UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(D)
OF THE SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported):
June 10, 2019

Fiserv, Inc.
(Exact Name of Registrant as Specified in Its Charter)

Wisconsin	**0-14948**	**39-1506125**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

255 Fiserv Drive, Brookfield, Wisconsin 53045
(Address of Principal Executive Offices, including Zip Code)

(262) 879-5000
(Registrant's Telephone Number, Including Area Code)

Not Applicable
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	**FISV**	**The NASDAQ Stock Market LLC**

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

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

Item 8.01. Other Events.

As previously announced, on January 16, 2019, Fiserv, Inc. (“Fiserv”) entered into a definitive merger agreement with First Data Corporation (“First Data”), pursuant to which Fiserv will acquire First Data in an all-stock transaction. The merger is currently expected to close in the second half of 2019, subject to the satisfaction or waiver of the closing conditions specified in the merger agreement.

Fiserv is filing (i) as Exhibit 99.1 to this Current Report on Form 8-K, First Data’s audited consolidated financial statements as of December 31, 2018 and 2017 and for each of the fiscal years ended December 31, 2018, 2017 and 2016, (ii) as Exhibit 99.2, First Data’s interim unaudited consolidated financial statements as of March 31, 2019 and for each of the fiscal quarters ended March 31, 2019 and 2018, (iii) as Exhibit 99.3, Management’s Discussion and Analysis of Financial Condition and Results of Operations of First Data for the year ended December 31, 2018, (iv) as Exhibit 99.4, Management’s Discussion and Analysis of Financial Condition and Results of Operations of First Data for the fiscal quarter ended March 31, 2019, (v) as Exhibit 99.5, information related to First Data’s business and operations and information related to certain material regulatory matters related to First Data’s business, (vi) as Exhibit 99.6, information related to certain material risks related to First Data’s business, operations and financial condition (vii) as Exhibit 99.7, the unaudited pro forma condensed combined financial statements of Fiserv and First Data (a) as of and for the three months ended March 31, 2019, including the unaudited pro forma condensed combined consolidated statements of income of Fiserv and First Data for the three months ended March 31, 2019 giving effect to the merger as if it had occurred on January 1, 2018 and the unaudited pro forma condensed combined consolidated balance sheet data of Fiserv and First Data as of March 31, 2019, which reflects the unaudited pro forma condensed combined consolidated balance sheets of Fiserv and First Data giving effect to the merger as if it had occurred on March 31, 2019 and (b) for the year ended December 31, 2018, including the unaudited pro forma condensed combined consolidated statements of income of Fiserv and First Data for the year ended December 31, 2018, which reflects the combined historical consolidated statements of income of Fiserv and First Data giving effect to the merger as if it had occurred on January 1, 2018, and (vii) as Exhibit 23.1, the consent of Ernst & Young LLP, independent registered public accounting firm of First Data.

This Current Report on Form 8-K does not modify or update the consolidated financial statements of Fiserv included in Fiserv’s Annual Report on Form 10-K for the year ended December 31, 2018 nor does it reflect any subsequent information or events.

Forward-Looking Statements

The information disclosed in this communication contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements regarding the ability of Fiserv to complete the proposed merger and related transactions. Statements can generally be identified as forward-looking because they include words such as “believes,” “anticipates,” “expects,” “could,” “should” or words of similar meaning. Statements that describe Fiserv’s future plans, objectives or goals are also forward-looking statements. Forward-looking statements are subject to assumptions, risks and uncertainties that may cause actual results to differ materially from those contemplated by such forward-looking statements.

The factors that could cause Fiserv’s actual results to differ materially include, among others: the possibility that the parties may be unable to achieve expected synergies and operating efficiencies from the merger within the expected time frames or at all and to successfully integrate the operations of First Data into those of Fiserv; such integration may be more difficult, time-consuming or costly than expected; revenues following the merger may be lower than expected, including for possible reasons such as unexpected costs, charges or expenses resulting from the merger; operating costs, customer loss and business disruption (including, without limitation, difficulties in maintaining relationships with employees, customers, clients or suppliers) may be greater than expected following the merger; the retention of certain key employees; the occurrence of any event, change or other circumstances that could give rise to the termination of the merger agreement; the outcome of any legal proceedings that may be instituted against Fiserv, First Data and others related to the merger agreement; unforeseen risks relating to liabilities of Fiserv or First Data may exist; conditions to the completion of the merger may not be satisfied, or the regulatory approvals required for the merger may not be obtained on the terms expected or on the anticipated schedule; the amount of the costs, fees, expenses and charges related to the merger, including the costs, fees, expenses and charges related to any financing arrangements entered into in connection with the merger; and the parties’ ability to meet expectations regarding the timing, completion and accounting and tax treatments of the merger. Fiserv and First Data are subject to, among other matters, changes in customer demand for their products and services; pricing and other actions by competitors; general changes in local, regional, national and international economic conditions and the impact they may have on Fiserv and First Data and their customers and Fiserv’s and First Data’s assessment of that impact; rapid technological developments and changes, and the ability of Fiserv’s and First Data’s technology to keep pace with a rapidly evolving marketplace; the impact of a security breach or operational failure on Fiserv’s and First Data’s business; the effect of proposed and enacted legislative and regulatory actions in the United States and internationally affecting the financial services industry as a whole and/or Fiserv and First Data and their subsidiaries individually or collectively; regulatory supervision and oversight, and Fiserv and First Data’s ability to comply with government regulations; the impact of Fiserv’s and First Data’s strategic initiatives; Fiserv’s and First Data’s ability to continue to introduce competitive new products and services on a timely, cost-effective basis; the ability to contain costs and expenses; the protection and validity of intellectual property rights; the outcome of pending and future litigation and governmental proceedings; acts of war and terrorism; and other factors identified in our Annual Report on Form 10-K for the year ended December 31, 2018, Exhibit 99.6 to this Current Report on Form 8-K and other documents that Fiserv files with the SEC. You should consider these factors carefully in evaluating forward-looking statements and are cautioned not to place undue reliance on such statements. Fiserv assumes no obligation to update any forward-looking statements, which speak only as of the date of this communication.

* * *

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
23.1	Consent of Ernst & Young LLP (with respect to First Data Corporation)
99.1	Audited consolidated financial statements of First Data Corporation as of December 31, 2018 and 2017 and for each of the fiscal years ended December 31, 2018, 2017 and 2016.
99.2	Interim unaudited consolidated financial statements of First Data Corporation as of March 31, 2019 and for the three months ended March 31, 2019 and 2018.
99.3	Management's Discussion and Analysis of Financial Condition and Results of Operations of First Data Corporation for the year ended December 31, 2018.
99.4	Management's Discussion and Analysis of Financial Condition and Results of Operations of First Data Corporation for the three months ended March 31, 2019 and 2018.
99.5	Information related to First Data Corporation's business and operations and information related to certain material regulatory matters related to First Data Corporation's business.
99.6	Information related to certain material risks related to First Data Corporation's business, operations and financial condition.
99.7	Unaudited pro forma condensed combined financial statements (a) as of and for the three months ended March 31, 2019 and (b) for the year ended December 31, 2018.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be filed on its behalf by the undersigned hereunto duly authorized.

FISERV, INC.

Date: June 10, 2019	By:	/s/ Robert W. Hau
	Name:	Robert W. Hau
	Title:	Chief Financial Officer and Treasurer

EXHIBIT 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement Nos. 333-145599, 333-143191, 333-163636, 333-188795 and 333-231868 on Form S-8, No. 333-229689 on Form S-4, and No. 333-227436 on Form S-3 of Fiserv, Inc. of our report dated February 26, 2019, with respect to the consolidated financial statements and schedule of First Data Corporation included in this Current Report on Form 8-K of Fiserv, Inc.

/s/ Ernst & Young LLP

Atlanta, Georgia
June 7, 2019

EXHIBIT 99.1

Audited consolidated financial statements of First Data Corporation
as of December 31, 2018 and 2017 and for each of the fiscal years ended December 31, 2018, 2017 and 2016.
Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of First Data Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of First Data Corporation (the Company) as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, cash flows and equity for each of the three years in the period ended December 31, 2018, and the related notes and the financial statement schedule of valuation and qualifying accounts (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2018 and 2017, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, 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 26, 2019 expressed an unqualified opinion thereon.

Adoption of New Accounting Standard

As discussed in Note 1 to the financial statements, the Company changed its method of accounting for revenue as a result of the adoption of Accounting Standards Update (ASU) No. 2014-09, *Revenue from Contracts with Customers* (Topic 606), and the amendments in ASUs 2015-14, 2016-08, 2016-10 and 2016-12 effective January 1, 2018.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

EY or one of its predecessors began serving consecutively as the Company's (or one of its predecessors) auditor in 1980.

Atlanta, Georgia
February 26, 2019

FIRST DATA CORPORATION
CONSOLIDATED STATEMENTS OF INCOME

(in millions, except per share amounts)	Year ended December 31, 2018	2017	2016
Revenues:			
Revenues excluding reimbursable items(a)	$8,679	$ 8,129	$ 7,839
Reimbursable items	819	3,923	3,745
Total revenues	9,498	12,052	11,584
Expenses:			
Cost of revenues (exclusive of items shown below)	3,005	3,128	3,192
Selling, general, and administrative	2,651	2,178	2,035
Depreciation and amortization	1,009	972	949
Other operating expenses, net	119	143	51
Total expenses excluding reimbursable items	6,784	6,421	6,227
Reimbursable items	819	3,923	3,745
Total expenses	7,603	10,344	9,972
Operating profit	1,895	1,708	1,612
Interest expense, net	(917)	(931)	(1,078)
Loss on debt extinguishment	(153)	(80)	(70)
Other income	201	16	17
Income before income taxes and equity earnings in affiliates	1,026	713	481
Income tax expense (benefit)	49	(729)	81
Equity earnings in affiliates	221	222	260
Net income	1,198	1,664	660
Less: Net income attributable to noncontrolling interests and redeemable noncontrolling interest	193	199	240
Net income attributable to First Data Corporation	$1,005	$ 1,465	$ 420
Net income attributable to First Data Corporation per share:			
Basic	$ 1.08	$ 1.60	$ 0.47
Diluted	$ 1.05	$ 1.56	$ 0.46
Weighted-average common shares outstanding:			
Basic	929	916	902
Diluted	957	940	921

(a) Includes processing fees, administrative service fees, and other fees charged to merchant alliances accounted for under the equity method of $203 million, $215 million, and $198 million for the years ended December 31, 2018, 2017, and 2016, respectively.

The 2018 results include the impact of adopting Accounting Standards Codification (ASC) 606 and ASC 340-40 (collectively, the New Revenue Standard). See note 1 “Summary of Significant Accounting Policies” for more information.

See notes to consolidated financial statements.

FIRST DATA CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(in millions)	Year ended December 31, 2018	2017	2016
Net income	$1,198	$1,664	$ 660
Other comprehensive (loss) income, net of tax:			
Foreign currency translation adjustment	(127)	201	(153)
Pension liability adjustments	(2)	72	38
Derivative instruments	(46)	9	3
Other	2	—	—
Total other comprehensive (loss) income, net of tax	(173)	282	(112)
Comprehensive income	1,025	1,946	548
Less: Comprehensive income attributable to noncontrolling interests and redeemable noncontrolling interest	186	211	235
Comprehensive income attributable to First Data Corporation	$ 839	$1,735	$ 313

See notes to consolidated financial statements.

FIRST DATA CORPORATION
CONSOLIDATED BALANCE SHEETS

(in millions, except par value)	As of December 31, 2018	2017
ASSETS		
Current assets:		
Cash and cash equivalents	$ 555	$ 498
Accounts receivable, net of allowance for doubtful accounts of $46 and $45	2,217	2,176
Settlement assets	11,423	20,363
Prepaid expenses and other current assets	319	335
Total current assets	14,514	23,372
Property and equipment, net of accumulated depreciation of $1,647 and $1,588	905	951
Goodwill	17,460	17,710
Customer relationships, net of accumulated amortization of $5,509 and $5,940	1,763	2,184
Other intangibles, net of accumulated amortization of $2,271 and $2,665	1,893	1,935
Investment in affiliates	1,055	1,054
Other long-term assets	737	1,063
Total assets	$38,327	$48,269
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	$ 1,636	$ 1,659
Short-term and current portion of long-term borrowings	1,170	1,271
Settlement obligations	11,423	20,363
Total current liabilities	14,229	23,293
Long-term borrowings	16,429	17,927
Deferred tax liabilities	97	77
Other long-term liabilities	528	886
Total liabilities	31,283	42,183
Commitments and contingencies (See note 15)		
Redeemable noncontrolling interest	77	72
First Data Corporation stockholders' equity:		
Class A Common stock, $0.01 par value; 1,600 shares authorized as of December 31, 2018 and December 31, 2017, 584 shares and 492 shares issued as of December 31, 2018 and December 31, 2017, respectively; and 568 shares and 482 shares outstanding as of December 31, 2018 and December 31, 2017, respectively	6	5
Class B Common stock, $0.01 par value; 448 and 523 shares authorized as of December 31, 2018 and December 31, 2017, respectively; 369 shares and 443 shares issued and outstanding as of December 31, 2018 and December 31, 2017, respectively	4	4
Preferred Stock, $0.01 par value; 100 shares authorized as of December 31, 2018 and December 31, 2017; no shares issued and outstanding as of December 31, 2018 and December 31, 2017	—	—
Class A Treasury stock, at cost, 16 shares and 11 shares as of December 31, 2018 and December 31, 2017, respectively	(251)	(149)
Additional paid-in capital	13,791	13,495
Accumulated loss	(8,067)	(9,059)
Accumulated other comprehensive loss	(1,310)	(1,144)
Total First Data Corporation stockholders' equity	4,173	3,152
Noncontrolling interests	2,794	2,862
Total equity	6,967	6,014
Total liabilities and equity	$38,327	$48,269

See notes to consolidated financial statements.

FIRST DATA CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	Year ended December 31, 2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	$ 1,198	$ 1,664	$ 660
Adjustments to reconcile to net cash provided by operating activities:			
Depreciation and amortization (including amortization netted against equity earnings in affiliates and revenues)	1,090	1,073	1,061
Deferred income taxes	107	(853)	(38)
Charges related to other operating expenses, net and other income	(82)	127	34
Loss on debt extinguishment	153	80	70
Stock-based compensation expense	248	245	263
Other non-cash and non-operating items, net	46	41	45
(Decrease) increase in cash, excluding the effects of acquisitions and dispositions, resulting from changes in:			
Accounts receivable, current and long term	(156)	(196)	(81)
Other assets, current and long term	4	(36)	61
Accounts payable and other liabilities, current and long term	(284)	(82)	35
Income tax accounts	(17)	(16)	1
Net cash provided by operating activities	2,307	2,047	2,111
CASH FLOWS FROM INVESTING ACTIVITIES			
Additions to property and equipment	(310)	(271)	(232)
Payments to secure customer service contracts, including outlays for conversion, and capitalized systems development costs	(294)	(247)	(245)
Acquisitions, net of cash acquired	(17)	(1,607)	(6)
Proceeds from dispositions	549	88	38
Proceeds from the maturity of net investment hedges	26	90	—
Proceeds from sale of property and equipment	1	—	38
Other investing activities, net	(54)	(5)	46
Net cash used in investing activities	(99)	(1,952)	(361)
CASH FLOWS FROM FINANCING ACTIVITIES			
Short-term borrowings, net	(130)	823	205
Proceeds from issuance of long-term debt	4,750	4,968	3,533
Payment of call premiums and debt issuance cost	(141)	(63)	(53)
Principal payments on long-term debt	(6,301)	(5,409)	(5,073)
Payment of taxes related to net settlement of equity awards	(115)	(94)	(61)
Proceeds from issuance of common stock	68	50	23
Distributions and dividends paid to noncontrolling interests and redeemable noncontrolling interest	(255)	(260)	(316)
Other financing activities, net	—	(6)	8
Net cash (used in) provided by provided by financing activities	(2,124)	9	(1,734)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(26)	7	(34)
Change in cash, cash equivalents and restricted cash	58	111	(18)
Cash, cash equivalents and restricted cash at beginning of period	525	414	432
Cash, cash equivalents and restricted cash at end of period	$ 583	$ 525	$ 414
SUPPLEMENTAL CASH FLOW INFORMATION:			
Income tax payments, net of refunds received	$ 156	$ 142	$ 118
Interest paid	917	916	1,032
Distributions received from equity method investments	255	266	304
NON-CASH TRANSACTIONS:			
Capital leases, net of trade-ins	$ 37	$ 112	$ 136
Other financing arrangements	—	102	79

See notes to consolidated financial statements.

FIRST DATA CORPORATION
CONSOLIDATED STATEMENTS OF EQUITY

	First Data Corporation Stockholders'										
	Common Stock				Treasury Stock						
	Class A		Class B		Class A				Accumulated Other		
(in millions)	Shares	Amount	Shares	Amount	Shares	Amount	Additional Paid-In Capital	Accumulated Loss	Comprehensive Income (Loss)	Noncontrolling Interest	Total
Balance, December 31, 2015	180	$ 2	719	$ 7	—	$ —	$ 12,910	$ (10,944)	$ (1,307)	$ 2,992	$3,660
Dividends and distributions paid to noncontrolling interests(a)	—	—	—	—	—	—	—	—	—	(283)	(283)
Net income(b)	—	—	—	—	—	—	—	420	—	207	627
Other comprehensive loss	—	—	—	—	—	—	—	—	(107)	(5)	(112)
Adjustments to redemption value of redeemable noncontrolling interest	—	—	—	—	—	—	4	—	—	—	4
Stock compensation expense	—	—	—	—	—	—	263	—	—	—	263
Stock activity under stock compensation plans and other	188	2	(175)	(2)	5	(61)	33	—	—	—	(28)
Balance, December 31, 2016	368	4	544	5	5	(61)	13,210	(10,524)	(1,414)	2,911	4,131
Dividends and distributions paid to noncontrolling interests(a)	—	—	—	—	—	—	—	—	—	(229)	(229)
Net income(b)	—	—	—	—	—	—	—	1,465	—	168	1,633
Other comprehensive income	—	—	—	—	—	—	—	—	270	12	282
Adjustments to redemption value of redeemable noncontrolling interest	—	—	—	—	—	—	1	—	—	—	1
Stock compensation expense	—	—	—	—	—	—	245	—	—	—	245
Stock activity under stock compensation plans and other	114	1	(101)	(1)	6	(88)	39	—	—	—	(49)
Balance, December 31, 2017	482	5	443	4	11	(149)	13,495	(9,059)	(1,144)	2,862	6,014
Adoption of New Revenue Standard	—	—	—	—	—	—	—	(13)	—	—	(13)
Dividends and distributions paid to noncontrolling interests(a)	—	—	—	—	—	—	—	—	—	(223)	(223)
Net income(b)	—	—	—	—	—	—	—	1,005	—	162	1,167
Other comprehensive loss	—	—	—	—	—	—	—	—	(166)	(7)	(173)
Adjustments to redemption value of redeemable noncontrolling interest	—	—	—	—	—	—	(6)	—	—	—	(6)
Stock compensation expense	—	—	—	—	—	—	248	—	—	—	248
Stock activity under stock compensation plans and other	86	1	(74)	—	5	(102)	54	—	—	—	(47)
Balance, December 31, 2018	568	$ 6	369	$ 4	16	$ (251)	$ 13,791	$ (8,067)	$ (1,310)	$ 2,794	$6,967

(a) The total distribution presented in the consolidated statements of equity for the years ended December 31, 2018, 2017, and 2016 excludes $32 million, $31 million, and $33 million, respectively, in distributions paid to redeemable noncontrolling interest not included in equity.

(b) The total net income presented in the consolidated statements of equity for the years ended December 31, 2018, 2017, and 2016 is $31 million different, $31 million different, and $33 million different, respectively, than the amounts presented in the consolidated statements of income due to the net income attributable to the redeemable noncontrolling interest not included in equity.

See notes to consolidated financial statements.

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 processing; prepaid and payroll services; check verification; settlement and guarantee services; and statement printing as well as solutions to help clients grow their businesses including the Company's *Clover* line of payment solutions and related applications.

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 utilizes the equity method of accounting when the Company is able to exercise significant influence over the investee's operations, which generally coincides with an ownership interest of between 20% and 50% in an entity.

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 income, does not include amortization of payments for customer contracts which is recorded as contra-revenue within "Revenues excluding reimbursable items." 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)	2018	2017	2016
Amortization of payments for customers contracts	$ 51	$ 56	$ 65
Amortization related to equity method investments	30	45	47

Revenue Recognition

Effective January 1, 2018, revenues are recognized when control of the promised goods or services is transferred to the Company's customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. To achieve this core principle, the Company applies the following five steps:

1. Identify the contract with a customer
2. Identify the performance obligations in the contract
3. Determine the transaction price
4. Allocate the transaction price to the performance obligations in the contract
5. Recognize revenue when or as the Company satisfies a performance obligation

Revenue is recognized net of taxes collected from customers, which are subsequently remitted to governmental authorities. The Company has elected to present shipping and handling costs associated with its products as a cost of fulfilling the Company's promise to transfer its products and services.

Transaction and Processing Services

The vast majority of the Company's revenues are comprised of: 1) fees calculated based on a percentage of the monetary value of transactions processed; 2) fees calculated based on number of transactions processed; 3) fees calculated based on number of accounts on file during a period; or 4) some combination thereof that are associated with transaction and processing services. The Company typically contracts with financial institutions, merchants, or affiliates of those parties. Contracts stipulate the types of processing services and articulate how fees will be incurred and calculated.

The Company's performance obligations are to stand ready to provide holistic electronic payment processing services consisting of a series of distinct elements that are substantially the same and have the same pattern of transfer over time. The Company's promise to its customers is to perform an unknown or unspecified quantity of tasks and the consideration received is contingent upon the customers' use (i.e., number of payment transactions processed, number of cards on file, etc.); as such, the total transaction price is variable. The Company allocates the variable fees charged to the day in which it has the contractual right to bill under the contract.

Revenue is comprised of fees charged to the Company's customers, net of interchange fees and assessments charged by the credit card associations and debit networks, which are pass-through charges collected on behalf of the card issuers and payment networks. Interchange fees and assessments charged by credit card and debit networks to the Company's consolidated subsidiaries were as follows for the years ended December 31, 2018, 2017, and 2016.

	Year ended December 31,		
(in millions)	2018	2017	2016
Interchange fees and assessments	$27,845	$26,069	$23,810
Debit network fees	3,568	3,227	3,121

Hardware Revenues

The Company may sell or lease hardware (POS devices) and other peripherals as part of its contract with customers. Hardware typically consists of terminals or *Clover* devices. The Company does not manufacture hardware, but purchases hardware from third-party vendors and holds the hardware in inventory until purchased by a customer. The Company accounts for sales of hardware as a separate performance obligation and recognizes the revenue at its standalone selling price when the customer obtains control of the hardware.

Professional Services Revenues

The Company's professional services generally consist of professional services sold as part of a new or existing agreement or sold as a separate service. The Company's professional services may or may not be considered distinct based on the nature of the services being provided. Professional services are recognized over time as control is transferred to the customer, either as the professional services are performed or as the services from a combined performance obligation are transferred to the customer (over the term of the related transaction and processing agreement).

Other

Other revenues principally include software licensing (fixed and usage based) and maintenance. The Company's software licensing and maintenance are considered distinct and are generally recognized at their standalone selling prices when the software code is delivered to the client and over the maintenance period, respectively.

The Company charges processing fees to its 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 income within "Revenues excluding reimbursable items".

Contracts with Multiple Performance Obligations

The Company's contracts with its customers can consist of multiple performance obligations, for example in the case of hardware sold with transaction and processing services. For these contracts, the Company accounts for individual performance obligations separately if they are distinct. The transaction price is allocated to the separate performance obligations on a relative standalone selling price basis. The Company determines the standalone selling prices based on its overall pricing objectives, taking into consideration market conditions and other factors, including the customer class.

See note 3 "Revenue Recognition" of these consolidated financial statements for additional discussion.

Deferred Revenue

The Company records deferred revenue when it receives payments or issues invoices in advance of transferring control of promised goods or services to a customer. A significant portion of this balance relates to service contracts where the Company received payments from customers for upfront conversions/implementation type activities which do not transfer value to the customer but rather are used in fulfilling the related performance obligations that transfer over time. The advance consideration received from customers is deferred over the contract term or a longer period if it provides the customer with a material right. The deferred revenue is recognized when underlying performance obligations are achieved. As of December 31, 2018 and 2017, current deferred revenue included within “Accounts payable and accrued liabilities” in the Company’s consolidated balance sheets was $134 million and $167 million, respectively. As of December 31, 2018 and 2017, noncurrent deferred revenue included within “Other long-term liabilities” in the Company’s consolidated balance sheets was $164 million and $177 million, respectively.

In January 2017, the Company determined that standalone value had been achieved for its *Clover* terminal devices, principally because a secondary market had been established. The Company accounted for the change on a prospective basis. Beginning January 1, 2017, the Company recognized revenue on sales of *Clover* terminal devices upon delivery, while *Clover* terminal devices sold prior to January 1, 2017 continued to be deferred over the term of the respective processing agreement. As of December 31, 2017, $36 million of the Company’s deferred revenue represented sales of *Clover* terminal devices which did not have standalone value prior to the change in accounting. In connection with the adoption of the New Revenue Standard on January 1, 2018, the Company recorded the deferred revenue associated with the *Clover* terminals that had previously lacked standalone value to “Accumulated loss” in the consolidated balance sheet.

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. To calculate the estimated forfeiture rate, the Company performed an analysis of all forfeitures over a five year period and continues to evaluate the actual forfeiture rate compared to its estimate. The estimated forfeiture rate will be adjusted as actual forfeitures vary from the estimate, resulting in the recognition of compensation cost only for awards that vest. Any effect of a change in estimated forfeitures will be recognized through a cumulative catch-up adjustment. The Company recognizes compensation cost on service based awards with graded vesting on a straight-line basis over the requisite service period for the entire award. The Company recognizes compensation cost on performance-based restricted stock grants on a grant basis graded schedule. See note 5 “Stock Compensation Plans” of these consolidated financial statements for details regarding the Company’s stock-based compensation plan.

Treasury Stock

In connection with the vesting of restricted stock awards or exercise of stock options, shares of Class A and Class B common stock are delivered to the Company by employees to satisfy tax withholding obligations. The Company accounts for treasury stock activities under the cost method whereby the cost of the acquired stock is recorded as treasury stock. Because Class B common stock converts automatically to Class A common stock upon any transfer, whether or not for value, except for certain transactions described in the Company’s amended and restated certificate of incorporation, all shares of treasury stock are Class A common stock.

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, and Brazil. 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 (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 income. Transaction gains and losses related to operating assets and liabilities are included in “Cost of revenues” and “Selling, general, and administrative” in the consolidated statements of income and were immaterial for all periods presented. Non-operating transaction gains and losses derived from non-operating assets and liabilities are included in “Other income” on the consolidated statements of income and are separately disclosed in note 17 “Supplemental Financial Information” of these consolidated financial statements.

There has been a steady devaluation of the Argentine peso relative to the United States dollar in recent years, primarily due to inflation. A highly inflationary economy is defined as an economy with a cumulative inflation rate of approximately 100 percent or more over a three-year period. If a country’s economy is classified as highly inflationary, the financial statements of the foreign entity operating in that country must be remeasured to the functional currency of the reporting entity. As of June 30, 2018, the Argentine economy was designated as highly inflationary for accounting purposes. Accordingly, beginning July 1, 2018 the Company began reporting the financial results of its operations in Argentina at the functional currency of the parent, which is the U.S. dollar. Exchange gains and losses from the remeasurement of monetary assets and liabilities for the six months ended December 31, 2018 are reflected in “Other income” on the consolidated statements of income rather than “Accumulated other comprehensive loss” on the consolidated balance sheet. The Company recognized $2 million in foreign currency exchange losses for the six months ended December 31, 2018 from remeasurement of the operations in Argentina to the parent functional currency.

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.

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 are investment grade. 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 income unless the derivative is designated and qualifies for hedge accounting. 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 "Interest expense, net" in the consolidated statements of income 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 income during the period of change. Additional discussion of derivative instruments is provided in note 14 "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. The Company's noncontrolling interests are presented pretax in the consolidated statements of income 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. See note 6 "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

With respect to the merchant acquiring business, the Company's merchant customers (or those of its unconsolidated alliances) have the legal obligation to refund any charges properly reversed by the cardholder. However, in the event the Company is not able to collect the refunded amounts from the merchants, the Company may be liable for the 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 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 collateral held by the Company was $596 million and $632 million as of December 31, 2018 and 2017, 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 revenues" in the Company's consolidated statements of income. The amount of the reserves attributable to entities consolidated by the Company was $28 million and $29 million as of December 31, 2018 and 2017, respectively.

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.

Research and Development

The Company accounts for research and development costs in accordance with Accounting Standards Codification subtopic 730-10, Research and Development (ASC 730-10). Under ASC 730-10, all research and development costs must be charged to expense as incurred. Company-sponsored research and development costs related to both present and future products are expensed in the period incurred. The Company incurred research and development expenses of $143 million and $150 million during the years ended December 31, 2018 and 2017, respectively.

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 $28 million, $27 million, and $30 million as of December 31, 2018, 2017, and 2016 respectively.

Accounts and Leasing Receivables

Accounts receivable balances are stated at amounts due from customers, net of allowance for doubtful accounts. 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 "Revenues excluding reimbursable items" in the consolidated statements of income. 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 expense related to property and equipment, including equipment under capital lease:

Year ended December 31, (in millions)	Amount
2018	$ 320
2017	321
2016	300

Goodwill and Other Intangible Assets

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. 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, at the reporting unit level. The Company performed its annual goodwill impairment test in the fourth quarters of 2018, 2017, and 2016. As of October 1, 2018, 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 2018, 2017, and 2016.

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 and contract renewals. The initial payments for new contracts and contract renewals are amortized on a straight-line basis as a reduction of revenue over the benefit period, which is generally the contract term, unless a commensurate payment is not expected at renewal.

The Company capitalizes conversion related costs associated with enabling customers to receive its processing services. These costs are amortized on a straight-line basis over the expected benefit period of seven years based on the related services being provided and are recorded as an expense in "Depreciation and amortization" in the consolidated statements of income.

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 on a straight-line basis over the estimated useful life of the software, which is generally five years. Software acquired in connection with business combinations is amortized on a straight-line basis 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, and trademarks acquired in business combinations. Other intangible assets, except for the First Data trade name discussed in note 4 "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, 2018, 2017, and 2016 the Company did not record any adjustments over $5 million to the carrying value of existing assets based on non-recurring fair value measurements, other than as discussed in note 11 "Other Operating Expenses, Net" .

Net Income Per Share

Basic net income per share is calculated by dividing Net income attributable to First Data Corporation by the weighted-average shares outstanding during the period, without consideration for any potential dilutive shares. Diluted net income per share is computed by dividing Net income attributable to First Data Corporation 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.

Reclassifications

Certain amounts for prior years have been reclassified to conform with the current year financial statement presentation.

New Accounting Guidance

Recently Adopted Accounting Guidance

Stock-based Compensation

In May 2017, the FASB issued guidance that clarifies when changes to terms or conditions of a stock-based payment award must be accounted for as a modification. Under the new guidance, companies only apply modification accounting guidance if the fair value, vesting conditions or classification of an award changes. The guidance was adopted prospectively to awards modified on or after the adoption date. The Company adopted the new guidance on January 1, 2018. The impact of adoption on the Company's consolidated financial statements is dependent on future changes to share-based compensation awards.

In June 2018, the FASB issued guidance that simplifies the accounting for share-based payments to nonemployees in exchange for goods and services by aligning with the accounting for share-based payments to employees, with certain exceptions. The standard is effective for financial statements issued for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018, with early adoption is permitted. The Company adopted the new guidance on July 1, 2018, using the modified retrospective approach, with an immaterial impact to the Company's consolidated financial statements.

Statement of Cash Flows

In November 2016, the FASB issued guidance that changes the presentation of restricted cash and restricted cash equivalents on the statement of cash flows. Under the new guidance, companies are 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 are no longer reported as cash flow activities on the statement of cash flows. The guidance was applied using a retrospective transition method to each period presented. The Company adopted the new guidance on January 1, 2018 with no material impact to its statement of cash flows.

Pension Costs

In March 2017, the FASB issued guidance that requires employers that sponsor defined benefit plans for pensions and/or other post-retirement benefits to present the service cost component of net periodic benefit cost in the same income statement line item as other employee compensation costs arising from services rendered during the period. Only the service cost component will be eligible for capitalization in assets. Employers will present the other components of the net periodic benefit cost separately from the line item that includes the service cost and outside of any subtotal of operating income, if one is presented. These components will not be eligible for capitalization in assets. The Company adopted the new guidance on January 1, 2018, using a retrospective approach. The impact on the Company's consolidated financial statements for the years ended December 31, 2018, 2017, and 2016 was an increase (decrease) in operating expense and a decrease (increase) in "Interest expense, net" of $9 million, $6 million, and $(10) million, respectively.

Derivatives and Hedging

In August 2017, the FASB issued guidance to simplify the current application of hedge accounting. This standard is intended to better align a company's risk management strategies and financial reporting for hedging relationships through changes to both designation and measurement for qualifying hedging relationships and more accurately presenting the economic effects in the financial statements. In addition, the new guidance establishes flexibility in the requirements to qualify and maintain hedge accounting. The Company adopted the new guidance on January 1, 2018 with no material impact to the Company's consolidated financial statements.

Revenue Recognition

In May 2014, the FASB issued Accounting Standards Codification (ASC) 606 and ASC 340-40 (collectively, the New Revenue Standard) 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 subsequently issued several amendments to the New Revenue Standard, including clarification on accounting for licenses, identifying performance obligations, and principal versus agent consideration (reporting revenue gross vs. net).

The Company adopted the New Revenue Standard using a modified retrospective basis on January 1, 2018 to all contracts that were not completed. The adoption resulted in an increase to the January 1, 2018 balance of accumulated loss of $13 million for the cumulative effect of applying the New Revenue Standard. This impact was principally driven by certain software arrangements being recognized sooner; changes related to costs to obtain customers, including the related amortization period; and the release of deferred revenue associated with *Clover* terminals that had previously lacked standalone value. Under the modified retrospective basis, the Company did not restate its comparative consolidated financial statements for these effects.

The following tables present the impact of adopting the New Revenue Standard on the Company's consolidated financial statements for the year ended December 31, 2018:

	Year ended December 31, 2018		
(in millions, except per share amounts)	**As Reported**	**Adjustments**	**Amounts Without Adoption of ASC 606**
Revenues:			
Revenues excluding reimbursable items	$ 8,679	$ (157)	$ 8,522
Reimbursable items	819	3,568	4,387
Total revenues	9,498	3,411	12,909
Expenses:			
Total expenses excluding reimbursable items	6,784	(129)	6,655
Reimbursable items	819	3,568	4,387
Total expenses	7,603	3,439	11,042
Operating profit	1,895	(28)	1,867
Interest expense, net	(917)	—	(917)
Loss on debt extinguishment	(153)	—	(153)
Other income	201	—	201
Income before income taxes and equity earnings in affiliates	1,026	(28)	998
Income tax expense	49	(7)	42
Equity earnings in affiliates	221	—	221
Net income	1,198	(21)	1,177
Less: Net income attributable to noncontrolling interests and redeemable noncontrolling interest	193	—	193
Net income attributable to First Data Corporation	$ 1,005	$ (21)	$ 984
Net income attributable to First Data Corporation per share:			
Basic	$ 1.08	$ (0.02)	$ 1.06
Diluted	$ 1.05	$ (0.02)	$ 1.03

The adoption of the New Revenue Standard had an immaterial impact on the Company's consolidated balance sheet and consolidated statement of cash flows as of and for the year ended December 31, 2018. See note 3 "Revenue Recognition" for more information.

Recently Issued Accounting Guidance

Leases

In February 2016, the FASB issued guidance which requires lessees to recognize most leases on their balance sheets but recognize expenses in the income statement in a manner similar to today's accounting and adds new presentation and disclosure requirements for both lessees and lessors. The accounting guidance for lessors remains largely unchanged. The Company expects the adoption to result in gross up on its consolidated balance sheets from the recognition of assets and liabilities arising out of operating leases. The Company will recognize assets for the right to use the underlying leased property during the lease term and will recognize liabilities for the corresponding financial obligation to make lease payments to the lessor.

The Company will adopt the new standard on January 1, 2019 using a modified retrospective approach that permits an entity to use the effective date as the date of initial application through the recognition of a cumulative effect adjustment to the opening balance of retained earnings upon adoption. The Company plans to elect the transition package of practical expedients permitted within the standard, which eliminates the requirements to reassess prior conclusions about lease identification, lease classification, and initial direct costs. Further, the Company plans to elect a short-term lease exception policy, permitting the Company to not apply the recognition requirements of this standard to leases with terms of 12 months or less, and to elect an accounting policy to account for lease and non-lease components as a single component for certain classes of assets. The Company is substantially complete with the evaluation of the impact on the consolidated financial statements of adopting the new lease standard and does not anticipate a material impact on the consolidated balance sheets or to retained earnings. Additionally, the Company does not anticipate the adoption of the standard will impact any debt covenants or result in significant changes to the internal processes, including the internal control over financial reporting.

