similar laws could subject us to penalties and other adverse consequences.

We operate our business around the world, including in certain foreign countries with developing economies, where companies often engage in business practices that are prohibited by U.S. and U.K. regulations, including the FCPA and the U.K. Bribery Act. Such laws prohibit improper payments or offers of payments to foreign governments and their officials and political parties by the U.S. and other business entities for the purpose of obtaining or retaining business. We have implemented policies to discourage such practices; however, there can be no assurance that all of our employees, consultants, and agents, including those that may be based in or from countries where practices that violate U.S. laws may be customary, will not take actions in violation of our policies, for which we may be ultimately responsible.

In addition, we are subject to anti-money laundering laws and regulations, including the BSA. Among other things, the BSA requires money services businesses (such as money transmitters and providers of prepaid access) to develop and implement risk-based anti-money laundering programs, report large cash transactions and suspicious activity, and maintain transaction records. Our subsidiary Money Network Financial LLC provides prepaid access for various open loop prepaid programs for which it is the program manager and therefore must meet the requirements of the Financial Crimes Enforcement Network, the agency that enforces the BSA.

We are also subject to certain economic and trade sanctions programs that are administered by the OFAC which prohibit or restrict transactions to or from or dealings with specified countries, their governments, and in certain circumstances, their nationals, and with individuals and entities that are specially-designated nationals of those countries, narcotics traffickers, and terrorists or terrorist organizations.

Similar anti-money laundering and counter terrorist financing and proceeds of crime laws apply to movements of currency and payments through electronic transactions and to dealings with persons specified in lists maintained by the country equivalents to OFAC lists in several other countries and require specific data retention obligations to be observed by intermediaries in the payment process. Our businesses in those jurisdictions are subject to those data retention obligations.

Failure to comply with any of these laws and regulations or changes in this regulatory environment, including changing interpretations and the implementation of new or varying regulatory requirements by the government, may result in significant financial penalties, reputational harm, or change the manner in which we currently conduct some aspects of our business, which could significantly affect our results of operations or financial condition.

Changes in credit card association or other network rules or standards could adversely affect our business.

In order to provide our transaction processing services, several of our subsidiaries are registered with Visa and MasterCard and other networks as members or service providers for member institutions. As such, we and many of our clients are subject to card association and network rules that could subject us or our clients to a variety of fines or penalties that may be levied by the card associations or networks for certain acts or omissions by us, acquiring clients, processing clients, and merchants. Visa, MasterCard, and other networks, some of which are our competitors, set the rules and standards with which we must comply. The termination of our member registration or our status as a certified service provider, or any changes in card association or other network rules or standards, including interpretation and implementation of the rules or standards, that increase the cost of doing business or limit our ability to provide transaction processing services to or through our clients, could have an adverse effect on our business, results of operations, and financial condition.

Failure to protect our intellectual property rights and defend ourselves from potential patent infringement claims may diminish our competitive advantages or restrict us from delivering our services.

Our trademarks, patents, and other intellectual property are important to our future success. The *First Data* trademark and trade name and the *STAR* trademark and trade name are intellectual property rights which are individually material to us. These trademarks and trade names are widely recognized and associated with quality and reliable service. Loss of the proprietary use of the *First Data* or *STAR* trademarks and trade names or a diminution in the perceived quality associated with them could harm the growth of our businesses. We also rely on proprietary technology. It is possible that others will independently develop the same or similar technology. Further, we use open source architecture in connection with our solutions, in particular our *Clover* open architecture platform. Companies that incorporate open source platforms into their solutions have, from time to time, faced claims challenging the ownership of such platforms. As a result, we could be subject to suits by parties claiming ownership of what we believe to be open source software. We cannot guarantee that we can protect our trade secrets, knowhow, or other proprietary information. Our patents could be challenged, invalidated or circumvented by others, and may not be of sufficient scope or strength to provide us with any meaningful protection or advantage. If we are unable to maintain the proprietary nature of our technologies, we could

lose competitive advantages and be materially adversely affected. Additionally, the laws of certain non-U.S. countries where we do business or contemplate doing business in the future may not recognize intellectual property rights or protect them to the same extent as do the laws of the United States. Adverse determinations in judicial or administrative proceedings could prevent us from selling our services or prevent us from preventing others from selling competing services, and thereby may have a material adverse effect on the business and results of operations. Additionally, claims have been made, are currently pending, and other claims may be made in the future, with regard to our technology allegedly infringing on a patent or other intellectual property rights. Unfavorable resolution of these claims could either result in us being restricted from delivering the related product or service or result in a settlement that could be materially adverse to us.

Failure to comply with state and federal antitrust requirements could adversely affect our business.

Through our merchant alliances, we hold an ownership interest in several competing merchant acquiring businesses while serving as an electronic processor for those businesses. In order to satisfy state and federal antitrust requirements, we actively maintain an antitrust compliance program. Notwithstanding our compliance program, it is possible that perceived or actual violations of state or federal antitrust requirements could give rise to regulatory enforcement investigations or actions. Regulatory scrutiny of, or regulatory enforcement action in connection with, compliance with state and federal antitrust requirements could have a material adverse effect on our reputation and business.

We are the subject of various legal proceedings which could have a material adverse effect on our revenue and profitability.

We are involved in various litigation matters. We are also involved in or are the subject of governmental or regulatory agency inquiries or investigations and make voluntary self-disclosures to government or regulatory agencies from time to time. Our insurance or indemnities may not cover all claims that may be asserted against us, and any claims asserted against us, regardless of merit or eventual outcome, may harm our reputation. If we are unsuccessful in our defense in these litigation matters, or any other legal proceeding, we may be forced to pay damages or fines, enter into consent decrees, and/or change our business practices, any of which could have a material adverse effect on our revenue and profitability.

Our ability to utilize net operating loss carryforwards could be limited if we were to experience an ownership change as defined in the Internal Revenue Code.

Section 382 of the Internal Revenue Code of 1986, as amended (Code), contains rules that impose an annual limitation on the ability of a company with net operating loss carryforwards that undergoes an ownership change, which is generally any change in ownership of more than 50% of its stock (by value) over a three-year period, to utilize its net operating loss carryforwards in years after the ownership change. These rules generally operate by focusing on ownership changes among holders owning directly or indirectly 5% or more of the shares of stock of a company or any change in ownership arising from a new issuance of shares of stock by such company. If a company's income in any year is less than the annual limitation prescribed by Section 382 of the Code, the unused portion of such limitation amount may be carried forward to increase the limitation (and net operating loss carryforward utilization) in subsequent tax years.

Our initial public offering did not result in an ownership change for purposes of Section 382 of the Code. If, however, we were to undergo an ownership change as a result of future transactions involving our common stock, including a follow-on offering of our common stock or purchases or sales of common stock between 5% holders, our ability to use our net operating loss carryforwards would be subject to the limitations of Section 382 of the Code. As a result, a portion of our net operating loss carryforwards may expire before we would be able to use them. If we are unable to utilize our net operating loss carryforwards, there may be a negative impact on our financial position and results of operations.

In addition to the aforementioned federal income tax implications pursuant to Section 382 of the Code, most states follow the general provisions of Section 382 of the Code, either explicitly or implicitly resulting in separate state net operating loss limitations.

Risks Related to Ownership Structure

Kohlberg Kravis Roberts & Co. L.P. (KKR) controls us and its interests may conflict with ours or yours in the future.

KKR holds a majority of the combined voting power of our common stock. As a result, KKR has the ability to elect all of the members of our Board and thereby control our policies and operations, including the appointment of management, future issuances of our Class A common stock or other securities, the payment of dividends, if any, on our Class A common stock, the incurrence of debt by us, amendments to our amended and restated certificate of incorporation and amended and restated bylaws, and the entering into of extraordinary transactions and the interests of KKR may not in all cases be aligned with your interests.

In addition, KKR may have an interest in pursuing acquisitions, divestitures and other transactions that, in its judgment, could enhance its investment, even though such transactions might involve risks to you. For example, KKR could cause us to make acquisitions that increase our indebtedness or cause us to sell revenue-generating assets. KKR is in the business of making investments in companies and may from time to time acquire and hold interests in businesses that compete directly or indirectly with us. Our amended and restated certificate of incorporation provides that none of KKR or any director who is not employed by us (including any nonemployee director who serves as one of our officers in both his or her director and officer capacities) or his or her affiliates will have any duty to refrain from engaging, directly or indirectly, in the same business activities or similar business activities or lines of business in which we operate. KKR also may pursue acquisition opportunities that may be complementary to our business, and, as a result, those acquisition opportunities may not be available to us.

So long as KKR continues to beneficially own a sufficient number of shares of Class B common stock, even if it beneficially owns significantly less than 50% of the shares of our outstanding common stock, it will continue to be able to effectively control our decisions. For example, if our Class B common stock amounted to 15% of our outstanding common stock, beneficial owners of our Class B common stock (including KKR), would collectively control 64% of the voting power of our common stock. The shares of our Class B common stock beneficially owned by KKR may be transferred to an unrelated third party if the holders of a majority of the shares of Class B common stock have consented to such transfer in writing in advance.

In addition, KKR will be able to determine the outcome of all matters requiring stockholder approval and will be able to cause or prevent a change of control of our Company or a change in the composition of our Board and could preclude any acquisition of our Company. This concentration of voting control could deprive you of an opportunity to receive a premium for your shares of Class A common stock as part of a sale of our Company and ultimately might affect the market price of our Class A common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

As of December 31, 2016, we and our subsidiaries owned or leased 58 domestic properties and 77 international properties. These facilities are used for operational, sales and administrative purposes, and are substantially all utilized.

	Leased F	acilities	Owned I	acilities
	No.	Sq. Ft.	No.	Sq. Ft.
Facilities in the United States	47	2,328,142	11	1,592,740
International Facilities	69	985,356	8	406,051

Global Business Solutions' principal operations are conducted in New York, New York; Coral Springs, Florida; Hagerstown, Maryland; London, United Kingdom; São Paulo, Brazil; Singapore, Singapore; and Atlanta, Georgia. Global Financial Solutions' principal operations are located in New York, New York; Omaha, Nebraska; and Chesapeake, Virginia. Network & Security Solutions' principal operations are located in Atlanta, Georgia; Omaha, Nebraska; Sugar Land, Texas; Wilmington, Delaware; and Greenwood Village, Colorado. Our Corporate facilities include New York, New York; Atlanta, Georgia; Thane, India; and Greenwood Village, Colorado.

We believe that our facilities are suitable and adequate for our current business; however, we periodically review our space requirements and may acquire new space to meet the needs of our businesses or consolidate and dispose of or sublet facilities which are no longer required.

ITEM 3. LEGAL PROCEEDINGS

From time to time, we are involved in various litigation matters arising in the ordinary course of our business. None of these matters, individually or in the aggregate, currently is material to us. Information with respect to this item may be found in note 14 "Commitments and Contingencies" to our consolidated financial statements in Part II, Item 8 of this Form 10-K.

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 has traded on the New York Stock Exchange under the symbol "FDC" since October 15, 2015. Prior to that date, there was no public trading market for our common stock.

Price Range of Class A common stock

The information presented in the table below represents the high and low closing sales prices per share of Class A common stock as reported on the NYSE for the periods indicated. Prior to that date, there was no public trading market for our Class A common stock. Our initial public offering of Class A common stock was priced at \$16.00 per share on October 15, 2015. There is currently no established public trading market for our Class B common stock.

2015		High	Low			
Fourth quarter (beginning October 15, 2015)	\$	17.80	\$	15.36		
2016		High		Low		
First Quarter	\$	15.95	\$	8.67		
Second Quarter	\$	13.34	\$	10.13		
Third Quarter	\$	14.48	\$	10.66		
Fourth Quarter	\$	15.53	\$	13.03		

There were 25 holders of record of our Class A common stock and 34 holders of record of our Class B common stock as of January 31, 2017. The number of beneficial owners of our Class A common stock 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 banks and brokers.

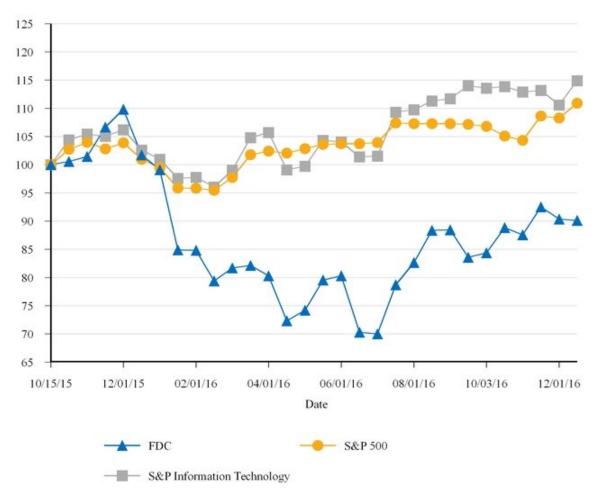
Dividend Policy

Since our initial public offering (IPO), we have not declared or paid any cash dividends on our common stock, and we have no current plan to do so. Because a significant portion of our operations is through our subsidiaries, our ability to pay dividends depends in part on our receipt of cash dividends from our operating subsidiaries, which may further restrict our ability to pay dividends as a result of the laws of their jurisdiction of organization, agreements of our subsidiaries or covenants under any existing and future outstanding indebtedness we or our subsidiaries incur. In addition, the senior secured revolving credit facility, senior secured term loan facility, and the indentures governing the senior notes limit our ability to pay dividends. In 2015, we paid three dividends totaling \$4 million to FDH, our former parent, prior to our IPO. In 2014, we paid five dividends totaling \$686 million to FDH. See "Management's Discussion and Analysis of Financial Condition and Results of Operations - Capital Resources and Liquidity" included in Part II, Item 7 and note 5 "Stockholders' Equity and Redeemable Noncontrolling Interest" to our consolidated financial statements in Part II, Item 8 of this Form 10-K.

Stock Performance Graph

The following graph shows a comparison from October 15, 2015 (the date our Class A common stock commenced trading on the NYSE) through December 31, 2016 of the cumulative total return for our Class A common stock, the S&P 500 Index and the S&P Information Technology Index. Data for the S&P 500 Index and the S&P Information Technology Index assume reinvestment of dividends. Note that historic stock price performance is not necessarily indicative of future stock price performance.





This performance graph shall not be deemed "soliciting material" or to be "filed" with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any filing of First Data Corporation under the Securities Act of 1933, as amended.

ITEM 6. SELECTED FINANCIAL DATA

The following table sets forth our selected consolidated financial data as of the dates and for the periods indicated. The selected financial data as of December 31, 2016 and 2015 and for the years ended December 31, 2016, 2015, and 2014 have been derived from our audited consolidated financial statements and related notes appearing in Part II, Item 8 of this Form 10-K. The selected consolidated financial data as of December 2014, 2013, and 2012 and for the years ended December 2013 and 2012 have been derived from our audited consolidated financial statements and related notes thereto not included in this Form 10-K.

The results of operations for any period are not necessarily indicative of the results to be expected for any future period. The selected consolidated financial 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" and the consolidated financial statements and related notes thereto included in Part II, Item 8 of this Form 10-K.

The notes to our consolidated financial statements in Part II, Item 8 of this Form 10-K contain additional information about various acquisitions, dispositions, and certain charges and benefits resulting from other operating expenses, and other income (expense) which affect the comparability of information presented. Amounts below include acquisitions since the date acquired.

	December 31,									
(in millions, except shares and per share data)		2016		2015		2014		2013		2012
Statement of operations data (Year-end):										
Revenues	\$	11,584	\$	11,451	\$	11,152	\$	10,809	\$	10,680
Total revenues (excluding reimbursables)		7,839		7,764		7,548		7,302		7,318
Operating expenses (a)		9,921		10,228		9,701		9,629		9,578
Other operating expenses, net (b)		61		53		13		56		28
Total expenses (excluding reimbursables)		6,237		6,594		6,110		6,178		6,244
Interest expense, net		(1,068)		(1,537)		(1,728)		(1,856)		(1,887)
Net income (loss)		660		(1,268)		(265)		(775)		(562)
Net income (loss) attributable to First Data Corporation		420		(1,481)		(458)		(952)		(736)
Depreciation and amortization (c)		1,061		1,133		1,163		1,212		1,331
Net income (loss) per share (d):										
Basic		0.47		(7.70)		(458,000)		(952,000)		(736,000)
Diluted		0.46		(7.70)		(458,000)		(952,000)		(736,000)
Weighted average common shares outstanding (d):										
Basic		901,671,872		192,263,793		1,000		1,000		1,000
Diluted		921,001,863		192,263,793		1,000		1,000		1,000
Balance sheet data (As of year-end):										
Total assets	\$	40,292	\$	34,362	\$	34,034	\$	34,962	\$	37,617
Settlement assets		14,795		8,150		7,557		7,553		9,226
Total liabilities		36,088		30,625		31,434		33,318		34,959
Settlement obligations		14,795		8,150		7,557		7,553		9,226
Long-term borrowings		18,131		18,737		20,697		22,499		22,365
Other long-term liabilities (e)		1,240		1,243		1,223		1,202		1,249
Redeemable noncontrolling interest		73		77		70		69		67
Total equity		4,131		3,660		2,530		1,575		2,591
Cash flow data (Year-end):										
Net cash provided by operating activities	\$	2,111	\$	795	\$	1,035	\$	715	\$	803
Net cash used in investing activities		(387)		(685)		(329)		(353)		(397)
Net cash used in financing activities		(1,734)		(16)		(743)		(532)		(285)

Operating expenses include Cost of services; Cost of products sold; Selling, general, and administrative; Depreciation and amortization; and Reimbursable debit network fees, postage and other.

(e)

Other operating expenses, net includes restructuring, net; impairments; litigation and regulatory settlements; and other as applicable to the periods presented.

Includes amortization of initial payments for new contracts, which is recorded as a contra-revenue within "Transaction and processing service fees" and amortization related to equity method investments, which is netted within "Equity earnings in affiliates" in our consolidated statements of operations.

As a result of the HoldCo Merger, all outstanding shares of FDH were converted into Class B common stock, which are entitled to ten votes per share. All of FDC's outstanding common stock was eliminated upon the merger. We

⁽d) accounted for the HoldCo Merger as a transfer of assets between entities under common control and have reflected the transactions impact on net loss per share and weighted average shares on a prospective basis Other long-term liabilities include Deferred tax liabilities.

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

The following contains management's discussion and analysis of our financial condition and results of operations and should be read together with "Selected Financial Data," included in Part II, Item 6 of this Form 10-K and our consolidated financial statements and related notes thereto included in Part II, Item 8 of this Form 10-K. This discussion contains forward-looking statements and involves numerous risks and uncertainties. Our actual results may differ materially from those anticipated in any forward-looking statements as a result of many factors, including those set forth under "Forward-Looking Statements," "Risk Factors," and elsewhere in this Form 10-K.

Executive Overview

First Data Corporation sits at the center of global electronic commerce. We believe we offer our clients the most complete array of integrated solutions in the industry, covering their needs across next generation commerce technologies, merchant acquiring, issuing, and network solutions. We serve our clients in over 100 countries, reaching approximately 6 million business locations over the course of a year and over 4,000 financial institutions. We believe we have the industry's largest distribution network, driven by our partnerships with many of the world's leading financial institutions, our direct sales force, and a network of distribution partners. We are the largest merchant acquirer, issuer processor, and independent network services provider in the world, enabling businesses to accept electronic payments, helping financial institutions issue credit, debit and prepaid cards, and routing secure transactions between them. In 2016, we processed 88 billion transactions globally, or approximately 2,800 per second. In our largest market, the United States, we acquired \$1.9 trillion of payment volume, accounting for over 10% of United States gross domestic product (GDP) last year.

Our business is characterized by transaction related fees, multi-year contracts, and a diverse client base, which allows us to grow alongside our clients. Our multi-year contracts allow us to achieve a high level of recurring revenues with the same clients. While the contracts typically do not specify fixed revenues to be realized thereunder, they do provide a framework for revenues to be generated based on volume of services provided during such contracts term. Our business also generally requires minimal incremental capital expenditures and working capital to support additional revenue within our existing business lines.

Our Strategy

Our ability to grow our business is influenced by global expenditure growth, increasing our share in electronic payments and providing value-added products and services. We grow our business through diversification of product offerings such as credit, debit, prepaid, Clover, and our suite of security products. We believe we offer our clients the most complete array of integrated solutions in our industry, covering their needs across next-generation commerce technology, merchant acquiring, issuing, and network solutions. We believe this differentiates us from our competition and will continue to drive our growth in the future.

We work with a variety of partners to deliver our solutions. We help merchants by delivering data-driven insights and other services to help them grow and create better and secure purchase experiences for consumers across all commerce platforms. We assist merchants in day to day operations of their business via our Clover line of products which enables merchants to more efficiently run their businesses, build customer loyalty, and gain valuable insights which help grow their businesses. We provide financial institutions with solutions to help them grow their revenues, enhance customer satisfaction, and deliver their products more timely and efficiently.

We continue to execute on key initiatives:

- Accelerate top line growth
- Innovate for tomorrow's client needs
- Maintain positive operating leverage
- Generate significant free cash flow

Components of Revenue

We generate revenue by providing commerce-enabling solutions. Set forth below is a description of our revenues by segment and factors impacting total revenues.

Global Business Solutions

Global Business Solutions (GBS) revenues are primarily derived from processing credit and debit card transactions for business clients and also include fees for providing processing, loyalty and software services, and sales and leases of POS devices. Revenues are generated from a variety of sources:

- Discount fees, net of credit and debit card interchange and assessment fees charged by the payment networks. The discount fee is typically either a percentage of the purchase amount or an interchange fee plus a fixed dollar amount;
- Processing fees charged to our alliances;
- Processing fees charged to merchant acquirers who have outsourced their transaction processing to us;
- Sales and leases of POS devices;
- · Fees from providing reporting and other services; and
- Software fees such as security and *Clover* related fees

A substantial portion of our business within GBS is conducted through merchant alliances between us and financial institutions. If we have majority ownership and management control over an alliance, then the alliance's financial statements are consolidated with ours and the related processing fees are treated as an intercompany transaction and eliminated upon consolidation. If we do not have a controlling ownership interest in an alliance, we use the equity method of accounting. As a result, our consolidated revenues include certain processing fees charged to alliances accounted for under the equity method.

A large portion of GBS' revenue is derived from transaction and processing related services. This business is dependent on macroeconomic consumer trends and global economic conditions that affect the volume of consumer spending and the use of electronic payments and changes in these factors have in the past, impacted, and may in the future impact, our ability to grow this portion of the business. We have begun to implement recent initiatives, such as the introduction of several new products and expansion of our sales force, expanding through ISV partnerships, and expansion into new international markets in an effort to grow this business versus prior periods.

Global Financial Solutions

Global Financial Solutions (GFS) revenues are primarily derived from outsourced credit and retail card processing services, software solutions for clients to support in-house card processing, statement and letters printing, plastics personalization, and check remittance processing provided to financial institutions. Revenues for GFS services are typically generated on the basis of number of total or active card accounts on file, number of statements/letters printed and mailed, number of plastics personalized, and licensing fees.

Network & Security Solutions

Network & Security Solutions (NSS) revenues are primarily derived from network services such as Electronic Funds Transfer (EFT) Network Solutions, Stored Value Network Solutions, Security and Fraud Management Solutions, and Government Solutions.

Factors Affecting the Comparability of Our Results of Operations

As a result of a number of factors, our historical results of operations are not comparable from period to period and may not be comparable to our financial results of operations in future periods. Key factors affecting the comparability of our results of operations are summarized below.

Currency Impact

Although the majority of our revenue is earned in U.S. dollars, a portion of our revenues and expenses are in foreign currencies. As a result, changes in foreign currencies against the U.S. dollar can impact our results of operations. Additionally, we have intercompany debts in foreign currencies, which impacts our results of operations. In recent periods, the U.S. dollar has appreciated significantly against most foreign currencies, which has negatively impacted our revenues generated in foreign currencies as presented in U.S. dollars in our consolidated financial statements. We believe the presentation of constant currency provides relevant information and we use this non-GAAP financial measure to, among other things, evaluate our ongoing operations in relation to foreign currency fluctuations. The presentation of non-GAAP financial measures should not be considered in isolation or as a substitute for our related financial results prepared in accordance with GAAP (Generally Accepted Accounting Principles). For additional information on our constant currency calculation, see "Segment Results" within this Form 10-K.

Interest Expense

As a result of our capital market activities over the past few years, we have lowered the weighted average interest rate of our outstanding borrowings from 7.4% as of December 31, 2014 to 5.0% as of December 31, 2016. In addition, for the year ended December 31, 2016, we incurred \$29 million in fees to modify existing long-term debt which is recorded within "Interest expense, net" in the consolidated statements of operations.

Debt Extinguishment Costs

We incurred \$70 million, \$1.1 billion, and \$274 million of losses on debt extinguishment during the years ended December 31, 2016, 2015, and 2014 respectively.

Stock-Based Compensation Expense

The table below shows the stock-based compensation expense split between Cost of services and Selling, general, and administrative expense.

	Year ended December 31,					
(in millions)		2016		2015		2014
Cost of services	\$	112	\$	130	\$	2
Selling, general, and administrative		151		199		49
Total	\$	263	\$	329	\$	51

Directly associated with our initial public offering, we incurred approximately \$254 million in stock-based compensation expense during 2015 and recognized approximately \$52 million during 2016. During 2016, we incurred an increase of \$136 million in ongoing stock-based compensation expense as employee awards were expensed over the requisite service period. See note 4 "Stock Compensation Plans" to our consolidated financial statements in Part II, Item 8 of this Form 10-K for additional information about our stock compensation plans.

Restructuring and Cost Management Initiatives

During the year, we successfully achieved over \$200 million in annualized gross savings from our previously announced cost management initiative. As a result of these initiatives, and other factors, we have increased segment EBITDA margin by over 350 basis points since December 31, 2013. To achieve these savings, we incurred approximately \$103 million in restructuring charges. For the years ended December 31, 2016 and 2015, we incurred \$49 million and \$53 million, respectively, in restructuring charges. In connection with our relentless focus on maintaining positive operating leverage, we will likely incur additional restructuring costs in the future. See note 10 "Other Operating Expenses" to our consolidated financial statements in Part II of this Form 10-K for additional information about our restructuring and cost savings initiatives.

Management Fee Expenses

For the years ended December 31, 2015 and 2014, we incurred approximately \$100 million and \$20 million in KKR related expenses, respectively (\$78 million related to the termination of our Management Agreement with KKR in 2015). For the year ended December 31, 2016, we did not incur any KKR management expenses.

Results of Operations

Consolidated results should be read in conjunction with note 7 "Segment Information" to our consolidated financial statements in Part II, Item 8 of this Form 10-K, which provides more detailed discussions concerning certain components of our consolidated statements of operations. All significant intercompany accounts and transactions have been eliminated within the consolidated results.

Overview

Revenue for the year ended December 31, 2016 increased 1% to \$ 11.6 billion from \$11.5 billion in 2015 while operating profits increased 37% to \$1.6 billion from \$1.2 billion in 2015. On a constant currency basis, revenue increased 2%, driven primarily by our GFS segment. Foreign currency negatively impacted total revenue and operating profit by 1% and 3%, respectively.

Net income attributable to First Data Corporation for the year ended December 31, 2016 improved to \$420 million from a net loss of \$1.5 billion during the same period in 2015. The improvement in net income is attributable to lower debt extinguishment charges of \$1.0 billion, lower interest expense of \$469 million, lower depreciation and amortization expense of \$73 million, a \$66 million decrease in stock-based compensation expense, and a \$29 million gain on the Visa Europe share sale, partially offset by a \$34 million loss on divestiture of an international business unit. Net income for the year ended December 31, 2016 also benefited by \$100 million related to the termination of our management agreement with KKR, as well as overall expense savings as part of our announced expense management initiatives and improved operating results.

Segment Results

We operate three reportable segments: Global Business Solutions (GBS), Global Financial Solutions (GFS), and Network & Security Solutions (NSS). Our segments are designed to establish global lines of businesses that work seamlessly with our teams in our regions of North America (United States and Canada), EMEA (Europe, Middle East, and Africa), LATAM (Latin America and Caribbean region), and APAC (Asia Pacific).

The business segment measurements provided to and evaluated by the chief operating decision maker are computed in accordance with the principles listed below:

- The accounting policies of the operating segments are the same as those described in the summary of significant accounting policies.
- Intersegment revenues are eliminated in the segment that sells directly to the end market.
- Segment revenue excludes reimbursable debit network fees, postage, and other revenue.
- Segment EBITDA includes equity earnings in affiliates and excludes depreciation and amortization expense, net income attributable to noncontrolling interests, other operating expenses, and other income (expense). Additionally, segment EBITDA is adjusted for items similar to certain of those used in calculating our compliance with debt covenants. The additional items that are adjusted to determine segment EBITDA are:
 - stock-based compensation and related expenses are excluded;
 - Kohlberg Kravis Roberts & Co. (KKR) related items including annual sponsor and other fees for management, consulting, financial, contract termination, and other advisory services are excluded. Upon our public offering on October 15, 2015, we are no longer required to pay management fees to KKR.
- For significant affiliates, segment revenue and segment EBITDA are reflected based on our proportionate share of the results of our investments in businesses accounted for under the equity method and consolidated subsidiaries with noncontrolling ownership interests. For other affiliates, we include equity earnings in affiliates, excluding amortization expense, in segment revenue and segment EBITDA. In addition, GBS measures reflect revenue-based commission payments to Independent Sales Organizations (ISOs) and sales channels, which are treated as an expense in the consolidated statements of operations, as contra revenue.
- Corporate operations include corporate-wide governance functions such as our executive management team, tax, treasury, internal audit, corporate
 strategy, and certain accounting, human resources and legal costs related to supporting the corporate function. Costs incurred by Corporate that are
 attributable to a segment are allocated to the respective segment.
- Certain measures exclude the estimated impact of foreign currency changes (constant currency). To present this information, monthly results during the periods presented for entities reporting in currencies other than U.S. dollars are translated into U.S. dollars at the average exchange rates in effect during the corresponding month of the prior fiscal year, rather than the actual average exchange rates in effect during the current fiscal year. Once translated, each month during the periods presented is added together to calculate the constant currency results for the periods presented.

Operating revenues overview

	Yea	r end	led Decemb	er 31	,	Percent (Change	Constant Currency Percent Change	
(in millions)	2016		2015		2014	2016 vs. 2015	2015 vs. 2014	2016 vs. 2015	2015 vs. 2014
Consolidated revenues	\$ 11,584	\$	11,451	\$	11,152	1 %	3%	2%	5%
Adjustments:									
Non wholly owned entities	(80)		(74)		(57)	8 %	30%	NM	NM
Independent sales organizations (ISOs) commissions	(618)		(642)		(587)	(4)%	9%	NM	NM
Reimbursable debit network fees, postage, and other	(3,745)		(3,687)		(3,604)	2 %	2%	2%	2%
Total segment revenues	\$ 7,141	\$	7,048	\$	6,904	1 %	2%	3%	5%
Segment revenues:									
Global Business Solutions	\$ 4,063	\$	4,089	\$	4,046	(1)%	1%	2%	4%
Global Financial Solutions	1,593		1,495		1,489	7 %	<u> </u> %	10%	6%
Network & Security Solutions	1,485		1,464		1,369	1 %	7%	1%	7%
NM represents not meaningful									

Global Business Solutions Segment results

The following table displays total segment revenue by region and illustrates, on a percentage basis, the impact of foreign currency fluctuations on revenue growth for the periods presented:

	 Y	Year ended December 3				Percent	Change		rrency Percent ange
(in millions)	2016		2015		2014	2016 vs. 2015	2015 vs. 2014	2016 vs. 2015	2015 vs. 2014
Revenues:									
North America	\$ 3,176	\$	3,204	\$	3,117	(1)%	3 %	(1)%	3 %
EMEA	550		541		583	2 %	(7)%	6 %	7 %
APAC	159		180		207	(12)%	(13)%	(10)%	(3)%
LATAM	178		164		139	9 %	18 %	44 %	35 %
Total segment revenue	\$ 4,063	\$	4,089	\$	4,046	(1)%	1 %	2 %	4 %
Key indicators:									
North America merchant transactions (a)	46,372		43,362		41,453	7 %	5 %		
International merchant transactions (b)	8,246		6,826		6,030	21 %	13 %		

- (a) North American merchant transactions include acquired Visa and MasterCard credit and signature debit, American Express and Discover, PIN-debit, electronic benefits transactions, processed-only and gateway customer transactions at the Point of Sale (POS). North American merchant transactions reflect 100% of alliance transactions.
- (b) International transactions include Visa, MasterCard, and other payment network merchant acquiring transactions for clients outside the U.S. and Canada. Transactions include credit, signature debit, PIN-debit POS, POS gateway, and Automated Teller Machine (ATM) transactions. International merchant transactions for the year ended December 31, 2015 reflects an updated count on transactions.

Global Business Solutions Segment revenue declined 1% on a reported basis and increased 2% on a constant currency basis in 2016 compared to 2015 as we experienced constant currency growth in our EMEA and LATAM regions. North America revenue declined as lower hardware sales of \$50 million were partially offset by an increase of \$25 million in software sales as a result of growth in our merchant suite of products, including continued growth of our Transarmor Solution. Processing revenue remained flat as transaction growth of 7% was offset by lower blended yield. Constant currency revenue growth in our EMEA region was driven by volume growth and an approximate \$10 million benefit from changes in interchange pricing during the first quarter of 2016. Constant currency revenue growth in the LATAM region was driven by revenue growth in Brazil business of \$35 million and growth in Argentina of \$30 million. The remaining growth in LATAM was driven by growth within Uruguay, Mexico, and the Caribbean. APAC revenue declined due to an \$8 million decrease in ATM fees over prior year and \$12 million due to our disposition of our Australian ATM business at the end of the third quarter of 2016. See note 12 "Acquisitions and Dispositions"

to our consolidated financial statements in Part II. Item 8 of this Form 10-K for additional information on the sale of our ATM business in APAC.

North America transaction growth in 2016 compared to 2015 was driven by growth in our alliances. International transaction growth in 2016 compared to 2015 was driven by a 14% increase in EMEA, 29% increase in APAC, and a 50% increase in LATAM.

Global Business Solutions Segment revenue increased 1% on a reported basis and 4% on a constant currency basis in 2015 compared to 2014 led by growth in our North America, EMEA, and LATAM regions. North America revenue growth was driven by growth in equipment sales of \$70 million and an increase in software sales of \$20 million. Equipment sales and leases increased as our clients continue to adopt our EMV solutions. Software sales increased as a result of investments in our merchant suite of products, including the roll-out of our Transarmor Solutions which commenced in the fourth quarter of 2014. North America acquiring revenue remained flat in 2015 compared to 2014. Constant currency revenue growth in our EMEA region was driven by volume growth partially offset by the impact of a \$12 million sale of a merchant portfolio in Poland during 2014. Constant currency revenue growth in our LATAM region was driven by revenue growth in our Brazil market of \$12 million and inflation in Argentina of \$28 million. The increase in prices in Argentina is a result of rising costs which we are generally able to pass through to our clients. Constant currency revenue decline in our APAC region was driven by declines in our ATM business in Australia.

North America transaction growth in 2015 compared to 2014 was driven by growth in our distribution systems. International transaction growth in 2015 compared to 2014 outpaced revenue growth due to the impact of foreign currency exchange rate movements.

Global Financial Solutions segment results

The following table displays total revenue by segment region and illustrates, on a percentage basis, the impact of foreign currency fluctuations on revenue growth.

	Year ended December 31,					Percent	Change	Constant Currency Percent Change		
(in millions)		2016		2015		2014	2016 vs. 2015	2015 vs. 2014	2016 vs. 2015	2015 vs. 2014
Revenues:										
North America	\$	956	\$	883	\$	815	8 %	8 %	8%	8 %
EMEA		433		435		490	<u> </u>	(11)%	7%	<u> </u>
APAC		82		75		87	9 %	(14)%	10%	(1)%
LATAM		122		102		97	20 %	5 %	42%	14 %
Total segment revenue	\$	1,593	\$	1,495	\$	1,489	7 %	 %	10%	6 %
Key indicators:										
North America card accounts on file (a)		855		813		714	5 %	14 %		
International card accounts on file (b)		151		135		132	12 %	2 %		

- (a) North America card accounts on file reflect the total number of bankcard credit and retail credit accounts as of the end of the periods presented.
- (b) International card accounts on file reflect total bankcard and retail accounts outside the United States and Canada as of the end of the periods presented. 2015 International card accounts on file reflect an updated card account total.

Global Financial Solutions Segment revenue increased 7% on a reported basis and 10% on a constant currency basis in 2016 compared to the same period in 2015 led by growth across all regions. North America revenue growth was driven by growth in our print business and our credit and retail card processing businesses. Our print business grew by \$38 million principally due to a new enterprise win from an existing customer. Credit and retail processing grew by \$44 million from an increase in card accounts on file split evenly between growth in existing customers and new business. In addition, our North America credit and retail processing business benefited by \$7 million from a termination fee, principally in the fourth quarter. EMEA constant currency revenue growth was driven by new and existing business growth and professional services growth of \$28 million in the United Kingdom and existing business growth of \$14 million in the Middle East and Africa. Growth in professional services was partially offset by price compression in Greece. Greece price compression was driven by the renewal of one large client in 2015. LATAM constant currency revenue growth was primarily driven by strong growth in Argentina of \$20 million, which benefited by volume growth and inflation, an increase in VisionPLUS licensing revenues of \$17 million mostly due to license fee resolutions, and an increase in Colombia of \$6 million from a new processing deal. The remaining \$4 million growth came from our Caribbean business due to higher processing and professional services revenues. APAC constant currency revenue growth was driven by professional services and a new processing client in Australia.

North America card accounts on file increased in 2016 compared to the same period in 2015 from growth in existing clients. International accounts on file increased in 2016 compared to the same period in 2015 due to new portfolios of existing clients throughout all of our international regions.

Global Financial Solutions Segment revenue was flat on a reported basis and increased 6% on a constant currency basis in 2015 compared to 2014 led by growth in our North America region. North America revenue growth was split evenly between our print, plastics, and remittance services businesses and our credit and retail card processing businesses. Growth in print, plastics, and remittance services was driven by higher print volumes and plastics growth resulting from EMV card issuances. Credit and retail processing growth was driven by an increase in card accounts tied to growth from existing customers and new business. EMEA was flat on a constant currency basis as new and existing business growth was offset by lost business in the United Kingdom of \$13 million and price compression in Germany of \$19 million. Germany price compression was driven by the renewal of one large client at the end of 2014. LATAM constant currency revenue growth was driven by inflation in Argentina.

North America card accounts on file increased in 2015 compared to 2014 from net new account conversions and growth from existing clients. International accounts on file increased 2015 compared to 2014 due to new portfolios of existing clients in the United Kingdom.

Network & Security Solutions segment results

The following table displays total revenue by product. Our Network & Security Solutions segment is comprised of more than 95% domestic businesses with no material foreign exchange impact on reported results.

	 ,	Year	ended December 3	Percent Change		
(in millions)	2016		2015	2014	2016 vs. 2015	2015 vs. 2014
Revenues:						
EFT Network	\$ 491	\$	491	\$ 466	<u> </u>	5%
Stored Value Network	358		359	322	<u> </u>	11%
Security and Fraud	434		412	394	5 %	5%
Other (a)	202		202	187	— %	8%
Segment revenue	\$ 1,485	\$	1,464	\$ 1,369	1 %	7%
Key indicators:		-				
Network transactions (EFT Network and Stored Value) (b)	20,258		18,918	17,435	7 %	9%

- (a) Other is primarily comprised of revenue generated from our Government and Online banking businesses.
- (b) Network transactions include the debit issuer processing transactions, STAR Network issuer transactions, and closed loop and open loop POS transactions.

