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Fiserv, Inc. Common Stock Annual Report 2020

Form 10-K (NASDAQ:FISV)

Published: February 27th, 2020

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Year	Report	Size
2018	 Fiserv, Inc. Common Stock (FISV) 10-K Annual Report - Feb 22nd, 2018	775kb
2017	 Fiserv, Inc. Common Stock (FISV) 10-K Annual Report - Feb 23rd, 2017	741kb
2016	 Fiserv, Inc. Common Stock (FISV) 10-K Annual Report - Feb 19th, 2016	698kb
2015	 Fiserv, Inc. Common Stock (FISV) 10-K Annual Report - Feb 20th, 2015	521kb
2014	 Fiserv, Inc. Common Stock (FISV) 10-K Annual Report - Feb 20th, 2014	566kb
2013	 Fiserv, Inc. Common Stock (FISV) 10-K Annual Report - Feb 22nd, 2013	536kb
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2011	 Fiserv, Inc. Common Stock (FISV) 10-K Annual Report - Feb 24th, 2011	539kb
2010	 Fiserv, Inc. Common Stock (FISV) 10-K Annual Report - Feb 26th, 2010	524kb
2009	 Fiserv, Inc. Common Stock (FISV) 10-K Annual Report - Feb 27th, 2009	546kb
2008	 Fiserv, Inc. Common Stock (FISV) 10-K Annual Report - Feb 28th, 2008	549kb
2007	 Fiserv, Inc. Common Stock (FISV) 10-K Annual Report - Feb 28th, 2007	466kb
2006	 Fiserv, Inc. Common Stock (FISV) 10-K Annual Report - Mar 15th, 2006	225kb

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM 10-K

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended: December 31, 2019

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

Commission file number: 1-38962

Fiserv, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Wisconsin
(State or Other Jurisdiction of
Incorporation or Organization)

39-1506125
(I. R. S. Employer
Identification No.)

255 Fiserv Drive Brookfield, WI 53045
(Address of Principal Executive Offices and zip code)

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

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
0.375% Senior Notes due 2023	FISV23	The NASDAQ Stock Market LLC
1.125% Senior Notes due 2027	FISV27	The NASDAQ Stock Market LLC
1.625% Senior Notes due 2030	FISV30	The NASDAQ Stock Market LLC
2.250% Senior Notes due 2025	FISV25	The NASDAQ Stock Market LLC
3.000% Senior Notes due 2031	FISV31	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		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. ☐

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

The aggregate market value of the common stock of the registrant held by non-affiliates as of June 28, 2019 (the last trading day of the second fiscal quarter) was \$35,699,320,202 based on the closing price of the registrant's common stock on the NASDAQ Global Select Market on that date. The number of shares of the registrant's common stock, \$0.01 par value per share, outstanding at February 21, 2020 was 679,098,783.

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this report incorporates information by reference to the registrant's proxy statement for its 2020 annual meeting of shareholders, which proxy statement will be filed with the Securities and Exchange Commission no later than 120 days after the close of the fiscal year ended December 31, 2019.

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FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains “forward-looking statements” intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. Forward-looking statements include those that express a plan, belief, expectation, estimation, anticipation, intent, contingency, future development or similar expression, and 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 our future plans, objectives or goals are also forward-looking statements. The forward-looking statements in this report involve significant risks and uncertainties, and a number of factors, both foreseen and unforeseen, could cause actual results to differ materially from our current expectations. The factors that may affect our results include, among others: the possibility that we may be unable to achieve expected synergies and operating efficiencies from the acquisition of First Data Corporation (“First Data”) within the expected time frames or at all or to successfully integrate the operations of First Data into our operations; such integration may be more difficult, time-consuming or costly than expected; profitability following the transaction may be lower than expected, including due to unexpected costs, charges or expenses resulting from the transaction; 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 transaction; unforeseen risks relating to our liabilities or those of First Data may exist; our ability to meet expectations regarding the accounting and tax treatments of the transaction; our ability to compete effectively against new and existing competitors and to continue to introduce competitive new products and services on a timely, cost-effective basis; changes in customer demand for our products and services; the ability of our technology to keep pace with a rapidly evolving marketplace; the successful management of our merchant alliance program which involves several alliances not under our sole control; the impact of a security breach or operational failure on our business including disruptions caused by other participants in the global financial system; the failure of our vendors and merchants to satisfy their obligations; the successful management of credit and fraud risks in our business and merchant alliances; changes in local, regional, national and international economic or political conditions and the impact they may have on us and our customers; the effect of proposed and enacted legislative and regulatory actions affecting us or the financial services industry as a whole; our ability to comply with government regulations and applicable card association and network rules; the protection and validity of intellectual property rights; the outcome of pending and future litigation and governmental proceedings; our ability to successfully identify, complete and integrate acquisitions, and to realize the anticipated benefits associated with the same; the impact of our strategic initiatives; our ability to attract and retain key personnel; changes in the interest rate environment that increase interest on our borrowings or the interest rate at which we can refinance our borrowings; adverse impacts from currency exchange rates or currency controls; and other factors identified in this Annual Report on Form 10-K for the year ended December 31, 2019 and in other documents that we file with the Securities and Exchange Commission. You should consider these factors carefully in evaluating forward-looking statements and are cautioned not to place undue reliance on such statements, which speak only as of the date of this report. We undertake no obligation to update forward-looking statements to reflect events or circumstances occurring after the date of this report. We are not including the information provided on the websites referenced herein as part of, or incorporating such information by reference into, this Annual Report on Form 10-K.

PART I

In this report, all references to “we,” “us,” “our” and “Fiserv” refer to Fiserv, Inc. (“Fiserv”), a Wisconsin corporation, and, unless the context otherwise requires, its consolidated subsidiaries.

Item 1. Business

Overview

Fiserv, Inc. is a leading global provider of financial services technology. We are publicly traded on the NASDAQ Global Select Market and part of the S&P 500 Index. We serve clients around the globe, including banks, credit unions, other financial institutions and merchants. We provide account processing systems; electronic payments processing products and services, such as electronic bill payment and presentment services, account-to-account transfers, person-to-person payments, debit network solutions, debit card processing and services, general purpose credit, retail private label and commercial credit card processing and services, and payments infrastructure services; internet and mobile banking systems; and related services, including card and print personalization services, item processing and source capture services, loan origination and servicing products, stored value network solutions and fraud and risk management products and services. We also provide retail point-of-sale (“POS”) merchant acquiring and e-commerce services as well as next-generation offerings such as mobile payment services, and our cloud-based Clover® line of payment solutions and related applications. Most of the services we provide are necessary for our clients to operate their businesses and are, therefore, non-discretionary in nature. We service our global client base by working among our geographic teams across various regions: the United States and Canada; Europe, Middle East and Africa; Latin America; and Asia Pacific.

In 2019, we had \$10.2 billion in total revenue, \$1.6 billion in operating income and \$2.8 billion of net cash provided by operating activities from continuing operations. Processing and services revenue, which in 2019 represented 84% of our total revenue, is primarily generated from account- and transaction-based fees under multi-year contracts that generally have high renewal rates. We have operations and offices located both within the United States (the “U.S.” or “domestic”) and outside of the U.S. (“international”) with revenues from domestic and international products and services as a percentage of total revenue as follows for the years ended December 31:

	2019	2018	2017
Total revenue	\$ 10,187	\$ 5,823	\$ 5,696
Domestic	88%	94%	95%
International	12%	6%	5%

We have grown our business by developing highly specialized product and service enhancements, extending our capabilities geographically and through innovation, welcoming new clients, selling additional products and services to existing clients and acquiring businesses that complement ours, all of which have enabled us to deliver a wide range of integrated products and services and have created new opportunities for growth.

We originally incorporated in Delaware in 1984 and reincorporated as a Wisconsin corporation in 1992. Our headquarters are located at 255 Fiserv Drive, Brookfield, Wisconsin 53045, and our telephone number is (262) 879-5000.

Our operations are comprised of the First Data segment, the Payments and Industry Products (“Payments”) segment and the Financial Institution Services (“Financial”) segment.

First Data

On July 29, 2019, we completed the acquisition of First Data Corporation (“First Data”), a global leader in commerce-enabling technology and solutions for merchants, financial institutions and card issuers. The businesses in our First Data segment primarily provide merchant acquiring, e-commerce, mobile commerce and other business solutions at the point-of-sale to businesses of all sizes and types; credit card and loan account processing, commercial payments, customer communications, plastics solutions, customer service and other products to support issuers; and a range of network solutions and security, risk and fraud management solutions to business and financial institution clients, including U.S. debit card processing, our STAR® network, stored value commerce solutions (both closed-loop and open-loop), and our suite of security and fraud products and services. The businesses in the First Data segment are subject to a modest level of seasonality, with the first quarter experiencing the lowest level of revenue and the fourth quarter experiencing the highest level of revenue. Our products and services in the First Data segment include:

Global Business Solutions ("GBS")

The businesses within GBS provide a wide range of solutions to merchants around the world, including physical retail POS merchant acquiring and e-commerce services, next-generation offerings such as mobile payment services, our cloud-based Clover® POS operating system, which includes a marketplace for proprietary and third-party business applications, and check validation. We serve nearly six million business locations globally. We typically provide these services as part of a broader commerce-enabling solution to our business clients across three primary channels:

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

Revenues within GBS are primarily derived from processing credit and debit card transactions for merchants and other business clients and include fees for providing processing, loyalty and software services and sales or leases of POS devices. GBS revenues and earnings are impacted by the number of transactions and payment volume, the mix of consumer use of credit and debit cards and the size of the merchant or other business client.

Global Financial Solutions ("GFS")

The businesses within GFS provide 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. These solutions include general purpose credit, retail private label, commercial card and loan processing globally, as well as licensed financial software systems, such as our VisionPLUS processing application. Businesses within GFS also provide 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. Globally, GFS revenues are diversified across financial institutions of various sizes and geographies and 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 ("NSS")

The businesses within NSS provide a range of network services and security, risk and fraud management products to business and financial institution clients in our GBS and GFS businesses, and independently to financial institutions, businesses, governments, processors and other clients. These products and services include our EFT network solutions (STAR® network and debit card processing), our stored value network solutions (Money Network® and gift solutions) and our security and fraud solutions (TransArmor® and TeleCheck®). The businesses within NSS also support our other digital strategies, including online and mobile banking, and our business supporting mobile wallets.

Payments

The businesses in our Payments segment provide financial institutions and other companies with the products and services required to process electronic payment transactions and to offer their customers access to financial services and transaction capability through digital channels. Financial institutions and other companies have increasingly relied on third-party providers for those products and services, primarily on an outsourced basis. This is driven by the increasing number of payment transactions being completed electronically as our clients' customers seek the convenience of 24-hour digital access to their financial accounts. Within the Payments segment, we primarily provide electronic bill payment and presentment services, internet and mobile banking software and services, account-to-account transfers, person-to-person payment services, debit and credit card processing and services, payments infrastructure services and other electronic payments software and services. Our businesses in this segment also provide card and print personalization services, investment account processing services for separately managed accounts, and fraud and risk management products and services. Our products and services in the Payments segment include:

Electronic Payments

Our electronic payments business is comprised of electronic bill payment and presentment services and other electronic payment services for businesses and consumers, such as person-to-person payments, account-to-account transfers, and account

opening and funding. Our principal electronic bill payment and presentment product, CheckFree® RXP®, allows our clients' customers: to manage household bills via an easy-to-use, online tool; to view billing and payment information; to pay and manage all of their bills in one place; and to complete same-day or next-day bill payments to a wide range of billers and others.

Our person-to-person payments and account-to-account services allow consumers a convenient way to send and receive money while offering financial institutions the opportunity to generate new transaction-based revenue, attract new accounts and increase loyalty among existing customers. Approximately 2,500 financial institutions have agreed to offer person-to-person payments services through Fiserv to their customers as of December 31, 2019. In addition to Fiserv's own service, Popmoney®, we partner with Early Warning Services, LLC to offer a turnkey implementation of its Zelle® real-time person-to-person payments service. Our turnkey solution simplifies the implementation of Zelle by providing interface, risk management, alerting, settlement and other services to clients.

Digital Channels

Our principal digital consumer and business banking products are Architect™, Corillian Online®, Corillian® Business Online, Mobiliti™, Mobiliti Business™, and SecureNow™. Our Corillian product suite supports multiple lines of banking businesses and has been designed to be highly scalable to meet the evolving needs of our clients. This structure enables our clients to deploy new services by adding and integrating applications, such as electronic bill payment, person-to-person payments and personal financial management tools, to any internet connected point-of-presence. Our Mobiliti product suite provides a variety of mobile banking and payments services to our clients and their customers via mobile browser, downloadable application for smartphones and tablets, text message, and Amazon® Alexa voice banking. Our Architect product suite supports online, mobile and tablet banking for retail and small business customers on a single platform. Each of these suites enables customers to complete balance inquiries, view their transaction history, make bill payments, and transfer funds between accounts and other people. As of December 31, 2019, we had approximately 2,300 hosted Mobiliti clients. Our SecureNow product delivers real-time cybersecurity defense capability designed specifically for digital financial services and integrates industry-leading controls into a single platform, and is pre-integrated with key Fiserv digital assets, including Corillian Online, Architect and other Fiserv platforms for rapid deployment.

Biller Solutions

Our biller business provides electronic billing and payment services to companies that deliver bills to their customer base, such as utilities, telephone and cable companies, lending institutions, and insurance providers, enabling our biller clients to reduce costs, collect payments faster through multiple channels, increase customer satisfaction, and provide customers flexible, easy-to-use ways to view and pay their bills. Our clients' customers access our electronic billing and payment systems by viewing or paying a bill through a financial institution's bill payment application, using a biller's website, mobile application, automated phone system or customer service representative, leveraging www.mycheckfree.com, or by paying in person at one of more than 30,000 nationwide walk-in payment locations operated by our agents. These diverse options allow our clients' customers to view and pay bills wherever, whenever and however they feel most comfortable. Furthermore, because our biller clients are able to receive all of these services from us, we can eliminate the operational complexity and expense of supporting multiple vendor systems or in-house developed systems.

Card Services

Our card services business is a leader in electronic funds transfer services and provides a total payments solution through a variety of products and services. We provide thousands of financial institution clients with a full range of credit and debit processing services, including: ATM driving, tokenization, loyalty and reward programs, real-time person-to-person payments, customized authorization processing, gateway processing to payment networks, and risk management products. We own and operate the Accel® network, which serves more than 3,000 financial institutions with funds access at over 500,000 ATMs and which incorporates CardFree CashSM access as well as EMV™ chip and traditional magnetic stripe cards. Our Accel network POS support delivers comprehensive coverage of PIN and signature authentication support at physical and e-commerce merchants across the country. Our digital enablement capability provides our clients' customers with mobile-based, customizable card management and alert tools that drive engagement and revenue for card issuers, and our risk management tools and portfolio management services are integrated with real-time fraud decisioning. In 2018, we acquired the debit card processing, ATM Managed Services, and MoneyPass® surcharge-free network of Elan Financial Services, a unit of U.S. Bancorp, enabling access to over 61,000 surcharge-free ATMs.

Output Solutions

Our output solutions business provides business communication products and services to clients across a wide variety of industries, including financial services, healthcare, retail, utilities, and travel and entertainment. Our products and services include: electronic document management through our electronic document delivery products and services; card manufacturing, personalization and mailing; statement production and mailing; design and fulfillment of direct mail services; forms distribution; laser printing and mailing; branded merchandise; and office supplies.

Risk Management and Other Solutions

Our risk management business provides financial and risk management products and services that deliver operating efficiencies and management insight that enable our clients to protect and grow their businesses. Our enterprise performance management and financial control offerings include budgeting and planning, financial accounting, and automated reconciliation and account certification tools to facilitate a robust assessment environment and efficient close process for our clients. These solutions are further complemented by fraud detection and mitigation through our predictive analytics service, Fraud Risk and Anti-Money Laundering Compliance Management. Our deposit liquidity solutions enable our clients to retain, monetize and grow their deposit account base while responding to increased demand for short-term liquidity. Our enterprise payments business also provides financial institutions with the infrastructure they need to process non-card-based electronic payments, including ACH, wire and instant payments, and to manage associated information flows. Clients may use the Dovetail payment platform applications on a licensed or hosted basis, and as an add-on to existing legacy technology or as a stand-alone comprehensive modern payments platform.

Investment Services

The investment services business provides technology products and services to financial service organizations, including broker dealers, registered investment advisors, banks, asset managers and insurance companies that deliver financial advice and managed account products to U.S. retail investors. The business' primary product, the Unified Wealth Platform, is a real-time portfolio management, trading and reporting system used by some of the largest brokerage firms and asset managers in the U.S. offering managed accounts. On February 18, 2020, we completed the sale of a 60% interest in this business to a group of investors.

Financial

The businesses in our Financial segment provide financial institutions with the products and services they need to run their operations. By licensing software from third parties or outsourcing their processing requirements by contracting with third-party processors, financial institutions are typically able to reduce costs and enhance their products, services, capacity and capabilities. For example, the licensing of software reduces the need for costly technical expertise within a financial institution, and outsourcing processing operations reduces the infrastructure and other costs required to operate systems internally. Within the Financial segment, we provide financial institutions with account processing services, item processing and source capture services, loan origination and servicing products, cash management and consulting services, and other products and services that support numerous types of financial transactions. Many of the products and services that we sell are integrated with solutions from our Payments segment such as electronic bill payment and presentment, internet and mobile banking, debit processing and network services, and person-to-person payments. Our products and services in the Financial segment include:

Account Processing

We provide account servicing and management technology products and services to our depository institution clients, as well as a range of integrated, value-added banking products and services. Account processing solutions enable a financial institution to operate systems that process customer deposit and loan accounts, an institution's general ledger, central information files and other financial information. These solutions also include extensive security, report generation and other features that financial institutions need to process transactions for their customers, as well as to facilitate compliance with applicable regulations. Although many of our clients contract to obtain a majority of their processing requirements from us, our software design allows clients to start with one application and, as needed, add applications and features developed by us or by third parties. We support a broad range of client-owned peripheral devices manufactured by a variety of vendors, which reduce a new client's initial conversion expenses, enhance existing clients' ability to change technology and broaden our market opportunity.

The principal account processing solutions used by our bank clients are Cleartouch®, DNA®, Precision®, Premier® and Signature®. The principal account processing solutions primarily used by our credit union clients are DNA, Portico®, Spectrum®, XP2®, DataSafe®, Galaxy®, CUnify™, CharlotteSM, OnCU®, CubicsPlus®, CUSA® and Reliance. The Signature and DNA solutions are available both domestically and internationally. Account processing solutions are offered primarily as an outsourced service for installation on client-owned or -hosted computer systems.

Item Processing

Through the Fiserv® Clearing Network, we provide check clearing and image exchange services. Other products and services include image archive with online retrieval, in-clearings, exceptions and returns, statements and fraud detection. We also provide consulting services, business operations services and related software products that promote change in deposit behavior to transition check capture from branch and teller channels to digital self-service deposit channels, including mobile, merchant and ATM.

Lending and Other Solutions

In 2018, we sold a majority interest of our Lending Solutions business. We currently maintain a minority interest in two joint ventures, one that offers the LoanServ™ mortgage and consumer loan servicing platform and another that offers automotive loan origination and servicing products. Other business solutions include products and services for ACH and treasury management, case management and resolution, and source capture optimization to the financial services industry. Our offerings include Immediate FundsSM, PEP+®, and our remote deposit capture solutions branded as Source Capture Solutions®.

Our Strategy

Our aspiration is to move money and information in a way that moves the world. Our purpose is to deliver superior value for our clients through leading technology, targeted innovation and excellence in everything we do. We are focused on operating businesses where we have: deep industry expertise that enables us to serve the market with high effectiveness; a strong competitive position, currently or via a clear path in the foreseeable future; long-term, trusted client relationships that are based on recurring services and transactions; differentiated solutions that deliver value to our clients through integration and innovation; and strong management to execute strategies in a disciplined manner. Consistent with this focus, we continue to operate our business in accordance with the following strategic framework:

- *Operational Effectiveness and Integration of First Data.* We believe we can improve the quality of our client delivery while reducing our costs by using the opportunities created by our size and scale and by effectively integrating the operations of First Data. By streamlining our overall cost structure, including the rationalization of duplicate costs, we expect to meet or exceed planned cost synergies and improve the quality of products and services that we provide to our clients.
- *Portfolio Management.* We expect to acquire businesses when we identify: a compelling strategic need, such as a product, service or technology that helps meet client demand; an opportunity to change industry dynamics; a way to achieve business scale; or similar considerations. We expect to divest businesses that are not in line with our market, product or financial strategies.
- *Client Relationship Value.* We plan to increase the number and breadth of our client relationships by, among other actions: continuing to integrate our products and services; introducing new products and services that are aligned with market needs; combining products and services to deliver enhanced, integrated value propositions; and improving the quality of our client service and support.
- *Capital Discipline.* We intend to make capital allocation decisions that offer the best prospects for our long-term growth and profitability, which may include, among other matters, internal investment, repayment of debt, repurchases of our own shares or acquisitions.
- *Innovation.* We seek to be an innovation leader, utilizing our assets and capabilities to be at the forefront of our industry and enable our clients to deliver best-in-class results.

Servicing the Market

The financial technology industry is highly dynamic, with new innovations entering the market and driving the expectations of our clients globally. The markets for our solutions have specific needs and requirements, with strong emphasis placed by clients on quality, security, service reliability, timely introduction of new capabilities and features, flexibility and value. This requires us to continue our strong emphasis on solution development to meet and exceed the specific needs of our clients. We believe that our financial strength and decades of specialized market knowledge enable us to support our clients to meet their changing preferences. In addition, we believe that our focus on quality, innovation, client service and our commitment of substantial resources to training and technical support helps us to identify and fulfill the needs of our clients.

Product Development

To meet the changing technology needs of our clients, we continually develop, maintain and enhance our products and systems. Our development and technology operations apply the expertise of multiple teams to design, develop and maintain specialized processing systems. Our solutions are designed to meet the preferences and diverse requirements of the international, national, regional or local market-specific financial service environments of our clients. In developing our products, we use current software development principles, such as service-oriented architecture, to create efficiencies, and we stress interaction with and responsiveness to the needs of our clients.

Intellectual Property

We regard our software, transaction processing services and related products as proprietary, and we use a combination of patent, copyright, trademark and trade secret laws, internal security practices and employee and third-party non-disclosure agreements to protect our intellectual property assets. Our patents cover innovations relating to numerous financial software products and services, and we continue, where appropriate, to seek and secure patents with respect to our ongoing innovations. We believe that we possess all proprietary rights necessary to conduct our business.

Competition

The market for technology products and services in the financial industry is highly competitive. Our principal competitors include other vendors of financial services technology, data processing affiliates of large companies, and processing centers owned and operated as user cooperatives. Outside the U.S., our primary competitors include global and local IT product and services companies, as well as payment service providers and processors. We expect competition to continue to increase as new companies enter our markets and existing competitors expand their product lines and services. Some of these competitors possess substantially greater financial, sales and marketing resources than we do and have substantial flexibility in competing with us, including through the use of integrated product offerings and through pricing. Competitive factors for our business include product quality, security, breadth of features and functionality, integration with other product lines, global reach, multiple distribution channels, service reliability, timely introduction of new products and features, platform scalability and flexibility and value. We believe that we compete favorably in each of these categories. Additional information about competition in our segments is provided below.

First Data

The businesses in our First Data segment compete with merchant acquirers, including Fidelity National Information Services, Inc. ("FIS") and Global Payments Inc. ("Global Payments"), as well as with financial institutions that provide acquiring and processing services to businesses on their own, such as Paymentech, LLC ("Paymentech"), Elavon Inc. (a subsidiary of U.S. Bancorp) and Barclaycard. In many cases, our alliance and commercial partners compete against each other. Additionally, payment networks such as Visa Inc. ("Visa") and Mastercard Incorporated ("Mastercard") are increasingly offering products and services that compete with our suite of merchant acquiring solutions. We also compete with card issuer processors, such as Global Payments, FIS and Worldline SA, the card issuer processing businesses of the global payment networks, such as Visa and Mastercard, as well as various software or custom designed solutions that some financial institutions use to perform these services in-house. We compete with networks such as Visa, Mastercard and Discover Financial Services, Inc. for debit network services, and with FIS for debit network and check verification and guarantee services.

Payments

The businesses in our Payments segment compete with a number of traditional and emerging competitors that provide a wide range of POS and non-POS payments solutions. Existing and potential financial institution and biller clients could also develop and use their own in-house systems instead of our products and services. In addition, many companies that provide solutions to the financial services industry are consolidating, creating larger competitors with greater resources and broader product lines.