Credit Losses

In June 2016, the FASB issued guidance that will change the accounting for credit loss 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.

Internal-Use Software

In August 2018, the FASB issued guidance to align the requirements for capitalizing certain implementation costs incurred in a cloud computing arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The standard is effective for financial statements issued for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019, with early adoption permitted. The guidance provides flexibility in adoption, allowing for either retrospective adjustment or prospective adjustment for all implementation costs incurred after the date of adoption. The Company adopted the new guidance on a prospective basis on January 1, 2019 with no material impact to the consolidated financial statements.

Fair Value Measurements

In August 2018, the FASB issued guidance that modified the disclosures on fair value measurements by removing the requirement to disclose the amount and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy and the policy for timing of such transfers. The new guidance also expands disclosure requirements for Level 3 fair value measurements, primarily focused on changes in unrealized gains and losses included in other comprehensive income. The standard is effective for financial statements issued for fiscal years beginning after December 15, 2019, with early adoption permitted. The Company is in the process of evaluating the impact of the guidance on its consolidated financial statements.

Securities and Exchange Commission Disclosure Requirements

In August 2018, the Securities and Exchange Commission (SEC) issued a final rule that amends certain disclosure requirements that were duplicative, outdated or superseded. In addition, the final rule expanded the financial reporting requirements for changes in stockholders' equity for interim reporting periods. The Company will update its disclosure for this new rule beginning with the quarter ended March 31, 2019.

Derivatives and Hedging

In October 2018, the FASB issued guidance which expands the list of U.S. benchmark interest rates permitted in the application of hedge accounting. The amendments permit the use of the overnight index swap rate based on the Secured Overnight Financing Rate to be used as a U.S. benchmark interest rate for hedge accounting purposes under Topic 815. The new guidance is effective for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years and should be applied prospectively for qualifying new or redesignated hedging relationships entered into after January 1, 2019. The Company will adopt the guidance on January 1, 2019, and does not expect any material impact.

Comprehensive Income

In February 2018, the FASB issued guidance that permits a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act. The amendments also require certain disclosures about stranded tax effects. The Company adopted the guidance on January 1, 2019, which did not have a significant impact on the Company's consolidated financial statements.

Consolidation

In October 2018, the FASB issued new guidance on consolidation. The new guidance provides that indirect interests held through related parties in common control arrangements should be considered on a proportional basis for determining whether fees paid to decision makers and service providers are variable interests. The new guidance is effective for fiscal years beginning after December 15, 2019 and interim periods within those fiscal years and should be applied retrospectively with a cumulative effect adjustment to retained earnings at the beginning of the earliest period presented. Early adoption is permitted. The Company is in the process of evaluating the impact of the guidance on its consolidated financial statements.

Note 2: Borrowings

The following table presents the borrowings for the years ended December 31, 2018 and 2017.

(in millions)	As of December 31, 2018	2017
Short-term borrowings:		
Foreign lines of credit and other arrangements	$ 224	$ 205
Senior Secured Revolving Credit Facility	250	272
Receivable securitized loan	472	600
Unamortized deferred financing costs[a]	(3)	(3)
Total short-term borrowings	943	1,074
Current portion of long-term borrowings:		
Senior secured term loan facility due 2020	—	78
Senior secured term loan facility due 2023	119	—
Other arrangements and capital lease obligations	108	119
Total current portion of long-term borrowings	227	197
Total short-term and current portion of long-term borrowings	1,170	1,271
Long-term borrowings:		
Senior secured term loan facility due 2020	—	1,404
Senior secured term loan facility due 2022	2,518	3,758
Senior secured term loan facility due 2023	4,631	—
Senior secured term loan facility due 2024	3,892	3,892
5.375% Senior secured first lien notes due 2023	1,210	1,210
5.0% Senior secured first lien notes due 2024	1,883	1,900
5.75% Senior secured second lien notes due 2024	2,176	2,200
7.0% Senior unsecured notes due 2023	—	3,400
Unamortized discount and unamortized deferred financing costs[a]	(91)	(123)
Other arrangements and capital lease obligations	210	286
Total long-term borrowings[b]	16,429	17,927
Total borrowings	$17,599	$19,198

(a) Unamortized deferred financing costs and certain lenders' fees associated with debt transactions were capitalized as discounts and are 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, 2018 and 2017, the fair value of the Company's long-term borrowings, excluding other arrangements and capital lease obligations, was $15.7 billion and $18.2 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.

Foreign Lines of Credit and Other Arrangements

As of December 31, 2018 and 2017, the Company had $516 million and $546 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, 2018 and 2017, this included a $290 million and $355 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, 2018 and 2017, $13 million and $15 million, respectively, were uncommitted. The weighted-average interest rate associated with foreign lines of credit was 2.6% and 2.9% for the years ended December 31, 2018 and 2017, respectively.

Receivable Securitization Agreement

The Company has a consolidated 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 FDC. As of December 31, 2018 and 2017, the Company transferred $726 million and $748 million, respectively, in receivables to FDR as part of the securitization program. As of December 31, 2018, the maximum borrowing capacity, subject to collateral availability, under the agreement is $581 million. FDR utilized the receivables as collateral in borrowings of $472 million and $600 million as of December 31, 2018 and 2017, respectively. As of December 31, 2018 and 2017, 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 borrowings was 3.65% and 2.8% as of December 31, 2018 and 2017, respectively.

In July 2018, the Company amended its Receivable Securitization Program (Securitization) to extend the maturity from June 2020 to July 2021. In addition, under the amended terms, loans under the Securitization will accrue interest at a rate that is 1.15% higher than LIBOR, down from LIBOR plus 1.5% under the previous agreement, or a base rate equal to the highest of (i) the applicable lender's "reference" or "prime" rate, or (ii) the federal funds rate plus 0.50%. The Securitization also includes an unused fee at a rate that ranges from 45 to 90 basis points depending on the level of utilization under securitization.

Senior Unsecured Revolving Credit Facility

The company has a $33 million senior unsecured revolving credit facility maturing December 20, 2019, available for letters of credit. The interest rate associated with the credit facility is 1.85%. As of December 31, 2018 and December 31, 2017, the Company had $30 million and $0 million of outstanding letters of credit.

Senior Secured Credit Facility

On October 26, 2018, the Company refinanced its senior secured term loan facility due 2020 with a $6 billion senior secured credit facility due 2023 which consists of a $1.25 billion five year revolver and a $4.75 billion senior secured term loan facility. See "Senior Secured Revolving Credit Facility Due October 2023" and "Senior Secured Term Loan Facility Due October 2023" sections within this note. In addition, the applicable interest rates on the Company's existing Senior Secured Term Loan Facilities were refinanced, see "Senior Secured Term Loan Facility Due June 2020", "Senior Secured Term Loan Facility Due July 2022", and "Senior Secured Term Loan Facility Due April 2024" sections within this note.

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 term loan facilities are fully and unconditionally guaranteed by most of the domestic, wholly-owned material subsidiaries of the Company, subject to certain exceptions.

Senior Secured Revolving Credit Facility Due October 2023

On October 26, 2018, the Company refinanced its $1.25 billion senior secured revolving credit facility maturing on June 2, 2020 extending the maturity to October 26, 2023. Up to $250 million of the senior secured revolving credit facility is available for letters of credit, of which $5 million and $29 million of letters of credit were issued under the facilities as of December 31, 2018 and 2017, respectively. All letters of credit expire on or prior to January 1, 2020 with a one-year renewal option. As of December 31, 2018, $995 million remained available. Interest on the senior secured revolving credit facility refinanced in 2018 is payable at a rate equal to either (a) LIBOR for deposits in the applicable currency plus 1.50% or (b) solely with respect to revolving loans denominated in U.S. dollars, a base rate plus 0.50%. Interest on the senior secured revolving credit facility outstanding in 2017 was payable at a rate equal to either (a) LIBOR for deposits in the applicable currency plus 3.50% or (b) solely with respect to revolving loans denominated in U.S. dollars, a base rate plus 2.50%. The weighted-average interest rate on these facilities was 3.85% and 5.74% for the years ended December 31, 2018 and 2017, respectively. The new commitment fee rate for the unused portion of the facility is 0.375% per year. Previously, the commitment fee rate for the unused portion of the facility was 0.50% per year. The applicable interest rate and commitment fee may be reduced based on the Company's leverage ratio.

Senior Secured Term Loan Facility Due June 2020

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 this term loan facility was either LIBOR plus 1.75% or a base rate plus 0.75%. The Company is required to make quarterly principal payments of 1.25% on this term loan facility. The term loan facility was utilized to pay down a portion of the existing 6.75% senior secured first lien notes. In connection with this transaction, the Company recorded $56 million in loss on debt extinguishment for the year ended December 31, 2017.

In November 2017, the Company incurred additional debt of $250 million against this term loan facility to partially fund the purchase of BluePay. The Company made principal payments of $57 million and $70 million in 2018 and 2017, respectively.

On October 5, 2018, the Company made a prepayment of $500 million utilizing $344 million of cash from operations and $156 million of borrowings from the receivable securitization facility. On October 26, 2018, the Company repaid the remaining outstanding balance of $923 million from the proceeds of the new senior secured term loan due October 2023. In connection with these transactions, the Company recorded $4 million in loss on debt extinguishment for the year ended December 31, 2018.

Senior Secured Term Loan Facility Due July 2022

On June 14, 2017, the Company refinanced $2.7 billion of U.S. dollar-denominated senior secured term loans maturing on July 2022 and paid off $1.0 billion of euro-denominated senior secured term loans maturing on March 2021 and July 2022. The U.S. dollar-denominated July 2022 term loan facility was upsized by $1.0 billion, to pay off the euro-denominated term loans. Post transaction, the U.S. dollar-denominated July 2022 term loan facility approximates $3.8 billion of U.S. dollar-denominated term loans maturing July 2022. In connection with this transaction, the Company recorded $9 million in loss on debt extinguishment and $4 million in debt issuance costs for the year ended December 31, 2017. The interest rate applicable to this term loan facility is either LIBOR plus 2.00% or a base rate plus 1.00% as of December 31, 2018 and either LIBOR plus 2.25% or a base rate plus 1.25 as of December 31, 2017.

In December 2018, the Company repaid $775 million under the senior secured term loan facility due July 2022. In connection with this transaction, the Company recorded $7 million in loss on debt extinguishment for the year ended December 31, 2018. The Company made additional payments of $465 million throughout the year ended December 31, 2018 on the senior secured term loan facility due July 2022.

Senior Secured Term Loan Facility Due October 2023

On October 26, 2018, the Company issued $4.75 billion of U.S. dollar-denominated senior secured term loans maturing October 2023. The interest rate applicable to the term loan facility is either LIBOR plus 1.50% or a base rate plus 0.50% as of December 31, 2018. The Company is required to make quarterly principal payments of 0.625% on this term loan facility in the initial year and 1.25% thereafter. In October 2018, the Company drew down $975 million and repaid the remaining balance of the senior secured term loan facility due June 2020 of $923 million. In December 2018, the Company drew down $3.775 billion and repaid in full the 7.0% senior unsecured notes due 2023 and amounts outstanding under the senior secured term loan facility due July 2022.

Senior Secured Term Loan Facility Due April 2024

On November 15, 2017, the Company refinanced $3.9 billion of U.S. dollar-denominated senior secured term loans maturing on April 2024. The proceeds were utilized to pay down the existing March 2021 term loan facility. In connection with this transaction, the Company recorded $9 million in loss on debt extinguishment for the year ended December 31, 2017.The interest rate applicable to this term loan facility is either LIBOR plus 2.00% or a base rate plus 1.00% as of December 31, 2018 and either LIBOR plus 2.25% or a base rate plus 1.25% as of December 31, 2017.

5.375% Senior Secured First Lien Notes Due August 2023

On August 11, 2015, the Company issued $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 each year, commencing on February 15, 2016. The Company may redeem the notes, in whole or in part, prior to August 15, 2020 at established redemption prices plus accrued and unpaid interest to the redemption date. Thereafter, the Company may redeem the notes at par.

5.0% Senior Secured First Lien Notes Due January 2024

On March 29, 2016, the Company issued additional $900 million aggregate principal amount to the existing $1.0 billion principal amount issued November 25, 2015 of 5.0% senior secured first lien notes due January 2024. 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 Due January 2024

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 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 December 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. In December 2018, the Company repaid in full the 7% senior unsecured notes due 2023. In connection with this transaction, the Company recorded $142 million in loss on debt extinguishment.

Maturities

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

Year ended December 31, (in millions)	Par Amount
2019	$ 227
2020	292
2021	311
2022	2,800
2023	5,161
Thereafter	7,956
Total	$ 16,747

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 guarantor and rank senior in right of payment to all existing and future subordinated indebtedness of the guarantor subsidiary. 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 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 obligations under the senior secured first lien notes and senior secured second lien notes also contain a number of covenants similar to those described for the senior secured obligations. The Company is in compliance with all applicable covenants.

Note 3: Revenue Recognition

Disaggregation of Revenue

The following tables present revenues disaggregated by primary geographical regions and product types for year ended December 31, 2018:

	Year ended December 31, 2018			
(in millions)	Global Business Solutions	Global Financial Solutions	Network & Security Solutions	Total
North America	$ 4,414	$ 1,721	$ 1,441	$7,576
EMEA	679	439	14	1,132
LATAM	333	133	1	467
APAC	201	115	7	323
Total Revenue(a)(b)	$ 5,627	$ 2,408	$ 1,463	$9,498

(a) See note 8 “Segment Information” for the reconciliation to segment revenues.
(b) Global Business Solutions includes non wholly-owned entities and Global Financial Solutions includes reimbursable items, which includes postage and customized orders.

(in millions)	Year ended December 31, 2018 Total
Transaction and processing services	$ 8,421
Hardware, Professional Services, and Other	1,077
Total Revenue(a)	$ 9,498

(a) See note 8 “Segment Information” for the reconciliation to segment revenues.

Contract Balances

Accounts Receivable

As of December 31, 2018 and 2017, long-term accounts receivable, net of allowance for doubtful accounts, included within “Other long-term assets” in the consolidated balance sheets was $220 million and $272 million, respectively.

Contract Liabilities

The following table presents the changes in deferred revenue for year ended December 31, 2018:

(in millions)	Year ended December 31, 2018
Balance, beginning of the period	$ 344
New Revenue Standard adjustments	(39)
Deferral of revenue	258
Recognition of unearned revenue	(223)
Other (primarily foreign currency translation)	(42)
Balance, end of period	$ 298

Remaining Performance Obligation

Over 95% of the Company’s performance obligations relate to transaction and processing services or hardware that are subject to a practical expedient (e.g., variable consideration) or point in time recognition, respectively. The Company’s contracts with customers typically do not specify fixed revenues to be realized. Certain customer contracts contain fixed minimums and non-refundable up-front fees (fixed price guarantees). However, the amounts which are considered fixed price guarantees are not material to total consolidated revenue. The Company’s contracts with Small Medium Business (SMB) merchants within the Global Business Solutions segment typically have a contractual duration of less than one year. Larger contracts in the Global Business Solutions, Global Financial Solutions, and Network & Security Solutions segments typically have contractual terms ranging from one to fifteen years with variability being resolved on a daily basis.

Costs to Obtain and Fulfill a Contract

The Company capitalizes incremental costs to obtain new contracts and contract renewals and amortizes these costs on a straight-line basis as a reduction of revenue over the benefit period, which is generally the contract term, unless a commensurate payment is not expected at renewal. As of December 31, 2018 and 2017, the Company had $152 million and $145 million, respectively, of capitalized contract costs included within “Other intangibles, net” on the consolidated balance sheets. For the years ended December 31, 2018, 2017, and 2016 the Company had $51 million, $56 million, and $65 million respectively, of contra-revenue related to these costs.

The Company expenses sales commissions as incurred for the Company's sales commission plans that are paid on recurring monthly revenues, portfolios of existing customers, or have a substantive stay requirement prior to payment.

The Company capitalizes conversion related costs associated with enabling customers to receive its processing services. These costs are amortized on a straight-line basis over the expected benefit period of seven years based on the related services being provided, and are reflected within "Depreciation and amortization" in the Company's consolidated statement of income. As of December 31, 2018 and 2017, the Company had $172 million and $160 million, respectively, of capitalized conversion costs, net of amortization, included within "Other intangibles, net" on the consolidated balance sheets. For the years ended December 31, 2018, 2017, and 2016, the Company had $41 million, $30 million, and $29 million, respectively, of amortization expense related to these costs.

Note 4: Goodwill and Other Intangibles

The following table presents changes to goodwill for the years ended December 31, 2017 and 2018:

(in millions)	Global Business Solutions	Global Financial Solutions	Network & Security Solutions	Totals
Balance as of January 1, 2017				
Goodwill	$ 15,505	$ 1,966	$ 2,284	$19,755
Accumulated impairment losses	(1,363)	(683)	(1,013)	(3,059)
	14,142	1,283	1,271	16,696
Acquisitions	875	—	—	875
Dispositions	—	(17)	(48)	(65)
Other adjustments (primarily foreign currency)	104	100	—	204
Balance as of December 31, 2017				
Goodwill	16,484	2,049	2,236	20,769
Accumulated impairment losses	(1,363)	(683)	(1,013)	(3,059)
	15,121	1,366	1,223	17,710
Acquisitions	6	—	—	6
Dispositions	—	(141)	—	(141)
Other adjustments (primarily foreign currency)	(65)	(49)	(1)	(115)
Balance as of December 31, 2018				
Goodwill	16,425	1,859	2,235	20,519
Accumulated impairment losses	(1,363)	(683)	(1,013)	(3,059)
	$ 15,062	$ 1,176	$ 1,222	$17,460

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
2018	$ 770
2017	752
2016	761

The carrying value of the First Data trade name is $604 million for both the years ended December 31, 2018 and 2017. 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, 2018 or 2017.

The following table provides the components of other intangibles:

	As of December 31,					
	2018			2017		
(in millions)	Cost	Accumulated Amortization	Net of Accumulated Amortization	Cost	Accumulated Amortization	Net of Accumulated Amortization
Customer relationships	$7,272	$ (5,509)	$ 1,763	$8,124	$ (5,940)	$ 2,184
Other intangibles:						
Conversion costs	$ 271	$ (99)	$ 172	$ 302	$ (142)	$ 160
Contract costs	317	(165)	152	324	(179)	145
Software	2,262	(1,646)	616	2,552	(1,920)	632
Other, including trade names	1,314	(361)	953	1,422	(424)	998
Total other intangibles	$4,164	$ (2,271)	$ 1,893	$4,600	$ (2,665)	$ 1,935

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

Year ended December 31, (in millions)	Amount(a)
2019	$ 643
2020	581
2021	442
2022	356
2023	245

(a) Actual amortization expense will be higher due to future activity that generates new intangible assets.

The Company evaluates contract costs, conversion costs, and all other long lived assets for impairment on an annual basis or whenever events of changes in circumstances indicate that the carrying amounts may not be recoverable. Any assets that are determined to be unrecoverable are written down to their fair value.

Note 5: Stock Compensation Plans

The Company provides stock-based compensation awards to its employees under the 2015 Omnibus Incentive Plan (stock plan). 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.

Total stock-based compensation expense recognized in the "Cost of revenues" and "Selling, general, and administrative" line items of the consolidated statements of income resulting from stock options, non-vested restricted stock awards, and non-vested restricted stock units was as follows for the years ended December 31, 2018, 2017, and 2016:

Year ended December 31, (in millions)	Cost of revenues	Selling, general, and administrative	Total
2018	$ 44	$ 204	$248
2017	72	173	245
2016(a)	112	151	263

(a) Directly associated with the Company's initial public offering, the Company incurred $52 million in stock-based compensation expense during 2016.

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. For the years ended December 31, 2018, 2017, and 2016 the amount of shares issued under the plan were not material.

Stock Options

During the years ended December 31, 2018, 2017, and 2016, 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.

As of December 31, 2018, there was approximately $25 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, 2018, 2017, and 2016 were estimated at the date of grant using a Black-Scholes option pricing model with the following weighted-average assumptions:

	Year ended December 31,		
	2018	2017	2016
Risk-free interest rate	2.88%	2.28%	2.08%
Dividend yield	—	—	—
Expected volatility	29.59%	38.97%	41.33%
Expected term (in years)	7	7	7
Fair value of options	$ 8.12	$ 7.52	$ 5.33

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 options-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, 2018 and 2017 was as follows:

(options in millions)	Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value (in millions)
Outstanding as of December 31, 2016	39	$ 12.00		
Granted	—	—		
Exercised	(5)	9.94		
Canceled / Forfeited	—	—		
Outstanding as of December 31, 2017	34	12.27	6 years	$ 150
Granted	1	19.36		
Exercised	(5)	10.38		
Canceled / Forfeited	—	—		
Outstanding as of December 31, 2018	30	12.70	5 years	$ 124
Options exercisable as of December 31, 2018	24	11.98	5 years	$ 117

The total intrinsic value related to stock options exercised for the years ended December 31, 2018, 2017, and 2016 was $50 million, $32 million, and $6 million, respectively.

Restricted Stock Awards and Restricted Stock Units

The grant date fair value of each award is based on the closing stock price at the date of grant. Grants were made as incentive awards, which generally vest 20% on the first anniversary, 40% on the second anniversary, and the remaining 40% on the third anniversary. As of December 31, 2018, there was approximately $259 million of total unrecognized compensation expense related to restricted stock that will be recognized over the respective service period of approximately one year. During 2018, 2017, and 2016, 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, 2018 and 2017 is as follows:

(awards/units in millions)	Awards/Units	Weighted-Average Grant-Date Fair Value
Non-vested as of December 31, 2016	34	$ 13.59
Granted	23	16.94
Vested	(15)	13.86
Canceled / Forfeited	(4)	14.11
Non-vested as of December 31, 2017	38	15.47
Granted	12	16.80
Vested	(14)	14.79
Canceled / Forfeited	(4)	15.82
Non-vested as of December 31, 2018	32	16.24

The total fair value of shares vested (measured as of the date of vesting) for the years ended December 31, 2018, 2017, and 2016 was $215 million, $204 million, and $137 million, respectively.

Note 6: 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 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, stock held by employees, officers and directors that were obtained in connection with the stock compensation plan. 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, 2018					
Foreign currency translation adjustment[a]	$ (1,128)	$ (124)	$ (4)	$ (120)	$(1,248)
Pension liability adjustments	(26)	(5)	(3)	(2)	(28)
Derivative instruments	12	(46)	—	(46)	(34)
Other	(2)	—	(2)	2	—
	$ (1,144)	$ (175)	$ (9)	$ (166)	$(1,310)
As of December 31, 2017					
Foreign currency translation adjustment[a]	$ (1,317)	$ 165	$ (24)	$ 189	$(1,128)
Pension liability adjustments	(98)	93	21	72	(26)
Derivative instruments	3	9	—	9	12
Other	(2)	—	—	—	(2)
	$ (1,414)	$ 267	$ (3)	$ 270	$(1,144)
As of December 31, 2016					
Foreign currency translation adjustment[a]	$ (1,169)	$ (149)	$ (1)	$ (148)	$(1,317)
Pension liability adjustments[b]	(136)	34	(4)	38	(98)
Derivative instruments	—	3	—	3	3
Other	(2)	—	—	—	(2)
	$ (1,307)	$ (112)	$ (5)	$ (107)	$(1,414)

(a) Net-of-tax Foreign currency translation adjustment for the years ended December 31, 2018, 2017, and 2016 is different than the amount presented on the consolidated statements of comprehensive income by $(7) million, $12 million, and $(5) 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 “Interest expense, net” in the consolidated statements of income 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, 2016	$ 77
Distributions	(33)
Share of income	33
Adjustment to redemption value of redeemable noncontrolling interest	(4)
Balance as of December 31, 2016	73
Distributions	(31)
Share of income	31
Adjustment to redemption value of redeemable noncontrolling interest	(1)
Balance as of December 31, 2017	72
Distributions	(32)
Share of income	31
Adjustment to redemption value of redeemable noncontrolling interest	6
Balance as of December 31, 2018	$ 77

Note 7: Net Income Per Share Attributable to First Data Corporation

Basic net income per share is calculated by dividing net income attributable to FDC by the weighted-average shares outstanding during the period, without consideration for any potential dilutive shares. Diluted net income 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 per share by application of the treasury stock method. Under the treasury stock method, an increase in the fair value of the Company’s common stock can result in a greater dilutive effect from potentially dilutive securities. Both Class A and B common stock are included in the net income per share attributable to First Data Corporation calculation because they have the same rights other than voting.

The following table sets forth the computation of the Company's basic and diluted net income attributable to First Data Corporation per share for the years ended December 31, 2018, 2017, and 2016:

	Year ended December 31,		
(in millions, except per share amounts)	2018	2017	2016
Numerator:			
Net income attributable to First Data Corporation	$1,005	$1,465	$ 420
Denominator:			
Weighted-average shares used in computing net income per share, basic	929	916	902
Effect of dilutive securities	28	24	19
Total dilutive securities	957	940	921
Net income attributable to First Data Corporation per share:			
Basic	$ 1.08	$ 1.60	$0.47
Diluted(a)	1.05	1.56	0.46
Anti-dilutive shares excluded from diluted net income per share	5	12	21

(a) Potentially dilutive securities whose effect would have been anti-dilutive are excluded from the computation of diluted earnings per share for all periods presented.

Note 8: 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 reportable 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 items.
- Segment EBITDA (earnings before net interest expense, income taxes, depreciation, and amortization) includes equity earnings in affiliates and excludes depreciation and amortization expense, net income attributable to noncontrolling interests, other operating expenses, net, other income, and stock-based compensation.
- 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.
- 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 reportable segment results for the years ended December 31, 2018, 2017, and 2016:

(in millions)	Year ended December 31, 2018 Global Business Solutions	Global Financial Solutions	Network & Security Solutions	Corporate	Totals
Revenues:					
Total revenues	$ 5,537	$ 1,596	$ 1,489	$ —	$8,622
Equity earnings in affiliates	35	—	—	—	35
Total segment revenues	$ 5,572	$ 1,596	$ 1,489	$ —	$8,657
Depreciation and amortization	$ 510	$ 339	$ 120	$ 7	$ 976
Segment EBITDA	1,995	662	778	(171)	3,264

(in millions)	Year ended December 31, 2017 Global Business Solutions	Global Financial Solutions	Network & Security Solutions	Corporate	Totals
Revenues:					
Total revenues	$ 4,869	$ 1,623	$ 1,543	$ —	$8,035
Equity earnings in affiliates	30	—	—	—	30
Total segment revenues	$ 4,899	$ 1,623	$ 1,543	$ —	$8,065
Depreciation and amortization	$ 457	$ 352	$ 126	$ 12	$ 947
Segment EBITDA	1,824	680	729	(167)	3,066

(in millions)	Year ended December 31, 2016 Global Business Solutions	Global Financial Solutions	Network & Security Solutions	Corporate	Totals
Revenues:					
Total revenues	$ 4,645	$ 1,593	$ 1,485	$ —	$7,723
Equity earnings in affiliates	36	—	—	—	36
Total segment revenues	$ 4,681	$ 1,593	$ 1,485	$ —	$7,759
Depreciation and amortization	$ 435	$ 357	$ 115	$ 14	$ 921
Segment EBITDA	1,725	646	666	(145)	2,892

The following table presents a reconciliation of reportable segment amounts to the Company's consolidated balances for the years ended December 31, 2018, 2017, and 2016:

(in millions)	Year ended December 31, 2018	2017	2016
Total segment revenues	$ 8,657	$ 8,065	$ 7,759
Adjustments:			
Non wholly-owned entities(a)	22	64	80
Reimbursable items(b)	819	3,923	3,745
Consolidated revenues	$ 9,498	$12,052	$11,584
Total segment EBITDA	$ 3,264	$ 3,066	$ 2,892
Adjustments:			
Non wholly-owned entities(a)	35	30	30
Depreciation and amortization	(1,009)	(972)	(949)
Interest expense, net	(917)	(931)	(1,078)
Loss on debt extinguishment	(153)	(80)	(70)
Other items(c)	82	(132)	(61)
Income tax (expense) benefit	(49)	729	(81)
Stock-based compensation	(248)	(245)	(263)
Net income attributable to First Data Corporation	$ 1,005	$ 1,465	$ 420

(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) Reimbursable items for the year ended December 31, 2018 reflect adoption of the New Revenue Standard.
(c) See "Other operating expenses, net" and "Other income" in the Company's consolidated statements of income.

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.

The following table presents a reconciliation of reportable segment depreciation and amortization expense to the amounts in the consolidated balances in the consolidated statements of cash flows and consolidated statements of income for the years ended December 31, 2018, 2017, and 2016:

(in millions)	Year ended December 31, 2018	2017	2016
Segment depreciation and amortization	$ 976	$ 947	$ 921
Adjustments for non-wholly-owned entities	63	70	75
Amortization of payments for customer contracts(a)	51	56	65
Total consolidated depreciation and amortization per consolidated statements of cash flows	1,090	1,073	1,061
Amortization of equity method investment(b)	(30)	(45)	(47)
Amortization of payments for customer contracts(a)	(51)	(56)	(65)
Total consolidated depreciation and amortization per consolidated statements of income	$1,009	$ 972	$ 949

(a) Included in “Revenues excluding reimbursable items” as contra-revenue in the Company’s consolidated statements of income.
(b) Included in “Equity earnings in affiliates” in the Company’s consolidated statements of income.

The following tables presents revenues and long-lived assets by principal geographic area for the years ended December 31, 2018, 2017, and 2016:

(in millions)	United States	International	Total
Revenues:			
2018	$ 7,463	$ 2,035	$ 9,498
2017	10,201	1,851	12,052
2016	9,890	1,694	11,584
Long-Lived Assets:			
2018	$20,118	$ 1,903	$22,021
2017	20,324	2,456	22,780
2016	18,846	2,272	21,118

Note 9: Income Tax

The components of pretax income and provision for income taxes for the years ended December 31, 2018, 2017, and 2016, consisted of the following:

	Year ended December 31,		
(in millions)	2018	2017	2016
Components of pretax income:			
Domestic	$ 535	$ 484	$492
Foreign	712	451	249
Pretax income	$1,247	$ 935	$741
Provision for income taxes:			
Federal	$ 18	$(795)	$ 20
State and local	(66)	(32)	20
Foreign	97	98	41
Income tax expense (benefit)	$ 49	$(729)	$ 81
Effective income tax rate	4%	(78)%	11%

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

	Year ended December 31,		
	2018	2017	2016
Federal statutory rate	21%	35%	35%
State income taxes, net of federal income tax benefit	1	2	2
Nontaxable income from noncontrolling interests	(3)	(7)	(11)
Impact of foreign operations(a)	5	(1)	13
Valuation allowances	(4)	(147)	(35)
Liability for unrecognized tax benefits	(11)	2	—
Prior year adjustments(b)	1	(10)	3
Enacted tax rate changes	—	27	(1)
Other tax reform bill impact for foreign related items	—	17	—
Equity compensation	(1)	—	5
Impact of divestitures	(4)	2	—
Research and development tax credits	(2)	—	—
Other	1	2	—
Effective tax rate	4%	(78)%	11%

(a) The impact of foreign operations includes the U.S. tax consequences of foreign operations.
(b) Includes primarily prior year changes in estimates and true-ups for certain foreign and state net operating loss carryforwards as a result of tax rate and restructuring changes.

The Company’s income tax provision (benefit) consisted of the following components:

	Year ended December 31,		
(in millions)	2018	2017	2016
Current:			
Federal	$(121)	$ 8	$ 22
State and local	(24)	23	24
Foreign	87	93	73
	(58)	124	119
Deferred:			
Federal	139	(803)	(2)
State and local	(42)	(55)	(4)
Foreign	10	5	(32)
	107	(853)	(38)
Income tax expense (benefit)	$ 49	$(729)	$ 81

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:

(in millions)	As of December 31, 2018	2017
Deferred tax assets related to:		
Reserves and other accrued expenses	$ 139	$ 66
Employee related liabilities	112	121
Deferred revenues	16	30
Net operating losses and tax credit carryforwards	1,693	2,281
U.S. foreign tax credits on undistributed earnings	48	39
Foreign exchange loss	2	—
Total deferred tax assets	2,010	2,537
Valuation allowance	(949)	(1,214)
Realizable deferred tax assets	1,061	1,323
Deferred tax liabilities related to:		
Property, equipment, and intangibles	(686)	(772)
Pension obligations	(65)	(67)
Investment in affiliates and other	(221)	(209)
Tax on foreign undistributed earnings	(14)	(12)
Foreign exchange gain	—	(35)
Total deferred tax liabilities	(986)	(1,095)
Net deferred tax asset	$ 75	$ 228

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

(in millions)	As of December 31, 2018	2017
Deferred tax assets	$ 172	$ 305
Deferred tax liabilities	(97)	(77)
Net deferred tax asset	$ 75	$ 228

As of December 31, 2018 and 2017, the Company had recorded valuation allowances of $0.9 billion and $1.2 billion, respectively, against its net deferred tax assets. The decrease to the valuation allowance of $0.3 billion in 2018 was primarily due to gain recapture in Luxembourg, which resulted in a corresponding reduction to the deferred tax asset related to net operating losses.

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

(in millions)	Year ended December 31, 2018
Federal net operating loss carryforwards[a]	$ 3,105
State net operating loss carryforwards[b]	4,835
Foreign net operating loss carryforwards[c]	2,622
General business credit carryforwards[d]	33
Minimum tax credit carryforwards[e]	15

(a) If not utilized, these carryforwards will expire by year 2037.
(b) Will expire if not utilized, for the years 2019, 2020, and 2021 of $244 million, $193 million, and $68 million, respectively, and the remaining through 2038.
(c) Foreign net operating loss carryforwards of $49 million, if not utilized, will expire in years 2019 through 2038. The remaining foreign net operating loss carryforwards of $2.6 billion have an indefinite life.
(d) If not utilized, these carryforwards will expire in years 2027 through 2038.
(e) These carryforwards are refundable credits and will be utilized or refunded between 2019 and 2021.

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. Under the U.S. tax reform law changes enacted during 2017, all existing positive earnings were deemed to be distributed, and future foreign earnings generally will not be taxed in the U.S upon distribution. Accordingly, as of December 31, 2018, no provision had been made for U.S. federal and state income taxes on the cumulative amount of temporary differences related to investments in foreign subsidiaries. Upon sale or liquidation of these investments, the Company would potentially be subject to U.S., state, and foreign income taxes and withholding taxes payable to the various foreign countries. However, it is not practicable to determine the amount of any potential additional tax that may be payable in the event of a sale or liquidation of these investments.

On December 22, 2017, the Tax Cuts and Jobs Act (tax reform bill) was signed into law in the U.S. The provisions of the tax reform bill with the most significant implications to the Company were the reduction of the federal tax rate from 35% to 21%, the creation of a 100% participation exemption for foreign dividends, the enactment of a one-time transition tax on existing foreign earnings, limitations on the deductibility of interest expense, and the establishment of global intangible low-taxed income (GILTI) rules. The first three provisions impacted the year-ended December 31, 2017. At December 31, 2017, the Company made a reasonable estimate of the effects on its existing deferred tax balances, valuation allowance assessment for certain tax assets and the one-time transition tax. The Company recognized a provisional net tax expense of $353 million in the year ended December 31, 2017 related to the tax reform bill, which is included as a component of income tax expense from continuing operations. At December 31, 2018, the Company finalized its 2017 calculation under SAB 118 and did not materially change the net tax expense of $353 million related to the tax reform bill provisionally recorded in 2017.

The tax reform bill subjects a U.S. shareholder to current tax on GILTI earned by certain foreign subsidiaries. The FASB Staff Q&A, Topic 740 No. 5, Accounting for Global Intangible Low-Taxed Income, states that an entity can make an accounting policy election to either recognize deferred taxes for temporary differences expected to reverse as GILTI in future years or provide for the tax expense related to GILTI in the year the tax is incurred. The Company has elected to recognize the tax on GILTI as a period expense in the period the tax is incurred.

In addition, given the mechanics of the GILTI calculation, the FASB provides two methods to consider the realizability of net operating loss carryforwards in the valuation allowance assessment: (i) consider the realizable benefit of a net operating loss deferred tax asset by comparing the incremental cash taxes in the calculation of GILTI with and without the net operating loss (the incremental cash tax savings approach) or (ii) consider the tax law ordering to determine whether the net operating loss deferred tax asset is expected to be realized (the tax-law ordering approach). As of December 31, 2018, the Company has finalized its policy election to use the tax law ordering approach in its consideration of the realizability of net operating loss deferred tax assets in its valuation allowance assessment.