Network & Security Solutions revenue increased 1% in 2016 compared to the same period in 2015 driven by growth within our Security and Fraud product categories. EFT Network revenue was relatively flat as STAR growth was offset by the impact of a long-term debit processing contract renewal which negatively impacted segment revenue by \$14 million. Stored Value Network revenue was flat driven by a change in contract terms for one client in the prior year for \$10 million offset by increased volumes. Security and Fraud revenue increased due to growth from our suite of Security and Fraud products, partially offset by revenue declines within our TeleCheck business of \$21 million for the year ended December 31, 2016.

Network transaction growth for the year ended 2016 compared to the same periods in 2015 was driven by growth in all network transaction categories.

Network & Security Solutions revenue increased 7% in 2015 compared to 2014 driven by strong growth within all of our product categories. EFT Network revenue increased due to growth from new and existing clients of \$28 million, partially offset by pricing changes. Stored Value Network revenue increased due to growth in open loop prepaid card transactions, partially offset by the disposition of a noncore transportation payments joint venture, EFS, in the second quarter of 2014 which had an approximate \$20 million negative impact on segment revenue for the year. Stored Value Network revenue also benefited by \$10 million driven by a change in contract terms for one client. Security and Fraud revenue increased \$28 million due to a growth of \$50 million due to Security and Fraud products excluding Telecheck, that includes the roll-out of our Transarmor Solutions to SMB which commenced in the fourth quarter of 2014. The growth was partially offset by a decline in TeleCheck revenue. Other revenue increased due to growth from a new short-term government contract that was awarded during the first quarter of 2015.

Reimbursable debit network fees, postage, and other

Revenue increased in 2016 compared to 2015 due to transaction and volume growth related to debit network fees of \$38 million and growth in print services.

Revenue increased in 2015 compared to 2014 due to transaction and volume growth related to debit network fees of \$26 million and print and plastics remittance services.

Operating expenses overview

	Year ended December 31,			Percent	Change	Constant Currency Percent Change			
(in millions)		2016		2015	2014	2016 vs. 2015	2015 vs. 2014	2016 vs. 2015	2015 vs. 2014
Cost of services (exclusive of items shown below)	\$	2,855	\$	2,871	\$ 2,668	(1)%	8 %	1 %	11%
Cost of products sold		337		356	330	(5)%	8 %	(3)%	14%
Selling, general, and administrative		2,035		2,292	2,043	(11)%	12 %	(10)%	15%
Depreciation and amortization		949		1,022	1,056	(7)%	(3)%	(6)%	%
Other operating expenses		61		53	13	15 %	308 %	17 %	331%
Total expenses (excluding reimbursable items)		6,237		6,594	 6,110	(5)%	8 %	(4)%	11%
Reimbursable debit network fees, postage, and other		3,745		3,687	3,604	2 %	2 %	2 %	2%
Total expenses	\$	9,982	\$	10,281	\$ 9,714	(3)%	6 %	(2)%	8%

Cost of services

	Year ended December 31, Percent Change		Change		rency Percent inge			
(in millions)		2016	2015	2014	2016 vs. 2015	2015 vs. 2014	2016 vs. 2015	2015 vs. 2014
Salaries, wages, and bonus	\$	1,474	\$ 1,478	\$ 1,446	<u> </u>	2 %		
Stock-based compensation		112	130	2	(14)%	NM		
Outside professional services		264	250	252	6 %	(1)%		
Software, telecommunication infrastructure, and repairs		396	380	375	4 %	1 %		
Other		609	633	593	(4)%	7 %		
Cost of services expense	\$	2,855	\$ 2,871	\$ 2,668	(1)%	8 %	1%	11%

Cost of services expense decreased in 2016 compared to 2015 due to a \$18 million decline in stock-based compensation. The decline in stock-based compensation resulted from a \$78 million decline in one-time expense related to our initial public offering in 2015, partially offset by an increase of \$60 million in recurring stock-based compensation incurred over the vesting life of normal service-based stock awards. Outside professional services, software, and infrastructure expenses increased by \$30 million as we continue to invest in our core operating businesses. Other expenses declined as 2015 was negatively impacted by two client-related matters totaling \$24 million. In addition, included within other expenses is an increase of approximately \$25 million in merchant credit losses, partially offset by a decline of warranty expense within NSS of \$10 million. Merchant credits losses increased due to higher fraud rates and charge-backs resulting from a liability shift post EMV. Warranty expense declined driven by lower volumes within our TeleCheck business. The remaining decline in other expense was driven by expense rationalization from our previously announced cost management initiatives. Expense increases were partially offset by the benefit of foreign exchange rate movements.

Cost of services expense increased in 2015 compared to 2014 driven by a \$128 million increase in stock compensation expense which was primarily triggered by our IPO and a \$40 million increase in contractor and employee expenses related to product matters. Cost of services was also negatively impacted by \$24 million related to various customer matters. Both 2015 and 2014 include a benefit of approximately \$15 million from gains on the revaluation of U.S. dollar denominated assets and liabilities in Argentina. Foreign currency positively impacted cost of services expense by approximately \$90 million.

Cost of products sold

Cost of products sold expense decreased in 2016 compared to 2015 due to declines in hardware sales. Cost of products sold expense increased in 2015 compared to 2014 due to growth in equipment sales driven by adoption of our EMV compatible solutions.

Selling, general, and administrative

	 Yea	r end	ed Decemb	er 31	,	Percent	Change	Constant Currency Percent Change	
(in millions)	2016		2015		2014	2016 vs. 2015	2015 vs. 2014	2016 vs. 2015	2015 vs. 2014
Salaries, wages, bonus, and other	\$ 659	\$	697	\$	692	(5)%	1 %		
Stock-based compensation	151		199		49	(24)%	306 %		
Independent sales organizations (ISOs) commissions	618		642		587	(4)%	9 %		
Outside professional services	182		295		216	(38)%	37 %		
Commissions	137		158		147	(13)%	7 %		
Other	288		301		352	(4)%	(14)%		
Selling, general, and administrative expense	\$ 2,035	\$	2,292	\$	2,043	(11)%	12 %	(10)%	15%

Selling, general, and administrative expense decreased \$257 million in 2016 compared to 2015. Salaries, wages, bonus, and other declined \$38 million, Commissions expense declined \$21 million, and miscellaneous other expenses declined \$13 million all driven by expense rationalization from our previously announced cost management initiatives. Stock based compensation expense declined \$48 million. The decline in stock-based compensation resulted from a \$124 million decline in one-time expense related to our initial public offering in 2015, partially offset by an increase of \$76 million in recurring stock-based compensation incurred over the vesting life of normal service-based stock awards. Retail ISO commissions declined approximately \$24 million due to consolidation of Retail ISOs to Wholesale ISOs via acquisition. The Outside Professional services expense decline was driven by a \$100 million decline in KKR related expenses, of which, \$78 million related to termination of our Management Agreement with KKR during 2015.

Selling, general, and administrative expense increased \$249 million in 2015 compared to 2014 driven by \$228 million in charges related to our initial public offering (\$150 million related to stock compensation expense and \$78 million in one-time KKR management termination fees, which is included within outside professional services). In addition, we incurred a \$55 million increase in expenses to ISOs resulting from growth within this channel. The items noted previously were partially offset by a reduction of \$49 million in other expenses driven by cost management initiatives. Foreign currency positively impacted selling, general, and administrative expenses by approximately \$60 million.

Depreciation and amortization

	Year ended December 31,					1,	Percent Change		
(in millions)		2016		2015		2014	2016 vs. 2015	2015 vs. 2014	
Depreciation expense	\$	300	\$	290	\$	286	3 %	1 %	
Amortization expense		649		732		770	(11)%	(5)%	
Depreciation and amortization	\$	949	\$	1,022	\$	1,056	(7)%	(3)%	

Depreciation expense increased due to higher capital expenditure investments over the past several years. Amortization expense decreased due to a reduction in amortization expense on acquisition intangibles.

Other operating expenses

			Percent Change					
(in millions)	2	016	2	015		2014	2016 vs. 2015	2015 vs. 2014
Restructuring, net	\$	49	\$	53	\$	13	(8)%	308%
Pension settlement loss		10		_		_	NM	NM
Other		2		_		_	NM	NM
Other operating expenses	\$	61	\$	53	\$	13	15 %	308%

Other operating expenses increased in 2016 compared to 2015 as we incurred a \$10 million loss associated with the cash payout of certain long term pension obligations and a \$5 million loss from the settlement of a client related matter in 2016. The increase in expense was partially offset by a decline in restructuring costs. Refer to note 10 "Other Operating Expenses" to our consolidated financial statements in Part II, Item 8 of this Form 10-K for details regarding other operating expenses.

Reimbursable debit network fees, postage, and other

Expense increased in 2016 compared to 2015 due to transaction and volume growth related to debit network fees of \$38 million and growth in print services.

Expense increased in 2015 compared to 2014 due to transaction and volume growth related to debit network fees of \$26 million and print and plastics remittance services.

Interest expense, net

	 	ear er	ided December 3	1,		Percent Change			
(in millions)	2016		2015		2014	2016 vs. 2015	2015 vs. 2014		
Interest expense, net	\$ (1,068)	\$	(1,537)	\$	(1,728)	(31)%	(11)%		

Interest expense, net decreased due to lower outstanding debt balances as a result of debt paydowns and lower interest rates as a result of debt exchanges and refinancings. Interest expense, net for the year ended December 31, 2016 includes \$29 million of fees incurred to modify long term debt. Refer to note 2 "Borrowings" to our consolidated financial statements in Part II, Item 8 of this Form 10-K.

Loss on debt extinguishment

	 7	lear e	nded December 3	1,		Percent Change			
(in millions)	2016		2015		2014	2016 vs. 2015	2015 vs. 2014		
Loss on debt extinguishment	\$ (70)	\$	(1,068)	\$	(274)	(93)%	290%		

Refer to note 2 "Borrowings" to our consolidated financial statements in Part II, Item 8 of this Form 10-K for additional information.

Other income

	Year ended December 31,											
(in millions)		2016		2015		2014						
Investment gains	\$	35	\$	_	\$	100						
Derivatives		(5)		(17)		_						
Divestitures, net (loss) gain		(34)		5		2						
Non-operating foreign currency gains		19		41		59						
Other miscellaneous income		2		_		_						
Other income	\$	17	\$	29	\$	161						

Investment gains in 2016 represent the sale of our share in Visa Europe (VE). On June 21, 2016, Visa Inc. (Visa) acquired VE, of which we were a member and shareholder through certain subsidiaries. On June 21, 2016, we received cash of \in 24.2 million (\$27

million equivalent at June 21, 2016) and Visa preferred stock which is convertible into Visa common shares. We will also receive a deferred payment three years after the closing date of the acquisition, valued at approximately €2.3 million (\$2.6 million equivalent at June 21, 2016). As of June 21, 2016, the Class A common stock equivalent of the preferred stock was approximately \$19 million. However, the preferred shares have been assigned a value of zero based on transfer restrictions and Visa's ability to adjust the conversion ratio dependent on the outcome of existing and potential litigations in the VE territory over the next 12 years. We could receive additional proceeds as a number of First Data subsidiaries are working with certain members of VE who sponsor other of our merchant acquiring businesses in Europe in respect of sale proceeds received by those members. Additionally in 2016, we sold our 49% minority interest in an international joint venture which resulted in a pretax gain of \$7 million. Gains in 2014 relate to the sale of our 30% minority interest in EFS which resulted in a pretax gain of \$98 million

The losses on *Derivatives* in 2016 and 2015 were driven by fair value adjustments on our non designated interest rate contracts. See note 13 "Derivative Financial Instruments" to our consolidated financial statements in Part II, Item 8 of this Form 10-K for additional information on our derivative contracts.

Divestitures, net (loss) gain in 2016 represents the sale of our Australian ATM business on September 30, 2016. The Australian ATM business was reported as part of GBS. Associated with the transaction, we recognized a \$34 million loss on the sale. The loss is comprised of investments of \$72 million reduced by cash proceeds of \$38 million.

Non-operating foreign currency gains represent net gains and losses related to currency translations on our intercompany loans in all years as well as gains on euro-denominated debt in 2015 and 2014 were driven by the U.S. dollar strengthening against the euro. We designated all of our euro-denominated debt as a hedge against our net investment in euro business as of January 1, 2016, which would have eliminated income statement gains of \$70 million and \$82 million in 2015 and 2014, respectively, if the hedge was in place and fully effective during those periods.

Income taxes

	 Year ended December 31,								
(in millions)	2016		2015		2014				
Income tax expense	\$ 81	\$	101	\$	82				
Effective income tax rate	11%		(9)%		(45)%				

The Company's global effective tax rate differs from the statutory rates as a result of recognizing tax expense on income from certain foreign jurisdictions while recording no taxes on U.S. income/losses and certain foreign losses subject to deferred tax valuation allowances.

Following the recognition of significant deferred tax valuation allowances in 2012, we have regularly experienced substantial volatility in our effective tax rate in interim periods and across years. This is due to deferred income tax benefits not being recognized in several jurisdictions, most notably in the United States, and changes in the amount, mix, and timing of pretax earnings in tax paying jurisdictions that can have a significant impact on the overall effective tax rate. This interim and full year volatility is likely to continue in future periods until the deferred tax valuation allowances can be released.

From 2007 through 2015, we were in a net operating loss position in the U.S. federal and combined state jurisdictions. Despite the utilization of net operating loss carryforwards in these jurisdictions in 2016, the historic net operating losses caused our net deferred tax assets to exceed our net deferred tax liabilities as of December 31, 2016. This net deferred tax asset position, combined with the history of operating losses, is significant negative evidence that the more likely than not criteria requires us to record a deferred tax valuation allowance against our net deferred tax assets to date. However, based on 2016 U.S. earnings and forecasted future earnings, it is possible that management's assertion of the need for the valuation allowance against the realizability of net deferred tax assets could be changed in the foreseeable future, should the objective evidence of cumulative U.S. book earnings become positive. In addition to the valuation allowances discussed above, we are also not able to record a benefit related to tax losses in many separate filing states and certain foreign countries, requiring the establishment of deferred tax valuation allowances. It is unlikely that the assertion regarding these valuation allowances will change in the foreseeable future.

We, or one or more of our subsidiaries, file income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. As of December 31, 2016, we were no longer subject to income tax examination by the U.S. federal jurisdiction for years before 2005. State and local examinations are substantially complete through 2006. Foreign jurisdictions generally remain subject to examination by their respective authorities from 2007 forward, none of which are considered major jurisdictions. Refer to note 8 "Income Taxes" to our consolidated financial statements in Part II, Item 8 of this Form 10-K for additional information.

Equity earnings in affiliates

	Year ended December 31,						Percent Change			
(in millions)	2016 2015 2014		2016 vs. 2015	2015 vs. 2014						
Equity earnings in affiliates	\$	260	\$	239	\$	220	9%	9%		

Equity earnings in affiliates relate to the earnings of our merchant alliance partnerships and increased in 2016 compared to 2015 due to revenue growth within our Wells Fargo Merchant Services joint venture and lower amortization expense of \$14 million.

Equity earnings in affiliates increased in 2015 compared to 2014 due to revenue growth within our Wells Fargo Merchant Services joint venture.

Net income attributable to noncontrolling interests and redeemable noncontrolling interest

	 Year ended December 31,					Percent Change			
(in millions)	2016		2015		2014	2016 vs. 2015	2015 vs. 2014		
Net income attributable to noncontrolling interests and									
redeemable noncontrolling interest	\$ 240	\$	213	\$	193	13%	10%		

Net income attributable to noncontrolling interests and redeemable noncontrolling interest relate to the interest of our merchant partners in our consolidated merchant alliances and increased in 2016 compared to 2015 driven by transaction volume growth within our Bank of America Merchant Services alliance and an approximate \$8 million decline in depreciation and amortization attributable to the noncontrolling interest. Refer to note 5 "Stockholders' Equity and Redeemable Noncontrolling Interest" to our consolidated financial statements in Part II, Item 8 of this Form 10-K for additional information.

Net income attributable to noncontrolling interests and redeemable noncontrolling interest increased in 2015 compared to 2014 due to net volume growth within our Bank of America Merchant Services alliance.

Segment EBITDA Overview

The following table displays Segment EBITDA by segment for the periods indicated:

	 Year	r end	ed Decemb	er 31	,	Percent	t Change	Constant Currency Percent Change		
(in millions)	2016		2015		2014	2016 vs. 2015	2015 vs. 2014	2016 vs. 2015	2015 vs. 2014	
Segment EBITDA:										
Global Business Solutions	\$ 1,725	\$	1,681	\$	1,687	3%	<u> </u>	5%	2 %	
Global Financial Solutions	646		550		529	17%	4 %	21%	8 %	
Network & Security Solutions	666		639		608	4%	5 %	4%	5 %	
Corporate	(145)		(140)		(161)	4%	(13)%	4%	(13)%	
Total Segment EBITDA	\$ 2,892	\$	2,730	\$	2,663	6%	3 %	8%	5 %	

The following table displays Segment EBITDA margin by segment for the periods indicated:

	Year o	Year ended December 31,			
	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
Segment EBITDA Margin:					
Global Business Solutions	42.5%	41.1%	41.7%	140 bps	(60) bps
Global Financial Solutions	40.6%	36.8%	35.5%	380 bps	130 bps
Network & Security Solutions	44.8%	43.6%	44.4%	120 bps	(80) bps
Total Segment EBITDA Margin	40.5%	38.7%	38.6%	180 bps	10 bps

Global Business Solutions

Global Business Solutions Segment EBITDA increased 5% on a constant currency basis in 2016 compared to 2015 primarily driven by the impact of the revenue items noted previously within "Global Business Solutions segment results" above, along with expense declines driven by our expense management initiatives. Currency translation negatively impacted segment adjusted EBITDA by approximately \$40 million compared to the prior period.

Global Business Solutions Segment EBITDA remained flat in 2015 compared to 2014 primarily driven by the revenue items noted previously within "Global Business Solutions segment results", specifically the revenue growth within our merchant suite of software and hardware products while expenses increased due to investments in our sales channels. Both 2015 and 2014 adjusted EBITDA were impacted by approximately \$10 million from gains on the revaluation of U.S dollar denominated assets and liabilities in Argentina and a \$10 million tax recovery in Australia during 2014. Currency translation negatively impacted segment adjusted EBITDA by \$31 million compared to the prior year period.

Global Financial Solutions

Global Financial Solutions Segment EBITDA increased 17% in 2016 compared to 2015 due to the impact of the revenue items noted within " Global Financial Solutions segment results" above, which for the year ended December 31, 2016 includes \$27 million from contract modifications and resolution of license fee disputes. The revenue growth was partially offset by an increase in variable expenses within our North America region. Currency translation negatively impacted segment adjusted EBITDA by approximately \$20 million compared to the prior period.

Global Financial Solutions Segment EBITDA increased in 2015 compared to 2014 due to the impact of the revenue items noted within " Global Financial Solutions segment results" above. Both 2015 and 2014 adjusted EBITDA benefited by approximately \$5 million from gains on the revaluation of U.S. dollar denominated assets and liabilities in Argentina. Currency translation negatively impacted segment adjusted EBITDA by \$23 million compared to the prior year period.

Network & Security Solutions

Network & Security Solutions Segment EBITDA increased 4% in 2016 compared to 2015 due to the revenue items noted within "Network & Security Solutions segment results". In addition to revenue growth, expenses declined for the year ended December 31, 2016 by approximately \$6 million due to expenses associated with strategic investments made during the first quarter of 2015.

Network & Security Solutions Segment EBITDA increased in 2015 compared to 2014 due to the revenue items noted within "Network & Security Solutions segment results". The contract amendment discussed previously positively impacted adjusted EBITDA by \$8 million. The revenue items were partially offset by increased operating expenses related to our purchases of Gyft and TWI of \$24 million, investments of approximately \$6 million for new STAR Network functionality, and the disposition of EFS which had a negative impact of approximately \$10 million on segment adjusted EBITDA.

Corporate

Corporate Segment EBITDA loss increased modestly in 2016 compared to 2015 as a decrease in incentive compensation expense was partially offset by growth in technology and infrastructure costs.

Corporate Segment EBITDA loss improved in 2015 compared to 2014 due to a decrease in incentive compensation expense.

Adjusted Net Income

Adjusted net income is a non-GAAP financial measure used by management that provides an alternative view of performance. Adjusted net income excludes amortization of acquisition-related intangibles, stock-based compensation, restructuring costs and other items affecting comparability and, therefore, are not reflective of continuing operating performance. Management believes that the presentation of adjusted net income provides users of our financial statements greater transparency into ongoing results of operations allowing them to better compare our results from period to period. This non-GAAP measure is not in accordance with, or an alternative to, measures prepared in accordance with GAAP and may be different from non-GAAP measures used by other companies. In addition, adjusted net income is not based on any comprehensive set of accounting rules or principles. Non-GAAP measures have limitations in that they do not reflect all of the amounts associated with our results of operations as determined in accordance with GAAP. These measures should only be used to evaluate our results of operations in conjunction with the corresponding GAAP measures.

The following table reconciles the reported net income (loss) presented in accordance with GAAP to the non-GAAP financial measure of adjusted net income for the years ended December 31, 2016 and 2015:

	Year ended December 31,				Percent Change	
(in millions)	2016			2015	2016 vs. 2015	
Net income (loss) attributable to First Data Corporation	\$	420	\$	(1,481)	NM	
Adjustments:						
Stock-based compensation		263		329	(20)%	
Loss on debt extinguishment (a)		70		1,068	(93)%	
Mark-to-market adjustment for derivatives and euro-denominated debt (b)		5		(53)	(109)%	
Amortization of acquisition intangibles and deferred financing costs (c)		422		579	(27)%	
Loss on Australian ATM divestiture		34		_	NM	
Gain on Visa Europe share sale		(29)			NM	
Restructuring, impairment, litigation, and other (d)		70		190	(63)%	
Income tax on above items (e)		(35)		(11)	218 %	
Adjusted net income	\$	1,220	\$	621	96 %	

NM represents not meaningful

- (a) Represents costs associated with debt refinancing on extinguished debt.
- (b) Represents mark-to-market activity related to our undesignated hedges, ineffectiveness of our designated hedges, and mark-to-market activity on our euro-denominated debt held in the United States. The euro-denominated debt was designated as a non-derivative hedge of net investment in foreign operations during the first quarter of 2016 with the gain (loss) reflected within accumulated other comprehensive income during 2016.
- (c) Represents amortization of intangibles established in connection with the 2007 Merger and acquisitions we have made since 2007, excluding the percentage of our consolidated amortization of acquisition intangibles related to non wholly owned consolidated alliances equal to the portion of such alliances owned by our alliance partners. This line also includes amortization related to deferred financing costs.
- (d) Represents restructuring, impairments, non-normal course litigation and regulatory settlements, investments gains (losses), fees paid on debt modifications, and divestitures, as applicable to the periods presented. Excludes the divestiture in our Australian ATM business, which is broken out separately within "Loss on Australian ATM divestiture" above.
- (e) The tax effect of the adjustments between our GAAP and adjusted results takes into account the tax treatment and related tax rate(s) that apply to each adjustment in the applicable tax jurisdiction(s). Generally, this results in a tax impact at the U.S. effective tax rate for certain adjustments, including the majority of amortization of intangible assets, deferred financing costs, stock compensation, and loss on debt extinguishment; whereas the tax impact of other adjustments, including restructuring expense, depends on whether the amounts are deductible in the respective tax jurisdictions and the applicable effective tax rate(s) in those jurisdictions. Income tax (expense) benefit also includes the impact of significant discrete tax items impacting Net income (loss) attributable to First Data Corporation.

Adjusted net income for the year ended December 31, 2016 improved due to better operating performance and lower interest expense.

Liquidity and Capital Resources

Our source of liquidity is principally cash generated from operating activities supplemented as necessary on a short-term basis by borrowings against our senior secured revolving credit facility and accounts receivable securitization facility. We believe our current level of cash and short-term financing capabilities along with future cash flows from operations are sufficient to meet the ongoing needs of the business. To the extent future cash flows exceed the ongoing needs of the business, we may use all or a portion of the excess cash to reduce our debt balances.

Over the past few years, we completed various amendments and modifications to certain of our debt agreements in an effort to extend our debt maturities and lower interest rates. Furthermore, we used excess cash generated by the business, proceeds from our IPO in 2015, and proceeds from our former parent's private placement in 2014 to pay down certain tranches of debt. These transactions reduced our cash interest costs to approximately \$1.0 billion in 2016 compared to approximately \$1.8 billion and \$1.7 billion in 2015 and 2014, respectively. Our current level of debt may limit our ability to get additional funding at our current funding rate beyond our revolving credit facility and accounts receivable securitization facility if needed. Details regarding our debt structure are provided in note 2 "Borrowings" and note 20 "Subsequent Events" to our consolidated financial statements in Part II, Item 8 of this Form 10-K.

Total borrowings and net debt

For the year ended December 31, 2016, we used excess cash generated by the business along with existing cash on the consolidated balance sheets to pay down outstanding borrowings. The chart below shows the net debt balances as of December 31, 2016 and

2015. Net debt is a non-GAAP measure defined as total long-term borrowings plus short-term and current portion of long-term borrowings at par value excluding lines of credit used for settlement purposes less cash and cash equivalents. We believe that net debt provides additional insight on the level and management of leverage. Net debt is not, and should not be viewed as, a substitute for total outstanding GAAP borrowings.

	As of December 31,							
(in millions)	2016		2015					
Total long-term borrowings	\$	18,131	\$	18,737				
Total short-term and current portion of long-term borrowings		358		856				
Total borrowings		18,489		19,593				
Unamortized discount and unamortized deferred financing costs		156		184				
Total borrowings at par		18,645		19,777				
Less: settlement lines of credit and other arrangements		84		43				
Gross debt		18,561		19,734				
Less: cash and cash equivalents (a)		385		429				
Net debt	\$	18,176	\$	19,305				

⁽a) As of December 31, 2016, "Cash and cash equivalents" reflects a reclassification of \$102 million related to settlement activities to conform certain domestic and international businesses to our global policies, which increased "Cash and cash equivalents" and decreased "Accounts receivable, net" in our consolidated balance sheets.

Credit ratings

As of February 24, 2017, our long-term corporate family rating from Moody's was B1 (outlook stable). The long-term local issuer credit rating from Standard and Poor's was B+ (stable). The long-term issuer default rating from Fitch was B+ (positive). A decrease in our credit ratings could affect our ability to access future financing at current funding rates, which could result in increased interest expense in the future.

Cash and cash equivalents

Investments (other than those included in settlement assets) with original maturities of three months or less (that are readily convertible to cash) are considered to be cash equivalents and are stated at cost, which approximates market value. As of December 31, 2016 and 2015, we held \$385 million and \$429 million in cash and cash equivalents, respectively.

Included in cash and cash equivalents are amounts held by our domestic subsidiaries, Banc of America Merchant Services and Integrated Payment Systems, that are not available to fund operations outside of those subsidiaries. As of December 31, 2016 and 2015, the cash and cash equivalents held by these subsidiaries totaled \$102 million and \$136 million, respectively. All other domestic cash balances, to the extent available, are used to fund our short-term liquidity needs.

Cash and cash equivalents include amounts held outside of the U.S., totaling \$271 million and \$161 million as of December 31, 2016 and 2015, respectively. As of December 31, 2016, there was approximately \$206 million of cash and cash equivalents held by our international subsidiaries that was unavailable for general corporate purposes in the near term. We plan to fund any international cash needs in 2017 through cash flow from and cash held by our international entities, but if necessary, could fund such needs using cash from the United States, subject to satisfying debt covenant restrictions.

Cash flows

	_	Year ended December 31,							
Source/(use) (in millions)		2016		2015	2014				
Net cash provided by operating activities	\$	2,111	\$	795	\$	1,035			
Net cash used in investing activities		(387)		(685)		(329)			
Net cash used in financing activities		(1,734)		(16)		(743)			

Cash flows from operating activities

Cash flows provided by operating activities for the periods presented resulted from normal operating activities and reflect the timing of our working capital requirements.

Our operating cash flow is significantly impacted by our level of debt. Approximately \$1.0 billion, \$1.8 billion, and \$1.7 billion in cash interest, net of interest rate swap settlements, was paid during 2016, 2015, and 2014, respectively. The decrease in cash interest in 2016 compared to 2015 is due to lower principal balances due to debt paydowns, a decrease in the weighted average interest rate on debt, and timing of payments, most notably, \$271 million of accelerated interest payments in 2015 related to debt extinguishments.

Refer to "Item 7A. Quantitative and Qualitative Disclosures about Market Risk" for a detailed discussion on how a 100 basis point increase in the applicable London Interbank Offered Rate (LIBOR) index on an annualized basis would impact our annual interest expense.

The chart below reconciles the change in operating cash flows for the years ended December 31, 2015 to December 31, 2016 and December 31, 2014 to December 31, 2015.

		31,			
Source/(use) (in millions)		2016		2015	
Net cash provided by operating activities, previous period	\$	795	\$	1,035	
Increases (decreases) in:					
Net income, excluding other operating expenses and other income (a)		871		219	
Depreciation and amortization		(72)		(30)	
Working capital		517		(429)	
Net cash provided by operating activities, end of period	\$	2,111	\$	795	

⁽a) Excludes loss on debt extinguishment, stock-based compensation expense and other non-cash items.

In 2016 compared to 2015, net income, excluding other operating expenses and other income, increased due to the items noted previously within "Results of Operations." Working capital increased \$317 million from the timing of interest payments and accruals, primarily resulting from \$271 million of accelerated interest payments in 2015 related to debt extinguishments, and \$96 million from the settlement of cross-currency swaps in 2016. In addition, working capital improved due to the timing of our working capital requirements, operational improvements, particularly improvements in accounts receivable and inventory, and a \$102 million reclassification related to settlement activities to conform certain domestic and international businesses to our global policies. The working capital improvements were partially offset by the non-recurrence of two supplier signing bonuses received in the prior year.

In 2015 compared to 2014, net income, excluding other operating expenses and other income, increased due to the items noted previously within "Results of Operations." Working capital decreased \$268 million from lower interest accruals as a result of our debt refinancings and accelerated interest payments on called debt. In addition, we experienced growth in our product sales and other revenue streams which lowered net loss but negatively impacted working capital by approximately \$134 million, as these revenue streams typically have longer payment terms. Additionally, timing of prepayments and vendor payments negatively impacted working capital by \$113 million. These items were partially offset by two supplier signing bonuses received during 2015.

Free Cash Flow

Free cash flow is a non-GAAP measure defined as cash flow provided by operating activities less capital expenditures, distributions to minority interests and other items. We consider free cash flow to be a liquidity measure that provides useful information to management and users of our financial statements about the amount of cash generated by the business which can then be used to, among other things, reduce outstanding debt. Free cash flow is not, and should not be viewed as, a substitute for GAAP reported financial information.

The chart below reconciles cash flow from operations to free cash flow for the years ended December 31, 2016, 2015, and 2014 respectively.

	Year ended December 31,									
Source/(use) (in millions)		2016		2015	2014					
Net cash provided by operating activities (a)	\$	2,111	\$	795	\$	1,035				
Capital expenditures		(477)		(602)		(567)				
Distributions and dividends paid to noncontrolling interests, redeemable										
noncontrolling interest, and other (a)		(418)		(312)		(266)				
Free cash flow	\$	1,216	\$	(119)	\$	202				

(a) The year ended December 31, 2016 includes a \$102 million reclassification related to settlement activities to conform certain domestic and international businesses to our global policies, which increased "Cash and cash equivalents" and decreased "Accounts receivable, net" in our consolidated balance sheets. Free cash flow excludes the impact of reclassification.

In 2016 compared to 2015, net cash provided by operating activities increased due to the items noted previously. The decrease in capital expenditures is due primarily to a \$132 million increase in new capital leases and other financing arrangements. Capital leases and other financing arrangements are reflected within "Short-term and current portion of long-term borrowings" and "Long-term borrowings" within the consolidated balance sheets.

In 2015 compared to 2014, net cash provided by operating activities decreased due to the items noted previously. Capital expenditures increased due to customer signing bonuses and investments in technology. Distributions and dividends paid to noncontrolling interest, redeemable noncontrolling interest, and other increased due to earnings growth and timing of distributions.

Cash flows from investing activities

Net cash used in investing activities decreased in 2016 compared to 2015 due to a \$125 million reduction in capital expenditures driven by a \$132 million increase in capital leases and other financing arrangements, \$83 million decrease in cash utilized in acquisitions, \$38 million from the sale of our Australian ATM business, \$38 million from the sale of two facilities, \$27 million of cash received from our investment in Visa Europe, and \$14 million of cash received from the sale of an international joint venture. The decreases were partially offset by \$17 million of proceeds from the sale of two facilities in 2015 and an \$11 million investment in an international joint venture.

For a more detailed discussion on the consideration received from our investment in Visa Europe and the divestiture of our Australian ATM business discussed above, refer to note 16 "Supplemental Financial Information" to our consolidated financial statements in Part II, Item 8 of this Form 10-K.

Net cash used in investing activities increased in 2015 compared to 2014 due to the sale of our 30% minority interest in a transportation payments business, EFS, for \$264 million in cash in 2014, increases in capital expenditures due to customer signing bonuses and investments in technology, and the acquisition in 2015 of TWI for \$62 million, a provider of digital stored value products that offer gift card programs, loyalty incentives, and integrated marketing solutions for retailers, partners, and consumers.

Cash flows from financing activities

Net cash used in financing activities increased in 2016 compared to 2015 primarily due to \$2.7 billion of proceeds from our initial public offering in 2015, partially offset by a \$1.0 billion decrease in payments of call premiums and debt fees related to debt extinguishments. Principal payments on long-term debt, net of proceeds from new debt issuances increased \$230 million in 2016 compared to the same period in 2015. Additionally, cash flows used in financing activities increased due to \$61 million of taxes paid for the net settlement of equity awards. These items were partially offset by \$160 million of proceeds from our accounts receivable securitization facility and a \$30 million increase in borrowings on our Banc of America Merchants Services credit facility.

Net cash used in financing activities decreased in 2015 compared to 2014 due to \$2.7 billion of net proceeds from our initial public offering and new debt issuances, partially offset by debt paydowns, payments of debt-related costs and a decrease in capital transactions with our former parent, FDH, relating primarily to a \$2.5 billion capital contribution in 2014.

Debt

In 2016 and 2015, we made significant progress in refinancing our debt structure, see note 2 "Borrowings" and note 20 "Subsequent Events" to our consolidated financial statements in Part II, Item 8 of this Form 10-K for additional information on our restructuring activity. As a result of the refinancing activity, we significantly lowered our weighted average interest rate from 7.4% as of December 31, 2014 to 5.0% as of December 31, 2016. As of December 31, 2016, approximately 70% of our debt was at a fixed or collared rate providing a measure of protection if interest rates begin to rise. We have \$3.0 billion notional value interest rate collar contracts that will provide protection if interest rates rise above a predetermined ceiling rate. Subsequent to December 31, 2016, we used proceeds of \$1.3 billion from the issuance of Senior secured term loans due 2020 together with cash on hand to pay down our outstanding 6.75% Senior secured first lien notes due 2020 and entered into \$1.3 billion notional value interest rate collar contracts.

Senior secured revolving credit facility

As of December 31, 2016, our senior secured revolving credit facility had commitments from financial institutions to provide \$1.25 billion of credit. The revolving credit facility matures on June 2, 2020. Besides the letters of credit discussed below, we had no outstanding balances against this facility as of December 31, 2016 and 2015. As of December 31, 2016, \$1.2 billion remained available under the facility. Excluding the letters of credit, the maximum amount outstanding against this facility during the year ended December 31, 2016 was approximately \$430 million while the average amount outstanding during the year ended December 31, 2016 was approximately \$85 million.

The senior secured revolving credit facility can be used for working capital and general corporate purposes. We utilize our senior secured revolving credit facility to fund operating, investing, or financing activities when cash flows from operating activities are not sufficient. We believe cash on hand and cash flow generated through our normal operating activities in conjunction with the capacity under our senior secured revolving credit facility and accounts receivable securitization facility will be sufficient to meet our liquidity needs.

There are multiple institutions that have commitments under this facility with none representing more than 20% of the remaining capacity.

Accounts receivable securitization agreement

As of December 31, 2016, we had \$160 million of outstanding borrowings and \$312 million of pledged receivables under our accounts receivable securitization agreement. The securitization can be used for working capital and general corporate purposes. The maximum borrowing capacity allowed under the accounts receivable securitization agreement was \$240 million as of December 31, 2016. For additional information regarding our accounts receivable securitization agreement, refer to note 2 "Borrowings" to our consolidated financial statements in Part II, Item 8 of this Form 10-K.

Letters, lines of credit, and other

		Total Av	ailable (a	a)	Total Outstanding					
		As of December 31,					As of December 31,			
(in millions)	;	2016		2015		2016		2015		
Letters of credit (b)	\$	250	\$	250	\$	41	\$	42		
Lines of credit and other (c)		489		245		84		43		

- (a) Total available without giving effect to amounts outstanding.
- (b) Outstanding letters of credit are held in connection with lease arrangements, bankcard association agreements, and other security agreements. The largest amount of letters of credit outstanding during 2016 was approximately \$43 million. All letters of credit expire on or prior to December 31, 2017 with a one-year renewal option. We expect to renew most of the letters of credit prior to expiration.
- (c) As of December 31, 2016 represents \$479 million of committed lines of credit as well as certain uncommitted lines of credit and other agreements that are available in various currencies to fund settlement and other activity. We cannot use these lines of credit for general corporate purposes. Certain of these arrangements are uncommitted but, as of the dates presented, we had borrowings outstanding against them.

In the event one or more of the aforementioned lines of credit becomes unavailable, we will utilize our existing cash, cash flows from operating activities or our senior secured revolving credit facility to meet our liquidity needs.

Guarantees and covenants All obligations under the senior secured revolving credit facility and our senior secured term loan facilities are unconditionally guaranteed by most of our existing and future, direct and indirect, wholly owned, material domestic subsidiaries. The senior secured facilities contain a number of covenants that, among other things, restrict our ability to incur additional indebtedness; create liens; enter into sale-leaseback transactions; engage in mergers or consolidations; sell or transfer

assets; pay dividends and distributions or repurchase our capital stock; make investments, loans or advances; prepay certain indebtedness; make certain acquisitions; engage in certain transactions with affiliates; amend material agreements governing certain indebtedness; and change our lines of business. The senior secured facilities also require us to not exceed a maximum senior secured leverage ratio and contain certain customary affirmative covenants and events of default, including a change of control. The senior secured term loan facility also requires mandatory prepayments based on a percentage of excess cash flow generated by us if we exceed a certain leverage ratio.

All obligations under the senior secured notes, senior notes, and senior subordinated notes are similarly guaranteed in accordance with their terms by each of our domestic subsidiaries that guarantee obligations under our senior secured term loan facility described above. These notes and facilities also contain a number of covenants similar to those described for the senior secured obligations noted above.

Although all of the above described instruments of indebtedness contain restrictions on our ability to incur additional indebtedness, these restrictions are subject to numerous qualifications and exceptions, including the ability to incur indebtedness in connection with our settlement operations. We believe that the indebtedness that can be incurred under these exceptions as well as additional credit under the existing senior secured revolving credit facility are sufficient to satisfy our needs for the foreseeable future.