Financial

Our products and services in the Financial segment compete in several different market segments and geographies, including with large, diversified software and service companies and independent suppliers of software products. Existing and potential financial institution clients could also develop and use their own in-house systems. In addition, we compete with vendors that offer similar transaction processing products and services to financial institutions, including Computer Services, Inc., Finastra Limited, FIS, Infosys Ltd., International Business Machines Corporation, Jack Henry and Associates Inc., NCR Corporation, Oracle Corporation, SAP SE and Temenos AG.

Government Regulation

Our operations, and the products and services that we offer, are subject to various U.S. federal, state and local regulation, as well as regulation outside the U.S., and to other rules, such as those promulgated by various payment networks and banking authorities. Failure to comply with these rules and 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. In addition, we may be required, among other things, to make significant additional investments to comply with such rules and regulations, to modify our products or services or the manner in which they are provided, or to limit or change the amount or types of revenue we are able to generate.

The Dodd-Frank Act. The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 ("Dodd-Frank Act") in the United States resulted in significant changes to the regulation of the financial services industry. Among other things, the Dodd-Frank Act established a new, independent regulatory agency known as the Consumer Financial Protection Bureau ("CFPB") which is empowered to conduct rule-making and supervision related to, and enforcement of, "federal consumer financial laws," some of which apply to products and services offered by our clients. The CFPB conducts direct examinations of, and has issued guidance that applies to, "supervised banks and nonbanks" as well as "supervised service providers" like us. Separately, pursuant to the Dodd-Frank Act: debit interchange rates for card issuers operating in the United States with assets of \$10 billion or more have been capped; debit payment card networks are banned 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; card issuers and payment networks are prohibited from limiting the ability of merchants to direct the routing of debit card transactions over any network that can process the transaction; all debit card issuers in the United States are required to participate in at least two unaffiliated debit payment card networks; and network exclusivity arrangements are generally prohibited for prepaid card and healthcare debit card issuers. These Dodd-Frank Act regulations impact our card processing businesses and our clients' ability to generate revenue.

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 our subsidiaries outside the U.S. are direct members or associate members of Visa and Mastercard for purposes of conducting merchant acquiring. Various subsidiaries 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 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 federal and state laws regarding such operations, including laws pertaining to electronic benefits transactions.

Financial Institution Regulations. Because a number of our businesses provide data processing services for financial institutions, we are subject to examination by the Federal Financial Institutions Examination Council ("FFIEC"), which is a formal interagency body empowered to examine significant service providers to financial institutions. The member agencies of the FFIEC include the Federal Reserve Board, the Federal Deposit Insurance Corporation, the National Credit Union Administration, the Office of the Comptroller of the Currency, and the CFPB.

Under the Second Payment Services Directive (2015/2366/EC) in the European Union (PSD2), a number of our subsidiaries 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, among other obligations, a requirement to maintain specified regulatory capital.

One of our subsidiaries in the United Kingdom ("U.K.") is regulated by the U.K. Financial Conduct Authority and is therefore required to comply with certain prudential, conduct of business and reporting requirements. The subsidiary arranges and advises on certain insurance contracts for the purpose of arranging insurance taken out by its issuer clients' cardholders; engages in certain credit activities related to its issuer services and merchant terminal leasing businesses; engages in credit administration and debt collections activities on behalf of its card issuing clients through calls and correspondence with the cardholders; and operates a consumer hire business for the purpose of leasing POS devices to merchants. We own a subsidiary in Germany that is regulated as a processor for German debit card transactions. Failure to comply with the technical requirements set forth by the regulators may result in suspension or termination of services. Further, several subsidiaries provide services such as acquiring, issuing, factoring and/or settlement that make them subject to regulation by local financial services supervisory agencies, including the National Bank of Poland, the Reserve Bank of Australia, and the German Federal Financial Supervision Agency.

We own a subsidiary that engages in certain trust activities and is subject to regulation, examination, and oversight by the Division of Banking of the Colorado Department of Regulatory Agencies. However, because the subsidiary is not a "bank" under the Bank Holding Company Act of 1956, as amended ("BHCA"), our affiliation with it does not cause us to be regulated as a bank holding company or financial holding company under the BHCA.

Privacy and Information Security Regulations. We provide services that are subject to various federal, state and foreign privacy laws and regulations which govern, among other things, the collection, processing, storage, use and disclosure of personal information. These laws contain a variety of obligations including the safeguarding of personal information, the provision of notices and use and disclosure rights. The regulations are complex and can provide for significant financial penalties for non-compliance.

Credit Reporting and Debt Collections Regulations. Our TeleCheck business is subject to the U.S. federal Fair Credit Reporting Act and various similar state laws. The collection business within TRS Recovery Services, Inc. ("TRS") is subject to the U.S. federal Fair Debt Collection Practices Act and various similar state laws. TRS maintains licenses in a number of states in order to engage in collection in those states. TeleCheck and TRS are also subject to regulation, supervision and examination from the CFPB. Additional regulations may be imposed in the future, 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 or the use of certain information or 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 foreign laws prohibiting unfair or deceptive trade practices. Various regulatory enforcement agencies, including the U.S. 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. If we process payments for a client in violation of laws, rules and regulations, we would 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, and Sanctions Regulations. We are subject to anti-money laundering laws and regulations, including the Bank Secrecy Act (the "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 anti-money laundering programs. In the European Union, our global solutions businesses are subject to various laws implementing European anti-money laundering legislation.

We are subject to anti-corruption laws and regulations, including the United States Foreign Corrupt Practices Act ("FCPA") and similar laws outside of the United States, that prohibit the making or offering of improper payments to foreign government officials and political figures. The FCPA has a broad reach and requires maintenance of appropriate records and adequate internal controls to prevent and detect possible FCPA violations.

We are 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, governments, 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, 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 U.S., 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 money transmitters, issuers of payment instruments and

their agents to comply with federal and state anti-money laundering laws and regulations and often require the licensee to maintain certain levels of net worth.

Communications Laws. We are subject to various federal and state laws that govern telephone calls and the issuance of text messages to clients and consumers in the U.S. as well as to regulations that impose requirements on marketing emails sent to U.S. residents. Our international subsidiaries are subject to equivalent laws in applicable jurisdictions.

Indirect Regulatory Requirements. A number of our clients are subject to various regulations and compliance obligations that do not apply directly to us but impact the services that we provide to our clients. To remain competitive, we have expended, and expect to expend in the future, significant resources to develop and update our products and services to assist our clients to meet various compliance obligations. In addition, independent auditors annually review many of our operations to provide internal control evaluations for our clients and their auditors.

Employees

At December 31, 2019, we employed over 44,000 employees on a full-time basis. Approximately 16,000 of our employees are employed outside of the U.S., with a small percentage of those employees being represented by local unions and works councils. None of our employees in the U.S. are represented by any labor organization. The service nature of our business makes our employees an important corporate asset. Although the market for qualified personnel is competitive, we have not experienced significant difficulty with hiring or retaining our staff of top industry professionals.

Available Information

Our website address is www.fiserv.com. We are not including the information provided on our website as a part of, or incorporating it by reference into, this Annual Report on Form 10-K. We make available free of charge (other than an investor's own internet access charges) through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to these reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the Securities and Exchange Commission.

Item 1A. Risk Factors

You should carefully consider each of the risks described below, together with all of the other information contained in this Annual Report on Form 10-K, before making an investment decision with respect to our securities. If any of the following risks develop into actual events, our business, results of operations or financial condition could be materially and adversely affected, and you may lose all or part of your investment.

Risks Relating to our Business

We operate in a competitive business environment and may not be able to compete effectively.

The markets for our products and services are highly competitive from new and existing competitors. Our principal competitors include other vendors of financial services technology and payment systems, data processing affiliates of large companies, processing centers owned and operated as user cooperatives, financial institutions, independent sales organizations (“ISOs”), independent software vendors, and payments companies. Our competitors vary in size and in the scope and breadth of the services they offer. Many of our larger existing and potential clients have historically developed their key applications in-house. As a result, we often compete against our existing or potential clients’ in-house capabilities. In addition, we expect that the markets in which we compete will continue to attract new technologies and well-funded competitors, including large technology, telecommunication, media and other companies not historically in the financial services and payments industries, start-ups and international providers of products and services similar to ours. In addition, 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. We cannot provide any assurance that we will be able to compete successfully against current or future competitors or that competitive pressures faced by us in the markets in which we operate will not materially and adversely affect our business, results of operations and financial condition.

If we fail to keep pace with technological change we could lose clients or have trouble attracting new clients, and our ability to grow may be limited.

The markets for our products and services are characterized by constant and rapid technological change, frequent introduction of new products and services, and increasing client expectations. Our ability to enhance our current products and services and to develop and introduce innovative products and services will significantly affect our future success. We may not be successful in developing, marketing or selling new products and services that meet these demands or achieve market acceptance. We must anticipate and respond to these changes in order to remain competitive within our relevant markets. For example, our ability to provide innovative point-of-sale technology to our merchant clients could have an impact on our merchant acquiring business, and new services and technologies that we develop may be impacted by industry-wide solutions and standards related to tokenization or other safety and security technologies. 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. In addition, the success of certain of our products and services rely, in part, on financial institutions, billers and other third parties to promote the use of our products and services by their customers. If we are unsuccessful in offering products or services that gain market acceptance and compete effectively, or if third parties insufficiently promote our products and services, it would likely have a material adverse effect on our ability to retain existing clients, to attract new ones and to grow profitably.

If we are unable to renew client contracts at favorable terms, we could lose clients and our results of operations and financial condition may be adversely affected.

Failure to achieve favorable renewals of client contracts could negatively impact our business. At the end of the contract term, clients have the opportunity to renegotiate their contracts with us or to consider whether to engage one or more of our competitors to provide products and services or to perform the services in-house. Some of our competitors may offer more attractive fees or other services that we do not offer, and some clients may desire to perform the services themselves. Larger clients may be able to seek lower prices from us when they renew or extend a contract or the client’s business has significant volume changes. In addition, larger clients may reduce the services we provide if they decide to move services in-house. Further, our small merchant business clients may exert pricing pressure due to pricing competition or other economic needs or pressures such clients experience from their customers. On some occasions, these factors result in lower revenue from a client than we had anticipated based on our previous agreement with that client. If we are not successful in achieving high renewal rates and favorable contract terms, our results of operations and financial condition may be materially and adversely affected.

Our business depends, in part, on our merchant and financial institution relationships and alliances, and if we are unable to maintain these relationships and alliances, our business may be adversely affected.

Under our alliance program, a bank or other institution forms an alliance with us, generally 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 to the alliance. 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 merchant acquiring business depends, in part, on our merchant relationships, alliances and other distribution channels. There can be no guarantee that we will achieve growth in our merchant relationships, alliances or other distribution channels. In addition, our contractual arrangements with merchants and merchant alliance partners are for fixed terms and may 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. In addition, we rely on various financial institutions to provide clearing services in connection with our settlement activities. If such financial institutions stop providing clearing services or limit our volumes we would need to find other financial institutions to provide those services. The loss of merchant relationships or alliance and financial institution partners could negatively impact our business and have a material adverse effect on our results of operations and financial condition.

Consolidations in the banking and financial services industry could adversely affect our revenue by eliminating existing or potential clients and making us more dependent on fewer clients.

Mergers, consolidations and failures of financial institutions reduce the number of our clients and potential clients, which could adversely affect our revenue. If our clients merge with or are acquired by other entities that are not our clients, or that use fewer of our services, they may discontinue or reduce their use of our services. Our alliance strategy could also be negatively affected by consolidations, especially where the financial institutions involved are committed to their internal merchant processing businesses that compete with us. It is also possible that the larger financial institutions that result from mergers or consolidations could have greater leverage in negotiating terms with us or could decide to perform in-house some or all of the services which we currently provide or could provide. Any of these developments could have a material adverse effect on our business, results of operations and financial condition.

Security incidents or other technological risks involving our systems and data, or those of our clients, partners or vendors, could expose us to liability or damage our reputation.

Our operations depend on receiving, storing, processing and transmitting sensitive information pertaining to our business, our employees, our clients and their customers. 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, independent sales organizations, third-party service providers and others. The confidentiality of such sensitive business information and personal consumer information residing on our systems is critical to our business. Any unauthorized access, intrusion, infiltration, network disruption, denial of service or similar incident could disrupt the integrity, continuity, security and trust of our systems or data, or the systems or data of our clients, partners or vendors. These incidents 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, and those of our clients, partners and vendors, through various means and with increasing sophistication. These events could create costly litigation, significant financial liability, increased regulatory scrutiny, financial sanctions and a loss of confidence in our ability to serve clients and cause current or potential clients to choose another service provider, all of which could have a material adverse impact on our business. In addition, we expect to continue to invest significant resources to maintain and enhance our information security and controls or to investigate and remediate any security vulnerabilities. Although we believe that we maintain a robust program of information security and controls and that none of the events that we have encountered to date have materially impacted us, we cannot be certain that the security measures and procedures we have in place to detect security incidents and protect sensitive data, including protection against unauthorized access and use by our employees, will be successful or sufficient to counter all current and emerging technological risks and threats. The impact of a material event involving our systems and data, or those of our clients, partners or vendors, could have a material adverse effect on our business, results of operations and financial condition.

Operational failures and resulting interruptions in the implementation or availability of our products or services could harm our business and reputation.

Our business depends heavily on the reliability of our processing and other systems. An operational failure and the resulting implementation delays or service interruption could harm our business or cause us to lose clients. An operational failure could

involve the hardware, software, data, networks or systems upon which we rely to deliver our services and could be caused by our actions, the actions of third parties or events over which we may have limited or no control. Events that could cause operational failures include, but are not limited to, hardware and software defects or malfunctions, computer denial-of-service and other cyberattacks, human error, earthquakes, hurricanes, floods, fires, natural disasters, power losses, disruptions in telecommunications services, fraud, military or political conflicts, terrorist attacks, computer viruses or other malware, or other events. Implementation delays, interruptions of service or hardware device defects could damage our relationship with clients and could cause us to incur substantial expenses, including those related to the payment of service credits, product recalls or other liabilities. A prolonged interruption of our services or network could cause us to experience data loss or a reduction in revenue, and significantly impact our clients' businesses and the customers they serve. In addition, a significant implementation delay, interruption of service or product recall could have a negative impact on our reputation and could cause our current and potential clients to choose another service provider. Any of these developments could have a material adverse impact on our business, results of operations and financial condition.

Disruptions of operations of 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 involving our products and services rely on multiple participants in the global financial system to move funds and communicate information to the next participant in the transaction chain. A disruption for any reason of the operations of a participant 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 our inability to deliver products and services, reputational damage, lost clients and revenue, loss of clients' and their customers' confidence, as well as additional costs, all of which could have a material adverse effect on our business, results of operations and financial condition.

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

Our business depends on third parties to provide us with certain products and services. The failure of these vendors to properly perform their obligations in a timely manner could expose us and our clients to information security, financial, compliance and reputational risks, among others, and adversely affect our business and results of operations. In addition, if we are unable to renew our existing contracts with key vendors, we might not be able to replace the related product or service at all or at the same cost, which would negatively impact our results of operations.

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 merchant 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. Although we have an active program to manage our credit risk and often mitigate our risk by obtaining collateral, a default on such obligations by one or more of our merchants could have a material adverse effect on our business and results of operations.

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

We may be subject to potential liability for fraudulent transactions, including electronic payment and card 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. We also rely on ISOs to sell our merchant processing services, which they may do by contracting with their own sub-ISOs. We rely on these ISOs and sub-ISOs to exercise appropriate controls to avoid fraudulent transactions. It is possible that incidents of fraud could increase in the future. Failure to effectively manage risk and prevent fraud, or otherwise effectively administer our chargeback responsibilities, would increase our chargeback liability, exposure to fines or other liabilities. Increases in chargebacks, fines or other liabilities could have a material adverse effect on our business, results of operations and financial condition.

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 U.S., including in the U.K., Germany, Argentina, India and Brazil. Our facilities outside of the U.S., and those of our suppliers and vendors, including manufacturing, customer support, software development and technology hosting facilities, are subject to risks, including natural disasters, public health crises, political crises, terrorism, war, political instability and other events outside of our or our suppliers' control. As we expand internationally and grow our client base outside of the U.S., 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 incur higher than anticipated costs. If we are unable to successfully manage the risks associated with the international operation and expansion of our business, our results of operations and financial condition could be negatively impacted.

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 decision of the U.K. to exit the European Union (the "E.U."), 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 U.S. dollar, our reported international revenue and profit 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 vendors, which could have an adverse effect on our business, results of operations and business opportunities.

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, including the card networks which we own and operate, increase the processing and other fees (including what is commonly 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, or result in us not being able to increase our own fees, which would increase our operating costs, reduce our profit margin, limit our growth, and adversely affect our business, results of operations 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 failure to comply with applicable complex laws and regulations could harm our businesses and subject us to liability.

If we fail to comply with laws and regulations applicable to our business, including payments industry, cybersecurity and data privacy regulations, we could be exposed to litigation or regulatory proceedings, our client relationships and reputation could be harmed, and our ability to obtain new clients could be inhibited, which could have a material adverse impact on our business, results of operations and financial condition. Our clients are also subject to numerous laws and regulations applicable to banks, financial institutions and card issuers in the U.S. and abroad, and, consequently, we are at times affected by these federal, state, local and foreign laws and regulations. Furthermore, these laws and regulations are constantly changing with new laws and regulations and interpretations thereof being implemented.

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 laws applicable to us, including the United States Foreign Corrupt Practices Act and the U.K. Bribery Act. These laws prohibit improper payments or offers of payments to foreign governments and their officials and political parties for the purpose of obtaining or retaining business. We have implemented policies and training programs to discourage such practices; however, there can be no assurance that all of our employees, consultants and agents will comply with our policies and all applicable laws.

We are also subject to certain economic and trade sanctions programs that are administered by the U.S. Treasury Department's Office of Foreign Assets Control ("OFAC"), which prohibit or restrict transactions to or from or dealings with specified countries, their governments, individuals and entities that are specially-designated nationals of those countries, narcotics traffickers and terrorists or terrorist organizations. Similar anti-money laundering, 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 equivalent 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.

Certain of our subsidiaries are licensed as money transmitters in jurisdictions where such licensure is required. In connection with such licensure, we are required to demonstrate and maintain certain levels of net worth and liquidity and to file periodic reports. In addition, our direct-to-consumer payments businesses, including our walk-in bill payment, online bill payment, digital disbursements and Popmoney person-to-person payment services, are subject to federal regulation in the U.S., including anti-money laundering regulations and certain restrictions on transactions to or from certain individuals or entities. 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. Certain of our businesses are also subject to anti-money laundering regulations outside the U.S. The complexity of these regulations will continue to increase our cost of doing business. In addition, any violations of law may result in civil or criminal penalties against us and our officers, or the prohibition against us providing merchant acquiring, money transmitter services or prepaid programs in particular jurisdictions.

Failure to comply with any of these laws and regulations or changes in this regulatory environment, including changing interpretations and the implementation of new, varying or more restrictive laws and regulations by federal, state, local or foreign governments, may result in significant financial penalties, reputational harm, or change the manner in which we currently conduct some aspects of our business, all of which could have a material adverse impact on our business, results of operations and financial condition.

If we fail to comply with the applicable requirements of the payment card networks and NACHA, they could seek to fine us, suspend us or terminate our registrations, which 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 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. In addition, we are subject to rules of the National Automated Clearing House Association ("NACHA") as well as the Payment Card Industry Data Security Standard enforced by the major card brands. The rules of NACHA and the card networks are set by their respective boards, some of which are our competitors, and the card network rules may be influenced by card issuers, some of which offer competing transaction processing services.

If we fail to comply with these rules, we could be fined and our member registrations or certifications could be suspended or terminated. The suspension or termination of our member registrations or certifications, or any changes to the association and network rules, that we do not successfully address, or any other action by the card networks to restrict our ability to process transactions over such networks, could limit our ability to provide transaction processing services to clients and result in a reduction of revenue or increased costs of operation, which, in either case, could have a material adverse effect on our business and results of operations.

A heightened regulatory environment in the financial services industry may have an adverse impact on our clients and our business.

Since the enactment of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act"), a number of substantial regulations affecting the supervision and operation of the financial services industry within the United States have been adopted, including those that establish the Consumer Financial Protection Bureau ("CFPB"). The CFPB has issued guidance that applies to, and conducts direct examinations of, "supervised banks and nonbanks" as well as "supervised service providers" like us. In addition, the CFPB regulates consumer financial products and services (including many offered by our clients), restricts debit card fees paid by merchants to certain issuer banks and allows 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. 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 authorities and, as a result, could pass through some of those compliance obligations to us.

To the extent this oversight or regulation negatively impacts the business, operations or financial condition of our clients, our business and results of operations could be materially and adversely affected because, among other matters, our clients could have less capacity to purchase products and services from us, could decide to avoid or abandon certain lines of business, or could seek to pass on increased costs to us by negotiating price reductions. Additional regulation, examination and oversight of us could require us to modify the manner in which we contract with or provide products and services to our clients; directly or indirectly limit how much we can charge for our services; require us to invest additional time and resources to comply with such oversight and regulations; or limit our ability to update our existing products and services, or require us to develop new ones. Any of these events, if realized, could have a material 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 General Data Protection Regulation ("GDPR"), which became effective in 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, subject to certain limitations. The law requires companies to meet stringent 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) could involve substantial expenses, divert resources from other initiatives and projects and limit the services we are able to offer. Further, failure to comply with applicable laws in this area could also result in fines, penalties and reputational damage. 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 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 may be sued for infringing the intellectual property rights of others.

Third parties may claim that we are infringing their intellectual property rights. We may expose ourselves to additional liability if we agree to indemnify our clients against third-party infringement claims. If the owner of intellectual property establishes that we are, or a client which we are obligated to indemnify is, infringing its intellectual property rights, we may be forced to change our products or services, and such changes may be expensive or impractical, or we may need to seek royalty or license agreements from the owner of such rights. If we are unable to agree on acceptable terms, we may be required to discontinue the sale of key products or halt other aspects of our operations. We may also be liable for financial damages for a violation of intellectual property rights, and we may incur expenses in connection with indemnifying our clients against losses suffered by them. Any adverse result related to violation of third-party intellectual property rights could materially and adversely harm our business, results of operations and financial condition. Even if intellectual property claims brought against us are without merit, they may result in costly and time-consuming litigation and may require significant attention from our management and key personnel.

Misappropriation of our intellectual property and proprietary rights could impair our competitive position.

Our ability to compete depends upon proprietary systems and technology. We actively seek to protect our intellectual property and proprietary rights. Nevertheless, unauthorized parties may attempt to copy aspects of our services or to obtain and use information that we regard as proprietary. The steps we have taken may not prevent misappropriation of technology. Agreements entered into for that purpose may not be enforceable or provide us with an adequate remedy. It is also possible that others will independently develop the same or similar technology. Further, we use open source software in connection with our solutions. Companies that incorporate open source software into their solutions have, from time to time, faced claims challenging the ownership of solutions developed using open source software. As a result, we could be subject to suits by parties claiming ownership of what we believe to be open source software. Effective patent, trademark, service mark, copyright

and trade secret protection may not be available in every country in which our applications and services are made available. 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 U.S. Misappropriation of our intellectual property or potential litigation concerning such matters could have a material adverse effect on our business, results of operations and financial condition.

We may experience software defects, development delays or installation difficulties, which would harm our business and reputation and expose us to potential liability.

Our services are based on sophisticated software and computer systems and we may encounter delays when developing new applications and services. Further, the software underlying our services may contain undetected errors or defects when first introduced or when new versions are released. In addition, we may experience difficulties in installing or integrating our technology on systems or with other programs used by our clients. Defects in our software, errors or delays in the processing of electronic transactions or other difficulties could result in interruption of business operations, delay in market acceptance, additional development and remediation costs, diversion of technical and other resources, loss of clients or client data, negative publicity or exposure to liability claims. Although we attempt to limit our potential liability through disclaimers and limitation of liability provisions in our license and client agreements, we cannot be certain that these measures will successfully limit our liability.

Acquisitions subject us to risks, including assumption of unforeseen liabilities and difficulties in integrating operations.

A major contributor to our growth in revenue and earnings since our inception has been our ability to identify, acquire and integrate complementary businesses. We anticipate that we will continue to seek to acquire complementary businesses, products and services. We may not be able to identify suitable acquisition candidates or complete acquisitions in the future, which could adversely affect our future growth; or businesses that we acquire may not perform as well as expected or may be more difficult or expensive to integrate and manage than expected, which could adversely affect our business and results of operations. We may not be able to integrate all aspects of acquired businesses successfully or realize the potential benefits of bringing them together. In addition, the process of integrating these acquisitions may disrupt our business and divert our resources.

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.