A reconciliation of the unrecognized tax benefits was as follows:

(in millions)	Unrecognized Tax Benefits
Balance as of January 1, 2016	$ 249
Increases for tax positions of prior years	2
Decreases for tax positions of prior years	(1)
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
Increases for tax positions of prior years	14
Decreases for tax positions of prior years	(10)
Decreases for tax positions related to the current period	(3)
Decreases for cash settlements with taxing authorities	(1)
Decreases due to the lapse of the applicable statute of limitations	(7)
Decreases due to change in tax rates	(13)
Balance as of December 31, 2017	220
Increases for tax positions of prior years	11
Decreases for tax positions of prior years	(122)
Increases for tax positions related to the current period	1
Decreases due to the lapse of the applicable statute of limitations	(15)
Balance as of December 31, 2018	$ 95

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 $5 million as of December 31, 2018). However, those unrecognized tax benefits that affect the federal consolidated tax years ending December 31, 2008 through December 31, 2018 are included in “Other long-term assets” 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, 2018, 2017, and 2016 included approximately $70 million, $130 million, and $133 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 (benefit)” in the consolidated statements of income. 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 “Other long-term assets” 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 ended December 31,		
(in millions)	2018	2017	2016
Current year accrued interest expense (net of related tax benefits)	$ 4	$ 6	$ 5
Cumulative accrued interest and penalties (net of related tax benefits)	13	60	48

As of December 31, 2018, the Company anticipates it is reasonably possible that its liability for unrecognized tax benefits may decrease by approximately $17 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, 2018, the Company was no longer subject to income tax examination by the U.S. federal jurisdiction for years before 2008. State and local examinations are substantially complete through 2010. Foreign jurisdictions generally remain subject to examination by their respective authorities from 2007 forward, none of which are considered major jurisdictions.

Pursuant to 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 was responsible for and required to indemnify the Company against all taxes, interest, and penalties that relate to Western Union for periods prior to the spin-off date. During 2018, a pre-spin-off audit cycle was settled for which Western Union indemnified the Company for tax positions covered under the Tax Allocation Agreement. There was no impact to 2018 earnings as a result of this indemnification.

Note 10: 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 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 control the alliance, the Company 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, 2018 and 2017, the Company had $32 million and $35 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, 2018 and 2017, the Company had $4 million and $6 million, respectively, of amounts due to unconsolidated merchant alliances included within "Accounts payable and accrued liabilities" in the Company's consolidated balance sheets.

Relationship with KKR Capital Markets

For the years ended December 31, 2018, 2017, and 2016, 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. KKR Capital Markets LLC, did not receive any fees for the year ended December 31, 2018, but did receive underwriter and transactions fees totaling $2 million and $17 million for the years ended December 31, 2017 and 2016, respectively.

Indemnifications

In the third quarter of 2018, the Company agreed to indemnify the co-founders of KKR if their personal information is misused due to sharing their information under the EU's 4th Money Laundering Directive for registering the Ultimate Beneficial Owners. The maximum potential amount of future payments the Company could be required to make under this indemnification agreement is unlimited. 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 11: Other Operating Expenses, Net

The following table details the components of "Other operating expenses, net" in the consolidated statements of income:

	Year ended December 31,		
(in millions)	2018	2017	2016
Restructuring, net	$ 85	$ 83	$ 49
Deal and deal integration costs	3	27	—
Asset impairment	—	13	—
Merchant matters	20	10	—
Other	11	10	2
Other operating expenses, net	$119	$143	$ 51

Restructuring

During the years ended December 31, 2018, 2017, and 2016, the Company recorded restructuring charges in connection with ongoing expense management initiatives. The Company has ongoing initiatives, which are expected to result in approximately $20 million over the next twelve months. The Company continues to evaluate operating efficiencies and could incur further restructuring costs beyond these initiatives.

A summary of net pretax charges incurred by segment was as follows for the years ended December 31, 2018, 2017, and 2016:

	Year ended December 31,		
(in millions)	**2018**	**2017**	**2016**
Global Business Solutions	$ 22	$ 36	$ 9
Global Financial Solutions	13	17	10
Network & Security Solutions	25	8	3
Corporate	25	22	27
Restructuring, net	$ 85	$ 83	$ 49

The following table summarizes the Company's utilization of restructuring accruals for the years ended December 31, 2017 and 2018:

(in millions)	**Employee Severance**	**Other**	**Total**
Remaining accrual as of January 1, 2017	$ 9	$—	$ 9
Employee expense	83	—	83
Cash payments and other	(71)	—	(71)
Remaining accrual as of December 31, 2017	21	—	21
Employee expense	67	—	67
Exit costs	—	18	18
Cash payments and other	(79)	(11)	(90)
Remaining accrual as of December 31, 2018	$ 9	$ 7	$ 16

Deal and Deal Integration Costs

During 2017, the Company completed three acquisitions, the two largest were CardConnect and BluePay. In connection with these acquisitions, the Company incurred $27 million in deal and deal integration costs for the year ended December 31, 2017. Deal and deal integration costs include asset impairment of $9 million, banker fees and other costs to close the transaction of $7 million, and other integration costs. See note 13 "Acquisitions and Dispositions" of these consolidated financial statements for details regarding the Company's acquisitions.

Asset Impairment

For the year ended December 31, 2017, the Company incurred $6 million loss on a prepaid asset related to an early contract terminated and a loss of $7 million related to write down of abandoned technology and property.

Merchant Matters

During the years ended December 31, 2018 and 2017 the Company incurred $20 million and $10 million, respectively, in costs related to customer matters.

Other

For the year ended December 31, 2018, the Company incurred $8 million in costs related to the transition of its card processing business in Central and South Eastern Europe. For the year ended December 31, 2017, the $10 million in costs is related to earnout expense associated with a previous acquisition.

Note 12: 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:

(in millions)	As of December 31, 2018	2017
Settlement assets:		
Cash and cash equivalents	$ 3,191	$ 1,738
Due from card associations, bank partners, and merchants	8,232	18,625
Total settlement assets	$11,423	$20,363
Settlement obligations:		
Payment instruments outstanding	$ 12	$ 11
Card settlements due to merchants	11,411	20,352
Total settlement obligations	$11,423	$20,363

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 13: Acquisitions and Dispositions

2018 Acquisitions

In January 2018, the Company acquired 100% of GreekBill, a web-based billing and financial management company catering exclusively to fraternities and sororities. The purchase price was $17 million and GreekBill is reported as part of the Company’s Global Business Solutions segment. The acquisition of GreekBill had an immaterial impact on revenue and operating income.

2017 Acquisitions

In May 2017, the Company acquired 100% of Accullink Inc. (Acculynk), a leading technology company that delivers eCommerce solutions for debit card acceptance. The acquisition included Acculynk’s PaySecure debit routing technology and its range of other services. The purchase price was $85 million and Acculynk is reported as part of the Company’s Global Business Solutions segment.

In July 2017, the Company acquired 100% of CardConnect Corp. (CardConnect) for $763 million in cash, net of cash acquired. CardConnect is an innovative provider of payment processing and technology solutions and was one of the Company’s largest distribution partners. The transaction is expected to enable the Company to bring innovative partner management tools to improve merchant retention, accelerate the Company’s firm-wide independent software vendor (ISV) initiative and bring immediate capabilities in enterprise resource planning (ERP) integrated payment solutions to its customers. CardConnect operations are reported as part of the Company’s Global Business Solutions segment. The acquisition was accounted for as a business combination and the accounting is complete.

The following table summarizes the fair values of the assets acquired and liabilities assumed on the acquisition date. The excess of the purchase price over the net tangible and identifiable intangible assets’ fair value was recorded as goodwill within the Company’s Global Business Solutions segment. The goodwill recognized was attributable to increased synergies that are expected to be achieved from the integration of CardConnect as well as potential revenue enhancements to the Company.

The Company accounted for the business combination as follows:

(in millions)	Amount
Other current assets	$ 58
Property and equipment	7
Intangible assets	463
Goodwill	432
Current liabilities	(58)
Deferred tax liabilities	(139)

The following table sets forth the components of the intangible assets:

(in millions)	Acquisition-Date Fair Value	Useful Life (Years)
Agent relationships	$ 296	18
Merchant relationships	84	7
Software systems	39	5
Residual buyouts	23	4
Trade name	21	9
	$ 463	

In connection with the closing of the acquisition, the Company incurred $6 million of transactions costs, which has been included as deal and deal integration costs within "Other operating expenses, net" in the consolidated statement of income for the year ended December 31, 2017.

The revenue and earnings of CardConnect have been included in the Company's results since the acquisition date and are not material to the Company's consolidated financial results. Supplemental pro forma results of income of the combined entities have not been presented as the financial impact to the Company's consolidated financial statements would be immaterial.

In December 2017, the Company acquired 100% of BluePay Holdings, Inc. (BluePay) for $759 million in cash, net of cash acquired. BluePay is a provider of technology-enabled payment processing for merchants in the U.S. and Canada and was one of the Company's largest distribution partners with a strong focus on software-enabled payments and card-not-present transactions. The transaction is expected to be highly complementary to the Company's earlier acquisition of CardConnect and enhance the Company's suite of innovative partner management tools to improve merchant retention, accelerate the Company's firm-wide ISV initiative and bring immediate capabilities in ERP integrated payment solutions to its customers. BluePay operations are reported as part of the Company's Global Business Solutions segment. The acquisition was accounted for as a business combination and the accounting is complete.

The following table summarizes the fair values of the assets acquired and liabilities assumed on the acquisition date. The excess of the purchase price over the net tangible and identifiable intangible assets' fair value was recorded as goodwill within the Company's Global Business Solutions segment. The goodwill recognized was attributable to increased synergies that are expected to be achieved from the integration of BluePay as well as potential revenue enhancements to the Company.

The Company accounted for the business combination as follows:

(in millions)	Amount
Other current assets	$ 27
Property and equipment	3
Intangible assets	450
Goodwill	389
Current liabilities	(25)
Deferred tax liabilities	(85)

The following table sets forth the components of the intangible assets:

(in millions)	Acquisition-Date Fair Value	Useful Life (Years)
Agent relationships	$ 195	18
Merchant relationships	216	10
Software systems	27	5
Trade name	12	5
	$ 450	

In connection with the closing of the acquisition, the Company incurred $1 million of transactions costs, which has been included as deal and deal integration costs within “Other operating expenses, net” in the consolidated statement of income for the year ended December 31, 2017.

The revenue and earnings of BluePay have been included in the Company’s results since the acquisition date and are not material to the Company’s consolidated financial results. Supplemental pro forma results of income of the combined entities have not been presented as the financial impact to the Company’s consolidated financial statements would be immaterial.

In October 2017, the Company formed a digital banking joint venture, named Apiture, which combines FDC and Live Oak Bancshares, Inc. digital banking platforms, products, and services, delivering innovative technology solutions tailored for financial institutions. The joint venture will be accounted for as an equity method investment, as Apiture is owned and managed equally between the Company and Live Oak Bancshares, Inc. As a result, the contributed digital banking business is no longer consolidated into the Company’s results. During the year ended December 31, 2016, the Company’s digital banking business had revenue and operating income of $57 million and $11 million, respectively. Associated with the transaction, the Company recognized an $18 million gain on the formation of the joint venture, included within “Other income” in the consolidated statement of income as of December 31, 2017. The gain recognized represents the excess investment value over assets contributed.

2018 Dispositions

In September 2018, the Company divested its card processing business in Central and Southeastern Europe for proceeds of €387 million (the U.S. dollar equivalent is $449 million), subject to closing adjustments. The divestiture does not represent a strategic shift that will have a major effect on the Company’s operations and financial statements. The card processing business in Central and Southeastern Europe was reported within the Global Financial Solutions segment and had revenue and operating income of $79 million and $15 million, respectively, for 2018 through the disposition date. The total gain on disposition recognized was $174 million, which is included in “Other income” in the consolidated statement of income as of December 31, 2018.

In August 2018, the Company divested 100% of its remittance processing business in the U.S. for proceeds of $100 million, subject to closing adjustments. The remittance processing business is reported within the Global Financial Solutions segment and had revenue and operating loss of $50 million and $1 million, respectively, for 2018 through the disposition date. The total gain on disposition recognized was $28 million, which is included in “Other income” in the consolidated statement of income as of December 31, 2018.

2017 Dispositions

In September 2017, the Company divested all of its businesses in Lithuania, Latvia and Estonia for €73 million (the U.S. dollar equivalent is $85 million). The businesses were reported within the Global Financial Solutions segment. Associated with the transaction, the Company recognized a $4 million loss on the sale which is included in “Other income” in the consolidated statement of income as of December 31, 2017.

2016 Dispositions

In September 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 income as of December 31, 2016. 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 as of December 31, 2016.

Note 14: Derivative Financial Instruments

The Company enters into the following types of derivatives:

- Interest rate contracts: The Company uses a combination of floating to fixed interest rate swaps and collars to mitigate its exposure to interest rate fluctuations on interest payments related to variable rate debt. For interest rate swaps, floating rate payments are received in exchange for fixed-rate payments. For interest rate collar contracts, no payments or receipts are exchanged unless interest rates rise or fall in excess of 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 qualifying hedging relationships.

The Company held the following derivative instruments as of December 31, 2018 and 2017:

	As of December 31,							
	2018				2017			
(in millions)	Notional Currency	Notional Value	Assets (a)	Liabilities (a)	Notional Currency	Notional Value	Assets (a)	Liabilities (a)
Derivatives designated as hedges of net investments in foreign operations:								
Foreign exchange contracts(b)	AUD	—	$ —	$ —	AUD	100	$ 28	$ —
Foreign exchange contracts	EUR	915	—	19	EUR	915	—	76
Foreign exchange contracts	GBP	150	6	—	GBP	150	—	6
Foreign exchange contracts	CAD	95	5	—	CAD	95	—	2
			11	19			28	84
Derivatives designated as cash flow hedges:								
Interest rate collar contracts(c)	USD	2,800	10	—	USD	4,300	12	—
Interest rate swap contracts(d)	USD	7,250	—	44			—	—
			10	44			12	—
			$ 21	$ 63			$ 40	$ 84

(a) The Company's derivatives 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) Foreign exchange contract expired January 2018.
(c) The interest rate collar with a notional value of $1.5 billion matured in September 2018. The remaining interest rate collars with a notional value of $1.3 billion and $1.5 billion will mature in January 2019 and September 2019, respectively.
(d) The Company entered into new interest rate swaps with a notional value of $2.5 billion in May 2018 which expires in May 2021. The Company entered into new interest rate swap contracts with a notional value of $4.75 billion in December 2018 which expires in December 2020.

The maximum length of time over which the Company is hedging its currency exposure of net investments in foreign operations, through utilization of foreign exchange contracts, is through June 2020.

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 May 2021.

As of December 31, 2018, the Company has not posted any collateral related to any of its derivative financial instruments.

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 years ended December 31, 2018, 2017, and 2016:

	Year ended December 31,					
	2018		2017		2016	
(in millions, pretax)	Interest Rate Contracts	Foreign Exchange Contracts	Interest Rate Contracts	Foreign Exchange Contracts	Interest Rate Contracts	Foreign Exchange Contracts
Derivatives designated as hedging instruments:						
Gain (loss) recognized in “Foreign currency translation adjustment” in the consolidated statements of comprehensive income (effective portion)	$ —	$ 104	$ —	$ (98)	$ —	$ 58
(Loss) gain recognized in “Derivative instruments” in the consolidated statements of comprehensive income (effective portion)	(46)	—	9	—	3	—
Derivatives not designated as hedging instruments:						
Loss recognized in “Other income” in the consolidated statements of income	$ —	$ —	$ —	$ —	$ (5)	$ —

Accumulated Derivative Gains and Losses

The following table summarizes activity in other comprehensive income for the years ended December 31, 2018, 2017, and 2016 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)	2018	2017	2016
Accumulated gain included in other comprehensive income at beginning of the period	$121	$177	$116
Increase (decrease) in fair value of derivatives that qualify for hedge accounting, net of tax(a)(b)	44	(56)	61
Accumulated gain included in other comprehensive income at end of the period	$165	$121	$177

(a) Gains are included in “Derivative instruments” and “Foreign currency translation adjustment” on the consolidated statements of comprehensive income.

(b) Net of $(14) million, $33 million, and $0 million tax (expense) benefit for the years ended December 31, 2018, 2017, and 2016, respectively.

Note 15: 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 $83 million, $80 million, and $79 million for the years ended December 31, 2018, 2017, and 2016, respectively. Future minimum aggregate rental commitments as of December 31, 2018 under all noncancelable operating leases, net of sublease income are due in the following years:

Year ended December 31, (in millions)	Amount
2019	$ 59
2020	52
2021	47
2022	41
2023	36
Thereafter	91
Total	$ 326

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 $35 million in outstanding letters of credit as of December 31, 2018, of which $5 million and $30 million were issued under the Company's senior secured and unsecured revolving credit facilities, respectively. See "Senior Secured Revolving Credit Facility" and "Senior Unsecured Revolving Credit Facility" provided in note 2 "Borrowings" of these consolidated financial statements for more information. 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 income.

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 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 or other claims arising from its merchant business; and (3) other matters which may include issues such as employment and indemnification obligations to purchasers of former subsidiaries. The Company's estimates of the possible ranges of losses in excess of any amounts accrued are $0 to $5 million for patent infringement, $0 to $93 million for merchant matters, and $0 to $5 million for other matters, resulting in a total estimated range of possible losses of $0 to $103 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 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 16: 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 Company plans to reinstate a matching contributions plan for U.S. participants on January 1, 2019.

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

Year ended December 31, (in millions)	Amount
2018	$ 13
2017	10
2016	11

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 and Austria.

The Company contributed cash in the amount of $0 million, $19 million, and $19 million to defined benefit plans for the years ended December 31, 2018, 2017, and 2016, 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:

(in millions)	As of December 31, 2018	2017
U.K. plan:		
Plan benefit obligations	$ (597)	$ (686)
Fair value of plan assets	786	891
Net pension assets(a)	189	205
U.S. and other foreign plans:		
Plan benefit obligations	(205)	(234)
Fair value of plan assets	143	166
Net pension liabilities(b)	(62)	(68)
Funded status of the plans	$ 127	$ 137

(a) Pension assets are included in “Other long-term assets” of the consolidated balance sheets.
(b) 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 $802 million and $920 million as of December 31, 2018 and 2017, respectively.

Based on the valuation techniques described in note 1 “Summary of Significant Accounting Policies”, as of December 31, 2018, Plan assets are comprised of approximately 15% of Level 1 securities, 85% of Level 2 securities, and an immaterial amount of Level 3 securities.

The Plan paid benefits in the amount of $56 million, $59 million, and $39 million for the periods ended December 31, 2018, 2017, and 2016, respectively. The estimated future benefit payments, which reflect expected future service, are expected to be as follows:

Year ended December 31, (in millions)	Amount
2019	$ 29
2020	30
2021	33
2022	34
2023	37
2024-2028	197

The Company’s post-retirement health care and other insurance benefits for retired employees are limited and not material.

Note 17: Supplemental Financial Information

Supplemental Consolidated Statements of Income Information

The following table details the components of “Other income” on the consolidated statements of income:

(in millions)	Year ended December 31, 2018	2017	2016
Investment gains	$ 3	$ 1	$ 35
Divestitures	197	18	(34)
Non-operating foreign currency gains (loss)	6	(1)	19
Other miscellaneous expense	(5)	(2)	(3)
Other income	$ 201	$ 16	$ 17

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 10 years. The Company did not identify any relevant transactions in Visa preferred stock on or before December 31, 2018, with observable price changes, and thus the Company continues to carry these shares at zero value.

Divestitures

See note 13 "Acquisitions and Dispositions" of these consolidated financial statements for more information on the Company's significant divestitures.

Supplemental Consolidated Balance Sheet Information

(in millions)	As of December 31, 2018	2017
Prepaid expenses and other current assets:		
Prepaid expenses	$ 133	$ 156
Inventory	116	98
Other	70	81
Total Prepaid expenses and other current assets	$ 319	$ 335
Property and equipment:		
Land	$ 50	$ 58
Buildings	235	270
Leasehold improvements	117	96
Equipment and furniture	1,603	1,508
Equipment under capital lease	547	607
Property and equipment	2,552	2,539
Less: Accumulated depreciation	(1,647)	(1,588)
Total Property and equipment, net of accumulated depreciation	$ 905	$ 951
Accounts payable and accrued liabilities:		
Accounts payable	$ 276	$ 247
Accrued interest expense	147	154
Other accrued expenses	724	712
Other	489	546
Total Accounts payable and accrued liabilities	$ 1,636	$ 1,659

Note 18: 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 income.

As of December 31, 2018, there were twenty-one affiliates accounted for under the equity method of accounting, comprised of seven merchant alliances and fourteen strategic investments in companies in related markets.

As of December 31, 2018, the Company had no unconsolidated significant subsidiaries that were not required to be consolidated, but represented more than 20% of the Company's pretax income. For the year ended December 31, 2017, the Wells Fargo alliance did meet 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.

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

(in millions)	As of December 31, 2018	2017
Total current assets	$3,764	$5,427
Total long-term assets	187	239
Total assets	$3,951	$5,666
Total current liabilities	$3,669	$5,347
Total long-term liabilities	3	8
Total liabilities	$3,672	$5,355

The primary components of assets and liabilities are settlement-related accounts similar to those described in note 12 “Settlement Assets and Obligations” of these consolidated financial statements.

(in millions)	Year ended December 31, 2018	2017	2016
Net operating revenues	$1,372	$1,374	$1,434
Operating expenses	745	712	666
Operating income	$ 627	$ 662	$ 768
Net income	$ 615	$ 646	$ 749
FDC equity earnings	221	222	260

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 $0.9 billion and $0.9 billion as of December 31, 2018 and 2017, 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, 2018 is as follows:

Year ended December 31, (in millions)	Amount
2019	$ 4

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 relate to this amortization.

Note 19: 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 2018 and 2017:

	2018			
(in millions, except per share amounts)	First	Second	Third	Fourth
Revenues	$2,282	$2,448	$2,369	$2,399
Expenses	1,934	1,910	1,894	1,865
Operating profit	$ 348	$ 538	$ 475	$ 534
Net income	$ 134	$ 402	$ 448	$ 214
Net income attributable to First Data Corporation	101	341	401	162
Net income per share:				
Basic	0.11	0.37	0.43	0.17
Diluted	0.11	0.36	0.42	0.17

	2017			
(in millions, except per share amounts)	First	Second	Third	Fourth
Revenues	$2,801	$3,025	$3,076	$3,150
Expenses	2,475	2,558	2,659	2,652
Operating profit	$ 326	$ 467	$ 417	$ 498
Net income	$ 79	$ 243	$ 340	$1,002
Net income attributable to First Data Corporation	36	185	296	948
Net income per share:				
Basic	0.04	0.20	0.32	1.03
Diluted	0.04	0.20	0.31	1.00

The 2018 results include the impact of adopting the New Revenue Standard. See note 1 “Summary of Significant Accounting Policies” for more information.

The change in net income during the fourth quarter of 2017 was primarily driven by the release of a valuation allowances associated with the Company’s deferred tax assets.

Note 20: Subsequent Events

On January 16, 2019, the Company and Fiserv, Inc. (Fiserv), and 300 Holdings, Inc. (Merger Sub), a wholly-owned subsidiary of Fiserv, entered into an agreement and plan of merger (Merger Agreement), pursuant to which the Company will merge into Merger Sub (the Merger). The terms are subject to the conditions set forth in the Merger

Agreement, which states at closing each share of the Company's common stock issued and outstanding will be converted into the right to receive 0.303 (Exchange Ratio) of a share of common stock, par value $0.01 per share, of Fiserv. The Company's equity awards will generally be converted into Fiserv equity awards after giving effect to the Exchange Ratio and appropriate adjustments and be governed by the same terms and conditions as applicable to the Company's corresponding equity awards. Completion of the Merger is subject to customary closing conditions for both parties. The Company currently anticipate that it will close the merger during the second half of 2019. For additional information see Form 425 filed with the Securities and Exchange Commission dated January 16, 2019 and available through the "Investor Relations" portion of our website at http://investor.firstdata.com.

FIRST DATA CORPORATION
SCHEDULE II—Valuation and Qualifying Accounts

Description (in millions)	Balance at Beginning of Period	Additions: Charged to Costs and Expenses	Additions: Reclassifications from Other Accounts(a)	Deductions: Write-offs Against Assets	Balance at End of Period
Year ended December 31, 2018 deducted from receivables	$ 54	$ 82	$ —	$ 84	$ 52
Year ended December 31, 2017 deducted from receivables	87	82	1	116	54
Year ended December 31, 2016 deducted from receivables	83	85	1	82	87

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

Interim unaudited condensed consolidated financial statements of First Data Corporation as of March 31, 2019 and for the three months ended March 31, 2019 and 2018

FIRST DATA CORPORATION
CONSOLIDATED STATEMENTS OF INCOME
(Unaudited)

(in millions, except per share amounts)	Three months ended March 31, 2019	2018
Revenues:		
Revenues excluding reimbursable items(a)	$ 2,124	$ 2,084
Reimbursable items	192	198
Total revenues	2,316	2,282
Expenses:		
Cost of revenues (exclusive of items shown below)	757	779
Selling, general, and administrative	660	647
Depreciation and amortization	246	250
Other operating expenses, net	36	60
Total expenses excluding reimbursable items	1,699	1,736
Reimbursable items	192	198
Total expenses	1,891	1,934
Operating profit	425	348
Interest expense, net	(203)	(233)
Loss on debt extinguishment	(1)	—
Other expense	(27)	(3)
Income before income taxes and equity earnings in affiliates	194	112
Income tax expense	29	27
Equity earnings in affiliates	52	49
Net income	217	134
Less: Net income attributable to noncontrolling interests and redeemable noncontrolling interest	48	33
Net income attributable to First Data Corporation	$ 169	$ 101
Net income attributable to First Data Corporation per share:		
Basic	$ 0.18	$ 0.11
Diluted	$ 0.17	$ 0.11
Weighted-average common shares outstanding:		
Basic	937	923
Diluted	967	946

(a) Includes processing fees, administrative service fees, and other fees charged to merchant alliances accounted for under the equity method of $48 million and $51 million for the three months ended March 31, 2019 and 2018, respectively.

See notes to unaudited consolidated financial statements.

FIRST DATA CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)

(in millions)	Three months ended March 31, 2019	2018
Net income	$ 217	$ 134
Other comprehensive income (loss), net of tax:		
Foreign currency translation adjustment	59	90
Pension liability adjustments	2	—
Derivative instruments	(28)	9
Total other comprehensive income, net of tax	33	99
Comprehensive income	250	233
Less: Comprehensive income attributable to noncontrolling interests and redeemable noncontrolling interest	48	37
Comprehensive income attributable to First Data Corporation	$ 202	$ 196

See notes to unaudited consolidated financial statements.

FIRST DATA CORPORATION
CONSOLIDATED BALANCE SHEETS
(Unaudited)

(in millions, except par value)	As of March 31, 2019	As of December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 619	$ 555
Accounts receivable, net of allowance for doubtful accounts of $47 and $46	2,130	2,217
Settlement assets	22,324	11,423
Prepaid expenses and other current assets	321	319
Total current assets	25,394	14,514
Property and equipment, net of accumulated depreciation of $1,709 and $1,647	890	905
Goodwill	17,518	17,460
Customer relationships, net of accumulated amortization of $5,596 and $5,509	1,725	1,763
Other intangibles, net of accumulated amortization of $2,362 and $2,271	1,923	1,893
Investment in affiliates	1,072	1,055
Other long-term assets	1,024	737
Total assets	$ 49,546	$ 38,327
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	$ 1,640	$ 1,636
Short-term and current portion of long-term borrowings	1,159	1,170
Settlement obligations	22,324	11,423
Total current liabilities	25,123	14,229
Long-term borrowings	16,282	16,429
Deferred tax liabilities	84	97
Other long-term liabilities	800	528
Total liabilities	42,289	31,283
Commitments and contingencies (See note 13)		
Redeemable noncontrolling interest	93	77
First Data Corporation stockholders' equity:		
Class A Common stock, $0.01 par value; 1,600 shares authorized as of March 31, 2019 and December 31, 2018, 595 shares and 584 shares issued as of March 31, 2019 and December 31, 2018, respectively; and 575 shares and 568 shares outstanding as of March 31, 2019 and December 31, 2018, respectively	6	6
Class B Common stock, $0.01 par value; 448 shares authorized as of March 31, 2019 and December 31, 2018; 369 shares issued and outstanding as of March 31, 2019 and December 31, 2018	4	4
Preferred stock, $0.01 par value; 100 shares authorized as of March 31, 2019 and December 31, 2018; no shares issued and outstanding as of March 31, 2019 and December 31, 2018	—	—
Class A Treasury stock, at cost, 20 shares and 16 shares as of March 31, 2019 and December 31, 2018, respectively	(338)	(251)
Additional paid-in capital	13,872	13,791
Accumulated loss	(7,892)	(8,067)
Accumulated other comprehensive loss	(1,277)	(1,310)
Total First Data Corporation stockholders' equity	4,375	4,173
Noncontrolling interests	2,789	2,794
Total equity	7,164	6,967
Total liabilities and equity	$ 49,546	$ 38,327

See notes to unaudited consolidated financial statements.

FIRST DATA CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

(in millions)	Three months ended March 31, 2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Net income	$ 217	$ 134
Adjustments to reconcile to net cash provided by operating activities:		
Depreciation and amortization (including amortization netted against equity earnings in affiliates and revenues)	261	271
Deferred income taxes	15	1
Charges related to other operating expenses, net and other expense	63	63
Loss on debt extinguishment	1	—
Stock-based compensation expense	56	74
Other non-cash and non-operating items, net	5	3
Increase (decrease) in cash, excluding the effects of acquisitions and dispositions, resulting from changes in:		
Accounts receivable, current and long-term	141	136
Other assets, current and long-term	15	(14)
Accounts payable and other liabilities, current and long-term	(137)	(128)
Income tax accounts	(22)	(6)
Net cash provided by operating activities	615	534
CASH FLOWS FROM INVESTING ACTIVITIES		
Additions to property and equipment	(84)	(70)
Payments to obtain customer contracts, including outlays for conversion, and capitalized systems development costs	(82)	(69)
Acquisitions, net of cash acquired	(73)	(17)
Proceeds from the maturity of net investment hedges	—	26
Other investing activities, net	(22)	(13)
Net cash used in investing activities	(261)	(143)
CASH FLOWS FROM FINANCING ACTIVITIES		
Short-term borrowings, net	(3)	(153)
Principal payments on long-term debt	(163)	(53)
Payment of taxes related to net settlement of equity awards	(97)	(56)
Distributions and dividends paid to noncontrolling interests and redeemable noncontrolling interest	(52)	(52)
Other financing activities, net	40	10
Net cash used in financing activities	(275)	(304)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	(2)	3
Change in cash, cash equivalents, and restricted cash	77	90
Cash, cash equivalents, and restricted cash at beginning of period[a]	583	525
Cash, cash equivalents, and restricted cash at end of period[a]	$ 660	$ 615
NON-CASH TRANSACTIONS		
Finance leases, net of trade-ins	$ —	$ 15

(a) The Company held $41 million and $28 million in restricted cash within “Other long-term assets” in the unaudited consolidated balance sheets as of March 31, 2019 and December 31, 2018, respectively.

See notes to unaudited consolidated financial statements.

FIRST DATA CORPORATION
CONSOLIDATED STATEMENTS OF EQUITY
(Unaudited)

	First Data Corporation Stockholders										
	Common Stock				Treasury Stock		Additional		Accumulated Other		
	Class A		Class B		Class A		Paid-In	Accumulated	Comprehensive	Noncontrolling	
(in millions)	Shares	Amount	Shares	Amount	Shares	Amount	Capital	Loss	Loss	Interest	Total
Balance, December 31, 2018	568	$ 6	369	$ 4	16	$ (251)	$ 13,791	$ (8,067)	$ (1,310)	$ 2,794	$6,967
Adoption of New Lease Standard	—	—	—	—	—	—	—	6	—	—	6
Dividends and distributions paid to noncontrolling interests[(a)]	—	—	—	—	—	—	—	—	—	(45)	(45)
Net income[(b)]	—	—	—	—	—	—	—	169	—	40	209
Other comprehensive income	—	—	—	—	—	—	—	—	33	—	33
Adjustments to redemption value of redeemable noncontrolling interest	—	—	—	—	—	—	(15)	—	—	—	(15)
Stock compensation expense	—	—	—	—	—	—	64	—	—	—	64
Stock activity under stock compensation plans and other	7	—	—	—	4	(87)	32	—	—	—	(55)
Balance, March 31, 2019	575	$ 6	369	$ 4	20	$ (338)	$ 13,872	$ (7,892)	$ (1,277)	$ 2,789	$7,164

	First Data Corporation Stockholders										
	Common Stock				Treasury Stock		Additional		Accumulated Other		
	Class A		Class B		Class A		Paid-In	Accumulated	Comprehensive	Noncontrolling	
(in millions)	Shares	Amount	Shares	Amount	Shares	Amount	Capital	Loss	Loss	Interest	Total
Balance, December 31, 2017	482	$ 5	443	$ 4	11	$ (149)	$ 13,495	$ (9,059)	$ (1,144)	$ 2,862	$6,014
Adoption of New Revenue Standard	—	—	—	—	—	—	—	(13)	—	—	(13)
Dividends and distributions paid to noncontrolling interests[(a)]	—	—	—	—	—	—	—	—	—	(44)	(44)
Net income[(b)]	—	—	—	—	—	—	—	101	—	25	126
Other comprehensive income	—	—	—	—	—	—	—	—	95	4	99
Adjustments to redemption value of redeemable noncontrolling interest	—	—	—	—	—	—	(6)	—	—	—	(6)
Stock compensation expense	—	—	—	—	—	—	74	—	—	—	74
Stock activity under stock compensation plans and other	3	—	1	—	3	(53)	15	—	—	—	(38)
Balance, March 31, 2018	485	$ 5	444	$ 4	14	$ (202)	$ 13,578	$ (8,971)	$ (1,049)	$ 2,847	$6,212

(a) The total distribution presented in the unaudited consolidated statements of equity for the three months ended March 31, 2019 and 2018 excludes $7 million and $8 million, respectively, in distributions paid to redeemable noncontrolling interest not included in equity.

(b) The total net income presented in the unaudited consolidated statements of equity for the three months ended March 31, 2019 and 2018 is $8 million and $8 million different, respectively, than the amounts presented in the unaudited consolidated statements of income due to the net income attributable to the redeemable noncontrolling interest not included in equity.

See notes to unaudited consolidated financial statements.

Note 1: Basis of Presentation and Summary of Significant Accounting Policies

Business Description

First Data Corporation (FDC, First Data, 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 processing; prepaid and payroll services; check verification; settlement and guarantee services; and statement printing as well as solutions to help clients grow their businesses including the Company's *Clover* line of payment solutions and related applications.

Basis of Presentation

The accompanying unaudited consolidated financial statements of the Company should be read in conjunction with the Company's Annual Report on Form 10-K for the year ended December 31, 2018. Significant accounting policies disclosed therein have not changed, except for those disclosed below in the recently adopted section.

The accompanying consolidated financial statements are unaudited; however, in the opinion of management, they include all normal recurring adjustments necessary for a fair presentation of the consolidated financial position of the Company, the consolidated results of the Company's operations, comprehensive income, consolidated cash flows and changes in equity as of and for the periods presented. Results of operations reported for interim periods are not necessarily indicative of results for the entire year due in part to the seasonality of certain business units.

For the three months ended March 31, 2019 the Company recorded expenses of $23 million for an out of period adjustment, which impacted multiple years, related to correction of a lease classification error. The Company does not believe this adjustment will be material to the financial statements for the year ended December 31, 2019 and it is not material to previously reported financial statements. Effective January 1, 2019, initial direct costs associated with hardware revenue are now recorded in costs of products sold within "Cost of revenues (exclusive of items shown below)".

Pending Merger with Fiserv, Inc.

On January 16, 2019, First Data and Fiserv, Inc. (Fiserv), and 300 Holdings, Inc. (Merger Sub), a wholly-owned subsidiary of Fiserv, entered into an agreement and plan of merger (Merger Agreement), pursuant to which the Company will merge into Merger Sub (the Merger). The terms are subject to the conditions set forth in the Merger Agreement, which states at closing each share of the Company's common stock issued and outstanding will be converted into the right to receive 0.303 (Exchange Ratio) of a share of common stock, par value $0.01 per share, of Fiserv. First Data's equity awards will generally be converted into Fiserv equity awards after giving effect to the Exchange Ratio and appropriate adjustments and be governed by the same terms and conditions as applicable to First Data's corresponding equity awards. Completion of the Merger is subject to customary closing conditions for both parties. The Company currently anticipates that it will close the merger during the second half of 2019. For additional information see Form 425 and Form 8-K filed with the Securities and Exchange Commission dated January 16, 2019 and available through the "Investor Relations" portion of our website at http://investor.firstdata.com.