Covenant compliance Under the senior secured revolving credit and term loan facilities, certain limitations, restrictions, and defaults could occur if we are not able to satisfy and remain in compliance with specified financial ratios. We have agreed that we will not permit the Consolidated Senior Secured Debt to Covenant EBITDA (both as defined in the agreement) Ratio for any 12 month period (last four fiscal quarters) to be greater than 6.0 to 1.0.

The breach of this covenant could result in a default under the senior secured revolving credit facility and the senior secured term loan credit facility and the lenders could elect to declare all amounts borrowed due and payable. Any such acceleration could also result in a default under the indentures for the senior secured notes, senior notes, and senior subordinated notes. As of December 31, 2016, we were in compliance with all applicable covenants, including our sole financial covenant with Consolidated Senior Secured Debt of \$12.4 billion, Covenant EBITDA of \$3.4 billion and a Ratio of 3.66 to 1.0.

In determining Covenant EBITDA, EBITDA is calculated by reference to net income from continuing operations plus interest and other financing costs, net, provision for income taxes, and depreciation and amortization. Covenant EBITDA is calculated by adjusting EBITDA to exclude unusual items as permitted in calculating covenant compliance under the credit facilities. Covenant EBITDA is further adjusted to add net income attributable to noncontrolling interests and redeemable noncontrolling interest of certain non wholly owned subsidiaries and exclude other miscellaneous adjustments that are used in calculating covenant compliance under the agreements governing our senior secured credit facilities. Because not all companies use identical calculations, this presentation of Covenant EBITDA may not be comparable to other similarly titled measures of other companies.

The calculation of Covenant EBITDA under our senior secured facilities was as follows:

(in millions)	onths Ended ber 31, 2016	
Net income attributable to First Data Corporation	\$ 420	
Interest expense, net	1,068	
Income tax expense	81	
Depreciation and amortization	1,061	
EBITDA	2,630	
Loss on debt extinguishment	70	
Stock-based compensation	263	
Net income attributable to noncontrolling interests and redeemable noncontrolling interest	240	
Projected near-term cost savings and revenue enhancements (1)	86	
Restructuring, net	49	
Non-operating foreign currency (gains) and losses	(19)	
Investment (gains) and losses (2)	(35)	
Derivative financial instruments (gains) and losses	5	
Equity entities taxes, depreciation and amortization (3)	14	
Divestitures, net (4)	34	
Other (5)	41	
Covenant EBITDA	\$ 3,378	

- (1) Reflects cost savings and revenue enhancements projected to be realized as a result of specific actions as if they were achieved on the first day of the period. Includes cost savings initiatives associated with the business optimization projects and other technology initiatives. We may not realize the anticipated cost savings pursuant to our anticipated timetable or at all.
- 2) Reflects gains on Visa Europe share sale and international joint venture sale reflected within "Other income" in the consolidated statements of operations.
- Represents our proportional share of income taxes, depreciation, and amortization on equity method investments.
- (4) Reflects loss on divestiture of Australian ATM business reflected within "Other income" in the consolidated statements of operations.
- 5) Includes items such as pension losses, earn-outs, litigation and regulatory settlements, and other as applicable to the period presented.

Off-Balance Sheet Arrangements

During 2016, 2015, and 2014, we did not engage in any off-balance sheet financing activities other than those included in the "Contractual Obligations" discussion below and those reflected in note 14 "Commitments and Contingencies" to our consolidated financial statements in Part II, Item 8 of this Form 10-K.

Contractual Obligations

Our contractual obligations as of December 31, 2016 were as follows:

	 Payments Due by Period									
(in millions)	Less than Total 1 year 1-3 years 3-5 year						3-5 years		After 5 years	
Borrowings (a)	\$ 23,939	\$	1,348	\$	1,845	\$	7,338	\$	13,408	
Capital lease obligations (b)	294		93		143		51		7	
Operating leases	293		56		87		54		96	
Purchase obligations (c):										
Technology and telecommunications (d)	930		408		301		156		65	
All other (e)	64		30		26		4		4	
Total (f) (g)	\$ 25,520	\$	1,935	\$	2,402	\$	7,603	\$	13,580	

⁽a) Includes future principal and cash interest payments on long-term borrowings through scheduled maturity dates. Includes \$8.1 billion of variable rate debt, \$3.0 billion of which is subject to fixed interest rate collar contracts which mitigate exposure to interest rate fluctuations, but are subject to contractual ceilings and floors. Borrowings and interest rate swaps are discussed in note 2 "Borrowings" and note 13 "Derivative Financial Instruments", respectively,

to our consolidated financial statements in Part II, Item 8 of this Form 10-K. Interest payments for the variable rate debt and the associated interest rate swaps were calculated using interest rates as of December 31, 2016.

- (b) Represents future payments on existing capital leases, including interest expense, through scheduled expiration dates.
- (c) Many of our contracts contain clauses that allow us to terminate the contract with notice, and with or without a termination penalty. Termination penalties are generally an amount less than the original obligation. Certain contracts also have an automatic renewal clause if we do not provide written notification of our intent to terminate the contract. Obligations under certain contracts are usage-based and are, therefore, estimated in the above amounts. Historically, we have not had any significant defaults of our contractual obligations or incurred significant penalties for termination of our contractual obligations.
- (d) Technology and telecommunications represents obligations related to hardware purchases, including purchases of ATMs and terminals, as well as software licenses, hardware and software maintenance and support, technical consulting services, and telecommunications services.
- (e) All other includes obligations related to materials, data, non-technical contract services, facility security, investor management fees, maintenance, and marketing promotions.
- (f) We evaluate the need to make contributions to our pension plans after considering the funded status of the pension plans, movements in the discount rates, performance of the plan assets and related tax consequences. Expected contributions to our pension plan have not been included in the table as such amounts are dependent upon the considerations discussed above, and may result in a wide range of amounts. See note 15 "Employee Benefit Plans" to our consolidated financial statements in Part II, Item 8 of this Form 10-K.
- (g) As of December 31, 2016, we had approximately \$271 million of tax contingencies comprised of approximately \$263 million reported in long-term income taxes payable in the "Other long-term liabilities" line of our consolidated balance sheets, including approximately \$3 million of income tax liabilities for which The Western Union Company (Western Union) is required to indemnify us, and approximately \$8 million recorded as an increase of our deferred tax liability. These amounts have been excluded from the table because the settlement period cannot be reasonably estimated. The timing of these payments will ultimately depend on the progress of tax examinations with the various tax authorities.

Critical Accounting Policies

Goodwill Goodwill represents the excess of cost over the fair value of net assets acquired, including identifiable intangible assets, and has been allocated to reporting units. Our reporting units are businesses at the operating segment level or one level below the operating segment level for which discrete financial information is prepared and regularly reviewed by management.

We test goodwill annually for impairment, as well as upon an indicator of impairment, using a fair value approach at the reporting unit level. The fair value of our reporting units is based on a discounted cash flow models involving several assumptions. When appropriate we consider assumptions that we believe a hypothetical marketplace participant would use in estimating future cash flows. The key assumptions include segment EBITDA growth and weighted average cost of capital (discount rate). We determined segment EBITDA growth based on management estimates and business plans. Discount rate assumptions are based on an assessment of the risk inherent in future cash flows of the respective reporting unit as well as cost of debt and equity.

If it is determined that the fair value of the reporting unit is less than its carrying value, we would estimate the fair value of all of the reporting unit's assets and liabilities and calculate an implied fair value of goodwill, which is the difference between the reporting unit's fair value and the fair value of all its other assets and liabilities. If the implied fair value of goodwill is less than its carrying value, the shortfall would be recognized as impairment. The methodology for estimating fair value varies by asset; however, the most significant assets are intangible assets. We estimate the fair value of the intangible assets using the excess earnings method, royalty savings method, or cost savings method, all of which are a form of a discounted cash flow analysis. An impairment charge of a reporting unit's goodwill could have a material adverse effect on our financial results. An impairment charge may be caused by changes in the underlying business and economic conditions, the most relevant of which would be a deterioration in global economic conditions. Deterioration in global economic conditions could cause us to experience a decrease in our segment EBITDA. Furthermore, volatility in the debt markets which impacted our debt yields, could affect these estimates used in the analysis discussed above, which in turn could affect the fair value of the reporting unit. Thus, it is possible for reporting units that record impairments to record additional impairments in the future. All key assumptions and valuations are determined by and are the responsibility of management. The factors used in the impairment analysis are inherently subject to uncertainty. We believe that we have made reasonable estimates and assumptions to determine the fair value of our reporting units, if actual results are not consistent with these estimates and assumptions, goodwill and other intangible assets may be overstated which could trigger an impairment charge.

As of December 31, 2016, the carrying value of goodwill was \$16.7 billion of which \$14.1 billion related to our GBS reporting unit. As of October 1, 2016, the most recent impairment analysis date, the fair value of our reporting units exceeded their carrying value by more than 50% with the exception of our GBS reporting unit. GBS' reporting unit's carrying value exceeded fair value by 12%. Examples of events or circumstances that could reasonably be expected to negatively affect the underlying key assumptions and ultimately impact the estimated fair value of our reporting units may include such items as the following:

- Global economic, political, and other conditions may adversely affect trends in consumer, business, and government spending, which may adversely
 impact the demand for our services and our revenue and profitability;
- Our ability to anticipate and respond to changing industry trends and the needs and preferences of our clients and consumers may affect our competitiveness or demand for our products, which may adversely affect our operating results;
- Substantial and increasingly intense competition worldwide in the financial services, payments, and technology industries may materially and adversely
 affect our overall business and operations;

- Potential changes in the competitive landscape, including disintermediation from other participants in the payments value chain, could harm our business;
- The market for our electronic commerce services is evolving and may not continue to develop or grow rapidly enough for us to maintain and increase our profitability:
- If we are unable to maintain merchant relationships and alliances, our business may be adversely affected;
- · Failure to obtain new clients or renew client contracts on favorable terms could adversely affect results of operations and financial condition; and
- Cost savings initiatives may not produce the savings expected and may negatively impact our other initiatives and efforts to grow our business.

See "Risk Factors" in Part I, Item 1A of this Form 10-K for further discussions of risks that could affect our business.

An additional analysis was performed for our GBS reporting unit, which sensitized the base discount rate by an additional 50 basis points. GBS passed by a margin of 3%. Refer to note 1 "Summary of Significant Accounting Policies" to our consolidated financial statements in Part II, Item 8 of this Form 10-K for additional information regarding goodwill.

Reserve for merchant credit losses and check guarantees With respect to the merchant acquiring business, our merchant clients (or those of our unconsolidated alliances) have the liability for any charges properly reversed by the cardholder. In the event, however, that we are not able to collect such amounts from the merchants due to merchant fraud, insolvency, bankruptcy or another reason, we may be liable for any such reversed charges. Our risk in this area primarily relates to situations where the cardholder has purchased goods or services to be delivered in the future and which have yet to be delivered.

Our obligation to stand ready to perform is minimal in relation to the total dollar volume processed. We require cash deposits, guarantees, letters of credit or other types of collateral from certain merchants to minimize this obligation. The amounts of collateral held by us and our unconsolidated alliances are as follows:

	As of December 31,			
(in millions)	2	2016		2015
Cash and cash equivalents collateral	\$	494	\$	544
Collateral in the form of letters of credit		134		108
Total collateral	\$	628	\$	652

We also utilize a number of systems and procedures to manage merchant risk. Despite these efforts, we historically have experienced some level of losses due to merchant defaults.

Our contingent obligation relates to imprecision in our estimates of required collateral. A provision for this obligation is recorded based primarily on historical experience of credit losses and other relevant factors such as economic downturns or increases in merchant fraud. The following table presents the aggregate merchant credit losses incurred compared to total dollar volumes processed:

	Year ended December 31,						
(in millions)		2016		2015		2014	
First Data and consolidated and unconsolidated alliances credit losses	\$	93	\$	67	\$	63	
First Data and consolidated alliances credit losses		83		55		55	
Total dollar volume acquired (in billions)		2,153		1,885		1,876	

The reserve recorded on our consolidated balance sheets only relates to the business conducted by our consolidated subsidiaries. The reserve for unconsolidated alliances is recorded only in the alliances' respective financial statements. We have not recorded any reserve for estimated losses in excess of reserves recorded by the unconsolidated alliances nor have we identified needs to do so. The following table presents the aggregate merchant credit loss reserves:

	 As of December 31,								
(in millions)	2016		2015						
First Data and consolidated and unconsolidated alliances merchant credit loss reserves	\$ 28	\$	26						
First Data and consolidated alliances merchant credit loss reserves	23		22						

The credit loss reserves, both for us and our unconsolidated alliances, are comprised of amounts for known losses and a provision for losses incurred but not reported (IBNR). These reserves primarily are determined by performing a historical analysis of chargeback loss experience. Other factors are considered that could affect that experience in the future. Such items include the general economy and economic challenges in a specific industry or those affecting certain types of clients. Once these factors are considered, we or the unconsolidated alliance establishes a rate (percentage) that is calculated by dividing the expected chargeback (credit) losses by dollar volume processed. This rate is then applied against the dollar volume processed each month and charged against earnings. The resulting reserve balance is then compared to requirements for known losses and estimates for IBNR items. Historically, this estimation process has proved to be materially accurate and we believe the recorded reserve approximates the fair value of the contingent obligation. Our reserve as of December 31, 2016 is up modestly relative to losses due to changing our write-off policy from 180 days to 90 days and updating our reserve model and assumptions.

The majority of the *TeleCheck* business involves the guarantee of checks received by merchants. If the check is returned, TeleCheck is required to purchase the check from the merchant at its face value and pursue collection from the check writer. A provision for estimated check returns, net of anticipated recoveries, is recorded at the transaction inception based on recent history. The following table presents the estimate of losses on returned check and the fair value of check guarantees:

		As of De	cember 31,	
(in millions)	2	016		2015
Estimate of losses on returned checks	\$	5	\$	6
Fair value of checks guaranteed		17		21

The following table details the check guarantees of *TeleCheck*:

	Year ended December 31,						
		2016	20	15		2014	
Aggregate face value of guaranteed checks (in billions)	\$	28	\$	32	\$	36	
Aggregate amount of checks presented for warranty (in millions)		188		216		253	
Warranty losses net of recoveries and service fees (in millions)		55		61		67	

The estimate of losses on returned checks is included in "Accounts payable and accrued liabilities" and the fair value of checks guaranteed is included in "Accounts receivable, net" in the consolidated balance sheets. The maximum potential future payments under the guarantees were approximately \$452 million as of December 31, 2016 which represented an estimate of the total uncleared checks at that time.

Income taxes The determination of our provision for income taxes requires management's judgment in the use of estimates and the interpretation and application of complex tax laws. Judgment is also required in assessing the timing and amounts of deductible and taxable items. We establish contingency reserves for material, known tax exposures relating to deductions, transactions, and other matters involving some uncertainty as to the proper tax treatment of the item. Our reserves reflect our judgment as to the resolution of the issues involved if subject to judicial review. Several years may elapse before a particular matter, for which we have established a reserve, is audited and finally resolved or clarified. While we believe that our reserves are adequate to cover reasonably expected tax risks, issues raised by a tax authority may be finally resolved at an amount different than the related reserve. Such differences could materially increase or decrease our income tax provision in the current and/or future periods. When facts and circumstances change (including a resolution of an issue or statute of limitations expiration), these reserves are adjusted through the provision for income taxes in the period of change. Largely, as the result of the interest expense that we incur, in the U.S. we are currently in a tax net operating loss position. Judgment is required to determine whether some portion or all of the resulting deferred tax assets will not be realized. To the extent we determine that we will not realize the benefit of some or all of our deferred tax assets, then these assets are adjusted through our provision for income taxes in the period in which this determination is made.

We are currently in a tax net operating loss position in several jurisdictions in which we operate, including the United States, resulting in significant deferred tax assets. We establish a valuation allowance against our deferred tax assets when, based upon the weight of all available evidence, we believe it is more likely than not that some portion or all of the deferred tax assets will not be realized. We believe that a significant portion of the deferred tax assets will be realized because of the existence of sufficient taxable income within the carryforward period available under the tax law, but have established valuation allowances for those deferred tax assets that in our judgment will not be realized. In making this determination, we have considered the relative impact of all of the available positive and negative evidences regarding future sources of taxable income and tax planning strategies. However, there could be material impact to our effective tax rate if there is a significant change in our judgment. It is reasonably

likely that our judgment would change with respect to the United States federal jurisdiction if our financial performance in that jurisdiction continues to improve. We believe that this is reasonably possible within the next 12 months. If and when our judgment changes, then the valuation allowances are adjusted through the provision for income taxes in the period in which this determination is made. Refer to note 8 "Income Taxes" to our consolidated financial statements in Part II, Item 8 of this Form 10-K for additional information regarding our income tax provision.

New Accounting Guidance

Refer to note 1 "Summary of Significant Accounting Policies" to our consolidated financial statements included in Part II, Item 8 of this Form 10-K for new accounting guidance.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

We are exposed to market risk from changes in interest rates. Our assets include cash equivalents as well as both fixed and floating rate interest-bearing securities. These investments arise primarily from settlement funds held by us pending settlement.

Our interest rate-sensitive liabilities are our debt instruments. Our senior secured term loan facilities are subject to variable interest rates. During the year ended December 31, 2016, \$5.0 billion of our variable to fixed interest rate swaps matured and we entered into new variable to fixed interest rate collar contracts on \$3.0 billion of our variable rate debt, of which \$1.5 billion expires in September 2017 and the remaining \$1.5 billion expires in September 2018. The interest rate collar contracts mitigate exposure to interest rate fluctuations, but are subject to contractual ceilings and floors. The interest rate collar contracts provide for interest rate protection if one month LIBOR rises above 150 basis points. As of December 31, 2016, we have \$8.1 billion in variable rate debt, which includes \$160 million on our accounts receivable securitization facility. \$3.0 billion of our variable rate debt is subject to the interest rate collar contracts.

Based on the December 31, 2016 balances, a 100 basis point increase in short-term interest rates on an annualized basis compared to the interest rates as of December 31, 2016, which for the one month LIBOR was 0.7717%, and a corresponding and parallel shift in the remainder of the yield curve, would result in a decrease to pretax income of \$59 million. The \$59 million decrease to pretax income (due to a 100 basis point increase in variable rates as of December 31, 2016) is due to a \$74 million increase in interest expense related to our balance of variable interest rate debt, net of interest rate collar contracts. The increase in interest expense would be partially offset by a \$15 million increase in interest income primarily on settlement assets. A decrease in interest rates would result in an increase to pretax income. Actual interest rates could change significantly more than 100 basis points. There are inherent limitations in the sensitivity analysis presented, primarily due to the assumption that interest rate movements are linear and instantaneous. As a result, the analysis is unable to reflect the potential effects of more complex market changes that could arise, which may positively or negatively affect income.

Foreign Currency Risk

We are exposed to changes in currency rates as a result of our investments in foreign operations, revenues generated in currencies other than the U.S. dollar and foreign currency-denominated loans. Revenue and profit generated by international operations will increase or decrease compared to prior periods as a result of changes in foreign currency exchange rates. Refer to note 13 "Derivative Financial Instruments" to our consolidated financial statements in Part II, Item 8 of this Form 10-K for additional information regarding the changes in foreign currency exchange rates.

A hypothetical uniform 10% weakening in the value of the U.S. dollar relative to all the currencies in which our revenues and profits are denominated would result in an increase to pretax income of approximately \$20 million. This increase results from a \$20 million increase related to foreign exchange on foreign currency earnings, assuming consistent operating results as the twelve months preceding December 31, 2016, and a \$3 million increase related to foreign exchange on intercompany loans. The increase is partially offset by \$3 million related to the effect of interest expense on euro-denominated term loans held by us. There is inherent limitation in the sensitivity analysis presented, primarily due to the assumption that foreign exchange movements are linear and instantaneous. As a result, the analysis is unable to reflect the potential effects of more complex market changes that could arise, which may positively or negatively affect income.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

FIRST DATA CORPORATION

INDEX TO FINANCIAL STATEMENTS COVERED BY REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2016, 2015, and 2014	<u>61</u>
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Schedules:

Schedule II—Valuation and Qualifying Accounts

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of First Data Corporation

We have audited the accompanying consolidated balance sheets of First Data Corporation as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income (loss), cash flows and equity for each of the three years in the period ended December 31, 2016. Our audits also include the financial statement schedule listed in the Index at Item 15(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of First Data Corporation at December 31, 2016 and 2015, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), First Data Corporation's internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 24, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Atlanta, Georgia February 24, 2017

FIRST DATA CORPORATION CONSOLIDATED STATEMENTS OF OPERATIONS

Year ended December 31, (in millions, except per share and share amounts) 2016 2015 2014 Revenues: \$ 6,510 Transaction and processing service fees (a) 6,600 \$ 6,597 \$ Product sales and other (a) 1,038 1,239 1,167 Total revenues (excluding reimbursable items) 7,839 7,764 7,548 Reimbursable debit network fees, postage, and other 3,745 3,687 3,604 Total revenues 11,584 11,152 11,451 Expenses: Cost of services (exclusive of items shown below) 2.855 2.871 2,668 337 356 330 Cost of products sold Selling, general, and administrative 2,035 2.292 2.043 Depreciation and amortization 949 1,022 1,056 Other operating expenses 61 53 13 Total expenses (excluding reimbursable items) 6,237 6,594 6,110 Reimbursable debit network fees, postage, and other 3.687 3,604 3.745 Total expenses 9.982 10,281 9,714 Operating profit 1,438 1,602 1,170 Interest expense, net (1,068)(1,537)(1,728)Loss on debt extinguishment (70)(1,068)(274)Other income 17 29 161 Income (loss) before income taxes and equity earnings in affiliates 481 (1,406)(403)81 101 82 Income tax expense Equity earnings in affiliates 260 239 220 Net income (loss) 660 (1,268)(265)Less: Net income attributable to noncontrolling interests 193 and redeemable noncontrolling interest 240 213 Net income (loss) attributable to First Data Corporation \$ 420 (1,481) \$ (458)Net income (loss) per share: Basic \$ 0.47 \$ (7.70) \$ (458,000)Diluted 0.46 (7.70) \$ (458,000)Weighted-average common shares outstanding: 1,000 Basic 901,671,872 192,263,793

Diluted

921,001,863

192,263,793

1,000

⁽a) Includes processing fees, administrative service fees, and other fees charged to merchant alliances accounted for under the equity method of \$198 million , \$205 million , and \$181 million for the years ended December 31, 2016 , 2015 , and 2014 , respectively.

FIRST DATA CORPORATION CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	Year ended December 31,							
(in millions)		2016		2015	2014			
Net income (loss)	\$	660	\$	(1,268)	\$	(265)		
Other comprehensive income (loss), net of tax:								
Foreign currency translation adjustment		(153)		(290)		(308)		
Pension liability adjustments		38		(13)		(36)		
Derivative instruments		3		_		_		
Marketable securities				3		(7)		
Total other comprehensive loss, net of tax		(112)		(300)		(351)		
Comprehensive income (loss)		548		(1,568)		(616)		
Less: Comprehensive income attributable to noncontrolling interests and redeemable noncontrolling interest		235		203		182		
Comprehensive income (loss) attributable to First Data Corporation	\$	313	\$	(1,771)	\$	(798)		

FIRST DATA CORPORATION CONSOLIDATED BALANCE SHEETS

		As of De	cember	31,
(in millions, except common stock share amounts)		2016		2015
ASSETS				
Current assets:				
Cash and cash equivalents	\$	385	\$	429
Accounts receivable, net of allowance for doubtful accounts of \$74 and \$71		1,877		1,826
Settlement assets		14,795		8,150
Prepaid expenses and other current assets		360		381
Total current assets		17,417		10,786
Property and equipment, net of accumulated depreciation of \$1,416 and \$1,367		883		951
Goodwill		16,696		16,846
Customer relationships, net of accumulated amortization of \$5,660 and \$5,299		1,739		2,136
Other intangibles, net of accumulated amortization of \$2,365 and \$2,134		1,800		1,783
Investment in affiliates		988		1,048
Other long-term assets		769		812
Total assets	\$	40,292	\$	34,362
LIABILITIES AND EQUITY				
Current liabilities:				
Accounts payable and accrued liabilities	\$	1,564	\$	1,639
Short-term and current portion of long-term borrowings	Ψ	358	Ψ	856
Settlement obligations		14,795		8,150
Total current liabilities		16,717		10,645
Long-term borrowings				
		18,131		18,737
Deferred tax liabilities		409		431
Other long-term liabilities		831		812
Total liabilities		36,088		30,625
Commitments and contingencies (See note 14)		5 0		
Redeemable noncontrolling interest		73		77
First Data Corporation stockholders' equity:				
Common stock, \$0.01 par value; no shares and 1,000 shares authorized and issued as of December 31, 2016 and 2015, respectively		_		_
Class A Common stock, \$0.01 par value; 1,600,000,000 shares authorized as of December 31, 2016 and 2015,				
respectively; 367,893,026 shares and 179,873,244 shares issued and outstanding as of December 31, 2016 and 2015, respectively.		4		2
Class B Common stock, \$0.01 par value; 624,998,004 shares and 800,000,000 shares authorized as of December 31, 2016 and 2015, respectively; 544,066,353 shares and 719,330,114 shares issued and outstanding as of December 31, 2016 and 2015, respectively. Class B Common stock is convertible into one share of Class A				
Common stock		5		7
Additional paid-in capital		13,149		12,910
Accumulated loss		(10,612)		(11,032)
Accumulated other comprehensive loss		(1,326)		(1,219)
Total First Data Corporation stockholders' equity		1,220		668
Noncontrolling interests		2,911		2,992
Total equity		4,131		3,660
	•		•	
Total liabilities and equity	\$	40,292	\$	34,36

FIRST DATA CORPORATION CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31,						
(in millions)		2016		2015		2014	
CASH FLOWS FROM OPERATING ACTIVITIES							
Net income (loss)	\$	660	\$	(1,268)	\$	(265)	
Adjustments to reconcile to net cash provided by operating activities:							
Depreciation and amortization (including amortization netted against equity earnings in affiliates and revenues)		1,061		1,133		1,163	
Charges (gains) related to other operating expenses and other income		44		24		(148)	
Loss on debt extinguishment		70		1,068		274	
Stock-based compensation expense		263		329		51	
Other non-cash and non-operating items, net		35		48		70	
(Decrease) increase in cash, excluding the effects of acquisitions and dispositions, resulting from changes in:							
Accounts receivable, current and long-term		(81)		(184)		(50)	
Other assets, current and long-term		61		(199)		(48)	
Accounts payable and other liabilities, current and long-term		35		(162)		1	
Income tax accounts		(37)		6		(13)	
Net cash provided by operating activities		2,111		795		1,035	
CASH FLOWS FROM INVESTING ACTIVITIES							
Additions to property and equipment		(232)		(282)		(308)	
Payments to secure customer service contracts, including outlays for conversion, and capitalized systems development costs		(245)		(320)		(259)	
Acquisitions, net of cash acquired		(6)		(89)		(31)	
Proceeds from dispositions		38		4		270	
Proceeds from sale of property and equipment		38		17		3	
Other investing activities, net		20		(15)		(4)	
Net cash used in investing activities		(387)		(685)		(329)	
CASH FLOWS FROM FINANCING ACTIVITIES							
Short-term borrowings, net		205		(31)		12	
Proceeds from issuance of long-term debt		3,533		10,258		1,830	
Payment of call premiums and debt issuance cost		(53)		(1,062)		(355)	
Principal payments on long-term debt		(5,073)		(11,568)		(3,751)	
Payment of taxes related to net settlement of equity awards		(61)		_		_	
Proceeds from issuance of common stock		23		2,718		_	
Distributions and dividends paid to noncontrolling interests and redeemable noncontrolling interest		(316)		(312)		(266)	
Capital transactions with former parent, net		_		(19)		1,788	
Other financing activities, net		8				(1)	
Net cash used in financing activities		(1,734)		(16)		(743)	
Effect of exchange rate changes on cash and cash equivalents		(34)		(23)		(30)	
Change in cash and cash equivalents		(44)		71		(67)	
Cash and cash equivalents at beginning of period		429		358		425	
Cash and cash equivalents at end of period	\$	385	\$	429	\$	358	
SUPPLEMENTAL CASH FLOW INFORMATION:							
Income tax payments, net of refunds received	\$	118	\$	95	\$	96	
Interest paid		1,032		1,815		1,729	
Distributions received from equity method investments		304		289		278	
NON-CASH TRANSACTIONS:							
Capital leases and other financing arrangements, net of trade-ins	\$	215	\$	83	\$	128	

FIRST DATA CORPORATION CONSOLIDATED STATEMENTS OF EQUITY

First Data Corporation Stockholders'

		Comm	on Stock				Accumulated		
Grand Williams arranged a common set of all all and	Class	s A	Class	В	Additional	A	Other	Noncontrollino	
(in millions, except common stock share amounts)	Shares	Amount	Shares	Amount	Paid-In Capital	Accumulated Loss	Comprehensive Income (Loss)	Noncontrolling Interest	Total
Balance, December 31, 2013 (a)	1,000	\$ —	_	\$ —	\$ 7,384	\$ (8,403)	\$ (589)	\$ 3,183	\$1,575
Dividends and distributions paid to noncontrolling interests (b)	_	_	_	_	_	_	_	(231)	(231)
Net (loss) income (c)	_	_	_	_	_	(458)	_	159	(299)
Other comprehensive loss	_	_	_	_	_	_	(340)	(11)	(351)
Adjustments to redemption value of redeemable noncontrolling interest	_	_	_	_	(2)	_	_	_	(2)
Stock compensation expense and other	_	_	_	_	43	_	_	_	43
Capital contributed by former Parent	_	_	_	_	2,482	_	_	_	2,482
Cash dividends paid by First Data Corporation to former Parent	_	_	_	_	_	(686)	_	_	(686)
Purchase of noncontrolling interest	_	_	_	_	(1)	_	_	_	(1)
Balance, December 31, 2014 (a)	1,000		_		9,906	(9,547)	(929)	3,100	2,530
Dividends and distributions paid to noncontrolling interests (b)	_	_	_	_	_	_	_	(277)	(277)
Net (loss) income (c)	_	_	_	_	_	(1,481)	_	179	(1,302)
Other comprehensive loss	_	_	_	_	_	_	(290)	(10)	(300)
Adjustments to redemption value of redeemable noncontrolling interest	_	_	_	_	(8)	_	_	_	(8)
Stock compensation expense and other	_	_	_	_	316	_	_	_	316
Cash dividends paid by First Data Corporation to former Parent	_	_	_	_	_	(4)	_	_	(4)
Holding Company Merger (a)	(1,000)	_	719,330,114	7	(20)	_	_	_	(13)
Initial Public Offering	179,873,244	2	_	_	2,716	_	_	_	2,718
Balance, December 31, 2015	179,873,244	2	719,330,114	7	12,910	(11,032)	(1,219)	2,992	3,660
Dividends and distributions paid to noncontrolling interests (b)	_	_	_	_	_	_	_	(283)	(283)
Net income (c)	_	_	_	_	_	420	_	207	627
Other comprehensive loss	_	_	_	_	_	_	(107)	(5)	(112)
Adjustment to redemption value of redeemable noncontrolling interest	_	_	_	_	4	_	_	_	4
Stock compensation expense	_	_	_	_	263	_	_	_	263
Stock activity under stock compensation plans and other	188,019,782	2	(175,263,761)	(2)	(28)	_			(28)
Balance, December 31, 2016	367,893,026	\$ 4	544,066,353	\$ 5	\$ 13,149	\$ (10,612)	\$ (1,326)	\$ 2,911	\$4,131

⁽a) 1,000 shares relates to common stock without a class that was eliminated upon the merger with First Data Holdings.

⁽b) The total distribution presented in the consolidated statements of equity for the years ended December 31, 2016, 2015, and 2014 excludes \$33 million, \$35 million, and \$35 million, respectively, in distributions paid to redeemable non-controlling interest not included in equity.

⁽c) The total net income (loss) presented in the consolidated statements of equity for the years ended December 31, 2016, 2015, and 2014 is \$33 million lower, \$34 million higher, and \$34 million higher, respectively, than the amount presented on the consolidated statements of operations due to the net income attributable to the redeemable noncontrolling interest not included in equity.

Note 1: Summary of Significant Accounting Policies

Business Description

First Data Corporation (FDC or the Company) is a global leader in commerce-enabling technology and solutions for merchants, financial institutions, and card issuers. The Company provides merchant transaction processing and acquiring; credit, retail, and debit card issuing and processing; prepaid services; and check verification, settlement and guarantee services; as well as solutions to help clients grow their businesses including the Company's *Clover* line of payment solutions and related applications.

On October 15, 2015, the Company filed its Prospectus with the Securities and Exchange Commission pursuant to Rule 424(b). The Company issued 176,076,869 shares of Class A common stock and began trading on the New York Stock Exchange under the symbol "FDC".

On October 13, 2015, First Data Holdings Inc. (FDH), the Company's direct parent company, merged with and into First Data Corporation, with First Data Corporation being the surviving entity (HoldCo Merger). All outstanding shares of FDH were converted into Class B common stock, which are entitled to ten votes per share. All outstanding common stock of First Data Corporation were eliminated upon the merger. The Company accounted for the HoldCo Merger as a transfer of assets between entities under common control and reflected the transaction in its financial statements on a prospective basis.

On October 13, 2015, the Company amended its certificate of incorporation which affected a reverse stock split of the Company's authorized, issued and outstanding Class B common stock, on the basis of 1 new share of Class B common stock for each 3.16091 old shares of common stock.

Consolidation

The accompanying consolidated financial statements include the accounts of the Company and its controlled subsidiaries. All significant intercompany accounts and transactions have been eliminated. Investments in unconsolidated affiliated companies are accounted for under the equity method and are included in "Investment in affiliates" in the accompanying consolidated balance sheets. The Company generally utilizes the equity method of accounting when it has an ownership interest of between 20% and 50% in an entity, provided the Company is able to exercise significant influence over the investee's operations.

The Company consolidates an entity's financial statements when the Company has a controlling financial interest in the entity. Control is normally established when ownership interests exceed 50% in an entity; however, when the Company does not exercise control over a majority-owned entity as a result of other investors having rights over the management and operations of the entity, the Company accounts for the entity under the equity method.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Presentation

Depreciation and amortization, presented as a separate line item on the Company's consolidated statements of operations, does not include amortization of initial payments for new contracts which is recorded as contra-revenue within "Transaction and processing service fees." Also not included is amortization related to equity method investments which is netted within "Equity earnings in affiliates."

The following table presents the amounts associated with such amortization for the periods presented:

	 Year ended December 31,					
(in millions)	2016		2015		2014	
Amortization of initial payments for new contracts	\$ 65	\$	51	\$	45	
Amortization related to equity method investments	47		60		62	

Revenue Recognition

The majority of the Company's revenues are comprised of: 1) transaction-based fees, which typically constitute a percentage of dollar volume processed; 2) fees per transaction processed; 3) fees per account on file during the period; or 4) some combination thereof.

The Company's arrangements with clients often consist of multiple services and products (multiple-element arrangements). In accounting for multiple-element arrangements, the Company assesses the elements of the contract and whether each element has standalone value and allocates revenue to the various elements based on their estimated selling price as a component of total consideration for the arrangement. The selling price is based on current selling prices offered by the Company or another party for current products or management's best estimate of a selling price.

In the case of contracts that the Company owns and manages, revenue is comprised of fees charged to the client, net of interchange fees and assessments charged by the credit card associations, and is recognized at the time the client accepts a point of sale transaction. The fees charged to the client are a percentage of the credit card and debit card transaction's dollar value, a fixed amount, or a combination of the two. Personal identification number based debit (PIN-debit) and PINless-debit network fees are recognized in "Reimbursable debit network fees, postage, and other" revenues and expenses in the consolidated statements of operations. STAR Network access fees charged to clients are assessed on a per transaction basis.

Interchange fees and assessments charged by credit card associations to the Company's consolidated subsidiaries and network fees related to PIN-debit and PINless-debit transactions charged by debit networks were as follows for the periods presented:

		Year ended December 31,						
(in millions)		2016		2015		2014		
Interchange fees and assessments	9	\$	23,810	\$	21,711	\$	20,406	
Debit network fees			3,121		2,991		2,965	

The Company charges processing fees to its merchant alliances. In situations where an alliance is accounted for under the equity method, the Company's consolidated revenues include the processing fees charged to the alliance, as presented in the consolidated statements of operations within "Transaction and processing service fees".

Revenue from check verification, settlement, and guarantee services is recognized at the time of sale less the fair value of the guarantee. The fair value of the guarantee is deferred and recognized at the later of the Company being called upon to honor the guarantee or the expiration of the guarantee. Check verification fees generally are a fixed amount per transaction while check guarantee fees generally are a percentage of the check amount.

The purchase and sale of merchant contracts is an ordinary element of the Company's businesses, and therefore, the gains from selling these revenue-generating assets are included within "Product sales and other" in the consolidated statements of operations.

Fees based on cardholder accounts on file are recognized after the requisite services or period has occurred. Fees for PIN-debit transactions where the Company is the debit card processor for the financial institution are recognized on a per transaction basis. Revenues for output services are derived primarily on a per piece basis and consist of fees for the production, materials, and postage related to mailing finished products and recognized as the services are provided.

The sale and leasing of POS devices (terminals) are reported in "Product sales and other" in the consolidated statements of operations. Revenue for terminals sold or sold under a sales-type lease transaction is recognized when the following four criteria are met: evidence of an agreement exists, delivery has occurred, the selling price or minimum lease payments are fixed or determinable, and collection of the selling price or minimum lease payments is reasonably assured. Revenue for operating leases is recognized on a straight-line basis over the lease term.

Services not specifically described above are generally transaction based fees that are recognized at the time the transactions are processed or programming services that are either recorded as work is performed or are recognized over the life of the contract depending on the underlying business relationship.

Deferred Revenue

The Company records deferred revenue when it receives payments or invoices in advance of the delivery of products or the performance of services. The deferred revenue is recognized when underlying performance obligations are achieved. As of December 31, 2016 and 2015, current deferred revenue included within "Accounts payable and accrued liabilities" in the Company's consolidated balance sheets was \$149 million and \$140 million, respectively. As of December 31, 2016 and 2015, noncurrent deferred revenue included within "Other long-term liabilities" in the Company's consolidated balance sheets was \$184 million and \$146 million, respectively.

See note 20 "Subsequent Events" of these consolidated financial statements for subsequent changes to the Company's deferred revenue policies.

Stock-Based Compensation

Stock-based compensation to employees is measured at the grant date fair values of the respective stock options and restricted stock awards. An estimate of forfeitures is applied when calculating compensation expense. The Company recognizes compensation cost on awards with graded vesting on a straight-line basis over the requisite service period for the entire award. Refer to note 4 "Stock Compensation Plans" of these consolidated financial statements for details regarding the Company's stock-based compensation plan.

Foreign Currency Translation

The U.S. dollar is the functional currency of the Company's U.S.-based businesses and certain foreign-based businesses. Significant operations with a local currency as their functional currency include operations in the United Kingdom, Australia, Germany, Ireland, Greece, and Argentina. Foreign currency-denominated assets and liabilities for these units and other less significant operations are translated into U.S. dollars based on exchange rates prevailing at the end of the period, and revenues and expenses are translated at average exchange rates during each monthly period. The effects of foreign exchange gains and losses arising from the translation of assets and liabilities of those entities where the functional currency is not the U.S. dollar are included as a component of Other Comprehensive Income (Loss) (OCI). Intercompany loans are generally not considered invested on a long-term basis and such foreign currency gains and losses are included in "Other income" on the consolidated statements of operations. Transaction gains and losses related to operating assets and liabilities are included in "Cost of services" and "Selling, general, and administrative" in the consolidated statements of operations and were immaterial. Non-operating transaction gains and losses derived from non-operating assets and liabilities are included in "Other income" on the consolidated statements of operations and are separately disclosed in note 16 "Supplemental Financial Information" of these consolidated financial statements.