These risks may arise for a number of reasons: we may not be able to find suitable businesses to acquire at affordable valuations or on other acceptable terms; we may face competition for acquisitions from other potential acquirers; we may need to borrow money or sell equity or debt securities to the public to finance acquisitions and the terms of these financings may be adverse to us; changes in accounting, tax, securities or other regulations could increase the difficulty or cost for us to complete acquisitions; we may incur unforeseen obligations or liabilities in connection with acquisitions; we may need to devote unanticipated financial and management resources to an acquired business; we may not realize expected operating efficiencies or product integration benefits from an acquisition; we could enter markets where we have minimal prior experience; and we may experience decreases in earnings as a result of non-cash impairment charges.

We may be obligated to indemnify the purchasers of businesses pursuant to the terms of the relevant purchase and sale agreements.

We have in the past and may in the future sell businesses. In connection with sales of businesses, we may make representations and warranties about the businesses and their financial affairs and agree to retain certain liabilities associated with our operation of the businesses prior to their sale. Our obligation to indemnify the purchasers and agreement to retain liabilities could have a material adverse effect on our business, results of operations and financial condition.

The failure to attract and retain key personnel could have a material adverse effect on our business.

We depend on the experience, skill and contributions of our senior management and other key employees. If we fail to attract, motivate and retain highly qualified management, technical, compliance and sales personnel, our future success could be harmed. Our senior management provides strategic direction for our company, and if we lose members of our leadership team, our management resources may have to be diverted from other priorities to address this loss. Our products and services require sophisticated knowledge of the financial services industry, applicable regulatory and industry requirements, computer systems, and software applications, and if we cannot hire or retain the necessary skilled personnel, we could suffer delays in new product development, experience difficulty complying with applicable requirements or otherwise fail to satisfy our clients' demands.

Our business may be adversely impacted by U.S. and global market and economic conditions.

For the foreseeable future, we expect to continue to derive revenue from products and services we provide to the financial services industry and our merchant acquiring business. Given this focus, we are exposed to global economic conditions and 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, social unrest, natural disasters, public health crises, including the occurrence of a contagious disease or illness, 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 inflation and/or 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, including high rates of inflation, 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; and
- 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 or competition from other retailers 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.

A prolonged poor economic environment could result in significant decreases in demand by current and potential clients for our products and services and in the number and dollar amount of transactions we process, which could have a material adverse effect on our business, results of operations and financial condition.

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 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.

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 or their interpretations 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, the U.S. Tax Cuts and Jobs Act of 2017 (the "Tax Act") significantly revised the U.S. corporate income tax code by, among other things, lowering corporate income tax rates, implementing a territorial-type tax system and imposing repatriation tax on deemed repatriated earnings of foreign subsidiaries. Further analysis of the Tax Act or future regulations or guidance from the Internal Revenue Service, the Securities and Exchange Commission or the Financial Accounting Standards Board could cause us to adjust current estimates in future periods, which could impact our earnings and have an adverse effect on our results of operations and cash flow. Furthermore, our implementation of new practices and processes designed to comply with changing tax laws and regulations could require us to make substantial changes to our business practices, allocate additional resources, and increase our costs, which could negatively affect our business, results of operations and financial condition.

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

Our balance sheet includes goodwill and intangible assets that represent 69% of our total assets at December 31, 2019. These assets consist primarily of goodwill and identified intangible assets associated with our acquisitions. On at least an annual basis, we assess whether there have been impairments in the carrying value of goodwill. In addition, we review intangible assets for impairment whenever events or changes in circumstances indicate the carrying amount of the asset may not be recoverable. 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 negative effect on our results of operations.

Existing or future leverage may harm our financial condition and results of operations.

At December 31, 2019, we had approximately \$21.9 billion of debt. We and our subsidiaries may incur additional indebtedness in the future. Our indebtedness could: decrease our ability to obtain additional financing for working capital, capital expenditures, general corporate or other purposes; limit our flexibility to make acquisitions; increase our cash requirements to support the payment of interest; limit our flexibility in planning for, or reacting to, changes in our business and our industry; and increase our vulnerability to adverse changes in general economic and industry conditions. Our ability to make payments of principal and interest on our indebtedness depends upon our future performance, which will be subject to general economic conditions and financial, business and other factors affecting our consolidated operations, many of which are beyond our control. In addition, if certain of our outstanding senior notes are downgraded to below investment grade, we may incur additional interest expense. If we are unable to generate sufficient cash flow from operations in the future to service our debt and meet our other cash requirements, we may be required, among other things: to seek additional financing in the debt or equity markets; to refinance or restructure all or a portion of our indebtedness; or to reduce or delay planned capital or operating expenditures. Such measures might not be sufficient to enable us to service our debt and meet our other cash requirements. In addition, any such financing, refinancing or sale of assets might not be available at all or on economically favorable terms.

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

Certain of our borrowings, including borrowings under our revolving credit facility and term loans, 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. At December 31, 2019, we had approximately \$4.8 billion in variable rate debt, which includes \$4.0 billion on our term loans, \$324 million drawn on our revolving credit facility and lines of credit and \$500 million drawn on our accounts receivable securitization facility. Based on outstanding debt balances and interest rates at December 31, 2019, a 1% increase in variable interest rates would result in a decrease to annual pre-tax income of \$48 million.

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

We are subject to risks related to changes in currency rates as a result of our investments in foreign operations and from revenues generated in currencies other than the U.S. dollar. Revenues and profit generated by such international 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 and other hedging instruments to mitigate the market value risks associated with foreign currency-denominated transactions and investments. These hedging strategies may not, however, eliminate all of the risks related to foreign currency translation, and we may forgo the benefits we would otherwise experience if currency exchange rates were to change in our favor. We have also issued foreign currency-denominated senior notes for which payments of interest and principal are to be made in foreign currency, and fluctuations in foreign currency exchange rates could

cause the expense associated with such payments to increase. In addition, we may become subject to exchange control regulations that restrict or prohibit the conversion of our foreign revenue currencies into U.S. dollars. Any of these factors could decrease the value of revenues and earnings we derive from our international operations and have a material adverse effect on our business.

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

The U.S. has 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 U.S. or other countries, our hardware devices produced in China could be impacted. Although it is too early to predict how current or 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 U.S. 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.

Risks Relating to the First Data Acquisition

We may be unable to integrate the business of First Data successfully or realize the anticipated benefits of the acquisition.

The combination of two independent businesses is complex, costly and time consuming, and we will be required to devote significant management attention and resources to integrating our business practices and operations. Potential difficulties that we may encounter as part of the integration process include the following:

- the inability to successfully combine the business of First Data in a manner that permits us to achieve, on a timely basis, or at all, the enhanced revenue opportunities and cost savings and other benefits anticipated to result from the acquisition;
- complexities associated with managing the combined businesses, including difficulty addressing possible differences in corporate cultures and management philosophies and the challenge of integrating complex systems, technology, networks and other assets of each of the companies in a seamless manner that minimizes any adverse impact on customers, suppliers, employees and other constituencies; and
- potential unknown liabilities and unforeseen increased expenses or delays associated with the acquisition.

Any of these issues could adversely affect our ability to maintain relationships with customers, suppliers, employees and other constituencies or achieve the anticipated benefits of the acquisition, or could reduce our earnings or otherwise adversely affect our business and financial results.

The synergies attributable to the acquisition may vary from expectations.

We may fail to realize the anticipated benefits and synergies expected from the acquisition, which could adversely affect our business, results of operations and financial condition. The success of the acquisition will depend, in significant part, on our ability to successfully integrate the acquired business, grow the revenue of the combined company and realize the anticipated strategic benefits and synergies from the combination. We believe that the addition of First Data will complement our strategy by providing scale and revenue diversity, accelerate our growth strategy and enable us to have a strong global footprint. However, achieving these goals requires growth of the revenue of the combined company and realization of the targeted cost synergies expected from the acquisition. This growth and the anticipated benefits of the transaction may not be realized fully, or may take longer to realize than expected. Actual operating, technological, strategic, synergy and revenue opportunities may be less significant than expected or may take longer to achieve than anticipated. If we are not able to achieve these objectives and realize the anticipated benefits and synergies expected from the acquisition within the anticipated timing, our business, results of operations and financial condition may be adversely affected.

We expect to incur substantial expenses related to the integration.

We expect to incur substantial expenses in connection with the integration of First Data. There are a large number of processes, policies, procedures, operations, technologies and systems that may need to be integrated, including purchasing, accounting and finance, sales, payroll, pricing and benefits. While we have assumed that a certain level of expenses will be incurred, there are many factors beyond our control that could affect the total amount or the timing of the integration expenses. Moreover, many of the expenses that will be incurred are, by their nature, difficult to estimate accurately. These expenses could, particularly in the near term, exceed the savings that we expect to achieve from the elimination of duplicative expenses and the realization of economies of scale and cost savings. These integration expenses may result in us taking significant charges against earnings following the completion of the transaction, and the amount and timing of such charges are uncertain at present.

Our future results will suffer if we do not effectively manage our expanded operations.

As a result of the acquisition, the size of our business has increased significantly. Our future success will depend, in part, upon our ability to manage this expanded business, which will pose substantial challenges for management, including challenges related to the management and monitoring of new operations and associated increased costs and complexity. We may also face increased scrutiny from governmental authorities as a result of the significant increase in the size of our business. There can be no assurances that we will be successful or that we will realize the expected operating efficiencies, cost savings, revenue enhancements or other benefits currently anticipated from the acquisition.

The First Data transaction may result in a loss of customers, distributors, suppliers, vendors, landlords, joint venture partners or other business partners and may result in the termination of existing contracts.

Some of our customers, distributors, suppliers, vendors, landlords, joint venture partners and other business partners may terminate or scale back their current or prospective business relationships with us as a result of the acquisition. Some customers may not wish to source a larger percentage of their needs from a single company or may feel that we are too closely aligned with one of their competitors. If relationships with customers, distributors, suppliers, vendors, landlords, joint venture partners and other business partners are adversely affected by the transaction, or if we lose the benefits of our contracts, our business and financial performance could suffer.

New Omaha Holdings L.P. may sell a substantial amount of our common stock as certain restrictions on sales expire, and these sales could cause the price of our common stock to fall.

New Omaha Holdings L.P. ("New Omaha") owns approximately 16% of our outstanding shares. New Omaha may sell its shares subject to certain limitations contained in the shareholder agreement between us and New Omaha. Under a registration rights agreement entered into in connection with the acquisition, we have granted New Omaha registration rights, which permit, among others, underwritten offerings. The registration rights agreement will terminate when the aggregate ownership percentage of the issued and outstanding shares of our common stock held by New Omaha and its affiliate transferees falls below 2% and such shares may be freely sold without restrictions.

New Omaha may have influence over us and its interests may conflict with other shareholders.

New Omaha owns approximately 16% of our issued and outstanding shares and is our largest shareholder. Under the shareholder agreement between us and New Omaha, New Omaha may designate a director to serve on our board of directors in accordance with the terms thereof until the aggregate ownership percentage of our issued and outstanding shares of common stock held by New Omaha and its affiliate transferees first falls below 5%. The shareholder agreement will terminate when the aggregate ownership percentage of our outstanding shares held by New Omaha and certain of its affiliates falls below 3%. Although there are various restrictions on New Omaha's ability to take certain actions with respect to us and our shareholders (including certain standstill provisions for so long as New Omaha's aggregate ownership percentage of the issued and outstanding shares of our common stock remains at or above 5%), New Omaha may seek to influence, and may be able to influence, us through its appointment of a director to our board of directors and its share ownership.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

At December 31, 2019, we owned 20 properties and leased over 200 properties globally. These locations are used for operational, sales, management and administrative purposes. We believe these properties are suitable for our current business needs. We periodically review our requirements and may choose to acquire properties to meet the needs of our business or consolidate existing operations to enhance business integration.

Item 3. Legal Proceedings

In the normal course of business, we or our subsidiaries are named as defendants in lawsuits in which claims are asserted against us. In the opinion of management, the liabilities, if any, which may ultimately result from such lawsuits are not expected to have a material adverse effect on our consolidated financial statements.

Item 4. Mine Safety Disclosures

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The names of our executive officers as of February 27, 2020, together with their ages, positions and business experience are described below:

<u>Name</u>	<u>Age</u>	<u>Title</u>
Jeffery W. Yabuki	59	Chairman, Chief Executive Officer and Director
Frank J. Bisignano	60	President, Chief Operating Officer and Director
Guy Chiarello	60	Chief Administrative Officer
Christopher M. Foscett	62	Executive Vice President, Global Sales
Robert W. Hau	54	Chief Financial Officer and Treasurer
Lynn S. McCreary	60	Chief Legal Officer and Secretary
Devin B. McGranahan	50	Executive Vice President, Senior Group President
Byron C. Velehr	56	Executive Vice President, Senior Group President

Mr. Yabuki has been a director and Chief Executive Officer since 2005 and Chairman since July 2019. He served as president from 2005 until July 2019. Before joining Fiserv, Mr. Yabuki served as executive vice president and chief operating officer of H&R Block, Inc., a financial services firm, from 2002 to 2005. From 2001 to 2002, he served as executive vice president of H&R Block and from 1999 to 2001, he served as the president of H&R Block International. From 1987 to 1999, Mr. Yabuki held various executive positions with the American Express Company, a financial services firm, including president and chief executive officer of American Express Tax and Business Services, Inc.

Mr. Bisignano has been a director, President and Chief Operating Officer since July 2019. Mr. Bisignano joined Fiserv as part of the acquisition of First Data Corporation, where he served as chief executive officer since 2013 and chairman since 2014. From 2005 to 2013, he held various executive positions with JPMorgan Chase & Co., a global financial services firm, including co-chief operating officer, chief executive officer of mortgage banking and chief administrative officer. From 2002 to 2005, Mr. Bisignano served as chief executive officer for Citigroup's Global Transactions Services business and a member of Citigroup's Management Committee.

Mr. Chiarello has served as Chief Administrative Officer since July 2019. Mr. Chiarello joined Fiserv as part of the acquisition of First Data Corporation, where he served as president since 2013. From 2008 to 2013, he served as chief information officer of JPMorgan Chase & Co., a global financial services firm. From 1985 to 2008, Mr. Chiarello served in various technology roles at Morgan Stanley, a global financial services firm.

Mr. Foscett has served as Executive Vice President, Global Sales since July 2019. Mr. Foscett joined Fiserv as part of the acquisition of First Data Corporation, where he served as executive vice president, head of corporate and business development since 2015 and co-head of global financial services since 2018. He joined First Data Corporation in 2014 as head of global, strategic and national accounts. From 2011 to 2014, Mr. Foscett served as managing director, head of North American treasury services and global head of sales for treasury services at JPMorgan Chase & Co., a global financial services firm. From 2009 to 2011, he was managing director, global head of financial institutions at National Australia Bank, an Australian financial institution. From 1991 to 2008, Mr. Foscett was managing director in Citigroup's Corporate & Investment Bank leading several global businesses. Prior to that, he was employed by Goldman Sachs & Co. and Merrill Lynch & Co. focusing on mergers and acquisitions.

Mr. Hau has served as Chief Financial Officer and Treasurer since 2016. Before joining Fiserv, Mr. Hau served as executive vice president and chief financial officer at TE Connectivity Ltd., a global technology and manufacturing company, from 2012 to 2016. From 2009 to 2012, he served as executive vice president and chief financial officer at Lennox International Inc., a provider of products and services in the heating, air conditioning, and refrigeration markets; and from 2006 to 2009, he served as vice president and chief financial officer for the aerospace business group of Honeywell International, Inc., a technology and manufacturing company. Mr. Hau joined Honeywell (initially AlliedSignal) in 1987 and served in a variety of senior financial leadership positions, including vice president and chief financial officer for the company's aerospace electronic systems unit and for its specialty materials business group.

Ms. McCreary has served as Chief Legal Officer and Secretary since 2013. Ms. McCreary joined Fiserv in 2010 as senior vice president and deputy general counsel. Prior to joining Fiserv, Ms. McCreary was a partner with the law firm of Bryan Cave LLP from 1996 to 2010, including serving as managing partner of its San Francisco, California office from its opening in 2008 to 2010. Ms. McCreary began her career in financial services with positions at Citicorp Person-to-Person and Metropolitan Life Insurance Company's mortgage subsidiary, Metmor Financial, Inc.

Mr. McGranahan has served as Executive Vice President, Senior Group President since 2018 and joined Fiserv in 2016 as group president, Billing and Payments Group. Before joining Fiserv, Mr. McGranahan served as a senior partner at McKinsey & Company, a global management consulting firm. While there, he held a variety of senior management roles, including leader of the global insurance practice from 2013 to 2016 and co-chair of the global senior partner election committee from 2013 to 2015. In addition, Mr. McGranahan served as co-leader of the North America financial services practice from 2009 to 2016. He joined McKinsey in 1992 and served in a variety of other leadership positions prior to 2009, including leader of the North American property and casualty practice and managing partner of the Pittsburgh office.

Mr. Velehr has served as Executive Vice President, Senior Group President since July 2019. Mr. Velehr joined Fiserv in 2013 as group president, Depository Institution Services Group, and from 2018 to 2019 served as chief administrative officer. Prior to joining Fiserv, from 2005 to 2013, Mr. Velehr served in a succession of senior executive positions with The Dun & Bradstreet Corporation, a provider of commercial information and business insight solutions, most recently as president of international and global operations. He also previously served as president and chief operating officer of Northstar Systems International, Inc., a developer of wealth management software (now part of SEI Investments Company), from 2004 to 2005. Mr. Velehr has more than 25 years of experience in the financial services and technology industries, including a variety of executive leadership roles at Merrill Lynch & Co. and Strong Capital Management.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Price Information

Our common stock is traded on the NASDAQ Global Select Market under the symbol "FISV." At December 31, 2019, our common stock was held by 1,732 shareholders of record and by a significantly greater number of shareholders who hold shares in nominee or street name accounts with brokers. We have never paid dividends on our common stock and we do not anticipate paying dividends in the foreseeable future. For additional information regarding our expected use of capital, refer to the discussion in this report under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations – Liquidity and Capital Resources."

Issuer Purchases of Equity Securities

The table below sets forth information with respect to purchases made by or on behalf of us or any "affiliated purchaser" (as defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934) of shares of our common stock during the three months ended December 31, 2019:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ⁽¹⁾	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs ⁽¹⁾
October 1-31, 2019	985,000	\$ 104.00	985,000	22,994,000
November 1-30, 2019	630,000	111.08	630,000	22,364,000
December 1-31, 2019	567,000	115.39	567,000	21,797,000
Total	2,182,000		2,182,000	

⁽¹⁾ On August 8, 2018, our board of directors authorized the purchase of up to 30.0 million shares of our common stock. This authorization does not expire.

In connection with the vesting of restricted stock awards, shares of common stock are delivered to the Company by employees to satisfy tax withholding obligations. The following table summarizes such purchases of common stock during the three months ended December 31, 2019:

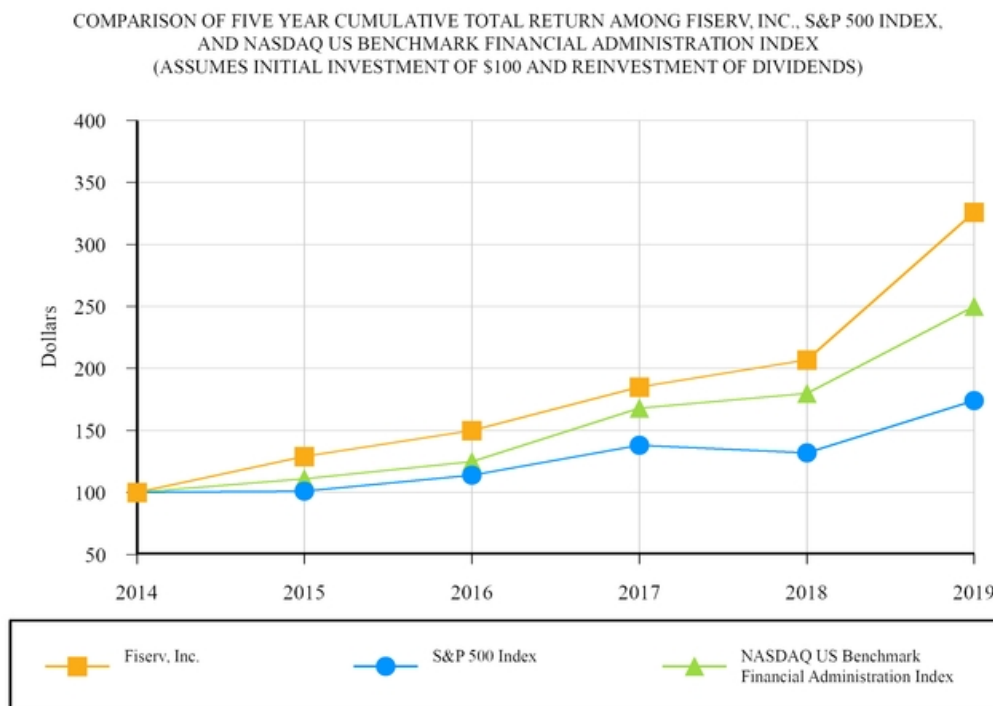
Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs
October 1-31, 2019	— ⁽¹⁾	\$ —	—	—
November 1-30, 2019	—	—	—	—
December 1-31, 2019	23,368 ⁽¹⁾	115.63	—	—
Total	23,368		—	

⁽¹⁾ Shares surrendered to us to satisfy tax withholding obligations in connection with the vesting of restricted stock awards issued to employees.

Stock Performance Graph

The stock performance graph and related information presented below is not deemed to be “soliciting material” or to be “filed” with the Securities and Exchange Commission or subject to Regulation 14A or 14C under the Securities Exchange Act of 1934 or to the liabilities of Section 18 of the Securities Exchange Act of 1934 and will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent we specifically incorporate it by reference into such a filing.

The following graph compares the cumulative total shareholder return on our common stock for the five years ended December 31, 2019 with the S&P 500 Index and the NASDAQ US Benchmark Financial Administration Index. The graph assumes that \$100 was invested on December 31, 2014 in our common stock and each index and that all dividends were reinvested. No cash dividends have been declared on our common stock. The comparisons in the graph are required by the Securities and Exchange Commission and are not intended to forecast or be indicative of possible future performance of our common stock.



	December 31,					
	2014	2015	2016	2017	2018	2019
Fiserv, Inc.	\$ 100	\$ 129	\$ 150	\$ 185	\$ 207	\$ 326
S&P 500 Index	100	101	114	138	132	174
NASDAQ US Benchmark Financial Administration Index	100	111	125	168	180	250

Item 6. Selected Financial Data

The following data should be read in conjunction with the consolidated financial statements and accompanying notes and the sections entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" contained in this Annual Report on Form 10-K. The selected historical data presented below has been affected by the First Data and other acquisitions, dispositions and transactional gains recorded by our unconsolidated affiliates, debt financing activities, foreign currency fluctuations, the tax effects related to share-based payment awards and by the Tax Cuts and Jobs Act enacted in December 2017. In addition, effective January 1, 2019, we adopted Accounting Standards Update ("ASU") No. 2016-02, *Leases (Topic 842)*, and its related amendments using the optional transition method applied to all leases. Under this transition approach, prior period amounts have not been restated. Effective January 1, 2018, we adopted ASU No. 2014-09, *Revenue from Contracts with Customers*, and its related amendments using the modified retrospective transition approach applied to all contracts. Under this transition approach, prior period amounts have not been restated. All per share amounts are presented on a split-adjusted basis to retroactively reflect the two-for-one stock split that was completed in the first quarter of 2018.