On March 15, 2019, First Data, following the declaration by the U.S. Securities and Exchange Commission on March 14, 2019 that the Registration Statement of Fiserv became effective, received the written consent of New Omaha Holdings L.P. (New Omaha), with respect to 364,441,146 shares of Class B common stock of First Data, to approve (i) the adoption of the Merger Agreement and (ii) the adoption of a resolution regarding certain Merger-related executive officer compensation payments that will or may be made to First Data's named executive officers in connection with the Merger. The completion of the Merger remains subject to the satisfaction or waiver of customary closing conditions.

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 unaudited 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 unaudited consolidated statements of income, does not include amortization of payments for customer contracts which is recorded as contra-revenue within "Revenues excluding reimbursable items." 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 three months ended March 31, 2019 and 2018:

	Three months ended March 31,	
(in millions)	2019	2018
Amortization of payments for customers contracts	$ 14	$ 13
Amortization related to equity method investments	1	8

Leases

Effective January 1, 2019, the Company determines if an arrangement is a lease at inception. Right-of-use (ROU) assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at the lease commencement date based on the present value of lease payments over the lease term. In determining the present value of lease payments, the Company uses its incremental borrowing rate based on the information available at the lease commencement date. When applicable, the operating lease ROU asset also includes initial direct costs, lease prepayments, and is reduced by lease incentives received and accrued lease payments. The Company's lease terms include periods covered by an option to extend the lease when it is reasonably certain that the Company will exercise that option as well as periods covered by options to terminate the lease when the Company is reasonably certain not to exercise that option. Lease expense for operating leases is recognized on a straight-line basis over the lease term.

Operating lease ROU assets are included in "Other long-term assets" and the corresponding lease liabilities are included in "Accounts payable and accrued liabilities" and "Other long-term liabilities" in the Company's unaudited consolidated balance sheet. Finance leases ROU assets are included in "Property and equipment" and the corresponding lease liabilities are included in "Short-term and current portion of long-term borrowings", and "Long-term borrowings" in the Company's unaudited consolidated balance sheet.

Reclassifications

Certain amounts for prior years have been reclassified to conform with the current year financial statement presentation.

New Accounting Guidance

Recently Adopted Accounting Guidance

Leases

In February 2016, the Financial Accounting Standards Board (FASB) issued guidance which requires lessees to recognize most leases on their balance sheets but recognize expenses in the income statement in a manner similar to historical accounting and adds new presentation and disclosure requirements for both lessees and lessors (New Lease Standard). The accounting guidance for lessors remains largely unchanged. Adoption of the guidance resulted in recognition on the unaudited consolidated balance sheet of assets and liabilities arising out of operating leases. The Company recognizes ROU assets for the underlying leased property during the lease term and recognizes liabilities for the corresponding financial obligation to make lease payments to the lessor.

The Company adopted the new standard on January 1, 2019 using a modified retrospective approach that permits an entity to use the effective date as the date of initial application through the recognition of a cumulative effect adjustment to the opening balance of retained earnings upon adoption. The Company elected the transition package of practical expedients permitted within the standard, which eliminates the requirements to reassess prior conclusions about lease identification, lease classification, and initial direct costs. Further, the Company elected a short-term lease exception policy, permitting the Company to not apply the recognition requirements of this standard to leases with terms of 12 months or less, and elected an accounting policy to account for lease and non-lease components as a single component for certain classes of assets. The adoption of the new guidance did not have a material impact to the consolidated financial statements. The adoption resulted in a decrease to the January 1, 2019 balance of accumulated loss of $6 million for the cumulative effect of applying the New Lease Standard. Additionally, adoption of the guidance did not impact any debt covenants or result in significant changes to the internal processes, including the internal control over financial reporting. See note 4 "Leases" in the Company's unaudited consolidated financial statements in Exhibit 99.2 to this Current Report on Form 8-K.

Internal-Use Software

In August 2018, the FASB issued guidance to align the requirements for capitalizing certain implementation costs incurred in a cloud computing arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The guidance provides flexibility in adoption, allowing for either retrospective adjustment or prospective adjustment for all implementation costs incurred after the date of adoption. The Company adopted the new guidance on a prospective basis on January 1, 2019 with no material impact to the consolidated financial statements.

Securities and Exchange Commission Disclosure Requirements

In August 2018, the Securities and Exchange Commission (SEC) issued a final rule that amends certain disclosure requirements that were duplicative, outdated or superseded. In addition, the final rule expanded the financial reporting requirements for changes in stockholders' equity for interim reporting periods. The Company adopted the new guidance on January 1, 2019 with no material impact to the consolidated financial statements.

Derivatives and Hedging

In October 2018, the FASB issued guidance which expands the list of U.S. benchmark interest rates permitted in the application of hedge accounting. The amendments permit the use of the overnight index swap rate based on the Secured Overnight Financing Rate to be used as a U.S. benchmark interest rate for hedge accounting purposes under Topic 815. The Company adopted the new guidance on January 1, 2019 with no material impact to the consolidated financial statements.

Comprehensive Income

In February 2018, the FASB issued guidance that permits a reclassification from accumulated other comprehensive income to accumulated loss for stranded tax effects resulting from the Tax Cuts and Jobs Act. The amendments also require certain disclosures about stranded tax effects. The Company adopted the new guidance on January 1, 2019 with no material impact to the consolidated financial statements. The Company did not elect to reclassify the income tax effects of the Tax Cuts and Jobs Act from accumulated other comprehensive income to accumulated loss.

Recently Issued Accounting Guidance

Credit Losses

In June 2016, the FASB issued guidance that will change the accounting for credit loss 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.

Fair Value Measurements

In August 2018, the FASB issued guidance that modified the disclosures on fair value measurements by removing the requirement to disclose the amount and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy and the policy for timing of such transfers. The new guidance also expands disclosure requirements for Level 3 fair value measurements, primarily focused on changes in unrealized gains and losses included in other comprehensive income. The standard is effective for financial statements issued for fiscal years beginning after December 15, 2019, with early adoption permitted. The Company is in the process of evaluating the impact of the guidance on its consolidated financial statements.

Consolidation

In October 2018, the FASB issued new guidance on consolidation. The new guidance provides that indirect interests held through related parties in common control arrangements should be considered on a proportional basis for determining whether fees paid to decision makers and service providers are variable interests. The new guidance is effective for fiscal years beginning after December 15, 2019 and interim periods within those fiscal years and should be applied retrospectively with a cumulative effect adjustment to retained earnings at the beginning of the earliest period presented. Early adoption is permitted. The Company is in the process of evaluating the impact of the guidance on its consolidated financial statements.

Note 2: Borrowings

The following table presents borrowings as of March 31, 2019 and December 31, 2018:

(in millions)	As of March 31, 2019	As of December 31, 2018
Short-term borrowings:		
Lines of credit	$ 127	$ 224
Senior Secured Revolving Credit Facility	250	250
Receivable securitized loan	569	472
Unamortized deferred financing costs[(a)]	(3)	(3)
Total short-term borrowings	943	943
Current portion of long-term borrowings:		
Senior secured term loan facility due 2023	119	119
Finance lease obligations and other arrangements	97	108
Total current portion of long-term borrowings	216	227
Total short-term and current portion of long-term borrowings	1,159	1,170
Long-term borrowings:		
Senior secured term loan facility due 2022	2,418	2,518
Senior secured term loan facility due 2023	4,601	4,631
Senior secured term loan facility due 2024	3,892	3,892
5.375% Senior secured first lien notes due 2023	1,210	1,210
5.0% Senior secured first lien notes due 2024	1,883	1,883
5.75% Senior secured second lien notes due 2024	2,176	2,176
Unamortized discount and unamortized deferred financing costs[(a)]	(85)	(91)
Finance lease obligations and other arrangements	187	210
Total long-term borrowings[(b)]	16,282	16,429
Total borrowings	$ 17,441	$ 17,599

(a) Unamortized deferred financing costs and certain lenders' fees associated with debt transactions were capitalized as discounts and are amortized on a straight-line basis, which approximates the effective interest method, over the remaining term of the respective debt.
(b) As of March 31, 2019 and December 31, 2018, the fair value of the Company's long-term borrowings, excluding finance lease obligations and other arrangements, was $16.4 billion and $15.7 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.

Lines of Credit

As of March 31, 2019 and December 31, 2018, the Company had $378 million and $516 million, respectively, available under short-term lines of credit with foreign banks and alliance partners primarily to fund settlement activity. As of March 31, 2019 and December 31, 2018, this included a $165 million and $290 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 March 31, 2019 and December 31, 2018, $16 million and $13 million, respectively, were uncommitted. As of March 31, 2019 and December 31, 2018, the weighted average interest rate associated with foreign lines of credit was 2.1% and 2.6%, respectively.

Senior Secured Revolving Credit Facility

The Company has a $1.25 billion senior secured revolving credit facility maturing on October 26, 2023. Up to $250 million of the senior secured revolving credit facility is available for letters of credit, of which $5 million of letters of credit were issued under the facilities as of March 31, 2019 and December 31, 2018. As of March 31, 2019, $995 million remained available.

Senior Unsecured Revolving Credit Facility

The Company has a $33 million senior unsecured revolving credit facility maturing December 20, 2019, available for letters of credit. The interest rate associated with the credit facility is 1.85%. As of March 31, 2019 and December 31, 2018, the Company had $30 million of outstanding letters of credit, for both periods presented.

Receivable Securitization Agreement

The Company has a consolidated 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 FDC. As of March 31, 2019 and December 31, 2018, the Company transferred $710 million and $726 million, respectively, in receivables to FDR as part of the securitization program. As of March 31, 2019, the maximum borrowing capacity, subject to collateral availability, under the agreement is $578 million. FDR utilized the receivables as collateral in borrowings of $569 million and $472 million as of March 31, 2019 and December 31, 2018, respectively. As of March 31, 2019 and December 31, 2018, the receivables held by FDR are recorded within "Accounts receivable, net" in the Company's unaudited consolidated balance sheets. The weighted average interest rate on the securitization facility borrowings was 3.64% and 3.65% as of March 31, 2019 and December 31, 2018, respectively. The term of the receivables securitization agreement is through July 2021.

Note 3: Revenue Recognition

Transaction and Processing Services

Revenue is comprised of fees charged to the Company's customers, net of interchange fees and assessments charged by the credit card associations and debit networks, which are pass-through charges collected on behalf of the card issuers and payment networks. Interchange fees and assessments charged by credit card and debit networks to the Company's consolidated subsidiaries were as follows for the three months ended March 31, 2019 and 2018.

(in millions)	Three months ended March 31, 2019	2018
Interchange fees and assessments	$ 6,798	$ 6,476
Debit network fees	871	818

Disaggregation of Revenue

The following tables present revenues disaggregated by primary geographical regions for the three months ended March 31, 2019 and 2018:

	Three months ended March 31, 2019			
(in millions)	Global Business Solutions	Global Financial Solutions	Network & Security Solutions	Total
North America	$ 1,088	$ 410	$ 351	$1,849
EMEA	161	85	3	249
LATAM	100	33	—	133
APAC	52	32	1	85
Total Revenue(a)(b)	$ 1,401	$ 560	$ 355	$2,316

(a) See note 7 "Segment Information" for the reconciliation to segment revenues.
(b) Global Business Solutions includes non wholly-owned entities and Global Financial Solutions includes reimbursable items, which includes postage and customized orders.

	Three months ended March 31, 2018			
(in millions)	Global Business Solutions	Global Financial Solutions	Network & Security Solutions	Total
North America	$ 1,033	$ 423	$ 351	$1,807
EMEA	162	112	2	276
LATAM	87	31	—	118
APAC	48	31	2	81
Total Revenue(a)(b)	$ 1,330	$ 597	$ 355	$2,282

(a) See note 7 "Segment Information" for the reconciliation to segment revenues.
(b) Global Business Solutions includes non wholly-owned entities and Global Financial Solutions includes reimbursable items, which includes postage and customized orders.

The following table presents revenues disaggregated by product types for the three months ended March 31, 2019 and 2018:

(in millions)	Three months ended March 31, 2019	2018
Transaction and processing services	$ 2,042	$ 2,011
Hardware, Professional Services, and Other	274	271
Total Revenue	$ 2,316	$ 2,282

Contract Balances

Accounts Receivable

As of March 31, 2019 and December 31, 2018, long-term accounts receivable, net of allowance for doubtful accounts, included within “Other long-term assets” in the unaudited consolidated balance sheets was $197 million and $220 million, respectively.

Contract Liabilities

The following table presents the changes in deferred revenue for the three months ended March 31, 2019 and 2018:

	Three months ended March 31,	
(in millions)	**2019**	**2018**
Balance, beginning of the period	$ 298	$ 344
New Revenue Standard adjustments	—	(39)
Deferral of revenue	37	58
Recognition of unearned revenue	(45)	(59)
Other (primarily foreign currency translation)	(5)	5
Balance, end of period	$ 285	$ 309

Remaining Performance Obligation

Over 95% of the Company's performance obligations relate to transaction and processing services or hardware that are subject to a practical expedient (e.g., variable consideration) or point in time recognition, respectively. The Company's contracts with customers typically do not specify fixed revenues to be realized. Certain customer contracts contain fixed minimums and non-refundable up-front fees (fixed price guarantees). However, the amounts which are considered fixed price guarantees are not material to "Total revenues". The Company's contracts with Small Medium Business (SMB) merchants within the Global Business Solutions segment typically have a contractual duration of less than one year. Larger contracts in the Global Business Solutions, Global Financial Solutions, and Network & Security Solutions segments typically have contractual terms ranging from one to fifteen years with variability being resolved on a daily basis.

Costs to Obtain and Fulfill a Contract

The Company capitalizes incremental costs to obtain new contracts and contract renewals and amortizes these costs on a straight-line basis as a reduction of revenue over the benefit period, which is generally the contract term, unless a commensurate payment is not expected at renewal. As of March 31, 2019 and December 31, 2018, the Company had $163 million and $152 million, respectively, of capitalized contract costs included within "Other intangibles, net" on the unaudited consolidated balance sheets. For the three months ended March 31, 2019 and 2018, the Company had $14 million and $13 million, respectively, of contra-revenue related to these costs.

The Company expenses sales commissions as incurred for the Company's sales commission plans that are paid on recurring monthly revenues, portfolios of existing customers, or have a substantive stay requirement prior to payment.

The Company capitalizes conversion related costs associated with enabling customers to receive its processing services. These costs are amortized on a straight-line basis over the expected benefit period of seven years based on the related services being provided, and are reflected within "Depreciation and amortization" in the Company's unaudited consolidated statement of income. As of March 31, 2019 and December 31, 2018, the Company had $174 million and $172 million, respectively, of capitalized conversion costs, net of amortization, included within "Other intangibles, net" on the unaudited consolidated balance sheets. For the three months ended March 31, 2019 and 2018, the Company had $9 million and $10 million, respectively, of amortization expense related to these costs.

Note 4: Leases

The Company has leases for office space, land, data centers, computer hardware, airplanes, and other equipment. Certain of the Company's leases include lessee options to extend the lease term from one to 15 years or to terminate the lease prior to its contractual end date.

For leases of properties, the Company uses the practical expedient to account for lease and non-lease components as a single lease component. Accordingly, the financial information presented below includes charges for common area maintenance, utilities, and other miscellaneous costs incurred under property leases. For leases with an initial term of 12 months or less, the Company recognizes lease expense on a straight-line basis over the lease term.

The following table presents supplemental balance sheet information as of March 31, 2019:

(in millions)	As of March 31, 2019
Finance leases	
Assets under finance leases	$ 546
Accumulated depreciation	(361)
Assets under finance lease, net	$ 185
Current finance lease liabilities	$ 67
Non-current finance lease liabilities	140
Total finance lease liabilities	$ 207
Operating leases	
Operating lease ROU assets	$ 315
Current operating lease liabilities	$ 68
Non-current operating lease liabilities	266
Total operating lease liabilities	$ 334

Note 5: Stock Compensation Plans

The Company provides stock-based compensation awards to its employees. Total stock-based compensation expense recognized in the “Cost of revenues”, “Selling, general, and administrative”, and “Other operating expenses, net” line items of the unaudited consolidated statements of income resulting from stock options, non-vested restricted stock awards, and non-vested restricted stock units was as follows for the three months ended March 31, 2019 and 2018:

	Three months ended March 31,	
(in millions)	2019	2018
Cost of revenues	$ 15	$ 16
Selling, general, and administrative	41	58
Other operating expenses, net	8	—
Total stock-based compensation expense	$ 64	$ 74

The Company’s employees are granted restricted stock awards or units on an annual basis, which generally vest 20% on the first anniversary, 40% on the second anniversary, and the remaining 40% on the third anniversary. For the three months ended March 31, 2019, approximately six million restricted stock awards and units were granted at a weighted average price per share of $24.94. For the three months ended March 31, 2018, approximately nine million restricted stock awards and units were granted at a weighted average price per share of $15.37.

As of March 31, 2019, there was $20 million and $343 million of total unrecognized compensation expense related to non-vested stock options and restricted stock awards and units, respectively.

The Company paid approximately $97 million and $56 million for the three months ending March 31, 2019 and 2018, respectively, for taxes related to the settlement of vested stock-based awards.

For additional information on the Company’s stock compensation plans, see note 5 “Stock Compensation Plans” in Exhibit 99.1 to this Current Report on Form 8-K.

Note 6: Net Income Per Share Attributable to First Data Corporation

Basic net income per share is calculated by dividing net income attributable to FDC by the weighted-average shares outstanding during the period, without consideration for any potential dilutive shares. Diluted net income 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 per share by application of the treasury stock method. Under the treasury stock method, an increase in the fair value of the Company’s common stock can result in a greater dilutive effect from potentially dilutive securities. Both Class A and B common stock are included in the net income per share attributable to First Data Corporation calculation because they have the same rights other than voting.

The following table sets forth the computation of the Company's basic and diluted net income attributable to First Data Corporation per share for the three months ended March 31, 2019 and 2018:

(in millions, except per share amounts)	Three months ended March 31, 2019	2018
Numerator:		
Net income attributable to First Data Corporation	$ 169	$ 101
Denominator:		
Weighted average shares used in computing net income per share, basic	937	923
Effect of dilutive securities	30	23
Total dilutive securities	967	946
Net income attributable to First Data Corporation per share:		
Basic	$ 0.18	$ 0.11
Diluted(a)	$ 0.17	$ 0.11
Anti-dilutive shares excluded from diluted net income per share	1	11

(a) Potentially dilutive securities whose effect would have been anti-dilutive are excluded from the computation of diluted earnings per share for all periods presented.

Note 7: Segment Information

For a detailed discussion of the Company's accounting principles and its reportable segments see note 8 "Segment Information" in the Company's consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K and Exhibit 99.3 to this Current Report on Form 8-K.

The following tables present the Company's reportable segment results including EBITDA (earnings before net interest expense, income taxes, depreciation, and amortization) for the three months ended March 31, 2019 and 2018:

	Three months ended March 31, 2019				
(in millions)	Global Business Solutions	Global Financial Solutions	Network & Security Solutions	Corporate	Total
Revenues:					
Revenues	$ 1,379	$ 370	$ 361	$ —	$2,110
Equity earnings in affiliates	8	(1)	—	—	7
Total segment revenues	$ 1,387	$ 369	$ 361	$ —	$2,117
Depreciation and amortization	$ 122	$ 83	$ 28	$ —	$ 233
Segment EBITDA	471	147	195	(59)	754

	Three months ended March 31, 2018				
(in millions)	Global Business Solutions	Global Financial Solutions	Network & Security Solutions	Corporate	Total
Revenues:					
Revenues	$ 1,310	$ 401	$ 362	$ —	$2,073
Equity earnings in affiliates	8	(1)	—	—	7
Total segment revenues	$ 1,318	$ 400	$ 362	$ —	$2,080
Depreciation and amortization	$ 125	$ 88	$ 29	$ —	$ 242
Segment EBITDA	434	166	175	(45)	730

The following table presents a reconciliation of reportable segment amounts to the Company's consolidated balances for the three months ended March 31, 2019 and 2018:

(in millions)	Three months ended March 31, 2019	2018
Total segment revenues	$ 2,117	$ 2,080
Adjustments:		
Non wholly-owned entities(a)	7	4
Reimbursable items	192	198
Consolidated revenues	$ 2,316	$ 2,282
Total segment EBITDA	$ 754	$ 730
Adjustments:		
Non wholly-owned entities(a)	13	18
Depreciation and amortization	(246)	(250)
Interest expense, net	(203)	(233)
Loss on debt extinguishment	(1)	—
Other items (b)	(63)	(63)
Stock-based compensation	(56)	(74)
Income tax expense	(29)	(27)
Net income attributable to First Data Corporation	$ 169	$ 101

(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) See "Other operating expenses, net" and "Other expense" in the Company's unaudited consolidated statements of income.

The following table presents a reconciliation of reportable segment depreciation and amortization expense to the amounts in the consolidated balances in the unaudited consolidated statements of cash flows and unaudited consolidated statements of income for the three months ended March 31, 2019 and 2018:

(in millions)	Three months ended March 31, 2019	2018
Segment depreciation and amortization	$ 233	$ 242
Adjustments for non wholly-owned entities	14	16
Amortization of payments for customer contracts(a)	14	13
Total consolidated depreciation and amortization per unaudited consolidated statements of cash flows	261	271
Amortization of equity method investments(b)	(1)	(8)
Amortization of payments for customer contracts(a)	(14)	(13)
Total consolidated depreciation and amortization per unaudited consolidated statements of income	$ 246	$ 250

(a) Included in "Revenues excluding reimbursable items" as contra-revenue in the Company's unaudited consolidated statements of income.

(b) Included in "Equity earnings in affiliates" in the Company's unaudited consolidated statements of income.

Note 8: Income Taxes

The following table presents the Company's income tax expense and effective income tax rate for the three months ended March 31, 2019 and 2018:

(in millions)	Three months ended March 31, 2019	2018
Income tax expense	$ 29	$ 27
Effective income tax rate	12%	17%

The effective tax rate for the three months ended March 31, 2019 was lower than the U.S. federal statutory rate of 21% primarily due to net tax benefits of $23 million which includes equity compensation related tax benefits, tax benefits associated with current year research and development credits, and no tax expense recorded on income associated with noncontrolling interests from pass through entities. These benefits were partially offset by state income taxes, disallowed tax benefit on certain executive compensation deductions, and current U.S. taxation on certain non-U.S. income.

The effective tax rate for the three months ended March 31, 2018 was lower than the statutory tax rate of 21% primarily due to net tax benefits of $7 million that include reductions to the liability for unrecognized tax benefits, equity compensation related tax benefits, tax benefits associated with current and prior year research and development credits and no expense on income associated with noncontrolling interests from pass through entities. These benefits were partially offset by expenses associated with state income taxes, disallowed tax benefit on certain executive compensation deductions, and current U.S. taxation on certain non-U.S. income.

The Company's liability for unrecognized tax benefits was approximately $97 million as of March 31, 2019. The Company believes it is reasonably possible that the liability for unrecognized tax benefits may decrease by up to $17 million over the next twelve months beginning April 1, 2019 as a result of 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.

Note 9: Redeemable Noncontrolling Interest

One of the Company's noncontrolling interests is redeemable at the option of the holder and is presented outside of equity and carried at its estimated redemption value.

The following table presents a summary of the redeemable noncontrolling interest activity during the three months ended March 31, 2019 and 2018:

(in millions)	Three months ended March 31, 2019	2018
Balance as of January 1,	$ 77	$ 72
Distributions	(7)	(8)
Share of income	8	8
Adjustment to redemption value of redeemable noncontrolling interest	15	6
Balance as of March 31,	$ 93	$ 78

Note 10: Other Operating Expenses, Net

The following table details the components of "Other operating expenses, net" in the unaudited consolidated statements of income for the three months ended March 31, 2019 and 2018:

(in millions)	Three months ended March 31, 2019	2018
Restructuring, net	$ 3	$ 32
Deal and deal integration costs	33	7
Merchant matters	—	20
Other	—	1
Other operating expenses, net	$ 36	$ 60

Restructuring

During the three months ended March 31, 2019 and 2018, the Company recorded restructuring charges in connection with ongoing expense management initiatives. The Company has ongoing initiatives, which are expected to result in approximately $20 million of additional costs over the next twelve months. The Company continues to evaluate operating efficiencies and could incur further restructuring costs beyond these initiatives.

A summary of net pretax charges incurred by segment was as follows for the three months ended March 31, 2019 and 2018:

(in millions)	Three months ended March 31, 2019	2018
Global Business Solutions	$ 3	$ 5
Global Financial Solutions	—	2
Network & Security Solutions	—	16
Corporate	—	9
Restructuring, net	$ 3	$ 32

The following table summarizes the Company's utilization of restructuring accruals for the three months ended March 31, 2019:

(in millions)	Employee Severance	Other	Total
Remaining accrual as of January 1, 2019	$ 9	$ 7	$ 16
Employee expense	3	—	3
Cash payments and other	(3)	(1)	(4)
Remaining accrual as of March 31, 2019	$ 9	$ 6	$ 15

Deal and Deal Integration Costs

The Company incurred $33 million in deal and deal integration costs for the three months ended March 31, 2019 which is primarily related to the previously announced Fiserv transaction.

Merchant Matters

The Company did not incur any costs related to customer matters during the three months ended March 31, 2019. During the three months ended March 31, 2018 the Company incurred $20 million in costs related to customer matters.

Note 11: Acquisitions

In March 2019, the Company acquired 100% of Software Express. Software Express provides technology solutions to merchants, including multi-acquirer EFT, multi-acquirer EFT POS, reconciliation, a payment gateway, and automated recurring payments in Brazil. The purchase price was $79 million in cash, net of cash acquired, and Software Express is reported as part of the Company's Global Business Solutions segment. The Company is holding $12 million in restricted cash that will be paid to the seller over a six year period. The acquisition was accounted for as a business combination and the accounting is currently incomplete. The acquisition of Software Express had an immaterial impact on revenue and operating income.

Note 12: Derivative Financial Instruments

The Company enters into the following types of derivatives:

- Interest rate contracts: The Company uses a combination of floating to fixed interest rate swaps and collars to mitigate its exposure to interest rate fluctuations on interest payments related to variable rate debt. For interest rate swaps, floating rate payments are received in exchange for fixed-rate payments. For interest rate collar contracts, no payments or receipts are exchanged unless interest rates rise or fall in excess of 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 qualifying hedging relationships.

The Company held the following derivative instruments as of March 31, 2019 and December 31, 2018:

		As of March 31, 2019			As of December 31, 2018		
(in millions)	Notional Currency	Notional Value	Assets(a)	Liabilities(a)	Notional Value	Assets(a)	Liabilities(a)
Derivatives designated as hedges of net investments in foreign operations:							
Foreign exchange contracts	EUR	915	$ 2	$ —	915	$ —	$ 19
Foreign exchange contracts	GBP	150	2	—	150	6	—
Foreign exchange contracts	CAD	95	3	—	95	5	—
			7	—		11	19
Derivatives designated as cash flow hedges:							
Interest rate collar contracts(b)	USD	1,500	5	—	2,800	10	—
Interest rate swap contracts	USD	7,250	—	67	7,250	—	44
			5	67		10	44
			$ 12	$ 67		$ 21	$ 63

(a) The Company's derivatives 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) The interest rate collar with a notional value of $1.3 billion matured in January 2019. The remaining interest rate collar with a notional value of $1.5 billion will mature in September 2019.

The maximum length of time over which the Company is hedging its currency exposure of net investments in foreign operations, through utilization of foreign exchange contracts, is through June 2020.

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 May 2021.

As of March 31, 2019, the Company has not posted any collateral related to any of its derivative financial instruments.

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 Unaudited Consolidated Financial Statements

Derivative gains and (losses) were as follows for the three months ended March 31, 2019 and 2018:

	Three months ended March 31,			
	2019		2018	
(in millions, pretax)	Interest Rate Contracts	Foreign Exchange Contracts	Interest Rate Contracts	Foreign Exchange Contracts
Derivatives designated as hedging instruments:				
Gain (loss) recognized in "Foreign currency translation adjustment" in the unaudited consolidated statements of comprehensive income (effective portion)	$ —	$ 24	$ —	$ (30)
(Loss) gain recognized in "Derivative instruments" in the unaudited consolidated statements of comprehensive income (effective portion)	(28)	—	9	—

Accumulated Derivative Gains and Losses

The following table summarizes activity in other comprehensive income related to derivative instruments classified as cash flow hedges and net investment hedges held by the Company for the three months ended March 31, 2019 and 2018:

	Three months ended March 31,	
(in millions, after tax)	2019	2018
Accumulated gain included in other comprehensive income at beginning of the period	$ 165	$ 121
Decrease in fair value of derivatives that qualify for hedge accounting, net of tax(a) (b)	(3)	(16)
Accumulated gain included in other comprehensive income at end of the period	$ 162	$ 105

(a) Losses are included in "Derivative instruments" and "Foreign currency translation adjustment" in the unaudited consolidated statements of comprehensive income.
(b) Net of tax of $1 million and $5 million for the three months ended March 31, 2019 and 2018, respectively.

Note 13: Commitments and Contingencies

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 unaudited 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 income.

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 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 or other claims arising from its merchant business; and (3) other matters which may include issues such as employment and indemnification obligations to purchasers of former subsidiaries. The Company's estimates of the possible ranges of losses in excess of any amounts accrued are $0 to $5 million for patent infringement, $0 to $93 million for merchant matters, and $0 to $5 million for other matters, resulting in a total estimated range of possible losses of $0 to $103 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 the high end of the estimated range.

Note 14: 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.

As of March 31, 2019, the Company had one unconsolidated significant subsidiary that was not required to be consolidated, but represented more than 20% of the Company's pretax income. Summarized unaudited financial information for this affiliate is presented below for the three months ended March 31, 2019 and 2018:

	Three months ended March 31,	
(in millions)	2019	2018
Net operating revenues	$ 192	$ 195
Operating expenses	103	101
Operating income	$ 89	$ 94
Net income	$ 90	$ 94
FDC equity earnings	36	33

Management’s Discussion and Analysis of Financial Condition and Results of Operations of First Data Corporation for the year ended December 31, 2018

This management’s discussion and analysis provides a review of the results of operations, financial condition and liquidity and capital resources of First Data Corporation, (“First Data”, “we”, “us”, “our” or the “company” refer to First Data Corporation and its consolidated subsidiaries) and outlines the factors that have affected recent results, as well as those factors that may affect future results. Our actual results in the future may differ materially from those anticipated in these forward looking statements as a result of many factors, including those set forth under “Risk Factors,” “Forward Looking Statements” and elsewhere in First Data’s Annual Report on Form 10-K for the year ended December 31, 2018. The following discussion and analysis should be read in conjunction with First Data’s Consolidated Financial Statements and related notes included in Exhibit 99.1 to this Current Report on Form 8-K.

Year over year percent changes are calculated on whole-dollar values as management views this as a more accurate representation of our performance. As such, the values herein may not recalculate due to rounding. Not meaningful percentage changes are indicated with NM.

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 over 6 million business locations and over 3,700 financial institutions. We believe we have the industry’s largest distribution network, to consist of partnerships with over 1,500 distribution partners including many of the world’s leading financial institutions, and our direct sales force. We are the largest merchant acquirer and issuer processor in the world, and operate the third largest independent network services provider in the United States. We enable businesses to accept electronic payments, help financial institutions issue credit, debit and prepaid cards, and route secure transactions between them. In 2018, we processed approximately 100 billion transactions globally, or over 3,000 per second. In our largest market, the United States, we processed approximately $2.3 trillion of payment volume, which represents 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’ terms.

Pending Merger with Fiserv, Inc.

On January 16, 2019, First Data and Fiserv, Inc. (Fiserv), and 300 Holdings, Inc. (Merger Sub), a wholly-owned subsidiary of Fiserv, entered into an agreement and plan of merger (Merger Agreement), pursuant to which we will merge into Merger Sub (the Merger). The terms are subject to the conditions set forth in the Merger Agreement, which states at closing each share of the Company’s common stock issued and outstanding will be converted into the right to receive 0.303 (Exchange Ratio) of a share of common stock, par value $0.01 per share, of Fiserv. First Data’s equity awards will generally be converted into Fiserv equity awards after giving effect to the Exchange Ratio and appropriate adjustments and be governed by the same terms and conditions as applicable to First Data’s corresponding equity awards. Completion of the Merger is subject to customary closing conditions for both parties. We currently anticipate that we will close the merger during the second half of 2019. For additional information see Form 425 filed with the Securities and Exchange Commission dated January 16, 2019 and available through the “Investor Relations” portion of our website at http://investor.firstdata.com.

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 to both merchants and financial institutions around the world. 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 merchant solutions, including large and small financial institutions, Independent Sales Organizations (ISOs), agents, Independent Software Vendors (ISVs), and others. Amongst other services, we help merchants by delivering data-driven insights and other services to help them grow and create better and more secure purchase experiences for consumers across all commerce platforms and assist them 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 that 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 growth initiatives including:

- Innovate for tomorrow’s client needs
- Accelerate top line revenue growth
- 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) 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:

- Merchant 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 merchant acquirers (including our alliance partners) who have outsourced their transaction processing to us;
- Sales and leases of POS devices;
- Fees for providing reporting and other services; and
- Software fees such as security applications 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 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 management control over an alliance, we use the equity method of accounting. As a result, our consolidated revenues include 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 implemented 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. We also completed acquisitions which have strengthened our presence in ISV and enterprise resource planning (ERP) integrated payment solutions.

Global Financial Solutions

Global Financial Solutions (GFS) revenues are primarily derived from outsourced processing services, print, plastics, and Vision PLUS software services provided to financial institutions. GFS’ revenues are typically generated on the basis of number of total and active accounts on file, volume of customer communications, volume of plastics issued or license 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 or Other.

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.

Accounting Guidance

On January 1, 2018, we adopted Accounting Standards Codification (ASC) 606 and ASC 340-40 (collectively, the New Revenue Standard) which affected how we recognize revenue. The New Revenue Standard was adopted using the modified retrospective application beginning January 1, 2018. See note 1 “Summary of Significant Accounting Policies” and note 3 “Revenue Recognition” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information related to the adoption of the New Revenue Standard.

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 impact our results of operations. In recent periods, the U.S. dollar has fluctuated versus most foreign currencies, which has impacted our operating results 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 by excluding the impact 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 Generally Accepted Accounting Principles (GAAP). For additional information on our constant currency calculation, see "Segment Results".

Acquisitions and Divestitures

Acquisitions and divestitures over the past two years have impacted the comparability of our financial results. The largest acquisitions in 2017, CardConnect and BluePay, were integrated into our Global Business Solutions segment and the results for the current period are reflected within segment results. The disposition of the remittance processing business in the U.S. is reflected in Global Financial Solutions segment results through the disposition date of August 15, 2018. The disposition of the card processing business in Central and Southeastern Europe is reflected in our Global Financial Solutions segment results through the disposition date of September 28, 2018. See note 13 "Acquisitions and Dispositions" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

Restructuring and Cost Management Initiatives

We continually evaluate our cost base and over the past three years have executed a number of restructuring initiatives which have allowed us to streamline management, eliminate excess facilities, and work with our suppliers to lower costs. In connection with these initiatives, we have incurred restructuring charges of $85 million, $83 million, and $49 million for the years ended December 31, 2018, 2017, and 2016, respectively. These Restructuring and Cost Management Initiatives have contributed to our 220 basis points EBITDA margin expansion over the past three years. We have ongoing expense management initiatives, which are expected to result in approximately $20 million in additional restructuring costs over the next twelve months. In connection with our focus on maintaining positive operating leverage, we will likely incur additional restructuring costs in the future. See note 11 "Other Operating Expenses, Net" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information about our restructuring and cost savings initiatives.

Interest Expense and Debt Extinguishment Costs

As a result of our capital market activities we have lowered the weighted-average interest rate of our outstanding debt from 4.8% as of December 31, 2017 to 4.5% as of December 31, 2018. Using excess cash generated by the business, divestiture proceeds, and existing cash on the consolidated balance sheet we decreased our outstanding borrowings balance from $19.2 billion as of December 31, 2017 to $17.6 billion as of December 31, 2018. For the year ended December 31, 2017, we incurred $10.0 million in fees to modify existing long-term debt which is recorded within "Interest expense, net" in the consolidated statements of income.

We incurred $153 million, $80 million, and $70 million of losses on debt extinguishment during the years ended December 31, 2018, 2017, and 2016, respectively.