Derivative Financial Instruments

The Company is exposed to various financial and market risks, including those related to changes in interest rates and foreign currency exchange rates, that exist as part of its ongoing business operations. The Company uses derivative instruments (i) to mitigate cash flow risks with respect to changes in interest rates (forecasted interest payments on variable rate debt), (ii) to maintain a desired ratio of fixed rate and floating rate debt, and (iii) to protect the net investment in certain foreign subsidiaries and/or affiliates with respect to changes in foreign currency exchange rates. The Company's objective is to engage in risk management strategies that provide adequate downside protection.

Derivative instruments are entered into for periods consistent with related underlying exposures. The Company applies strict policies to manage each of these risks, including prohibition against derivatives trading, derivatives market-making or any other speculative activities. Although some of the Company's derivatives either do not qualify or are not designated for hedge accounting, they are maintained for economic hedge purposes and are not considered speculative.

The Company formally documents all relationships between hedging instruments and the underlying hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. This process includes linking all derivatives that have been designated as cash flow hedges to forecasted transactions and net investment hedges to the underlying investment in a foreign subsidiary or affiliate. For designated hedges, the Company formally assesses, both at inception of the hedge and on an ongoing basis, whether the hedge is highly effective in offsetting changes in cash flows or foreign currency exposure of the underlying hedged items. The Company also performs an assessment of the probability of the forecasted transactions on a periodic

basis. If it is determined that a derivative ceases to be highly effective during the term of the hedge or if the forecasted transaction is no longer probable, the Company discontinues hedge accounting prospectively for such derivative.

The Company monitors the financial stability of its derivative counterparties and all counterparties remain highly-rated (in the "A" category or higher). The credit risk inherent in these agreements represents the possibility that a loss may occur from the nonperformance of a counterparty to the agreements. The Company performs a review at inception of the hedge, as circumstances warrant, and at least on a quarterly basis, of the credit risk of these counterparties. The Company also monitors the concentration of its contracts with individual counterparties. The Company's exposures are in liquid currencies (primarily in U.S. dollars, euros, Australian dollars, British pounds, and Canadian dollars), so there is minimal risk that appropriate derivatives to maintain the hedging program would not be available in the future.

The Company recognizes all derivative financial instruments in the consolidated balance sheets as assets or liabilities at fair value. Such amounts are recorded in "Other current assets", "Other long-term assets", "Accounts payable and accrued liabilities" or "Other long-term liabilities" in the consolidated balance sheets. The Company's policy is to present all derivative balances on a gross basis, without regard to counterparty master netting agreements or similar arrangements. Changes in fair value of derivative instruments are recognized immediately in "Other income" on the consolidated statements of operations unless the derivative is designated and qualifies as a hedge of future cash flows or a hedge of a net investment in a foreign operation. For derivatives that qualify as hedges of future cash flows, the effective portion of changes in fair value is recorded temporarily in equity as a component of OCI and then recognized in "Other income" in the consolidated statements of operations in the same period or periods during which the hedged item affects earnings. For derivatives that qualify as a hedge of a net investment in a foreign operation, the gain or loss is reported in OCI as part of the cumulative translation adjustment to the extent the hedge is effective. Any ineffective portions of cash flow hedges and net investment hedges are recognized in "Other income" in the consolidated statements of operations during the period of change. Additional discussion of derivative instruments is provided in note 13 "Derivative Financial Instruments" of these consolidated financial statements.

Noncontrolling and Redeemable Noncontrolling Interests

Noncontrolling interests represent the minority shareholders' share of the net income or loss and equity in consolidated subsidiaries. Substantially all of the Company's noncontrolling interests are presented pretax in the consolidated statements of operations as "Net income attributable to noncontrolling interests and redeemable noncontrolling interest" because the majority of the Company's non wholly owned consolidated subsidiaries are flow through entities for tax purposes. Noncontrolling interests are presented as a component of equity in the consolidated balance sheets and reflect the original investments by these noncontrolling shareholders in the consolidated subsidiaries, along with their proportionate share of the earnings or losses of the subsidiaries, net of dividends or distributions. Noncontrolling interests that are redeemable at the option of the holder are presented outside of equity and are carried at their estimated redemption value. Refer to note 5 "Stockholders' Equity and Redeemable Noncontrolling Interest" of these consolidated financial statements for more information. A noncontrolling interest is recorded on the date of acquisition based on the total fair value of the acquired entity and the noncontrolling interest's share of that value.

Reserve for Merchant Credit Losses and Check Guarantees

With respect to the merchant acquiring business, the Company's merchant customers (or those of its unconsolidated alliances) have the liability for any charges properly reversed by the cardholder. In the event, however, that the Company is not able to collect such amounts from the merchants due to merchant fraud, insolvency, bankruptcy or another reason, the Company may be liable for any such reversed charges. The Company's risk in this area primarily relates to situations where the cardholder has purchased goods or services to be delivered in the future.

The Company's obligation to stand ready to perform is minimal in relation to the total dollar volume processed. The Company requires cash deposits, guarantees, letters of credit or other types of collateral from certain merchants to minimize this obligation. Collateral held by the Company is classified within "Settlement assets" and the obligation to repay the collateral if it is not needed is classified within "Settlement obligations" on the Company's consolidated balance sheets. The Company also utilizes a number of systems and procedures to manage merchant risk. Despite these efforts, the Company historically has experienced some level of losses due to merchant defaults. The amount of cash deposits and letters of credit held by the Company was \$628 million and \$652 million as of December 31, 2016 and 2015, respectively.

The Company's contingent obligation relates to imprecision in its estimates of required collateral. A provision for this obligation is recorded based primarily on historical experience of credit losses and other relevant factors such as economic downturns or increases in merchant fraud. Merchant credit losses are included in "Cost of services" in the Company's consolidated statements of operations. The amount of the reserves attributable to entities consolidated by the Company was \$23 million and \$22 million as of December 31, 2016 and 2015, respectively.

The majority of the *TeleCheck* business involves the guarantee of checks received by merchants. If the check is returned, TeleCheck is required to purchase the check from the merchant at its face value and pursue collection from the check writer. A provision for estimated check returns, net of anticipated recoveries, is recorded at the transaction inception based on recent history. The following table presents the estimate of losses on returned check and the fair value of check guarantees:

		As of December 31,						
(in millions)		2016	2015					
Estimate of losses on returned checks	<u> </u>	5	\$	6				
Fair value of checks guaranteed		17		21				

The estimate of losses on returned checks is included in "Accounts payable and accrued liabilities" and the fair value of checks guaranteed is included in "Accounts receivable, net" in the consolidated balance sheets. The maximum potential future payments under the guarantees were approximately \$452 million as of December 31, 2016 which represented an estimate of the total uncleared checks at that time.

Income Taxes

The Company and its domestic subsidiaries file a consolidated U.S. income tax return. The Company's foreign operations file income tax returns in their local jurisdictions. Income taxes reflect the net tax effects of temporary differences between the financial reporting carrying amounts of assets and liabilities and the corresponding income tax amounts. The Company has deferred tax assets and liabilities and maintains valuation allowances where it is more likely than not that all or a portion of deferred tax assets will not be realized. To the extent the Company determines that it will not realize the benefit of some or all of its deferred tax assets, these deferred tax assets will be adjusted through the Company's provision for income taxes in the period in which this determination is made.

The Company recognizes the tax benefits from uncertain tax positions only when it is more likely than not, based on the technical merits of the position, that the tax position will be sustained upon examination, including the resolution of any related appeals or litigation. The tax benefits recognized in the consolidated financial statements from such a position are measured as the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate resolution.

Cash and Cash Equivalents

Investments (other than those included in settlement assets) with original maturities of three months or less (that are readily convertible to cash) are considered to be cash equivalents and are stated at cost, which approximates market value. Cash and cash equivalents that were restricted from use due to regulatory requirements are included in "Other long-term assets" in the consolidated balance sheets and was \$30 million and \$3 million as of December 31, 2016 and 2015, respectively.

Accounts Receivable and Leasing Receivables

Accounts receivable balances are stated net of allowance for doubtful accounts. Historically, the Company has infrequently incurred significant write-offs. The Company records allowances for doubtful accounts when it is probable that the accounts receivable balance will not be collected. Long-term accounts receivable balances are included in "Other long-term assets" in the consolidated balance sheets.

The Company has receivables associated with its POS terminal leasing businesses. Leasing receivables are included in "Accounts receivable" and "Other long-term assets" in the consolidated balance sheets. The Company recognizes interest income on its leasing receivables using the effective interest method. Interest income from leasing receivables is included in "Product sales and other" in the consolidated statements of operations. For direct financing leases, the interest rate used incorporates initial direct costs included in the net investment in the lease. For sales type leases, initial direct costs are expensed as incurred.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation. Depreciation expense is computed using the straight-line method over the lesser of the estimated useful life of the related assets (generally three years to 10 years for equipment, furniture, and leasehold improvements, and 30 years for buildings) or the lease term. Maintenance and repairs which do not extend the useful life of the respective assets are expensed as incurred.

The following table presents depreciation and amortization expense related to property and equipment, including equipment under capital lease:

Year ended December 31,

(in millions)	Amount
2016	\$ 300
2015	290
2014	286

Goodwill and Other Intangibles

Goodwill represents the excess of purchase price over tangible and intangible assets acquired less liabilities assumed arising from business combinations. Goodwill is generally allocated to reporting units based upon relative fair value (taking into consideration other factors such as synergies) when an acquired business is integrated into multiple reporting units. The Company's reporting units are at the operating segment level or one level below the operating segment level for which discrete financial information is prepared and regularly reviewed by management. When a business within a reporting unit is disposed of, goodwill is allocated to the disposed business using the relative fair value method. Relative fair value is estimated using a discounted cash flow analysis.

The Company tests goodwill annually for impairment, as well as upon an indicator of impairment, using a fair value approach at the reporting unit level. The Company estimates the fair value of each reporting unit using a discounted cash flow analysis. The Company performed its annual goodwill impairment test in the fourth quarters of 2016 and 2015. As of October 1, 2016, the most recent impairment analysis date, the fair value of each reporting unit exceeded its carrying value. The Company did not record any goodwill impairment charges in 2016, 2015, and 2014.

Customer relationships represent the estimated value of the Company's relationships with customers, primarily merchants and financial institutions, to which it provides services. Customer relationships are amortized based on the pattern of undiscounted cash flows for the period as a percentage of total projected undiscounted cash flows. The Company selected this amortization method for these customer relationships based on a conclusion that the projected undiscounted cash flows could be reliably determined.

The Company capitalizes initial payments for new contracts, contract renewals, and conversion costs associated with customer processing relationships to the extent recoverable through cash flows from future operations, contractual minimums, and/or penalties in the case of early termination. The Company's accounting policy is to limit the amount of capitalized costs for a given contract to the lesser of the estimated ongoing future cash flows from the contract or the termination fees the Company would receive in the event of early termination of the contract by the customer. The initial payments for new contracts and contract renewals are amortized over the term of the contract as a reduction of the associated revenue (transaction and processing service fees). Conversion costs are also amortized over the term of the contract but are recorded as an expense in "Depreciation and amortization" in the consolidated statements of operations.

The Company develops software that is used in providing processing services to customers. To a lesser extent, the Company also develops software to be sold or licensed to customers. Costs incurred during the preliminary project stage are expensed as incurred. Capitalization of costs begins when the preliminary project stage is completed and management, with the relevant authority, authorizes and commits to funding the project and it is probable that the project will be completed and the software will be used to perform the function intended. Capitalization of costs ceases when the software is substantially complete and ready for its intended use. Software development costs are amortized using the straight-line method over the estimated useful life of the software which generally ranges from three years to 10 years .

In addition to capitalized contract and software development costs, other intangibles include copyrights, patents, purchased software, trademarks, and non-compete agreements acquired in business combinations. Other intangibles, except for the First Data

trade name discussed in note 3 "Goodwill and Other Intangibles" of these consolidated financial statements, are amortized on a straight-line basis over the length of the contract or benefit period, which generally ranges from three years to 25 years.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

Fair value is defined by accounting guidance as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Company uses the hierarchy prescribed in the accounting guidance for fair value measurements, based upon the available inputs to the valuation and the degree to which they are observable or not observable in the market. The Company maximizes the use of relevant observable inputs and minimizes the use of unobservable inputs. The three levels in the hierarchy are as follows:

- Level 1 Inputs—Quoted prices (unadjusted) for identical assets or liabilities in active markets that are accessible as of the measurement date.
- Level 2 Inputs—Inputs other than quoted prices within Level 1 that are observable either directly or indirectly, including but not limited to quoted prices
 in markets that are not active, quoted prices in active markets for similar assets or liabilities, and observable inputs other than quoted prices such as
 interest rates or yield curves.
- Level 3 Inputs—Unobservable inputs reflecting the Company's own assumptions about the assumptions that market participants would use in pricing the asset or liability, including assumptions about risk.

Assets and Liabilities Measured at Fair Value on a Non-Recurring Basis

During the years ended December 31, 2016 and 2015, the Company did not record any adjustments over \$5 million to the carrying value of existing assets based on non-recurring fair value measurements.

Net Income (Loss) Per Share

Basic net income (loss) per share is calculated by dividing Net income (loss) attributable to FDC by the weighted-average shares outstanding during the period, without consideration for any potential dilutive shares. Diluted net income (loss) per share is computed by dividing Net income (loss) attributable to FDC by the weighted-average number of shares of common stock outstanding during the period increased to include the number of additional shares of common stock that would have been outstanding if the potentially dilutive securities had been issued. Potentially dilutive securities include outstanding stock options, unvested restricted stock and unvested restricted stock awards. The dilutive effect of potentially dilutive securities is reflected in diluted net income per share by application of the treasury stock method. Under the treasury stock method, an increase in the fair market value of the Company's common stock can result in a greater dilutive effect from potentially dilutive securities. For any period where Net income (loss) attributable to First Data Corporation is presented, shares used in the diluted net income per share calculation represent basic shares because using diluted shares would be anti-dilutive.

Reclassifications

Certain amounts for prior years have been reclassified to conform with the current-year financial statement presentation. Specifically, the consolidated balance sheet as of December 31, 2016 reflects a \$102 million reclassification related to settlement activities to conform certain domestic and international businesses to the Company's global policies, which increased "Cash and cash equivalents" and decreased "Accounts receivable". The consolidated statements of cash flows for the year ended December 31, 2016 reflects the reclassification of \$102 million within "Net Cash provided by operating activities".

New Accounting Guidance

Revenue Recognition

In May 2014, the Financial Accounting Standards Board (FASB) issued guidance that requires companies to recognize revenue to depict the transfer of goods or services to customers in amounts that reflect the consideration to which the company expects to be entitled in an exchange for those goods or services. It also requires enhanced disclosures about revenue, provides guidance for transactions that were not previously addressed comprehensively, and improves guidance for multiple-element arrangements. The FASB has recently issued several amendments to the standard, including clarification on accounting for licenses and identifying performance obligations.

The Company has performed a review of the requirements of the new revenue standard and are monitoring the activity of the FASB and the transition resource group as it relates to specific interpretive guidance. The Company is also comparing its current accounting practices to the recognition requirements of the new standard to assess the impact of transition. The new standard could change the amount and timing of revenue and costs under certain arrangement types; however, the Company has not completely determined what effect, if any, the new guidance will have on its consolidated financial statements and related disclosures.

The Company plans to adopt the new standard, as well as other clarifications and technical guidance issued by the FASB related to this new revenue standard, on January 1, 2018, and will likely apply the modified retrospective transition method. This would result in an adjustment to retained earnings for the cumulative effect, if any, of applying the standard to contracts in process as of the adoption date. Under this method, the Company would not restate the prior financial statements presented, therefore the new standard requires additional disclosures of the amount by which each financial statement line item is affected in the current reporting period during 2018, as compared to the guidance that was in effect before the change, and an explanation of the reasons for significant changes, if any.

Leases

In February 2016, the FASB issued guidance which requires lessees to put most leases on their balance sheets. The guidance also modifies the classification criteria and the accounting for sales-type and direct financing leases for lessors and provides new presentation and disclosure requirements for both lessees and lessors. The standard is effective for financial statements issued for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted in any interim or annual period subsequent to adoption of the proceeding revenue recognition guidance. The Company is currently evaluating the impact of adoption of the new guidance on its consolidated financial statements.

Share-based Compensation

In March 2016, the FASB issued guidance that will change some aspects of the accounting for stock-based payments to employees. Under the new guidance, companies will be required to record all excess tax benefits and tax deficiencies as income tax expense or benefit in the income statement and to present excess tax benefits as an operating activity on the statement of cash flows. The guidance may also change how companies account for forfeitures and an employee's use of shares to satisfy the employer's statutory income tax withholding obligation. The Company will adopt the various amendments in its consolidated financial statements for the quarterly period ending March 31, 2017 with an effective date of January 1, 2017. As required, the Company will use the modified retrospective transition method for amendments related to the timing of when excess tax benefits are recognized by means of a cumulative-effect adjustment to shareholders' equity as of January 1, 2017. The Company has elected to continue to estimate forfeitures expected to occur to determine the amount of compensation cost to be recognized in each period. The Company does not expect the adoption of these amendments will have a material effect on its consolidated financial statements while the Company still has valuation allowances within the U.S. Once these valuation allowances in the U.S. are fully utilized or released, the Company could have volatility in its income tax expense.

Credit Losses

In June 2016, the FASB issued guidance that will change the accounting for credit impairment. Under the new guidance, companies are required to measure all expected credit losses for financial instruments held at the reporting date based on historical experience, current conditions and reasonable supportable forecasts. This replaces the existing incurred loss model and is applicable to the measurement of credit losses on financial assets measured at amortized cost and applies to some off-balance sheet credit exposures. This new guidance will be effective for public companies for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Early adoption is permitted for fiscal years beginning after December 15, 2018. The Company is currently evaluating the impact of the new guidance on its consolidated financial statements.

Statement of Cash Flows

In August 2016, the FASB issued guidance which clarifies the treatment of several cash flow categories. In addition, the guidance clarifies that when cash receipts and cash payments have aspects of more than one class of cash flows and cannot be separated, classification will depend on the predominant source or use. This update is effective for annual periods beginning after December 15, 2017, and interim periods within those fiscal years, with early adoption permitted, including adoption in an interim period. The Company's early adoption of the guidance in the third quarter of 2016 did not have an impact on the Company's financial statements or disclosures.

In November 2016, the FASB issued guidance that will change the presentation of restricted cash and restricted cash equivalents on the statement of cash flows. Under the new guidance, companies will be required to include restricted cash and restricted cash

equivalents with the cash and cash equivalents line item when reconciling beginning-of-period and end-of-period total amounts shown on the statement of cash flows. Given this change, transfers between cash, cash equivalents, and restricted cash and cash equivalents will not be reported as cash flow activities on the statement of cash flows. In addition, the guidance requires entities to disclose information about the nature of restrictions on its cash and cash equivalents, including restricted cash and cash equivalents. This new guidance will be effective for public companies for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years with early adoption permitted, including adoption in an interim period. The guidance should be applied using a retrospective transition method to each period presented. The Company is currently evaluating the impact of the new guidance on its consolidated financial statements.

Goodwill

In January 2017, the FASB issued guidance simplifying the test for goodwill impairment. This standard eliminates Step 2 from the goodwill impairment test, instead requiring an entity to recognize a goodwill impairment charge for the amount by which the goodwill carrying amount exceeds the reporting unit's fair value. This guidance is effective for interim and annual goodwill impairment tests in fiscal years beginning after December 15, 2019, and early adoption is permitted. This guidance must be applied on a prospective basis. The Company does not expect the adoption of this guidance to have a material impact on the Company's financial position, results of operations or cash flows. See "Goodwill and Other Intangibles" previously disclosed in note 1 to these consolidated financial statements.

Note 2: Borrowings

		As of Dec	cember 31,		
(in millions)	20	16		2015	
Short-term borrowings:					
Foreign lines of credit and other arrangements	\$	84	\$	43	
Accounts receivable securitized loan at LIBOR plus 200 basis points or a base rate equal to the highest of (i) the applicable lender's prime rate, or (ii) the federal funds rate plus 0.50%		160		_	
Unamortized deferred financing costs (a)		(2)		_	
Total short-term borrowings		242		43	
Current portion of long-term borrowings:					
8.75% Senior secured second lien notes due 2022		_		750	
Unamortized discount and unamortized deferred financing costs (a)		_		(10)	
Other arrangements and capital lease obligations		116		73	
Total current portion of long-term borrowings		116		813	
Total short-term and current portion of long-term borrowings		358		856	
Long-term borrowings:					
Senior secured term loan facility due March 2018 at LIBOR and euro LIBOR plus 3.5% or, solely with respect to U.S. dollar-denominated term loans, a base rate plus 2.5%		_		4,938	
Senior secured term loan facility due September 2018 at LIBOR plus 3.5% or a base rate plus 2.5%		_		1,008	
Senior secured term loan facility due March 2021 at LIBOR and euro LIBOR plus 4.0% or, solely with respect to U.S. dollar-denominated term loans, a base rate plus 3.0%		_		1,171	
Senior secured term loan facility due July 2022 at LIBOR and euro LIBOR plus 3.75% or, solely with respect to U.S. dollar-denominated term loans, a base rate plus 2.75%		_		2,464	
Senior secured term loan facility due March 2021 at LIBOR and euro LIBOR plus 3.0% or, solely with respect to U.S. dollar-denominated term loans, a base rate plus 2.0%		4,379		_	
Senior secured term loan facility due July 2022 at LIBOR plus 3.0% or a base rate plus 2.0%, or solely with respect to euro-denominated term loans, euro LIBOR plus 3.25%		3,583		_	
6.75% Senior secured first lien notes due 2020		1,398		1,398	
5.375% Senior secured first lien notes due 2023		1,210		1,210	
5.0% Senior secured first lien notes due 2024		1,900		1,000	
5.75% Senior secured second lien notes due 2024		2,200		2,200	
7.0% Senior unsecured notes due 2023		3,400		3,400	
Unamortized discount and unamortized deferred financing costs (a)		(154)		(174)	
Other arrangements and capital lease obligations		215		122	
Total long-term borrowings (b)		18,131		18,737	
Total borrowings (c)	\$	18,489	\$	19,593	

⁽a) Unamortized deferred financing costs are amortized on a straight-line basis, which approximates the interest method, over the remaining term of the respective debt. In addition, certain lenders' fees associated with debt transactions were capitalized as discounts and are similarly being amortized on a straight-line basis, which approximates the effective interest method, over the remaining term of the respective debt.

⁽b) As of December 31, 2016 and 2015, the fair value of the Company's long-term borrowings was \$18.8 billion and \$19.6 billion, respectively. The estimated fair value of the Company's long-term borrowings was primarily based on market trading prices and is considered to be a Level 2 measurement.

⁽c) The effective interest rate is not substantially different than the coupon rate on any of the Company's debt tranches.

Foreign Lines of Credit and Other Arrangements

As of December 31, 2016 and 2015, the Company had \$489 million and \$245 million, respectively, available under short-term lines of credit and other arrangements with foreign banks and alliance partners primarily to fund settlement activity. As of December 31, 2016 and 2015, this includes a \$355 million and \$75 million, respectively, committed line of credit for one of the Company's consolidated alliances. The remainder of these arrangements are primarily associated with international operations and are in various functional currencies, the most significant of which are the Australian dollar, the Polish zloty, and the euro. Of the amounts outstanding as of December 31, 2016 and 2015, \$10 million and \$17 million, respectively, were uncommitted. The weighted average interest rate associated with foreign lines of credit was 2.6% and 2.6% for the years ended December 31, 2016 and 2015, respectively.

Senior Secured Revolving Credit Facility

The Company has a \$1.25 billion senior secured revolving credit facility maturing on June 2, 2020 subject to certain earlier springing maturity provisions in certain circumstances. Up to \$250 million of the senior secured revolving credit facility is available for letters of credit, of which \$41 million and \$42 million of letters of credit were issued under the facilities as of December 31, 2016 and 2015, respectively. As of December 31, 2016, \$1.2 billion remained available.

Interest on the senior secured revolving credit facility is payable at a rate equal to, at Company's option, either (a) LIBOR for deposits in the applicable currency plus 350 basis points or (b) solely with respect to revolving loans denominated in U.S. dollars, a base rate plus 250 basis points. The weighted-average interest rate on these facilities was 4.60% for the years ended December 31, 2016 and 2015, respectively. The commitment fee rate for the unused portion of the facility is 0.50% per year, though it may be reduced by the Company's leverage ratio.

Senior Secured Term Loan Facility

As of December 31, 2016, the Company held interest rate collar contracts to mitigate exposure to variability in interest payments on the outstanding variable rate senior secured term loans. Refer to note 13 "Derivative Financial Instruments" of these consolidated financial statements for a discussion of the Company's derivatives.

The original terms of the Company's senior secured term loan facilities required the Company to pay equal quarterly installments in aggregate annual amounts equal to 1% of the original principal amount. However, in conjunction with debt modifications and amendments over the last several years, proceeds from the issuance of the notes were used to prepay portions of the principal balances of the Company's senior secured term loans which satisfied the future quarterly principal payments. Therefore, the Company made no scheduled principal payments during 2016 or 2015.

The senior secured term loan facilities also require mandatory prepayments based on a percentage of excess cash flow generated by the Company if the Company does not satisfy the leverage ratio. All obligations under the senior secured loan facilities are fully and unconditionally guaranteed by most of the domestic, wholly owned material subsidiaries of the Company, subject to certain exceptions.

The Company has amounts outstanding under its senior secured term loan facilities under separate tranches as described below. A portion of each tranche is denominated in euro. Interest is payable based upon LIBOR or euro LIBOR plus an applicable margin.

On January 1, 2016, the Company designated the euro-denominated portions of the Senior secured term loan facilities as non-derivative hedges of net investments in foreign operations. As such, foreign currency gains and losses on the euro-denominated portions of these terms loans is recorded within "Foreign currency translation adjustment" on the Company's consolidated statements of comprehensive income (loss) to the extent the hedges are effective. Foreign currency gains and losses on the euro-denominated portions of these term loans were previously recorded within "Other income" on the Company's consolidated statements of operations. As of December 31, 2016, approximately \$1 billion in euro-denominated senior secured term loan facilities were designated.

8.75% Senior Secured Second Lien Notes

On January 15, 2016, the Company redeemed its remaining outstanding 8.75% senior secured second lien notes due 2022. Associated with the redemption, the Company incurred \$43 million in loss on debt extinguishment.

Senior Secured Term Loan Facility Due March 2018 and September 2018

On April 13, 2016, the Company refinanced its U.S. dollar-denominated senior secured term loan due March 2018 through new and existing lenders to provide approximately \$3.7 billion of U.S. dollar-denominated senior secured term loans due March 2021. The senior secured term loan due March 2021 bore interest at a rate of LIBOR plus 400 basis points or a base rate plus 300 basis points. In connection with this transaction, the Company recorded approximately \$5 million in loss on debt extinguishment and expensed approximately \$11 million in debt issuance costs on modified debt, which is included within "Interest expense, net" on the consolidated statements of operations.

On June 2, 2016, the Company refinanced its senior secured term loan due September 2018 and euro-denominated senior secured term loan due March 2018 through new and existing lenders to provide approximately \$1.0 billion and €311 million (\$342 million equivalent), respectively, of senior secured term loans due July 2022. The senior secured term loans due July 2022 bore interest at a rate of LIBOR plus 375 basis points or, solely with respect to the U.S. dollar denominated term loans, a base rate plus 275 basis points . In connection with this transaction, the Company recorded approximately \$4 million in loss on debt extinguishment and expensed \$4 million in debt issuance costs on modified debt, which is included within "Interest expense, net" on the consolidated statements of operations. The euro-denominated senior secured term loan facility remains designated as a non-derivative hedge of net investment in foreign operations.

Subsequent to the April 13, 2016 and June 2, 2016 debt transactions, the Company entered into additional amendments to its senior secured term loan facilities as discussed below.

Senior Secured Term Loan Facility Due March 2021 and July 2022

On October 14, 2016, the Company entered into an amendment of its senior secured credit facilities providing for an additional \$4.27 billion in U.S. dollar-denominated term loans and €154 million in euro denominated term loans maturing in March 2021. The senior secured term loan due March 2021 bears interest at a rate of LIBOR plus 300 basis points or, solely with respect to the U.S. dollar denominated term loan, a base rate plus 200 basis points. The Company used proceeds from the issuance of the March 2021 Term Loan to refinance all of its existing U.S dollar denominated term loans and euro denominated term loans maturing in March 2021. In connection with this transaction, the Company recorded approximately \$6 million in loss on debt extinguishment and expensed approximately \$6 million in debt issuance costs on modified debt, which is included within "Interest Expense, net" on the consolidated statements of operations.

On December 5, 2016, the Company entered into an amendment of its senior secured credit facilities providing for an additional \$2.78 billion in U.S. dollar-denominated term loans and €761 million in euro-denominated term loans maturing in July 2022. The senior secured term loan facility due July 2022 bears interest at LIBOR plus 3.0% or a base rate plus 2.0%, solely with respect to U.S. dollar-denominated term loans. The Senior secured term loan facility due July 2022 bears interest at euro LIBOR plus 3.25%, solely with respect to euro-denominated term loans. The July 2022 term loans have a step down provision which lowers the interest rate by 25 basis points should the Company's Covenant EBITDA ratio fall below 3.5. For additional information on the Company's Covenant EBITDA calculation see Item 7 "Covenant compliance" within this Form 10-K. In connection with this transaction, the Company recorded approximately \$3 million in loss on debt extinguishment and expensed approximately \$4 million in debt issuance costs on modified debt, which is included within "Interest Expense, net" on the consolidated statements of operations.

For the year ended December 31, 2016, the Company made approximately \$700 million in principal payments on its 2021 and 2022 senior secured term loan facilities. In connection with the transactions, the Company recorded \$6 million in loss on debt extinguishment.

6.75% Senior Secured First Lien Notes

The Company's 6.75% senior secured first lien notes due November 1, 2020 require the payment of interest semi-annually on May 1 and November 1 of each year. The Company may redeem the notes, in whole or in part, at established redemption prices.

For information on the subsequent paydown of the 6.75% notes, see note 20 "Subsequent Events" of these consolidated financial statements.

5.375% Senior Secured First Lien Notes

On August 11, 2015, the Company issued approximately \$1.2 billion aggregate principal amount of 5.375% senior secured first lien notes due August 15, 2023. Interest on the notes will be payable semi-annually in cash on February 15 and August 15 of each year, commencing on February 15, 2016.

The Company may redeem the notes, in whole or in part, prior to August 15, 2018 at a price equal to 100% of the notes redeemed plus accrued and unpaid interest to the redemption date and a "make-whole premium". Thereafter, the Company may redeem the notes, in whole or in part, at established redemption prices.

5.0% Senior Secured First Lien Notes

On March 29, 2016, the Company issued \$900 million aggregate principal amount of 5.0% senior secured first lien notes due 2024 (the "additional" notes). The Company used the net proceeds from the issue and sale of the additional notes to repay a portion of its U.S. dollar-denominated senior secured term loan facility due March 2018 and to pay related fees and expenses. Associated with the partial redemption of the U.S. dollar-denominated senior secured term loan facility, the Company recorded \$3 million in loss on debt extinguishment and expensed approximately \$3 million in debt issuance costs on modified debt, which is included within "Interest expense, net" in the consolidated statements of operations.

The Company may redeem the notes, in whole or in part, prior to January 15, 2019 at a price equal to 100% of the notes redeemed plus accrued and unpaid interest to the redemption date and a "make-whole premium". Thereafter, the Company may redeem the notes, in whole or in part, at established redemption prices.

5.75% Senior Secured Second Lien Notes

On November 25, 2015, the Company issued \$2.2 billion aggregate principal amount of 5.75% senior secured second lien notes due January 15, 2024. Interest on the notes is payable semi-annually in cash on January 15 and July 15 of each year. The Company used the proceeds from the offering together with proceeds from the November 25, 2015 offering of its 5.0% senior secured first lien notes to redeem \$250 million of its outstanding 8.75% senior secured second lien notes due 2022 and all outstanding 8.25% second lien notes due 2021 and pay related fees and expenses.

The Company may redeem the notes, in whole or in part, prior to January 15, 2019 at a price equal to 100% of the notes redeemed plus accrued and unpaid interest to the redemption date and a "make-whole premium". Thereafter, the Company may redeem the notes, in whole or in part, at established redemption prices.

7.0% Senior Unsecured Notes Due 2023

On November 18, 2015, the Company issued \$3.4 billion aggregate principal amount of 7.0% senior unsecured notes due December 1, 2023. Interest on the notes is payable semi-annually in cash on June 1 and December 1 of each year.

The Company may redeem the notes, in whole or in part, prior to December 1, 2018 at a price equal to 100% of the notes redeemed plus accrued and unpaid interest to the redemption date and a "make-whole premium". Thereafter, the Company may redeem the notes, in whole or in part, at established redemption prices.

Accounts receivable securitization agreement

The Company has a fully consolidated and wholly owned subsidiary, First Data Receivables, LLC (FDR). FDR and FDC entered into an agreement where certain wholly owned subsidiaries of FDC agreed to transfer and contribute receivables to FDR. FDR's assets are not available to satisfy obligations of any other entities or affiliates of FDC. FDR's creditors will be entitled, upon its liquidation, to be satisfied out of FDR's assets prior to any assets or value in FDR becoming available to FDR's equity holders. As of December 31, 2016, the Company transferred \$312 million in receivables to FDR as part of the securitization program and FDR utilized the receivables as collateral in borrowings of \$160 million. As of December 31, 2016, the receivables held by FDR are recorded within "Accounts receivable, net" in the Company's consolidated balance sheets.

The weighted-average interest rate on the securitization facility was 2.49% for the year ended December 31, 2016.

Maturities

The following table presents the future aggregate annual maturities of long-term debt excluding unamortized discounts and deferred financing cost:

Year ended December 31,

(in millions)	Pa	r Amount
2017	\$	116
2018		89
2019		60
2020		1,443
2021		4,390
Thereafter		12,303
Total	\$	18,401

Guarantees and Covenants

All obligations under the senior secured revolving credit facility and senior secured term loan facilities are unconditionally guaranteed by most of the existing and future, direct and indirect, wholly owned, material domestic subsidiaries of the Company. The senior secured facilities contain a number of covenants that, among other things, restrict the Company's ability to incur additional indebtedness; create liens; enter into sale and leaseback transactions; engage in mergers or consolidations; sell or transfer assets; pay dividends and distributions or repurchase the Company's capital stock; make investments, loans or advances; prepay certain indebtedness; make certain acquisitions; engage in certain transactions with affiliates; amend material agreements governing certain indebtedness; and change its lines of business. The senior secured facilities also require the Company to not exceed a maximum senior secured leverage ratio and contain certain customary affirmative covenants and events of default, including a change of control. The senior secured term loan facilities also require mandatory prepayments based on a percentage of excess cash flow generated by the Company. The Company is in compliance with all applicable covenants.

All senior secured notes are guaranteed on a senior secured basis by each of the Company's existing and future direct and indirect wholly owned domestic subsidiaries that guarantees the Company's senior secured credit facilities. Each of the guarantees of the notes is a general senior obligation of each guaranter and rank senior in right of payment to all existing and future subordinated indebtedness of the guarantor subsidiary, including the Company's existing senior subordinated notes. The notes rank equal in right of payment with all existing and future senior indebtedness of the guarantor subsidiary but are effectively senior to the guarantees of the Company's existing senior unsecured notes and the Company's existing senior secured second lien notes to the extent of the Company's and the guarantor subsidiary's value of the collateral securing the notes. The 6.75% senior secured first lien notes, 5.375% senior secured first lien notes, and 5.0% senior secured first lien notes are effectively equal in right of payment with each other and the guarantees of the Company's senior secured credit facilities. Each series of notes are effectively subordinated to any obligations secured by liens permitted under the indenture for the particular series of notes and structurally subordinated to any existing and future indebtedness and other liabilities of any subsidiary of a guarantor that is not also a guarantor of the notes.

All senior unsecured notes (i) rank senior in right of payment to all of the Company's existing and future subordinated indebtedness, (ii) rank equally in right of payment to all of the existing and future senior indebtedness, (iii) are effectively subordinated in right of payment to all existing and future secured debt to the extent of the value of the assets securing such debt, and (iv) are structurally subordinated to all obligations of each subsidiary that is not a guarantor of the senior notes.

The notes are similarly guaranteed in accordance with their terms by each of the Company's domestic subsidiaries that guarantee obligations under the Company's senior secured term loan facility described in more detail in note 19 "Supplemental Guarantor Condensed Consolidating Financial Statements" of these consolidated financial statements.

All obligations under the senior secured first lien notes, senior secured second lien notes, and senior unsecured notes also contain a number of covenants similar to those described for the senior secured obligations noted above. The Company is in compliance with all applicable covenants.

Note 3: Goodwill and Other Intangibles

The following table presents changes to goodwill for the years ended December 31, 2015 and 2016:

(in millions)	Global Business Solutions		ess Global Financial Solutions		Network & Security Solutions		Divested Operations		Totals
Balance as of January 1, 2015									
Goodwill	\$	15,712	\$	2,126	\$	2,238	\$ 181	\$	20,257
Accumulated impairment losses		(1,363)		(683)		(1,013)	(181)		(3,240)
		14,349		1,443		1,225	_		17,017
Acquisitions		9				46	_		55
Other adjustments (primarily foreign currency)		(154)		(72)		_	_		(226)
Balance as of December 31, 2015									
Goodwill		15,567		2,054		2,284	181		20,086
Accumulated impairment losses		(1,363)		(683)		(1,013)	(181)		(3,240)
		14,204		1,371		1,271	_		16,846
Acquisitions		5		_		_	_		5
Dispositions		(25)		_		_	_		(25)
Other adjustments (primarily foreign currency)		(42)		(88)		_	_		(130)
Balance as of December 31, 2016									
Goodwill		15,505		1,966		2,284	181		19,936
Accumulated impairment losses		(1,363)		(683)		(1,013)	(181)		(3,240)
	\$	14,142	\$	1,283	\$	1,271	\$	\$	16,696

The intangible amortization expense associated with customer relationships and other intangibles, including amortization associated with investments in affiliates, was as follows for the periods indicated:

Year ended December 31,

(in millions)	Amount
2016	\$ 761
2015	843
2014	877

The carrying value of the First Data trade name is \$604 million as of December 31, 2016 and 2015. Upon consideration of many factors, including the determination that there are no legal, regulatory or contractual provisions that limit the useful life of the First Data trade name, the Company determined that the First Data trade name had an indefinite useful life. The Company also considered the effects of obsolescence, demand, competition, other economic factors, and its ability to maintain and protect the trade name without significant expenditures. The First Data trade name is expected to contribute directly or indirectly to the future cash flows of the Company for an indefinite period. As an indefinite lived asset, the First Data trade name is not amortized but is reviewed annually for impairment until such time as it is determined to have a finite life. The First Data trade name was not impaired as of December 31, 2016 or 2015.