(In millions, except per share data)	2019	2018	2017	2016	2015
Total revenue	\$ 10,187	\$ 5,823	\$ 5,696	\$ 5,505	\$ 5,254
Income from continuing operations	\$ 914	\$ 1,187	\$ 1,232	\$ 930	\$ 712
Income from discontinued operations, net of income taxes	—	—	14	—	—
Net income	914	1,187	1,246	930	712
Less: Net income attributable to noncontrolling interests	21	—	—	—	—
Net income attributable to Fiserv, Inc.	\$ 893	\$ 1,187	\$ 1,246	\$ 930	\$ 712
Net income attributable to Fiserv, Inc. per share - basic:					
Continuing operations	\$ 1.74	\$ 2.93	\$ 2.92	\$ 2.11	\$ 1.52
Discontinued operations	—	—	0.03	—	—
Total	\$ 1.74	\$ 2.93	\$ 2.95	\$ 2.11	\$ 1.52
Net income attributable to Fiserv, Inc. per share - diluted:					
Continuing operations	\$ 1.71	\$ 2.87	\$ 2.86	\$ 2.08	\$ 1.49
Discontinued operations	—	—	0.03	—	—
Total	\$ 1.71	\$ 2.87	\$ 2.89	\$ 2.08	\$ 1.49
Total assets	\$ 77,539	\$ 11,262	\$ 10,289	\$ 9,743	\$ 9,340
Long-term debt (including short-term and current maturities)	21,899	5,959	4,900	4,562	4,293
Fiserv, Inc. shareholders' equity	32,979	2,293	2,731	2,541	2,660

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Management's discussion and analysis of financial condition and results of operations is provided as a supplement to our consolidated financial statements and accompanying notes to help provide an understanding of our financial condition, the changes in our financial condition and our results of operations. Our discussion is organized as follows:

- **Overview.** This section contains background information on our company and the services and products that we provide, acquisitions and dispositions, our enterprise priorities, and the trends affecting our industry in order to provide context for management's discussion and analysis of our financial condition and results of operations.
- **Critical accounting policies and estimates.** This section contains a discussion of the accounting policies that we believe are important to our financial condition and results of operations and that require judgment and estimates on the part of management in their application. In addition, all of our significant accounting policies, including critical accounting policies, are summarized in Note 1 to the accompanying consolidated financial statements.
- **Results of operations.** This section contains an analysis of our results of operations presented in the accompanying consolidated statements of income by comparing the results for the year ended December 31, 2019 to the results

for the year ended December 31, 2018 and by comparing the results for the year ended December 31, 2018 to the results for the year ended December 31, 2017.

- *Liquidity and capital resources*. This section provides an analysis of our cash flows and a discussion of our outstanding debt and commitments at December 31, 2019.

Overview

Company Background

We are a leading global provider of financial services technology. We provide account processing systems; electronic payments processing products and services; internet and mobile banking systems; merchant transaction processing and acquiring, including the Clover® line of payment solutions and related applications; prepaid and payroll services; and check verification. We serve clients around the globe, including banks, credit unions, other financial institutions and merchants.

Our operations are comprised of the First Data segment, the Payments and Industry Products ("Payments") segment and the Financial Institution Services ("Financial") segment.

On July 29, 2019, we completed the acquisition of First Data Corporation ("First Data"), a global leader in commerce-enabling technology and solutions for merchants, financial institutions and card issuers. The First Data segment primarily provides merchant acquiring, e-commerce, mobile commerce, and other business solutions at the point-of-sale ("POS") to businesses of all sizes and types; credit card and loan account processing, commercial payments, customer communications, plastics products and services, customer service, and other products to support issuers; and a range of network solutions and security, risk and fraud management products and services to business and financial institution clients, including U.S. debit card processing, our STAR® network, stored value commerce solutions (both closed-loop and open-loop), and our suite of security and fraud products and services. The businesses in the First Data segment are subject to a modest level of seasonality, with the first quarter experiencing the lowest level of revenue and the fourth quarter experiencing the highest level of revenue.

The Payments segment primarily provides electronic bill payment and presentment services, internet and mobile banking software and services, account-to-account transfers, person-to-person payment services, debit and credit card processing and services, payments infrastructure services, and other electronic payments software and services. Our businesses in this segment also provide card and print personalization services, and fraud and risk management products and services.

The Financial segment primarily provides financial institutions with account processing services, item processing and source capture services, loan origination and servicing products, cash management and consulting services, and other products and services that support numerous types of financial transactions. Our Payments and Financial segment operations are principally located in the U.S. The majority of our revenue within these segments is generated from recurring account- and transaction-based fees under multi-year contracts with high renewal rates. Most of the services we provide within our segments are necessary for our clients to operate their businesses and are, therefore, non-discretionary in nature.

Corporate and Other primarily consists of intercompany eliminations, amortization of acquisition-related intangible assets, unallocated corporate expenses of the combined company and other activities that are not considered when management evaluates segment performance, such as gains on sales of businesses and associated transition services. We expect to realign our business segments in the first quarter of 2020 when our new reporting structure and First Data integration plans are finalized.

On February 21, 2018, our board of directors declared a two-for-one stock split of our common stock and a proportionate increase in the number of our authorized shares of common stock. The additional shares were distributed on March 19, 2018 to shareholders of record at the close of business on March 5, 2018. Our common stock began trading at the split-adjusted price on March 20, 2018. All share and per share amounts are retroactively presented on a split-adjusted basis.

Acquisitions and Dispositions

We frequently review our portfolio to ensure we have the right set of businesses to execute on our strategy. We expect to acquire businesses when we identify: a compelling strategic need, such as a product, service or technology that helps meet client demand; an opportunity to change industry dynamics; a way to achieve business scale; or similar considerations. We expect to divest businesses that are not in line with our market, product or financial strategies.

Acquisitions

On July 29, 2019, we completed the acquisition of First Data Corporation for a total purchase price of \$46.5 billion by acquiring 100% of the First Data stock that was issued and outstanding as of the date of acquisition. As a result of the

acquisition, First Data stockholders received 286 million shares of common stock of Fiserv, Inc., at an exchange ratio of 0.303 shares of Fiserv, Inc. for each share of First Data common stock, with cash paid in lieu of fractional shares. We also converted 15 million outstanding First Data equity awards into corresponding equity awards relating to common stock of Fiserv, Inc. in accordance with the exchange ratio. In addition, concurrent with the closing of the acquisition, we made a cash payment of \$16.4 billion to repay existing First Data debt. We funded the transaction-related expenses and the repayment of First Data debt through a combination of available cash on-hand, proceeds from the issuance of senior notes and term loan and revolving credit facility borrowings. The acquisition of First Data increases our footprint as a global payments and financial technology provider by expanding the portfolio of services provided to financial institutions, corporate and merchant clients and consumers.

In October 2018, we acquired the debit card processing, ATM Managed Services, and MoneyPass® surcharge-free network of Elan Financial Services, a unit of U.S. Bancorp, for approximately \$659 million including post-closing working capital adjustments, estimated contingent consideration related to earn-out provisions and future payments under a transition services agreement in excess of estimated fair value. This acquisition, included within the Payments segment, deepens our presence in debit card processing, broadens our client reach and scale and provides new solutions to enhance the value proposition for our existing debit solution clients.

During 2017, we completed four acquisitions for an aggregate purchase price of \$384 million, net of acquired cash, along with earn-out provisions. In January 2017, we completed our acquisition of Online Banking Solutions, Inc. ("OBS"), a provider of cash management and digital business banking solutions that complement and enrich our existing solutions. In July 2017, we acquired the assets of PCLender, LLC ("PCLender"), a leader in internet-based mortgage software and mortgage lending technology solutions. The OBS and PCLender acquisitions are included in the Financial segment as their products are integrated across a number of our account processing solutions and enable our bank and credit union clients to better serve their commercial and mortgage customers. In August 2017, we acquired Dovetail Group Limited ("Dovetail"), a leading provider of bank payments and liquidity management solutions. In September 2017, we completed our acquisition of Monitise plc ("Monitise"), a provider of digital solutions that enables innovative digital banking experiences for leading financial institutions worldwide. The Dovetail and Monitise acquisitions are included in the Payments segment and further enable us to help financial institutions around the world transform their payments infrastructure and to expand our digital leadership, respectively.

Dispositions

On December 4, 2019, we entered into a definitive agreement to sell a 60% controlling interest of our Investment Services business, which is reported within the Payments segment. On February 18, 2020, we completed the sale of the 60% interest of this business to a group of investors for gross proceeds of \$591 million, resulting in an estimated pre-tax gain, including the remeasurement of the Company's retained interest, of approximately \$430 million. Our 40% retained interest will be accounted for as an equity method investment.

In connection with the acquisition of First Data, we acquired two businesses which we intended to sell. In October 2019, we completed the sales, at acquired fair value, of these two businesses for aggregate proceeds of \$133 million.

In March 2018, we sold a 55% interest of our Lending Solutions business, which was reported within the Financial segment, retaining 45% ownership interests in two joint ventures (the "Lending Joint Ventures"). In conjunction with this transaction, we entered into transition services agreements to provide, at fair value, various administration, business process outsourcing and data center related services for defined periods to the Lending Joint Ventures. We received gross sale proceeds of \$419 million from the transactions. In August 2019, the Sagent Auto, LLC joint venture, formerly known as Fiserv Automotive Solutions, LLC, completed a merger with a third-party, resulting in the dilution of our ownership interest to 31% in the new combined entity, defi SOLUTIONS Group, LLC ("defi SOLUTIONS"). In addition, in January 2018, we completed the sale of the retail voucher business acquired in our 2017 acquisition of Monitise for proceeds of £37 million (\$50 million), and in May 2017, we sold our Australian item processing business, which was reported within the Financial segment, for approximately \$17 million.

During 2017, StoneRiver Group, L.P. ("StoneRiver"), a joint venture in which we own a 49% interest and account for under the equity method, recognized a gain on the sale of a business. Our pre-tax share of the gain was \$26 million, with related tax expense of \$9 million. In addition, we received cash distributions of \$2 million and \$45 million in 2018 and 2017, respectively, from StoneRiver, which were funded from sale transactions.

Enterprise Priorities

We continue to implement a series of strategic initiatives to move money and information in a way that moves the world. These strategic initiatives include active portfolio management of our businesses, enhancing the overall value of our existing client relationships, improving operational effectiveness, being disciplined in our allocation of capital, and differentiating our

products and services through innovation. During 2019, our key enterprise priorities were to (i) deliver integration value from the First Data acquisition; (ii) continue to build high-quality revenue while meeting our earnings goals; (iii) enhance client relationships with an emphasis on digital and payment solutions; and (iv) deliver innovation and integration which enables differentiated value for our clients.

Industry Trends

The global payments landscape continues to evolve, with rapidly advancing technologies and a steady expansion of digital payments, e-commerce and innovation in real-time payments infrastructure. Because of this growth, competition also continues to evolve. Business and consumer expectations continue to rise, with a focus on convenience and security. To meet these expectations, payments companies are focused on modernizing their technology, utilizing data and enhancing the customer experience.

Financial Institutions

The market for products and services offered by financial institutions continues to evolve rapidly. The traditional financial industry and other market entrants regularly introduce and implement new payment, deposit, risk management, lending and investment products, and the distinctions among the products and services traditionally offered by different types of financial institutions continue to narrow as they seek to serve the same customers. At the same time, the evolving global regulatory and cybersecurity landscape has continued to create a challenging operating environment for financial institutions. These conditions are driving heightened interest in solutions that help financial institutions win and retain customers, generate incremental revenue, comply with regulations and enhance operating efficiency. Examples of these solutions include electronic payments and delivery methods such as internet, mobile and tablet banking, sometimes referred to as "digital channels."

The focus on digital channels by both financial institutions and their customers, as well as the growing volume and types of payment transactions in the marketplace, continues to elevate the data and transaction processing needs of financial institutions. We expect that financial institutions will continue to invest significant capital and human resources to process transactions, manage information, maintain regulatory compliance and offer innovative new services to their customers in this rapidly evolving and competitive environment. We anticipate that we will benefit over the long term from the trend of financial institutions moving from in-house technology to outsourced solutions as they seek to remain current on technology changes in an evolving marketplace. We believe that economies of scale in developing and maintaining the infrastructure, technology, products, services and networks necessary to be competitive in such an environment are essential to justify these investments, and we anticipate that demand for products that facilitate customer interaction with financial institutions, including electronic transactions through digital channels, will continue to increase, which we expect to create revenue opportunities for us.

In addition to the trends described above, the financial institutions marketplace has experienced change in composition as well. During the past 25 years, the number of financial institutions in the United States has declined at a relatively steady rate of approximately 3% per year, primarily as a result of voluntary mergers and acquisitions. Rather than reducing the overall market, these consolidations have transferred accounts among financial institutions. If a client loss occurs due to merger or acquisition, we receive a contract termination fee based on the size of the client and how early in the contract term the contract is terminated. These fees can vary from period to period. Our focus on long-term client relationships and recurring, transaction-oriented products and services has also reduced the impact that consolidation in the financial services industry has had on us. We believe that the integration of our products and services creates a compelling value proposition for our clients by providing, among other things, new sources of revenue and opportunities to reduce their costs. Furthermore, we believe that our sizable and diverse client base, combined with our position as a leading provider of non-discretionary, recurring revenue-based products and services, gives us a solid foundation for growth.

Merchants

The rapid growth in and globalization of mobile and e-commerce, driven by consumers' desire for simpler, more efficient shopping experiences, has created an opportunity for merchants to reach consumers in high-growth online and mobile settings, which often requires a merchant acquiring provider to enable and optimize the acceptance of payments. Merchants are demanding simpler, integrated and modern POS systems to help manage their everyday business operations. When combined with the ever-increasing ways a consumer can pay for goods and services, merchants have sought modern POS systems to streamline this complexity. Furthermore, merchants can now search, discover, compare, purchase and even install a new POS system through direct, digital-only experiences. This direct, digital-only channel is quickly becoming a source of new merchant acquisition opportunities, especially with respect to smaller merchants.

Additionally, there are numerous software-as-a-service ("SaaS") solutions in the industry, many of which have chosen to integrate merchant acquiring within their software in a way to further monetize their client relationships. SaaS solutions that

integrate payments are often referred to as Independent Software Vendors, or ISVs, and we believe there are thousands of these potential distribution partnership opportunities available to us.

Critical Accounting Policies and Estimates

Our consolidated financial statements and accompanying notes have been prepared in accordance with accounting principles generally accepted in the United States, which require management to make estimates, judgments and assumptions that affect the reported amount of assets, liabilities, revenue and expenses. We continually evaluate the accounting policies and estimates that we use to prepare our consolidated financial statements, including for recently adopted accounting pronouncements, and base our estimates on historical experience and assumptions that we believe are reasonable in light of current circumstances. Actual amounts and results could differ materially from these estimates.

Acquisitions

From time to time, we make strategic acquisitions that may have a material impact on our consolidated results of operations or financial position. We allocate the purchase price of acquired businesses to the assets acquired and liabilities assumed in the transaction at their estimated fair values. The estimates used to determine the fair value of long-lived assets, such as intangible assets, can be complex and require significant judgments. We use information available to us to make fair value determinations and engage independent valuation specialists, when necessary, to assist in the fair value determination of significant acquired long-lived assets. The determination of fair value requires estimates about discount rates, growth and retention rates, royalty rates, expected future cash flows and other future events that are judgmental in nature. While we use our best estimates and assumptions as a part of the purchase price allocation process, our estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to our consolidated statements of income. We are also required to estimate the useful lives of intangible assets to determine the amount of acquisition-related intangible asset amortization expense to record in future periods. We periodically review the estimated useful lives assigned to our intangible assets to determine whether such estimated useful lives continue to be appropriate.

Goodwill and Acquired Intangible Assets

We review the carrying value of goodwill for impairment annually, or more frequently if events or circumstances indicate the carrying value may not be recoverable. Goodwill is tested for impairment at a reporting unit level, determined to be at an operating segment level or one level below. When reviewing goodwill for impairment, we consider the amount of excess fair value over the carrying value of each reporting unit, the period of time since a reporting unit's last quantitative test, the extent a reorganization or disposition changes the composition of one or more of our reporting units, and other factors to determine whether or not to first perform a qualitative test. When performing a qualitative test, we assess numerous factors to determine whether it is more likely than not that the fair value of our reporting units are less than their respective carrying values. Examples of qualitative factors that we assess include our share price, our financial performance, market and competitive factors in our industry, and other events specific to our reporting units. If we conclude that it is more likely than not that the fair value of a reporting unit is less than its carrying value, we perform a quantitative impairment test.

The quantitative impairment test compares the fair value of the reporting unit to its carrying value, and recognizes an impairment loss for the amount by which a reporting unit's carrying amount exceeds its fair value, without exceeding the total amount of goodwill allocated to that reporting unit. We determine the fair value of a reporting unit based primarily on the present value of estimated future cash flows. Determining the fair value of a reporting unit involves judgment and the use of significant estimates and assumptions, which include assumptions regarding the revenue growth rates and operating margins used to calculate estimated future cash flows, risk-adjusted discount rates and future economic and market conditions.

Our most recent impairment assessment of our reporting units in the fourth quarter of 2019 determined that our goodwill was not impaired as the estimated fair values of the respective reporting units substantially exceeded the carrying values except for the reporting units related to the acquisition of First Data. An assessment of qualitative factors, including the proximity of the acquisition date to the year end reporting period, did not identify indicators of impairment in relation to the First Data goodwill. Goodwill recorded as a result of our acquisition of First Data is based on preliminary estimates and assumptions using information available at the reporting date, and therefore the potential for measurement period adjustments exists based on our continuing review of matters related to the acquisition. We have no accumulated goodwill impairment through December 31, 2019. See Note 8 for additional information.

We review acquired intangible assets for impairment whenever events or changes in circumstances indicate the carrying amount of the asset may not be recoverable. Recoverability is assessed by comparing the carrying amount of the asset to the undiscounted future cash flows expected to be generated by the asset. Measurement of any impairment loss is based on

estimated fair value. Given the significance of our goodwill and intangible asset balances, an adverse change in fair value could result in an impairment charge, which could be material to our consolidated financial statements.

Revenue Recognition

We generate revenue from the delivery of processing, service and product solutions. Revenue is measured based on consideration specified in a contract with a customer, and excludes any amounts collected on behalf of third parties. We recognize revenue when we satisfy a performance obligation by transferring control over a product or service to a customer which may be at a point in time or over time. As a practical expedient, we do not adjust the transaction price for the effects of a significant financing component if, at contract inception, the period between customer payment and the transfer of goods or services is expected to be one year or less. Contracts with customers are evaluated on a contract-by-contract basis as contracts may include multiple types of goods and services as described below.

Processing and Services

Processing and services revenue is generated from account- and transaction-based fees for data processing, transaction processing, merchant acquiring and e-commerce, electronic billing and payment services, electronic funds transfer and debit processing services; consulting and professional services; and software maintenance for ongoing client support.

We recognize processing and services revenues in the period in which the specific service is performed unless they are not deemed distinct from other goods or services in which revenue would then be recognized as control is transferred of the combined goods and services. Our arrangements for processing and services typically consist of an obligation to provide specific services to our customers on a when and if needed basis (a stand-ready obligation) and revenue is recognized from the satisfaction of the performance obligations in the amount billable to the customer. These services are typically provided under a fixed or declining (tier-based) price per unit based on volume of service; however, pricing for services may also be based on minimum monthly usage fees. Fees for our processing and services arrangements are typically billed and paid on a monthly basis.

Product

Product revenue is generated from integrated print and card production sales, as well as software license sales. For software license agreements that are distinct, we recognize software license revenue upon delivery, assuming a contract is deemed to exist. Revenue for arrangements with customers that include significant customization, modification or production of software such that the software is not distinct is typically recognized over time based upon efforts expended, such as labor hours, to measure progress towards completion. For arrangements involving hosted licensed software for the customer, a software element is considered present to the extent the customer has the contractual right to take possession of the software at any time during the hosting period without significant penalty and it is feasible for the customer to either operate the software on their own hardware or contract with another vendor to host the software.

We also sell or lease hardware (POS devices) and other peripherals as part of our contracts with customers. Hardware typically consists of terminals or Clover® devices. We do not manufacture hardware, rather we purchase hardware from third-party vendors and hold such hardware in inventory until purchased by a customer. We account for sales of hardware as a separate performance obligation and recognize the revenue at its standalone selling price when the customer obtains control of the hardware.

Significant Judgments

We use the following methods, inputs, and assumptions in determining amounts of revenue to recognize. For multi-element arrangements, we account for individual goods or services as a separate performance obligation if they are distinct, the good or service is separately identifiable from other items in the arrangement, and if a customer can benefit from it on its own or with other resources that are readily available to the customer. If these criteria are not met, the promised goods or services are accounted for as a combined performance obligation. Determining whether goods or services are distinct performance obligations that should be accounted for separately may require significant judgment.

Technology or service components from third parties are frequently embedded in or combined with our applications or service offerings. Whether we recognize revenue based on the gross amount billed to a customer or the net amount retained involves judgment that depends on the relevant facts and circumstances including the level of contractual responsibilities and obligations for delivering solutions to end customers.

The transaction price is determined based on the consideration to which we will be entitled in exchange for transferring products or services to the customer. We include any fixed charges within our contracts as part of the total transaction price. To the extent that variable consideration is not constrained, we include an estimate of the variable amount, as appropriate, within

the total transaction price and update our assumptions over the duration of the contract. We may constrain the estimated transaction price in the event of a high degree of uncertainty as to the final consideration amount owed because of an extended length of time over which the fees may be adjusted. The transaction price (including any discounts) is allocated between distinct goods and services in a multi-element arrangement based on their relative standalone selling prices. For items that are not sold separately, we estimate the standalone selling prices using available information such as market conditions and internally approved pricing guidelines. Significant judgment may be required to determine standalone selling prices for each performance obligation and whether it depicts the amount we expect to receive in exchange for the related good or service.

Contract modifications occur when we and our customers agree to modify existing customer contracts to change the scope or price (or both) of the contract or when a customer terminates some, or all, of the existing services provided by us. When a contract modification occurs, it requires us to exercise judgment to determine if the modification should be accounted for as (i) a separate contract, (ii) the termination of the original contract and creation of a new contract, or (iii) a cumulative catch up adjustment to the original contract. Further, contract modifications require the identification and evaluation of the performance obligations of the modified contract, including the allocation of revenue to the remaining performance obligations and the period of recognition for each identified performance obligation.

Additional information about our revenue recognition policies is included within Note 3 to the consolidated financial statements.

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, including our increased global footprint. Judgment is also required in assessing the timing and amounts of deductible and taxable items. We establish a liability for known tax exposures relating to deductions, transactions, and other matters involving some uncertainty as to the proper tax treatment of the item. In establishing a liability for known tax exposures, assumptions are made in determining whether, and the extent to which, a tax position will be sustained. A tax position is recognized only when it is more likely than not to be sustained upon examination by the relevant taxing authority, based on its technical merits. The amount of tax benefit recognized reflects the largest benefit that we believe is more likely than not to be realized upon ultimate settlement. As new information becomes available, we evaluate our tax positions and adjust our liability for known tax exposures as appropriate.

We, primarily through our First Data acquisition, maintain net operating loss carryforwards in various taxing jurisdictions, resulting in the establishment of 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; however, we 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 evidence regarding future sources of taxable income and available tax planning strategies. However, there could be a material impact to our effective tax rate if there is a significant change in our judgment. To the extent our judgment changes, the valuation allowances are then adjusted, generally through the provision for income taxes, in the period in which this determination is made.

Results of Operations

Components of Revenue and Expenses

The following summary describes the components of revenue and expenses as presented in our consolidated statements of income.

Processing and Services

Processing and services revenue, which in 2019 represented 84% of our total revenue, is primarily generated from account- and transaction-based fees under multi-year contracts. Processing and services revenue is most reflective of our business performance as a significant amount of our total operating profit is generated by these services. Cost of processing and services includes costs directly associated with providing services to clients and includes the following: personnel; equipment and data communication; infrastructure costs, including costs to maintain software applications; client support; certain depreciation and amortization; and other operating expenses.

Product

Product revenue, which in 2019 represented 16% of our total revenue, is primarily derived from integrated print and card production sales, as well as software license sales and hardware (POS devices) sales. Cost of product includes costs directly associated with the products sold and includes the following: costs of materials and software development; personnel; infrastructure costs; certain depreciation and amortization; and other costs directly associated with product revenue.

Selling, General and Administrative Expenses

Selling, general and administrative expenses primarily consist of: salaries, wages, commissions and related expenses paid to sales personnel, administrative employees and management; advertising and promotional costs; certain depreciation and amortization; and other selling and administrative expenses.

Financial Results

The following table presents certain amounts included in our consolidated statements of income, the relative percentage that those amounts represent to revenue and the change in those amounts from year-to-year. This information should be read together with the consolidated financial statements and accompanying notes. The financial results presented below have been affected by the First Data and other acquisitions, dispositions, transactional gains recorded by our unconsolidated affiliates, debt financing activities, foreign currency fluctuations, and by the Tax Cuts and Jobs Act enacted in December 2017. In addition, effective January 1, 2018, we adopted ASU No. 2014-09, *Revenue from Contracts with Customers*, and its related amendments using the modified retrospective transition approach applied to all contracts. Under this transition approach, prior period amounts have not been restated.