Overview

The table below reconciles Net income attributable to First Data Corporation for the year ended December 31, 2018 to December 31, 2017 and the year ended December 31, 2017 to December 31, 2016:

(in millions)	Year ended December 31, 2018	Year ended December 31, 2017
Net income attributable to First Data Corporation, previous period	$ 1,465	$ 420
Better (worse):		
Revenues excluding reimbursable items(a)	447	290
Cost of revenues(a)	51	64
Selling, general, and administrative(a)	(303)	(143)
Depreciation and amortization(a)	(29)	(23)
Other operating expenses, net	24	(92)
Loss on debt extinguishment	(73)	(10)
Net income attributable to noncontrolling interests and redeemable noncontrolling interest	6	41
New revenue standard	(3)	—
Interest expense, net	14	147
Income tax	(778)	810
Equity earnings in affiliates	(1)	(38)
Other income	185	(1)
Net income attributable to First Data Corporation, period ended	$ 1,005	$ 1,465

(a) The year ended December 31, 2018 is exclusive of New Revenue Standard.

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 reportable 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 items.
- Segment EBITDA includes equity earnings in affiliates and excludes depreciation and amortization expense, net income attributable to noncontrolling interests, other operating expenses, net, other income (expense), and stock-based compensation.
- 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.
- 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. To present this information, monthly results during the periods presented for entities with functional 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

	Year ended December 31,			Percent Change		Organic Constant Currency Percent Change(a)	
(in millions)	2018	2017	2016	2018 vs. 2017	2017 vs. 2016	2018 vs. 2017	2017 vs. 2016
Consolidated revenues	$9,498	$12,052	$11,584	(21)%	4%		
Adjustments:							
Non wholly-owned entities	(22)	(64)	(80)	(66)%	(20)%		
Reimbursable items	(819)	(3,923)	(3,745)	(79)%	5%		
Total segment revenues	$8,657	$ 8,065	$ 7,759	7%	4%	6%	3%

	Year ended December 31,			Percent Change		Organic Constant Currency Percent Change(a)	
(in millions)	2018	2017	2016	2018 vs. 2017	2017 vs. 2016	2018 vs. 2017	2017 vs. 2016
Segment revenues:							
Global Business Solutions	$5,572	$ 4,899	$ 4,681	14%	5%	7%	3%
Global Financial Solutions	1,596	1,623	1,593	(2)%	2%	4%	3%
Network & Security Solutions	1,489	1,543	1,485	(3)%	4%	2%	4%
Total segment revenues	$8,657	$ 8,065	$ 7,759	7%	4%	6%	3%

(a) Organic constant currency growth is defined as reported growth adjusted for the following: (1) excludes the impacts of year-over-year currency rate changes in the current period; (2) excludes the results of significant divestitures in the prior year period; (3) includes the results of significant acquisitions in the prior year period; (4) for the year ended December 31, 2018, the prior year period is adjusted to retrospectively apply the New Revenue Standard; and (5) for the year ended December 31, 2017, the prior year period includes the impact of the Clover accounting change.

Global Business Solutions segment results

The following table displays total segment revenue by region:

(in millions)	Year ended December 31, 2017										
	As Reported	New Revenue Standard Adjustments(a)	As Adjusted	Acquisitions/Dispositions(b)	Core Growth (Decline)	Currency Impact(c)	Accounting Change	Year ended December 31, 2018	Reported Percent Change	Organic Constant Currency Percent Change(d)
Revenues:										
North America	$ 3,814	$ 131	$ 3,945	$ 203	$ 181	$ —	$ —	$ 4,329	14%	4%
EMEA	639	5	644	(1)	37	26	—	706	10%	6%
LATAM	273	27	300	—	134	(98)	—	336	23%	45%
APAC	173	2	175	—	27	(1)	—	201	16%	16%
Total segment revenue	$ 4,899	$ 165	$ 5,064	$ 202	$ 379	$ (73)	$ —	$ 5,572	14%	7%

(a) Effective January 1, 2018, we adopted the New Revenue Standard using a modified retrospective basis. See *Revenue Recognition* in note 1 “Summary of Significant Accounting Policies” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(b) Business acquisitions of CardConnect in July 2017 and BluePay in December 2017. See note 13 “Acquisitions and Dispositions” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(c) Currency impact is the difference between the current year’s actual results and those results converted with the prior year’s foreign exchange rate.

(d) Organic constant currency growth is defined as reported growth adjusted for the following: (1) excludes the impacts of year-over-year currency rate changes in the current period; (2) excludes the results of significant divestitures in the prior year period; (3) includes the results of significant acquisitions in the prior year period; and (4) is adjusted to retrospectively apply the New Revenue Standard to the prior year period.

(in millions)	Year ended December 31, 2016									
	As Reported	New Revenue Standard Adjustments	As Adjusted	Acquisitions/ Dispositions(a)	Core Growth (Decline)	Currency Impact(b)	Accounting Change(c)	Year ended December 31, 2017	Reported Percent Change	Organic Constant Currency Percent Change(d)
Revenues:										
North America	$ 3,690	$ —	$ 3,690	$ 84	$ (23)	$ 1	$ 62	$ 3,814	3%	(1)%
EMEA	611	—	611	—	28	—	—	639	5%	5%
LATAM	178	—	178	—	101	(6)	—	273	53%	57%
APAC	202	—	202	(48)	16	3	—	173	(14)%	10%
Total segment revenue	$ 4,681	$ —	$ 4,681	$ 36	$ 122	$ (2)	$ 62	$ 4,899	5%	3%

(a) North America revenue was impacted by acquisitions of CardConnect in July 2017 and BluePay in December 2017. The Acquisitions/Dispositions column includes July 2016 to December 2016 and December 2016 revenues for CardConnect and BluePay, respectively, and current period growth for CardConnect and BluePay is included in Core Growth (Decline). APAC balance represents revenue associated with the disposition of the Australian ATM business in September 2016. See note 13 “Acquisitions and Dispositions” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(b) Currency impact is the difference between the current year’s actual results and those results converted with the prior year’s foreign exchange rate.

(c) Effective January 2017, we changed our accounting for *Clover* hardware sales to recognize revenue upon shipment as opposed to deferring such revenue and recognizing over an established period, typically three years. Previously deferred revenue on hardware shipped in prior years continued to be amortized over the established period until the adoption of the New Revenue Standard. See Deferred Revenue in note 1 “Summary of Significant Accounting Policies” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(d) Organic constant currency growth is defined as reported growth adjusted for the following: (1) excludes the impacts of year-over-year currency rate changes in the current period; (2) excludes the results of significant divestitures in the prior year period; (3) includes the results of significant acquisitions in the prior year period; and (4) includes the impact of the Clover accounting change in the prior year period.

Global Financial Solutions segment results

The following table displays total segment revenue by region:

(in millions)	Year ended December 31, 2017 — As Reported	New Revenue Standard Adjustments(a)	As Adjusted	Dispositions(b)	Core Growth (Decline)	Currency Impact(c)	Year ended December 31, 2018	Reported Percent Change	Organic Constant Currency Percent Change(d)
Revenues:									
North America	$ 949	$ (2)	$ 947	$ (31)	$ 4	$ —	$ 920	(3)%	1%
EMEA	444	(2)	442	(46)	18	16	430	(3)%	5%
LATAM	132	6	138	—	16	(21)	133	1%	12%
APAC	98	(9)	89	—	26	(2)	113	15%	30%
Total segment revenue	$ 1,623	$ (7)	$ 1,616	$ (77)	$ 64	$ (7)	$ 1,596	(2)%	4%

(a) Effective January 1, 2018, we adopted the New Revenue Standard using a modified retrospective basis. See *Revenue Recognition* in note 1 "Summary of Significant Accounting Policies" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(b) Business disposition of Lithuania, Latvia and Estonia (the Baltics) in September 2017, remittance processing business in August 2018, and card processing business in Central and Southeastern Europe in September 2018. See note 13 "Acquisitions and Dispositions" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(c) Currency impact is the difference between the current year's actual results and those results converted with the prior year's foreign exchange rate.

(d) Organic constant currency growth is defined as reported growth adjusted for the following: (1) excludes the impacts of year-over-year currency rate changes in the current period; (2) excludes the results of significant divestitures in the prior year period; (3) includes the results of significant acquisitions in the prior year period; and (4) is adjusted to retrospectively apply the New Revenue Standard to the prior year period.

(in millions)	Year ended December 31, 2016 — As Reported	New Revenue Standard Adjustments	As Adjusted	Dispositions(a)	Core Growth (Decline)	Currency Impact(b)	Year ended December 31, 2017	Reported Percent Change	Organic Constant Currency Percent Change(c)
Revenues:									
North America	$ 956	$ —	$ 956	$ —	$ (7)	$ —	$ 949	(1)%	(1)%
EMEA	433	—	433	(6)	30	(13)	444	3%	7%
LATAM	122	—	122	—	13	(3)	132	9%	11%
APAC	82	—	82	—	13	3	98	19%	16%
Total segment revenue	$ 1,593	$ —	$ 1,593	$ (6)	$ 49	$ (13)	$ 1,623	2%	3%

(a) Business disposition of Lithuania, Latvia and Estonia (i.e. the Baltics) in September 2017. See note 13 "Acquisitions and Dispositions" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(b) Currency impact is the difference between the current year's actual results and those results converted with the prior year's foreign exchange rate.

(c) Organic constant currency growth is defined as reported growth adjusted for the following: (1) excludes the impacts of year-over-year currency rate changes in the current period; (2) excludes the results of significant divestitures in the prior year period; and (3) includes the results of significant acquisitions in the prior year period.

Network & Security Solutions segment results

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

(in millions)	Year ended December 31, 2017 — As Reported	New Revenue Standard Adjustments(a)	As Adjusted	Dispositions(b)	Core Growth (Decline)	Year ended December 31, 2018	Reported Percent Change	Organic Constant Currency Percent Change(c)
Revenues:								
EFT Network	$ 487	$ 1	$ 488	$ —	$ 17	$ 505	4%	4%
Security and Fraud	449	6	455	—	(1)	454	1%	— %
Stored Value Network	405	(62)	343	—	6	349	(14)%	2%
Other	202	—	202	(21)	—	181	(10)%	— %
Total segment revenue	$ 1,543	$ (55)	$ 1,488	$ (21)	$ 22	$ 1,489	(3)%	2%

(a) Effective January 1, 2018, we adopted the New Revenue Standard using a modified retrospective basis. See *Revenue Recognition* in note 1 "Summary of Significant Accounting Policies" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(b) Represents adjustment to exclude net revenue associated with business that was contributed to our digital banking joint venture with Live Oak on October 2, 2017 offset by our 50% of the joint venture's revenue. See note 13 "Acquisitions and Dispositions" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(c) Organic constant currency growth is defined as reported growth adjusted for the following: (1) excludes the results of significant divestitures in the prior year period and (2) is adjusted to retrospectively apply the New Revenue Standard to the prior year period.

(in millions)	Year ended December 31, 2016 As Reported	New Revenue Standard Adjustments	As Adjusted	Dispositions(a)	Core Growth (Decline)	Year ended December 31, 2017	Reported Percent Change	Organic Constant Currency Percent Change(b)
Revenues:								
EFT Network	$ 491	$ —	$ 491	$ —	$ (4)	$ 487	(1)%	(1)%
Security and Fraud	434	—	434	—	15	449	3%	3%
Stored Value Network	358	—	358	—	47	405	13%	13%
Other	202	—	202	(7)	7	202	— %	4%
Total segment revenue	$ 1,485	$ —	$ 1,485	$ (7)	$ 65	$ 1,543	4%	4%

(a) Other revenue adjusted to exclude net revenue associated with business that was contributed to our digital banking joint venture with Live Oak on October 2, 2017 offset by our 50% of the joint ventures revenue. See note 13 “Acquisitions and Dispositions” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(b) Organic constant currency growth is defined as reported growth adjusted to exclude the results of significant divestitures in the prior year period.

Operating expenses overview

(in millions)	Year ended December 31, 2018	2017	2016	Percent Change 2018 vs. 2017	Percent Change 2017 vs. 2016	Constant Currency Percent Change 2018 vs. 2017	Constant Currency Percent Change 2017 vs. 2016
Cost of revenues (exclusive of items shown below)	$3,005	$ 3,128	$3,192	(4)%	(2)%	(3)%	(4)%
Selling, general, and administrative	2,651	2,178	2,035	22%	7%	22%	7%
Cost of revenues and selling, general, and administrative expenses	5,656	5,306	5,227	7%	2%	7%	3%
Depreciation and amortization	1,009	972	949	4%	2%	6%	2%
Other operating expenses, net	119	143	51	(17)%	180%	(15)%	180%
Total expenses (excluding reimbursable items)	6,784	6,421	6,227	6%	3%	6%	3%
Reimbursable items	819	3,923	3,745	(79)%	5%	(79)%	5%
Total expenses	$7,603	$10,344	$9,972	(26)%	4%	(26)%	4%

Cost of revenues and Selling, general, and administrative expenses

(in millions)	Year ended December 31, 2017	New Revenue Standard Adjustments(a)	Acquisitions/Dispositions(b)	Core Growth (Decline)	Year ended December 31, 2018	Percent Change	Constant Currency Percent Change
Sales and distribution incentives	$ 921	$ 192	$ 73	$ 146(c)	$ 1,332		
Salaries, wages, bonus, and outside professional fees	2,473	(79)	12	7(d)	2,413		
Stock-based compensation	245	—	—	3	248		
Cost of products sold	359	(44)	(3)	20	332		
Software, telecommunication infrastructure, and repairs	387	—	(3)	(13)	371		
Other	921	29	(25)	35	960		
Cost of revenues and Selling, general, and administrative expenses	$ 5,306	$ 98	$ 54	$ 198	$ 5,656	7%	7%

(a) Effective January 1, 2018, we adopted the New Revenue Standard using a modified retrospective basis. See *Revenue Recognition* in note 1 "Summary of Significant Accounting Policies" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(b) Expenses were impacted by the acquisitions of CardConnect in July 2017 and BluePay in December 2017, and disposition of Lithuania, Latvia and Estonia (the Baltics) in September 2017, the formation of a digital banking joint venture with Live Oak Bank in October 2017, the dispositions of our remittance processing business in August 2018 and card processing business in Central and Southeastern Europe in September 2018. See note 13 "Acquisitions and Dispositions" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(c) Increase related to growth in our merchant acquiring business.

(d) Increase due to outside professional fees and annual compensation increases of approximately $175 million, offset by cost savings initiatives, lower incentive compensation, and lower fringe.

(in millions)	Year ended December 31, 2016	New Revenue Standard Adjustments	Acquisitions/Dispositions(a)	Core Growth (Decline)	Year ended December 31, 2017	Percent Change	Constant Currency Percent Change
Sales and distribution incentives	$ 755	$ —	$ 72	$ 94(b)	$ 921		
Salaries, wages, bonus, and outside professional fees	2,579	—	17	(123)(c)	2,473		
Stock-based compensation	263	—	(1)	(17)(d)	245		
Cost of products sold	337	—	—	22(e)	359		
Software, telecommunication infrastructure, and repairs	396	—	(1)	(8)	387		
Other	897	—	8	16	921		
Cost of revenues and Selling, general, and administrative expenses	$ 5,227	$ —	$ 95	$ (16)	$ 5,306	2%	3%

(a) Expenses were impacted by the acquisition of CardConnect in July 2017 and BluePay in December 2017, and disposition of Lithuania, Latvia and Estonia (the Baltics) in September 2017, the formation of a digital banking joint venture with Live Oak in October 2017, and the disposition of our Australian ATM business in September 2016. See note 13 "Acquisitions and Dispositions" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(b) Increase related to growth in our merchant acquiring business.

(c) Expense decreased in 2017 compared to 2016 due to a $31 million decline in salaries and wages related to previously announced cost management initiatives, and decrease in outside professional fees.

(d) The decline in stock based compensation resulted from a $52 million decline in one-time expense related to our initial public offering in 2015, offset by an increase of $34 million in recurring stock-based compensation incurred over the vesting life of normal service-based stock awards.

(e) Cost of products sold increased in 2017 compared to 2016 due to hardware expenses, impacted by a $47 million change in accounting relating to our *Clover* terminals effective as of January 1, 2017.

Depreciation and amortization

(in millions)	Year ended December 31, 2018	2017	2016	Percent Change 2018 vs. 2017	2017 vs. 2016	Constant Currency Percent Change 2018 vs. 2017	2017 vs. 2016
Depreciation expense	$ 320	$321	$300	— %	7%		
Amortization expense	689	651	649	6%	— %		
Depreciation and amortization(a)	$1,009	$972	$949	4%	2%	6%	2%

(a) Amortization expense increased in 2017 and 2018 attributed to the CardConnect and BluePay acquisitions, offset partially by reduction in amortization expense on acquisition intangibles that have been fully amortized.

Other operating expenses, net

(in millions)	Year ended December 31, 2018	2017	2016	Percent Change 2018 vs. 2017	2017 vs. 2016	Constant Currency Percent Change 2018 vs. 2017	2017 vs. 2016
Restructuring, net	$ 85	$ 83	$ 49				
Deal and deal integration costs	3	27	—				
Asset impairment	—	13	—				
Merchant matters	20	10	—				
Other	11	10	2				
Other operating expenses, net(a)	$ 119	$ 143	$ 51	(17)%	180%	(15)%	180%

(a) See note 11 “Other Operating Expenses, Net” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for details regarding other operating expenses.

Interest expense, net

(in millions)	Year ended December 31, 2018	2017	2016	Percent Change 2018 vs. 2017	2017 vs. 2016	Constant Currency Percent Change 2018 vs. 2017	2017 vs. 2016
Interest expense, net(a)	$(917)	$(931)	$(1,078)	(2)%	(14)%	(2)%	(12)%

(a) See note 2 “Borrowings” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K.

Loss on debt extinguishment

(in millions)	Year ended December 31, 2018	2017	2016	Percent Change 2018 vs. 2017	2017 vs. 2016	Constant Currency Percent Change 2018 vs. 2017	2017 vs. 2016
Loss on debt extinguishment(a)	$ (153)	$ (80)	$ (70)	91%	14%	91%	14%

(a) See note 2 “Borrowings” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

Other income

(in millions)	Year ended December 31, 2018	2017	2016	Percent Change 2018 vs. 2017	2017 vs. 2016	Constant Currency Percent Change 2018 vs. 2017	2017 vs. 2016
Investment gains	$ 3	$ 1	$ 35(c)				
Divestitures, net gain (loss)(a)	197	18	(34)				
Non-operating foreign currency gains (losses)(b)	6	(1)	19				
Other miscellaneous expense	(5)	(2)	(3)				
Other income	$ 201	$ 16	$ 17	NM	(6)%	NM	(6)%

(a) See note 13 "Acquisitions and Dispositions" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information on our significant divestitures.
(b) Non-operating foreign currency (loss) gain represents net gains and losses related to currency translations on our intercompany loans in all years.
(c) Investment gains in 2016 represent the sale of our share in Visa Europe (VE). Additionally in 2016, we sold our 49% minority interest in an international joint venture which resulted in a pretax gain of $7 million.

Income taxes

(in millions)	Year ended December 31, 2018	2017	2016
Income tax expense (benefit)	$ 49	$(729)	$ 81
Effective income tax rate	4%	(78)%	11%

Year over year, our global effective tax rate differs from the statutory tax rates of the jurisdictions in which we operate as a result of a variety of factors, including the impact of U.S. state and local taxes, establishment or release of valuation allowances against certain deferred tax assets, tax effects of nonrecurring events and transactions, tax effects of tax law changes, and the tax impacts of equity compensation.

In 2018, the tax rate was positively impacted by the release of valuation allowances connected to certain U.S. state and local deferred tax assets as well as the release of income tax reserves associated with tax audits that were concluded during the year, principally the closure of the 2005 through 2007 tax years. Further, the tax rate was positively impacted by nonrecurring impacts of the disposal of certain foreign subsidiaries.

In 2017, the tax rate was positively impacted by a significant release of valuation allowances in the U.S., partially offset by a negative impact of the reduction to our net deferred tax assets as a result of the enactment of the Tax Cuts and Jobs Act. Following the establishment of significant valuation allowances against deferred tax assets in 2012, we regularly experienced substantial volatility in our effective tax rate in interim periods and across years through 2017. This was a result of deferred income tax benefits not being recognized in several jurisdictions, most notably in the United States. During 2017, significant amounts of federal and state valuation allowances were released, creating a large effective tax rate benefit. Additional state valuation allowances were released in 2018. This release of the valuation allowance should reduce volatility of the effective tax rate in future periods.

Pre-tax income generated and the effective income tax rate in domestic and foreign jurisdictions for the years ended December 31, 2018, 2017, and 2016 are as follows:

	Year ended December 31, 2018			2017			2016		
(in millions)	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total
Pre-tax income	$ 535	$ 712	$1,247	$ 484	$ 451	$ 935	$ 492	$ 249	$741
Income tax (benefit) expense	(48)	97	49	(827)	98	(729)	40	41	81
Effective income tax rate	(9)%	14%	4%	(171)%	22%	(78)%	8%	16%	11%

The significant jurisdictions comprising our foreign income tax expense are Argentina, Brazil, Ireland, and the UK.

From 2007 through 2015, we were in a net operating loss position in the U.S. federal and combined state jurisdictions. From 2016 through 2018, we generated profits in the U.S., causing significant portions of these net operating losses to be utilized. As a result of improved profitability, expected future performance, and the length of time remaining before the net operating losses will expire, we determined that it was more likely than not that all of our federal and certain of our state net deferred tax assets in the U.S. would be realized. Accordingly, in 2017, we released our federal and certain state valuation allowances. In 2018, we released additional state valuation allowances as a result of continued profitability.

On December 22, 2017, the Tax Cuts and Jobs Act (tax reform bill) was signed into law in the U.S. The provisions of the tax reform bill with the most significant implications to us were the reduction of the federal tax rate from 35% to 21%, the creation of a 100% participation exemption for foreign dividends, the enactment of a one-time transition tax on existing foreign earnings, limitations on the deductibility of interest expense, and the establishment of global intangible low-taxed income (GILTI) rules. The first three provisions impacted the year-ended December 31, 2017. Because our deferred tax assets exceed our deferred tax liabilities in the U.S., the reduction of the tax rate provided by the tax reform bill resulted in a negative impact to the tax rate of $194 million in 2017. The one-time transition tax coupled with the 100% participation exemption had an immaterial impact on the tax rate. Because we have historically repatriated our foreign earnings, our cumulative foreign deficits exceed our cumulative foreign profits, causing our one-time taxable inclusion under the transition tax rules to be zero.

As permitted by Staff Accounting Bulletin No. 118, provisional amounts estimated based on information available as of December 31, 2017 were made for the adjustments to deferred tax assets and liabilities, the calculation of the transition tax, and certain valuation allowance assessments. These amounts were subject to change in 2018 as we obtained information necessary to complete the calculations. Such calculations were completed in 2018 and no material adjustments were made to the amounts originally recorded in 2017.

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, 2018, we were no longer subject to income tax examination by the U.S. federal jurisdiction for years before 2008. State and local examinations are substantially complete through 2010. Foreign jurisdictions generally remain subject to examination by their respective authorities from 2007 forward, none of which are considered major jurisdictions. See note 9 “Income Tax” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

Equity earnings in affiliates

	Year ended December 31,			Percent Change		Constant Currency Percent Change	
(in millions)	**2018**	**2017**	**2016**	**2018 vs. 2017**	**2017 vs. 2016**	**2018 vs. 2017**	**2017 vs. 2016**
Equity earnings in affiliates(a)	$ 221	$ 222	$ 260	— %	(15)%	— %	(15)%

(a) Equity earnings in affiliates is related to the earnings of our unconsolidated merchant alliance partnerships which decreased in 2017 compared to 2016 due to a decline in the results of our North American joint ventures driven by a significant decline in lead flow.

Net income attributable to noncontrolling interests and redeemable noncontrolling interest

	Year ended December 31,			Percent Change		Constant Currency Percent Change	
(in millions)	**2018**	**2017**	**2016**	**2018 vs. 2017**	**2017 vs. 2016**	**2018 vs. 2017**	**2017 vs. 2016**
Net income attributable to noncontrolling interests and redeemable noncontrolling interest(a)	$ 193	$ 199	$ 240	(3)%	(17)%	(4)%	(17)%

(a) Net income attributable to noncontrolling interests and redeemable noncontrolling interest relates to the ownership interest of our alliance partners in our consolidated results. Net income attributable to noncontrolling interests and redeemable noncontrolling interest decreased in 2017 compared to 2016 due to a decline in the results of our North American joint ventures mainly due to significant decline in lead flow. See note 6 “Stockholders’ Equity and Redeemable Noncontrolling Interest” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

Segment EBITDA Overview

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

(in millions)	Year ended December 31, 2017 As Reported	New Revenue Standard Adjustments(a)	As Adjusted	Acquisitions\Dispositions(b)	Core Growth (Decline)	Currency Impact(c)	Year ended December 31, 2018	Reported Percent Change	Organic Constant Currency Percent Change(d)
Segment EBITDA:									
Global Business Solutions	$ 1,824	$ (14)	$ 1,810	$ 59	$ 174	$ (48)	$ 1,995	9%	9%
Global Financial Solutions	680	(1)	679	(23)	19	(13)	662	(3)%	3%
Network & Security Solutions	729	—	729	—	49	—	778	7%	7%
Corporate	(167)	—	(167)	—	(4)	—	(171)	(2)%	(2)%
Total Segment EBITDA (non-GAAP)	$ 3,066	$ (15)	$ 3,051	$ 36	$ 238	$ (61)	$ 3,264	6%	8%

(in millions)	Year ended December 31, 2016 As Reported	New Revenue Standard Adjustments(a)	As Adjusted	Acquisitions\Dispositions(b)	Core Growth (Decline)	Currency Impact(c)	Year ended December 31, 2017	Reported Percent Change	Organic Constant Currency Percent Change(d)
Segment EBITDA:									
Global Business Solutions	$ 1,725	$ —	$ 1,725	$ 20	$ 85	$ (6)	$ 1,824	6%	5%
Global Financial Solutions	646	—	646	(2)	43	(7)	680	5%	6%
Network & Security Solutions	666	—	666	—	63	—	729	9%	9%
Corporate	(145)	—	(145)	—	(22)	—	(167)	(15)%	(15)%
Total Segment EBITDA (non-GAAP)	$ 2,892	$ —	$ 2,892	$ 18	$ 169	$ (13)	$ 3,066	6%	6%

(a) Effective January 1, 2018, we adopted the New Revenue Standard using a modified retrospective basis. See *Revenue Recognition* in note 1 "Basis of Presentation and Summary of Significant Accounting Policies" to our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information.

(b) EBITDA was impacted by acquisitions and dispositions. See acquisitions and dispositions previously discussed.

(c) Currency impact is the difference between the current year's actual results and the same year's results converted with the prior year's foreign exchange rate.

(d) Organic constant currency growth is defined as reported growth adjusted for the following: (1) excludes the impacts of year-over-year currency rate changes in the current period; (2) excludes the results of significant divestitures in the prior year period; (3) includes the results of significant acquisitions in the prior year period; and (4) is adjusted to retrospectively apply new reporting standards to the prior year period.

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

	Year ended December 31, 2018	2017	2016	Change 2018 vs. 2017	2017 vs. 2016
Segment EBITDA Margin:					
Global Business Solutions	35.8%	37.2%	36.9%	(140) bps	30bps
Global Financial Solutions	41.5%	41.9%	40.6%	(40) bps	130bps
Network & Security Solutions	52.2%	47.2%	44.8%	500 bps	240bps
Total Segment EBITDA Margin	37.7%	38.0%	37.3%	(30) bps	70bps

Global Business Solutions

Global Business Solutions Segment EBITDA increased 9% in 2018 compared to 2017 due to the impact of the revenue items noted previously within "*Global Business Solutions segment results*" and the acquisition of CardConnect and BluePay. Currency translation negatively impacted segment EBITDA by $48 million compared to the prior year.

Global Business Solutions Segment EBITDA increased 6% in 2017 compared to 2016 due to the impact of the revenue items noted previously within "*Global Business Solutions segment results*", the acquisition of CardConnect and BluePay, along with expense declines driven by expense management initiatives.

Global Financial Solutions

Global Financial Solutions Segment EBITDA decreased (3)% in 2018 compared to 2017 due to the impact of the revenue items noted within "*Global Financial Solutions segment results*", as well as additional costs related to a new student loan processing agreement entered into in the second half of 2018, and technology investments in the international regions. Currency translation negatively impacted segment EBITDA by $13 million compared to the prior period.

Global Financial Solutions Segment EBITDA increased 5% in 2017 compared to 2016 due to the impact of the revenue items noted within "*Global Financial Solutions segment results*" and lower expenses driven by $25 million of operational efficiencies and lower plastics volumes in North America partially offset by increased investment in the international regions. Currency translation negatively impacted segment EBITDA by approximately $7 million compared to the prior period.

Network & Security Solutions

Network & Security Solutions Segment EBITDA increased 7% in 2018 compared to 2017 due to the revenue items noted within "*Network & Security Solutions segment results*". In addition to the changes in revenue, expenses declined due to expense management initiatives in 2018.

Network & Security Solutions Segment EBITDA increased 9% in 2017 compared to 2016 due to the revenue items noted within "*Network & Security Solutions segment results*". In addition to revenue growth, expenses declined due to expense management initiatives in 2017.

Corporate

Corporate Segment EBITDA loss increased modestly in 2018 compared to 2017 due to higher outside professional fees offset by lower incentive compensation and fringe.

Corporate Segment EBITDA loss increased modestly in 2017 compared to 2016 due to higher legal and incentive compensation related expenses.

Adjusted Net Income

Adjusted net income is a non-GAAP financial measure used by management that provides additional insight on performance. Adjusted net income excludes amortization of acquisition-related intangibles, stock-based compensation, restructuring costs, certain discrete tax items, and other items affecting comparability and, therefore, provides a more complete understanding 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 attributable to First Data Corporation presented in accordance with GAAP to the non-GAAP financial measure of adjusted net income for the years ended December 31, 2018, 2017, and 2016:

	Year ended December 31,			Percent Change	
(in millions)	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
Net income attributable to First Data Corporation	$1,005	$1,465	$ 420	(31)%	NM
Adjustments:					
Stock-based compensation	248	245	263	1%	(7)%
Loss on debt extinguishment	153	80	70	91%	14%
Amortization of acquisition intangibles and deferred financing costs(a)	413	403	422	2%	(5)%
Other operating expenses, net and Other income	(82)	127	34	NM	NM
Other(b)	(8)	—	46	NM	NM
Discrete tax items(c)	(160)	(891)	(24)	(82)%	NM
Income tax on above items(d)	(215)	(4)	(11)	NM	NM
Adjusted net income attributable to First Data Corporation	$1,354	$1,425	$1,220	(5)%	17%

(a) 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. Also, includes amortization related to deferred financing costs of $17 million, $10 million, and $29 million for the years ended December 31, 2018, 2017, and 2016, respectively.

(b) The 2018 balance represents adjustments for non wholly-owned entities. The 2016 balance represents fees paid on debt modifications, employer taxes on vested equity awards related to the IPO, and loss attributed to pension distributions.

(c) We exclude from “Adjusted net income attributable to First Data Corporation” certain discrete tax items, such as tax law changes, tax impact of mergers and acquisitions, valuation allowance releases, and tax reserves related to issues that arose before KKR acquired us.

(d) 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.

Adjusted net income for the year ended December 31, 2018 decreased due to normalized tax rate applied in 2018 driven by the release of the tax valuation allowance in 2017, offset by better operating performance in 2018.

Adjusted net income for the year ended December 31, 2017 improved due to better operating performance and lower interest expense. Growth in depreciation partially offset adjusted net income for the year ended December 31, 2017.

Liquidity and Capital Resources

Our source of liquidity is principally cash generated from operating activities supplemented by our receivable securitization facility and, as necessary, on a short-term basis by borrowings against our senior secured revolving credit 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.

Total borrowings and net debt

For the year ended December 31, 2018, we used excess cash generated by the business, divestiture proceeds, and existing cash on the consolidated balance sheet to pay down outstanding borrowings. The table below shows the net debt balances as of December 31, 2018 and 2017. 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 borrowings under GAAP.

	As of December 31,	
(in millions)	2018	2017
Total long-term borrowings	$16,429	$17,927
Total short-term and current portion of long-term borrowings	1,170	1,271
Total borrowings	17,599	19,198
Unamortized discount and unamortized deferred financing costs	94	126
Total borrowings at par	17,693	19,324
Less: settlement lines of credit and other arrangements	224	205
Gross debt excluding settlement lines of credit and other arrangements	17,469	19,119
Less: cash and cash equivalents	555	498
Net debt	$16,914	$18,621

Our current level of debt may limit our ability to get additional funding at our current funding rate beyond our senior secured revolving credit facility and receivable securitization facility, if needed. See note 2 “Borrowings” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for details regarding our debt structure.

On October 26, 2018, we refinanced our senior secured revolving credit facility and senior secured term loan facility with a $6 billion senior secured credit facility. See note 2 “Borrowings” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional details.

Credit ratings

As of February 26, 2019, our long-term corporate family rating from Moody’s was Ba3 (outlook positive). We were upgraded by Moody’s during the second quarter of 2018 which resulted in a 25 basis point reduction in interest rates on our term loans maturing in 2022 and 2024. During the third quarter of 2018 our long-term local issuer credit rating from Standard and Poor’s was upgraded to BB- (outlook stable) and the long-term issuer default rating from Fitch was upgraded to BB- (outlook 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.

As a result of the planned merger with Fiserv Inc. (Fiserv) as disclosed in note 20 “Subsequent Events” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K, all three credit agencies have put us on the watch list for upgrade.

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, 2018 and 2017, we held $555 million and $498 million in cash and cash equivalents, respectively.

The table below details the cash and cash equivalents as of December 31, 2018 and 2017:

	As of December 31, 2018			As of December 31, 2017		
(in millions)	**Available**	**Unavailable**	**Total**	**Available**	**Unavailable**	**Total**
Domestic	$ 28	$ 156(a)	$184	$ 50	$ 101(a)	$151
International	200	171(b)	371	174	173(b)	347
Total	$ 228	$ 327	$555	$ 224	$ 274	$498

(a) Represents cash held by two of our domestic entities that are not available to fund operations outside of these entities unless the Board of Directors of these respective entities declare a dividend. Also, one of these entities is subject to regulatory capital requirements that must be satisfied before a dividend may be declared.

(b) Consolidated foreign joint ventures held $169 million and $163 million in cash and cash equivalents as of December 31, 2018 and 2017, respectively. Distributions of these funds are subject to the joint ventures’ Board of Directors authorization. In addition, $2 million and $10 million of the remaining unavailable cash and cash equivalents in our international subsidiaries is held in countries that have currency controls as of December 31, 2018 and 2017, respectively.

Cash flows

The table below summarizes cash flows for the years ended December 31, 2018, 2017, and 2016:

	Year ended December 31,		
Source/(use) (in millions)	**2018**	**2017**	**2016**
Net cash provided by operating activities	$ 2,307	$ 2,047	$ 2,111
Net cash used in investing activities	(99)	(1,952)	(361)
Net cash (used in) provided by financing activities	(2,124)	9	(1,734)

Cash flows from operating activities

The table below reconciles the change in operating cash flows for the years ended December 31, 2017 to December 31, 2018 and December 31, 2016 to December 31, 2017:

	Year ended December 31,	
Source/(use) (in millions)	**2018**	**2017**
Net cash provided by operating activities, previous period	$ 2,047	$ 2,111
Increases (decreases) in:		
Net income, excluding other operating expenses and other income(a)	366	270
Depreciation and amortization	17	12
Working capital(b)	(123)	(346)
Net cash provided by operating activities, end of period	$ 2,307	$ 2,047

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

(b) Change driven by timing of receipts and payments.

Our operating cash flow is impacted by our level of debt. Approximately $0.9 billion, $0.9 billion, and $1.0 billion in cash interest, net of interest rate swap settlements, was paid during 2018, 2017, and 2016, respectively.

See “Item 7A. Quantitative and Qualitative Disclosures about Market Risk” in the First Data Annual Report on Form 10-K for the year ended December 31, 2018 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.

Cash flows from investing activities

The table below summarizes the changes in investing activities for the years ended December 31, 2018 and 2017:

	Year ended December 31,		
Source/(use) (in millions)	**2018**	**2017**	**Change**
Acquisitions(a)	$ (17)	$(1,607)	$1,590
Dispositions(b)	549	88	461
Capital expenditures(c)	(604)	(518)	(86)
Other(d)	(27)	85	(112)
Net cash used in investing activities	$ (99)	$(1,952)	$1,853

(a) Change is related to acquisition of Acculynk, CardConnect and BluePay during 2017. See note 13 “Acquisitions and Dispositions” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional detail about these acquisitions.
(b) Change driven by proceeds from the disposition of our remittance processing business and our card processing business in Central and Southeastern Europe during 2018 offset by 2017 sale of the Baltics. See note 13 “Acquisitions and Dispositions” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional details about these dispositions.
(c) Change in capital expenditures is related to an increase in cash outlays for software, technology and building improvements.
(d) Other represents proceeds from maturity of net investment hedge, proceeds from sale of property and equipment, purchase of equity method investments, and other investing activities.