The following table provides the components of other intangibles:

				As of De	cembe	er 31,				
			2016					2015		
		A	ccumulated	Net of Accumulated			A	ccumulated	A	Net of accumulated
(in millions)	Cost	A	mortization	Amortization		Cost	A	mortization	A	mortization
Customer relationships	\$ 7,399	\$	(5,660)	\$ 1,739	\$	7,435	\$	(5,299)	\$	2,136
Other intangibles:										
Conversion costs	\$ 248	\$	(109)	\$ 139	\$	218	\$	(102)	\$	116
Contract costs	306		(149)	157		280		(123)		157
Software	2,236		(1,726)	510		2,019		(1,547)		472
Other, including trade names	1,375		(381)	994		1,400		(362)		1,038
Total other intangibles	\$ 4,165	\$	(2,365)	\$ 1,800	\$	3,917	\$	(2,134)	\$	1,783

The estimated future aggregate amortization expense for the next five years is as follows:

Year ended December 31,

(in millions)	Amount
2017	\$ 629
2018	560
2019	475
2020	393
2021	276

The Company tests contract and conversion costs for recoverability on an annual basis by comparing the remaining expected undiscounted cash flows under the contract to the net book value. Any assets that are determined to be unrecoverable are written down to their fair value. In addition to this annual test, these assets and all other long lived assets are tested for impairment upon an indicator of potential impairment.

Note 4: Stock Compensation Plans

The Company provides stock-based compensation awards to its employees under the 2015 Omnibus Incentive Plan (stock plan), which the Company adopted in conjunction with its initial public offering (IPO) on October 15, 2015. The total number of shares of Class A common stock that may be issued under the stock plan is 71 million, plus any shares of Class B common stock subject to outstanding awards granted under the Company's 2007 Equity Plan that are forfeited, terminated, canceled, expired unexercised, withheld in payment of the exercise price, or withheld to satisfy tax withholding obligations which automatically converted on a one -for-one basis into shares of Class A common stock. The stock plan allows for the Company to award an equity interest in the Company or an award that can be settled in cash measured by reference to the value of the Company's Class A common stock.

Stock-based compensation expense for awards that vest based solely on service conditions are recognized over the requisite service period. As discussed in note 1 "Summary of Significant Accounting Policies" of these consolidated financial statements, on October 15, 2015, the Company filed its Prospectus with the Securities and Exchange Commission (SEC) pursuant to Rule 424(b) and started trading on the New York Stock Exchange, therefore all shares are subject to vesting.

Total stock-based compensation expense recognized in the "Cost of services" and "Selling, general, and administrative" line items of the consolidated statements of operations resulting from stock options, non-vested restricted stock awards, and non-vested restricted stock units was as follows for the periods presented:

Year ended December 31, (in millions)	Cost of services	Selling, general, and administrative	Total
2016 ^(a)	\$ 112	\$ 151	\$ 263
2015 ^(b)	130	199	329
2014 ^(c)	2	49	51

(a) Approximately \$52 million of stock-based compensation expense was recognized in conjunction with the IPO.

- (b) Approximately \$254 million was recognized in conjunction with the IPO and \$14 million of stock-based compensation expense was recognized as a result of the departure of certain executive officers.
- (c) Approximately \$37 million of stock-based compensation expense was recognized as a result of the departure of certain executive officers.

On September 28, 2015, the Company authorized the grant of restricted stock awards, restricted stock units, and options to certain executives in connection with the consummation of its initial public offering and these awards were valued at approximately \$120 million, resulting in incremental unrecognized compensation expense. Two-thirds of these grants are subject to time-based vesting conditions over the next five years and one-third are subject to a market-based vesting condition. Subject to the recipient's continued service with the Company through the applicable vesting event, shares subject to market-based stock options and market-based restricted stock will fully vest on the date immediately following the date on which the closing trading price of a share of Class A common stock on the NYSE or other such primary exchange on which shares of Class A common stock are listed and traded has equaled or exceeded two times the per share price to the public in the offering for ten consecutive trading days.

Employee Stock Purchase Plan

The Company has an employee stock purchase plan under which the sale of 6.3 million shares of the Company's common stock is authorized. The price for shares purchased under the plan is 95% of the market value on the last day of each calendar quarter. As of December 31, 2016 the amount of shares issued under the plan is not material.

Stock Options

During the years ended December 31, 2016, 2015, and 2014, time-based options were granted under the stock plan. The time-based options have a contractual term of 10 years. Time-based options vest equally over a three to five year period from the date of issuance. The outstanding time-based options also have certain accelerated vesting provisions that became effective upon the Company's initial public offering.

As of December 31, 2016, there was approximately \$84 million of total unrecognized compensation expense related to stock options to be recognized over a weighted-average period of approximately two years.

The fair value of stock options granted for the years ended December 31, 2016, 2015, and 2014 were estimated at the date of grant using a Black-Scholes option pricing model with the following weighted-average assumptions:

	 Year ended December 31,					
	2016		2015		2014	
Risk-free interest rate	2.08%		1.87%		2.24%	
Dividend yield	_		_		_	
Expected volatility	41.33%		55.15%		50.45%	
Expected term (in years)	7		7		7	
Fair value of stock	\$ 12.62	\$	15.53	\$	12.64	
Fair value of options	\$ 5.33	\$	8.68	\$	6.76	

Risk-free interest rate— The risk-free rate for stock options granted during the period was determined by using a zero-coupon U.S. Treasury rate for the periods that coincided with the expected terms listed above.

Expected dividend yield— No routine dividends are currently being paid, or are expected to be paid in future periods.

Expected volatility —As the Company does not have sufficient historical data due to its relatively short history of being publicly traded, the expected volatility is based on the historical volatilities of a group of guideline companies.

Expected term— The Company estimated the expected term by utilizing the "simplified method" as allowed by the SEC.

Fair value of stock— The Company determined the fair value based on discounted cash flows and comparison to a group of guideline companies prior to being publicly traded on October 15, 2015 and the Company's closing stock price thereafter.

A summary of stock option activity for the years ended December 31, 2016 and 2015 was as follows:

(options in millions)	Options	ghted-Average xercise Price	Weighted-Average Remaining Contractual Term	ate Intrinsic in millions)
Outstanding as of December 31, 2014	32	\$ 10.75		
Granted	11	15.53		
Exercised	(1)	9.86		
Canceled / Forfeited	(1)	11.25		
Outstanding as of December 31, 2015	41	\$ 11.94	7 years	\$ 166
Granted	2	12.62		
Exercised	(2)	9.86		
Canceled / Forfeited	(2)	15.39		
Outstanding as of December 31, 2016 (a)	39	\$ 12.00	6 years	\$ 98
Options exercisable as of December 31, 2016 (a)	22	\$ 10.78	5 years	\$ 76

a) Includes 2 million of outstanding options subject to the market conditions described above. There are no exercisable options subject to these market conditions.

The total intrinsic value related to stock options exercised for the years ended December 31, 2016, 2015, and 2014 was \$6 million, \$4 million, and \$2 million, respectively.

Restricted Stock Awards and Restricted Stock Units

Restricted stock awards and units were granted during 2016, 2015, and 2014. Grants were made as incentive awards. As of December 31, 2016, there was approximately \$210 million of total unrecognized compensation expense related to restricted stock be recognized over the respective service period of approximately one year.

During 2016, 2015, and 2014, the Company did not pay any significant cash amounts to repurchase stock awards from employees that terminated employment with the Company.

A summary of restricted stock award and restricted stock unit activity for the years ended December 31, 2016 and 2015 is as follows:

(awards/units in millions)	Awards/Units	eighted-Average ant-Date Fair Value
Non-vested as of December 31, 2014	15	\$ 11.98
Granted	19	14.96
Vested	(1)	15.04
Canceled / Forfeited	(1)	14.02
Non-vested December 31, 2015	32	\$ 14.30
Granted	18	 12.49
Vested	(10)	13.91
Canceled / Forfeited	(6)	13.74
Non-vested as of December 31, 2016 (a)	34	\$ 13.59

⁽a) Includes 1 million of shares subject to the market conditions described above.

The total fair value of shares vested (measured as of the date of vesting) during the twelve months ended December 31, 2016, 2015, and 2014 was \$137 million, \$11 million, and \$15 million, respectively.

Note 5: Stockholders' Equity and Redeemable Noncontrolling Interest

Dividends

The Company's senior secured revolving credit facility, senior secured term loan facility, and the indentures governing the senior secured notes, senior unsecured notes, and senior subordinated notes limit the Company's ability to pay dividends. The restrictions are subject to numerous qualifications and exceptions, including an exception that allows the Company to pay a dividend to repurchase, under certain circumstances, the equity of the Company's former parent, FDH, held by employees, officers and directors that were obtained in connection with the stock compensation plan. Prior to the Company filing its prospectus with the Securities and Exchange Commission and the merger with FDH, the Company paid cash dividends to FDH totaling \$4 million during 2015 and \$686 million during 2014. The Company has not paid any cash dividends since the IPO.

Other Comprehensive Income

The income tax effects allocated to and the cumulative balance of each component of OCI are as follows:

(in millions)	Beginning Balance	Pretax Gain (Loss) Amount	Tax (Benefit) Expense	Net-of- Tax Amount	Ending Balance
As of December 31, 2016	 _	 _	 _	 _	 _
Foreign currency translation adjustment (a)	\$ (1,081)	\$ (149)	\$ (1)	\$ (148)	\$ (1,229)
Pension liability adjustments (b)	(136)	34	(4)	38	(98)
Derivative instruments	_	3	_	3	3
Marketable securities	(2)	_	_	_	(2)
	\$ (1,219)	\$ (112)	\$ (5)	\$ (107)	\$ (1,326)
As of December 31, 2015					
Foreign currency translation adjustment (a)	\$ (801)	\$ (261)	\$ 19	\$ (280)	\$ (1,081)
Pension liability adjustments	(123)	(19)	(6)	(13)	(136)
Marketable securities	(5)	3	_	3	(2)
	\$ (929)	\$ (277)	\$ 13	\$ (290)	\$ (1,219)
As of December 31, 2014					
Foreign currency translation adjustment (a)	\$ (504)	\$ (298)	\$ (1)	\$ (297)	\$ (801)
Pension liability adjustments	(87)	(35)	1	(36)	(123)
Marketable securities	2	(7)	_	(7)	(5)
	\$ (589)	\$ (340)	\$ 	\$ (340)	\$ (929)

⁽a) Net-of-tax Foreign currency translation adjustment for the years ended December 31, 2016, 2015, and 2014 is different than the amount presented on the consolidated statements of comprehensive income (loss) by \$(5) million, \$(10) million, and \$(11) million, respectively, due to the foreign currency translation adjustment related to noncontrolling interests not included above.

⁽b) 2016 pretax benefit includes an approximate \$10 million reclassification out of OCI to "Other operating expenses" in the consolidated statements of operations related to the lump sum cash payout of certain U.S. based pension liabilities.

Redeemable Noncontrolling Interest

The following table presents a summary of the redeemable noncontrolling interest activity:

(in millions)	Redeemable Noncontrolling Interest
Balance as of January 1, 2014	\$ 69
Distributions	(35)
Share of income	34
Adjustment to redemption value of redeemable noncontrolling interest	2
Balance as of December 31, 2014	70
Distributions	(35)
Share of income	34
Adjustment to redemption value of redeemable noncontrolling interest	8
Balance as of December 31, 2015	77
Distributions	(33)
Share of income	33
Adjustment to redemption value of redeemable noncontrolling interest	(4)
Balance as of December 31, 2016	\$ 73

Note 6: Net Income (Loss) Per Share

Upon the HoldCo Merger, all outstanding shares of FDH's Class A Common Stock, Class B Common Stock, and Series A Voting Participating Convertible Preferred Stock (Series A Preferred Stock) automatically converted to identical shares of the Company's Class B Common Stock. Other than voting rights, this common stock has the same rights as the Class A Common Stock and therefore both are treated as the same class of stock for purposes of the net income (loss) per share calculation.

Basic net income (loss) per share is calculated by dividing net income (loss) attributable to FDC by the weighted-average shares outstanding during the period, without consideration for any potential dilutive shares. Diluted net income (loss) per share has been computed to give effect to the impact, if any, of shares issuable upon the assumed exercise of the Company's common stock equivalents, which consist of outstanding stock options and unvested restricted stock. The dilutive effect of potentially dilutive securities is reflected in net income (loss) per share by application of the treasury stock method. Under the treasury stock method, an increase in the fair market value of the Company's common stock can result in a greater dilutive effect from potentially dilutive securities.

The following table sets forth the computation of the Company's basic and diluted net loss per share:

			Year e	ended December 31,	
(in millions, except share amounts)		2016		2015	2014
Numerator:					
Net income (loss) used in computing net income (loss) per share, basic and diluted	\$	420	\$	(1,481)	\$ (458)
Denominator:					
Shares used in computing net income (loss) per share, basic (a)		901,671,872		192,263,793	1,000
Effect of dilutive securities		19,329,991		_	_
Total dilutive securities		921,001,863		192,263,793	1,000
	-				
Basic net income (loss) per share	\$	0.47	\$	(7.70)	\$ (458,000)
Diluted net income (loss) per share (b)		0.46		(7.70)	(458,000)
Anti-dilutive shares excluded from diluted net income (loss) per share		20,967,794		26,752,706	<u> </u>

⁽a) 2015 weighted-average shares calculated using 1,000 shares outstanding prior to the HoldCo Merger and the filing of the Company's prospectus in October 2015 and the Class A and Class B common stock outstanding after these transactions. 2014 weighted-average shares calculated using 1,000 shares outstanding prior to the HoldCo Merger and the filing of the Company's prospectus in October 2015.

Note 7: Segment Information

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by a company's chief operating decision maker (CODM), or decision-making group, in deciding how to allocate resources and in assessing performance. The Company's CODM is its Chief Executive Officer. The Company is organized into three segments: Global Business Solutions, Global Financial Solutions, and Network & Security Solutions.

The business segment measurements provided to and evaluated by the CODM are computed in accordance with the principles listed below:

- The accounting policies of the operating segments are the same as those described in the summary of significant accounting policies.
- Intersegment revenues are eliminated in the segment that sells directly to the end market.
- Segment revenue excludes reimbursable debit network fees, postage, and other revenue.
- Segment EBITDA includes equity earnings in affiliates and excludes Depreciation and amortization expense, Net income attributable to noncontrolling interests, Other operating expenses, and Other income (expense). Additionally, segment EBITDA is adjusted for items similar to certain of those used in calculating the Company's compliance with debt covenants. The additional items that are adjusted to determine segment EBITDA are:
 - · stock-based compensation and related expense is excluded; and
 - Kohlberg Kravis Roberts & Co. (KKR) related items including annual sponsor and other fees for management, consulting, financial, contract termination, and other advisory services are excluded. Upon the Company's public offering on October 15, 2015, the Company is no longer required to pay management fees to KKR.
- For significant affiliates, segment revenue and segment EBITDA are reflected based on the Company's proportionate share of the results of the Company's investments in businesses accounted for under the equity method and consolidated subsidiaries with noncontrolling ownership interests. For other affiliates, the Company includes equity earnings in affiliates, excluding amortization expense, in segment revenue and segment EBITDA. In addition, the Company's Global Business Solutions segment measures reflect revenue-based commission payments to Independent Sales Organizations (ISOs) and sales channels, which are treated as an expense in the consolidated statements of operations, as contra revenue.

⁽b) Potentially dilutive securities whose effect would have been antidilutive are excluded from the computation of diluted earnings per share.

• Corporate operations include corporate-wide governance functions such as the Company's executive management team, tax, treasury, internal audit, corporate strategy, and certain accounting, human resources and legal costs related to supporting the corporate function. Costs incurred by Corporate that are attributable to a segment are allocated to the respective segment.

The following tables present the Company's operating segment results for the years ended December 31, 2016, 2015, and 2014:

				Y	ear e	nded December 31	, 2016	6	
(in millions)	G	lobal Business Solutions	G	lobal Financial Solutions	Ne	twork & Security Solutions		Corporate	Totals
Revenues:									
Transaction and processing service fees	\$	3,201	\$	1,372	\$	1,309	\$	_	\$ 5,882
Product sales and other		826		221		176		_	1,223
Equity earnings in affiliates		36		_		_		_	36
Total segment revenues	\$	4,063	\$	1,593	\$	1,485	\$	_	\$ 7,141
Depreciation and amortization	\$	435	\$	357	\$	115	\$	14	\$ 921
Segment EBITDA		1,725		646		666		(145)	2,892
Other operating expenses and other income (expense)									
excluding divestitures		28		(4)		(7)		(28)	(11)
Equity earnings in affiliates		260		_		_		_	260

			Y	ear e	ended December 31,	201	5	
(in millions)	obal Business Solutions	G	lobal Financial Solutions	Ne	etwork & Security Solutions		Corporate	Totals
Revenues:								
Transaction and processing service fees	\$ 3,209	\$	1,323	\$	1,322	\$	_	\$ 5,854
Product sales and other	845		172		142		_	1,159
Equity earnings in affiliates	35		_		_		_	35
Total segment revenues	\$ 4,089	\$	1,495	\$	1,464	\$		\$ 7,048
Depreciation and amortization	\$ 490	\$	393	\$	91	\$	25	\$ 999
Segment EBITDA	1,681		550		639		(140)	2,730
Other operating expenses and other income (expense)								
excluding divestitures	26		(16)		(3)		(36)	(29)
Equity earnings in affiliates	239		<u>—</u>		_		_	239

				Y	ear e	nded December 31,	2014	Į.	
(in millions)	G	Global Business Solutions	G	lobal Financial Solutions	Ne	twork & Security Solutions		Corporate	Totals
Revenues:									
Transaction and processing service fees	\$	3,250	\$	1,313	\$	1,277	\$	_	\$ 5,840
Product sales and other		766		176		92		_	1,034
Equity earnings in affiliates		30		_		_		_	30
Total segment revenues	\$	4,046	\$	1,489	\$	1,369	\$		\$ 6,904
Depreciation and amortization	\$	518	\$	401	\$	90	\$	23	\$ 1,032
Segment EBITDA		1,687		529		608		(161)	2,663
Other operating expenses and other income (expense) excluding divestitures		38		(3)		96		15	146
Equity earnings in affiliates		216		_		4		_	220

The following table presents a reconciliation of reportable segment amounts to the Company's consolidated balances for the years ended December 31, 2016, 2015, and 2014:

	Year ended December 31,								
(in millions)		2016	2015			2014			
Consolidated revenues	\$	11,584	\$	11,451	\$	11,152			
Adjustments:									
Non wholly owned entities (a)		(80)		(74)		(57)			
ISOs commission expense (b)		(618)		(642)		(587)			
Reimbursable debit network fees, postage, and other		(3,745)		(3,687)		(3,604)			
Total segment revenues	\$	7,141	\$	7,048	\$	6,904			
	_								
Net income (loss) attributable to First Data Corporation	\$	420	\$	(1,481)	\$	(458)			
Adjustments:									
Non wholly owned entities (a)		(30)		(26)		(24)			
Depreciation and amortization		949		1,022		1,056			
Interest expense, net		1,068		1,537		1,728			
Loss on debt extinguishment		70		1,068		274			
Other items (c)		71		180		(45)			
Income tax expense		81		101		82			
Stock-based compensation		263		329		50			
Total segment EBITDA	\$	2,892	\$	2,730	\$	2,663			

⁽a) Net adjustment to reflect the Company's proportionate share of the results of the Company's investments in businesses accounted for under the equity method and consolidated subsidiaries with noncontrolling ownership interests. Segment revenue for the Company's significant affiliates is reflected based on the Company's proportionate share of the results of the Company's investments in businesses accounted for under the equity method and consolidated subsidiaries with noncontrolling ownership interests. For other affiliates, the Company includes equity earnings in affiliates, excluding amortization expense, in segment revenue.

(b) Reported within "Selling, general, and administrative expense" in the consolidated statements of operations.

Total segment assets, capital expenditures, and investment in unconsolidated affiliates are not disclosed, as the Company's CODM does not utilize such information when allocating resources to the segment or when assessing the segments' performance.

⁽c) Includes restructuring, certain retention bonuses, non-normal course litigation and regulatory settlements, asset impairments, debt issuance expenses, KKR related items and "Other income" as presented in the consolidated statements of operations, which includes divestitures, derivative gains (losses), non-operating foreign currency gains (losses), and the gain on Visa Europe share sale. KKR related items represent KKR annual sponsorship fees for management, consulting, financial and other advisory services. Upon completing the IPO in October 2015, the Company is no longer obligated to pay KKR annual sponsorship fees.

The following tables presents a reconciliation of reportable segment depreciation and amortization amounts to the Company's consolidated balances in the consolidated statements of cash flows for the years ended December 31, 2016, 2015, and 2014:

	Year ended December 31,					
(in millions)		2016		2015		2014
Segment depreciation and amortization	\$	921	\$	999	\$	1,032
Adjustments for non wholly owned entities		75		83		86
Amortization of initial payments for new contracts (a)		65		51		45
Total consolidated depreciation and amortization per consolidated statements of cash flows		1,061		1,133		1,163
Amortization of equity method investment (b)		(47)		(60)		(62)
Amortization of initial payments for new contracts (a)		(65)		(51)		(45)
Total consolidated depreciation and amortization per consolidated statements of operations	\$	949	\$	1,022	\$	1,056

- (a) Included in "Transaction and processing service fees" as contra-revenue in the Company's consolidated statements of operations.
- (b) Included in "Equity earnings in affiliates" in the Company's consolidated statements of operations.

The following tables presents revenues and long-lived assets by principal geographic area for the years ended December 31, 2016, 2015, and 2014:

	United		
(in millions)	States	International	Total
Revenues:			
2016	\$ 9,890	\$ 1,694	\$ 11,584
2015	9,795	1,656	11,451
2014	9,428	1,724	11,152
Long-Lived Assets:			
2016	\$ 18,846	\$ 2,272	\$ 21,118
2015	19,400	2,316	21,716
2014	19,708	2,588	22,296

Note 8: Income Taxes

The components of pretax income and provision for income taxes for 2016, 2015 and 2014, consisted of the following:

	Year ended December 31,					
(in millions)		2016	2015			2014
Components of pretax income (loss):						
Domestic	\$	492	\$	(1,332)	\$	(378)
Foreign		249		165		195
	\$	741	\$	(1,167)	\$	(183)
Provision for income taxes:						
Federal	\$	20	\$	7	\$	16
State and local		20		14		22
Foreign		41		80		44
Income tax expense	\$	81	\$	101	\$	82
Effective income tax rate		11%		(9)%		(45)%

The Company's effective tax rates differ from statutory rates as follows:

_	Year	ended December 31,	
	2016	2015	2014
Federal statutory rate	35 %	35 %	35 %
State income taxes, net of federal income tax benefit	1	3	(1)
Nontaxable income from noncontrolling interests	(11)	6	37
Impact of foreign operations (a)	13		(9)
Tax effects of foreign exchange gains/losses	_	(1)	(6)
Valuation allowances	(35)	(54)	(103)
Liability for unrecognized tax benefits	_	(2)	12
Prior year adjustments	3	4	(7)
Nondeductible bad debts	_	_	(3)
Equity Compensation	5		_
Effective tax rate	11 %	(9)%	(45)%

⁽a) The impact of foreign operations includes the effects of earnings and profits adjustments, foreign losses, and differences between foreign tax expense and foreign taxes eligible for the U.S. foreign tax credit.

The Company's income tax provisions (benefits) consisted of the following components:

		Year ei			
(in millions)	2016		2015		2014
Current:					
Federal	\$ 22	\$	5	\$	_
State and local	24		23		39
Foreign	73		80		61
	119		108		100
Deferred:					
Federal	(2)		2		17
State and local	(4)		(9)		(18)
Foreign	(32)		_		(17)
	 (38)		(7)		(18)
	\$ 81	\$	101	\$	82

Deferred tax assets and liabilities are recognized for the expected tax consequences of temporary differences between the book and tax bases of the Company's assets and liabilities. Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized. Deferred tax assets are included in "Other long-term assets" and deferred tax liabilities are included in "Deferred tax liabilities" on the Company's consolidated balance sheets.

The following table outlines the principal components of deferred tax items:

		As of December 31,						
(in millions)	201	2016		2015				
Deferred tax assets related to:								
Reserves and other accrued expenses	\$	_	\$	90				
Pension obligations		_		6				
Employee related liabilities		176		171				
Deferred revenues		34		44				
Net operating losses and tax credit carryforwards		3,122		3,116				
U.S. foreign tax credits on undistributed earnings		252		330				
Foreign exchange loss		33		32				
Total deferred tax assets		3,617		3,789				
Valuation allowance		(2,520)		(2,694)				
Realizable deferred tax assets		1,097		1,095				
Deferred tax liabilities related to:								
Property, equipment, and intangibles		(969)		(1,019)				
Reserves and other accrued expenses		(49)		_				
Pension obligations		(4)		_				
Investment in affiliates and other		(217)		(306)				
U.S. tax on foreign undistributed earnings		(252)		(192)				
Total deferred tax liabilities		(1,491)		(1,517)				
Net deferred tax liabilities	\$	(394)	\$	(422)				

The Company's deferred tax assets and liabilities included in the consolidated balance sheets was as follows:

	As of December 31,						
(in millions)		2016		2015			
Deferred tax assets	\$	15	\$	9			
Deferred tax liabilities		(409)		(431)			
Net deferred tax liabilities	\$	(394)	\$	(422)			

As of December 31, 2016 and 2015, the Company had recorded valuation allowances of \$2.5 billion and \$2.7 billion, respectively, against its net deferred tax assets. The decrease to the valuation allowance of \$174 million in 2016 was primarily due to utilization of federal and state net operating losses in 2016. In determining the necessary amount of valuation allowance, the Company has considered a tax planning strategy related to its investments in affiliates. Implementation of this strategy would result in the immediate reversal of temporary differences associated with the excess of book basis over tax basis in the investments. This planning strategy would be implemented only in the event of anticipated expiration of significant net operating losses in the United States federal jurisdiction, which is not expected in the near term.

The following table presents the amounts of federal, state, and foreign net operating loss carryforwards and foreign tax credit, general business credit, and minimum tax credit carryforwards:

(in millions)As of December 31,Federal net operating loss carryforwards (a)2016State net operating loss carryforwards (b)5,893Foreign net operating loss carryforwards (c)3,079Foreign tax credit carryforwards (d)289General business credit carryforwards (e)12Minimum tax credit carryforwards (f)18

- (a) If not utilized, these carryforwards will expire in years 2024 through 2036.
- (b) If not utilized, these carryforwards will expire in years 2017 through 2036.
- (c) Foreign net operating loss carryforwards of \$66 million, if not utilized, will expire in years 2017 through 2036. The remaining foreign net operating loss carryforwards of \$3.0 billion have an indefinite life.
- (d) If not utilized, these carryforwards will expire in years 2018 through 2026.
- (e) If not utilized, these carryforwards will expire in years 2027 through 2035.
- These carryforwards have an indefinite life.

The Company intends to indefinitely invest its net equity in its foreign operations, with the exception of any undistributed foreign earnings in those jurisdictions with positive earnings. As of December 31, 2016, the cumulative amount of temporary differences related to investments in foreign subsidiaries was lower than the amount of undistributed earnings. As such, the Company provided for U.S. federal and state income taxes on the entire cumulative temporary difference and has no unrecognized deferred tax liability as of December 31, 2016.

A reconciliation of the unrecognized tax benefits was as follows:

(in millions)	Unrecogn	nized Tax Benefits
Balance as of January 1, 2014	\$	279
Increases for tax positions of prior years		3
Decreases for tax positions of prior years		(29)
Increases for tax positions related to the current period		1
Decreases for cash settlements with taxing authorities		(13)
Decreases due to the lapse of the applicable statute of limitations		(5)
Balance as of December 31, 2014		236
Increases for tax positions of prior years		25
Decreases for tax positions of prior years		(4)
Increases for tax positions related to the current period		1
Decreases for cash settlements with taxing authorities		(3)
Decreases due to the lapse of the applicable statute of limitations		(6)
Balance as of December 31, 2015		249
Increases for tax positions of prior years		2
Decreases for tax positions of prior years		(1)
Increases for tax positions related to the current period		_
Decreases for cash settlements with taxing authorities		(1)
Decreases due to the lapse of the applicable statute of limitations		(9)
Balance as of December 31, 2016	\$	240

Most of the unrecognized tax benefits are included in "Other long-term liabilities" on the consolidated balance sheets, net of the federal benefit on state income taxes (approximately \$21 million as of December 31, 2016). However, those unrecognized tax benefits that affect the federal consolidated tax years ending December 31, 2008 through December 31, 2016 are included in "Deferred tax liabilities" on the consolidated balance sheets, as these items reduce the Company's net operating loss and credit

carryforwards from those periods. The unrecognized tax benefits as of December 31, 2016, 2015, and 2014 included approximately \$133 million, \$136 million, and \$126 million, respectively, of tax positions that, if recognized, would affect the effective tax rate.

The Company recognizes interest and penalties related to unrecognized tax benefits in "Income tax expense" in the consolidated statements of operations. Cumulative accrued interest and penalties (net of related tax benefits) are not included in the ending balances of unrecognized tax benefits. Cumulative accrued interest and penalties are included in "Other long-term liabilities" on the consolidated balance sheets while the related tax benefits are included in "Deferred tax liabilities" on the consolidated balance sheets. The following table presents the approximate amounts associated with accrued interest expense and the cumulative accrued interest and penalties:

			Year e	nded December 3	31,	
(in millions)	2	016		2015		2014
Current year accrued interest expense (net of related tax benefits)	\$	5	\$	7	\$	1
Cumulative accrued interest and penalties (net of related tax benefits)		48		45		39

As of December 31, 2016, the Company anticipates it is reasonably possible that its liability for unrecognized tax benefits may decrease by approximately \$123 million within the next 12 months as a result of the possible closure of federal tax audits, potential settlements with certain states and foreign countries, and the lapse of the statute of limitations in various state and foreign jurisdictions.

The Company or one or more of its subsidiaries file income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. As of December 31, 2016, the Company was no longer subject to income tax examination by the U.S. federal jurisdiction for years before 2005. State and local examinations are substantially complete through 2006. Foreign jurisdictions generally remain subject to examination by their respective authorities from 2007 forward, none of which are considered major jurisdictions.

Under the Tax Allocation Agreement executed at the time of the spin-off of The Western Union Company (Western Union) on September 29, 2006, Western Union is responsible for and must indemnify the Company against all taxes, interest, and penalties that relate to Western Union for periods prior to the spin-off date. If Western Union were to agree to or be finally determined to owe any amounts for such periods but were to default in its indemnification obligation under the Tax Allocation Agreement, the Company, as parent of the tax filing group during such periods, generally would be required to pay the amounts to the relevant tax authority, resulting in a potentially material adverse effect on the Company's financial position and results of operations. As of December 31, 2016, the Company had approximately \$123 million of income taxes payable, including approximately \$3 million of uncertain income tax liabilities, recorded related to Western Union for periods prior to the spin-off date. The Company has recorded a corresponding account receivable of equal amount from Western Union, which is included as a long-term account receivable in "Other long-term assets" on the Company's consolidated balance sheets, reflecting the indemnification obligation. The uncertain income tax liabilities and corresponding receivable are based on information provided by Western Union regarding its tax contingency reserves for periods prior to the spin-off date. There is no assurance that a Western Union-related issue raised by the IRS or other tax authority will be finally resolved at a cost not in excess of the amount reserved and reflected in the Company's uncertain income tax liabilities and corresponding receivable from Western Union. The Western Union contingent liability is in addition to the Company's liability for unrecognized tax benefits discussed above.

The IRS completed its examination of the U.S. federal consolidated income tax returns of the Company for 2005 through 2007 and issued a 30-Day letter in October 2012. The 30-Day letter claims that the Company and its subsidiaries, which included Western Union during some of the years at issue, owe additional taxes with respect to a variety of adjustments. The Company and Western Union agree with several of the adjustments in the 30-Day letter, such adjustments representing tax due of approximately \$40 million. This undisputed tax and associated interest due (pretax) of approximately \$23 million through December 31, 2016, have been fully reserved. The undisputed tax for which Western Union would be required to indemnify the Company is greater than the total tax due, such that settlement of the undisputed tax would result in a net refund to the Company. As to the adjustments that are disputed, such issues represent total taxes allegedly due of approximately \$59 million, of which \$40 million relates to the Company and \$19 million relates to Western Union. The Company estimates that total interest due (pretax) on the disputed amounts is approximately \$26 million through December 31, 2016, of which \$15 million relates to the Company and \$11 million relates to Western Union. As to the disputed issues, the Company and Western Union are contesting the asserted deficiencies with the Appeals Office of the IRS, with anticipated resolution during the next twelve months. The Company believes that it has adequately reserved for the disputed issues in its liability for unrecognized tax benefits described above and that final resolution of those issues will not have a material adverse effect on its financial position or results of operations.

Note 9: Related Party Transactions

Merchant Alliances

A substantial portion of the Company's business within the Global Business Solutions segment is conducted through merchant alliances. Merchant alliances are alliances between the Company and financial institutions. If the Company has majority ownership and management control over an alliance, then the alliance's financial statements are consolidated with those of the Company and the related processing fees are treated as an intercompany transaction and eliminated upon consolidation. If the Company does not have a controlling ownership interest in an alliance, it uses the equity method of accounting to account for its investment in the alliance. As a result, the Company's consolidated revenues include processing fees charged to alliances accounted for under the equity method. No directors or officers of the Company have ownership interests in any of the alliances. The formation of each of these alliances generally involves the Company and the bank contributing contractual merchant relationships to the alliance and a cash payment from one owner to the other to achieve the desired ownership percentage for each. The Company and the bank enter into a long-term processing service agreement as part of the negotiation process. This agreement governs the Company's provision of transaction processing services to the alliance. As of December 31, 2016 and 2015, the Company had \$27 million and \$50 million , respectively, of amounts due from unconsolidated merchant alliances included within "Accounts receivable, net" in the Company's consolidated balance sheets. As of December 31, 2016 and 2015, the Company had \$7 million and \$50 mi

Management Agreement

In connection with the 2007 acquisition of the Company by affiliates of KKR, the Company entered into a management agreement with KKR and one of its affiliates (Management Agreement) pursuant to which KKR provided advisory services to the Company and received fees and reimbursements of related out-of-pocket expenses. The Management Agreement was terminated upon the consummation of the Company's initial public offering in October 2015 and FDC is no longer required to pay management fees to KKR. In the years ended December 31, 2015, and 2014, the Company, inclusive of the termination fee paid in October 2015, paid \$98 million, and \$20 million, respectively, of management fees to KKR.

Relationship with KKR Capital Markets

For the years ended December 31, 2016, 2015, and 2014, KKR Capital Markets LLC, an affiliate of KKR, acted as an arranger and bookrunner for various financing transactions under the existing credit agreements, and as an initial purchaser of certain existing notes issued by the Company, and received underwriter and transaction fees totaling \$17 million, \$25 million, and \$4 million, respectively.

For the year ended December 31, 2015 KKR Capital Markets LLC also acted as a placement agent in the Company's initial public offering for placement of the Company's Class A common stock and in the private placement of shares of Holdings' Class B common stock. For the year ended December 31, 2015, the Company paid \$19 million related to such services.

Note 10: Other Operating Expenses

The following table details the components of "Other operating expenses" in the consolidated statements of operations:

			Year en	ded December 3	1,	
(in millions)	2	016		2015		2014
Restructuring, net	\$	49	\$	53	\$	13
Pension settlement loss		10		_		_
Other		2		_		_
Other operating expenses	\$	61	\$	53	\$	13

Restructuring

During the years ended December 31, 2016, 2015, and 2014, the Company recorded restructuring charges in connection with management's alignment of the business with strategic objectives, cost savings initiatives and the departure of certain executive officers.

In connection with the Company's announced cost management initiative, the Company incurred \$103 million of cumulative restructuring expense through December 31, 2016. 2016 includes a net loss of \$13 million related to the sale of two facilities. The Company's cost management initiative is substantially complete as of December 31, 2016.

A summary of net pretax benefits (charges), incurred by segment, for each period is as follows:

		Y	ear ende	ed December 31	,			
(in millions)	2016 2015					2014		
Global Business Solutions	\$	(9)	\$	(20)	\$	_		
Global Financial Solutions		(10)		(11)		1		
Network & Security Solutions		(3)		(3)		(2)		
Corporate		(27)		(19)		(12)		
Restructuring, net	\$	(49)	\$	(53)	\$	(13)		

The following table summarizes the Company's utilization of restructuring accruals for the years ended December 31, 2015 and 2016:

(in millions)	Employee Severance	9	Other			
Remaining accrual as of January 1, 2015	\$ 12	\$	1			
Restructuring, net	46	·)	7			
Cash payments and other	(29)	(7)			
Remaining accrual as of December 31, 2015	29)	1			
Restructuring, net	33		16			
Loss on sale of property and equipment, net	_	-	(13)			
Cash payments and other	(53)	(4)			
Remaining accrual as of December 31, 2016	\$ 9	\$				

Pension Settlement Loss

For the year ended December 31, 2016, the Company incurred a \$10 million loss related to the settlement of certain U.S.-based pension fund obligations.

Note 11: Settlement Assets and Obligations

Settlement assets and obligations result from the Company's processing services and associated settlement activities, including settlement of payment transactions. Settlement assets are generated principally from merchant services transactions. Certain merchant settlement assets that relate to settlement obligations accrued by the Company are held by partner banks to which the Company does not have legal ownership but has the right to use to satisfy the related settlement obligation. The Company records corresponding settlement obligations for amounts payable to merchants and for payment instruments not yet presented for settlement.

The principal components of the Company's settlement assets and obligations were as follows:

		31,		
(in millions)		2016		2015
Settlement assets:				
Cash and cash equivalents	\$	1,620	\$	1,426
Investment securities		_		1
Due from card associations, bank partners, and merchants		13,175		6,723
Total settlement assets	\$	14,795	\$	8,150
Settlement obligations:				
Payment instruments outstanding	\$	12	\$	34
Card settlements due to merchants		14,783		8,116
Total settlement obligations	\$	14,795	\$	8,150

The changes in settlement assets and obligations are presented on a net basis within operating activities in the consolidated statements of cash flows. However, because the changes in the settlement assets balance exactly offset changes in settlement obligations, the activity nets to zero.

Note 12: Acquisitions and Dispositions

2016 Dispositions

On September 30, 2016, the Company completed the sale of its Australian ATM business, which was reported as part of the Company's Global Business Solutions segment. Associated with the transaction, the Company recognized a \$34 million loss on the sale, included within "Other income" in the consolidated statement of operations. The loss is comprised of investments of \$72 million reduced by cash proceeds of \$38 million. The cash proceeds are reflected within "Proceeds from dispositions" within the consolidated statement of cash flows.

2015 Acquisitions

On June 9, 2015, the Company acquired Transaction Wireless, Inc. (TWI) a provider of digital stored value products that offers gift card programs, loyalty incentives, and integrated marketing solutions for retailers, partners, and consumers. The purchase price was approximately \$62 million in cash and \$3 million in equity. The acquisition is reported in the Company's Network & Security Solutions segment.

In addition to TWI, the Company also completed an acquisition of a webstore builder as well as an acquisition of a wholesale independent sales organization, both of which are reported in the Company's Global Business Solutions segment.

2014 Acquisitions

In August 2014, the Company acquired Gyft, Inc., a leading digital platform that enables consumers to buy, send, manage, and redeem gift cards using mobile devices. The acquisition is reported as part of the Network & Security Solutions segment.