(In millions)	Percentage of Revenue ⁽¹⁾						Increase (Decrease)			
Year ended December 31,	2019	2018	2017	2019	2018	2017	2019 vs. 2018		2018 vs. 2017	
Revenue:										
Processing and services	\$ 8,573	\$ 4,975	\$ 4,833	84.2 %	85.4 %	84.8 %	\$ 3,598	72 %	\$ 142	3 %
Product	1,614	848	863	15.8 %	14.6 %	15.2 %	766	90 %	(15)	(2)%
Total revenue	10,187	5,823	5,696	100.0 %	100.0 %	100.0 %	4,364	75 %	127	2 %
Expenses:										
Cost of processing and services	4,016	2,324	2,291	46.8 %	46.7 %	47.4 %	1,692	73 %	33	1 %
Cost of product	1,293	745	733	80.1 %	87.9 %	84.9 %	548	74 %	12	2 %
Sub-total	5,309	3,069	3,024	52.1 %	52.7 %	53.1 %	2,240	73 %	45	1 %
Selling, general and administrative	3,284	1,228	1,150	32.2 %	21.1 %	20.2 %	2,056	167 %	78	7 %
Gain on sale of businesses	(15)	(227)	(10)	(0.1)%	(3.9)%	(0.2)%	(212)	n/m	217	n/m
Total expenses	8,578	4,070	4,164	84.2 %	69.9 %	73.1 %	4,508	111 %	(94)	(2)%
Operating income	1,609	1,753	1,532	15.8 %	30.1 %	26.9 %	(144)	(8)%	221	14 %
Interest expense, net	(473)	(189)	(175)	(4.6)%	(3.2)%	(3.1)%	284	150 %	14	8 %
Debt financing activities	(47)	(14)	—	(0.5)%	(0.2)%	— %	33	236 %	14	n/m
Other (expense) income	(6)	5	1	(0.1)%	0.1 %	— %	(11)	n/m	4	n/m
Income from continuing operations before income taxes and income from investments in unconsolidated affiliates	1,083	1,555	1,358	10.6 %	26.7 %	23.8 %	(472)	(30)%	197	15 %
Income tax provision	(198)	(378)	(158)	(1.9)%	(6.5)%	(2.8)%	(180)	(48)%	220	139 %
Income from investments in unconsolidated affiliates	29	10	32	0.3 %	0.2 %	0.6 %	19	190 %	(22)	(69)%
Income from continuing operations	914	1,187	1,232	9.0 %	20.4 %	21.6 %	\$ (273)	(23)%	\$ (45)	(4)%
Income from discontinued operations, net of income taxes	—	—	14	— %	— %	0.2 %	—	— %	(14)	n/m
Net income	914	1,187	1,246	9.0 %	20.4 %	21.9 %	\$ (273)	(23)%	\$ (59)	(5)%
Less: Net income attributable to noncontrolling interests	21	—	—	0.2 %	— %	— %	21	n/m	—	— %
Net income attributable to Fiserv, Inc.	\$ 893	\$ 1,187	\$ 1,246	8.8 %	20.4 %	21.9 %	\$ (294)	(25)%	\$ (59)	(5)%

⁽¹⁾ Percentage of revenue is calculated as the relevant revenue, expense, income or loss amount divided by total revenue, except for cost of processing and services and cost of product amounts, which are divided by the related component of revenue.

(In millions)

Year ended December 31,	First Data	Payments	Financial	Corporate and Other	Total
Total revenue:					
2019	\$ 4,078	\$ 3,744	\$ 2,407	\$ (42)	\$ 10,187
2018	—	3,467	2,395	(39)	5,823
2017	—	3,234	2,530	(68)	5,696
Revenue growth:					
2019	\$ 4,078	\$ 277	\$ 12	\$ (3)	\$ 4,364
2019 percentage		8%	1 %		75 %
2018	\$ —	\$ 233	\$ (135)	\$ 29	\$ 127
2018 percentage		7%	(5)%		2 %
Operating income:					
2019	\$ 1,031	\$ 1,252	\$ 805	\$ (1,479)	\$ 1,609
2018	—	1,122	798	(167)	1,753
2017	—	1,034	849	(351)	1,532
Operating income growth:					
2019	\$ 1,031	\$ 130	\$ 7	\$ (1,312)	\$ (144)
2019 percentage		12%	1 %		(8)%
2018	\$ —	\$ 88	\$ (51)	\$ 184	\$ 221
2018 percentage		9%	(6)%		14 %
Operating margin:					
2019	25.3%	33.4%	33.5 %		15.8 %
2018	—%	32.3%	33.3 %		30.1 %
2017	—%	32.0%	33.5 %		26.9 %
Operating margin growth: ⁽¹⁾					
2019		110 bps	20 bps		(1,430) bps
2018		30 bps	(20) bps		320 bps

⁽¹⁾ Represents the basis point growth or decline in operating margin.

Operating margin percentages are calculated using actual, unrounded amounts.

Total Revenue

Total revenue increased \$4,364 million, or 75%, in 2019 and increased \$127 million, or 2%, in 2018 compared to the prior years. The increase in 2019 was primarily driven by the incremental revenue from the First Data acquisition, which contributed \$4,078 million of revenue during the year.

Revenue in our First Data segment was comprised of \$2,520 million, \$927 million, and \$631 million from our Global Business Solutions, Global Financial Solutions, and Network & Security Solutions businesses, respectively, since the date of acquisition.

Revenue in our Payments segment increased \$277 million, or 8%, in 2019 and increased \$233 million, or 7%, in 2018 compared to the prior years. Revenue from acquired businesses contributed 4% and 2% to Payments segment revenue growth in 2019 and 2018, respectively. The remaining revenue growth in our Payments segment was driven by growth in our recurring revenue businesses, with our card services and electronic payments businesses contributing 2% and 1%, respectively, in each of 2019 and 2018, and our biller solutions business contributing 1% in 2018.

Revenue in our Financial segment increased \$12 million, or 1%, in 2019 and decreased \$135 million, or 5%, in 2018 compared to the prior years. Financial segment revenue growth in both 2019 and 2018 was driven by growth in our bank solutions business from new business, customer migrations from in-house technology to outsourced solutions and growth with existing customers across a range of products. Dispositions, including the Lending Solutions business, reduced Financial segment revenue growth by 2% and 9% in 2019 and 2018, respectively, compared to the prior years.

Revenue at Corporate and Other was relatively consistent in 2019 and 2018. Revenue at Corporate and Other increased \$29 million from 2017 to 2018, primarily due to transition services revenue from the Lending Joint Ventures, which commenced in late March 2018.

Total Expenses

Total expenses increased \$4,508 million, or 111%, and decreased \$94 million, or 2%, in 2019 and 2018, respectively, compared to the prior years. Total expenses as a percentage of total revenue was 84.2%, 69.9% and 73.1% in 2019, 2018 and 2017, respectively. Total expenses in 2019 include the expenses for First Data since the acquisition date, resulting in the overall significant increase in expenses compared to prior years. Total expenses and total expenses as a percentage of total revenue were reduced by the \$227 million gain on sale of a 55% interest of our Lending Solutions business in 2018.

Cost of processing and services as a percentage of processing and services revenue was 46.8%, 46.7% and 47.4% in 2019, 2018 and 2017, respectively. Cost of processing and services as a percentage of processing and services revenue was favorably impacted by operating leverage in our recurring revenue businesses in both 2019 and 2018. This included improvements of approximately 50 basis points and 80 basis points from scalable revenue growth in our Payments segment in 2019 and 2018, respectively, and approximately 60 basis points in 2018 from our account processing businesses, driven by product mix and expense management. Offsetting this reduction, cost of processing and services as a percentage of processing and services revenue increased in 2019 by approximately 70 basis points from expenses shifting from cost of product to cost of processing as financial institutions continue to move from in-house technology to outsourced solutions, and by approximately 60 basis points from a non-cash impairment charge related to an international core processing platform. Client-focused, incremental investments in 2018 increased cost of processing and services as a percentage of processing and services revenue by approximately 50 basis points compared to 2019 and 2017.

Cost of product as a percentage of product revenue was 80.1%, 87.9% and 84.9% in 2019, 2018 and 2017, respectively. The reduction in cost of product as a percentage of product revenue in 2019 was driven by approximately 700 basis points from the First Data acquisition and by approximately 400 basis points due to expenses shifting from cost of product to cost of processing and services as financial institutions continue to move from in-house technology to outsourced solutions. Cost of product as a percentage of product revenue increased by approximately 300 basis points and 130 basis points in 2019 and 2018, respectively, from a decrease in higher-margin software license revenue. The remaining increase in 2018 compared to 2017 was related to additional expenses associated with product development.

Selling, general and administrative expenses as a percentage of total revenue was 32.2%, 21.1% and 20.2% in 2019, 2018 and 2017, respectively. The increase in selling, general and administrative expenses as a percentage of total revenue in 2019 was due to increased costs, including acquisition, integration and acquired intangible asset amortization, associated with the First Data acquisition. Selling, general and administrative expenses as a percentage of total revenue increased in 2018 compared to the prior year by approximately 50 basis points from the disposition of a 55% interest of our Lending Solutions business and by approximately 30 basis points from increased costs associated with acquisitions.

The gains on sale of businesses of \$15 million, \$227 million and \$10 million in 2019, 2018 and 2017, respectively, primarily resulted from the sale of a 55% interest of our Lending Solutions business, including contingent consideration received in 2019.

Operating Income and Operating Margin

Total operating income decreased \$144 million, or 8%, in 2019 and increased \$221 million, or 14%, in 2018 compared to the prior years. Operating income in our First Data segment of \$1,031 million, at an operating margin of 25.3%, in 2019 was incremental to our results due to the acquisition closing on July 29, 2019. Total operating margin decreased to 15.8% in 2019 from 30.1% in 2018 and 26.9% in 2017.

Operating income in our Payments segment increased \$130 million, or 12%, in 2019 and increased \$88 million, or 9%, in 2018 compared to the prior years. Operating margin was 33.4%, 32.3% and 32.0% in 2019, 2018 and 2017, respectively, increasing 110 basis points in 2019 and 30 basis points in 2018 compared to the prior years. Scalable revenue growth in our recurring revenue businesses positively impacted Payments segment operating margin by approximately 100 basis points and 120 basis points in 2019 and 2018, respectively. Payments segment operating margin improvement was partially offset by approximately 50 basis points in 2019 and 30 basis points in 2018 as a result of acquisitions, and by approximately 50 basis points in 2018 from client-focused incremental investments.

Operating income in our Financial segment increased \$7 million, or 1%, in 2019 and decreased \$51 million, or 6%, in 2018 compared to the prior years. Operating margin was 33.5%, 33.3% and 33.5% in 2019, 2018 and 2017, respectively, increasing 20 basis points in 2019 and decreasing 20 basis points in 2018 compared to the prior years. Financial segment operating margin improvement in 2019 was primarily due to expense reduction efforts in our international business of approximately 100 basis

points, largely offset by approximately 80 basis points from a reduction in higher-margin software license revenue. Financial segment operating margin in 2018 was reduced by approximately 130 basis points due to the disposition of a 55% interest of our Lending Solutions business and 20 basis points from client-focused incremental investments, partially offset by contributions of approximately 130 basis points from our account processing businesses related to product mix and expense management.

The operating loss in Corporate and Other increased \$1,312 million and decreased \$184 million in 2019 and 2018, respectively, compared to the prior years. The increase in Corporate and Other operating loss in 2019 was due to the acquisition of First Data, including amortization of acquired intangible assets of \$633 million, acquisition and integration related costs of \$242 million, and other First Data related corporate expenses since the date of acquisition. Corporate and Other was favorably impacted by gains of \$15 million, \$227 million and \$10 million from sales of businesses in 2019, 2018 and 2017, respectively, and negatively impacted in 2019 by a \$48 million non-cash impairment charge related to an international core processing platform. The remaining operating loss in Corporate and Other in 2018 compared to 2017 was primarily impacted by increased professional services expenses for data center consolidation and acquisition integration activities.

Interest Expense, Net

Interest expense, net increased \$284 million, or 150%, in 2019 and increased \$14 million, or 8%, in 2018 compared to the prior years due to the June 2019 issuance of \$9.0 billion of fixed-rate senior notes, the July 2019 issuance of €1.5 billion and £1.05 billion of fixed-rate senior notes and the \$5.0 billion of term loan borrowings that were incurred for the purpose of funding the repayment of certain indebtedness of First Data and its subsidiaries on the closing date of the acquisition, as well as the September 2018 issuance of \$2.0 billion of fixed-rate notes. See below under "Indebtedness" for a description of our financing related to the First Data acquisition.

Debt Financing Activities

In connection with the definitive merger agreement entered into on January 16, 2019 to acquire First Data, we entered into a bridge facility commitment letter providing for a 364-day senior unsecured bridge term loan facility in an aggregate principal amount of \$17.0 billion for the purpose of refinancing certain indebtedness of First Data on the closing date of the acquisition. We recorded \$98 million of expense for the year ended December 31, 2019 associated with the bridge term loan facility and other refinancing and related activities in connection with the acquisition of First Data. In addition, during the year ended December 31, 2019, we recorded \$50 million of net foreign currency transaction gains related to our foreign currency-denominated debt. See below under "Indebtedness" for a description of our financing related to the First Data acquisition. In 2018, we completed a cash tender offer for and redemption of our then-outstanding \$450 million aggregate principal amount of 4.625% senior notes due October 2020, which resulted in a pre-tax loss on early debt extinguishment of \$14 million.

Income Tax Provision

Income tax provision as a percentage of income from continuing operations before income from investments in unconsolidated affiliates was 18.3%, 24.3% and 11.6% in 2019, 2018 and 2017, respectively. The decrease in the effective tax rate in 2019 compared to the prior year is primarily related to equity compensation-related tax benefits, as well as discrete benefits due to a loss from subsidiary restructuring. The effective tax rate in 2018 includes \$77 million of income tax expense associated with the \$227 million gain on the sale of a 55% interest of our Lending Solutions business. The rate in 2018 was also impacted by the enactment of the Tax Cuts and Jobs Act (the "Tax Act") which, as further described below, reduced the U.S. federal corporate tax rate from 35 percent to 21 percent.

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act. The Tax Act made broad changes to the U.S. tax code, including, but not limited to, (i) reducing the U.S. federal corporate tax rate from 35 percent to 21 percent beginning in 2018; (ii) requiring companies to pay a one-time transition tax on certain un-repatriated earnings of foreign subsidiaries; (iii) generally eliminating U.S. federal income taxes on dividends from foreign subsidiaries; (iv) requiring U.S. federal taxable income to include certain earnings of controlled foreign corporations; and (v) creating a new limitation on deductible interest expense. The provisions of the Tax Act decreased our 2017 effective tax rate by 20.3%, primarily due to the re-evaluation of the net deferred tax liability to reflect the lower federal tax rate of 21 percent.

Income from Investments in Unconsolidated Affiliates

Our share of net income from affiliates accounted for using the equity method of accounting, including the Lending Joint Ventures and affiliates under the merchant bank alliance program from the acquisition of First Data, is reported as income from investments in unconsolidated affiliates and the related tax expense is reported within the income tax provision in the consolidated statements of income. Income from investments in unconsolidated affiliates, including acquired intangible asset

amortization from valuations in purchase accounting, was \$29 million, \$10 million and \$32 million in 2019, 2018 and 2017, respectively. Income from investments in unconsolidated affiliates in 2017 includes our share of a net gain on the sale of a business at StoneRiver Group, L.P., a joint venture in which we own a 49% interest.

Income from Discontinued Operations

Income from discontinued operations in 2017 included a litigation settlement related to a prior disposition of \$19 million, net of income tax of \$7 million, and earnings related to an acquired business held for sale.

Net Income Attributable to Noncontrolling Interests

Net income attributable to noncontrolling interests relates to the ownership interest of our alliance partners in our consolidated results, obtained through the acquisition of First Data. For the year ended December 31, 2019, net income attributable to noncontrolling interests was \$21 million.

Net Income Per Share - Diluted from Continuing Operations

Net income attributable to Fiserv, Inc. per share-diluted from continuing operations was \$1.71, \$2.87 and \$2.86 in 2019, 2018 and 2017, respectively. Net income attributable to Fiserv, Inc. per share-diluted from continuing operations in 2019 included the results of operations of First Data from the date of the acquisition, along with transaction costs associated with the acquisition and acquired intangible asset amortization from the application of purchase accounting. Net income attributable to Fiserv, Inc. per share-diluted from continuing operations was favorably impacted in 2018 by a gain of \$0.37 per share on the sale of a 55% interest of our Lending Solutions business. Net income attributable to Fiserv, Inc. per share-diluted from continuing operations was favorably impacted in 2017 by discrete income tax benefits associated with the Tax Act of \$0.64 per share.

Liquidity and Capital Resources

General

Our primary liquidity needs in the ordinary course of business are to (i) fund normal operating expenses; (ii) meet the interest and principal requirements of our outstanding indebtedness; and (iii) fund capital expenditures and operating lease payments. We believe these needs will be satisfied using cash flow generated by our operations, along with our cash and cash equivalents of \$893 million and available borrowings under our revolving credit facility of \$3.3 billion at December 31, 2019. The following table summarizes our operating cash flow and capital expenditure amounts for the years ended December 31, 2019 and 2018, respectively.

(In millions)	Year Ended December 31,		Increase (Decrease)	
	2019	2018	\$	%
Net income	\$ 914	\$ 1,187	\$ (273)	
Depreciation and amortization	1,778	556	1,222	
Net foreign currency gain on financing activities	(50)	—	(50)	
Share-based compensation	229	73	156	
Deferred income taxes	47	133	(86)	
Gain on sale of businesses	(15)	(227)	212	
Income from investments in unconsolidated affiliates	(29)	(10)	(19)	
Distributions from unconsolidated affiliates	23	2	21	
Settlement of interest rate hedge contracts	(183)	—	(183)	
Non-cash impairment charges	48	3	45	
Net changes in working capital and other	33	(165)	198	
Operating cash flow	\$ 2,795	\$ 1,552	\$ 1,243	80%
Capital expenditures	\$ 721	\$ 360	\$ 361	100%

Our net cash provided by operating activities, or operating cash flow, was \$2.80 billion in 2019, an increase of 80% compared with \$1.55 billion in 2018. This increase was primarily attributable to improved operating results, the acquisition of First Data and favorable working capital fluctuations, including timing of interest payments and receivable collections. Net cash provided

by operating activities in 2019 also included a payment of \$183 million associated with the settlement of treasury lock agreements related to First Data financing activities.

Our current policy is to use our operating cash flow primarily to fund capital expenditures, share repurchases, acquisitions and to repay debt rather than to pay dividends. Our capital expenditures were approximately 7% and 6% of our total revenue in 2019 and 2018, respectively.

Share Repurchases

We purchased \$394 million and \$1.91 billion of our common stock in 2019 and 2018, respectively. At December 31, 2019, we had approximately 21.8 million shares remaining under our current repurchase authorizations. Shares repurchased are generally held for issuance in connection with our equity plans.

Acquisitions and Dispositions

Acquisitions

On July 29, 2019, we completed the acquisition of First Data for a total purchase price of \$46.5 billion by acquiring 100% of the First Data stock that was issued and outstanding as of the date of acquisition. As a result of the acquisition, First Data stockholders received 286 million shares of common stock of Fiserv, Inc., at an exchange ratio of 0.303 shares of Fiserv, Inc. for each share of First Data common stock, with cash paid in lieu of fractional shares. We also converted 15 million outstanding First Data equity awards into corresponding equity awards relating to common stock of Fiserv, Inc. in accordance with the exchange ratio. In addition, concurrent with the closing of the acquisition, we made a cash payment of \$16.4 billion to repay existing First Data debt. We funded the transaction-related expenses and the repayment of First Data debt through a combination of available cash on-hand, proceeds from the issuance of senior notes and term loan and revolving credit facility borrowings.

In October 2018, we acquired the debit card processing, ATM Managed Services, and MoneyPass® surcharge-free network of Elan Financial Services, a unit of U.S. Bancorp, for approximately \$659 million including post-closing working capital adjustments, estimated contingent consideration related to earn-out provisions and future payments under a transition services agreement in excess of estimated fair value. We funded this acquisition by utilizing existing availability under our revolving credit facility.

We completed four acquisitions in 2017 for an aggregate purchase price of \$384 million, net of cash acquired, along with earn-out provisions. We funded these acquisitions by utilizing a combination of available cash and existing availability under our revolving credit facility.

Dispositions

On February 18, 2020, we completed the sale of a 60% controlling interest of our Investment Services business to a group of investors for gross proceeds of \$591 million, resulting in an estimated pre-tax gain, including the remeasurement of the Company's retained interest, of approximately \$430 million. In connection with the acquisition of First Data, we acquired two businesses which we intended to sell. In October 2019, we completed the sales of these two businesses for aggregate proceeds of \$133 million.

In March 2018, we sold a 55% interest of our Lending Solutions business, retaining 45% ownership interests in two joint ventures. We received gross sale proceeds of \$419 million from the transactions. In August 2019, the Sagent Auto, LLC joint venture, formerly known as Fiserv Automotive Solutions, LLC, completed a merger with a third-party, resulting in a dilution of our ownership interest to 31% in the new combined entity, defi SOLUTIONS Group, LLC. In connection with the merger, Sagent Auto, LLC borrowed, in the aggregate, an additional \$50 million on its variable-rate term loan facility and increased the notional amount of its variable-rate revolving credit facility by \$10 million. We have guaranteed this incremental debt and do not anticipate that the joint venture will fail to fulfill its debt obligations. We recorded a \$4 million liability for the estimated fair value of our obligations to stand ready to perform over term of the guarantees. Such guarantees will be amortized in future periods over the contractual term, based upon amounts to be received by us for the respective guarantees. We have guaranteed a total of \$400 million and \$45 million on the joint venture's variable-rate term loan and revolving credit facilities, respectively. We have not made any payments under the guarantees, nor have we been called upon to do so.

In January 2018, we completed the sale of the retail voucher business acquired in our 2017 acquisition of Monitise for proceeds of £37 million (\$50 million).

Indebtedness

Our debt consisted of the following at December 31:

(In millions)	2019	2018
Short-term and current maturities of long-term debt:		
Lines of credit	\$ 150	\$ —
Finance lease and other financing obligations	137	4
Total short-term and current maturities of long-term debt	<u>\$ 287</u>	<u>\$ 4</u>
Long-term debt:		
2.7% senior notes due 2020	\$ 850	\$ 850
4.75% senior notes due 2021	400	400
3.5% senior notes due 2022	700	700
3.8% senior notes due 2023	1,000	1,000
0.375% senior notes due 2023	559	—
2.75% senior notes due 2024	2,000	—
3.85% senior notes due 2025	900	900
2.25% senior notes due 2025	687	—
3.2% senior notes due 2026	2,000	—
1.125% senior notes due 2027	559	—
4.2% senior notes due 2028	1,000	1,000
3.5% senior notes due 2029	3,000	—
1.625% senior notes due 2030	559	—
3.0% senior notes due 2031	687	—
4.4% senior notes due 2049	2,000	—
Receivable securitized loan	500	—
Term loan facility	3,950	—
Unamortized discount and deferred financing costs	(160)	(29)
Revolving credit facility	174	1,129
Finance lease and other financing obligations	247	5
Total long-term debt	<u>\$ 21,612</u>	<u>\$ 5,955</u>

At December 31, 2019, our debt consisted primarily of \$16.9 billion of fixed rate senior notes and \$4.0 billion of variable rate term loans. Interest on our U.S. dollar-denominated senior notes is paid semi-annually, while interest on our foreign currency-denominated senior notes is paid annually. Interest on our term loans is paid monthly. We were in compliance with all financial debt covenants during 2019. Additional information about our debt structure and associated instruments is included in Note 12 to the consolidated financial statements.

Bridge Term Loan Facility

On January 16, 2019, in connection with the definitive merger agreement to acquire First Data, we entered into a bridge facility commitment letter pursuant to which a group of financial institutions committed to provide a 364-day senior unsecured bridge term loan facility in an aggregate principal amount of \$17.0 billion for the purpose of funding the repayment of certain indebtedness of First Data and its subsidiaries on the closing date of the acquisition of First Data, making cash payments in lieu of fractional shares as part of the acquisition consideration and paying fees and expenses related to the acquisition, the refinancing and the related transactions. We recorded \$98 million of expenses, reported within debt financing activities in the consolidated statements of income, related to the bridge term loan facility during the year ended December 31, 2019. The aggregate commitments of \$17.0 billion under the bridge facility commitment letter were replaced with a corresponding amount of permanent financing through the term loan credit agreement and issuance of senior notes, as described below, resulting in the termination of the bridge term loan facility effective July 1, 2019.

Senior Notes

On June 24, 2019, we completed an offering of \$9.0 billion aggregate principal amount of senior notes comprised of \$2.0 billion aggregate principal amount of 2.75% senior notes due in July 2024, \$2.0 billion aggregate principal amount of 3.2%

senior notes due in July 2026, \$3.0 billion aggregate principal amount of 3.5% senior notes due in July 2029 and \$2.0 billion aggregate principal amount of 4.4% senior notes due in July 2049. The senior notes pay interest semi-annually on January 1 and July 1, commencing on January 1, 2020. The indentures governing the senior notes contain covenants that, among other matters, limit (i) our ability to consolidate or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to another person, (ii) our and certain of our subsidiaries' ability to create or assume liens, and (iii) our and certain of our subsidiaries' ability to engage in sale and leaseback transactions. We may, at our option, redeem the senior notes, in whole or in part, at any time prior to the applicable par call date.