The table below summarizes the changes in investing activities for the years ended December 31, 2017 and 2016:

	Year ended December 31,		
Source/(use) (in millions)	**2017**	**2016**	**Change**
Acquisitions(a)	$(1,607)	$ (6)	$(1,601)
Dispositions(b)	88	38	50
Capital expenditures	(518)	(477)	(41)
Other(c)	85	84	1
Net cash used in investing activities	$(1,952)	$(361)	$(1,591)

(a) Change is related to acquisition of Acculynk, CardConnect and BluePay during 2017. See note 13 “Acquisitions and Dispositions” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional detail about these acquisitions.
(b) Change driven by proceeds from our 2017 Baltics disposition offset by 2016 sale of the Australian ATM business. See note 13 “Acquisitions and Dispositions” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional details about these dispositions.
(c) Other represents proceeds from maturity of net investment hedge, proceeds from sale of property and equipment, purchase of equity method investments, and other investing activities.

Cash flows from financing activities

The table below summarizes the changes in financing activities for the years ended December 31, 2018 and 2017:

	Year ended December 31,		
Source/(use) (in millions)	**2018**	**2017**	**Change**
Net debt transactions(a)	$(1,681)	$ 382	$(2,063)
Other(b)	(443)	(373)	(70)
Net cash (used in) provided by financing activities	$(2,124)	$ 9	$(2,133)

(a) Details regarding our debt structure are provided in note 2 “Borrowings” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K.
(b) Other represents payment of call premiums and debt issuance cost, payment of taxes related to net settlement of equity awards, distributions and dividends paid to noncontrolling interests and redeemable noncontrolling interest and other financing activities. Change is related to an increase in debt extinguishment payments.

The table below summarizes the changes in financing activities for the years ended December 31, 2017 and 2016:

Source/(use) (in millions)	Year ended December 31, 2017	2016	Change
Net debt transactions[(a)]	$ 382	$(1,335)	$1,717
Other[(b)]	(373)	(399)	26
Net cash provided by (used in) financing activities	$ 9	$(1,734)	$1,743

(a) Details regarding our debt structure are provided in note 2 “Borrowings” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K.
(b) Other represents payment of call premiums and debt issuance cost, payment of taxes related to net settlement of equity awards, distributions and dividends paid to noncontrolling interests and redeemable noncontrolling interest and other financing activities.

Free Cash Flow

Free cash flow is a non-GAAP measure defined as cash flow provided by operating activities less capital expenditures and distributions to minority interests and other. 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 and/or complete strategic acquisitions. Free cash flow is not, and should not be viewed as, a substitute for GAAP reported financial information.

The table below reconciles cash flow from operations to free cash flow for the years ended December 31, 2018 and 2017:

Source/(use) (in millions)	Year ended December 31, 2018	2017	Change
Net cash provided by operating activities[(a)]	$2,307	$2,047	$ 260
Capital expenditures[(b)]	(604)	(518)	(86)
Distributions and dividends paid to noncontrolling interests, redeemable noncontrolling interest, and other	(255)	(260)	5
Net investment hedge	26	90	(64)
Free cash flow	$1,474	$1,359	$ 115

(a) Net cash provided by operating activities increased due to the items noted previously in the “*Cash flows from operating activities*”.
(b) Change in capital expenditures is related to an increase in cash outlays for software, technology and building improvements.

The table below reconciles cash flow from operations to free cash flow for the years ended December 31, 2017 and 2016:

Source/(use) (in millions)	Year ended December 31, 2017	2016	Change
Net cash provided by operating activities[(a)]	$2,047	$2,111	$ (64)
Capital expenditures	(518)	(477)	(41)
Distributions and dividends paid to noncontrolling interests, redeemable noncontrolling interest, and other[(b)]	(260)	(418)	158
Net investment hedge[(c)]	90	—	90
Free cash flow	$1,359	$1,216	$ 143

(a) Net cash provided by operating activities decreased due to the items noted previously in the “*Cash flows from operating activities*”.
(b) Distributions and dividends paid to noncontrolling interests and redeemable noncontrolling interest and other decreased due to lower noncontrolling interest earnings and the timing of distributions totaling $53 million. The December 31, 2016 balance 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 sheet. Free cash flow excludes the impact of reclassification.
(c) Change in net investment hedge is due to $90 million received from the maturity of three net investment hedges in 2017.

Letters, lines of credit, and other

(in millions)	Total Available[(a)] As of December 31, 2018	2017	Total Outstanding As of December 31, 2018	2017
Letters of credit[(b)]	$ 283	$ 283	$ 35	$ 29
Lines of credit and other	516	546	224	205

(a) Total available without giving effect to amounts outstanding.
(b) See note 2 “Borrowings” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K.

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 have 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 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 6.00 to 1.00.

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. As of December 31, 2018, we were in compliance with all applicable covenants, including our sole financial covenant with Consolidated Senior Secured Debt of $14.2 billion, Covenant EBITDA of $3.6 billion and a Ratio of 3.91 to 1.00.

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 include net income attributable to noncontrolling interests and redeemable noncontrolling interest of certain non wholly-owned subsidiaries and to 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 similarly titled measures of other companies.

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

(in millions)	Year ended December 31, 2018
Net income attributable to First Data Corporation	$ 1,005
Interest expense, net	917
Income tax expense	49
Depreciation and amortization	1,090
EBITDA	3,061
Loss on debt extinguishment	153
Stock-based compensation	248
Net income attributable to noncontrolling interests and redeemable noncontrolling interest	193
Projected near-term cost savings and revenue enhancements(a)	70
Restructuring, net	85
Non-operating foreign currency (gains) and losses	(6)
Equity entities taxes, depreciation and amortization(b)	17
Divestitures, net	(197)
Other(c)	6
Covenant EBITDA	$ 3,630

(a) 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.

(b) Represents our proportional share of income taxes, depreciation, and amortization on equity method investments.

(c) Includes items such as pension losses, litigation and regulatory settlements, impairments, deal and deal integration costs, acquisitions and dispositions, and other as applicable to the period presented.

Off-Balance Sheet Arrangements

During 2018, 2017, and 2016, 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 15 “Commitments and Contingencies” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K.

Contractual Obligations

Our contractual obligations as of December 31, 2018 were as follows:

	Payments Due by Period				
(in millions)	Total	Less than 1 year	1-3 years	3-5 years	After 5 years
Borrowings(a)	$20,107	$ 920	$ 2,000	$ 9,170	$8,017
Capital lease obligations(b)	248	81	118	45	4
Operating leases	326	59	99	77	91
Purchase obligations(c):					
Technology and telecommunications(d)	963	415	428	120	—
All other(e)	52	17	20	12	3
Total(f)(g)	$21,696	$ 1,492	$ 2,665	$ 9,424	$8,115

(a) Includes future principal and cash interest payments on long-term borrowings through scheduled maturity dates. Includes $11.9 billion of variable rate debt, $2.8 billion in variable to fixed interest rate collars and $7.25 billion in interest rate step-up swaps, which mitigate exposure to interest rate fluctuations. Borrowings are discussed in note 2 “Borrowings” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K Interest rate swaps and interest rate collars are discussed note 14 “Derivative Financial Instruments” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K Interest payments for the variable rate debt and the associated interest rate swaps were calculated using interest rates as of December 31, 2018.

(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 amount. 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, 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 16 “Employee Benefit Plans” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K.

(g) As of December 31, 2018, we had approximately $102 million of tax contingencies comprised of approximately $55 million reported in long-term income taxes payable in the “Other long-term liabilities” line of our consolidated balance sheet and approximately $47 million recorded as a decrease to our deferred tax assets. 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

Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States, which often require management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. On an ongoing basis, we evaluate our critical estimates giving consideration to a combination of factors, including historical experience, current conditions, and various other assumptions considered to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. The accounting policies we consider most critical to understanding our financial results and condition and that require complex and subjective management judgments are discussed below.

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, by first performing a qualitative assessment at the reporting unit level for all reporting units with the exception of the GBS reporting unit for which we begin with a quantitative assessment. The qualitative assessment evaluates company, industry, and macroeconomic events and circumstances to determine if it is more likely than not that the fair value of the reporting unit is less than its carrying value. If it is determined through the qualitative assessment that it is more likely than not that the fair value is less than the carrying value, we proceed to a quantitative assessment.

For reporting units tested using a quantitative assessment, fair value is based on a discounted cash flow model 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 through quantitative assessment that the fair value is less than the carrying value, the amount by which the carrying value exceeds the fair value, limited to the amount of goodwill recorded and taking into consideration the effect of any tax deductible goodwill, is recorded as an impairment of goodwill.

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 impact our debt yields, could affect these estimates used in the analysis discussed, 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, 2018, the carrying value of goodwill was $17.5 billion of which $15.1 billion related to our GBS reporting unit. As of October 1, 2018, the most recent impairment analysis date, our GBS reporting unit's fair value exceeded its carrying value by 50% and all other reporting units passed their respective qualitative assessments. 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 Exhibit 99.6 to this Current Report on Form 8-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 39%. See note 1 "Summary of Significant Accounting Policies" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information regarding goodwill.

Reserve for merchant credit losses: 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. Cash and cash equivalent collateral is included within "Settlement assets" on the consolidated balance sheet. The amounts of collateral held by us and our unconsolidated alliances are as follows:

	As of December 31,	
(in millions)	**2018**	**2017**
Cash and cash equivalents collateral	$ 500	$ 499
Collateral in the form of letters of credit	96	133
Total collateral	$ 596	$ 632

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)	2018	2017	2016
First Data and consolidated and unconsolidated alliances credit losses	$ 95	$ 98	$ 93
First Data and consolidated alliances credit losses	86	89	83
Total dollar volume processed (in billions)	2,631	2,401	2,153

The reserve recorded on our consolidated balance sheets 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)	2018	2017
First Data and consolidated and unconsolidated alliances merchant credit loss reserves	$ 32	$ 33
First Data and consolidated alliances merchant credit loss reserves	28	29

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 incurred but not reported 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.

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.

In the U.S. we have historically generated tax net operating loss carry forwards, largely as the result of the significant interest expense we have incurred. 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 currently have tax net operating loss carry forwards 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. 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. See note 9 "Income Tax" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for additional information regarding our income tax provision.

New Accounting Guidance

See note 1 “Summary of Significant Accounting Policies” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for new accounting guidance.

Management's Discussion and Analysis of Financial Condition and Results of Operations of First Data Corporation for the three months ended March 31, 2019 and 2018

This management's discussion and analysis provides a review of the results of operations, financial condition and liquidity and capital resources of First Data Corporation ("First Data", "we", "us", "our" or the "company" refer to First Data Corporation and its consolidated subsidiaries) and outlines the factors that affected recent results, as well as factors that may affect future results. Our actual results in the future may differ materially from those anticipated in these forward looking statements as a result of many factors, including those set forth under "Risk Factors," "Forward Looking Statements" and elsewhere in First Data's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019. The following discussion should be read in conjunction with First Data's unaudited consolidated financial statements and related notes appearing in Exhibit 99.2 to this Current Report on Form 8-K, as well as management's discussion and analysis and consolidated financial statements for the year ended December 31, 2018 included in Exhibits 99.3 and 99.1, respectively, to this Current Report on Form 8-K.

Year over year percent changes are calculated on whole-dollar values as management views this as a more accurate representation of our performance. As such, the values herein may not recalculate due to rounding. Not meaningful percentage changes are indicated with NM.

Executive Overview

First Data Corporation sits at the center of global electronic commerce. We enable businesses to accept electronic payments, help financial institutions issue credit, debit and prepaid cards, and route secure transactions between them. 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, issuer processing and related services, and network solutions. We believe we have the industry's largest distribution network, consisting of partnerships with many of the world's leading financial institutions, and our direct sales force. We are the largest merchant acquirer and issuer processor in the world, and operate the third largest independent network services in the United States.

Our business is characterized by transaction related fees and multi-year contracts, which allow us to grow alongside our clients and to achieve a high level of recurring revenues from our diverse client base. 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' terms.

Pending Merger with Fiserv, Inc.

On January 16, 2019, First Data and Fiserv, Inc. (Fiserv), and 300 Holdings, Inc. (Merger Sub), a wholly-owned subsidiary of Fiserv, entered into an agreement and plan of merger (Merger Agreement), pursuant to which we will merge into Merger Sub (the Merger). The terms are subject to the conditions set forth in the Merger Agreement, which states at closing each share of our common stock issued and outstanding will be converted into the right to receive 0.303 (Exchange Ratio) of a share of common stock, par value $0.01 per share, of Fiserv. First Data's equity awards will generally be converted into Fiserv equity awards after giving effect to the Exchange Ratio and appropriate adjustments and be governed by the same terms and conditions as applicable to First Data's corresponding equity awards. Completion of the Merger is subject to customary closing conditions for both parties. We currently anticipate that we will close the merger during the second half of 2019. For additional information see Form 425 and Form 8-K filed with the Securities and Exchange Commission dated January 16, 2019 and available through the "Investor Relations" portion of our website at http://investor.firstdata.com.

On March 15, 2019, First Data, following the declaration by the U.S. Securities and Exchange Commission on March 14, 2019 that the Registration Statement of Fiserv became effective, received the written consent of New Omaha Holdings L.P. (New Omaha), with respect to 364,441,146 shares of Class B common stock of First Data, to approve (i) the adoption of the Merger Agreement and (ii) the adoption of a resolution regarding certain Merger-related executive officer compensation payments that will or may be made to First Data's named executive officers in connection with the Merger. The completion of the Merger remains subject to the satisfaction or waiver of customary closing conditions.

Components of Revenue

We generate revenue by providing commerce-enabling solutions. Our major components of revenue have not changed from those discussed within Exhibit 99.3 to this Current Report on Form 8-K.

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 impact our results of operations. In recent periods, the U.S. dollar has fluctuated versus most foreign currencies, which has impacted our operating results generated in foreign currencies as presented in U.S. dollars in our unaudited consolidated financial statements. We believe the presentation of organic constant currency and constant currency provides relevant information and we use these non-GAAP financial measures to, among other things, evaluate our ongoing operations by excluding the impact 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 Generally Accepted Accounting Principles (GAAP). For additional information on our organic constant currency and constant currency calculation, see “Segment Results”.

Acquisitions and Divestitures

Acquisitions and divestitures over the past year have impacted the comparability of our financial results. The disposition of the remittance processing business in the U.S. is reflected in Global Financial Solutions segment results through the disposition date of August 15, 2018. The disposition of the card processing business in Central and Southeastern Europe, is primarily reflected in our Global Financial Solutions segment results through the disposition date of September 28, 2018. The acquisition of Software Express is reflected in the Global Business Solutions segment results as of March 11, 2019. See note 11 “Acquisitions” in our unaudited consolidated financial statements in Exhibit 99.2 to this Current Report on Form 8-K and note 13 “Acquisitions and Dispositions” in Exhibit 99.1 to this Current Report on Form 8-K for the year ended December 31, 2018 for additional information.

Results of Operations

Consolidated results should be read in conjunction with note 7 “Segment Information” in our unaudited consolidated financial statements in Exhibit 99.2 to this Current Report on Form 8-K, which provides more detailed discussions concerning certain components of our unaudited consolidated statements of income. All significant intercompany accounts and transactions have been eliminated within the consolidated results.

Overview

The table below reconciles Net income attributable to First Data Corporation for the three months ended March 31, 2018 to March 31, 2019:

(in millions)	Three months ended March 31,
Net income attributable to First Data Corporation ending March 31, 2018	$ 101
Better (worse):	
Revenues excluding reimbursable items	40
Cost of revenues	22
Selling, general, and administrative	(13)
Depreciation and amortization	4
Other operating expenses, net	24
Interest expense, net	30
Loss on debt extinguishment	(1)
Other expense	(24)
Income tax	(2)
Equity earnings in affiliates	3
Net income attributable to noncontrolling interests and redeemable noncontrolling interest	(15)
Net income attributable to First Data Corporation ending March 31, 2019	$ 169

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 reportable 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 items.
- Segment EBITDA (earnings before net interest expense, income taxes, depreciation, and amortization) includes equity earnings in affiliates and excludes net income attributable to noncontrolling interests, other operating expenses, net, other expense, and stock-based compensation.
- 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.
- 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. To present this information, monthly results during the periods presented for entities with functional 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 period, rather than the actual average exchange rates in effect during the current period. Once translated, each month during the periods presented is added together to calculate the constant currency results for the periods presented.
- Organic constant currency growth is defined as reported growth adjusted for the following, if applicable: (1) excludes the impacts of period-over-period currency rate changes in the current period; (2) excludes the results of significant divestitures in the prior period; and (3) includes the results of significant acquisitions in the prior period.
- Currency impact is defined as the difference between the current period's actual results and the same period's results converted with the prior period's foreign exchange rate.

Operating revenues overview

(in millions)	Three months ended March 31, 2019	Three months ended March 31, 2018	Percent Change	Organic Constant Currency Percent Change
Consolidated revenues	$ 2,316	$ 2,282		
Adjustments:				
Non wholly-owned entities	(7)	(4)		
Reimbursable items	(192)	(198)		
Total segment revenues	$ 2,117	$ 2,080	2%	8%

(in millions)	Three months ended March 31, 2019	Three months ended March 31, 2018	Percent Change	Organic Constant Currency Percent Change
Segment revenues:				
Global Business Solutions	$ 1,387	$ 1,318	5%	10%
Global Financial Solutions	369	400	(8)%	9%
Network & Security Solutions	361	362	— %	— %
Total segment revenues	$ 2,117	$ 2,080	2%	8%

Global Business Solutions segment results

The following table displays total segment revenue by region:

(in millions)	Three months ended March 31, 2018	Acquisitions/(Dispositions)	Core Growth	Currency Impact	Three months ended March 31, 2019	Percent Change	Organic Constant Currency Percent Change
Revenues:							
North America	$ 1,014	$ —	$ 56	$ (1)	$ 1,069	5%	5%
EMEA	168	(2)	13	(13)	166	(1)%	8%
LATAM	88	2	52	(42)	100	14%	58%
APAC	48	—	7	(3)	52	9%	16%
Total segment revenue	$ 1,318	$ —	$ 128	$ (59)	$ 1,387	5%	10%

Global Financial Solutions segment results

The following table displays total segment revenue by region:

(in millions)	Three months ended March 31, 2018	(Dispositions)	Core Growth	Currency Impact	Three months ended March 31, 2019	Percent Change	Organic Constant Currency Percent Change
Revenues:							
North America	$ 228	$ (20)	$ 13	$ —	$ 221	(3)%	6%
EMEA	110	(26)	4	(5)	83	(25)%	5%
LATAM	31	—	10	(8)	33	4%	29%
APAC	31	—	3	(2)	32	6%	13%
Total segment revenue	$ 400	$ (46)	$ 30	$ (15)	$ 369	(8)%	9%

Network & Security Solutions segment results

The following table displays total segment revenue by product:

(in millions)	Three months ended March 31, 2018	Core Growth (Decline)	Three months ended March 31, 2019	Percent Change	Organic Constant Currency Percent Change
Revenues:					
EFT Network	$ 120	$ 5	$ 125	4%	4%
Security and Fraud	112	(2)	110	(2)%	(2)%
Stored Value Network	84	(1)	83	(2)%	(1)%
Other	46	(3)	43	(4)%	(4)%
Total segment revenue	$ 362	$ (1)	$ 361	— %	— %

Operating expenses overview

	Three months ended March 31,			
(in millions)	2019	2018	Percent Change	Constant Currency Percent Change
Cost of revenues (exclusive of items shown below)	$ 757	$ 779	(3)%	— %
Selling, general, and administrative	660	647	2%	4%
Cost of revenues and Selling, general, and administrative expenses	1,417	1,426	(1)%	2%
Depreciation and amortization	246	250	(2)%	4%
Other operating expenses, net	36	60	(40)%	(40)%
Total expenses (excluding reimbursable items)	1,699	1,736	(2)%	1%
Reimbursable items	192	198	(3)%	(3)%
Total expenses	$ 1,891	$ 1,934	(2)%	— %

Cost of revenues and Selling, general, and administrative expenses

(in millions)	Three months ended March 31, 2018	Acquisitions/(Dispositions)(a)	Core Growth (Decline)	Three months ended March 31, 2019	Percent Change	Constant Currency Percent Change
Sales and distribution incentives	$ 302	$ —	$ 43 (b)	$ 345		
Salaries, wages, bonus, and outside professional fees	641	(21)	(22) (c)	598		
Stock-based compensation	74	—	(18) (d)	56		
Cost of products sold	82	(1)	16 (e)	97		
Software, telecommunication infrastructure, and repairs	93	(2)	5	96		
Other	234	(2)	(7)	225		
Cost of revenues and Selling, general, and administrative expenses	$ 1,426	$ (26)	$ 17	$ 1,417	(1)%	2%

(a) Expenses were impacted by the acquisition of Software Express in March 2019, the dispositions of the remittance processing business in August 2018, and disposition of the card processing business in Central and Southeastern Europe in September 2018. See note 11 "Acquisitions" in our unaudited consolidated financial statements in Exhibit 99.2 to this Current Report on Form 8-K and note 13 "Acquisitions and Dispositions" in Exhibit 99.1 to this Current Report on Form 8-K for additional information.
(b) Increase related to growth in our merchant acquiring business.
(c) Decrease primarily due to cost savings initiatives.
(d) Decrease primarily due to cost savings initiatives and sizable stock awards which vested prior to the three months ended March 31, 2019.
(e) Increase primarily due to organic growth and initial direct cost related to hardware revenue.

Depreciation and amortization

(in millions)	Three months ended March 31, 2019	Three months ended March 31, 2018	Percent Change	Constant Currency Percent Change
Depreciation expense	$ 83	$ 82	1%	
Amortization expense	163	168	(3)%	
Depreciation and amortization	$ 246	$ 250	(2)%	4%

Other operating expenses, net

(in millions)	Three months ended March 31, 2019	Three months ended March 31, 2018	Percent Change	Constant Currency Percent Change
Restructuring, net	$ 3	$ 32		
Deal and deal integration costs	33	7		
Merchant matters	—	20		
Other	—	1		
Other operating expenses, net(a)	$ 36	$ 60	(40)%	(40)%

(a) See note 10 "Other Operating Expenses, Net" in our unaudited consolidated financial statements in Exhibit 99.2 to this Current Report on Form 8-K for additional information regarding other operating expenses.

Interest expense, net

(in millions)	Three months ended March 31, 2019	Three months ended March 31, 2018	Percent Change	Constant Currency Percent Change
Interest expense, net(a)	$ 203	$ 233	(13)%	(13)%

(a) See note 2 "Borrowings" in our unaudited consolidated financial statements in Exhibit 99.2 to this Current Report on Form 8-K for additional information.

Other expense

(in millions)	Three months ended March 31, 2019	2018	Percent Change	Constant Currency Percent Change
Non-operating foreign currency loss	$ (2)	$ (3)		
Other miscellaneous expense(a)	(25)	—		
Other expense	$ (27)	$ (3)	NM	NM

(a) For the three months ended March 31, 2019 we recorded expenses of $23 million for an out of period adjustment, which impacted multiple years, related to correction of a lease classification error. We do not believe this adjustment will be material to the financial statements for the year ended December 31, 2019 and it is not material to previously reported financial statements.

Income taxes

See note 8 “Income Taxes” in our unaudited consolidated financial statements in Exhibit 99.2 to this Current Report on Form 8-K for additional information.

Equity earnings in affiliates

(in millions)	Three months ended March 31, 2019	2018	Percent Change	Constant Currency Percent Change
Equity earnings in affiliates(a)	$ 52	$ 49	6%	8%

(a) Equity earnings in affiliates is related to the earnings of our unconsolidated merchant alliance partnerships. The improvement in equity earnings for the three months ended March 31, 2019 was driven primarily by lower amortization expense as one of our equity method investments was fully amortized by December 31, 2018.

Net income attributable to noncontrolling interests and redeemable noncontrolling interest

(in millions)	Three months ended March 31, 2019	2018	Percent Change	Constant Currency Percent Change
Net income attributable to noncontrolling interests and redeemable noncontrolling interest(a)	$ 48	$ 33	45%	48%

(a) Net income attributable to noncontrolling interests and redeemable noncontrolling interest relates to the ownership interest of our alliance partners in our consolidated results. The improvement in Net income attributable to noncontrolling interests and redeemable noncontrolling interest for the three months ended March 31, 2019 was primarily driven by the non-recurrence of a $10 million expense related to a merchant matter in the prior year period.

Segment EBITDA Overview

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

(in millions)	Three months ended March 31, 2018	(Dispositions)(a)	Core Growth (Decline)	Currency Impact	Three months ended March 31, 2019	Reported Percent Change	Organic Constant Currency Percent Change
Segment EBITDA:							
Global Business Solutions	$ 434	$ (1)	$ 67	$ (29)	$ 471	8%	15%
Global Financial Solutions	166	(10)	—	(9)	147	(12)%	— %
Network & Security Solutions	175	—	20	—	195	11%	11%
Corporate	(45)	—	(14)	—	(59)	(26)%	(26)%
Total Segment EBITDA (non-GAAP)	$ 730	$ (11)	$ 73	$ (38)	$ 754	3%	10%

(a) EBITDA was impacted by the acquisitions and dispositions discussed previously.

The following table displays Segment EBITDA margin as reported by segment for the three months ended March 31, 2019 and 2018:

	Three months ended March 31, 2019	2018	Reported Percent Change	Organic Constant Currency Percent Change
Segment EBITDA Margin:				
Global Business Solutions	34.0%	32.9%	110 bps	170 bps
Global Financial Solutions	39.8%	41.5%	(170) bps	(340) bps
Network & Security Solutions	54.0%	48.3%	570 bps	570 bps
Total Segment EBITDA Margin	35.6%	35.1%	50 bps	80 bps

Global Business Solutions The increase for the three months ended March 31, 2019 was positively impacted by business mix, including timing of network assessment fees and lower hardware revenue.

Global Financial Solutions The decrease for the three months ended March 31, 2019 was impacted by added costs primarily associated with the ramping up of new deals.

Network & Security Solutions The increase for the three months ended March 31, 2019 was impacted by expense management initiatives and the non-renewal of a low-margin plastics client in the prior year.

Adjusted Net Income

Adjusted net income is a non-GAAP financial measure used by management that provides additional insight on performance. Adjusted net income excludes amortization of acquisition-related intangibles, stock-based compensation, restructuring costs, certain discrete tax items and other items affecting comparability and, therefore, provides a more complete understanding 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 attributable to First Data Corporation presented in accordance with GAAP to the non-GAAP financial measure of adjusted net income for the periods presented:

(in millions)	Three months ended March 31, 2019	2018	% Change
Net income attributable to First Data Corporation	$169	$101	67%
Adjustments:			
Stock-based compensation	56	74	(24)%
Loss on debt extinguishment	1	—	NM
Amortization of acquisition intangibles and deferred financing costs(a)	89	106	(16)%
Other operating expenses, net and Other expense	63	63	— %
Other(b)	—	(11)	NM
Discrete tax items(c)	—	6	NM
Income tax on above items(d)	(75)	(60)	(25)%
Adjusted net income attributable to First Data Corporation	$303	$279	9%

(a) 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 of $3 million and $5 million for the three months ended March 31, 2019 and 2018, respectively.

(b) The 2018 balance represents adjustments for non wholly-owned entities.

(c) We exclude from “Adjusted net income attributable to First Data Corporation” certain discrete tax items, such as tax law changes, tax impact of mergers and acquisitions, valuation allowance releases, and tax reserves related to issues that arose before KKR acquired us.

(d) 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.

Liquidity and Capital Resources

Our source of liquidity is principally cash generated from operating activities supplemented by our receivable securitization facility and, as necessary, on a short-term basis by borrowings against our senior secured revolving credit 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 expect to use all or a portion of the excess cash to reduce our debt balances.

Total borrowings and net debt

For the three months ended March 31, 2019, we used a portion of excess cash generated by the business and existing cash on hand to reduce outstanding debt and complete strategic acquisitions. The table below shows the net debt balances as of March 31, 2019 and December 31, 2018. 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 borrowings under GAAP.

(in millions)	As of March 31, 2019	As of December 31, 2018
Total long-term borrowings	$ 16,282	$ 16,429
Total short-term and current portion of long-term borrowings	1,159	1,170
Total borrowings	17,441	17,599
Unamortized discount and unamortized deferred financing costs	88	94
Total borrowings at par	17,529	17,693
Less: settlement lines of credit	127	224
Gross debt excluding settlement lines of credit	17,402	17,469
Less: cash and cash equivalents	619	555
Net debt	$ 16,783	$ 16,914

Our current level of debt may limit our ability to obtain additional funding at our current funding rate beyond our senior secured revolving credit facility and receivable securitization facility, if needed. See note 2 “Borrowings” in our unaudited consolidated financial statements in Exhibit 99.2 to this Current Report on Form 8-K for additional information.

Credit ratings

As of April 30, 2019, our long-term corporate family rating from Moody’s was Ba3 (outlook positive). Long-term local issuer credit rating from Standard and Poor’s was BB- (outlook stable) and the long-term issuer default rating from Fitch was BB- (outlook 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.

As a result of the planned merger with Fiserv as described in note 1 “Basis of Presentation and Summary of Significant Accounting Policies” in our unaudited consolidated financial statements in Exhibit 99.2 to this Current Report on Form 8-K, all three credit agencies have put us on the watch list for upgrade.

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 March 31, 2019 and December 31, 2018, we held $619 million and $555 million in cash and cash equivalents, respectively.

The table below details the cash and cash equivalents as of March 31, 2019 and December 31, 2018:

	As of March 31, 2019			As of December 31, 2018		
(in millions)	Available	Unavailable	Total	Available	Unavailable	Total
Domestic	$ 62	$ 150 (a)	$212	$ 28	$ 156 (a)	$184
International	208	199 (b)	407	200	171 (b)	371
Total	$ 270	$ 349	$619	$ 228	$ 327	$555

(a) Represents cash held by two of our domestic entities that are not available to fund operations outside of these entities unless the Board of Directors of these respective entities declare a dividend. Also, one of these entities is subject to regulatory capital requirements that must be satisfied before a dividend may be declared.

(b) Consolidated foreign joint ventures held $194 million and $169 million in cash and cash equivalents as of March 31, 2019 and December 31, 2018, respectively. Distributions of these funds are subject to the joint ventures’ Board of Directors authorization.

Cash flows

The table below summarizes cash flows for the three months ended March 31, 2019 and 2018**:**

Source/(use) (in millions)	Three months ended March 31, 2019	2018
Net cash provided by operating activities	$ 615	$ 534
Net cash used in investing activities	(261)	(143)
Net cash used in financing activities	(275)	(304)

Cash provided by operating activities

The table below reconciles the change in operating cash flows for the three months ended March 31, 2018 to March 31, 2019:

Source/(use) (in millions)	Three months ended March 31, 2019
Net cash provided by operating activities, previous period	$ 534
Increases (decreases) in:	
Net income, excluding other operating expenses, net and other expense(a)	82
Depreciation and amortization	(10)
Working capital(b)	9
Net cash provided by operating activities, end of period	$ 615

(a) Excludes loss on debt extinguishment, stock-based compensation expense, and other non-cash items.
(b) Change driven by timing of receipts and payments.

Our operating cash flow is impacted by our level of debt. Approximately $267 million and $237 million in cash interest, net of interest rate swap settlements, was paid during the three months ended March 31, 2019 and 2018, respectively. The increase in cash interest, net of interest rate swap settlements, is due to timing of payments.

See “Item 3. Quantitative and Qualitative Disclosures About Market Risk” in the First Data Quarterly Report on Form 10-Q for the three months ended March 31, 2019 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.

Cash used in investing activities

The table below summarizes the changes in investing activities for the three months ended March 31, 2019 and 2018:

	Three months ended March 31,		
Source/(use) (in millions)	2019	2018	Change
Acquisitions(a)	$ (73)	$ (17)	$ (56)
Capital expenditures(b)	(166)	(139)	(27)
Other(c)	(22)	13	(35)
Net cash used in investing activities	$ (261)	$ (143)	$ (118)

(a) See note 11 “Acquisitions” in our unaudited consolidated financial statements in Exhibit 99.2 to this Current Report on Form 8-K and note 13 “Acquisitions and Dispositions” in Exhibit 99.1 to this Current Report on Form 8-K for additional information.
(b) Change in capital expenditures is related to an increase in cash outlays for software, technology, and building improvements.
(c) Other represents proceeds from maturity of net investment hedges, purchase of investments, and other investing activities.

Cash used in financing activities

The table below summarizes the changes in financing activities for the three months ended March 31, 2019 and 2018:

	Three months ended March 31,		
Source/(use) (in millions)	2019	2018	Change
Net debt transactions (a)	$ (166)	$ (206)	$ 40
Other (b)	(109)	(98)	(11)
Net cash used in financing activities	$ (275)	$ (304)	$ 29

(a) Details regarding our debt structure are provided in note 2 “Borrowings” in our unaudited consolidated financial statements in Exhibit 99.2 to this Current Report on Form 8-K for additional information.
(b) Other represents payment of taxes related to net settlement of equity awards, distributions and dividends paid to noncontrolling interests and redeemable noncontrolling interest, and other financing activities.

Free Cash Flow

Free cash flow is a non-GAAP measure defined as cash flow provided by operating activities less capital expenditures and distributions to minority interests, and other. 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 be used to, among other things, reduce outstanding debt and/or complete strategic acquisitions. Free cash flow is not, and should not be viewed as, a substitute for GAAP reported financial information.

The table below reconciles cash flow from operations to free cash flow for the three months ended March 31, 2019 and 2018:

Source/(use) (in millions)	Three months ended March 31, 2019	2018	Change
Net cash provided by operating activities [(a)]	$ 615	$ 534	$ 81
Capital expenditures[(b)]	(166)	(139)	(27)
Distributions and dividends paid to noncontrolling interests and redeemable noncontrolling interest, and other[(c)]	(52)	(27)	(25)
Free cash flow	$ 397	$ 368	$ 29

(a) See "*Cash provided by operating activities*".
(b) See "*Cash used in investing activities*".
(c) Distributions and dividends paid to noncontrolling interests and redeemable noncontrolling interest, and other decreased due to a non-recurring $26 million received from the maturity of a net investment hedge in 2018.

Letters and lines of credit

(in millions)	Total Available[(a)] As of March 31, 2019	Total Available[(a)] As of December 31, 2018	Total Outstanding As of March 31, 2019	Total Outstanding As of December 31, 2018
Letters of credit[(b)]	$ 283	$ 283	$ 35	$ 35
Lines of credit	378	516	127	224

(a) Total available without giving effect to amounts outstanding.
(b) See note 2 "Borrowings" in our unaudited consolidated financial statements in Exhibit 99.2 to this Current Report on Form 8-K.

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.

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 6.00 to 1.00.

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. As of March 31, 2019, we were in compliance with all applicable covenants, including our sole financial covenant with Consolidated Senior Secured Debt of $14.0 billion, Covenant EBITDA of $3.6 billion, and a Ratio of 3.83 to 1.00.

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

(in millions)	Last twelve months ended March 31, 2019
Net income attributable to First Data Corporation	$ 1,073
Interest expense, net	887
Income tax expense	51
Depreciation and amortization	1,080
EBITDA	3,091
Loss on debt extinguishment	153
Stock-based compensation	230
Net income attributable to noncontrolling interests and redeemable noncontrolling interest	208
Projected near-term cost savings and revenue enhancements[(a)]	48
Restructuring, net	56
Non-operating foreign currency losses	(7)
Equity entities taxes, depreciation and amortization[(b)]	18
Divestitures, net	(197)
Other[(c)]	47
Covenant EBITDA	$ 3,647

(a) 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.
(b) Represents our proportional share of income taxes, depreciation, and amortization on equity method investments.
(c) Includes items such as pension losses, litigation and regulatory settlements, impairments, deal and deal integration costs, acquisitions and dispositions, and other as applicable to the period presented.

Off-Balance Sheet Arrangements

During the three months ended March 31, 2019, there were no material changes outside the ordinary course of business in our off-balance sheet arrangements from those reported as of December 31, 2018 in our Annual Report on Form 10-K for the year ended December 31, 2018.

Contractual Obligations

During the three months ended March 31, 2019, there were no material changes outside the ordinary course of business in our contractual obligations and commercial commitments from those reported as of December 31, 2018 in our Annual Report on Form 10-K for the year ended December 31, 2018.

Critical Accounting Policies

Our critical accounting policies have not changed from those reported as of December 31, 2018 in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our Annual Report on Form 10-K for the year ended December 31, 2018.

New Accounting Guidance

See note 1 “Basis of Presentation and Summary of Significant Accounting Policies” in our unaudited consolidated financial statements in Exhibit 99.2 to this Current Report on Form 8-K for new accounting guidance.

Information related to First Data Corporation's business and operations and information related to certain material regulatory matters related to First Data Corporation's business

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.