2014 Dispositions

On May 29, 2014, the Company completed the sale of its 30% minority interest in a transportation payments business, Electronic Funds Source LLC (EFS), which was reported as part of the Network & Security Solutions segment. The Company recognized a gain on sale of \$98 million recorded in "Other income" in the consolidated statements of operations, comprised of \$264 million in cash reduced by its investment and associated deal costs of \$166 million, and recorded an income tax provision of \$7 million as a result of the final settlement of the sale.

Note 13: Derivative Financial Instruments

The Company enters into the following types of derivatives:

- Floating to fixed interest rate swaps: The Company used interest rate swaps to mitigate its exposure to interest rate fluctuations on interest payments related to variable rate debt. The Company is no longer invested in interest rate swaps. The Company's interest rate contracts were used in a non-qualifying hedging relationship.
- Floating to fixed interest rate collar contracts: The Company uses interest rate collar contracts to mitigate its exposure to interest rate fluctuations on interest payments related to variable rate debt. No payments or receipts are exchanged on interest rate collar contracts unless interest rates rise or fall to exceed a predetermined ceiling or floor rate. The Company uses these contracts in a qualifying hedging relationship.
- Foreign exchange contracts: The Company uses cross-currency swaps to protect the net investment in certain foreign subsidiaries and/or affiliates with respect to changes in foreign currency exchange rates. The Company uses these contracts in both qualifying and non-qualifying hedging relationships.

The Company held the following derivative instruments as of the dates indicated:

						As of Dece	ember 31,					
			2016					3	2015			
(in millions)	Notional Currency	Notional Value	As	sets (a)	Lial	bilities (a)	Notional Currency	Notional Value	As	ssets (a)	Liab	oilities (a)
Derivatives designated as hedges of net investments in foreign operations:												
Foreign exchange contracts (b)	AUD	211	\$	57	\$	_	AUD	260	\$	65	\$	_
Foreign exchange contracts (c)	EUR	_		_		_	EUR	200		51		_
Foreign exchange contracts (d)	GBP	300		78		_	GBP	250		39		_
Foreign exchange contracts (e)	CAD	130		9			CAD	110		24		_
				144		_				179		_
Derivatives designated as cash flow hedges:												
Interest rate collar contracts (f)	USD	3,000		3		_	USD	_		_		_
Derivatives not designated as hedging instruments:												
Interest rate contracts (g)	USD	_		_		_	USD	5,000		_		(56)
			\$	147	\$				\$	179	\$	(56)

- (a) Of the balances included in the table above, in aggregate, \$147 million of assets as of December 31, 2016 and \$179 million of assets and \$51 million of liabilities, net \$128 million, as of December 31, 2015 are subject to master netting agreements to the extent that the swaps are with the same counterparty. The terms of those agreements require that the Company net settle the outstanding positions at the option of the counterparty upon certain events of default.
- (b) In connection with the divestiture of the Company's Australian ATM business, the Company settled notional value 49 million AUD in October 2016 at a net settlement value of \$8 million. Refer to note 16 "Supplemental Financial Information" for additional details on the divestiture of the Company's Australian ATM business.
- (c) Matured in January 2016 at a net settlement value of \$49 million.
- (d) Notional value 100 million GBP matured in August 2016 at a net settlement value of \$25 million. The Company entered into a new foreign exchange contract with a notional value of 150 million GBP.
- (e) Notional value 75 million CAD matured in August 2016 at a net settlement value of \$14 million. The Company entered into a new foreign exchange contract with a notional value of 95 million CAD.
- (f) Subsequent to December 31, 2016, the Company entered into notional value 1.3 billion USD interest rate collar contracts.
- (g) Matured in September 2016.

The maximum length of time over which the Company is hedging its currency exposure of net investments in foreign operations is through August 2019.

The maximum length of time over which the Company is hedging its exposure to the variability in future cash flows for forecasted transactions related to the payment of variable interest on existing financial instruments is through September 2018.

Fair Value Measurement

The carrying amounts for the Company's derivative financial instruments are the estimated fair value of the financial instruments. The Company's derivatives are not exchange listed and therefore the fair value is estimated under an income approach using Bloomberg analytics models that are based on readily observable market inputs. These models reflect the contractual terms of the derivatives, such as notional value and expiration date, as well as market-based observables including interest and foreign currency exchange rates, yield curves, and the credit quality of the counterparties. The models also incorporate the Company's creditworthiness in order to appropriately reflect non-performance risk. Inputs to the derivative pricing models are generally observable and do not contain a high level of subjectivity and, accordingly, the Company's derivatives were classified within Level 2 of the fair value hierarchy. While the Company believes its estimates result in a reasonable reflection of the fair value of these instruments, the estimated values may not be representative of actual values that could have been realized or that will be realized in the future.

Effect of Derivative Instruments on the Consolidated Financial Statements

Derivative gains and (losses) were as follows for the periods indicated:

					Year ended	Dece	ember 31,						
		2	016		2	015		2	2014				
(in millions, pretax)		terest Rate ontracts		Foreign Exchange Contracts	Interest Rate Contracts		Foreign Exchange Contracts	 Interest Rate Contracts		Foreign Exchange Contracts			
Derivatives designated as hedging instruments:													
Gain recognized in "Foreign currency translation adjustment" in the consolidated statements of comprehensive income (loss) (effective portion)	\$	_	\$	58	\$ _	\$	79	\$ _	\$	80			
Gain recognized in "Derivative instruments" in the consolidated statements of comprehensive income (loss) (effective portion) (a)		3		_	_		_	_		_			
Derivatives not designated as hedging instruments:													
(Loss) gain recognized in "Other income" in the consolidated statements of operations	\$	(5)	\$	_	\$ (19)	\$	2	\$ (4)	\$	4			

⁽a) Interest rate collar contracts.

Accumulated Derivative Gains and Losses

The following table summarizes activity in other comprehensive income for the years ended December 31, 2016, 2015, and 2014 related to derivative instruments classified as cash flow hedges and net investment hedges held by the Company:

		Year ended December 31,				
(in millions, after tax)	2	016		2015		2014
Accumulated gain (loss) included in other comprehensive income (loss) at beginning of the period	\$	86	\$	37	\$	(12)
Increase in fair value of derivatives that qualify for hedge accounting, net of tax (a) (b)		38		49		49
Accumulated gain included in other comprehensive income at end of the period	\$	124	\$	86	\$	37

- (a) Gains are included in "Derivative instruments" and "Foreign currency translation adjustment" on the consolidated statements of comprehensive income (loss).
- (b) Net of \$23 million, \$30 million, and \$31 million of tax for the years ended December 31, 2016, 2015, and 2014, respectively.

Note 14: Commitments and Contingencies

Operating Leases

The Company leases certain of its facilities and equipment under operating lease agreements, substantially all of which contain renewal options and escalation provisions. The Company incurred total rent expense of \$79 million, \$78 million, and \$77 million for the years ended December 31, 2016, 2015 and 2014, respectively. Future minimum aggregate rental commitments as of December 31, 2016 under all noncancelable operating leases, net of sublease income are due in the following years:

Year ended December 31,

(in millions)	Α	mount
2017	\$	56
2018		46
2019		41
2020		28
2021		26
Thereafter		96
Total	\$	293

Sublease income is earned from leased space and leased equipment, which the Company concurrently subleases to third parties with comparable time periods. As of December 31, 2016, sublease amounts totaled less than \$5 million in the Company's obligations. In addition, the Company has certain guarantees embedded in leases and other agreements wherein the Company is required to relieve the counterparty in the event of changes in the tax code or rates. The Company believes the fair value of such guarantees is insignificant due to the likelihood and extent of the potential changes.

Letters of Credit

The Company has \$41 million in outstanding letters of credit as of December 31, 2016, all of which were issued under the Company's senior secured revolving credit facility and expire prior to December 31, 2017 with a 1 year renewal option. The letters of credit are held in connection with lease arrangements, bankcard association agreements, and other security agreements. The Company expects to renew most of the letters of credit prior to expiration.

Legal

The Company is involved in various legal proceedings. Accruals have been made with respect to these matters, where appropriate, which are reflected in the Company's consolidated financial statements. The Company may enter into discussions regarding settlement of these matters, and may enter into settlement agreements, if it believes settlement is in the best interest of the Company. The matters discussed below, if decided adversely to or settled by the Company, individually or in the aggregate, may result in liability material to the Company's financial condition and/or results of operations.

There are asserted claims against the Company where an unfavorable outcome is considered to be reasonably possible. These claims can generally be categorized in the following areas: (1) patent infringement which results from claims that the Company is using technology that has been patented by another party; (2) merchant customer matters often associated with alleged processing errors or disclosure issues and claims that one of the subsidiaries of the Company has violated a federal or state requirement regarding credit reporting or collection in connection with its check verification guarantee, and collection activities; and (3) other matters which may include issues such as employment. The Company's estimates of the possible ranges of losses in excess of any amounts accrued are \$0 to \$10 million for patent infringement, \$0 to \$40 million for merchant customer matters, and \$0 to \$30 million for other matters, resulting in a total estimated range of possible losses of \$0 to \$80 million for all of the matters described above.

The estimated range of reasonably possible losses is based on information currently available and involves elements of judgment and significant uncertainties. As additional information becomes available and the resolution of the uncertainties becomes more apparent, it is possible that actual losses may exceed even the high end of the estimated range.

Other

In the normal course of business, the Company is subject to claims and litigation, including indemnification obligations to purchasers of former subsidiaries. Management of the Company believes that such matters will not have a material adverse effect on the Company's results of operations, liquidity or financial condition.

Note 15: Employee Benefit Plans

Defined Contribution Plans

The Company maintains defined contribution benefit plans covering virtually all of the Company's U.S. employees and defined contribution pension plans for international employees primarily in the United Kingdom and Australia. The plans provide tax-deferred amounts for each participant, consisting of employee elective contributions, Company matching and discretionary Company contributions. Effective January 1, 2014, the Company suspended matching contributions for all U.S. participants. As a result, the U.S. Plan is no longer a safe harbor plan.

The following table presents the aggregate amounts charged to expense in connection with these plans:

Year ended December 31,

(in millions)	Amount
2016	\$ 11
2015	12
2014	15

Defined Benefit Plans

The Company has defined benefit pension plans which are frozen and covers certain full-time employees in the United Kingdom and the U.S. The Company also has separate plans covering certain employees located primarily in Germany, Greece, and Austria.

The Company contributed cash in the amount of \$19 million, \$12 million, and \$15 million to defined benefit plans for the years ended December 31, 2016, 2015, and 2014, respectively.

The Company recognizes the funded status of its defined benefit pension plans, measured as the difference between the fair value of the plan assets and the projected benefit obligation, in the consolidated balance sheets, as follows:

	As of December 31,							
(in millions)	2016			2015				
U.K. plan:								
Plan benefit obligations	\$	(713)	\$	(715)				
Fair value of plan assets		808		783				
Net pension assets (a)		95		68				
U.S. and other foreign plans:								
Plan benefit obligations (b)		(222)		(252)				
Fair value of plan assets		137		154				
Net pension liabilities (c)		(85)		(98)				
Funded status of the plans	\$	10	\$	(30)				

- (a) Pension assets are included in "Other long-term assets" of the consolidated balance sheets.
- (b) Reflects a \$30 million reduction in plan benefit obligations resulting from the cash settlement of certain employee pension fund obligations, which resulted in a settlement loss of \$10 million.
- (c) Pension liabilities are included in "Other long-term liabilities" of the consolidated balance sheets.

The accumulated benefit obligation for all defined benefit pension plans was \$934 million and \$966 million as of December 31, 2016 and 2015, respectively.

As of December 31, 2016, Plan assets are comprised of approximately 20% of Level 1 securities, 80% of Level 2 securities, and an immaterial amount of Level 3 securities which comprise approximately 1% of total plan assets.

The Plan paid benefits in the amount of \$39 million, \$41 million, and \$33 million to defined benefit plans for the periods ended December 31, 2016, 2015, and 2014, respectively. The estimated future benefit payments, which reflect expected future service, are expected to be as follows:

Year ended December 31,

(in millions)	Amou	nt
2017	\$	35
2018		37
2019		39
2020		39
2021		40
2022-2026		217

The Company's post-retirement health care and other insurance benefits for retired employees are limited and immaterial.

Note 16: Supplemental Financial Information

Supplemental Consolidated Statements of Operations Information

The following table details the components of "Other income" on the consolidated statements of operations:

	Year ended December 31,									
(in millions)	2	2016		2015		2014				
Investment gains	\$	35	\$	_	\$	100				
Derivatives		(5)		(17)		_				
Divestitures		(34)		5		2				
Non-operating foreign currency gains		19		41		59				
Other miscellaneous income		2		_						
Other income	\$	17	\$	29	\$	161				

Investment gains

On June 21, 2016, Visa Inc. (Visa) acquired Visa Europe (VE), of which the Company was a member and shareholder through certain subsidiaries. On June 21, 2016, the Company received cash of &24.2 million (&27 million equivalent at June 21, 2016) and Visa preferred stock which is convertible into Visa common shares. The Company will also receive a deferred payment three years after the closing date of the acquisition, valued at approximately &2.3 million (&2.6 million equivalent at June 21, 2016). As of June 21, 2016, the Class A common stock equivalent of the preferred stock was approximately &19 million . However, the preferred shares have been assigned a value of zero based on transfer restrictions and Visa's ability to adjust the conversion ratio dependent on the outcome of existing and potential litigations in the Visa Europe territory over the next 12 years . The Company could receive additional proceeds as a number of First Data subsidiaries are working with certain members of Visa Europe who sponsor other of the Company's merchant acquiring businesses in Europe in respect of sale proceeds received by those members.

The investments gains for the year ended December 31, 2014 primarily relate to the sale of the Company's 30% minority interest in Electronic Funds Source LLC (EFS) which resulted in a pretax gain of \$98 million.

Divestitures

See note 12 "Acquisitions and Dispositions" of these consolidated financial statements for more information on the Company's significant divestitures.

Supplemental Consolidated Balance Sheet Information

	 As of December 31,					
(in millions)	2016		2015			
Prepaid expenses and other current assets:						
Prepaid expenses	\$ 168	\$	139			
Inventory	77		128			
Other	115		114			
Total Prepaid expenses and other current assets	\$ 360	\$	381			
Property and equipment:						
Land	\$ 56	\$	79			
Buildings	269		313			
Leasehold improvements	89		79			
Equipment and furniture	1,386		1,379			
Equipment under capital lease	499		468			
Property and equipment	2,299		2,318			
Less: Accumulated depreciation	(1,416)		(1,367)			
Total Property and equipment, net of accumulated depreciation	\$ 883	\$	951			
Accounts payable and accrued liabilities:						
Accounts payable	\$ 206	\$	238			
Accrued interest expense	169		132			
Other accrued expenses	685		637			
Other	 504		632			
Total Accounts payable and accrued liabilities	\$ 1,564	\$	1,639			

Note 17: Investment in Affiliates

Segment results include the Company's proportionate share of income from affiliates, which consist of unconsolidated investments accounted for under the equity method of accounting. The most significant of these affiliates are related to the Company's merchant bank alliance program.

A merchant alliance, as it pertains to investments accounted for under the equity method, is an agreement between the Company and a financial institution that combines the processing capabilities and management expertise of the Company with the visibility and distribution channel of the bank. The alliance acquires credit and debit card transactions from merchants. The Company provides processing and other services to the alliance and charges fees to the alliance primarily based on contractual pricing. These fees have been separately identified on the face of the consolidated statements of operations.

As of December 31, 2016, there were ten affiliates accounted for under the equity method of accounting, comprised of five merchant alliances and five strategic investments in companies in related markets. During the year, the Company sold one of its merchant alliance investments and added one new merchant alliance and one new strategic investment.

The Wells Fargo alliance met the Significant Subsidiary test provided in Regulations S-X Rule 1-02 (w) in that the Company's equity earnings of this alliance exceeded 20% of the Company's consolidated income from continuing operations before income taxes for the year ended December 31, 2016.

A summary of financial information for the merchant alliances and other affiliates accounted for under the equity method of accounting is presented below.

	As of December 31,							
(in millions)		2016		2015				
Total current assets	\$	4,070	\$	3,002				
Total long-term assets		84		55				
Total assets	\$	4,154	\$	3,057				
Total current liabilities	\$	3,994	\$	2,925				
Total long-term liabilities		9		16				
Total liabilities	\$	4,003	\$	2,941				

The primary components of assets and liabilities are settlement-related accounts similar to those described in note 11 "Settlement Assets and Obligations" of these consolidated financial statements.

	Year ended December 31,										
(in millions)		2016		2015	2014						
Net operating revenues	\$	1,434	\$	1,424	\$	1,357					
Operating expenses		666		666		638					
Operating income	\$	768	\$	758	\$	719					
Net income	\$	749	\$	744	\$	696					
FDC equity earnings		260		239		220					

The formation of a merchant alliance accounted for under the equity method of accounting generally involves the Company and/or a financial institution contributing merchant contracts to the alliance and a cash payment from one owner to the other to achieve the desired ownership percentages. The asset amounts reflected above are owned by the alliances and other equity method investees and do not include any of such payments made by the Company. The amount by which the total of the Company's investments in affiliates exceeded its proportionate share of the investees' net assets was approximately \$1.0 billion and \$1.0 billion as of December 31, 2016 and 2015, respectively.

The non-goodwill portion of this amount is considered an identifiable intangible asset that is amortized. The estimated future amortization expense for these intangible assets as of December 31, 2016 is as follows:

Year ended December 31, (in millions)	Ar	mount
2017	\$	43
2018		29
2019		4
Thereafter		_

These amounts assume that these alliances continue as they currently exist. Much of the difference between the Company's proportionate share of the investees' net income and the Company's equity earnings noted above relates to this amortization.

Note 18: Selected Quarterly Financial Results (Unaudited)

The following tables show a summary of the Company's quarterly financial information for each of the four quarters of 2016 and 2015:

	 2016										
(in millions, except per share amounts)	First	Second			Third		Fourth				
Revenues	\$ 2,777	\$	2,928	\$	2,936	\$	2,943				
Expenses	2,539		2,498		2,482		2,463				
Operating profit	\$ 238	\$	430	\$	454	\$	480				
Net (loss) income	\$ (6)	\$	215	\$	200	\$	251				
Net (loss) income attributable to First Data Corporation	(56)		152		132		192				
Net (loss) income per share:											
Basic	(0.06)		0.17		0.15		0.21				
Diluted	(0.06)		0.17		0.14		0.21				

(in millions, except per share amounts)	First	Second			Third	Fourth
Revenues	\$ 2,695	\$	2,872	\$	2,920	\$ 2,964
Expenses	2,435		2,463		2,518	2,865
Operating profit	\$ 260	\$	409	\$	402	\$ 99
Net (loss) income	\$ (63)	\$	33	\$	(75)	\$ (1,163)
Net loss attributable to First Data Corporation	(112)		(26)		(126)	(1,217)
Net loss per share, basic and diluted (a)	(112,000)		(26,000)		(126,000)	(1.60)

⁽a) As a result of the prospective treatment of the HoldCo Merger, as discussed within note 1 "Summary of Significant Accounting Policies", net loss per share was computed using 1,000 shares outstanding for the first, second, and third quarters of 2015 and 763 million for the fourth quarter of 2015.

Note 19: Supplemental Guarantor Condensed Consolidating Financial Statements

As described in note 2 "Borrowings" of these consolidated financial statements, FDC's 7.0% senior notes are guaranteed by most of the existing and future, direct and indirect, wholly owned, domestic subsidiaries of FDC (Guarantors). The Guarantors guarantee the senior secured revolving credit facility, senior secured term loan facility, the 5.0% senior secured notes, the 5.375% senior secured notes and the 6.75% senior secured notes, which rank senior in right of payment to all existing and future unsecured and second lien indebtedness of FDC's guarantor subsidiaries to the extent of the value of the collateral. The Guarantors guarantee the 5.750% senior second lien notes which rank senior in right of payment to all existing and future unsecured indebtedness of FDC's guarantor subsidiaries to the extent of the value of the collateral. The 7.0% senior note guarantee is unsecured and ranks equally in right of payment with all existing and future senior indebtedness of the guarantor subsidiaries but senior in right of payment to all existing and future subordinated indebtedness of FDC's guarantor subsidiaries.

All of the above guarantees are full, unconditional, and joint and several and each of the Guarantors is 100% owned, directly or indirectly, by FDC. None of the other subsidiaries of FDC, either direct or indirect, guarantee the notes (Non-Guarantors). The Guarantors are subject to release under certain circumstances as described below.

The credit agreement governing the guarantees of the senior secured revolving credit facility and senior secured term loan facility provide for a Guarantor to be automatically and unconditionally released and discharged from its guarantee obligations in certain circumstances, including under the following circumstances:

- the Guarantor ceases to be a "restricted subsidiary" for purpose of the agreement because FDC no longer directly or indirectly owns 50% of the equity or, if a corporation, stock having voting power to elect a majority of the board of directors of the Guarantor; or
- · the Guarantor is designated as an "unrestricted subsidiary" for purposes of the agreement covenants; or
- the Guarantor is no longer wholly owned by FDC subject to the value of all Guarantors released under this provision does not exceed (x) 10% of FDC's Covenant EBITDA plus (y) the amount of investments permitted under the agreement in respect of non-guarantors.

The indentures governing all of the other guarantees described above provide for a Guarantor to be automatically and unconditionally released and discharged from its guarantee obligations in certain circumstances, including upon the earliest to occur of:

- the sale, exchange or transfer of the subsidiary's capital stock or all or substantially all of its assets;
- designation of the Guarantor as an "unrestricted subsidiary" for purposes of the indenture covenants;
- · release or discharge of the Guarantor's guarantee of certain other indebtedness; or
- legal defeasance or covenant defeasance of the indenture obligations when provision has been made for them to be fully satisfied.

The following tables present the results of operations, financial position, and cash flows of FDC (FDC Parent Company), the Guarantor subsidiaries, the Non-Guarantor subsidiaries and consolidation adjustments for the years ended December 31, 2016, 2015, and 2014 and as of December 31, 2016 and 2015 to arrive at the information for FDC on a consolidated basis.

	Year ended December 31, 2016										
						Non-	~				
(in millions)		C Parent Company		Guarantor Subsidiaries	Guarantor Subsidiaries		Consolidation Adjustments		Co	nsolidated	
Revenues:								<u> </u>			
Transaction and processing service fees	\$	_	\$	3,924	\$	2,979	\$	(303)	\$	6,600	
Product sales and other		_		835		555		(151)		1,239	
Total revenues (excluding reimbursable items)				4,759		3,534		(454)		7,839	
Reimbursable debit network fees, postage, and other		_		2,527		1,218				3,745	
Total revenues		_		7,286		4,752		(454)	-	11,584	
Expenses:											
Cost of services (exclusive of items shown below)		_		1,597		1,447		(189)		2,855	
Cost of products sold		_		315		182		(160)		337	
Selling, general, and administrative		318		1,077		745		(105)		2,035	
Depreciation and amortization		5		571		373		_		949	
Other operating expenses		7		41		13				61	
Total expenses (excluding reimbursable items)		330		3,601		2,760		(454)		6,237	
Reimbursable debit network fees, postage, and other		_		2,527		1,218		_		3,745	
Total expenses		330		6,128		3,978		(454)		9,982	
Operating (loss) profit		(330)		1,158		774		_		1,602	
Interest expense, net		(1,044)		(18)		(6)				(1,068)	
Loss on debt extinguishment		(70)		_		_		_		(70)	
Interest income (expense) from intercompany notes		234		(219)		(15)		_		_	
Equity earnings from consolidated subsidiaries		997		369		_		(1,366)		_	
Other income (expense)		(1)		(1)		19				17	
(Loss) income before income taxes and equity earnings in affiliates		(214)		1,289		772		(1,366)		481	
Income tax (benefit) expense		(635)		490		226		_		81	
Equity earnings in affiliates		(1)		231		30				260	
Net (loss) income		420		1,030		576		(1,366)		660	
Less: Net income attributable to noncontrolling interests and redeemable noncontrolling interest		_		_		64		176		240	
Net (loss) income attributable to First Data Corporation	\$	420	\$	1,030	\$	512	\$	(1,542)	\$	420	
Comprehensive (loss) income	\$	313	\$	1,055	\$	384	\$	(1,204)	\$	548	
Less: Comprehensive income attributable to noncontrolling interests and redeemable noncontrolling interest		_		_		59		176		235	
Comprehensive (loss) income attributable to First Data Corporation	\$	313	\$	1,055	\$	325	\$	(1,380)	\$	313	

	Year ended December 31, 2015										
						Non-					
		DC Parent		Guarantor	Guarantor		Consolidation				
(in millions)	Company			Subsidiaries		Subsidiaries		Adjustments	_	Consolidated	
Revenues:											
Transaction and processing service fees	\$	_	\$	3,906	\$	2,999	\$	(308)	\$	6,597	
Product sales and other			_	741		503		(77)		1,167	
Total revenues (excluding reimbursable items)				4,647		3,502		(385)		7,764	
Reimbursable debit network fees, postage, and other				2,521		1,166				3,687	
Total revenues		_		7,168		4,668		(385)		11,451	
Expenses:								_			
Cost of services (exclusive of items shown below)				1,576		1,473		(178)		2,871	
Cost of products sold		_		260		173		(77)		356	
Selling, general, and administrative		476		1,143		803		(130)		2,292	
Depreciation and amortization		12		620		390		_		1,022	
Other operating expenses		8		24		21		_		53	
Total expenses (excluding reimbursable items)		496		3,623		2,860		(385)		6,594	
Reimbursable debit network fees, postage, and other		_		2,521		1,166		_		3,687	
Total expenses		496		6,144		4,026		(385)		10,281	
Operating (loss) profit	-	(496)		1,024		642				1,170	
Interest expense, net		(1,527)		(10)		_		_		(1,537)	
Loss on debt extinguishment		(1,068)		_		_				(1,068)	
Interest income (expense) from intercompany notes		288		(289)		1		_		_	
Equity earnings from consolidated subsidiaries		810		304		_		(1,114)		_	
Other income (expense)		55		3		(29)		_		29	
(Loss) income before income taxes and equity earnings in affiliates		(1,938)		1,032		614		(1,114)		(1,406)	
Income tax (benefit) expense		(457)		422		136				101	
Equity earnings in affiliates		_		213		26		_		239	
Net (loss) income		(1,481)		823		504		(1,114)		(1,268)	
Less: Net income attributable to noncontrolling interests and											
redeemable noncontrolling interest		_		_		66		147		213	
Net (loss) income attributable to First Data Corporation	\$	(1,481)	\$	823	\$	438	\$	(1,261)	\$	(1,481)	
Comprehensive (loss) income	\$	(1,771)	\$	760	\$	158	\$	(715)	\$	(1,568)	
Less: Comprehensive income attributable to noncontrolling interests and redeemable noncontrolling interest		_		_		56		147		203	
Comprehensive (loss) income attributable to First Data Corporation	\$	(1,771)	\$	760	\$	102	\$	(862)	\$	(1,771)	

	Year ended December 31, 2014 Non-										
	ET	OC Parent	Guarantor		Consolidation						
(in millions)		Company		Subsidiaries		Guarantor Subsidiaries		Adjustments	Consolidated		
Revenues:							· ·				
Transaction and processing service fees	\$	_	\$	3,712	\$	3,056	\$	(258)	\$	6,510	
Product sales and other		_		625		473		(60)		1,038	
Total revenues (excluding reimbursable items)	,	_		4,337		3,529		(318)		7,548	
Reimbursable debit network fees, postage, and other		_		2,510		1,094		_		3,604	
Total revenues		_		6,847		4,623		(318)		11,152	
Expenses:						_					
Cost of services (exclusive of items shown below)		_		1,403		1,523		(258)		2,668	
Cost of products sold		_		223		167		(60)		330	
Selling, general, and administrative		131		1,125		787		_		2,043	
Depreciation and amortization		10		607		439		_		1,056	
Other operating expenses		10		3				_		13	
Total expenses (excluding reimbursable items)		151		3,361		2,916		(318)		6,110	
Reimbursable debit network fees, postage, and other		_		2,510		1,094		_		3,604	
Total expenses		151		5,871		4,010		(318)		9,714	
Operating (loss) profit		(151)		976		613		_		1,438	
Interest expense, net		(1,724)		(9)		5		_		(1,728)	
Loss on debt extinguishment		(274)		_		_		_		(274)	
Interest income (expense) from intercompany notes		316		(305)		(11)		_		_	
Equity earnings from consolidated subsidiaries		833		294		_		(1,127)		_	
Other income (expense)		81		100		(20)		_		161	
(Loss) income before income taxes and equity earnings in affiliates		(919)		1,056		587		(1,127)		(403)	
Income tax (benefit) expense		(461)		377		166		(1,127)		82	
Equity earnings in affiliates		(401)		202		18				220	
Net (loss) income		(458)		881		439		(1,127)		(265)	
Less: Net income attributable to noncontrolling interests and		(436)		001		437		(1,127)		(203)	
redeemable noncontrolling interest		_		_		66		127		193	
Net (loss) income attributable to First Data Corporation	\$	(458)	\$	881	\$	373	\$	(1,254)	\$	(458)	
Comprehensive (loss) income	\$	(798)	\$	709	\$	187	\$	(714)	\$	(616)	
Less: Comprehensive income attributable to noncontrolling interests and redeemable noncontrolling interest		_		_		55		127		182	
Comprehensive (loss) income attributable to First Data Corporation	\$	(798)	\$	709	\$	132	\$	(841)	\$	(798)	

FIRST DATA CORPORATION NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

As of December 31, 2016 Non-**FDC Parent** Guarantor Guarantor Consolidation Subsidiaries Subsidiaries Adjustments Company Consolidated (in millions) ASSETS Current assets: Cash and cash equivalents \$ \$ 7 378 \$ 385 Accounts receivable, net of allowance for doubtful accounts 593 1,284 1,877 7,457 14,795 Settlement assets (a) 7,338 Intercompany notes receivable 1 (1) 109 147 104 360 Other current assets 110 9,104 Total current assets 8,204 (1) 17,417 Property and equipment, net of accumulated depreciation 52 577 254 883 Goodwill 9,145 7,551 16,696 Customer relationships, net of accumulated amortization 1,026 713 1,739 Other intangibles, net of accumulated amortization 604 735 461 1,800 6 122 Investment in affiliates 860 988 12,001 2,822 (18,689)Long-term intercompany receivables 3,866 9 Long-term intercompany notes receivable 3,481 197 (3,687)Deferred tax assets 510 (510)Other long-term assets 212 302 298 (43)769 Investment in consolidated subsidiaries 26,286 5.981 (32,267)Total assets \$ 35,127 39,028 \$ 21,334 \$ (55,197)40,292 LIABILITIES AND EQUITY Current liabilities: Accounts payable and accrued liabilities \$ \$ 781 \$ 555 \$ \$ 1.564 227 1 110 Short-term and current portion of long-term borrowings 249 (1) 358 Settlement obligations (a) 7,457 7,338 14.795 Intercompany notes payable (1) 1 Total current liabilities 8.143 16.717 227 8.348 (1) Long-term borrowings 202 13 17,916 18,131 Deferred tax liabilities 817 102 (510)409 15,097 823 Long-term intercompany payables 2,769 (18,689)Long-term intercompany notes payable 3,481 206 (3,687)Other long-term liabilities 461 245 168 831 (43)Total liabilities 33.907 15.862 9.249 (22.930)36.088 Redeemable equity interest 73 (73)Redeemable noncontrolling interest 73 73 First Data Corporation stockholders' equity (deficit) 1,220 23,166 6,175 (29,341)1,220 94 Noncontrolling interests 2,817 2.911 Equity of consolidated alliance 5,743 (5,743)1,220 23,166 12,012 4,131 Total equity (32,267)Total liabilities and equity \$ 35,127 39,028 21,334 (55,197)40,292

⁽a) The majority of the Guarantor settlement assets relate to FDC's merchant acquiring business. FDC believes the settlement assets are not available to satisfy any claims other than those related to the settlement liabilities.

FIRST DATA CORPORATION NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

As of December 31, 2015 Non-**FDC Parent** Guarantor Guarantor Consolidation Subsidiaries Subsidiaries Company Adjustments Consolidated (in millions) ASSETS Current assets: 429 Cash and cash equivalents \$ 105 \$ 16 308 Accounts receivable, net of allowance for doubtful accounts 826 1,000 1,826 4,273 3,877 Settlement assets (a) 8,150 Intercompany notes receivable 436 86 10 (532)98 188 95 381 Other current assets Total current assets 639 5,389 5,290 10,786 (532)Property and equipment, net of accumulated depreciation 37 640 274 951 Goodwill 9,139 7,707 16,846 Customer relationships, net of accumulated amortization 1,235 901 2,136 Other intangibles, net of accumulated amortization 604 703 476 1,783 5 900 143 Investment in affiliates 1,048 8,523 15,192 6,321 (30,036)Long-term intercompany receivables 3,415 9 Long-term intercompany notes receivable 236 (3,660)Deferred tax assets 524 (524)Other long-term assets 259 358 265 (70)812 Investment in consolidated subsidiaries 25,692 5,588 (31,280)Total assets \$ 39,698 39,380 \$ 21,386 \$ (66,102)\$ 34,362 LIABILITIES AND EQUITY Current liabilities: Accounts payable and accrued liabilities \$ 283 \$ 792 \$ \$ \$ 1.639 564 70 Short-term and current portion of long-term borrowings 740 46 856 Settlement obligations (a) 4,273 3.877 8,150 Intercompany notes payable 96 408 28 (532)Total current liabilities 4.515 1.119 5.543 (532)10.645 Long-term borrowings 119 2 18,616 18,737 Deferred tax liabilities 875 80 (524)431 18,583 6,874 4.579 Long-term intercompany payables (30,036)Long-term intercompany notes payable 245 3,353 62 (3,660)Other long-term liabilities 467 288 127 812 (70)Total liabilities 39.030 17.052 9.365 (34.822)30.625 Redeemable equity interest 77 (77)77 Redeemable noncontrolling interest 77 5,933 First Data Corporation stockholders' (deficit) equity 668 22,328 (28, 261)668 88 2.904 Noncontrolling interests 2.992 Equity of consolidated alliance 5,923 (5,923)Total equity 668 22,328 11,944 3,660 (31,280)Total liabilities and equity 39,698 39,380 21,386 34,362 (66, 102)

⁽a) The majority of the Guarantor settlement assets relate to FDC's merchant acquiring business. FDC believes the settlement assets are not available to satisfy any claims other than those related to the settlement liabilities.

FIRST DATA CORPORATION NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Year ended December 31, 2016									
(in millions)		FDC Parent Company		Guarantor Subsidiaries		Non- Guarantor Subsidiaries		Consolidation Adjustments		Consolidated
CASH FLOWS FROM OPERATING ACTIVITIES										
Net income	\$	420	\$	1,030	\$	576	\$	(1,366)	\$	660
Adjustments to reconcile to net cash (used in) provided by operating activities:										
Depreciation and amortization (including amortization netted against equity earnings in affiliates and revenues)		5		645		411		_		1,061
Charges (gains) related to other operating expenses and other income (expense)		8		42		(6)		_		44
Loss on debt extinguishment		70		_		_		_		70
Stock-based compensation expense		263		_		_		_		263
Other non-cash and non-operating items, net		(961)		(366)		(4)		1,366		35
(Decrease) increase in cash, excluding the effects of acquisitions and dispositions,										
resulting from changes in operating assets and liabilities		(583)		432		129		_		(22)
Net cash (used in) provided by operating activities		(778)		1,783		1,106				2,111
CASH FLOWS FROM INVESTING ACTIVITIES								_		
Additions to property and equipment		(2)		(70)		(160)		_		(232)
Payments to secure customer service contracts, including										
outlays for conversion, and capitalized systems				(105)		(60)				(245)
development costs Acquisitions, net of cash acquired		(6)		(185)		(60)		_		(245)
Proceeds from dispositions		(6)		<u>—</u>		38				(6)
Proceeds from sale of property and equipment		38		_				_		38
Other investing activities, net		206		281		30		(497)		20
Net cash provided by (used in) investing activities	_	236	_	26	_	(152)	_	(497)	_	(387)
CASH FLOWS FROM FINANCING ACTIVITIES		230	_	20		(132)	_	(497)		(367)
Short-term borrowings, net						205				205
Proceeds from issuance of long-term debt		3,533		<u> </u>		203		<u> </u>		3,533
Payment of call premiums and debt issuance cost		(53)								(53)
Principal payments on long-term debt		(4,986)		(80)		(7)				(5,073)
Payment of taxes related to net settlement of equity awards		(61)		(80)		(7)		_		(61)
Proceeds from issuance of common stock		23								23
Distributions and dividends paid to noncontrolling interests		23								23
and redeemable noncontrolling interest				_		(52)		(264)		(316)
Distributions paid to equity holders		_		_		(541)		541		_
Other financing activities, net		_		8		(220)		220		8
Intercompany		1,981		(1,748)		(233)		_		_
Net cash provided by (used in) financing activities		437	_	(1,820)	_	(848)		497		(1,734)
Effect of exchange rate changes on cash and cash equivalents		_		2	_	(36)	_	_		(34)
Change in cash and cash equivalents		(105)		(9)		70				(44)
Cash and cash equivalents at beginning of period		105	_	16	_	308	_	_		429
Cash and cash equivalents at end of period	\$		\$	7	\$	378	\$		\$	385

FIRST DATA CORPORATION NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Year ended December 31, 2015 Non-**FDC Parent** Guarantor Guarantor Consolidation Subsidiaries Subsidiaries Adjustments (in millions) Company Consolidated CASH FLOWS FROM OPERATING ACTIVITIES \$ (1,481) \$ \$ 504 \$ Net (loss) income 823 (1,114)(1,268)Adjustments to reconcile to net cash (used in) provided by operating activities: Depreciation and amortization (including amortization netted against equity earnings in affiliates and revenues) 12 701 420 1,133 (Gains) charges related to other operating expenses and (47)21 50 24 other income (expense) Loss on debt extinguishment 1,068 1,068 329 329 Stock-based compensation expense Other non-cash and non-operating items, net (746)(306)(14)1.114 48 (Decrease) increase in cash resulting from changes in operating assets and liabilities, excluding the effects of (1,044)431 74 (539)acquisitions and dispositions Net cash (used in) provided by operating activities (1,909)1,670 1,034 795 CASH FLOWS FROM INVESTING ACTIVITIES (9)(107)(166)(282)Additions to property and equipment Payments to secure customer service contracts, including outlays for conversion, and capitalized systems development (264)(56)(320)costs (70)Acquisitions, net of cash acquired (19)(89)Proceeds from dispositions 4 4 17 17 Proceeds from sale of property and equipment 134 254 (403)Other investing activities, net (15)Net cash provided by (used in) investing activities 55 (115)(222)(403)(685)CASH FLOWS FROM FINANCING ACTIVITIES Short-term borrowings, net (10)(21)(31)10.258 10.258 Proceeds from issuance of long-term debt Payment of call premiums and debt issuance cost (1,062)(1,062)Principal payments on long-term debt (11,472)(87)(9)(11,568)Proceeds from issuance of common stock 2,718 2,718 Distributions and dividends paid to noncontrolling interests and redeemable noncontrolling interest (69)(243)(312)Distributions paid to equity holders (497)497 Capital transactions with former parent, net (19)(19)Other financing activities, net (149)149 1,546 Intercompany (1,477)(69)Net cash provided by (used in) financing activities 1,959 (1,564)(814)403 (16)Effect of exchange rate changes on cash and cash equivalents 2 (25)(23)Change in cash and cash equivalents 105 (7) (27)71 358 Cash and cash equivalents at beginning of period 23 335 Cash and cash equivalents at end of period 105 16 \$ 308 \$ \$ 429

FIRST DATA CORPORATION NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Year ended December 31, 2014						
	FDC Parent	Guarantor	Non- Guarantor	Consolidation			
(in millions)	Company	Subsidiaries	Subsidiaries	Adjustments	Consolidated		
CASH FLOWS FROM OPERATING ACTIVITIES							
Net (loss) income	\$ (458)	\$ 881	\$ 439	\$ (1,127)	\$ (265)		
Adjustments to reconcile to net cash (used in) provided by operating activities:							
Depreciation and amortization (including amortization netted against equity earnings in affiliates and revenues)	10	683	470	_	1,163		
(Gains) charges related to other operating expenses and other income (expense)	(71)	(97)	20	_	(148)		
Loss on debt extinguishment	274	_	_	_	274		
Stock-based compensation expense	51	_	_	_	51		
Other non-cash and non-operating items, net	(751)	(306)	_	1,127	70		
(Decrease) increase in cash resulting from changes in operating assets and liabilities, excluding the effects of acquisitions and dispositions	(731)	571	50	_	(110)		
Net cash (used in) provided by operating activities	(1,676)	1,732	979		1,035		
CASH FLOWS FROM INVESTING ACTIVITIES	(1,070)	1,/32	919		1,033		
Additions to property and equipment	(8)	(124)	(176)	<u></u>	(308)		
Payments to secure customer service contracts, including outlays for conversion, and capitalized systems	(0)						
development costs	_	(183)	(76)	_	(259)		
Acquisitions, net of cash acquired	_	(31)	_	_	(31)		
Proceeds from dispositions	_	270	_	_	270		
Proceeds from sale of property and equipment		2	1	— (207)	3		
Other investing activities, net	75	232	(4)	(307)	(4)		
Net cash provided by (used in) investing activities	67	166	(255)	(307)	(329)		
CASH FLOWS FROM FINANCING ACTIVITIES	4.0		_				
Short-term borrowings, net	10	_	2	_	12		
Proceeds from issuance of long-term debt	1,830	_	_	_	1,830		
Payment of call premiums and debt issuance cost	(355)	— (72)		_	(355)		
Principal payments on long-term debt	(3,673)	(73)	(5)	_	(3,751)		
Distributions and dividends paid to noncontrolling interests and redeemable noncontrolling interest	_	_	(45)	(221)	(266)		
Distributions paid to equity holders	_	_	(453)	453	_		
Capital transactions with former parent, net	1,788	_	_	_	1,788		
Other financing activities, net	_	_	(76)	75	(1)		
Intercompany	1,973	(1,840)	(133)				
Net cash provided by (used in) financing activities	1,573	(1,913)	(710)	307	(743)		
Effect of exchange rate changes on cash and cash equivalents		5	(35)		(30)		
Change in cash and cash equivalents	(36)	(10)	(21)		(67)		
Cash and cash equivalents at beginning of period	36	33	356		425		
Cash and cash equivalents at end of period	\$ —	\$ 23	\$ 335	\$ —	\$ 358		

FIRST DATA CORPORATION NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Note 20: Subsequent Events

In January 2017, the Company determined that standalone value had been achieved for its Clover terminal devices, principally because a secondary market has been established. The Company will account for the change in accounting estimate on a prospective basis. As such, the Company will recognize revenue on future sales of Clover terminal devices upon delivery, while Clover terminal devices sold prior to January 1, 2017 will continue to be deferred over the term of the respective agreement. Approximately \$100 million of the Company's deferred revenue represents sales of Clover terminal devices which did not have standalone value as of December 31, 2016.