In March 2019, we entered into treasury lock agreements ("Treasury Locks"), designated as cash flow hedges, in the aggregate notional amount of \$5.0 billion to manage exposure to fluctuations in benchmark interest rates in anticipation of the issuance of fixed rate debt in connection with the refinancing of certain indebtedness of First Data and its subsidiaries. On June 24, 2019, concurrent with the issuance of the U.S. dollar-denominated senior notes described above, the Treasury Locks were settled resulting in a payment of \$183 million that will be amortized to earnings over the terms of the originally forecasted interest payments.

On July 1, 2019, we completed an offering of €1.5 billion aggregate principal amount and £1.05 billion aggregate principal amount of senior notes comprised of €500 million aggregate principal amount of 0.375% senior notes due in July 2023, €500 million aggregate principal amount of 1.125% senior notes due in July 2027, €500 million aggregate principal amount of 1.625% senior notes due in July 2030, £525 million aggregate principal amount of 2.25% senior notes due in July 2025, and £525 million aggregate principal amount of 3.0% senior notes due in July 2031. The senior notes pay interest annually on July 1, commencing on July 1, 2020. The indentures governing the senior notes contain covenants that are substantially the same as those set forth in our U.S. dollar-denominated senior notes described above.

In connection with the anticipated issuance of the foreign currency-denominated senior notes described above, we entered into foreign exchange forward contracts in June 2019 to minimize foreign currency exposure to the Euro and British Pound upon settlement of the proceeds from the foreign currency-denominated senior notes. The foreign exchange forward contracts matured on July 1, 2019, concurrent with the closing of the offering of the foreign currency-denominated senior notes. We realized foreign currency transaction gains of \$3 million, reported within debt financing activities in the consolidated statements of income during the year ended December 31, 2019, from these foreign exchange forward contracts. In addition, we held a portion of the proceeds from the issuance of these foreign currency-denominated senior notes in Euro- and British Pound-denominated cash and cash equivalents. We realized foreign currency transaction losses of \$19 million, reported within debt financing activities in the consolidated statements of income during the year ended December 31, 2019, as a result of changes in the U.S. dollar equivalent of the Euro- and British Pound-denominated cash due to fluctuations in foreign currency exchange rates.

A portion of the net proceeds from the senior note offerings described above was used in June 2019 to repay outstanding borrowings totaling \$790 million under our amended and restated revolving credit facility. On July 29, 2019, concurrent with the acquisition of First Data, we used the remaining net proceeds from the senior notes offerings described above, as well as the net proceeds of the term loan facility described below and a drawing on our revolving credit facility described below, to repay \$16.4 billion of existing First Data debt and to pay fees and our expenses related to such repayment, the First Data acquisition and related transactions.

In September 2018, we completed an offering of \$2.0 billion of senior notes comprised of \$1.0 billion aggregate principal amount of 3.8% senior notes due in October 2023 and \$1.0 billion aggregate principal amount of 4.2% senior notes due in October 2028. We used the net proceeds from such offering to repay the outstanding principal balance of \$540 million under our then-existing term loan and the then-outstanding borrowings under our amended and restated revolving credit facility totaling \$1.1 billion. In addition, we commenced a cash tender offer in September 2018 for any and all of our then-outstanding \$450 million aggregate principal amount of 4.625% senior notes due October 2020. Upon expiration of the tender offer on September 26, 2018, \$246 million was tendered. In October 2018, we retired the remaining outstanding \$204 million aggregate principal amount of 4.625% senior notes. We recorded a pre-tax loss, reported within debt financing activities in the consolidated statements of income, on early debt extinguishment of \$14 million during the year ended December 31, 2018 related to these activities.

Our 3.8% senior notes due in October 2023 and 4.2% senior notes due in October 2028 described above pay interest semi-annually on April 1 and October 1, commencing on April 1, 2019. In addition, we have outstanding 2.7% senior notes due in June 2020, 3.85% senior notes due in June 2025, 4.75% senior notes due in June 2021 and 3.5% senior notes due in October 2022. Our 2.7% senior notes due in June 2020 and 3.85% senior notes due in June 2025 pay interest at the stated rates semi-annually on June 1 and December 1 of each year. Our 4.75% senior notes due in June 2021 pay interest at the stated rate on June 15 and December 15 of each year. Our 3.5% senior notes due in October 2022 pay interest at the stated rate on April 1 and October 1 of each year. The interest rate applicable to the senior notes described in this paragraph is subject to an increase of up

to two percent in the event that the credit rating assigned to such notes is downgraded below investment grade. The indentures governing the senior notes described in this paragraph contain covenants that, among other matters, limit (i) our ability to consolidate or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to, another person, (ii) our and certain of our subsidiaries' ability to create or assume liens, and (iii) our and certain of our subsidiaries' ability to engage in sale and leaseback transactions. At December 31, 2019, the 2.7% notes due in June 2020 were classified in the consolidated balance sheet as long-term as we have the intent to refinance this debt on a long-term basis and the ability to do so under our revolving credit facility.

Term Loan Facility

On February 15, 2019, we entered into a new term loan credit agreement with a syndicate of financial institutions pursuant to which such financial institutions committed to provide us with a senior unsecured term loan facility in an aggregate principal amount of \$5.0 billion, consisting of \$1.5 billion in commitments to provide loans with a three-year maturity and \$3.5 billion in commitments to provide loans with a five-year maturity. On July 26, 2019, we entered into an amendment to our term loan credit facility to (i) remove as a condition precedent to borrowings on the closing date of the acquisition of First Data the requirement that amounts under the Receivables Financing Agreement, as defined below, be repaid and the related liens and guarantees be terminated in order to allow First Data's accounts receivable securitization program, as described below, to remain in place following consummation of the acquisition and (ii) amend the debt and liens covenants to increase our flexibility to enter into receivables financing arrangements in the future. On July 29, 2019, concurrent with the closing of the acquisition of First Data, the term loan credit agreement was funded. Loans drawn under the term loan facility are subject to amortization at a quarterly rate of 1.25% for the first eight quarters and 1.875% each quarter thereafter (with loans outstanding under the five-year tranche subject to amortization at a quarterly rate of 2.5% after the fourth anniversary of the commencement of amortization), with accrued and unpaid amortization amounts required to be paid on the last business day in December of each year. Borrowings under the term loan facility bear interest at variable rates based on LIBOR or on a base rate, plus in each case, a specified margin based on our long-term debt rating in effect from time to time. The variable interest rate on the term loan facility borrowings was 3.0% at December 31, 2019. We were also required to pay a ticking fee that accrued on the aggregate undrawn commitments under the term loan facility at a per annum rate based upon our long-term debt rating in effect from time to time. The term loan credit agreement contains affirmative, negative and financial covenants, and events of default, that are substantially the same as those set forth in our existing amended revolving credit facility, as described below.

Revolving Credit Facility

In September 2018, we entered into an amended and restated revolving credit agreement that restated our then-existing revolving credit agreement with a syndicate of banks and extended its maturity from April 2020 to September 2023. There are no significant commitment fees and no compensating balance requirements. The amended and restated revolving credit facility contained various restrictions and covenants that required us, among other things, to (i) limit our consolidated indebtedness as of the end of each fiscal quarter to no more than three and one-half times our consolidated net earnings before interest, taxes, depreciation, amortization, non-cash charges and expenses and certain other adjustments ("EBITDA") during the period of four fiscal quarters then ended, subject to certain exceptions, and (ii) maintain consolidated EBITDA of at least three times our consolidated interest expense as of the end of each fiscal quarter for the period of four fiscal quarters then ended.

On February 6, 2019, we entered into an amendment to our amended and restated revolving credit facility to (i) amend the maximum leverage ratio covenant to permit us to elect to increase the permitted maximum leverage ratio from three and one-half times our consolidated EBITDA to either four times or four and one-half times our consolidated EBITDA for a specified period following certain acquisitions and (ii) permit us to make drawings under the revolving credit facility on the closing date of our acquisition of First Data subject to only limited conditions. In November 2019, we elected to increase the permitted maximum leverage ratio to four times our consolidated EBITDA pursuant to the terms of the amendment described above. In addition, on February 15, 2019, we entered into a second amendment to our existing revolving credit agreement in order to increase the aggregate commitments available thereunder by \$1.5 billion to \$3.5 billion of total capacity, and to make certain additional amendments to facilitate the operation of the combined business following the acquisition of First Data. Further on July 26, 2019, we entered into a third amendment to our existing revolving credit agreement to (i) remove as a condition precedent to borrowings on the closing date of the acquisition of First Data the requirement that amounts under the Receivables Financing Agreement, as defined below, be repaid, and (ii) amend the debt and liens covenants to increase our flexibility to enter into receivables financing arrangements in the future. The increased commitments and amendments contemplated by the second and third amendments to the revolving credit facility became effective upon the closing of the acquisition of First Data. Borrowings under the amended and restated revolving credit facility continue to bear interest at a variable rate based on LIBOR or on a base rate, plus in each case a specified margin based on our long-term debt rating in effect from time to time. The variable interest rate on the revolving credit facility borrowings was 2.68% at December 31, 2019.

Foreign Lines of Credit and Other Arrangements

In connection with the acquisition of First Data, we assumed certain short-term lines of credit with foreign banks and alliance partners primarily to fund settlement activity. These arrangements are primarily associated with international operations and are in various functional currencies, the most significant of which are the Australian dollar, Polish zloty, Euro and Argentine peso. We had amounts outstanding on these lines of credit totaling \$150 million at a weighted-average interest rate of 13.4% at December 31, 2019.

Receivable Securitized Loan

In connection with the acquisition of First Data, we acquired a consolidated wholly-owned subsidiary, First Data Receivables, LLC ("FDR"). FDR is a party to certain receivables financing arrangements, including an agreement ("Receivables Financing Agreement") with certain financial institutions and other persons from time to time party thereto as lenders and group agents, pursuant to which certain of our wholly-owned subsidiaries have agreed to transfer and contribute receivables to FDR, and FDR in turn may obtain borrowings from the financial institutions and other lender parties to the Receivables Financing Agreement secured by liens on those receivables. FDR's assets are not available to satisfy the obligations of any other of our entities or affiliates, and FDR's creditors would be entitled, upon its liquidation, to be satisfied out of FDR's assets prior to any assets or value in FDR becoming available to us. The receivables held by FDR are recorded within trade accounts receivable, net in our consolidated balance sheet. At December 31, 2019, FDR held \$773 million in receivables as part of the securitization program. The maximum borrowing capacity, subject to collateral availability, under the Receivables Financing Agreement at December 31, 2019 was \$500 million. FDR utilized the receivables as collateral in borrowings of \$500 million, at an average interest rate of 2.61%, at December 31, 2019. The term of the Receivables Financing Agreement is through July 2022.

Other

Access to capital markets impacts our cost of capital, our ability to refinance maturing debt and our ability to fund future acquisitions. Our ability to access capital on favorable terms depends on a number of factors, including general market conditions, interest rates, credit ratings on our debt securities, perception of our potential future earnings and the market price of our common stock. As of December 31, 2019, we had a corporate credit rating of Baa2 with a stable outlook from Moody's Investors Service, Inc. ("Moody's") and BBB with a stable outlook from Standard & Poor's Ratings Services ("S&P") on our senior unsecured debt securities.

The interest rates payable on certain of our senior notes, our term loans and our revolving credit facility are subject to adjustment from time to time if Moody's or S&P changes the debt rating applicable to the notes. If the ratings from Moody's or S&P decrease below investment grade, the per annum interest rates on the senior notes are subject to increase by up to two percent. In no event will the total increase in the per annum interest rates exceed two percent above the original interest rates, nor will the per annum interest rate be reduced below the original interest rate applicable to the senior notes.

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. At December 31, 2019 and 2018, we held \$893 million and \$415 million in cash and cash equivalents, respectively.

The table below details the cash and cash equivalents at December 31:

(In millions)	2019			2018		
	Domestic	International	Total	Domestic	International	Total
Available	\$ 383	\$ 208	\$ 591	\$ 356	\$ 59	\$ 415
Unavailable	130 ⁽¹⁾	172 ⁽²⁾	302	—	—	—
Total	\$ 513	\$ 380	\$ 893	\$ 356	\$ 59	\$ 415

⁽¹⁾ Represents cash held by certain domestic entities that is not available to fund operations outside of these entities unless the Board of Directors for said entities declares a dividend. In addition, one of these entities is subject to regulatory capital requirements that must be satisfied before a dividend may be declared.

⁽²⁾ Distributions of these funds are subject to certain of our joint ventures' Board of Directors authorization.

Restructuring Costs

In connection with the acquisition of First Data, we have begun implementing certain integration plans focused on reducing our overall cost structure, including vendor spend and the elimination of duplicate costs. We recorded restructuring charges related to certain of these integration activities of \$56 million, primarily reported in cost of processing and service and selling, general and administrative expenses within the consolidated statements of income, based upon committed actions during the year ended December 31, 2019. We continue to evaluate operating efficiencies and anticipate incurring additional costs in the next few years in connection with these activities, but are unable to estimate those amounts at this time as such plans are not yet finalized.

Off-Balance Sheet Arrangements and Contractual Obligations

We do not participate in, nor have we created, any off-balance sheet variable interest entities or other off-balance sheet financing. The following table details our contractual obligations at December 31, 2019:

(In millions)	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Long-term debt including interest ^{(1) (2)}	\$ 27,989	\$ 915	\$ 4,249	\$ 8,329	\$ 14,496
Minimum finance lease payments ^{(1) (3)}	238	83	137	13	5
Minimum operating lease payments ^{(1) (3)}	817	153	262	190	212
Purchase obligations ⁽¹⁾	1,365	542	430	243	150
Income tax obligations	145	32	68	32	13
Total	<u>\$ 30,554</u>	<u>\$ 1,725</u>	<u>\$ 5,146</u>	<u>\$ 8,807</u>	<u>\$ 14,876</u>

(1) Interest, finance lease, operating lease and purchase obligations are reported on a pre-tax basis.

(2) The calculations assume that only mandatory debt repayments are made, no additional refinancing or lending occurs, except for our 2.7% senior notes due in June 2020 as we have the intent to refinance this debt on a long-term basis and the ability to do so under our revolving credit facility maturing in September 2023, and the variable rate on the revolving credit facility and term loans are priced at the rate in effect at December 31, 2019.

(3) Excludes \$302 million of legally binding minimum lease payments for finance leases and \$4 million of legally binding minimum lease payments for operating leases that have been signed but not yet commenced.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Market risk refers to the risk that a change in the level of one or more market prices, interest rates, currency exchange rates, indices, correlations or other market factors, such as liquidity, will result in losses for a certain financial instrument or group of financial instruments. We are exposed primarily to interest rate risk and market price risk on outstanding debt, investments of subscriber funds and foreign currency. Our senior management actively monitors these risks.

Interest Rate Risk

We manage our debt structure and interest rate risk through the use of fixed- and floating-rate debt. Based on our outstanding debt balances and interest rates at December 31, 2019, a 1% increase in variable interest rates would increase annual interest expense by approximately \$48 million.

In connection with processing electronic payments transactions, the funds we receive from subscribers are invested into short-term, highly liquid investments from the time we collect the funds until payments are made to the applicable recipients. A 1% decrease in variable interest rates would decrease annual interest-related income related to settlement assets by approximately \$32 million.

Foreign Currency Risk

We conduct business globally and are exposed to foreign currency risk from changes in the value of underlying assets and liabilities of our non-U.S. dollar-denominated foreign investments and foreign currency transactions. We manage the exposure to these risks through the use of foreign currency forward exchange contracts and non-derivative net investment hedges.

Our exposure to foreign currency exchange risks generally arise from our non-U.S. operations to the extent they are conducted in local currency. In 2019, approximately 12% of our total revenue was generated outside the U.S. The major currencies to which our revenues are exposed are the Euro, the British Pound, the Indian Rupee and the Argentine Peso. A movement of 10% in foreign currency rates against the U.S. dollar relative to the currencies in which our revenue and profits are denominated at

December 31, 2019, would have resulted in an increase or decrease in our reported pre-tax income, including the results of First Data from the date of acquisition, of approximately \$25 million as follows:

(In millions)		2019	
Euro		\$	7
British Pound			4
Indian Rupee			3
Argentine Peso			2
Other			9
Total increase or decrease		\$	25

We have entered into foreign currency forward exchange contracts, which have been designated as cash flow hedges, to hedge foreign currency exposure to our operating costs in India. At December 31, 2019, the notional amount of these derivatives was approximately \$178 million. In addition, we designated our foreign currency-denominated senior notes as net investment hedges to reduce exposure to changes in the value of our net investments in certain foreign subsidiaries due to changes in foreign currency exchange rates.

Item 8. Financial Statements and Supplementary Data

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Fiserv, Inc.
Consolidated Statements of Income

In millions, except per share data

Year ended December 31,	2019	2018	2017
Revenue:			
Processing and services ⁽¹⁾	\$ 8,573	\$ 4,975	\$ 4,833
Product	1,614	848	863
Total revenue	10,187	5,823	5,696
Expenses:			
Cost of processing and services	4,016	2,324	2,291
Cost of product	1,293	745	733
Selling, general and administrative	3,284	1,228	1,150
Gain on sale of businesses	(15)	(227)	(10)
Total expenses	8,578	4,070	4,164
Operating income	1,609	1,753	1,532
Interest expense, net	(473)	(189)	(175)
Debt financing activities	(47)	(14)	—
Other (expense) income	(6)	5	1
Income from continuing operations before income taxes and income from investments in unconsolidated affiliates	1,083	1,555	1,358
Income tax provision	(198)	(378)	(158)
Income from investments in unconsolidated affiliates	29	10	32
Income from continuing operations	914	1,187	1,232
Income from discontinued operations, net of income taxes	—	—	14
Net income	914	1,187	1,246
Less: Net income attributable to noncontrolling interests and redeemable noncontrolling interests	21	—	—
Net income attributable to Fiserv, Inc.	\$ 893	\$ 1,187	\$ 1,246
Net income attributable to Fiserv, Inc. per share - basic:			
Continuing operations	\$ 1.74	\$ 2.93	\$ 2.92
Discontinued operations	—	—	0.03
Total	\$ 1.74	\$ 2.93	\$ 2.95
Net income attributable to Fiserv, Inc. per share - diluted:			
Continuing operations	\$ 1.71	\$ 2.87	\$ 2.86
Discontinued operations	—	—	0.03
Total	\$ 1.71	\$ 2.87	\$ 2.89
Shares used in computing net income attributable to Fiserv, Inc. per share:			
Basic	512.3	405.5	422.3
Diluted	522.6	413.7	431.3

⁽¹⁾ Includes processing and other fees charged to related party investments accounted for under the equity method of \$112 million, \$28 million and \$0 million for the years ended December 31, 2019, 2018 and 2017, respectively (see Notes 9 and 20).

Fiserv, Inc.
Consolidated Statements of Comprehensive Income

In millions

Year ended December 31,	2019	2018	2017
Net income	\$ 914	\$ 1,187	\$ 1,246
Other comprehensive (loss) income:			
Fair market value adjustment on cash flow hedges, net of income tax (benefit) provision of (\$46 million), (\$2 million) and \$2 million	(134)	(5)	4
Reclassification adjustment for net realized gains on cash flow hedges included in cost of processing and services, net of income tax benefit of \$0 and \$0	(1)	(1)	—
Reclassification adjustment for net realized losses on cash flow hedges included in net interest expense, net of income tax provision of \$3 million, \$2 million and \$4 million	10	4	6
Unrealized loss on defined benefit pension plans, net of income tax benefit of \$1 million	(4)	—	—
Foreign currency translation	8	(11)	12
Total other comprehensive (loss) income	(121)	(13)	22
Comprehensive income	\$ 793	\$ 1,174	\$ 1,268
Less: Net income attributable to noncontrolling interests and redeemable noncontrolling interests	21	—	—
Less: Other comprehensive loss attributable to noncontrolling interests	(8)	—	—
Comprehensive income attributable to Fiserv, Inc.	\$ 780	\$ 1,174	\$ 1,268

Fiserv, Inc.
Consolidated Balance Sheets

In millions

December 31,

	2019	2018
Assets		
Cash and cash equivalents	\$ 893	\$ 415
Trade accounts receivable, less allowance for doubtful accounts	2,782	1,049
Prepaid expenses and other current assets	1,503	274
Settlement assets	11,868	486
Total current assets	17,046	2,224
Property and equipment, net	1,606	398
Customer relationships, net	14,042	1,348
Other intangible assets, net	3,600	795
Goodwill	36,038	5,702
Contract costs, net	533	419
Investments in unconsolidated affiliates	2,720	65
Other long-term assets	1,954	311
Total assets	\$ 77,539	\$ 11,262
Liabilities and Equity		
Accounts payable and accrued expenses	\$ 3,080	\$ 1,146
Short-term and current maturities of long-term debt	287	4
Contract liabilities	492	380
Settlement obligations	11,868	480
Total current liabilities	15,727	2,010
Long-term debt	21,612	5,955
Deferred income taxes	4,247	745
Long-term contract liabilities	155	89
Other long-term liabilities	941	170
Total liabilities	42,682	8,969
Commitments and Contingencies (see Note 19)		
Redeemable Noncontrolling Interests	262	—
Fiserv, Inc. Shareholders' Equity:		
Preferred stock, no par value: 25.0 million shares authorized; none issued	—	—
Common stock, \$0.01 par value: 1,800.0 million shares authorized; 791.4 million shares issued	8	8
Additional paid-in capital	23,741	1,057
Accumulated other comprehensive loss	(180)	(67)
Retained earnings	12,528	11,635
Treasury stock, at cost, 111.5 million and 398.9 million shares	(3,118)	(10,340)
Total Fiserv, Inc. shareholders' equity	32,979	2,293
Noncontrolling interests	1,616	—
Total equity	34,595	2,293
Total liabilities and equity	\$ 77,539	\$ 11,262

Fiserv, Inc.
Consolidated Statements of Equity

Fiserv, Inc. Shareholders' Equity

In millions	Number of Shares		Amount						
	Common Shares	Treasury Shares	Common Stock	Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Retained Earnings	Treasury Stock	Noncontrolling Interests	Total Equity
Balance at January 1, 2017	791	360	\$ 8	\$ 1,016	\$ (76)	\$ 8,994	\$ (7,401)	\$ —	\$ 2,541
Net income						1,246			1,246
Other comprehensive income					22				22
Share-based compensation				63					63
Shares issued under stock plans		(4)		(48)			78		30
Purchases of treasury stock		20					(1,171)		(1,171)
Balance at December 31, 2017	791	376	8	1,031	(54)	10,240	(8,494)	—	2,731
Net income						1,187			1,187
Other comprehensive loss					(13)				(13)
Share-based compensation				73					73
Shares issued under stock plans		(3)		(47)			69		22
Purchases of treasury stock		26					(1,915)		(1,915)
Cumulative-effect adjustment of ASU 2014-09 adoption						208			208
Cumulative-effect adjustment of ASU 2017-12 adoption					3	(3)			—
Cumulative-effect adjustment of ASU 2018-02 adoption					(3)	3			—
Balance at December 31, 2018	791	399	8	1,057	(67)	11,635	(10,340)	—	2,293
Net income ⁽¹⁾						893		4	897
Shares issued to acquire First Data (see Note 4)		(286)		22,582			7,478	1,731	31,791
Distributions paid to noncontrolling interests ⁽²⁾								(111)	(111)
Other comprehensive loss					(113)			(8)	(121)
Share-based compensation				229					229
Shares issued under stock plans		(5)		(127)			137		10
Purchases of treasury stock		4					(393)		(393)
Balance at December 31, 2019	791	112	\$ 8	\$ 23,741	\$ (180)	\$ 12,528	\$ (3,118)	\$ 1,616	\$ 34,595

⁽¹⁾ The total net income presented in the consolidated statement of equity for the year ended December 31, 2019 is different than the amount presented in the consolidated statement of income due to the net income attributable to redeemable noncontrolling interests of \$17 million not included in equity.

⁽²⁾ The total distributions presented in the consolidated statement of equity for the year ended December 31, 2019 excludes \$7 million in distributions paid to redeemable noncontrolling interests not included in equity.