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 3,700 financial institutions. We believe we have the industry's largest distribution network, to consist of partnerships with over 1,500 distribution partners including many of the world's leading financial institutions, and our direct sales force. We are the largest merchant acquirer and issuer processor in the world, and operate the third largest independent network services provider in the United States. We enable businesses to accept electronic payments, help financial institutions issue credit, debit and prepaid cards, and route secure transactions between them. In 2018, we processed approximately 100 billion transactions globally, or over 3,000 per second. In our largest market, the United States, we processed approximately $2.3 trillion of payment volume, which represents over 10% of United States gross domestic product (GDP) last year.

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 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.

	Year ended December 31,		
	2018	**2017**	**2016**
Total revenues generated:			
Domestic	79%	85%	85%
International	21%	15%	15%
Long-lived assets attributable to operations:			
Domestic	91%	89%	89%
International	9%	11%	11%

No country outside the U.S. represents greater than 10% of our total revenues or long-lived assets during any of the years presented in the table. Further financial information relating to our international and domestic revenues and long-lived assets is set forth in note 8 "Segment Information" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-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 contracts' term.

Pending Merger with Fiserv, Inc.

On January 16, 2019, First Data and Fiserv, Inc. (Fiserv), and 300 Holdings, Inc. (Merger Sub), a wholly-owned subsidiary of Fiserv, entered into an agreement and plan of merger (Merger Agreement), pursuant to which we will merge into Merger Sub (the Merger). The terms are subject to the conditions set forth in the Merger Agreement, which states at closing each share of the Company's common stock issued and outstanding will be converted into the right to receive 0.303 (Exchange Ratio) of a share of common stock, par value $0.01 per share, of Fiserv. First Data's equity awards will generally be converted into Fiserv equity awards after giving effect to the Exchange Ratio and appropriate adjustments and be governed by the same terms and conditions as applicable to First Data's corresponding equity awards. Completion of the Merger is subject to customary closing conditions for both parties. We currently anticipate that we will close the merger during the second half of 2019. For additional information see Form 425 filed with the Securities and Exchange Commission dated January 16, 2019 and available through the "Investor Relations" portion of our website at http://investor.firstdata.com.

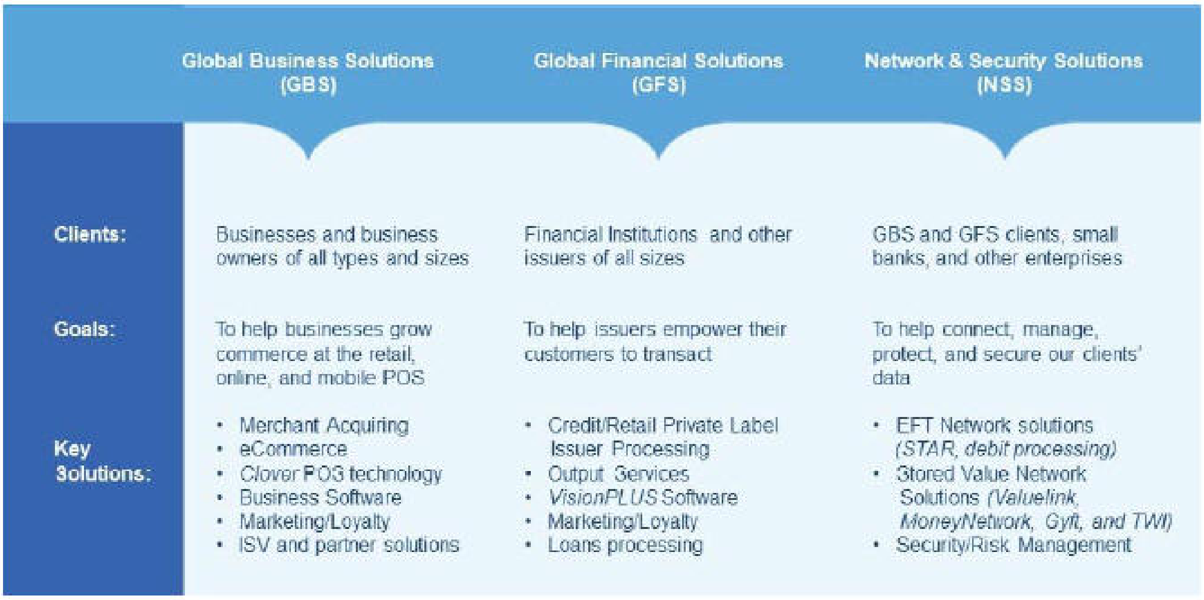
Products and Services Segments Information

We provide a range of products and solutions to businesses and financial institutions across the value chain of commerce-enabling services and technologies. We deliver 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 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 are supported by a corporate team focused on company-wide issues.

- **Global Business Solutions** - GBS provides a wide-range of solutions to merchants. These solutions include retail point-of-sale merchant acquiring and eCommerce services as well as next-generation offerings such as mobile payment services, 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 technology solutions for bank and non-bank issuers. These solutions include general purpose credit, retail private label, commercial card, and loan processing within the United States and international markets, as well as licensed financial software systems, such as our VisionPLUS processing application. GFS also provides financial institutions with a suite of account services including card personalization and embossing, customer communications, professional services, and customer servicing, including call center solutions and back office 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 (*STAR Network* and debit card processing solutions), our Stored Value Network solutions (*Money Network* and Gift Solutions), and our Security and Fraud solutions (*TransArmor* and *TeleCheck*). NSS also supports our other digital strategies, including online and mobile banking, and our business supporting mobile wallets.

See Exhibit 99.3 to this Current Report on Form 8-K for a detailed explanation of First Data's operating results. Segment products and services are illustrated below:



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 Exhibit 99.3 to this Current Report on Form 8-K.

We do not have any customer that accounts for 10% or more of total consolidated revenues.

Global Business Solutions Segment

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

	Year ended December 31,		
	2018	2017	2016
Segment revenue	64%	61%	60%
Segment EBITDA	61%	59%	60%

See note 8 "Segment Information" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-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 (POS), including merchant acquiring, eCommerce, mobile commerce, and other business solutions. We served approximately 3.4 million business locations in the United States and 2.7 million outside the United States. The largest line of business within GBS 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.

GBS employs a variety of distribution strategies. GBS operates direct sales teams and also distributes its services through partnerships 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 numerous bank partners to distribute its products and solutions through various legal structures including joint venture equity alliances, revenue sharing alliances, and referral agreements.

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:

- Merchant 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 monetary amount;
- Processing fees charged to merchant acquirers (including our alliance partners) who have outsourced their transaction processing to us;
- Sales and leases of POS devices;
- Fees for 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 is an open architecture, integrated POS operating system, with a full suite of integrated hardware and software offerings. With *Clover*, we have designed one of the largest open architecture platforms of commerce-enabling solutions and applications in the world. The family of *Clover* devices includes the *Clover Station*, *Clover Mini*, *Clover Go*, *Clover Flex* and *Clover Station II*; each providing a broad range of next-generation features and software applications designed to help business clients conduct commerce.

Through December 31, 2018, we have shipped over 1 million *Clover* devices and the current *Clover* platform processes more than $70 billion in payment volume annually. Within *Clover*, we also offer a cloud-based *Clover App Market* for business applications. Our application marketplace is designed specifically to provide merchants with integrated software applications that they can download and install quickly and easily on their *Clover* devices. As of December 31, 2018, the *Clover App Market* has over 300 active applications. *Clover* is currently available in seven countries including the United States, the United Kingdom, Ireland, Germany, Austria, Canada, and Argentina; with plans to further scale *Clover* to more international markets in the near future. Furthermore, we believe *Clover* improves client retention because it becomes core to our clients' businesses, and positions 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 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), Total Systems Services, 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), Adyen, and Stripe, along with integrated point of sale providers such as Micros, Square, and others.

The primary competitive factors impacting GBS are First Data's brand, global reach, multiple distribution channels, data security, breadth of features and functionality, ease of technological integration, competitive pricing, and servicing capability. Other factors impacting GBS includes 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 GBS' total yearly revenue has ranged between 23% and 26%.

Global Business Solutions Geographic Mix and Revenues GBS generates approximately 78% of its revenues from clients in our North America region, 12% from clients in the EMEA region, 6% from clients in our LATAM region, and 4% from clients in our APAC 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 In December 2017, we acquired BluePay Holdings, Inc. (BluePay) for $759 million, net of cash acquired. BluePay is a provider of technology-enabled payment processing for merchants in the U.S. and Canada and was one of our largest distribution partners with a strong focus on software-enabled payments and card-not-present transactions. The transaction is highly complementary to our earlier acquisition of CardConnect and enhanced our suite of innovative partner management tools to improve merchant retention, accelerate our firm-wide ISV initiative and bring immediate capabilities in ERP integrated payment solutions to our customers.

In July 2017, we acquired CardConnect Corp. (CardConnect) for $763 million, net of cash acquired. CardConnect is an innovative provider of payment processing and technology solutions and was one of our largest distribution partners. The transaction enabled us to bring innovative partner management tools to improve merchant retention, accelerate our firm-wide independent software vendor (ISV) initiative and brought immediate capabilities in enterprise resource planning (ERP) integrated payment solutions to our customers.

See note 13 "Acquisitions and Dispositions" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for more details relating to these acquisitions.

Global Financial Solutions Segment

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

	Year ended December 31,		
	2018	**2017**	**2016**
Segment revenue	19%	20%	21%
Segment EBITDA	20%	22%	22%

See note 8 "Segment Information" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-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 technology solutions that enable them to offer financial products and solutions to their customers. GFS serves over 1,300 clients 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 solution. GFS services include credit card and loan account processing, commercial payments, customer communications, plastics solutions, customer service, and other products to support issuers.

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

GFS revenues are primarily derived from outsourced processing services, print, plastics, and VisionPLUS software services provided to financial institutions. GFS' revenues are typically generated on the basis of number of total and active accounts on file, volume of customer communications, volume of plastics issued or license fees.

Outsourced Processing 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. These services enable issuers to process transactions on behalf of customers. Depending on the market and 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 outsourced issuer 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 custom programming and development.

Account Support Services along with our outsourced 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 services for the cardholder to enable the cardholder to transact, 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, statement printing, and customer 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, Worldpay, Fidelity National Information Services, Fiserv, Worldline, and SIX Payment Services, as well as the card issuer processing businesses of the global payment networks such as Visa and Mastercard. 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, digital solutions, data security, breadth of features and functionality, disaster recovery capabilities and business continuity preparedness, platform scalability and flexibility, price, and servicing capability. Market events that impact GFS include financial institution consolidation and portfolio transactions between financial institutions.

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 GFS' total yearly revenue has ranged between 24% and 26%.

Global Financial Solutions Geographic Mix and Revenues GFS generates 58% 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 7% from clients in our APAC region. Globally, revenues are diversified across major financial institutions of various sizes and geographies.

Global Financial Solutions Acquisitions and Dispositions In September 2018, we divested our card processing business in Central and Southeastern Europe for proceeds of €387 million (the U.S. dollar equivalent is $449 million). The divestiture does not represent a strategic shift that will have a major effect on our operations and financial statements. The total gain on disposition recognized was $174 million.

In August 2018, we divested 100% of our remittance processing business in the U.S. for proceeds of $100 million. The total gain on disposition recognized was $28 million.

In September 2017, we divested all of our businesses in Lithuania, Latvia and Estonia for €73 million (the U.S. dollar equivalent is $85 million). Associated with the transaction, we recognized a $4 million loss on the sale.

See note 13 "Acquisitions and Dispositions" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for more details relating to this disposition.

Network & Security Solutions Segment

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

	Year ended December 31,		
	2018	2017	2016
Segment revenue	17%	19%	19%
Segment EBITDA	24%	24%	23%

See note 8 "Segment Information" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-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* manages U.S. debit card and account processing solutions. Our *STAR Network* enables clients to encrypt, route, and decrypt PIN debit, PIN-less debit, and ATM transactions, and provide access to demand deposit accounts. 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 Online and Mobile Banking Solutions, Healthcare Solutions, Security and Fraud, 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 over 3,000 financial institutions and community banks, approximately 1.4 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 at an ATM or POS device participating in the *STAR Network* with a card 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 number of 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 provides 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 fee per license 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 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 NSS' total yearly revenue has ranged between 23% and 27%.

Network & Security Solutions Geographic Mix and Revenues More than 95% of the NSS business is domestic.

Network & Security Solutions Acquisitions and Dispositions In October 2017, we formed a digital banking joint venture, named Apiture, combining FDC and Live Oak Bancshares, Inc.'s digital banking platforms, products, and services, delivering innovative technology solutions tailored for financial institutions. Apiture is owned and managed equally between us and Live Oak Bancshares, Inc., as a result, the contributed digital banking business is no longer consolidated into our results after the contribution date.

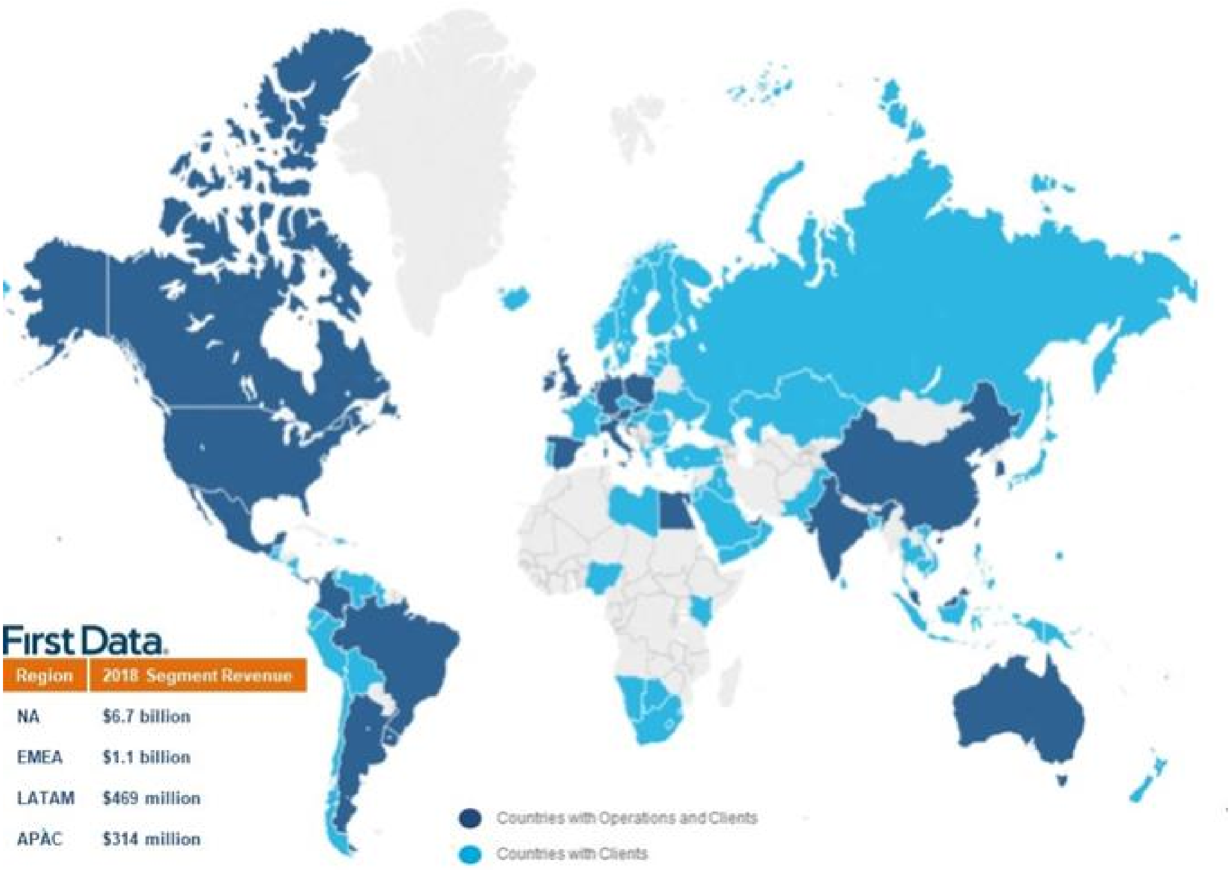
See note 13 “Acquisitions and Dispositions” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for more details relating to this acquisition and disposition.

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

We currently have operations in 27 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 2018, we processed approximately 84 billion commercial transactions and processed $2.3 trillion of payment volume in the United States, representing over 10% of U.S. GDP.

Europe, Middle East, and Africa (EMEA)

We have operations in 12 countries and serve clients in 65 countries in this region. We are a leading merchant acquirer and issuer 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 6 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 7 countries and serve clients in 19 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 trademarks, trade names, patents, and other intellectual property that are important to our future success. The *First Data* trademark and trade name, the *STAR* trademark and trade name, and the *Clover* 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. The *First Data* trademark and trade name are associated with quality and reliable electronic commerce and payments solutions. Financial institutions and merchants associate the *STAR* trademark and trade name with quality and reliable debit network services and processing services. Clover provides quality point-of-sale and software solutions to merchants. Loss of the proprietary use of the *First Data*, *STAR*, and *Clover* 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, 2018, we had approximately 19,000 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 1,900 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. In Argentina, a portion of the employees are unionized and covered by an agreement for the merchants and services industry. 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). Information contained on, or that can be accessed through, our website is not incorporated by reference into this document, and you should not consider information on our website to be part of this document. 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.

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. 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 an 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. A number of subsidiaries outside the U.S. are direct members or associate members of Visa and MasterCard for purposes of conducting merchant acquiring. 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.

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.

Under the Payment Services Directive (2007/64/EC) in the European Union (PSD), a number of our subsidiaries in GBS hold either payment institution licenses or electronic money licenses in the European Union member states in which such subsidiaries do business. As payment institutions or electronic money 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.

The PSD was amended by a revised Payment Services Directive (2015/2366/EC), known as PSD2 which was required to be transposed into national law by January 2018.

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 also has obtained permission from the Financial Conduct Authority in respect of certain consumer credit activities related to its issuer services and merchant terminal leasing businesses. As a firm authorized by the Financial Conduct Authority, FDR Limited is required to comply with certain prudential, conduct of business and reporting requirements.

Our subsidiary in Germany, First Data GmbH, 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.

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 Poland, the Reserve Bank of Australia, 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, the European Union General Data Protection Regulation, 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, the Singapore Data Protection Act 2012, as well as the new California Consumer Privacy Act effective in January 2020 and the Brazilian General Data Protection Law effective in February 2020. 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 such as Social Security and driver's license numbers. In July 2016, the European Parliament adopted additional European Union-wide legislation regarding cyber security in the form of the Network and Information Security Directive (NIS Directive EU 2016/1148). The NIS Directive was required to be transposed into national law by May 2018. The General Data Protection Regulation took effect throughout the European Union on May 25, 2018 and creates a range of new compliance obligations and increases financial penalties for non-compliance and extends the scope of the European Union data protection law to all companies processing data of European Union residents, regardless of the company's location.

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 point of sale 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. As of May 2018, we are required to comply with FinCEN's rules requiring the collection and verification of beneficial owners holding equal to or greater than 25% equity interest. In the European Union, our GBS businesses are subject to various laws implementing European AML legislation. The Fifth EU Anti-Money Laundering Directive (EU) 2018/843 which entered into force in July 2018, updates current EU AML legislation and is required to be transposed into national law by January 2020.

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.

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. A number of our international subsidiaries are subject to equivalent laws in their jurisdictions.

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.

In December 2017, the United States enacted the Tax Cuts and Jobs Act of 2017. The new tax laws decrease the maximum corporate tax rate from 35% to 21% and provide more favorable tax treatment of distribution of foreign earnings to the U.S. The tax law also provides new limitations with respect to the amount of interest that may be deducted in the U.S. We expect the net result of the new tax law to be favorable as the benefit we receive from the reduction in the corporate tax rate is greater than the negative impact of the interest deductibility limit and other aspects of the new law. We also expect that over time the amount of interest that is not deductible will decrease due to our efforts to reduce debt as well as increase our interest deduction limitation.

Information related to First Data's certain material risks
related to First Data Corporation's business, operations and financial condition

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.

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.

Risks Related to the Pending Merger

The pending merger with a subsidiary of Fiserv, Inc. is contingent upon the satisfaction of a number of conditions, may require significant time and attention of our management, and may have a material adverse effect on us if it is not completed.

On January 16, 2019, First Data and Fiserv, Inc. entered into an agreement and plan of merger, under which FDC will merge with a subsidiary of Fiserv. The merger agreement generally requires us to operate our business in the ordinary course pending consummation of the proposed merger and restricts us, without Fiserv's consent, from taking certain specified actions until the merger is completed. These restrictions may affect our ability to execute our business strategies and attain our financial and other goals and may impact our financial condition, results of operations and cash flows. In addition, the pursuit of the merger and the preparation for the integration of our business with Fiserv may place a significant burden on management and internal resources. The diversion of management's attention away from day-to-day business concerns could adversely affect our financial results.

We currently anticipate that we will close the merger during the second half of 2019, but we cannot be certain when or if the conditions for the Merger will be satisfied or waived. The merger cannot be completed until the conditions are satisfied or waived, including the receipt of required antitrust and other regulatory approvals and other customary closing conditions. Satisfying the conditions to the closing of the merger may take longer than we expect. In the event that the merger is not completed for any reason, we will remain an independent public company and holders of our common stock will continue to own their shares of our common stock. If the merger is not completed for any reason, the price of our common stock may decline to the extent that the current market price may reflect an assumption that each First Data share will be exchanged for 0.303 shares of Fiserv upon consummation of the merger as specified in the merger agreement. Investor confidence also could decline.

Whether or not we complete the merger, our ongoing businesses may be adversely affected and we may be subject to certain risks and consequences as a result of pursuing the merger, including, among others, the following:

- execution of the proposed merger will require significant time and attention from management, which may distract them from operating our business and executing on other initiatives that may have been beneficial to us;
- we may lose management personnel and other key employees and our employees may be distracted due to uncertainty about their future roles with the new combined company;
- parties with which we have business relationship may experience uncertainty as to the future of such relations and may delay or defer certain business decisions, seek alternative relations with others, or change their present business relationship with us;
- we could be the subject of litigation related to the proposed merger, which could result in significant costs and expenses;

- we will be required to pay significant costs and expenses relating to the merger, such as legal, accounting, and other professional fees, whether or not the merger is completed;
- we may have to forgo other opportunities in favor of the merger instead of pursuing such other opportunities that could be beneficial to First Data; and
- we may experience negative reactions from the financial markets, particularly if we fail to complete the merger.

In addition to the foregoing, the ratio for the exchange of First Data stock into Fiserv stock to be received pursuant to the Merger Agreement is fixed. The exchange ratio will not increase because of fluctuations in the market price of Fiserv stock or changes in our business, assets, liabilities, prospects, outlook, financial condition or results of operation or in the event of any change in the market price of, analyst estimates of, or projections relating to, our common stock. Because the conversion ratio is fixed, the market price of First Data stock may be impacted by any changes in the market price of Fiserv stock.

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.

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.

Our Global Business Solutions business depends, in part, on our merchant relationships and alliances. 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. Our Global Business Solutions business is dependent, in part, on our merchant relationships, alliances, and other distribution channels. We are working with our alliance partners to grow their businesses. There can be no guarantee that our efforts will be successful and that we will achieve growth in our merchant relationships, alliances, and other distribution channels. 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.

A disruptive implementation of the United Kingdom's exit from the European Union could adversely affect our results of operations.

We are monitoring developments related to the implementation of the United Kingdom's decision to exit the European Union (referred to as Brexit), which could, among other outcomes, disrupt the free movement of goods, services, data, 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. will have and how such withdrawal will affect us.

In addition, Brexit may create additional uncertainty in currency exchange rate fluctuations that may result 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 cybersecurity 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. Our systems are subject to cybersecurity attacks and other techniques which are intended to obtain unauthorized access, disable or degrade the service we provide, or sabotage our system. These cybersecurity attacks are often difficult to detect and are constantly evolving. We expect that unauthorized parties will continue to attempt to gain access to our systems or facilities through various means. We cannot be certain that the security measures and procedures we have in place to detect cybersecurity attacks and protect this sensitive data, including protection against unauthorized access and use by our employees, 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 and their continuous attempts to breach our system has increased 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, any cyberattacks or data security breaches affecting our clients, partners, or vendors could have similar negative effects. Furthermore, as security threats and cybersecurity attacks continue to evolve we will be required to invest additional resources to modify the security of our systems. The level of required investment 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, cyber attacks, 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.

Disruptions at other participants in the global financial system could prevent us from delivering our products and services.

The operations and systems of many participants in the global financial system are interconnected. Many of the transactions that involve our products and services rely on multiple participants in the global financial system to accurately move funds and communicate information to the next participant in the transaction chain. A disruption for any reason at one of the participants in the global financial system could impact our ability to obtain or provide information or cause funds to be moved in a manner to successfully deliver our products and services. Although we work with other participants to avoid any disruptions, there is no assurance that such efforts will be effective. Such a disruption could lead to the inability for us to deliver products and services, reputational damage, lost clients and lost revenue, loss of clients' and their customers' confidence, as well as additional costs, all of which could have a material adverse effect on our revenues, profitability, financial condition, and future growth.

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. See note 1 "Summary of Significant Accounting Policies" in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for further information on our merchant credit losses.

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.

Bank industry consolidation could affect 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 or limit our volumes we would need to 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, India, and Brazil, 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. 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 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, 2018, we had $17.6 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 October 2023. In addition, approximately $2.5 billion of obligations under our existing long-term borrowings are scheduled to mature prior to December 31, 2022. 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, 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, 2018, we have $12 billion in variable rate debt, which includes $472 million on our accounts receivable securitization facility, and also includes $250 million drawn on our revolving credit facility. We have $2.8 billion in variable to fixed interest rate collars, which are subject to contractual ceilings and floors, and $7.25 billion in variable to fixed interest rate step-up swaps. The $1.3 billion and $1.5 billion interest rate collars expire in January 2019 and September 2019, respectively, and have a one month LIBOR ceiling of 1.50% and 1.75%, respectively. With respect to our step-up swaps, $4.75 billion of notional exposure step-up swaps, decreases by $750 million semi-annually, commencing in June 2019, and expires in December 2020. The remaining $2.5 billion of step-up swaps cover our exposure through May 2021. Based on outstanding debt balances and interest rates as of December 31, 2018, a 1% increase in variable interest rates would result in a decrease to pretax income of $10 million over the next twelve months. See note 14 “Derivative Financial Instruments” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-K for the discussion of our interest rate collar contracts.

Uncertainty about the future of the London Interbank Offer Rate (LIBOR) may adversely affect our business and financial results.

In July 2017, the Chief Executive of the United Kingdom Financial Conduct Authority, which regulates LIBOR, announced its intent to stop persuading or compelling banks to submit rates for the calculation of LIBOR to the administrator of LIBOR after 2021. It is impossible to predict whether and to what extent banks will continue to provide LIBOR submissions to the administrator of LIBOR, whether any additional reforms to LIBOR may be enacted in the United Kingdom or elsewhere, and whether other rate or rates may become accepted alternatives to LIBOR. This may cause LIBOR to perform differently than it did in the past and may have other consequences that cannot be predicted. No assurance can be provided that these uncertainties or their resolution will not adversely affect the use, level, and volatility of LIBOR or other interest rates. These uncertainties or their resolution also could negatively impact our borrowing costs, our hedging strategies, and other aspects of our business and financial results.

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 55% of our total assets as of December 31, 2018. 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 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. See note 9 “Income Tax” in our consolidated financial statements in Exhibit 99.1 to this Current Report on Form 8-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, although we expect to benefit from the recently enacted changes in US tax laws, the limitations on the deductibility of interest expense in the U.S. negatively impact our effective tax rate, results of operations, and cash flows. We are working to reduce our net interest expense and increase our EBITDA in the U.S. However, to the extent we are unable to make enough progress, the negative impact will continue.

Potential tariffs or a global trade war could increase the cost of our products, which could adversely impact the competitiveness of our products and our financial results.

The United States recently imposed tariffs on certain imports from China, including on some of our hardware devices manufactured in China. If the U.S. administration imposes additional tariffs, or if additional tariffs or trade restrictions are implemented by the United States or other countries in connection with a global trade war, our other hardware devices produced in China could also be impacted. While it is too early to predict how the recently enacted tariffs and any future tariffs on items imported from China or elsewhere will impact our business, the cost of our products manufactured in China and imported into the United States or other countries could increase, which in turn could adversely affect the demand for these products and have a material adverse effect on our business and results of operations.

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 anti-corruption 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, changing regulations or standards in the area of privacy and data protection could also adversely impact us. For example, the General Data Protection Regulation (GDPR), which became effective in May 2018, extends the scope of the E.U. data protection law to all companies processing data of E.U. residents, regardless of the company's location. The law requires companies to meet new requirements regarding the handling of personal data. Our efforts to comply with GDPR and other privacy and data protection laws (such as the new California Consumer Privacy Act effective as of January 2020 and the Brazilian General Data Protection Law effective as of February 2020) may entail substantial expenses, may divert resources from other initiatives and projects, and could limit the services we are able to offer. Further, failure to meet GDPR requirements could result in fines, penalties, and reputational damage. The GDPR and other privacy and data protection laws may be interpreted and applied differently from country to country and may create inconsistent or conflicting requirements. Such regulations increase our compliance and administrative burden significantly. In addition, E.U. laws and regulations are typically subject to different and potentially inconsistent interpretations by the countries that are members of the E.U., which can make compliance more costly and operationally difficult to manage. Moreover, the countries that are members of the E.U. may each have different and potentially inconsistent interpretations of regulations implementing the E.U. Payment Services, which could make compliance more costly and operationally difficult to manage. Furthermore, following the passage of the second Payment Services Directive in Europe, several countries, including Australia, Canada, Hong Kong and Mexico are contemplating granting various types of access rights to third party processors, which could have implications for our business as well.

Additionally, 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. 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 Bank Secrecy Act (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.

Legislative or regulatory initiatives on cybersecurity and data privacy could adversely impact our business and financial results.

Cybersecurity and data privacy risks have received heightened legislative and regulatory attention. For example, the U.S. banking agencies have proposed enhanced cyber risk management standards that would apply to us and our financial institution clients and that would address cyber risk governance and management, management of internal and external dependencies, and incident response, cyber resilience, and situational awareness. Several states also have adopted or proposed cybersecurity laws targeting these issues. Legislation and regulations on cybersecurity and data privacy may compel us to enhance or modify our systems, invest in new systems, or alter our business practices or our policies on data governance and privacy. If any of these outcomes were to occur, our operational costs could increase significantly.

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, the *STAR* trademark and trade name, and the *Clover* 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*, *STAR*, and *Clover* 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, know-how, 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 in October 2015 and the subsequent follow-on secondary offerings in September 2017 and August 2018 did not result in an ownership change within a three-year period 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 the closing of the recently announced Agreement and Plan of Merger between First Data and Fiserv, Inc., our ability to use our net operating loss carryforwards would be subject to the limitations of Section 382 of the Code. It is possible that a portion of our net operating loss carryforwards may expire before we would be able to use them. In the event 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 controls 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 a KKR affiliate 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 a KKR affiliate 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.

EXHIBIT 99.7

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS

On January 16, 2019, Fiserv, Inc. (“Fiserv”), First Data Corporation (“First Data) and 300 Holdings, Inc. (“Merger Sub”) entered into an Agreement and Plan of Merger, which, as it may be amended from time to time, we refer to as the merger agreement, providing for the acquisition of First Data by Fiserv, which we refer to as the merger. The merger agreement was adopted by the First Data stockholders on March 15, 2019 and the issuance of shares of Fiserv common stock in connection with the transactions contemplated by the merger agreement was approved by Fiserv shareholders on April 18, 2019. The merger is currently expected to close during the second half of 2019, subject to the satisfaction or (to the extent permitted by law) waiver of the customary closing conditions set forth in the merger agreement, including, among others, the receipt of requisite regulatory approvals or the expiration or termination of applicable waiting periods, including the expiration or termination of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended. In the merger, Merger Sub will merge with and into First Data. First Data will be the surviving corporation in the merger, will be a direct, wholly owned subsidiary of Fiserv following completion of the merger, and will no longer be a publicly traded corporation.

In connection with the merger, Fiserv entered into a bridge facility commitment letter, pursuant to which it obtained commitments for a 364-day senior unsecured bridge term loan facility in an aggregate principal amount of $17,000 million. Subsequently, on February 15, 2019, Fiserv entered into a new term loan credit agreement with a syndicate of financial institutions pursuant to which such financial institutions have committed to provide Fiserv with a senior unsecured term loan facility in an aggregate principal amount of $5,000 million. The aggregate principal amount of the commitments under the term loan credit agreement have replaced a corresponding amount of the commitments in respect of the bridge facility in accordance with the terms of the bridge facility commitment letter. As a result, there are now $12,000 million in bridge facility commitments remaining. Fiserv does not intend to draw down on the bridge facility and currently expects to replace the remaining bridge facility commitments prior to the closing of the merger with permanent financing that it currently expects will consist of $12,000 million in aggregate principal amount from the issuance of senior notes. In addition, Fiserv entered into amendments to its existing revolving credit facility (as amended, the “revolving credit facility”) to modify certain provisions in order to facilitate the merger and borrowings under the existing revolving credit facility in connection with the merger, increase the commitments available thereunder by $1,500 million and make certain additional amendments to facilitate the operation of the combined business following the merger. Refer to Note 4 for a summary of the impact the financing arrangements are expected to have on the short-term and long-term debt balances and refer to Note 5 for details on the impact these financing arrangements are expected to have on the unaudited pro forma condensed combined statements of income.

The following unaudited pro forma condensed combined financial statements give effect to the merger and include adjustments for the following:

- certain reclassifications to conform historical financial statement presentation of Fiserv and First Data;
- application of the acquisition method of accounting under the provisions of the Financial Accounting Standards Board (FASB) Accounting Standards Codification, which we refer to as ASC 805, “Business Combinations,” to reflect estimated merger consideration of approximately $41.2 billion ($24.5 billion in share consideration based on the closing price of Fiserv common stock on May 31, 2019, and $16.7 billion (which includes accrued interest and prepayment penalties associated with the First Data debt) in repayment of First Data debt) in exchange for 100% of all outstanding First Data common stock;
- the proceeds and uses of the new and amended financing arrangements expected to be entered into and incurred in connection with the merger; and
- transaction costs in connection with the merger.

The following unaudited pro forma condensed combined financial statements and related notes are based on and should be read in conjunction with (i) the historical unaudited consolidated financial statements of Fiserv and related notes included in Fiserv’s Quarterly Report on Form 10-Q for the period ended March 31, 2019, (ii) the historical audited consolidated financial statements of Fiserv and the related notes included in Fiserv’s Annual Report on Form 10-K for the year ended December 31, 2018, (iii) the historical unaudited consolidated financial statements of First Data and related notes included in First Data’s Quarterly Report on Form 10-Q for the period ended March 31, 2019, which financial statements were filed as Exhibit 99.2 to this Current Report on Form 8-K and (iv) the historical audited consolidated financial statements of First Data and the related notes included in First Data’s Annual Report on Form 10-K for the year ended December 31, 2018, which financial statements were filed as Exhibit 99.1 to this Current Report on Form 8-K.

The unaudited pro forma condensed combined statements of income for the three months ended March 31, 2019 and for the year ended December 31, 2018 combine the historical consolidated statements of income of Fiserv and First Data, giving effect to the merger as if it had been completed on January 1, 2018. The accompanying unaudited pro forma condensed combined balance sheet as of March 31, 2019 combines the historical consolidated balance sheets of Fiserv and First Data, giving effect to the merger as if it had been completed on March 31, 2019.

The historical consolidated financial information has been adjusted in the unaudited pro forma condensed combined financial statements to give effect to pro forma events that are (i) directly attributable to the merger, (ii) factually supportable and (iii) with respect to the unaudited pro forma condensed combined statements of income, expected to have a continuing effect on the combined results of Fiserv and First Data. The unaudited pro forma condensed combined financial statements contained herein do not reflect the costs of any integration activities or benefits that may result from the realization of future cost savings from operating efficiencies, or any other synergies that may result from the merger.

The statements and related notes are being provided for illustrative purposes only and do not purport to represent what the combined company's actual results of operations or financial position would have been had the merger been completed on the dates indicated, nor are they necessarily indicative of the combined company's future results of operations or financial position for any future period.

As of the date of this Current Report on Form 8-K, Fiserv has not completed the valuation analysis and calculations in sufficient detail necessary to arrive at the required estimates of the fair market value of the First Data assets to be acquired or liabilities to be assumed, other than a preliminary estimate for intangible assets. Accordingly, apart from intangible assets, First Data assets and liabilities are presented at their respective carrying amounts and should be treated as preliminary values. A final determination of the fair value of First Data's assets and liabilities, including intangible assets with both indefinite or finite lives, will be based on First Data's actual assets and liabilities as of the closing date and, therefore, cannot be made prior to the completion of the merger. In addition, the value of the total merger consideration will be determined based on (i) the closing price of Fiserv common stock on the closing date and the number of issued and outstanding shares of First Data common stock immediately prior to the closing, and (ii) the outstanding debt to be repaid as of the closing date, which may differ from the amount of debt outstanding as of March 31, 2019. The debt that is anticipated to be incurred to finance the merger is included in the unaudited pro forma condensed combined financial statements reflecting the terms and rates Fiserv expects to achieve based on current market rates. The actual financing and terms of the financing will be subject to market conditions. Actual adjustments may differ from the amounts reflected in the unaudited pro forma condensed combined financial statements, and the differences may be material.