On January 23, 2017, the Company incurred an aggregate principal amount of \$1.3 billion in new U.S. dollar denominated term loans maturing on June 2, 2020. The interest rate applicable to the new term loans is either LIBOR plus 2.0% or a base rate plus 1.0%. The Company is required to make quarterly principal payments of 1.25% on the new term loans. The new term loans were utilized to pay down the existing 6.75% senior secured first lien notes. In connection with this transaction, the Company recorded approximately \$56 million in loss on debt extinguishment. As of December 31, 2016, the Company was not contractually obligated to pay down the notes and did not utilize current assets as of December 31, 2016 to pay down the 6.75% notes. Thus, the notes were recorded within "Total long-term borrowings" in the consolidated balance sheets.

FIRST DATA CORPORATION SCHEDULE II—Valuation and Qualifying Accounts

		Additions Deductions		Additions				
Description (in millions)	Balance at Beginning of Period		Charged to Costs and Expenses	_	Reclassifications from Other Accounts (a)	Wr	rite-offs Against Assets	Balance at End of Period
Year ended December 31, 2016 deducted from receivables	\$ 83	\$	85	\$	1	\$	82	\$ 87
Year ended December 31, 2015 deducted from receivables	72		79		3		71	83
Year ended December 31, 2014 deducted from receivables	43		99		11		81	72

⁽a) Amounts related to reclassifications from "Accounts payable and accrued liabilities" to "Allowance for doubtful accounts" in the Company's consolidated balance sheets.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We have evaluated, under the supervision of our Chief Executive Officer and our Chief Financial Officer, the effectiveness of disclosure controls and procedures as of December 31, 2016. This is done in order to ensure that information we are required to disclose in reports that are filed or submitted under the Securities Exchange Act of 1934 is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms.

Management's Report on Internal Control over Financial Reporting

Report of Management

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Our internal control over financial reporting is 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.

Internal Control over Financial Reporting

Management is also responsible for establishing and maintaining effective 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 purposes in accordance with U.S. generally accepted accounting principles. The Company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. 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 (3) 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. Management recognizes that there are inherent limitations in the effectiveness of any internal control over financial reporting, including the possibility of human error and the circumvention or overriding of internal control. Accordingly, even effective internal control over financial reporting can provide only reasonable assurance with respect to financial statement preparation. Further, because of changes in conditions, the effectiveness of internal control over financial reporting may vary over time.

In order to ensure that the Company's internal control over financial reporting is effective, management regularly assesses such controls and did so most recently as of December 31, 2016. This assessment was based on criteria for effective internal control over financial reporting described in Internal Control- Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on this assessment, management believes the Company maintained effective internal control over financial reporting as of December 31, 2016.

Ernst & Young LLP, an independent registered public accounting firm, has issued an attestation report on our internal control over financial reporting which is contained herein.

Changes in Internal Control over Financial Reporting

During 2015, we commenced the migration of certain activities in connection with our strategic expense management initiative. This migration continues to present transitional risks to maintaining adequate internal controls over financial reporting. To mitigate this risk, management continues to strengthen its entity level controls via enhanced financial reporting analytical reviews. Other than with respect to this migration, there were no changes in our internal control over financial reporting identified in connection with the above evaluation that occurred during the last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of First Data Corporation

We have audited First Data Corporation's internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control —Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). First Data Corporation's management is responsible 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 an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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.

In our opinion, First Data Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of First Data Corporation as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income (loss), cash flows and equity for each of the three years in the period ended December 31, 2016 of First Data Corporation and our report dated February 24, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Atlanta, Georgia February 24, 2017

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE

All information required by this Item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Shareholders to be filed with the U.S. Securities and Exchange Commission (SEC) within 120 days after December 31, 2016 and is incorporated herein by reference.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Shareholders to be filed with the SEC within 120 days after December 31, 2016 and is incorporated herein by reference.

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

The information required by this Item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Shareholders to be filed with the SEC within 120 days after December 31, 2016 and is incorporated herein by reference.

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

The information required by this Item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Shareholders to be filed with the SEC within 120 days after December 31, 2016 and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this Item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Shareholders to be filed with the SEC within 120 days after December 31, 2016 and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

- (a) The following documents are filed as part of this report:
 - (1) Financial Statements

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Index to Financial Statements 58

(2) Financial Statement Schedules

Page
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- (3) Those exhibits required by Item 601 of Regulation S-K and by paragraph (b) below.
- (b) The following exhibits are filed as part of this Annual Report or, where indicated, were filed and are incorporated by reference:

Incorporated by Reference

	Incorporated by Reference									
Exhibit Number	Exhibit Description	Form	File Number	Exhibit Number	Filing Date					
3.1(a)	Ninth Amended and Restated Certificate of Incorporation	8-K	1-11073	3.1	10/19/2015					
3.1(b)	Certificate of Retirement of 175,001,996 Shares of Class B Common Stock	8-K	1-11073	3.1	12/27/2016					
3.2	Amended and Restated By-laws	S-1/A	1-11073	3.2	10/1/2015					
4.1	Indenture, dated as August 16, 2012, by and among First Data Corporation, the guarantors named therein and Wells Fargo Bank, National Association, as trustee, governing the 6.750% Senior Secured Notes due 2020	8-K	1-11073	10.2	8/20/2012					
4.2	First Supplemental Indenture, dated as September 27, 2012, by and among First Data Corporation, the guarantors named therein and Wells Fargo Bank, National Association, as trustee, governing the additional 6.750% Senior Secured Notes due 2020	8-K	1-11073	10.2	10/2/2012					
4.3	Indenture, dated as of August 11, 2015, among First Data Corporation, the subsidiary guarantors named therein and Wells Fargo Bank, National Association, as trustee, governing the 5.375% Senior Secured Notes Due 2023	8-K	1-11073	4.1	8/13/2015					
4.4	Indenture, dated as November 18, 2015, by and among the Company, the guarantors named therein and Wells Fargo Bank, National Association, as trustee, governing the 7.000% Senior Notes due 2023	8-K	1-11073	4.1	11/20/2015					
4.5	Indenture, dated as November 25, 2015, by and among the Company, the guarantors named therein and Wells Fargo Bank, National Association, as trustee, governing the 5.000% Senior Secured Notes due 2024	8-K	1-11073	4.1	12/1/2015					
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4.6	Indenture, dated as November 25, 2015, by and among the Company, the guarantors named therein and Wells Fargo Bank, National Association, as trustee, governing the 5.750% Senior Secured Second Lien Notes due 2024	8-K	1-11073	4.4	12/1/2015
4.7	First Supplemental Indenture, dated as of March 29, 2016, by and among the Company, the guarantors named therein and Wells Fargo Bank, National Association, as trustee, governing the additional 5.000% Senior Secured Notes due 2024	8-K	1-11073	4.2	3/29/2016
4.8	Credit Agreement, dated as of September 24, 2007, as amended and restated as of September 28, 2007 among First Data Corporation, the several lenders from time to time parties thereto, Credit Suisse, Cayman Islands Branch, as administrative agent, swingline lender and letter of credit issuer, Citibank, N.A., as syndication agent, and Credit Suisse Securities (USA) LLC, Citigroup Global Markets, Inc., Deutsche Bank Securities Inc., Goldman Sachs Credit Partners L.P., HSBC Securities (USA) Inc., Lehman Brothers Inc. and Merrill Lynch, Pierce, Fenner & Smith Incorporated, as joint lead arrangers and bookrunners	10-K	1-11073	10.1	3/13/2008
4.9	Guarantee Agreement, dated September 24, 2007, among First Data Corporation, the subsidiaries of First Data Corporation identified therein and Credit Suisse, Cayman Islands Branch, as Collateral Agent	10-Q	1-11073	10.11	11/14/2007
4.10	Pledge Agreement, dated September 24, 2007, among First Data Corporation, the subsidiaries of First Data Corporation identified therein, and Credit Suisse, Cayman Islands Branch, as Collateral Agent	10-Q	1-11073	10.12	11/14/2007
4.11	Security Agreement, dated September 24, 2007, among First Data Corporation, the subsidiaries of First Data Corporation identified therein, and Credit Suisse, Cayman Islands Branch, as Collateral Agent	10-Q	1-11073	10.13	11/14/2007
4.12	2015 June Joinder Agreement, dated as of July 10, 2015, among the Company, certain of its subsidiaries, the lender party thereto, and Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent Exhibit B-Marked Pages of the Conformed Credit Agreement	8-K	1-11073	4.1	7/15/2015
4.13	Amended and Restated Pledge Agreement, dated as of August 11, 2015, among First Data Corporation, the other pledgors named therein and Wells Fargo Bank, National Association, as collateral agent	8-K	1-11073	4.3	8/13/2015
4.14	Amended and Restated Security Agreement, dated as of August 11, 2015, among First Data Corporation, the other grantors named therein and Wells Fargo Bank, National Association, as collateral agent	8-K	1-11073	4.2	8/13/2015
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4.15	2015 November Joinder Agreement, dated as of November 24, 2015, among the Company, certain of its subsidiaries, the lender party thereto, and Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent Exhibit B - Marked Pages of the Conformed Credit Agreement	8-K	1-11073	4.7	12/1/2015
4.16	Amended and Restated Security Agreement, dated as of November 25, 2015, among the Company, the other grantors named therein and Wells Fargo Bank, National Association, as collateral agent	8-K	1-11073	4.5	12/1/2015
4.17	Amended and Restated Pledge Agreement, dated as of November 25, 2015, among the Company, the other pledgors named therein and Wells Fargo Bank, National Association, as collateral agent	8-K	1-11073	4.6	12/1/2015
4.18	2016 March Extension Amendment and Joinder, dated as of April 13, 2016, among the Company, certain of its subsidiaries, the lender party thereto, and Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, Exhibit A - Marked Pages of the Conformed Credit Agreement	8-K	1-11073	4.1	4/19/2016
4.19	2016 May Extension Amendment and Joinder, dated as of June 2, 2016, among the Company, certain of its subsidiaries, each lender party thereto, and Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, Exhibit A - Marked Pages of the Conformed Credit Agreement	8-K	1-11073	4.1	6/3/2016
4.20	2016 October Joinder Agreement, dated as of October 14, 2016, among First Data Corporation, certain of its subsidiaries, each lender party thereto, and Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, Exhibit A - Marked Pages of the Conformed Credit Agreement	8-K	1-11073	4.1	10/17/2016
4.21	2016 November Joinder Agreement, dated as of December 5, 2016, among the Company, certain of its subsidiaries, each lender party thereto, and Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, Exhibit A - Marked Pages of the Conformed Credit Agreement	8-K	1-11073	4.1	12/7/2016
4.22	2017 January Joinder Agreement, dated as of January 23, 2017, among the Company, certain of its subsidiaries, each lender party thereto, and Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, Exhibit A - Marked Pages of the Conformed Credit Agreement	8-K	1-11073	4.1	1/24/2017
4.23	Registration Rights Agreement, dated as of September 24, 2007 with New Omaha Holdings L.P. and other Investors party thereto	S-1/A	1-11073	4.22	8/25/2015
10.1	Stockholders Agreement, dated as of July 11, 2014 with New Omaha Holdings L.P. and other Holders party thereto	S-1/A	1-11073	10.15	8/25/2015
10.2	Form of Sale Participation Agreement	10-Q	1-11073	10.8	11/14/2007

10.3 *	Form of Management Stockholder's Agreement for Executive Committee Members (as amended)	10-K	1-11073	10.16	3/19/2013
10.4 *	Form of Management Stockholder's Agreement	S-1	1-11073	10.18	7/20/2015
10.5 *	First Data Corporation Senior Executive Incentive Plan as amended and restated effective January 1, 2014	10-K	1-11073	10.21	3/10/2014
10.6 *	2007 Stock Incentive Plan for Key Employees of First Data Corporation and its Affiliates, as amended	10-K	1-11073	10.10	2/27/2015
10.7 *	Form of Stock Option Agreement for Executive Committee Members	10-Q	1-11073	10.6	11/14/2007
10.8 *	Form of Stock Option Agreement	8-K	1-11073	10.3	5/25/2010
10.9 *	Form of Stock Option Agreement for U.S. Employees effective for grants in or after January 2014	S-1	1-11073	10.16	7/20/2015
10.10 *	Form of Restricted Stock Agreement for Management Committee effective for grants in or after January 2014	S-1	1-11073	10.17	7/20/2015
10.11 *	Form of Restricted Stock Award Agreement	8-K	1-11073	10.2	5/25/2010
10.12 *	First Data Corporation 2015 Omnibus Incentive Plan	8-K	1-11073	10.1	10/19/2015
10.13 *	Form of Option Grant Notice and Option Grant Agreement under the 2015 Omnibus Incentive Plan	S-1/A	1-11073	10.21	10/1/2015
10.14 *	Form of Restricted Stock Grant Notice and Restricted Stock Grant Agreement under the 2015 Omnibus Incentive Plan	S-1/A	1-11073	10.22	10/1/2015
10.15 *	Form of Option Agreement under the 2015 Omnibus Incentive Plan for Management Committee and Directors	10-K	1-11073	10.16	2/25/2016
10.16 *	Form of Restricted Stock Award Agreement under the 2015 Omnibus Incentive Plan for Management Committee and Directors	10-K	1-11073	10.17	2/25/2016
10.17 *	Form of Option Agreement under the 2015 Omnibus Incentive Plan approved August 2016	10-Q	1-11073	10.1	11/9/2016
10.18 *	Form of Restricted Stock Award Agreement under the 2015 Omnibus Incentive Plan approved August 2016	10-Q	1-11073	10.2	11/9/2016
10.19 *	Description of Modifications to Award Agreements for owner-associates other than Management Committee	10-Q	1-11073	10.3	11/9/2016
10.20 *	First Data Corporation Amended and Restated 2015 Employee Stock Purchase Plan	10-Q	1-11073	10.1	5/11/2016
10.21 *	Form of Cash Bonus Letter Agreement	S-1/A	1-11073	10.23	10/1/2015
10.22 *	First Data Corporation Severance / Change in Control Policy (Management Committee Level), as amended and restated effective January 1, 2015	10-K	1-11073	10.11	2/27/2015

10.23 (1)*	Description of Compensation of Directors				
10.24 *	2008 Non-Employee Director Deferred Compensation Plan	S-4	1-11073	10.25	8/13/2008
10.25 *	Employment Agreement with Frank J. Bisignano effective September 18, 2015	8-K	1-11073	10.1	9/24/2015
10.26	Receivables Financing Agreement dated December 31, 2015 between First Data Corporation, First Data Receivables, LLC, PNC Bank, National Association, and the persons from time to time party thereto as Lenders and Group Agents	8-K	1-11073	10.1	1/7/2016
10.27	Transfer and Contribution Agreement dated December 31, 2015 between First Data Corporation, First Data Receivables, LLC, First Data Resources, LLC, Remitco LLC, TeleCheck Services, Inc., Star Networks, Inc., Star Processing, Inc., Instant Cash Services, LLC, TASQ Technology, Inc., First Data Government Solutions, Inc., and First Data Government Solutions, LP	8-K	1-11073	10.2	1/7/2016
10.28 (1)	First Amendment to Transfer and Contribution Agreement dated December 31, 2015 between First Data Corporation, First Data Receivables, LLC, First Data Resources, LLC, Remitco LLC, TeleCheck Services, Inc., Star Networks, Inc., Star Processing, Inc., Instant Cash Services, LLC, TASQ Technology, Inc., First Data Government Solutions, Inc., and First Data Government Solutions, LP				
21 (1)	Subsidiaries of First Data Corporation				
23.1 (1)	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm				
23.2 (1)	Consent of KPMG LLP, Independent Registered Public Accounting Firm				
31.1 (1)	Certification of CEO pursuant to rule 13a-14(a) or 15d-14(a) of the Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				
31.2 (1)	Certification of CFO pursuant to rule 13a-14(a) or 15d-14(a) of the Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				
32.1 (1)	Certification of CEO pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				
32.2 (1)	Certification of CFO pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				
101.INS (1)	XBRL Instance Document				
101.SCH (1)	XBRL Taxonomy Extension Schema Document				
101.CAL (1)	XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF (1)	XBRL Taxonomy Extension Definitions Linkbase Document				

- 101.LAB (1) XBRL Taxonomy Extension Label Linkbase Document
- 101.PRE (1) XBRL Taxonomy Extension Presentation Linkbase Document
- (1) Filed herewith
- * Management contracts and compensatory plans and arrangements required to be filed as exhibits pursuant to Item 15(b) of this report.
- (c) The following financial statements are included in this annual report pursuant to Regulations S-X Rule 3-09:
 - (1) Wells Fargo Merchant Services, LLC
 (A Joint Venture)
 Financial Statements
 December 31, 2016, 2015 and 2014
 (With Independent Auditors' Report Thereon)

(A Joint Venture)
Financial Statements
For the years ended December 31, 2016 and 2015
(With Independent Auditors' Report Thereon)

(A Joint Venture)

Financial Statements

December 31, 2016, 2015 and 2014

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KPMG LLP Suite 1400 55 Second Street San Francisco, CA 94105

Independent Auditors' Report

The Members and Board of Directors of Wells Fargo Merchant Services, LLC:

We have audited the accompanying financial statements of Wells Fargo Merchant Services, LLC (the Company), which comprise the balance sheet as of December 31, 2016 and 2015, and the related statements of revenues and expenses, members' equity, and cash flows for each of the years in the three-year period ended December 31, 2016 and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

KPMG LLP is a Delaware limited liability partnership, the U.S. member firm of KPMG International Cooperative ("KPMG International"), a Swiss entity.



Opinion

In our opinion, the financial statements referred to above present fairly in all material respects, the financial position of Wells Fargo Merchant Services, LLC, as of December 31, 2016 and 2015, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2016 in accordance with U.S. generally accepted accounting principles.



San Francisco, California February 17, 2017

(A Joint Venture)

Balance Sheet

December 31, 2016 and 2015

(Dollars in thousands)

Assets	2016	2015
Cash and cash equivalents	\$ 35,527	\$ 52,089
Settlement assets	2,416,073	1,258,031
Accounts receivable, net of reserve for merchant credit losses	490,666	400,827
\$5.4 million in 2016 and \$5.2 million 2015		
Intangibles	797	457
Other assets	1,038	144
Total assets	\$ 2,944,101	\$ 1,711,548
Liabilities and Members' Equity		
Settlement liabilities	\$ 2,328,205	\$ 1,171,815
Accounts payable and accrued expenses	62,391	43,952
Interchange payable to Wells Fargo Bank, N.A.	414,122	340,437
Related party payable to First Data Merchant Services Corporation	8,295	23,200
Distribution payable to Wells Fargo Bank, N.A.	75,898	76,532
Distribution payable to First Data Merchant Services Corporation	50,599	51,021
Total liabilities	 2,939,510	1,706,957
Members' equity	4,591	4,591
Total liabilities and members' equity	\$ 2,944,101	\$ 1,711,548

(A Joint Venture)

Statement of Revenues and Expenses

December 31, 2016, 2015 and 2014

(Dollars in thousands)

	 2016	 2015		2014
Revenues:				
Card services revenue, net of \$5.5 billion, \$4.3 billion and \$3.5 billion in interchange and assessments in 2016, 2015 and 2014, respectively	\$ 786,803	\$ 762,608	\$	704,972
Product sales revenue	50,359	70,635		54,593
Other revenue	 69,030	 60,777		53,612
Net revenue	906,192	894,020		813,177
Expenses:			·	_
Cost of card services	222,790	202,769		186,955
Cost of product sold	15,536	21,464		16,141
Selling, general and administrative	135,546	145,197		132,520
Other expenses	9,721	11,160		8,734
Total expenses	 383,593	 380,590		344,350
Net operating income	 522,599	 513,430		468,827
Interest income	788	695		1,338
Net income	\$ 523,387	\$ 514,125	\$	470,165

(A Joint Venture)

Statement of Members' Equity

December 31, 2016, 2015 and 2014

(Dollars in thousands)

	Wells Fargo Bank, N.A.		First Data Merchant Services Corporation		Total
Members' equity at December 31, 2013	\$ 2,755	\$	1,836	\$	4,591
Net income	282,099		188,066		470,165
Distributions to members	(282,099)		(188,066)		(470,165)
Members' equity at December 31, 2014	2,755	_	1,836		4,591
Net income	308,475		205,650		514,125
Distributions to members	(308,475)		(205,650)		(514,125)
Members' equity at December 31, 2015	2,755	_	1,836		4,591
Net income	314,032		209,355		523,387
Distributions to members	(314,032)		(209,355)		(523,387)
Members' equity at December 31, 2016	\$ 2,755	\$	1,836	\$	4,591

(A Joint Venture)

Statement of Cash Flows

December 31, 2016, 2015 and 2014

(Dollars in thousands)

		2016		2015		2014
Cash flows from operating activities:		_	-			
Net income	\$	523,387	\$	514,125	\$	470,165
Adjustments to reconcile net income to net cash provided						
by operating activities:						
Amortization of intangibles		322		318		298
Provisions for credit losses		12,220		13,108		10,375
Changes in operating assets and liabilities:						
Settlement assets		(1,158,042)		(212,497)		(172,676)
Accounts receivable, net of reserve for merchant credit losses		(102,059)		(97,490)		(54,891)
Other assets		(895)		(132)		_
Settlement liabilities		1,156,390		194,672		163,911
Accounts payable and accrued expenses		18,439		13,487		5,091
Interchange Payable to Wells Fargo Bank, N.A.		73,685		59,455		47,815
Related Party Payable to First Data Merchant Services Corporation		(14,905)		9,536		(8,847)
Net cash provided by operating activities		508,542	-	494,582		461,241
Cash flows from investing activities:	_		-			
Signing bonus on executed contract		(662)		(296)		(339)
Net cash used in investing activities		(662)	-	(296)		(339)
Cash flows from financing activities:	_		-	 ,	_	
Distributions to members		(524,442)		(506,600)		(460,576)
Net cash used in financing activities	_	(524,442)	-	(506,600)	_	(460,576)
Increase/(Decrease) in cash and cash equivalents	_	(16,562)	-	(12,314)	_	326
Cash and cash equivalents at beginning of year		52,089		64,403		64,077
Cash and cash equivalents at end of year	\$	35,527	\$	52,089	\$	64,403

(A Joint Venture)
Notes to the Financial Statements
December 31, 2016, 2015 and 2014

(Dollars in thousands, unless otherwise noted)

(1) Business Description

Wells Fargo Merchant Services, LLC (the "Company") is a joint venture between First Data Merchant Services Corporation ("FDMS") and Wells Fargo Bank, N.A. ("Wells Fargo"). FDMS is a fully owned subsidiary of First Data Corporation. The Company was established pursuant to the terms of an alliance agreement (the "Membership Agreement") dated November 1, 1993, as amended and a Limited Liability Company Agreement dated September 1, 1997, as amended. The Membership Agreement will terminate on December 31, 2019. FDMS and Wells Fargo are here-in-after referred to, individually, as a "Member" or, collectively, as "Members".

The Company is engaged in processing and funds transfer services related to the authorization, processing, and settlement of credit and debit card transactions for merchants. A majority of its revenue is based on the dollar amount of transactions processed. The Company provides services to merchant customers within all 50 states, with a significant concentration in California. The Company is operationally dependent on both FDMS and Wells Fargo. The Company's primary operations are conducted through FDMS. The Company's funding and settlement are primarily conducted through Wells Fargo. The majority of the bank accounts used for daily operations are with Wells Fargo.

(2) Summary of Significant Accounting Policies

(a) Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from the estimates. Items subject to such estimates and assumptions include the reserve for merchant credit and fee losses.

(b) Settlement Assets and Liabilities

- 1) The Company has a fiduciary responsibility to its merchant customers as it relates to the transfer of funds from a cardholder's issuing bank, via the VISA, MasterCard, American Express or Discover card companies (the "Card Networks") and the Accel, AFFN, Alaska Option, Credit Union 24, Interlink, Jeanie, Maestro, NYCE, Pulse, NETS, Shazam, and Star Debit Networks (the "Debit Networks"). The Company records such amounts due from the issuing banks, Card Networks and Debit Networks within the balance sheet caption settlement assets while the related liability, settlement liabilities, represents amounts due to merchants. Pursuant to the Card Networks' and Debit Networks' rules, such fiduciary funds are not available to support the operations of the Company.
- 2) When a cardholder or a credit issuing institution disputes a transaction, within the Card Network guidelines, the Company's merchant customers have a liability for the disputed charges. However, in the case of merchant fraud, insolvency or bankruptcy, the Company may also be liable. Fee receivables that are ultimately deemed as uncollectable are charged-off against the merchant credit and fee loss reserve.

(A Joint Venture)
Notes to the Financial Statements
December 31, 2016, 2015 and 2014

(Dollars in thousands, unless otherwise noted)

The Company's determination of the level of the reserve is calculated based on the level of sales volumes multiplied by loss factors taking into consideration charge-offs, recoveries and merchant collateral and rests upon various judgments and assumptions, including the review of historical data and a specific analysis of receivables due from merchants. Our charge-off policy is to fully charge down the balance when the receivable is 60 days past due. The Company requires cash deposits, guarantees, letters of credit or other types of collateral by certain merchants to minimize its credit risk. Included in the balance sheet's settlement assets is \$124.1 million and \$109.2 million in Merchant collateral, as of December 31, 2016 and 2015, respectively. Merchant collateral represents restricted cash held by the Company in a Wells Fargo bank account. The reserve for merchant credit losses is a valuation allowance for probable losses inherent as of the balance sheet date. The Company considers the reserve for merchant credit losses adequate to cover losses inherent in the portfolio as of December 31, 2016 and 2015.

(c) Cash and Cash Equivalents

The Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents. At December 31, 2016 and 2015, the majority of the Company's cash and cash equivalents were held in Wells Fargo accounts and are FDIC insured.

(d) Intangibles

The Company capitalizes initial payments for new contracts, contract renewals and conversion costs associated with customer processing relationships to the extent recoverable through future operations, contractual minimums and/or penalties in the case of early termination. The Company's accounting policy is to limit the amount of capitalized costs for a given contract to the lesser of the estimated ongoing future cash flows from the contract or the termination fees the Company would receive in the event of early termination of the contract by the customer. The company amortizes intangibles over the period of the contract.

(e) Accounts Payable and Accrued Expenses

The Company accrues for certain expenses that have been incurred and that are billed one month in arrears. These estimates are classified within accounts payable and accrued expenses in the balance sheet.

(A Joint Venture)
Notes to the Financial Statements
December 31, 2016, 2015 and 2014

(Dollars in thousands, unless otherwise noted)

(f) Income Taxes

No provision is made in the accounts of the Company for federal or state income taxes because all items of income and expense and other items affecting taxable income are allocated to the Members for inclusion in their income tax returns.

In accounting for income taxes, the Company follows the guidance in FASB ASC 740 (formerly FASB Interpretation No. 48), as amended by ASU 2009-06, *Accounting for Uncertainty in Income Taxes*. ASC 740 requires the Company to determine whether a tax position of the Company is more likely than not to be sustained upon examination by the applicable taxing authority, including resolution of any related appeals or ligation processes, based on the technical merits of the position. The tax benefit to be recognized is measured as the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement which could result in the Company recording a tax liability that would reduce net assets. ASC 740 also provides guidance on thresholds, measurement, de-recognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition that is intended to provide better financial statement comparability among different entities. As an LLC and pass-through entity, the Company does not incur tax expense and is not required to record a tax provision related to uncertain tax positions, in accordance with the recognition, measurement, classification, and disclosure requirements of ASC 740-10. The U.S. is the major tax jurisdiction for the Company. The tax returns of the Company can be examined by the relevant taxing authorities until the applicable statute of limitations has expired, which is generally three to four years from the date the return is initially filed, depending on the specific jurisdiction. Based on analysis by the Company, there were no material positions identified which did not meet the "more likely than not" standard as of and for the years ended December 31, 2016 and 2015.

(g) Members' Equity

An equity account is maintained for each Member. In certain instances, the Members may be required to make additional contributions to the Company. Such contributions will be determined on a pro-rata basis in accordance with each Member's Membership Interest at the time of the request and will be added to the Member's equity account. Membership Interest is defined as the ownership percentage of the Company by each member.

(A Joint Venture)
Notes to the Financial Statements
December 31, 2016, 2015 and 2014

(Dollars in thousands, unless otherwise noted)

(h) Revenue Recognition

The Company recognizes card services revenues from its transaction processing and authorization services as such services are performed. The revenues from transaction processing and authorization services are included in card services revenue in the statement of revenue and expenses. The Company recognizes revenue when the price is fixed or determinable, persuasive evidence of an arrangement exists, the service is performed and collectability of the resulting receivable is reasonably assured. Certain revenues are recorded net of certain costs not controlled by the Company, including interchange and assessment fees charged by the Card Networks. These revenues totaled \$6 billion, \$4.7 billion and \$3.3 billion for the years ended December 31, 2016, 2015 and 2014 and associated costs totaled \$5.5 billion, \$4.3 billion and \$3.5 billion for the years ended December 31, 2016, 2015 and 2014.

Debit revenues are recorded gross and are included within card services revenue in the statement of revenues and expenses. Debit Network fees are recorded within cost of card services in the statement of revenues and expenses. Debit revenues are recognized as such services are performed. Debit Network fees totaled \$110.1 million, \$105.2 million and \$101.6 million for the years ended December 31, 2016, 2015 and 2014 and associated revenues totaled \$139.5 million, \$126.9 million and \$122.5 million for the years ended December 31, 2016, 2015 and 2014.

The Company recognizes product revenue from merchant referred leases, rentals and sales as such services are performed. These revenues totaled \$50.4 million, \$70.6 million and \$54.6 million for the years ended December 31, 2016, 2015 and 2014 and are classified within Product Revenue. The Company records expense associated with the corresponding charge from affiliates of FDMS. These expenses totaled \$15.5 million, \$21.5 million and \$16.1 million for the years ended December 31, 2016, 2015 and 2014 and are classified within Cost of Product Sold.

In addition to the above, the Company recognizes other fees for services as such services are performed. The other revenue caption on the statement of revenues and expenses includes relevant items such as monthly fees, new account fees, income from cash advances, chargeback fees, supply fees and early termination fees.

(i) Comprehensive Income

For the year ended December 31, 2016, 2015 and 2014 net income equals comprehensive income.

(A Joint Venture)
Notes to the Financial Statements
December 31, 2016, 2015 and 2014

(Dollars in thousands, unless otherwise noted)

(3) Intangibles

Following is a summary of the Company's intangibles for the years ended December 31, 2016, 2015 and 2014:

	Intangible Assets, Gross of Accumulated Amortization	Accumulated Amortization	Intangible Assets, Net of Accumulated Amortization
Beginning balance as of January 1, 2016	\$ 2,266	\$ (1,809)	\$ 457
Additions	662	_	662
Retirements	(384)	384	_
Amortization	_	(322)	(322)
Ending balance as of December 31, 2016	\$ 2,544	\$ (1,747)	\$ 797
Beginning balance as of January 1, 2015	\$ 2,309	\$ (1,830)	\$ 479
Additions	296	_	296
Retirements	(339)	339	_
Amortization	_	(318)	(318)
Ending balance as of December 31, 2015	\$ 2,266	\$ (1,809)	\$ 457
Beginning balance as of January 1, 2014	\$ 2,370	\$ (1,933)	\$ 437
Additions	340	<u> </u>	340
Retirements	(401)	401	_
Amortization	_	(298)	(298)
Ending balance as of December 31, 2014	\$ 2,309	\$ (1,830)	\$ 479

For the years ended December 31, 2016, 2015 and 2014, amortization expense of \$322, \$318 and \$298, respectively, is included in other expenses in the statement of revenues and expenses.

(4) Related Party Transactions

The Company's primary operations are conducted through FDMS. FDMS charges the Company fees for services provided pursuant to an operating agreement (the "Operating Agreement") dated January 31, 2000, as amended and restated. The Members also agreed to perform certain additional management functions (the "Additional Services") of the Company, for which they will be reimbursed by the Company. These fees are included in cost of card services, cost of product sold (including expenses associated with merchant referred leases, rentals and sales from affiliates of FDMS) and selling, general and administrative expenses within the statement of revenue and expense. The financial statements may not necessarily be indicative of the financial position that would have existed, or the results of operations or cash flows that would have occurred had the Company operated as an independent enterprise. During the years ended December 31, 2016, 2015 and 2014, the Company reimbursed FDMS and Wells Fargo for performing the Additional Services as follows:

(A Joint Venture)
Notes to the Financial Statements
December 31, 2016, 2015 and 2014

(Dollars in thousands, unless otherwise noted)

	2016				
	First Data Merchant Services, Corporation		Wells Fargo Bank, NA		
Cost of card services \$	92,161	\$	_		
Cost of product sold	15,536		_		
Selling, general and administrative	11,766		123,780		
Total \$	119,463	\$	123,780		
	2015				
	First Data Merchant Services, Corporation		Wells Fargo Bank, NA		
Cost of card services \$	76,686	\$	_		
Cost of product sold	21,464		_		
Selling, general and administrative	14,324		130,873		
Total \$	112,474	\$	130,873		
	2014				
	First Data Merchant Services, Corporation	_	Wells Fargo Bank, NA		
Cost of card services \$	66,980	\$	_		
Cost of product sold	16,141		_		
Selling, general and administrative	12,206		120,314		
Total \$	95,327	\$	120,314		

Included in the balance sheets at December 31, 2016 and 2015 is a payable to FDMS of \$8,295 and \$23,200, respectively. These balances primarily consist of selling, general and administrative costs, cost of card services and cost of product sold owed to FDMS which are partially offset by net revenue owed to WFMS for the contributed portfolio. These balances are settled monthly, one month in arrears.

Included in the balance sheets at December 31, 2016 and 2015 is a payable to Wells Fargo of \$414,122 and \$340,437, respectively, which is primarily attributable to non-interest bearing advances, made by Wells Fargo to the Company, to fund interchange settlements with Card Networks. These payable amounts are settled monthly, one month in arrears.

(5) Allocation and Distribution of Income to Members

Profits and losses of the Company are allocated in accordance with each Member's Interest. Distributions of allocated income to the Members are made on a quarterly basis, subject to consent of the Members. Income distributed shall equal 100% of the distributable funds, as defined in the Membership Agreement, unless a smaller percentage is agreed to by the Members.

(A Joint Venture)
Notes to the Financial Statements
December 31, 2016, 2015 and 2014

(Dollars in thousands, unless otherwise noted)

(6) Termination of Company

The Company can be terminated in the event of certain termination events, set forth in the Membership Agreement with an effective date of January 1, 2014. These include merger or acquisition of either of the Members, and various other performance criteria. If the Company is terminated prior to December 31, 2019, based on who initiates the termination, an early termination fee may apply in accordance with the provisions and criteria of the agreement.

(7) Limited Liability of Members

The Members of a Delaware limited liability company are generally not liable for the acts and omissions of the Company, much in the same manner as the shareholders, officers and directors of a corporation are generally not liable for the acts and omissions of the corporation. Such liability is generally limited by the provisions of the Delaware Limited Liability Company Act and by applicable case law.

(8) Fair Value of Financial Instruments

FASB ASC 825, *Financial Instruments*, requires the disclosure of the fair value of financial instruments, including assets and liabilities recognized in the balance sheets. Management estimates that the aggregate fair value of financial instruments recognized in the balance sheets (including receivables, payables and merchant collateral) approximates their carrying value; as such financial instruments are short-term in nature or carry floating rates of interest.

(9) Guarantees and Reserve for Merchant Credit Losses

Under the card companies' rules, when a merchant processor acquires card transactions, it has certain liabilities for the transactions. This liability arises from disputes between cardholders and merchants due to the cardholders' dissatisfaction with merchandise quality or the merchants' service, which are not resolved with the merchant. In such cases, the transactions are "charged back" to the respective merchants and the related purchase amounts are refunded to the cardholders by the card issuer. If the merchant does not fund the refund due to insolvency, bankruptcy or other extraneous reasons, the Company, in certain circumstances is liable for the full amount of the transaction. This liability is considered a guarantee under FASB ASC 460, *Guarantees*.