Fiserv, Inc.
Consolidated Statements of Cash Flows

In millions

Year ended December 31,	2019	2018	2017
Cash flows from operating activities:			
Net income	\$ 914	\$ 1,187	\$ 1,246
Adjustment for discontinued operations	—	—	(14)
Adjustments to reconcile net income to net cash provided by operating activities from continuing operations:			
Depreciation and other amortization	615	382	270
Amortization of acquisition-related intangible assets	1,036	163	159
Amortization of financing costs, debt discounts and other	127	11	15
Net foreign currency gain on financing activities	(50)	—	—
Share-based compensation	229	73	63
Deferred income taxes	47	133	(247)
Gain on sale of businesses	(15)	(227)	(10)
Income from investments in unconsolidated affiliates	(29)	(10)	(32)
Distributions from unconsolidated affiliates	23	2	45
Settlement of interest rate hedge contracts	(183)	—	—
Non-cash impairment charges	48	3	18
Other operating activities	(3)	4	(4)
Changes in assets and liabilities, net of effects from acquisitions and dispositions:			
Trade accounts receivable	(7)	(108)	(75)
Prepaid expenses and other assets	(82)	(6)	(37)
Contract costs	(212)	(137)	(29)
Accounts payable and other liabilities	238	116	54
Contract liabilities	99	(34)	61
Net cash provided by operating activities from continuing operations	2,795	1,552	1,483
Cash flows from investing activities:			
Capital expenditures, including capitalization of software costs	(721)	(360)	(287)
Proceeds from sale of businesses	51	419	17
Payments for acquisitions of businesses, net of cash acquired	(16,005)	(712)	(384)
Distributions from unconsolidated affiliates	113	—	—
Purchases of investments	(45)	(3)	(10)
Other investing activities	5	(7)	7
Net cash used in investing activities from continuing operations	(16,602)	(663)	(657)
Cash flows from financing activities:			
Debt proceeds	20,030	5,039	2,310
Debt repayments	(5,043)	(4,005)	(1,985)
Payments of debt financing, redemption and other costs	(247)	—	—
Proceeds from issuance of treasury stock	156	75	78
Purchases of treasury stock, including employee shares withheld for tax obligations	(561)	(1,946)	(1,223)
Distributions paid to noncontrolling interests and redeemable noncontrolling interests	(118)	—	—
Other financing activities	(26)	(5)	—
Net cash provided by (used in) financing activities from continuing operations	14,191	(842)	(820)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	1	—	—
Net change in cash, cash equivalents and restricted cash from continuing operations	385	47	6
Net cash flows from discontinued operations	133	43	19
Cash, cash equivalents and restricted cash, beginning balance	415	325	300
Cash, cash equivalents and restricted cash, ending balance	\$ 933	\$ 415	\$ 325
Discontinued operations cash flow information:			
Net cash (used in) provided by operating activities	\$ —	\$ (7)	\$ 19
Net cash provided by investing activities	133	50	—
Net change in cash, cash equivalents and restricted cash from discontinued operations	\$ 133	\$ 43	\$ 19

Fiserv, Inc.
Notes to Consolidated Financial Statements

1. Summary of Significant Accounting Policies

Description of the Business

Fiserv, Inc. and its subsidiaries (collectively, the “Company”) provide financial services technology to clients worldwide. The Company provides account processing systems; electronic payments processing products and services; internet and mobile banking systems; merchant transaction processing and acquiring; prepaid and payroll services; and check verification. The Company serves clients around the globe, including banks, credit unions, other financial institutions and merchants.

On July 29, 2019, the Company completed the acquisition of First Data Corporation (“First Data”) by acquiring 100% of the First Data stock that was issued and outstanding as of the date of acquisition for a total purchase price of \$46.5 billion (see Note 4). First Data provides a wide-range of solutions to merchants, including retail point-of-sale merchant transaction processing and acquiring, e-commerce services, mobile payment services and the cloud-based Clover® point-of-sale operating system, as well as technology solutions for bank and non-bank issuers. The consolidated financial statements as of and during the year ended December 31, 2019 include the financial results of First Data from the date of acquisition.

The Company’s operations are comprised of the First Data segment, the Payments and Industry Products (“Payments”) segment and the Financial Institution Services (“Financial”) segment. Additional information regarding the Company’s business segments is included in Note 21.

Principles of Consolidation

The consolidated financial statements include the accounts of Fiserv, Inc. and its subsidiaries in which the Company holds a controlling financial interest. Control is normally established when ownership and voting interests in an entity are greater than 50%. Investments in which the Company has significant influence but not control are accounted for using the equity method of accounting. Significant influence over an affiliate’s operations generally coincides with an ownership interest in an entity of between 20% and 50%. All intercompany transactions and balances have been eliminated in consolidation.

In connection with the acquisition of First Data, the Company acquired majority controlling interests in certain entities, mostly related to consolidated merchant alliances (see Note 20). Noncontrolling interests represent the minority shareholders’ share of the net income or loss and equity in consolidated subsidiaries. The Company’s noncontrolling interests presented in the consolidated statement of income include net income attributable to noncontrolling interests and redeemable noncontrolling interests. Noncontrolling interests are presented as a component of equity in the consolidated balance sheet and reflect the minority shareholders’ share of acquired fair value 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 upon the occurrence of an event that is not solely within the Company’s control are presented outside of equity and are carried at their estimated redemption value if it exceeds the initial carrying value of the redeemable interest (see Note 13).

Stock Split

On February 21, 2018, the Company’s board of directors declared a two-for-one stock split of the Company’s common stock and a proportionate increase in the number of its authorized shares of common stock. The additional shares were distributed on March 19, 2018 to shareholders of record at the close of business on March 5, 2018. The Company’s common stock began trading at the split-adjusted price on March 20, 2018. All share and per share amounts are retroactively presented on a split adjusted basis. The impact on the consolidated balance sheet of the stock split was an increase of \$4 million to common stock and an offsetting reduction in additional paid-in capital.

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 reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ materially from those estimates.

Revenue Recognition

Effective January 1, 2018, the Company adopted Accounting Standards Update (“ASU”) No. 2014-09, *Revenue from Contracts with Customers*, and its related amendments using the modified retrospective transition approach applied to all contracts. Prior period amounts have not been restated; however, certain prior period amounts have been reclassified to conform to current period presentation. Additional information about the Company’s revenue recognition policies and the related impact of the adoption is included in Note 3 to the consolidated financial statements.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash and investments with original maturities of 90 days or less. Cash and cash equivalents are stated at cost in the consolidated balance sheets, which approximates market value. Cash and cash equivalents that were restricted from use due to regulatory or other requirements are included in other long-term assets in the consolidated balance sheets and totaled \$40 million and \$0 million at December 31, 2019 and 2018, respectively.

Allowance for Doubtful Accounts

The Company analyzes the collectability of trade accounts receivable by considering historical bad debts, client creditworthiness, current economic trends, changes in client payment terms and collection trends when evaluating the adequacy of the allowance for doubtful accounts. Any change in the assumptions used in analyzing a specific account receivable may result in an additional allowance for doubtful accounts being recognized in the period in which the change occurs. The allowance for doubtful accounts was \$39 million and \$18 million at December 31, 2019 and 2018, respectively.

Leases

Effective January 1, 2019, the Company adopted ASU No. 2016-02, *Leases (Topic 842)* (“ASU 2016-02”), and its related amendments using the optional transition method applied to all leases. Prior period amounts have not been restated. Additional information about the Company’s lease policies and the related impact of the adoption is included in Notes 2 and 11 to the consolidated financial statements.

In connection with the acquisition of First Data, the Company acquired certain leasing receivables associated with the point-of-sale (“POS”) terminal leasing businesses of First Data. Leasing receivables are included in prepaid expenses and other current assets and other long-term assets in the consolidated balance sheet. Interest income on the Company’s leasing receivables is recognized using the effective interest method, and is included within product revenue in the consolidated statement of income. Initial direct costs are expensed as incurred if the fair value of the underlying asset is different from its carrying amount at the commencement date of the lease.

Prepaid Expenses

Prepaid expenses represent advance payments for goods and services to be consumed in the future, such as maintenance, postage and insurance and totaled \$348 million and \$158 million at December 31, 2019 and 2018, respectively.

Settlement Assets and Obligations

Settlement assets and obligations result from timing differences between collection and fulfillment of payment transactions primarily associated with the Company’s merchant acquiring services. Settlement assets represent cash received or amounts receivable from agents, payment networks, bank partners or directly from consumers. Settlement obligations represent amounts payable to merchants and payees. Certain merchant settlement assets that relate to settlement obligations are held by partner banks to which the Company does not have legal ownership but has the right to use the assets to satisfy the related settlement obligations. The Company records corresponding settlement obligations for amounts payable to merchants and for payment instruments not yet presented for settlement. See Note 6 for additional information.

Reserve for Merchant Credit Losses

With respect to the merchant acquiring business obtained through the acquisition of First Data, the Company’s merchant customers 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 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 is classified within settlement obligations on the Company’s consolidated balance sheet. The Company also utilizes a number of systems and procedures to manage merchant risk. Despite these efforts, the Company

experiences some level of losses due to merchant defaults. The aggregate merchant credit losses incurred by the Company was \$40 million for the year ended December 31, 2019, and is included within cost of processing and services in the consolidated statement of income. The amount of collateral held by the Company was \$510 million at December 31, 2019. The Company maintains a reserve for merchant credit losses that are expected to exceed the amount of collateral held, which is recorded based primarily on historical experience of credit losses and other relevant factors such as economic downturns or increases in merchant fraud. The aggregate merchant credit loss reserve was \$34 million at December 31, 2019 and is included within accounts payable and accrued expenses in the consolidated balance sheet.

Property and Equipment

Property and equipment are reported at cost. Depreciation of property and equipment is computed primarily using the straight-line method over the shorter of the estimated useful life of the asset or the leasehold period, if applicable. Property and equipment consisted of the following at December 31:

(In millions)	Estimated Useful Lives	2019	2018
Land	—	\$ 61	\$ 10
Data processing equipment	3 to 5 years	1,483	775
Buildings and leasehold improvements	5 to 40 years	540	256
Furniture and equipment	5 to 8 years	576	186
		2,660	1,227
Less: Accumulated depreciation		(1,054)	(829)
Total		\$ 1,606	\$ 398

Depreciation expense for all property and equipment totaled \$247 million in 2019 and \$92 million in each of 2018 and 2017.

Intangible Assets

Customer related intangible assets represent customer contracts and relationships obtained as part of acquired businesses and are amortized using an accelerated amortization method which corresponds with the customer attrition rates used in the initial valuation of the intangibles over their estimated useful lives, generally ten to twenty years. Acquired software and technology represents software and technology intangible assets obtained as part of acquired businesses and is amortized using the straight-line method over their estimated useful lives, generally four to ten years. Trade names are amortized using the straight-line method over their estimated useful lives, generally eight to twenty years.

The Company continually develops, maintains and enhances its products and systems. Product development expenditures represented approximately 8% of the Company's total revenue in each of 2019, 2018 and 2017. Research and development costs incurred prior to the establishment of technological feasibility are expensed as incurred. Routine maintenance of software products, design costs and other development costs incurred prior to the establishment of a product's technological feasibility are also expensed as incurred. Costs are capitalized commencing when the technological feasibility of the software has been established.

Capitalized software development costs represent the capitalization of certain costs incurred to develop new software or to enhance existing software which is marketed externally or utilized by the Company to process client transactions. Capitalized software development costs are amortized using the straight-line method over their estimated useful lives, generally five years.

Purchased software represents software licenses purchased from third parties and is amortized using the straight-line method over their estimated useful lives, generally three to five years. See Note 7 for additional information.

Goodwill

Goodwill represents the excess of purchase price over the fair value of identifiable assets acquired and liabilities assumed in a business combination. The Company evaluates goodwill for impairment on an annual basis, or more frequently if circumstances indicate possible impairment. Goodwill is tested for impairment at a reporting unit level, determined to be at an operating segment level or one level below. When assessing goodwill for impairment, the Company considers (i) the amount of excess fair value over the carrying value of each reporting unit, (ii) the period of time since a reporting unit's last quantitative test, (iii) the extent a reorganization or disposition changes the composition of one or more of the reporting units and (iv) other factors to determine whether or not to first perform a qualitative test. When performing a qualitative test, the Company assesses numerous factors to determine whether it is more likely than not that the fair value of its reporting units are less than their respective carrying values. Examples of qualitative factors that the Company assesses include its share price, its financial

performance, market and competitive factors in its industry and other events specific to its reporting units. If the Company concludes that it is more likely than not that the fair value of a reporting unit is less than its carrying value, the Company performs a quantitative impairment test by comparing reporting unit carrying values to estimated fair values. The Company's most recent impairment assessment of its reporting units in the fourth quarter of 2019 determined that its goodwill was not impaired as the estimated fair values substantially exceeded the carrying values except for the reporting units related to the acquisition of First Data. An assessment of qualitative factors, including the proximity of the acquisition date to the year end reporting period, did not identify indicators of impairment in relation to the First Data goodwill. Goodwill recorded as a result of the acquisition of First Data is based on preliminary estimates and assumptions using information available at the reporting date, and therefore the potential for measurement period adjustments exists based on the Company's continuing review of matters related to the acquisition. There is no accumulated goodwill impairment for the Company through December 31, 2019. See Note 8 for additional information.

Asset Impairment

The Company reviews property and equipment, intangible assets and its investments in unconsolidated affiliates for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. The Company reviews capitalized software development costs for impairment at each reporting date. Recoverability of property and equipment, capitalized software development costs and other intangible assets is assessed by comparing the carrying amount of the asset to either the undiscounted future cash flows expected to be generated by the asset or the net realizable value of the asset, depending on the type of asset. The Company's investments in unconsolidated affiliates are assessed by comparing the carrying amount of the investments to their estimated fair values and are impaired if any decline in fair value is determined to be other than temporary. Measurement of any impairment loss is based on estimated fair value.

Fair Value Measurements

The Company applies fair value accounting for all assets and liabilities that are recognized or disclosed at fair value in its consolidated financial statements on a recurring basis. Fair value represents the amount that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities, the Company uses the hierarchy prescribed in Accounting Standards Codification ("ASC") 820, *Fair Value Measurements*, and considers the principal or most advantageous market and the market-based risk measurements or assumptions that market participants would use in pricing the asset or liability. The three levels in the hierarchy are as follows:

- Level 1 - Quoted prices (unadjusted) for identical assets or liabilities in active markets that are accessible as of the measurement date.
- Level 2 - 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 - Unobservable inputs reflecting management's judgments about the assumptions that market participants would use in pricing the asset or liability, including assumptions about risk.

See Note 10 for additional information.

Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses consisted of the following at December 31:

<u>(In millions)</u>	2019	2018
Trade accounts payable	\$ 392	\$ 127
Client deposits	650	564
Accrued compensation and benefits	378	199
Accrued taxes	137	18
Accrued interest	224	35
Other accrued expenses	1,299	203
Total	<u>\$ 3,080</u>	<u>\$ 1,146</u>

Foreign Currency

The United States ("U.S.") dollar is the functional currency of the Company's U.S.-based businesses and certain foreign-based businesses. Where the functional currency differs from the U.S. dollar, assets and liabilities are translated into U.S. dollars at the exchange rates in effect at the balance sheet date. Revenue and expenses are translated at the average exchange rates during the period. Gains and losses from foreign currency translation are recorded as a separate component of accumulated other comprehensive loss. Gains and losses from foreign currency transactions are included in determining net income for the period. The Company has designated its Euro- and British Pound-denominated senior notes as net investment hedges to hedge a portion of its net investment in certain subsidiaries whose functional currencies are the Euro and the British Pound (see Note 14). Accordingly, foreign currency transaction gains or losses on the qualifying net investment hedge instruments are recorded as foreign currency translation within other comprehensive loss in the consolidated statement of comprehensive income and will remain in accumulated other comprehensive loss on the consolidated balance sheet until the sale or complete liquidation of the underlying foreign subsidiaries.

Derivatives

Derivatives are entered into for periods consistent with related underlying exposures and are recorded in the consolidated balance sheets as either an asset or liability measured at fair value. If the derivative is designated as a cash flow hedge, changes in the fair value of the derivative are recorded as a component of accumulated other comprehensive loss and recognized in the consolidated statements of income when the hedged item affects earnings. The Company's policy is to enter into derivatives with creditworthy institutions and not to enter into such derivatives for speculative purposes.

Employee Benefit Plans

In connection with the acquisition of First Data, the Company acquired frozen defined benefit pension plans covering certain employees in Europe and the United States. The Company recognizes actuarial gains/losses and prior service cost in the consolidated balance sheet and recognizes changes in these amounts during the year in which changes occur through other comprehensive (loss) income. The Company uses various assumptions when computing amounts relating to its defined benefit pension plan obligations and their associated expenses (including the discount rate and the expected rate of return on plan assets). See Note 15 for additional information.

Selling, General and Administrative Expenses

Selling, general and administrative expenses primarily consist of: salaries, wages, commissions and related expenses paid to sales personnel, administrative employees and management; advertising and promotional costs; certain depreciation and amortization; and other selling and administrative expenses.

Interest Expense, Net

Interest expense, net consists of interest expense primarily associated with the Company's outstanding borrowings and finance lease obligations, as well as interest income primarily associated with the Company's investment securities. The Company recognized \$507 million, \$193 million and \$176 million of interest expense and \$34 million, \$4 million and \$1 million of interest income during the years ended December 31, 2019, 2018 and 2017, respectively.

Income Taxes

Deferred tax assets and liabilities are recognized for the expected future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax basis, and net operating loss and tax credit carry-forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. A valuation allowance is recorded against deferred tax assets if it is more likely than not that some portion or all of the deferred tax assets will not be realized.

Liabilities are established for unrecognized tax benefits, attributable to differences between a tax position taken or expected to be taken in a tax return and the benefit recognized in the financial statements. In establishing a liability for an unrecognized tax benefit, assumptions are made in determining whether, and the extent to which, a tax position will be sustained. A tax position is recognized only when it is more likely than not to be sustained upon examination by the relevant taxing authority, based on its technical merits. The amount of tax benefit recognized reflects the largest benefit the Company believes is more likely than not to be realized upon ultimate settlement. As additional information becomes available, the liability for unrecognized tax benefits is reevaluated and adjusted, as appropriate. Tax benefits ultimately realized can differ from amounts previously recognized due to uncertainties, with any such differences generally impacting the provision for income tax.

Net Income Per Share

Net income per share attributable to Fiserv, Inc. in each period is calculated using actual, unrounded amounts. Basic net income per share is computed by dividing net income attributable to Fiserv, Inc. by the weighted-average number of common shares outstanding during the period. Diluted net income per share is computed by dividing net income attributable to Fiserv, Inc. by the weighted-average number of common shares and common stock equivalents outstanding during the period. Common stock equivalents consist of outstanding stock options, unvested restricted stock units and unvested restricted stock awards, and are computed using the treasury stock method. The Company excluded 1.1 million weighted-average shares in both 2019 and 2018 and 1.3 million in 2017 from the calculations of common stock equivalents for anti-dilutive stock options.

The computation of shares used in calculating basic and diluted net income per share is as follows:

(In millions)	2019	2018	2017
Weighted-average common shares outstanding used for the calculation of net income attributable to Fiserv, Inc. per share - basic	512.3	405.5	422.3
Common stock equivalents	10.3	8.2	9.0
Weighted-average common shares outstanding used for the calculation of net income attributable to Fiserv, Inc. per share - diluted	522.6	413.7	431.3

Supplemental Cash Flow Information

(In millions)	2019	2018	2017
Interest paid	\$ 291	\$ 165	\$ 160
Income taxes paid	197	259	409
Treasury stock purchases settled after the balance sheet date	6	26	5

2. Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In June 2018, the Financial Accounting Standards Board ("FASB") issued ASU No. 2018-07, *Compensation - Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting* ("ASU 2018-07"), which simplifies the accounting for share-based payments granted to nonemployees by largely aligning it with the accounting for share-based payments to employees. For public entities, ASU 2018-07 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018. Entities must apply the standard using a modified retrospective transition approach, with a cumulative-effect adjustment to retained earnings as of the beginning of the fiscal year of adoption for all liability-classified nonemployee awards that have not been settled as of the adoption date and equity-classified nonemployee awards for which a measurement date has not been established. The Company adopted ASU 2018-07 on January 1, 2019, and the adoption did not have any impact on its consolidated financial statements.

In February 2018, the FASB issued ASU No. 2018-02, *Income Statement Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income* ("ASU 2018-02"), which allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects of the change in the U.S. federal corporate tax rate resulting from the Tax Cuts and Jobs Act (the "Tax Act") enacted in December 2017. ASU 2018-02 is effective for fiscal years, including interim periods within those fiscal years, beginning after December 15, 2018, with early adoption permitted. The Company early adopted ASU 2018-02 in the first quarter of 2018, and elected to reclassify the Tax Act income tax benefits of \$3 million from accumulated other comprehensive loss to retained earnings.

In August 2017, the FASB issued ASU No. 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities* ("ASU 2017-12"), which provides guidance designed to improve the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements as well as to simplify the application of the hedge accounting guidance in current U.S. generally accepted accounting principles. For public entities, ASU 2017-12 is effective for fiscal years, including interim periods within those fiscal years, beginning after December 15, 2018, with early adoption permitted in any interim period or fiscal year. For cash flow and net investment hedges existing at the date of adoption, the standard requires a cumulative-effect adjustment to eliminate the separate measurement of ineffectiveness to accumulated other comprehensive income with a corresponding adjustment to the opening balance of retained earnings as of the beginning of the fiscal year of adoption. The amended presentation and

disclosure guidance is required only prospectively. The Company early adopted ASU 2017-12 in the first quarter of 2018, and recorded a cumulative-effect adjustment to accumulated other comprehensive loss of \$3 million with a corresponding decrease in the opening balance of retained earnings.

In October 2016, the FASB issued ASU No. 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory* ("ASU 2016-16"), which eliminates the current prohibition on immediate recognition of the current and deferred income tax effects of intra-entity transfers of assets other than inventory, with the intent of reducing complexity and diversity in practice. Under ASU 2016-16, entities must recognize the income tax consequences when the transfer occurs rather than deferring recognition. For public entities, ASU 2016-16 is effective for fiscal years, including interim periods within those fiscal years, beginning after December 15, 2017. Entities must apply the guidance on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of the beginning of the period of adoption. The Company adopted ASU 2016-16 in the first quarter of 2018, and the adoption did not have a material impact on its consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, which requires lessees to recognize a lease liability and a right-of-use asset for each lease with a term longer than twelve months and adds new presentation and disclosure requirements for both lessees and lessors. The accounting guidance for lessors remains largely unchanged. The recognized liability is measured at the present value of lease payments not yet paid, and the corresponding asset represents the lessee's right to use the underlying asset over the lease term and is based on the liability, subject to certain adjustments. For income statement and statement of cash flow purposes, the standard retains the dual model with leases classified as either operating or finance. Operating leases will result in straight-line expense while finance leases will result in a front-loaded expense pattern. The standard prescribes a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. ASU No. 2016-02 was subsequently amended by ASU No. 2018-01, *Land Easement Practical Expedient for Transition to Topic 842*; ASU No. 2018-10, *Codification Improvements to Topic 842*; ASU No. 2018-11, *Leases (Topic 842) - Targeted Improvements* ("ASU 2018-11"); ASU No. 2018-20, *Narrow-Scope Improvements for Lessors*; and ASU No. 2019-01, *Leases (Topic 842) - Codification Improvements*. ASU No. 2018-11 provides an additional transition method allowing entities to initially apply the new lease standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. For public entities, ASU 2016-02 is effective for annual and interim periods beginning after December 15, 2018.

The Company adopted ASU No. 2016-02 effective January 1, 2019 using the optional transition method in ASU 2018-11. Under this method, the Company has not adjusted its comparative period financial statements for the effects of the new standard or made the new, expanded required disclosures for periods prior to the effective date. The Company elected the package of practical expedients permitted under the transition guidance in ASU 2016-02 to not reassess prior conclusions related to contracts containing leases, lease classification and initial direct costs. The Company also elected the practical expedient not to separate the non-lease components of a contract from the lease component to which they relate.

The adoption of the new lease standard resulted in the recognition of lease liabilities of \$383 million and right-of-use assets of \$343 million, which include the impact of existing deferred rents and tenant improvement allowances on the consolidated balance sheet as of January 1, 2019 for real and personal property operating leases. The adoption of ASU 2016-02 did not have a material impact on the Company's consolidated statements of income or consolidated statements of cash flows.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers* ("ASU 2014-09"), to clarify the principles of recognizing revenue and to create common revenue recognition guidance between U.S. generally accepted accounting principles and International Financial Reporting Standards. ASU 2014-09 outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific requirements. It also includes guidance on accounting for the incremental costs of obtaining and costs incurred to fulfill a contract with a customer. The core principle of the revenue model is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. This model involves a five-step process for achieving that core principle, along with comprehensive disclosures about the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. For public entities, the new revenue standard is effective for annual and interim periods beginning after December 15, 2017. Entities have the option of adopting this new guidance using either a full retrospective or a modified approach with the cumulative effect of applying the guidance recognized at the date of initial application.