Fiserv has not identified all adjustments necessary to conform First Data's accounting policies to Fiserv's accounting policies. Upon completion of the merger, or as more information becomes available, Fiserv will perform a more detailed review of First Data's accounting policies. As a result of that review, differences could be identified between the accounting policies of the two companies that, when conformed, could have a material impact on the combined company's financial information. Further, there were no material intercompany transactions and balances between Fiserv and First Data as of and for the three months ended March 31, 2019 and for the year ended December 31, 2018.

As a result of the foregoing, the pro forma adjustments are preliminary and are subject to change as additional information becomes available and as additional analysis is performed. The preliminary pro forma adjustments have been made solely for the purpose of providing the unaudited pro forma condensed combined financial statements. Fiserv estimated the fair value of First Data's assets and liabilities based on a preliminary valuation analysis, due diligence information, information presented in First Data's SEC filings and other publicly available information. Until the merger is completed, both companies are limited in their ability to share certain information.

Upon completion of the merger, a final determination of the fair value of First Data's assets acquired and liabilities assumed will be performed. Any changes in the fair values of the net assets or total purchase consideration as compared with the information shown in the unaudited pro forma condensed combined financial statements may change the amount of the total purchase consideration allocated to goodwill and other assets and liabilities and may impact the combined company statement of income. The final purchase consideration allocation may be materially different than the preliminary purchase consideration allocation presented in the unaudited pro forma condensed combined financial statements.

FISERV, INC.
UNAUDITED PRO FORMA CONDENSED COMBINED BALANCE SHEET
As of March 31, 2019
(in millions)

	Historical Fiserv	Historical First Data	Pro Forma Reclassification Adjustments (Note 2)	Pro Forma Adjustments	(Note 4)	Pro Forma Condensed Combined
Assets						
Cash and cash equivalents	$ 452	$ 619	$ —	$ (203)	(a)	$ 868
Trade accounts receivable, net	1,044	2,130	—	—		3,174
Prepaid expenses and other current assets	779	321	—	—		1,100
Settlement assets	—	22,324	—	—		22,324
Total current assets	2,275	25,394	—	(203)		27,466
Property and equipment, net	409	890	—	—		1,299
Intangible assets, net	2,117	—	3,311	13,089	(b)	18,517
Goodwill	5,703	17,518	—	10,245	(c)	33,466
Customer relationships, net	—	1,725	(1,725)	—		—
Other intangibles, net	—	1,923	(1,923)	—		—
Contract costs, net	435	—	174	—		609
Investment in affiliates	—	1,072	(1,072)	—		—
Other long-term assets	737	1,024	1,235	—		2,996
Total assets	$ 11,676	$ 49,546	$ —	$ 23,131		$ 84,353
Liabilities and Shareholders' Equity						
Accounts payable and accrued expenses	$ 1,718	$ 1,640	$ (118)	$ (75)	(a)	$ 3,165
Short-term and current maturities of long-term debt	7	1,159	—	(116)	(d)	1,050
Contract liabilities	395	—	118	—		513
Settlement obligations	—	22,324	—	—		22,324
Total current liabilities	2,120	25,123	—	(191)		27,052
Long-term debt	5,868	16,282	—	526	(d)	22,676
Deferred income taxes	745	84	—	3,010	(e)	3,839
Long-term contract liabilities	103	—	167	—		270
Other long-term liabilities	446	800	(167)	—		1,079
Total liabilities	9,282	42,289	—	3,345		54,916
Commitments and contingencies						
Redeemable noncontrolling interest	—	93	—	—		93
Shareholders' equity:						
Total Fiserv equity	2,394	—	—	24,161	(f)	26,555
Total First Data equity	—	4,375	—	(4,375)	(f)	—
Total shareholders' equity	2,394	4,375	—	19,786		26,555
Noncontrolling interests	—	2,789	—	—		2,789
Total equity	2,394	7,164	—	19,786	(f)	29,344
Total liabilities and equity	$ 11,676	$ 49,546	$ —	$ 23,131		$ 84,353

See accompanying Notes to the Unaudited Pro Forma Condensed Combined Financial Statements.

FISERV, INC.
UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF INCOME
For the three months ended March 31, 2019
(in millions, except per share data)

	Historical Fiserv	Historical First Data	Pro Forma Reclassification Adjustments (Note 2)	Pro Forma Adjustments	(Note 5)	Pro Forma Condensed Combined	(Note 5)
Revenue:							
Revenues excluding reimbursable items	$ —	$ 2,124	$ (2,124)	$ —		$ —	
Processing and services	1,293	—	1,853	—		3,146	
Product	209	—	463	—		672	
Reimbursable items	—	192	(192)	—		—	
Total revenue	1,502	2,316	—	—		3,818	
Expenses:							
Cost of revenues (exclusive of items shown below)	—	757	(757)	—		—	
Cost of processing and services	624	—	856	349	(a)	1,829	
Cost of product	174	—	297	—		471	
Selling, general and administrative	341	660	78	(56)	(b)	1,023	
Gain on sale of business	(10)	—	—	—		(10)	
Depreciation and amortization	—	246	(246)	—		—	
Other operating expenses, net	—	36	(36)	—		—	
Reimbursable items	—	192	(192)	—		—	
Total expenses	1,129	1,891	—	293		3,313	
Operating income	373	425	—	(293)		505	
Interest expense	(59)	—	59	—		—	
Interest expense, net	—	(203)	(57)	54	(c)	(206)	
Debt financing activities	(59)	—	—	59	(b)	—	
Loss on early debt extinguishment	—	(1)	—	—		(1)	
Non-operating income	3	—	(3)	—		—	
Other income (expense)	—	(27)	1	—		(26)	
Income before income taxes and income (loss) from investments in unconsolidated affiliates	258	194	—	(180)		272	
Income tax provision	(31)	(29)	—	41	(d)	(19)	
Income (loss) from investments in unconsolidated affiliates	(2)	52	—	—		50	
Net income	225	217	—	(139)		303	
Less: Net income attributable to noncontrolling interests and redeemable noncontrolling interest	—	48	—	(59)	(a)	(11)	
Net income attributable to shareholders	$ 225	$ 169	$ —	$ (80)		$ 314	
Net income attributable to shareholders per share – basic	$ 0.58	$ 0.18				$ 0.46	
Net income attributable to shareholders per share – diluted	$ 0.56	$ 0.17				$ 0.46	
Shares used in computing net income per share:							
Basic	391.7	937				677.7	(e)
Diluted	399.1	967				685.1	(e)

See accompanying Notes to the Unaudited Pro Forma Condensed Combined Financial Statements.

FISERV, INC.
UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF INCOME
For the year ended December 31, 2018
(in millions, except per share data)

	Historical Fiserv	Historical First Data	Pro Forma Reclassification Adjustments (Note 2)	Pro Forma Adjustments	(Note 5)	Pro Forma Condensed Combined	(Note 5)
Revenue:							
Revenues excluding reimbursable items	$ —	$ 8,679	$ (8,679)	$ —		$ —	
Processing and services	4,975	—	7,606	—		12,581	
Product	848	—	1,892	—		2,740	
Reimbursable items	—	819	(819)	—		—	
Total revenue	5,823	9,498	—	—		15,321	
Expenses:							
Cost of revenues (exclusive of items shown below)	—	3,005	(3,005)	—		—	
Cost of processing and services	2,324	—	3,494	1,466	(a)	7,284	
Cost of product	745	—	1,187	—		1,932	
Selling, general and administrative	1,228	2,651	271	—		4,150	
Gain on sale of businesses	(227)	—	(197)	—		(424)	
Depreciation and amortization	—	1,009	(1,009)	—		—	
Other operating expenses, net	—	119	(119)	—		—	
Reimbursable items	—	819	(819)	—		—	
Total expenses	4,070	7,603	(197)	1,466		12,942	
Operating income	1,753	1,895	197	(1,466)		2,379	
Interest expense	(193)	—	193	—		—	
Interest expense, net	—	(917)	(189)	328	(c)	(778)	
Loss on early debt extinguishment	(14)	(153)	—	—		(167)	
Non-operating income	9	—	(9)	—		—	
Other income (expense)	—	201	(192)	—		9	
Income before income taxes and income from investments in unconsolidated affiliates	1,555	1,026	—	(1,138)		1,443	
Income tax provision	(378)	(49)	—	262	(d)	(165)	
Income from investments in unconsolidated affiliates	10	221	—	—		231	
Net income	1,187	1,198	—	(876)		1,509	
Less: Net income attributable to noncontrolling interests and redeemable noncontrolling interest	—	193	—	(182)	(a)	11	
Net income attributable to shareholders	$ 1,187	$ 1,005	$ —	$ (694)		$ 1,498	
Net income attributable to shareholders per share – basic	$ 2.93	$ 1.08				$ 2.17	
Net income attributable to shareholders per share – diluted	$ 2.87	$ 1.05				$ 2.14	
Shares used in computing net income per share:							
Basic	405.5	929				691.5	(e)
Diluted	413.7	957				699.7	(e)

See accompanying Notes to the Unaudited Pro Forma Condensed Combined Financial Statements.

NOTES TO THE UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS

1. Basis of pro forma presentation

The accompanying unaudited pro forma condensed combined financial statements and related notes were prepared in accordance with Article 11 of Regulation S-X. The unaudited pro forma condensed combined statements of income for the three months ended March 31, 2019 and for the year ended December 31, 2018 combine the historical consolidated statements of income of Fiserv and First Data, giving effect to the merger as if it had been completed on January 1, 2018. The accompanying unaudited pro forma condensed combined balance sheet as of March 31, 2019 combines the historical consolidated balance sheets of Fiserv and First Data, giving effect to the merger as if it had been completed on March 31, 2019.

Fiserv's and First Data's historical financial statements were prepared in accordance with U.S. GAAP and presented in U.S. dollars. As discussed in Note 2, certain reclassifications were made to align Fiserv's and First Data's financial statement presentation. Fiserv has not identified all adjustments necessary to conform First Data's accounting policies to Fiserv's accounting policies. Upon completion of the merger, or as more information becomes available, Fiserv will perform a more detailed review of First Data's accounting policies. As a result of that review, differences could be identified between the accounting policies of the two companies that, when conformed, could have a material impact on the combined company's financial information. Further, there were no material intercompany transactions and balances between Fiserv and First Data as of and for the three months ended March 31, 2019 and for the year ended December 31, 2018.

The accompanying unaudited pro forma condensed combined financial statements and related notes were prepared using the acquisition method of accounting under the provisions of ASC 805, with Fiserv considered the acquirer of First Data. ASC 805 requires, among other things, that the assets acquired and liabilities assumed in a business combination be recognized at their fair values as of the acquisition date. For purposes of the unaudited pro forma condensed combined balance sheet, the purchase consideration has been allocated to the assets acquired and liabilities assumed of First Data based upon management's preliminary estimate of their fair values as of March 31, 2019. Fiserv has not completed the valuation analysis and calculations in sufficient detail necessary to arrive at the required estimates of the fair market value of the First Data assets to be acquired or liabilities assumed, other than a preliminary estimate for intangible assets. Accordingly, apart from intangible assets, First Data assets and liabilities are presented at their respective carrying amounts and should be treated as preliminary values. Any differences between the fair value of the consideration transferred and the fair value of the assets acquired and liabilities assumed will be recorded as goodwill. Accordingly, the purchase price allocation and related adjustments reflected in these unaudited pro forma condensed combined financial statements are preliminary and subject to revision based on a final determination of fair value.

All amounts presented within these Notes to the Unaudited Pro Forma Condensed Combined Financial Statements are in millions, except per share data.

2. First Data and Fiserv reclassification adjustments

During the preparation of these unaudited pro forma condensed combined financial statements, management performed a preliminary analysis of First Data's financial information to identify differences in accounting policies as compared to those of Fiserv and differences in financial statement presentation as compared to the presentation of Fiserv. At the time of preparing these unaudited pro forma condensed combined financial statements, Fiserv had not identified all adjustments necessary to conform First Data's accounting policies to Fiserv's accounting policies. The below adjustments represent Fiserv's best estimates based upon the information currently available to Fiserv and could be subject to change once more detailed information is available.

Refer to the table below for a summary of reclassification adjustments made to present First Data's balance sheet as of March 31, 2019 to conform with that of Fiserv:

Balance Sheet **As of March 31, 2019** *(in millions)*	(a)	(b)	(c)	(d)	(e)	(f)	Pro Forma Reclassification Adjustments
Intangible assets, net	$ 1,725	$ 1,586	$ —	$ —	$ —	$ —	$ 3,311
Customer relationships, net	(1,725)	—	—	—	—	—	(1,725)
Other intangibles, net	—	(1,586)	(174)	(163)	—	—	(1,923)
Contract costs, net	—	—	174	—	—	—	174
Investment in affiliates	—	—	—	—	(1,072)	—	(1,072)
Other long-term assets	—	—	—	163	1,072	—	1,235
Accounts payable and accrued expenses	—	—	—	—	—	(118)	(118)
Contract liabilities	—	—	—	—	—	118	118
Long-term contract liabilities	—	—	—	—	—	167	167
Other long-term liabilities	—	—	—	—	—	(167)	(167)

(a) Represents a reclassification of customer relationship intangible assets to conform with Fiserv's presentation.
(b) Represents a reclassification of other intangible assets to conform with Fiserv's presentation.
(c) Represents a reclassification of contract costs to conform with Fiserv's presentation.
(d) Represents a reclassification of contract assets to conform with Fiserv's presentation.
(e) Represents a reclassification of investment in affiliates to conform with Fiserv's presentation.
(f) Represents a reclassification of current and long-term contract liabilities to conform with Fiserv's presentation.

Refer to the table below for a summary of reclassification adjustments made to Fiserv's and First Data's statement of income for the three months ended March 31, 2019 to conform presentation:

Statement of Income **For the three months ended March 31, 2019** *(in millions)*	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	Pro Forma Reclassification Adjustments
Revenues excluding reimbursable items	$(2,124)	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ (2,124)
Processing and services	1,853	—	—	—	—	—	—	—	1,853
Product	271	192	—	—	—	—	—	—	463
Reimbursable items	—	(192)	—	—	—	—	—	—	(192)
Cost of revenues (exclusive of items shown below)	—	—	(757)	—	—	—	—	—	(757)
Cost of processing and services	—	—	661	—	195	—	—	—	856
Cost of product	—	—	96	192	9	—	—	—	297
Selling, general and administrative	—	—	—	—	42	36	—	—	78
Depreciation and amortization	—	—	—	—	(246)	—	—	—	(246)
Other operating expenses, net	—	—	—	—	—	(36)	—	—	(36)
Reimbursable items	—	—	—	(192)	—	—	—	—	(192)
Interest expense	—	—	—	—	—	—	59	—	59
Interest expense, net	—	—	—	—	—	—	(57)	—	(57)
Non-operating income	—	—	—	—	—	—	(2)	(1)	(3)
Other income (expense)	—	—	—	—	—	—	—	1	1

(a) Represents a reclassification of First Data revenue to processing and services revenue and product revenue to conform with Fiserv's presentation.
(b) Represents a reclassification of First Data reimbursable items recorded in revenue to conform with Fiserv's presentation.
(c) Represents a reclassification of First Data cost of revenues to conform with Fiserv's presentation.
(d) Represents a reclassification of First Data reimbursable items recorded in expense to conform with Fiserv's presentation.
(e) Represents a reclassification of First Data depreciation and amortization to conform with Fiserv's presentation.
(f) Represents a reclassification of First Data other operating expenses, net to conform with Fiserv's presentation.
(g) Represents a net presentation of Fiserv's and First Data's interest income and expense amounts.
(h) Represents a presentation of Fiserv non-operating income within other income (expense).

Refer to the table below for a summary of reclassification adjustments made to Fiserv's and First Data's statement of income for the year ended December 31, 2018 to conform presentation:

Statement of Income **For the year ended December 31, 2018** *(in millions)*	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	Pro Forma Reclassification Adjustments
Revenues excluding reimbursable items	$(8,679)	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$—	$ (8,679)
Processing and services	7,606	—	—	—	—	—	—	—	—	7,606
Product	1,073	819	—	—	—	—	—	—	—	1,892
Reimbursable items	—	(819)	—	—	—	—	—	—	—	(819)
Cost of revenues (exclusive of items shown below)	—	—	(3,005)	—	—	—	—	—	—	(3,005)
Cost of processing and services	—	—	2,673	—	801	20	—	—	—	3,494
Cost of product	—	—	332	819	36	—	—	—	—	1,187
Selling, general and administrative	—	—	—	—	172	99	—	—	—	271
Gain on sale of businesses	—	—	—	—	—	—	(197)	—	—	(197)
Depreciation and amortization	—	—	—	—	(1,009)	—	—	—	—	(1,009)
Other operating expenses, net	—	—	—	—	—	(119)	—	—	—	(119)
Reimbursable items	—	—	—	(819)	—	—	—	—	—	(819)
Interest expense	—	—	—	—	—	—	—	193	—	193
Interest expense, net	—	—	—	—	—	—	—	(189)	—	(189)
Non-operating income	—	—	—	—	—	—	—	(4)	(5)	(9)
Other income (expense)	—	—	—	—	—	—	(197)	—	5	(192)

(a) Represents a reclassification of First Data revenue to processing and services revenue and product revenue to conform with Fiserv's presentation.
(b) Represents a reclassification of First Data reimbursable items recorded in revenue to conform with Fiserv's presentation.
(c) Represents a reclassification of First Data cost of revenues to conform with Fiserv's presentation.
(d) Represents a reclassification of First Data reimbursable items recorded in expense to conform with Fiserv's presentation.
(e) Represents a reclassification of First Data depreciation and amortization to conform with Fiserv's presentation.
(f) Represents a reclassification of First Data other operating expenses, net to conform with Fiserv's presentation.
(g) Represents a reclassification of First Data gain on sale of businesses to conform with Fiserv's presentation.
(h) Represents a net presentation of Fiserv's and First Data's interest income and expense amounts.
(i) Represents a presentation of Fiserv non-operating income within other income (expense).

3. Preliminary purchase price allocation

Refer to the table below for the preliminary calculation of estimated merger consideration:

Preliminary calculation of estimated merger consideration *(in millions)*	Note		Amount
Share consideration			
Shares of First Data as of April 30, 2019	(i)	943.9	
Exchange ratio		0.303	
Fiserv common stock to be issued		286.0	
Share price on May 31, 2019	(i)	$85.86	
Estimated value of Fiserv common shares to be issued to First Data stockholders pursuant to the merger agreement			$24,556
Estimated repayment of First Data's debt (including prepayment penalties and accrued interest)	(ii)		16,679
Preliminary fair value of estimated total merger consideration	(iii)		$41,235

(i) Under the terms of the merger agreement, First Data stockholders have the right to receive a fixed exchange ratio of 0.303 of a share of Fiserv common stock, par value $0.01 per share, for each share of First Data common stock. For purposes of the unaudited pro forma condensed combined balance sheet, the estimated merger consideration is based on the total First Data common stock issued and outstanding as of April 30, 2019 and the closing price per share of Fiserv common stock on May 31, 2019. A 10% change in the closing price per share of Fiserv common stock would increase or decrease the estimated fair value of share consideration transferred by approximately $2.5 billion.

(ii) It is currently expected that all of the outstanding historical debt of First Data (excluding debt reflected as receivable securitized loans, finance lease obligations and other arrangements and lines of credit) will be repaid in connection with the merger. Based on the amounts of First Data debt reflected as outstanding on the First Data balance sheet as of March 31, 2019, a total of $16,461 million is therefore expected to be repaid, comprising short-term debt of $366 million and long-term debt of $16,095 million. In addition, prepayment penalties and accrued interest of approximately $143 million and $75 million, respectively, associated with the First Data debt are expected to be paid in connection with such repayment. Amounts outstanding under the various First Data financing arrangements will change between the date of the First Data balance sheet as of March 31, 2019 used for purposes of these unaudited pro forma condensed combined financial statements and the closing date, and Fiserv may determine to repay additional amounts in respect of First Data's financing arrangements, including debt reflected as receivable securitized loans, finance lease obligations and other arrangements or lines of credit, or to leave a portion of such amounts outstanding. Accordingly, the amount of First Data debt actually repaid on the closing date may differ from the amount expected to be repaid as of the date of these unaudited pro forma condensed combined financial statements.

(iii) In connection with the merger, Fiserv agreed to convert certain equity awards held by First Data employees into Fiserv equity awards. At this time, Fiserv has not completed its analysis and calculations related to eligible employees and vesting schedules in sufficient detail necessary to arrive at fair value; however, the impact is not expected to be material in the context of the transaction. Any corresponding adjustment may result in the recognition of an incremental component of purchase consideration transferred, which is not currently reflected in the preliminary estimate of merger consideration.

The preliminary estimated merger consideration as shown in the table above is allocated to the tangible and intangible assets acquired and liabilities assumed of First Data based on their preliminary estimated fair values. As mentioned above in Note 1, Fiserv has not completed the valuation analysis and calculations in sufficient detail necessary to arrive at the required estimates of the fair market value of the First Data assets to be acquired or liabilities assumed, other than a preliminary estimate for intangible assets. Accordingly, assets acquired and liabilities assumed are presented at their respective carrying amounts and should be treated as preliminary values. The fair value assessments are preliminary and are based upon available information and certain assumptions, which Fiserv believes are reasonable under the circumstances. Actual results may differ materially from the assumptions within the unaudited pro forma condensed combined financial statements.

The following table sets forth a preliminary allocation of the estimated merger consideration to the fair value of the identifiable tangible and intangible assets acquired and liabilities assumed of First Data using First Data's unaudited consolidated balance sheet as of March 31, 2019, with the excess recorded to goodwill:

Description *(in millions)*	**Amount**
Preliminary fair value of estimated total merger consideration	$ 41,235
Assets	
Cash and cash equivalents	619
Trade accounts receivable	2,130
Prepaid expenses and other current assets	321
Settlement assets	22,324
Property and equipment	890
Intangible assets	16,400
Contract costs	174
Other long-term assets	2,259
Total assets	45,117
Liabilities	
Accounts payable and accrued expenses	(1,447)
Short-term other arrangements and finance lease obligations	(793)
Contract liabilities	(118)
Settlement obligations	(22,324)
Long-term other arrangements and finance lease obligations	(187)
Deferred income taxes	(3,094)
Long-term contract liabilities	(167)
Other long-term liabilities	(633)
Total liabilities	(28,763)
Redeemable noncontrolling interest	(93)
Noncontrolling interests	(2,789)
Less: Net assets	13,472
Goodwill	$ 27,763

4. Adjustments to the unaudited pro forma condensed combined balance sheet

Refer to the items below for a reconciliation of the pro forma adjustments reflected in the unaudited pro forma condensed combined balance sheet:

(a) Reflects the sources and uses of funds relating to the merger as follows:

Description *(in millions)*	**Note**	**Amount**
Sources:		
Proceeds from term loans	(i)	$ 5,000
Proceeds from senior notes	(i)	12,000
Less: Capitalized debt issuance costs and original issue discount	(ii)	(129)
		16,871
Uses:		
Transaction costs	(iii)	(395)
Estimated repayment of First Data's debt (including prepayment penalties and accrued interest)	(iv)	(16,679)
		(17,074)
Pro forma net adjustment to cash and cash equivalents		$ (203)

(i) To fund amounts payable in connection with the merger, Fiserv expects to incur borrowings under its new term loan credit agreement, which we refer to as the term loans, that was entered into on February 15, 2019 with a syndicate of financial institutions and pursuant to which such financial institutions have committed to provide Fiserv with a senior unsecured term loan facility in an aggregate principal amount of $5,000 million. In addition, Fiserv expects to issue new senior debt securities, which we refer to as the senior notes, in an aggregate principal amount of $12,000 million.

(ii) Reflects debt issuance costs and original issue discount of approximately $129 million expected to be incurred in connection with the $12,000 million issuance of senior notes, the $5,000 million incurrence of term loans, and the $1,500 million increase in commitments to Fiserv's existing revolving credit facility. Does not include estimated cash paid for transaction costs to be incurred, including bridge facility financing fees. Also does not include prepayment penalties associated with the First Data debt.

(iii) Reflects estimated cash paid for transaction costs to be incurred by Fiserv and First Data, including bridge facility financing fees. Does not include prepayment penalties associated with the First Data debt.

(iv) It is currently expected that all of the outstanding historical debt of First Data (excluding debt reflected as receivable securitized loans, finance lease obligations and other arrangements and lines of credit) will be repaid in connection with the merger. Based on the amounts of First Data debt reflected as outstanding on the First Data balance sheet as of March 31, 2019, a total of $16,461 million is therefore expected to be repaid, comprising short-term debt of $366 million and long-term debt of $16,095 million. In addition, prepayment penalties and accrued interest of approximately $143 million and $75 million, respectively, associated with the First Data debt are expected to be paid in connection with such repayment. Amounts outstanding under the various First Data financing arrangements will change between the date of the First Data balance sheet as of March 31, 2019 used for purposes of these unaudited pro forma condensed combined financial statements and the closing date, and Fiserv may determine to repay additional amounts in respect of First Data's financing arrangements, including debt reflected as receivable securitized loans, finance lease obligations and other arrangements or lines of credit, or to leave a portion of such amounts outstanding. Accordingly, the amount of First Data debt actually repaid on the closing date may differ from the amount expected to be repaid as of the date of these unaudited pro forma condensed combined financial statements.

(b) Reflects an adjustment to intangible assets, net based on a preliminary fair value assessment:

Description *(in millions)*	**Note**	**Amount**
Fair value of intangible assets acquired	(i)	$16,400
Removal of First Data's historical intangible assets		(3,311)
Pro forma net adjustment to intangible assets, net		$13,089

(i) Fiserv determined a preliminary estimate of intangible assets. The intangible assets, including customer relationships, technology and tradenames, have been amortized based on estimated useful lives of seven to fifteen years.

(c) Reflects an adjustment to goodwill based on the preliminary purchase price allocation:

Description *(in millions)*	**Note**	**Amount**
Fair value of consideration transferred in excess of the preliminary fair value of assets acquired and liabilities assumed	(i)	$ 27,763
Removal of First Data's historical goodwill		(17,518)
Pro forma net adjustment to goodwill		$ 10,245

(i) Goodwill represents the excess of the estimated merger consideration over the preliminary fair value of the underlying assets acquired and liabilities assumed. Refer to the preliminary estimated merger consideration allocation in Note 3 above for more details.

(d) In connection with the merger, Fiserv entered into a bridge facility commitment letter, pursuant to which it obtained commitments for a 364-day senior unsecured bridge term loan facility in an aggregate principal amount of $17,000 million. Subsequently, on February 15, 2019, Fiserv entered into a new term loan credit agreement with a syndicate of financial institutions pursuant to which such financial institutions have committed to provide Fiserv with a senior unsecured term loan facility in an aggregate principal amount of $5,000 million. The aggregate principal amount of the commitments under the term loan credit agreement have replaced a corresponding amount of the commitments in respect of the bridge facility in accordance with the terms of the bridge facility commitment letter. As a result, there are now $12,000 million in bridge facility commitments remaining. Fiserv does not intend to draw down on the bridge facility and currently expects to replace the remaining bridge facility commitments prior to the closing of the merger with permanent financing that it currently expects will consist of $12,000 million in aggregate principal amount from the issuance of senior notes. In addition, Fiserv entered into amendments to its existing revolving credit facility to modify certain provisions in order to facilitate the merger and borrowings under the existing revolving credit facility in connection with the merger, increase the commitments available thereunder by $1,500 million and make certain additional amendments to facilitate the operation of the combined business following the merger. Refer to the table below for a summary of the impact the financing arrangements are expected to have on the short-term and long-term debt balances, and refer to Note 5 for details on the impact these financing arrangements are expected to have on the unaudited pro forma condensed combined statements of income.

Description *(in millions)*	**Note**	**Amount**
Proceeds:		
Proceeds from term loans	(i)	$ 5,000
Proceeds from senior notes	(i)	12,000
Less: Capitalized debt issuance costs and original issue discount	(ii)	(129)
		$ 16,871
Repayments:		
Estimated repayment of First Data debt	(iii)	(16,461)
Pro forma net adjustment to debt		$ 410
Pro forma net adjustment to short-term and current maturities of long-term debt		$ (116)
Pro forma net adjustment to long-term debt		$ 526

(i) As mentioned in Note 4(a)(i), Fiserv expects to incur $5,000 million in aggregate principal amount of term loans under its new term loan credit agreement that was entered into on February 15, 2019 with a syndicate of financial institutions and pursuant to which such financial institutions committed to provide Fiserv with a senior unsecured term loan facility in an aggregate principal amount of $5,000 million. In addition, Fiserv expects to issue senior notes in an aggregate principal amount of $12,000 million.

(ii) As mentioned in Note 4(a)(ii), reflects debt issuance costs and original issue discount of approximately $129 million expected to be incurred in connection with the $12,000 million issuance of the senior notes, the $5,000 million incurrence of the term loans, and the $1,500 million increase in commitments to Fiserv's existing revolving credit facility. Does not include estimated cash paid for transaction costs to be incurred, including bridge facility financing fees. Also does not include prepayment penalties associated with the First Data debt.

(iii) It is currently expected that all of the outstanding historical debt of First Data (excluding debt reflected as a receivable securitized loan, finance lease obligations and other arrangements and lines of credit) will be repaid in connection with the merger. Based on the amounts of First Data debt reflected as outstanding on the First Data balance sheet as of March 31, 2019, $16,461 million is therefore expected to be repaid, comprising short-term debt of $366 million and long-term debt of $16,095 million. Amounts outstanding under the various First Data financing arrangements will change between the date of the First Data balance sheet as of March 31, 2019 used for purposes of these unaudited pro forma condensed combined financial statements and the closing date, and Fiserv may determine to repay additional amounts in respect of First Data's financing arrangements, including debt reflected as receivable securitized loans, finance lease obligations and other arrangements or lines of credit, or to leave a portion of such amounts outstanding. Accordingly, the amount of First Data debt actually repaid on the closing date may differ from the amount expected to be repaid as of the date of these unaudited pro forma condensed combined financial statements.

(e) Reflects a deferred income tax liability resulting from preliminary fair value adjustments to intangible assets. The estimate of the deferred tax liability was determined based on the book and tax basis difference using a blended federal and state statutory income tax rate of Fiserv of 23%. This estimate of the deferred income tax liability is preliminary and is subject to change based upon Fiserv's final determination of the fair values of identifiable intangible assets acquired by jurisdiction.

(f) Reflects an adjustment to Fiserv and First Data equity based on the following:

Description *(in millions)*	**Note**	**Amount**
Fair value of common stock issued to the sellers	(i)	$24,556
Transaction costs	(ii)	(395)
Removal of First Data's historical shareholders' equity		(4,375)
Pro forma net adjustment to total equity		$19,786

(i) As disclosed in Note 3(i), the estimated value of Fiserv common shares to be issued pursuant to the merger agreement is $24,556 million.
(ii) As disclosed in Note 4(a)(iii), represents the remaining estimated transaction costs to be incurred by Fiserv and First Data, including bridge facility financing fees. Does not include prepayment penalties associated with the First Data debt.

5. Adjustments to the unaudited pro forma condensed combined statements of income

Refer to the items below for a reconciliation of the adjustments reflected in the unaudited pro forma condensed combined statements of income:

(a) The newly acquired intangible assets have been amortized based on estimated useful lives of seven to fifteen years. Pro forma amortization expense includes amortization expense for the newly identified intangible assets less the amortization expense on First Data's historical intangible assets. The pro forma adjustments also reflect the amortization expense, net of tax, attributed to the noncontrolling interests of $59 million and $182 million for the three months ended March 31, 2019 and the year ended December 31, 2018, respectively, based on the ratio of First Data's historical net income attributable to noncontrolling interests to net income for the three months ended March 31, 2019 and the year ended December 31, 2018, and as such, actual amortization expense attributable to noncontrolling interests may differ materially. Fiserv is still in the process of evaluating the fair value of the intangible assets. Any resulting change in the fair value would have a direct impact to amortization expense.

Description *(in millions)*	**Estimated Fair Value**	**Estimated Useful Life**	**Three months ended March 31, 2019**	**Year ended December 31, 2018**
Amortization expense for intangible assets	$ 16,400	7 - 15 years	$ 447	$ 1,886
Less: Historical First Data amortization			(98)	(420)
Pro forma net adjustment to cost of processing and services			$ 349	$ 1,466

(b) Reflects the adjustments to reverse non-recurring transaction costs, which were recorded in Fiserv's selling, general and administrative expenses and debt financing activities, and in First Data's other operating expenses, net (reclassified to selling, general, and administrative expenses for pro forma purposes) for the three months ended March 31, 2019.

(c) Historical interest expense has been adjusted as follows:

Description *(in millions)*	**Principal balance**	**Assumed weighted-average interest rate**	**Note**	**Three months ended March 31, 2019**	**Year ended December 31, 2018**
Increases to interest expense:					
Senior notes	$ 12,000	3.30%	(i)	$ 99	$ 396
Term loans	5,000	3.68%	(ii)	44	187
Amortization of capitalized debt issuance costs and discounts			(iii)	4	17
				147	600
Decreases to interest expense:					
Historical interest expense of First Data for debt being repaid				$ (201)	$ (928)
Pro forma net adjustment to interest expense, net			(iv)	$ (54)	$ (328)

(i) As mentioned in Note 4(a)(i), Fiserv expects to issue senior notes in an aggregate principal amount of $12,000 million. Such senior notes are expected to be issued at fixed rates of interest in various currencies and with various maturities. The assumed weighted-average interest rate for such senior notes is based on assumptions regarding currencies, interest rates and maturities, but the actual terms of such senior notes will be subject to market conditions at the time of issuance. In addition, included in the adjustments to interest expense for such senior notes is the effect of treasury locks, which were entered into in connection with refinancing of certain indebtedness of First Data and are designated as cash flow hedges.

(ii) As mentioned in Note 4(a)(i), Fiserv expects to incur $5,000 million in aggregate principal amount of term loans under its new term loan credit agreement that was entered into on February 15, 2019 with a syndicate of financial institutions and pursuant to which such financial institutions committed to provide Fiserv with a senior unsecured term loan facility in an aggregate principal amount of $5,000 million. The term loans will bear variable rates of interest based on the LIBO rate plus a spread.

(iii) Aggregate debt issuance costs and original issue discount resulting from the issuance of the senior notes, the incurrence of the term loans, and the increase of commitments under Fiserv's existing revolving credit facility are expected to amount to $129 million. Such amount does not include estimated cash paid for transaction costs to be incurred by Fiserv, including bridge facility financing fees, nor does it include prepayment penalties associated with the First Data debt.

(iv) A 0.125% change in the term loan variable interest rates would increase or decrease interest expense on a pro forma basis by $1.6 million and $6.3 million for the three months ended March 31, 2019 and for the year ended December 31, 2018, respectively.

(d) To record the income tax impact of the pro forma adjustments utilizing a blended federal and state statutory income tax rate of 23% for the three months ended March 31, 2019 and for the year ended December 31, 2018.

(e) The pro forma basic and diluted earnings per share calculations are based on the basic and diluted weighted average shares of Fiserv plus shares issued as part of the merger. The pro forma basic and diluted weighted average shares outstanding are a combination of historical weighted average shares of Fiserv common stock and the share impact as part of the merger. In connection with the merger, Fiserv agreed to convert certain equity awards held by First Data employees into Fiserv equity awards. At this time, Fiserv has not completed its analysis and calculations related to eligible employees and vesting schedules in sufficient detail necessary to arrive at fair value; however, the impact is not expected to be material in the context of the transaction and thus has not been reflected in the diluted weighted average shares. Weighted average shares outstanding are as follows:

Pro forma basic weighted average shares *(in millions)*	**Three months ended March 31, 2019**	**Year ended December 31, 2018**
Historical Fiserv weighted average shares outstanding—basic	391.7	405.5
Shares of Fiserv common stock to be issued to First Data stockholders pursuant to the merger	286.0	286.0
Pro forma weighted average shares—basic	677.7	691.5

Pro forma diluted weighted average shares *(in millions)*	**Three months ended March 31, 2019**	**Year ended December 31, 2018**
Historical Fiserv weighted average shares outstanding—diluted	399.1	413.7
Shares of Fiserv common stock to be issued to First Data stockholders pursuant to the merger	286.0	286.0
Pro forma weighted average shares—diluted	685.1	699.7