The Company's legal obligation under these rules is to settle any individual chargeback for which an individual merchant fails to fulfill as noted above. Contractually, the maximum exposure for this obligation is the total amount of transactions processed for the preceding four month period for all merchants, which in the case of the Company is in the billions of dollars. It should be noted that the Company has not experienced material chargeback loss activity as a result of merchant processing activities and advises that caution should be used when assessing the maximum exposure described above. The Company records a provision for this estimated obligation based upon a number of factors which include historical losses, credit risk of specific customers and other relevant factors. As shown below, for the years ended December 2016, 2015 and 2014, the Company incurred aggregate merchant credit losses of \$11,982, \$12,430 and \$9,229, net of recoveries, on total processed volumes. The Company calculates its provision and evaluates the appropriateness of its reserves on a monthly basis.

(A Joint Venture)
Notes to the Financial Statements
December 31, 2016, 2015 and 2014

(Dollars in thousands, unless otherwise noted)

The following is the activity related to the reserve for merchant credit losses for the years ended December 31, 2016, 2015 and 2014:

Beginning balance as of January 1, 2016	\$ 5,185
Provisions for credit loss	12,220
Charge-offs, net of recoveries of \$797	 (11,982)
Ending balance as of December 31, 2016	\$ 5,423
Beginning balance as of January 1, 2015	\$ 4,507
Provisions for credit loss	13,108
Charge-offs, net of recoveries of \$696	(12,430)
Ending balance as of December 31, 2015	\$ 5,185
Beginning balance as of January 1, 2014	\$ 3,361
Provisions for credit loss	10,375
Charge-offs, net of recoveries of \$387	(9,229)
Ending balance as of December 31, 2014	\$ 4,507

(10) Subsequent Events

The Company has evaluated the subsequent events from the balance sheet date through February 17, 2017, the date at which the financial statements were available to be issued, and determined that there are no other items to disclose.

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

FIRST DATA CORPORATION (Registrant)

By: /S/ FRANK BISIGNANO

Frank Bisignano
Chief Executive Officer

Date: February 24, 2017

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:

Name	Title	Date
/S/ FRANK BISIGNANO	Chief Executive Officer and Director	February 24, 2017
Frank Bisignano	(principal executive officer)	, , , , ,
/S/ HIMANSHU A. PATEL	Executive Vice President, Chief Financial Officer	February 24, 2017
Himanshu A. Patel	(principal financial officer)	
/S/ MATTHEW CAGWIN Matthew Cagwin	Senior Vice President, Corporate Controller and Chief Accounting Officer (principal accounting officer)	February 24, 2017
/S/ HENRY R. KRAVIS	Director	February 24, 2017
Henry R. Kravis	-	
/S/ HEIDI G. MILLER	Director	February 24, 2017
Heidi G. Miller		
/S/ JAMES E. NEVELS	Director	February 17, 2017
James E. Nevels		
/S/ SCOTT C. NUTTALL Scott C. Nuttall	Director	February 24, 2017
Scott C. Nuttan		
/S/ TAGAR C. OLSON	Director	February 24, 2017
Tagar C. Olson		
/S/ JOSEPH J. PLUMERI	Director	February 24, 2017
Joseph J. Plumeri		
/S/ BARBARA A. YASTINE Barbara A. Yastine	Director	February 24, 2017

Description of Compensation of Directors

Each Director not employed by First Data or affiliates of Kohlberg Kravis Roberts & Co. (KKR) receives the following:

- At the time of their appointment, a one-time grant of 158,182 options to purchase shares of Class A common stock of First Data pursuant to the First Data
 Corporation 2015 Omnibus Incentive Plan (2015 Plan) with a strike price equal to the Fair Market Value at the time of grant to vest in equal annual
 installments on the first three anniversaries of the grant date.
- Annual grant of restricted stock of First Data equivalent in value to \$125,000, both at the time of their appointment and in connection with each First Data Annual Shareholder Meeting at which they continue to serve pursuant to the 2015 Plan and on the following terms:
 - 20% vesting one year from the grant date;
 - 40% vesting two years from the grant date;
 - 40% vesting three years from the grant date;
 - · Forfeiture of unvested awards upon termination of Board service for any reason other than Death or Disability; and
 - In the event of Death or Disability, all shares shall vest immediately.
- Annual cash retainer of \$75,000 to be paid in quarterly installments on the first day of each calendar quarter.

Each non-employee Director associated with KKR receives an annual cash retainer of \$40,000, payable in semi-annual installments.

All cash compensation may be deferred under the First Data 2008 Non-Employee Director Deferred Compensation Plan based upon the election made prior to each calendar year by each director. All amounts deferred will accrue earnings based on the performance of Class A common stock and are paid to the director upon termination of the director's service, subject to acceleration of the payout under certain circumstances.

On February 14, 2017 the Board of Directors approved modifications to the terms of Mr. Forehand's existing equity awards so that on the day of Mr. Forehand's termination of service as a Director:

- his existing restricted stock grants will continue to vest under their existing terms, and
- his existing stock option can be exercised for a period of three years (but in no event past the original term of the option).

FIRST AMENDMENT TO THE TRANSFER AND CONTRIBUTION AGREEMENT

This FIRST AMENDMENT TO THE TRANSFER AND CONTRIBUTION AGREEMENT (this "Amendment"), dated as of December 16, 2016, is entered into by and among the VARIOUS ENTITIES LISTED ON THE SIGNATURE PAGES HERETO AS AN ORIGINATOR (the "Originators," and each an "Originator"), FIRST DATA CORPORATION, as initial Servicer ("First Data"), and FIRST DATA RECEIVABLES, LLC, a Delaware limited liability company (the "Company").

Capitalized terms used but not otherwise defined herein (including such terms used above) have the respective meanings assigned thereto in the Transfer and Contribution Agreement described below.

BACKGROUND

- A. The parties hereto have entered into a Transfer and Contribution Agreement, dated as of December 31, 2015 (as amended, restated, supplemented or otherwise modified through the date hereof, the "Transfer and Contribution Agreement.").
- B. TASQ Technology, Inc., a California corporation ("<u>TASQ</u>") is changing its name (such change, the "<u>Subject Name Change</u>") to First Data Hardware Services Inc., a California corporation ("<u>First Data Hardware</u>") effective as of a date after the date hereof (such date, the "<u>Name Change Effective Date</u>").
 - C. The parties hereto desire to amend the Transfer and Contribution Agreement as set forth herein.

NOW, THEREFORE, with the intention of being legally bound hereby, and in consideration of the mutual undertakings expressed herein, each party to this Amendment hereby agrees as follows:

SECTION 1. Notice; Consent.

- (a) <u>Notice</u>. First Data hereby provides notice of TASQ's intent to perform the Subject Name Change on the Name Change Effective Date and requests that each of the parties hereto acknowledge and consent on the date hereof to the occurrence of the Subject Name Change on the Name Change Effective Date.
- (b) <u>Consent</u>. Subject to terms and conditions set forth in this Amendment, each of the parties hereto hereby: (i) acknowledges such notice set forth in <u>clause (a)</u> above, (ii) consents to the occurrence of the Subject Name Change on the Name Change Effective Date and (iii) waives any notice requirement with respect to the Subject Name Change set forth in the Transfer and Contribution Agreement or any other Transaction Document, including the 30 day notice requirement set forth in Section 6.1(j) of the Transfer and Contribution Agreement.
- (c) <u>Authorization to File Financing Statement</u>. In connection with the Subject Name Change, each of the parties hereto hereby consents to the filing, by or on behalf of the Administrative Agent and at First Data Hardware's sole expense, on or after the Name Change Effective Date of the UCC-3 financing statement amendment in substantially the form attached hereto as <u>Exhibit A</u>.
- SECTION 2. <u>Amendments to the Transfer and Contribution Agreement</u>. The Transfer and Contribution Agreement is hereby amended as of the Name Change Effective Date as follows:
 - (a) Schedule I to the Transfer and Contribution Agreement is hereby replaced in its entirety with <u>Schedule I</u> attached hereto.
 - (b) Schedule II to the Transfer and Contribution Agreement is hereby replaced in its entirety with <u>Schedule II</u> attached hereto.
 - (c) Schedule III to the Transfer and Contribution Agreement is hereby replaced in its entirety with Schedule III attached hereto.
- SECTION 3. <u>Representations and Warranties of the Originators and Servicer</u>. The Originators and the Servicer hereby represent and warrant to each of the parties hereto as of the date hereof as follows:
 - (a) Representations and Warranties . The representations and warranties made by it in the Transfer and Contribution Agreement and the Receivables Financing Agreement are true and correct as of the date hereof.
 - (b) Enforceability. The execution and delivery by it of this Amendment, and the performance of its obligations under this Amendment, the Transfer and Contribution Agreement (as amended hereby) and the other Transaction Documents to which it is a party are within its organizational powers and have been duly authorized by all necessary action on its part, and this Amendment, the Transfer and Contribution Agreement (as amended hereby) and the other Transaction Documents to which it is a party are (assuming due authorization and execution by the other parties thereto) its valid and legally binding obligations, enforceable in accordance with its terms, except (x) the enforceability

thereof may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws from time to time in effect relating to creditors' rights, and (y) the remedy of specific performance and injunctive and other forms of equitable relief may be subject to equitable defenses and to the discretion of the court before which any proceeding therefor may be brought.

(c) No Event of Default . No Contribution Termination Event, Unmatured Contribution Termination Event, Event of Default or Unmatured Event of Default has occurred and is continuing, or would occur as a result of this Amendment or the transactions contemplated hereby.

SECTION 4. <u>Effect of Amendment; Ratification</u>. All provisions of the Transfer and Contribution Agreement and the other Transaction Documents, as expressly amended and modified by this Amendment, shall remain in full force and effect. After this Amendment becomes effective, all references in the Transfer and Contribution Agreement (or in any other Transaction Document) to "this Transfer and Contribution Agreement", "this Agreement", "hereof", "herein" or words of similar effect referring to the Transfer and Contribution Agreement shall be deemed to be references to the Transfer and Contribution Agreement as amended by this Amendment. This Amendment shall not be deemed, either expressly or impliedly, to waive, amend or supplement any provision of the Transfer and Contribution Agreement, as amended by this Amendment, is hereby ratified and confirmed in all respects.

SECTION 5. <u>Effectiveness</u>. This Amendment shall become effective as of the date hereof (or with respect to <u>Section 2</u> hereof, the Name Change Effective Date) upon the Administrative Agent's receipt of counterparts to this Amendment executed by each of the parties hereto.

SECTION 6. Severability. Any provisions of this Amendment which are 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.

SECTION 7. <u>Transaction Document</u>. This Amendment shall be a Transaction Document for purposes of the Transfer and Contribution

Agreement.

SECTION 8. <u>Counterparts</u>. This Amendment may be executed in any number of counterparts and by different parties on separate counterparts, each of which when so executed shall be deemed to be an original and all of which when taken together shall constitute but one and the same instrument. Delivery of an executed counterpart of a signature page to this Amendment by facsimile or e-mail transmission shall be effective as delivery of a manually executed counterpart hereof.

SECTION 9. <u>GOVERNING LAW AND JURISDICTION</u>.

- (a) THIS AMENDMENT, INCLUDING THE RIGHTS AND DUTIES OF THE PARTIES HERETO, SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK (INCLUDING SECTIONS 5-1401 AND 5-1402 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK, BUT WITHOUT REGARD TO ANY OTHER CONFLICTS OF LAW PROVISIONS THEREOF).
- (b) EACH PARTY HERETO HEREBY IRREVOCABLY SUBMITS TO THE EXCLUSIVE JURISDICTION OF ANY NEW YORK STATE OR FEDERAL COURT SITTING IN NEW YORK CITY, NEW YORK IN ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AMENDMENT, AND EACH PARTY HERETO HEREBY IRREVOCABLY AGREES THAT ALL CLAIMS IN RESPECT OF SUCH ACTION OR PROCEEDING MAY BE HEARD AND DETERMINED IN SUCH NEW YORK STATE COURT OR, TO THE EXTENT PERMITTED BY LAW, IN SUCH FEDERAL COURT. THE PARTIES HERETO HEREBY IRREVOCABLY WAIVE, TO THE FULLEST EXTENT THEY MAY EFFECTIVELY DO SO, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH ACTION OR PROCEEDING. THE PARTIES HERETO AGREE THAT A FINAL JUDGMENT IN ANY SUCH ACTION OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW.
- SECTION 10. <u>Further Assurances</u>. Each of First Data and First Data Hardware hereby agrees to do, at First Data Hardware's expense, all such things and execute all such documents and instruments and authorize and file all such financing statements and financing statement amendments, in each case, as the Administrative Agent or the Company may reasonably consider necessary or desirable to give full effect to the transaction contemplated by this Amendment and the documents, instruments and agreements executed in connection herewith and therewith.
- SECTION 11. <u>Section Headings</u>. The various headings of this Amendment are included for convenience only and shall not affect the meaning or interpretation of this Amendment, the Transfer and Contribution Agreement or any provision hereof or thereof.

SECTION 12. <u>Certain Covenants Regarding Post-Closing Conditions</u>.

- (a) Organic Documents. On or within thirty (30) days following the date hereof, the Servicer shall deliver (or cause to be delivered) to the Administrative Agent the amended articles of incorporation or other organizational document reflecting the name change of First Data Hardware (including all amendments and modifications thereto) duly certified by the Secretary of State (or similar official) of the State of California.
- (b) Good Standing. On or within thirty (30) days following the date hereof, the Servicer shall deliver (or cause to be delivered) to the Administrative Agent a good standing certificate for First Data Hardware issued by the Secretary of State (or similar official) of the State of California.

(c) Lien Search. Servicer shall pay all reasonable costs associated with the Administrative Agent obtaining a written search report, dated a recent date listing all effective financing statements that name First Data Hardware as debtor or seller and that are filed in all jurisdictions in which filings may be made against such Person pursuant to the applicable UCC, together with copies of such financing statements (none of which, except for those being filed in connection with the Transfer and Contribution Agreement (and/or released or terminated, as the case may be, prior to the date hereof), shall cover any Receivable or any Related Rights which are to be contributed to the Company under the Transfer and Contribution Agreement). [Signature pages follow]

FIRST DATA RECEIVABLES, LLC, as Company

By: /s/ Gretchen A. Herron Name: Gretchen A. Herron Title: Assistant Secretary

FIRST DATA CORPORATION, as Servicer

By: /s/ Gretchen A. Herron Name: Gretchen A. Herron Title: Assistant Secretary

FIRST DATA RESOURCES, LLC, as an Originator

By: /s/ Gretchen A. Herron Name: Gretchen A. Herron Title: Vice President & Assistant Secretary

REMITCO LLC, as an Originator

By: /s/ Gretchen A. Herron Name: Gretchen A. Herron

Title: Vice President & Assistant Secretary

TELECHECK SERVICES, INC., as an Originator

By:/s/ Stanley J. Andersen Name: Stanley J. Andersen Title: Assistant Secretary STAR NETWORKS, INC., as an Originator

By: /s/ Gretchen A. Herron Name: Gretchen A. Herron

Title: Vice President & Assistant Secretary

STAR PROCESSING, INC., as an Originator

By: /s/ Gretchen A. Herron Name: Gretchen A. Herron

Title: Vice President & Assistant Secretary

INSTANT CASH SERVICES, LLC, as an Originator

By: /s/ Gretchen A. Herron Name: Gretchen A. Herron

Title: Vice President & Assistant Secretary

TASQ TECHNOLOGY, INC., as an Originator

By: /s/ Gretchen A. Herron Name: Gretchen A. Herron

Title: Vice President & Assistant Secretary

FIRST DATA GOVERNMENT SOLUTIONS, INC., as an Originator

By: /s/ Gretchen A. Herron Name: Gretchen A. Herron

Title: Vice President & Assistant Secretary

FIRST DATA GOVERNMENT SOLUTIONS, LP, as an Originator

By: /s/ Gretchen A. Herron Name: Gretchen A. Herron Title: Vice President & Assistant Secretary

ACKNOWLEDGED AND AGREED TO BY:

PNC BANK, NATIONAL ASSOCIATION, as Administrative Agent

By: /s/ Michael Brown Name: Michael Brown Title: Senior Vice President

PNC BANK, NATIONAL ASSOCIATION, as Group Agent for the PNC Group

By: /s/ Michael Brown Name: Michael Brown Title: Senior Vice President

LIST AND LOCATION OF EACH ORIGINATOR

<u>Originator</u>	<u>Location</u>
First Data Resources, LLC	Delaware
REMITCO LLC	Delaware
TeleCheck Services, Inc.	Delaware
Star Networks, Inc.	Delaware
Star Processing, Inc.	Delaware
Instant Cash Services, LLC	Delaware
First Data Hardware Services Inc.	California
First Data Government Solutions, Inc.	Delaware
First Data Government Solutions, LP	Delaware

LOCATION OF BOOKS AND RECORDS OF ORIGINATORS

<u>Originator</u>	Location of Books and Records
First Data Resources, LLC	6902 Pine Street, Omaha, NE 68106
REMITCO LLC	6902 Pine Street, Omaha, NE 68106
TeleCheck Services, Inc.	1307 Walt Whitman Road, Melville, NY 11747
Star Networks, Inc.	6902 Pine Street, Omaha, NE 68106
Star Processing, Inc.	6902 Pine Street, Omaha, NE 68106
Instant Cash Services, LLC	6902 Pine Street, Omaha, NE 68106
First Data Hardware Services Inc.	3975 NW 120th Avenue, Corral Springs, FL 33065
First Data Government Solutions, Inc.	1307 Walt Whitman Road, Melville, NY 11747
First Data Government Solutions, LP	1307 Walt Whitman Road, Melville, NY 11747

Start Date

TRADE NAMES

Corporate Names:

First Data Resources, LLC

REMITCO LLC

TeleCheck Services, Inc.

Star Networks, Inc.

Star Processing, Inc.

Instant Cash Services, LLC

TASQ Technology, Inc.

First Data Hardware Services Inc.

First Data Government Solutions, Inc.

First Data Government Solutions, LP

DBA Name

DBAs:

First Data Government Solutions, Inc.

Jurisdiction

v di i i di i v di ci i	DDIT I WILLY	Start Bate
Florida	GovConnect, Inc.	9/29/2004
st Data Government Solutio	ons, LP	
Jurisdiction	DBA Name	Start Date
Colorado	Telepath	8/21/2003
Connecticut	FDGS Limited Partnership	3/7/2007
Kentucky	FDGS, LP	1/28/2008
Maryland	First Data Government Solutions, Limited Partnership	8/9/2004
Michigan	First Data Government Solutions, Limited Partnership	8/13/2004
New Jersey	FD Government Solutions LP	3/28/2006
Virginia	First Data Government Solutions of Virginia, LP	11/24/2004
EMITCO LLC		
Jurisdiction	DBA Name	Start Date
California	First Data Remitco	6/1/2008
ır Networks, Inc.		
Jurisdiction	DBA Name	Start Date
California	Star EFT, Inc.	9/20/2004
Florida	Star Networks Systems, Inc.	10/2/1998
leCheck Services, Inc.		
Jurisdiction	DBA Name	Start Date
Vermont	Check Payment Services	4/12/2000

LIST OF FIRST DATA CORPORATION SUBSIDIARIES

Name of subsidiary Jurisdiction of Incorporation Administration of Tarjeats S.R.L. Ohio Bane of America Merchant Services, LLC Delaware Bane of America Merchant Services Canada Corp. Canada Bank of America Merchant Services Canada Corp. Delaware Bankeard Investigative Group Inc. Delaware BOPA Merrill I ynch Merchant Services (Parope) I inited United Kingdom BUYASS Inco Corporation Delaware BWA Merchant Services Py Ltd Australia Call Interactive Holdings LLC Delaware Cash Assess Corporation (Proprietary) I inited South Africa CSES Holdings, LC Delaware Clover MurketPlace, LLC Delaware Clover Neworf, Inc. Delaware Concord Corporate Services, Inc. Delaware Concord Elexances Inc. Delaware Concord Financial Services, Inc. Delaware Concord Financial Technologies, Inc. Georgia Concord Financial Technologies, Inc. Colorado Concord Financial Technologies, Inc. Colorado Concord Financial Technologies, Inc. Colorado	LIST OF FIRST DATA CORPORATION SUBSIDIARIES		
BA Merchant Services, LLC Ohio Bane of American Merchant Services Canada Corp. Canada Banke of American Merchant Services Canada Corp. Delaware BoFA Merrill Lynch Merchant Services (Europe) Limited United Kingdom BUYASS Inco Corporation Delaware BWA Merchant Services Pt Ltd Australia BUHA Merchant Services Pt Ltd South Africa Call Interactive Holdings LLC Delaware Clash Axcess Corporation (Proprietary) Limited South Africa Cilver Network, Inc. Delaware Clover Network, Inc. Delaware Concord Comporation (Corporation Delaware Concord Engring Corporation Delaware Concord Engring Technologies, Inc. Delaware Concord Engring Technologies, Inc. Delaware Concord Energing Technologies, Inc. Delaware Concord Payment Services, Inc. Googia Concord Payment Services, Inc. Colorado Concord Transaction Services, Inc. Colorado Concord Transaction Services, Inc. Colorado Concord Transaction Services, Inc. Colorado C	Name of Subsidiary	Jurisdiction of Incorporation	
Bank of America Merchant Services Canada Cop. Canada Bank of America Merchant Services Canada Cop. Canada Bor A America Merchant Services (Europe) Limited United Kingdom BUYARS Inco Copporation Delaware BUYARS Inco Corporation Australia BUYARS Inco Corporation (Proprietary) Limited Australia Call Interactive Holdings LLC Delaware Closer Marked Hace, LLC Delaware Clover Marked Hace, LLC Delaware Clover Marked Hace, LLC Delaware Concord Computing Corporation Delaware Concord English Services, Inc. Delaware Concord Eris Financial Services, Inc. Delaware Concord First Financial Services, Inc. Colorado Concord First Financial Services, Inc. Colorado Concord First Financial Services, Inc. Colorado	Administradora de Tarjetas S.R.L.	Argentina	
Bank of America Merchant Services Canada Corp. Canada Bankcard Investigative Group Inc. Delaware BOFA Merrill Lynch Merchant Services (Furope) Limited United Kingdom BUYASS Inco Corporation Delaware BWA Merchant Services Pty Ltd Australia Call Interactive Holdings LLC Delaware Cash Axcess Corporation (Proprietary) Limited South Africa CSIS Holdings, LLC Delaware Clover MarketPlace, LLC Delaware Clover Network, Inc. Delaware Concord Corporation Delaware Concord EFS Financial Services, Inc. Delaware Concord FFS, Inc. Delaware Concord FFS, Inc. Delaware Concord Processing, Inc. Delaware Concord Processing, Inc. Georgia Concord Processing, Inc. Colorado Concord Teacheritom Services, Inc. Gorece DWA Incorporation <td>BA Merchant Services, LLC</td> <td>Ohio</td>	BA Merchant Services, LLC	Ohio	
Bankcard Investigative Group Inc. Delaware BOFA Merrill Lynch Mechant Services (Europe) Limited United Kingdom BIVPASS Inco Corporation Delaware BWA Merchant Services (Fly Ltd Australia Call Interactive Holdings LLC Delaware Clash Axcess Corporation (Proprietary) Limited South Africa CISH Holdings, LLC Delaware Clover MarketPluce, LLC Delaware Clover MarketPluce, LLC Delaware Concord Computing Corporation Delaware Concord Computing Corporation Delaware Concord EFS, Inc. Delaware Concord FFS, Inc. Delaware Concord FFS, Inc. Gorgia Concord Payment Services, Inc. Gorgia Concord Payment Services, Inc. Gorgia Concord Payment Services, Inc. Colorado Concord Transaction Services, Inc. Colorado Concord Transaction Services, Inc. Colorado Concord Transaction Company S.A. Greece DW Holdings Canada U.C Concord Eastern States Bankcard Association Inc. New York not-for-profit	Banc of America Merchant Services, LLC	Delaware	
BOFA Merrill Lynch Merchant Services (Europe) Limited United Kingdom BUNPASS Inco Corporation Delaware BWA Merchant Services Pty Ltd Delaware Cash Access Corporation (Proprietary) Limited South Africa Clash Access Corporation (Proprietary) Limited Delaware Clover Miscriblace, LLC Delaware Clover MarketPlace, LLC Delaware Concord Computing Corporation Delaware Concord Computing Services, Inc. Delaware Concord Eris, Inc. Delaware Concord Firminacial Services, Inc. Delaware Concord Firminacial Services, Inc. Delaware Concord Processing Technologies, Inc. Delaware Concord Processing Technologies, Inc. Delaware Concord Processing, Inc. Colorado Concord Processing, Inc. Colorado CTS Holdings, LLC Colorado CTS, Inc. Colorado CTS, Inc. Girece DW Holdings Canada ULC Conneal Eastern States Bankeard Association Inc. New York not-for-profit Eastern States Bankeard Association Inc. New York no	Bank of America Merchant Services Canada Corp.	Canada	
BVYPASS Inco Corporation Delaware BWA Merchant Services Py Ltd Australia Call Interactive Holdings LLC Delaware Cash Axcess Corporation (Proprietary) Limited South Africa CFSI Holdings, LLC Delaware Clover Market/Place, LLC Delaware Clover Network, Inc. Delaware Concord Computing Corporation Delaware Concord EFS Financial Services, Inc. Delaware Concord EFS, Inc. Delaware Concord Financial Services, Inc. Delaware Concord Financial Technologies, Inc. Arizona Concord Processing, Inc. Georgia Concord Payment Services, Inc. Colorado Concord Transaction Services, LLC Colorado CTS, Inc. Tennessee D Man Debtors Notification Company S.A. Greece D Wildlings, LLC Canada CTS, Inc. Canada B Holdings, Canada UT.C Canada Eastern States Monetary Services Inc. Kew York not-for-profit Eastern States Monetary Services Inc. New York not-for-profit Electronic Banki	Bankcard Investigative Group Inc.	Delaware	
BWA Merchant Services Py Ltd Australia Call Interactive Holdings LLC Delaware Cesh Axcess Corporation (Proprietary) Limited South Africa CESI Holdings, LLC Delaware Clover MarketPlace, LLC Delaware Concord Computing Corporation Delaware Concord Computing Services, Inc. Delaware Concord FFS, Inc. Delaware Concord FFS, Inc. Delaware Concord FFS, Inc. Delaware Concord Firs, Inc. Delaware Concord Firs, Inc. Delaware Concord Firs, Inc. Delaware Concord Processing, Inc. Georgia Concord Processing, Inc. Georgia Concord Processing, Inc. Colorado Concord Transaction Services, LLC Colorado CTS, Inc. Tennessee DW Holdings, LLC Colorado CTS, Inc. Greece DW Holdings Canada ULC Canada Eastern States Mancard Association Inc. New York not-fur-profit Eastern States Monclary Services Inc. New York not-fur-profit <t< td=""><td>BOFA Merrill Lynch Merchant Services (Europe) Limited</td><td>United Kingdom</td></t<>	BOFA Merrill Lynch Merchant Services (Europe) Limited	United Kingdom	
Call Interactive Holdings LLC Delaware Cash Axcess Corporation (Proprietary) Limited South Africa CEST Holdings, LLC Delaware Clover MarketPlace, LLC Delaware Clover Network, Inc. Delaware Concord Corporate Services, Inc. Delaware Concord EFS Financial Services, Inc. Delaware Concord EFS, Inc. Delaware Concord Financial Technologies, Inc. Arizona Concord Financial Technologies, Inc. Georgia Concord Financial Technologies, Inc. Georgia Concord Processing, Inc. Colorado Concord Transaction Services, LLC Colorado CTS, Inc. Tennessee D Man Debtors Notification Company S.A. Greece D W. Holdings Canada U.C. Canada Eastern States Mancard Association Inc. New York not-for-profit Eastern States Mancard Association Inc. New York not-for-profit Eastern States Monetary Services Inc. New York not-for-profit Electronic Banking Solutions Limited Australia European Merchant Services B.V. Pode bravare FDGS Group,	BUYPASS Inco Corporation	Delaware	
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Federated Union Systems, Limited Federated Union Systems Europe, Ltd. First Data Asia Pte Ltd. First Data Austria GmbH First Data Austria Holdings GmbH First Data Canada Ltd. First Data Capital, Inc. Ireland Singapore Austria Canada Canada Delaware	FDR U.K. Limited	United Kingdom	
Federated Union Systems Europe, Ltd. First Data Asia Pte Ltd. First Data Austria GmbH First Data Austria Holdings GmbH First Data Canada Ltd. First Data Capital, Inc. Ireland Singapore Austria Austria Canada Delaware	FDS Holdings, Inc.	Delaware	
First Data Asia Pte Ltd. First Data Austria GmbH First Data Austria Holdings GmbH First Data Canada Ltd. First Data Capital, Inc. Singapore Austria Canada Canada Delaware	Federated Union Systems, Limited	Ireland	
First Data Austria GmbH Austria First Data Austria Holdings GmbH Austria First Data Canada Ltd. Canada First Data Capital, Inc. Delaware	Federated Union Systems Europe, Ltd.	Ireland	
First Data Austria Holdings GmbH Austria First Data Canada Ltd. Canada First Data Capital, Inc. Delaware	First Data Asia Pte Ltd.	Singapore	
First Data Canada Ltd. Canada First Data Capital, Inc. Delaware	First Data Austria GmbH	Austria	
First Data Capital, Inc. Delaware	First Data Austria Holdings GmbH	Austria	
	First Data Canada Ltd.	Canada	
First Data Card Solutions, Inc. Maryland	First Data Capital, Inc.	Delaware	
	First Data Card Solutions, Inc.	Maryland	

China

First Data (China) Co., Ltd.

First Data Chile Limitada Chile First Data CIS Russia Colombia First Data Colombia Ltda. First Data Commercial Services Limited Ireland First Data Communications Corporation Delaware First Data Cono Sur SRL Argentina First Data Corporation Australia (Holdings) Pty Limited Australia First Data Czech Republic Czech Republic First Data Deutschland GmbH Germany First Data Development Private Ltd India First Data EC, LLC Delaware First Data EESTI OU Estonia First Data Europe Limited United Kingdom First Data Egypt LLC Egypt First Data Government Solutions, Inc. Delaware First Data Government Solutions, LP Delaware First Data Global Services Limited Ireland First Data GmbH Germany First Data (Greece) US Holding Corp. Delaware First Data Hardware Services, Inc. California First Data Hellas Processing Services and Holdings SA Greece First Data Holding I (Netherlands) BV Netherlands First Data Hong Kong Limited Hong Kong First Data Magyarorszag Kereskedelmi es Szolgaltato Kft Hungary First Data (India) Private Limited India First Data International d.o.o. Croatia First Data International LLC Delaware First Data International (Italia) Srl Italy First Data International Luxembourg II SARL Luxembourg First Data International Luxembourg III SARL Luxembourg First Data International Luxembourg IV SARL Luxembourg First Data International Luxembourg VII SARL Luxembourg First Data Korea Limited Korea First Data Latin America Inc. Delaware Latvia First Data Latvia First Data (Mauritius) Holding Company Mauritius First Data Merchant Services LLC Florida First Data Merchant Services México, S. de R.L. de C.V. Mexico First Data Merchant Services Northeast, LLC Delaware First Data Merchant Services Southeast, L.L.C. Delaware First Data Merchant Solutions (B) Sdn Bhd Brunei First Data Merchant Solutions (Hellas) Ltd Greece Hong Kong First Data Merchant Solutions (Hong Kong) Private Limited

First Data Merchant Solutions Private Limited (Singapore)

First Data Middle East FZ-LLC

UAE

First Data Mobile Holdings, Inc.

Delaware

First Data Mobile (Bermuda) Holdings, Ltd.

Bermuda

First Data Mobile Holdings Limited

Ireland

First Data Mobile Payments Limited

Ireland

Malaysia

First Data Merchant Solutions (Malaysia) Sdn. Bhd.

First Data Mobile Solutions GmbH Germany First Data Mobile Solutions Limited Ireland First Data (Norway) Holding AS Norway First Data Network Australia Limited Australia First Data Operations (Austria) GmbH Austria First Data Payment Services, LLC Delaware First Data Polska S.A. Poland First Data Procurements México, S. de R.L. de C.V. Mexico

First Data Procurements Mexico, S. de R.L. de C.V.

First Data Puerto Rico, LLC

First Data Peal Estata Holdings L.L.C.

First Data Real Estate Holdings L.L.C.

Pelaware
First Data Receivables, LLC

Delaware
First Data Reporting Services LLC

Polaware
First Data Resources Australia Limited

Australia
First Data Resources Investments Pty Limited

Australia
First Data Resources, LLC

Delaware
First Data Resources, LLC

South Africa (Proprietary) Limited

South Africa

Puerto Rico

First Data Resources South Africa (Proprietary) Limited

South Africa
First Data Retail ATM Services L.P.

Texas

First Data Romania SRL Romania
First Data Serbia and Montenegro d.o.o.
Serbia

First Data Services LLC

First Data (Singapore) Pte. Ltd.

First Data Slovakia, s.r.o.

Slovakia

First Data Solutions Inc.

First Data Spain Holdings, S.L.

First Data Transportation Services Inc.

Delaware

Tennessee

First Data Technologies, Inc.

Pelaware
First Data Transportation Services Inc.

First Data Trust Company, LLC

First Data Uruguay SA

Uruguay

Uruguay

First Data Voice Services Delaware general partnership

First Merchant Processing (Ireland) Limited

FTS (NSW) Pty. Limited

Funds & Assets Management LLC

Funds Xpress, Inc.

Delaware

Funds Ypress Financial Network Inc.

Texas

FundsXpress Financial Network, Inc.

GoEasy LLC

Delaware

GYFT, Inc.

Delaware

Gyft Mobile, Inc.

Huntington Merchant Services, L.L.C.

Delaware

Huntington Merchant Services, L.L.C.

ICICI Merchant Services Private Limited
Ignite Payments, LLC
California
Instant Cash Services, LLC
Delaware
Integrated Payment Systems Canada Inc.
Canada
Integrated Payment Systems Inc.
Delaware
Inverland Jasper SL
Spain

IRS Intelligent Risk Management Solutions GmbH Germany
Linkpoint International, Inc.
Marketplace Merchant Solutions Limited Ireland
MAS Ohio Corporation
Delaware
Merchant Solutions Private Limited
Bangladesh

Merchant Solutions Private Limited

Bangladesh
Merchant Solutions Private Limited

Sri Lanka

Merchant Solutions Pte (Macau) Limited

Money Network Financial, LLC

National Payment Systems Inc. New Payment Services, Inc.

Omnipay Limited

PayPoint Electronic Payment Systems, LLC

PaySys Europe, B.V. PaySys International, Inc. PaySys International Limited PaySys International Pty. Ltd.

Pegaso Argentina S.R.L. Perka, Inc. Perka Limited

Posnet SRL

Processing Center, S.A. Publicdatasystems, Inc.

REMITCO LLC

Research Park Association, Inc.

Sagebrush Holdings LLC

Scotia Cardpoint Merchant Services Servicios de Aceptación S.A.S.

Spree Commerce Inc.
Star Networks, Inc.
Star Processing, Inc.
Star Systems Assets, Inc.
Star Systems, Inc.

SunTrust Merchant Services, LLC

TASQ LLC

Star Systems, LLC

TeleCash GmbH & Co. KG
TeleCash Management GmbH
TeleCheck International, Inc.
TeleCheck Payment Systems Limited

TeleCheck Services Canada, Inc.

TeleCheck Services, Inc.

TeleCheck Services of Puerto Rico, Inc.

The Next Generation POS LLC

Tissington Limited

Transaction Solutions, LLC Transaction Wireless, Inc.

TruBeacon, Inc.

TRS Recovery Services, Inc. TWI MOR Holding, LLC UAB "First Data Lietuva"

Unified Merchant Services

ValueLink, LLC Zolter Services Limited Macau

Delaware New York

Georgia Ireland

Delaware Netherlands

Florida Ireland Australia

Argentina
Delaware

Ireland Argentina Panama

Delaware Delaware

Florida not-for-profit

Delaware
Puerto Rico
Colombia
Delaware
Delaware
Delaware
Delaware

Delaware
Delaware
Delaware
Delaware
Germany
Germany

Georgia New Zealand Canada Delaware Georgia

Delaware
Ireland
Delaware
Delaware
Delaware
Colorado

Delaware Lithuania

Georgia General Partnership

Delaware Ireland

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-207439) pertaining to the 2007 Stock Incentive Plan for Employees of First Data Corporation and its Affiliates, the First Data Corporation 2015 Omnibus Incentive Plan and the First Data Corporation 2015 Employee Stock Purchase Plan of our reports dated February 24, 2017, with respect to the consolidated financial statements and schedule of First Data Corporation, and the effectiveness of internal control over financial reporting of First Data Corporation, included in this Annual Report (Form 10-K) for the year ended December 31, 2016.

/s/ Ernst & Young LLP

Atlanta, Georgia February 24, 2017



KPMG LLP

Suite 1400 55 Second Street San Francisco, CA 94105

Consent of Independent Registered Public Accounting Firm

The Members Wells Fargo Bank, N.A. First Data Merchant Services Corporation; and

The Board of Directors Wells Fargo Merchant Services, LLC:

We consent to the incorporation by reference in the following registration statements:

- (1) Form S-1 No. 333-205750 of First Data Corporation; and
- (2) Form S-8 No. 333-207439 of First Data Corporation

of our report dated February 17, 2017, with respect to the balance sheet of Wells Fargo Merchant Services, LLC as of December 31, 2016 and 2015, and the related statements of revenues and expenses, members' equity, and cash flows for each of the years in the three-year period ended December 31, 2016, included in the Form 10-K of First Data Corporation dated February 24, 2017.



San Francisco, California February 24, 2017

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

- I, Frank Bisignano, Chief Executive Officer of First Data Corporation, certify that:
 - 1. I have reviewed this Annual Report on Form 10-K of First Data Corporation;
 - 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(s) 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(s) 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 24, 2017	/s/ FRANK BISIGNANO
	Frank Bisignano
	Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER

- I, Himanshu Patel, Executive Vice President, Chief Financial Officer (principal financial officer) of First Data Corporation, certify that:
 - 1. I have reviewed this Annual Report on Form 10-K of First Data Corporation;
 - 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(s) 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(s) 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 24, 2017	/s/ HIMANSHU A. PATEL
	Himanshu A. Patel Executive Vice President, Chief Financial Officer

Executive Vice President. Chief Financial Officer (principal financial officer)

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

The certification set forth below is being submitted in connection with the Annual Report of First Data Corporation on Form 10-K for the period ended December 31, 2016 (the "Report") for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Frank Bisignano, the Chief Executive Officer of First Data Corporation, certifies that, to the best of his knowledge:

- 1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
- 2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of First Data Corporation.

Date: February 24, 2017	/s/ FRANK BISIGNANO
	Frank Bisignano Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER

The certification set forth below is being submitted in connection with the Annual Report of First Data Corporation on Form 10-K for the period ended December 31, 2016 (the "Report") for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Himanshu Patel, Executive Vice President, Chief Financial Officer (principal financial officer) of First Data Corporation, certifies that, to the best of his knowledge:

- 1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
- 2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of First Data Corporation.

Date: February 24, 2017	/s/ HIMANSHU A. PATEL
	Himanshu A. Patel
	Executive Vice President Chief Financial Officer

(principal financial officer)