The Company adopted the new standard effective January 1, 2018 using the modified retrospective transition approach applied to all contracts, which resulted in a cumulative-effect increase in the opening balance of retained earnings of \$208 million, primarily related to the deferral of incremental sales commissions incurred in obtaining contracts in prior periods. Under this transition approach, the Company has not restated the prior period consolidated financial statements presented; however, it has

provided additional disclosures related to the amount by which each relevant 2018 financial statement line item was affected by adoption of the new standard and explanations for significant changes (see Note 3).

Recently Issued Accounting Pronouncements

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU 2019-12"), which introduces a number of amendments that are designed to simplify the application of accounting for income taxes. Such amendments include removing certain exceptions for intraperiod tax allocation, interim reporting when a year-to-date loss exceeds the anticipated loss, reflecting the effect of an enacted change in tax laws or rates in the annual effective tax rate and recognition of deferred taxes related to outside basis differences for ownership changes in investments. ASU 2019-12 also provides clarification related to when a step up in the tax basis of goodwill should be considered part of the business combination in which the book goodwill was originally recognized and when it should be considered a separate transaction. In addition, ASU 2019-12 provides guidance on the recognition of a franchise tax (or similar tax) that is partially based on income as an income-based tax and accounting for any incremental amount incurred as a non-income-based tax. For public entities, ASU 2019-12 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020, with early adoption permitted. The Company is currently assessing the impact that the adoption of ASU 2019-12 will have on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, *Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* ("ASU 2018-15"), which aligns the requirements for capitalizing implementation costs incurred in a cloud computing hosting arrangement that is a service contract with the requirements under ASC 350 for capitalizing implementation costs incurred to develop or obtain internal-use software. For public entities, ASU 2018-15 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2019. Entities are permitted to apply either a retrospective or prospective transition approach to adopt the guidance. The adoption of ASU 2018-15 will not have a material impact on the Company's consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-14, *Compensation - Retirement Benefits - Defined Benefit Plans - General (Subtopic 715-20): Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans* ("ASU 2018-14"), which removes, clarifies and adds certain disclosure requirements of ASC Topic 715, *Compensation - Retirement Benefits*. ASU 2018-14 is effective for fiscal years beginning after December 15, 2020, with early adoption permitted. Entities must apply the disclosure updates retrospectively. The Company is currently assessing the impact that the adoption of ASU 2018-14 will have on its disclosures.

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU 2018-13"), which removes, modifies and adds certain disclosure requirements of ASC Topic 820, *Fair Value Measurement*. ASU 2018-13 is effective for fiscal years, including interim periods within those fiscal years, beginning after December 15, 2019, with the additional disclosures required to be applied prospectively and the modified and removed disclosures required to be applied retrospectively to all periods presented. The adoption of ASU 2018-13 will not have a material impact on the Company's disclosures.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments - Credit Losses (Topic 326)* ("ASU 2016-13" or "CECL"), which prescribes an impairment model for most financial instruments based on expected losses rather than incurred losses. Under this model, an estimate of expected credit losses over the contractual life of the instrument is to be recorded as of the end of a reporting period as an allowance to offset the amortized cost basis, resulting in a net presentation of the amount expected to be collected on the financial instrument. For public entities, ASU 2016-13 is effective for fiscal years, including interim periods within those fiscal years, beginning after December 15, 2019. For most instruments, entities must apply the standard using a cumulative-effect adjustment to beginning retained earnings as of the beginning of the fiscal year of adoption.

The Company adopted ASU 2016-13 effective January 1, 2020 and has identified appropriate changes related to controls, processes and accounting policies and disclosures. Financial assets and liabilities held by the Company subject to the "expected credit loss" model prescribed by CECL include trade and other receivables, net investments in leases, settlement assets and other credit exposures such as financial guarantees not accounted for as insurance. The adoption of this guidance, including an acceleration in the timing for recognition of credit losses due to the requirement to estimate expected losses associated with the remaining contractual lives of financial instruments as of January 1, 2020, will not have a material impact on the Company's consolidated financial statements.

3. Revenue Recognition

Revenue Recognition During the Years Ended December 31, 2019 and 2018

The Company adopted ASU 2014-09, *Revenue from Contracts with Customers*, and its related amendments (collectively known as "ASC 606"), effective January 1, 2018 using the modified retrospective transition approach applied to all contracts. Therefore, the reported results for the years ended December 31, 2019 and 2018 reflect the application of ASC 606 while the reported results for the year ended December 31, 2017 were not adjusted and continue to be reported under the accounting guidance, ASC 605, *Revenue Recognition* ("ASC 605"), in effect for that period. The cumulative impact of adopting ASC 606 was an increase in the opening balance of retained earnings of \$208 million, primarily related to the deferral of incremental sales commissions incurred in obtaining contracts in prior periods.

Significant Accounting Policy

ASC 606 outlines a single comprehensive model to use in accounting for revenue arising from contracts with customers. The core principle, involving a five-step process, of the revenue model is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

The Company generates revenue from the delivery of processing, service and product solutions. Revenue is measured based on consideration specified in a contract with a customer, and excludes any amounts collected on behalf of third parties. The Company recognizes revenue when it satisfies a performance obligation by transferring control over a product or service to a customer which may be at a point in time or over time.

Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by the Company from a customer, are excluded from revenue. Shipping and handling activities associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment activity and recognized as revenue at the point in time at which control of the goods transfers to the customer. As a practical expedient, the Company does not adjust the transaction price for the effects of a significant financing component if, at contract inception, the period between customer payment and the transfer of goods or services is expected to be one year or less.

Nature of Goods and Services

The Company's operations are comprised of the First Data segment, the Payments segment and the Financial segment. Additional information regarding the Company's business segments is included in Note 21. The following is a description of principal activities from which the Company generates its revenue. Contracts with customers are evaluated on a contract-by-contract basis as contracts may include multiple types of goods and services as described below.

Processing and Services

Processing and services revenue is generated from account- and transaction-based fees for data processing, merchant transaction processing and acquiring, electronic billing and payment services, electronic funds transfer and debit processing services; consulting and professional services; and software maintenance for ongoing client support.

The Company recognizes processing and services revenues in the period in which the specific service is performed unless they are not deemed distinct from other goods or services in which revenue would then be recognized as control is transferred of the combined goods and services. The Company's arrangements for processing and services typically consist of an obligation to provide specific services to its customers on a when and if needed basis (a stand-ready obligation) and revenue is recognized from the satisfaction of the performance obligations in the amount billable to the customer. These services are typically provided under a fixed or declining (tier-based) price per unit based on volume of service; however, pricing for services may also be based on minimum monthly usage fees. Fees for the Company's processing and services arrangements are typically billed and paid on a monthly basis.

Product

Product revenue is generated from integrated print and card production sales, as well as software license sales. For software license agreements that are distinct, the Company recognizes software license revenue upon delivery, assuming a contract is deemed to exist. Revenue for arrangements with customers that include significant customization, modification or production of software such that the software is not distinct is typically recognized over time based upon efforts expended, such as labor hours, to measure progress towards completion. For arrangements involving hosted licensed software for the customer, a software element is considered present to the extent the customer has the contractual right to take possession of the software at any time during the hosting period without significant penalty and it is feasible for the customer to either operate the software on their own hardware or contract with another vendor to host the software. In certain instances, the Company may offer extended payment terms beyond one year on its software license sales. To the extent a significant financing component exists, it is calculated as the difference between the promised consideration and the present value of the software license fees utilizing a discount rate reflective of a separate financing transaction, and is recognized as interest income over the extended payment period. The cash selling price of the software license fee is recognized as revenue at the point in time when the software is transferred to the customer.

The Company also sells or leases hardware (POS devices) and other peripherals as part of its contracts with customers. Hardware typically consists of terminals or Clover® devices. The Company does not manufacture hardware, rather it purchases hardware from third-party vendors and holds such 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.

Significant Judgments in Application of the Guidance

The Company uses the following methods, inputs and assumptions in determining amounts of revenue to recognize:

Identification of Performance Obligations

To identify its performance obligations, the Company considers all of the goods or services promised in the contract regardless of whether they are explicitly stated or are implied by customary business practices. For multi-element arrangements, the Company accounts for individual goods or services as a separate performance obligation if they are distinct, the good or service is separately identifiable from other items in the arrangement and if a customer can benefit from it on its own or with other resources that are readily available to the customer. If these criteria are not met, the promised goods or services are accounted for as a combined performance obligation. Determining whether goods or services are distinct performance obligations that should be accounted for separately may require significant judgment.

Technology or service components from third parties are frequently embedded in or combined with the Company's applications or service offerings. Whether the Company recognizes revenue based on the gross amount billed to a customer or the net amount retained involves judgment that depends on the relevant facts and circumstances including the level of contractual responsibilities and obligations for delivering solutions to end customers.

Determination of Transaction Price

The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring products or services to the customer. The Company includes any fixed charges within its contracts as part of the total transaction price. To the extent that variable consideration is not constrained, the Company includes an estimate of the variable amount, as appropriate, within the total transaction price and updates its assumptions over the duration of the contract.

Assessment of Estimates of Variable Consideration

Many of the Company's contracts with customers contain some component of variable consideration; however, the constraint will generally not result in a reduction in the estimated transaction price for most forms of variable consideration. The Company may constrain the estimated transaction price in the event of a high degree of uncertainty as to the final consideration amount owed because of an extended length of time over which the fees may be adjusted.

Allocation of Transaction Price

The transaction price (including any discounts) is allocated between separate goods and services in a multi-element arrangement based on their relative standalone selling prices. The standalone selling prices are determined based on the prices at which the Company separately sells each good or service. For items that are not sold separately, the Company estimates the standalone selling prices using available information such as market conditions and internally approved pricing guidelines. In instances where there are observable selling prices for professional services and support and maintenance, the Company may apply the residual approach to estimate the standalone selling price of software licenses. Significant judgment may be required to determine standalone selling prices for each performance obligation and whether it depicts the amount the Company expects to receive in exchange for the related good or service.

Contract Modifications

Contract modifications occur when the Company and its customers agree to modify existing customer contracts to change the scope or price (or both) of the contract or when a customer terminates some, or all, of the existing services provided by the Company. When a contract modification occurs, it requires the Company to exercise judgment to determine if the modification should be accounted for as (i) a separate contract, (ii) the termination of the original contract and creation of a new contract, or (iii) a cumulative catch up adjustment to the original contract. Further, contract modifications require the identification and evaluation of the performance obligations of the modified contract, including the allocation of revenue to the remaining performance obligations and the period of recognition for each identified performance obligation.

Revenue Recognition During the Year Ended December 31, 2017

The Company generates revenue from the delivery of processing, service and product solutions. Revenue is recognized when written contracts are signed, delivery has occurred, the fees are fixed or determinable and collectibility is reasonably assured.

Processing and services revenue is recognized as services are provided and is primarily derived from contracts that generate account- and transaction-based fees for data processing, transaction processing, electronic billing and payment services, electronic funds transfer and debit processing services. In addition, processing and services revenue is derived from the fulfillment of professional services, including consulting activities. Certain of the Company's revenue is generated from multiple element arrangements involving various combinations of product and service deliverables. The deliverables within these arrangements are evaluated at contract inception to determine whether they represent separate units of accounting, and if so, contract consideration is allocated to each deliverable based on relative selling price. The relative selling price is determined using vendor specific objective evidence of fair value, third-party evidence or best estimate of selling price. Revenue is then recognized in accordance with the appropriate revenue recognition guidance applicable to the respective elements. Also included in processing and services revenue is software maintenance fee revenue for ongoing client support, which is recognized ratably over the term of the applicable support period, generally 12 months. Contract liabilities consist primarily of advance cash receipts for services (deferred revenue) and are recognized as revenue when the services are provided.

Product revenue is primarily derived from integrated print and card production sales, as well as software license sales which represented less than 4% of consolidated revenue in 2017. For software license agreements that do not require significant customization or modification, the Company recognizes software license revenue upon delivery, assuming persuasive evidence of an arrangement exists, the license fee is fixed or determinable, and collection is reasonably assured. Arrangements with customers that include significant customization, modification or production of software are accounted for under contract accounting, with revenue recognized using the percentage-of-completion method based upon efforts expended, such as labor hours, to measure progress towards completion. Changes in estimates for revenues, costs and profits are recognized in the period in which they are determinable and were not material for the period presented.

The Company includes reimbursements from clients, such as postage and telecommunication costs, in processing and services revenue and product revenue, while the related costs are included in cost of processing and services and cost of product.

Disaggregation of Revenue

The tables below present the Company's revenue disaggregated by major business, including a reconciliation with its reportable segments. The majority of the Company's revenue is earned domestically within these major businesses, with revenue generated outside the United States comprising approximately 12%, 6% and 5% of total revenue in 2019, 2018 and 2017, respectively.

(In millions)

Year Ended December 31, 2019	Reportable Segments				
	First Data	Payments	Financial	Corporate and Other	Total
Major Business					
Global Business Solutions	\$ 2,520	\$ —	\$ —	\$ —	\$ 2,520
Global Financial Solutions	927	—	—	—	927
Network & Security Solutions	631	—	—	—	631
Total First Data	4,078	—	—	—	4,078
Digital Money Movement	—	1,483	—	—	1,483
Card and Related Services	—	1,934	—	—	1,934
Other	—	327	—	—	327
Total Payments	—	3,744	—	—	3,744
Account and Item Processing	—	—	2,125	—	2,125
Other	—	—	282	—	282
Total Financial	—	—	2,407	—	2,407
Corporate and Other	—	—	—	(42)	(42)
Total Revenue	\$ 4,078	\$ 3,744	\$ 2,407	\$ (42)	\$ 10,187

(In millions)

Year Ended December 31, 2018	Reportable Segments			
	Payments	Financial	Corporate and Other	Total
Major Business				
Digital Money Movement	\$ 1,460	\$ —	\$ —	\$ 1,460
Card and Related Services	1,682	—	—	1,682
Other	325	—	—	325
Total Payments	3,467	—	—	3,467
Account and Item Processing	—	2,094	—	2,094
Lending Solutions	—	54	—	54
Other	—	247	—	247
Total Financial	—	2,395	—	2,395
Corporate and Other	—	—	(39)	(39)
Total Revenue	\$ 3,467	\$ 2,395	\$ (39)	\$ 5,823

Contract Balances

The following table provides information about contract assets and contract liabilities from contracts with customers.

(In millions)	December 31, 2019	December 31, 2018	January 1, 2018
Contract assets	\$ 382	\$ 171	\$ 158
Contract liabilities	647	469	520

Contract assets, reported within other long-term assets in the consolidated balance sheets, primarily result from revenue being recognized where payment is contingent upon the transfer of services to a customer over the contractual period. Contract liabilities primarily relate to advance consideration received from customers (deferred revenue) for which transfer of control occurs, and therefore revenue is recognized, as services are provided. Contract balances are reported in a net contract asset or liability position on a contract-by-contract basis at the end of each reporting period.

During the year ended December 31, 2019, contract assets and contract liabilities increased \$153 million and \$117 million, respectively, due to the acquisition of First Data. The Company recognized \$380 million of revenue during the year ended December 31, 2019 that was included in the contract liability balance at the beginning of the period.

During the year ended December 31, 2018, contract liabilities decreased primarily due to the recognition of deferred termination fee revenue. The Company recognized \$450 million of revenue during the year ended December 31, 2018 that was included in the contract liability balance at the beginning of the period, which exceeded advance cash receipts for services yet to be provided.

Transaction Price Allocated to Remaining Performance Obligations

The following table includes estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period.

(In millions)

December 31, 2019	2020	2021	2022	2023	Thereafter
Processing and services	\$ 1,869	\$ 1,540	\$ 1,190	\$ 886	\$ 1,743
Product	40	27	16	11	6

The Company applies the optional exemption under ASC 606 and does not disclose information about remaining performance obligations for account- and transaction-based processing fees that qualify for recognition under the as-invoiced practical expedient. These multi-year contracts contain variable consideration for stand-ready performance obligations for which the exact quantity and mix of transactions to be processed are contingent upon the customer's request. The Company also applies the optional exemptions under ASC 606 and does not disclose information for variable consideration that is a sales-based or usage-based royalty promised in exchange for a license of intellectual property or that is allocated entirely to a wholly unsatisfied performance obligation or to a wholly unsatisfied promise to transfer a distinct good or service in a series. The amounts disclosed above as remaining performance obligations consist primarily of fixed or monthly minimum processing fees and maintenance fees under contracts with an original expected duration of greater than one year.

Contract Costs

The Company incurs incremental costs to obtain a contract as well as costs to fulfill contracts with customers that are expected to be recovered. These costs consist primarily of sales commissions incurred only if a contract is obtained, and customer conversion or implementation related costs. Capitalized sales commissions and conversion or implementation costs totaled \$357 million and \$176 million, respectively, at December 31, 2019 and \$322 million and \$97 million, respectively, at December 31, 2018.

Capitalized contract costs are amortized based on the transfer of goods or services to which the asset relates. The amortization period also considers expected customer lives and whether the asset relates to goods or services transferred under a specific anticipated contract. These costs are primarily included in selling, general and administrative expenses and totaled \$105 million and \$106 million during the years ended December 31, 2019 and 2018, respectively. Impairment losses recognized during the years ended December 31, 2019 and 2018 related to capitalized contract costs were not significant.

Change in Accounting Policy

Except for the changes below, the Company has consistently applied the accounting policies to all periods presented in its consolidated financial statements. The details of the significant changes and quantitative impact of the changes are disclosed below.

Sales Commissions

Under ASC 605, the Company recognized sales commission fees related to contracts with customers as selling expenses when incurred. Under ASC 606, the Company capitalizes incremental sales commission fees as costs of obtaining a contract and, if expected to be recovered, amortizes such costs using a portfolio approach consistent with the pattern of transfer of the good or service to which the asset relates.

Termination Fees

Under ASC 605, the Company recognized customer contract termination fees at a point in time upon deconversion or receipt of a non-refundable cash payment. Under ASC 606, a contract termination is considered a contract modification and therefore the Company recognizes contract termination fees under ASU 2014-09 over the remaining modified contract term.

Contract Assets and Liabilities

Under ASC 605, the Company presented customer incentives and deferred revenue on a gross basis within its consolidated balance sheet. Under ASC 606, the Company reports net contract asset or liability positions on a contract-by-contract basis at the end of each reporting period.

4. Acquisitions and Dispositions

Acquisition of First Data

On July 29, 2019, the Company completed the acquisition of First Data, a global leader in commerce-enabling technology and solutions for merchants, financial institutions and card issuers, by acquiring 100% of the First Data stock that was issued and outstanding as of the date of acquisition. The acquisition increases the Company's footprint as a global payments and financial technology provider by expanding the portfolio of services provided to financial institutions, corporate and merchant clients and consumers.

As a result of the acquisition, First Data stockholders received 286 million shares of common stock of Fiserv, Inc., at an exchange ratio of 0.303 shares of Fiserv, Inc. for each share of First Data common stock, with cash paid in lieu of fractional shares. The Company also converted 15 million outstanding First Data equity awards into corresponding equity awards relating to common stock of Fiserv, Inc. in accordance with the exchange ratio as described in further detail within Note 16. In addition, concurrent with the closing of the acquisition, the Company made a cash payment of \$16.4 billion to repay existing First Data debt. The Company funded the transaction-related expenses and the repayment of First Data debt through a combination of available cash on-hand and proceeds from debt issuances as discussed in Note 12.

The total purchase price paid for First Data is as follows:

(In millions)

Fair value of stock exchanged for shares of Fiserv, Inc. ⁽¹⁾	\$	29,293
Repayment of First Data debt		16,414
Fair value of vested portion of First Data stock awards exchanged for Fiserv, Inc. awards ⁽²⁾		768
Total purchase price	\$	46,475

⁽¹⁾ The fair value of the 286 million shares of the Company's common stock issued as of the acquisition date was determined based on a per share price of \$102.30, which was the closing price of the Company's common stock on July 26, 2019, the last trading day before the acquisition closed the morning of July 29, 2019. This includes a nominal amount of cash paid in lieu of fractional shares.

⁽²⁾ Represents the portion of the fair value of the replacement awards related to services provided prior to the acquisition. The remaining portion of the fair value is associated with future service and will be recognized as expense over the future service period. See Note 16 for additional information.

The acquisition was accounted for as a business combination using the acquisition method of accounting in accordance with ASC 805, *Business Combinations* ("ASC 805"). The purchase price was allocated to the assets acquired and liabilities assumed based on the estimated fair values at the date of acquisition. The excess of the purchase price over the fair value of the net assets acquired was allocated to goodwill, none of which is expected to be deductible for tax purposes. Goodwill is primarily attributed to synergies from future expected economic benefits, including enhanced revenue growth from expanded capabilities and geographic presence as well as substantial cost savings from duplicative overhead, streamlined operations and enhanced operational efficiency.

The December 31, 2019 consolidated balance sheet includes the assets and liabilities of First Data, which have been measured at estimated fair value as of the acquisition date. During the fourth quarter of 2019, the Company identified and recorded measurement period adjustments to the preliminary purchase price allocation, which were the result of additional analysis performed and information identified based on facts and circumstances that existed as of the acquisition date. These measurement period adjustments resulted in an increase to goodwill of \$552 million. The offsetting amounts to the change in goodwill were primarily related to intangible assets, noncontrolling interests and deferred income taxes. The Company recorded a measurement period adjustment of \$396 million to the fair value of intangible assets as a result of refinements to estimated future cash flows, royalty rates, technology related obsolescence and attrition rates. A measurement period adjustment of \$776 million was recorded to the fair value of noncontrolling interests as a result of updates to the Company's discounted cash flow analysis and the incorporation of additional facts and circumstances that existed as of the acquisition date. The Company recorded a measurement period adjustment of \$147 million to the fair value of recognized deferred tax liabilities as a result of adjustments to the estimated fair value of assets acquired. Such measurement period adjustments did not have a material impact on the consolidated statement of income. The allocation of the purchase price shown below remains

preliminary and subject to further adjustment, pending additional refinement and final completion of valuations, including but not limited to valuations of property and equipment, customer relationships and other intangible assets, noncontrolling interests and deferred tax liabilities. Adjustments to the valuation of assets acquired and liabilities assumed will result in a corresponding adjustment to goodwill. The updated preliminary allocation of purchase price recorded for First Data was as follows:

(In millions)

Assets acquired ⁽¹⁾		
Cash and cash equivalents	\$	310
Trade accounts receivable		1,747
Prepaid expenses and other current assets		1,046
Settlement assets		10,398
Property and equipment		1,181
Customer relationships		13,613
Other intangible assets		2,811
Goodwill		30,507
Investments in unconsolidated affiliates		2,699
Other long-term assets		1,228
Total assets acquired	\$	65,540
Liabilities assumed ⁽¹⁾		
Accounts payable and accrued expenses	\$	1,576
Short-term and current maturities of long-term debt ⁽²⁾		243
Contract liabilities		74
Settlement obligations		10,398
Deferred income taxes		3,535
Long-term contract liabilities		16
Long-term debt and other long-term liabilities ⁽³⁾		1,240
Total liabilities assumed	\$	17,082
Net assets acquired		
	\$	48,458
Redeemable noncontrolling interests		252
Noncontrolling interests		1,731
Total purchase price	\$	46,475

⁽¹⁾ In connection with the acquisition of First Data, the Company acquired two businesses, which it intended to and subsequently did sell in October 2019. Therefore, such businesses were classified as held for sale and were included within prepaid expenses and other current assets and accounts payable and accrued expenses in the above preliminary allocation of purchase price (see Note 5).

⁽²⁾ Includes foreign lines of credit, current portion of finance lease obligations and other financing obligations (see Note 12).

⁽³⁾ Includes the receivable securitized loan and the long-term portion of finance lease obligations (see Note 12).

The preliminary estimated fair values of the assets acquired and liabilities assumed were determined using the income and cost approaches. In many cases, the determination of the fair values required estimates about discount rates, growth and attrition rates, future expected cash flows and other future events that are judgmental and subject to change. The fair value measurements were primarily based on significant inputs that are not observable in the market and thus represent a Level 3 measurement of the fair value hierarchy as defined in ASC 820, *Fair Value Measurements*. Intangible assets consisting of customer relationships, technology and trade names were valued using the multi-period excess earnings method ("MEEM"), or the relief from royalty ("RFR") method, both are forms of the income approach. A cost and market approach was applied, as appropriate, for property and equipment, including land.

- Customer relationship intangible assets were valued using the MEEM method. The significant assumptions used include the estimated annual net cash flows (including appropriate revenue and profit attributable to the asset, retention rate, applicable tax rate, and contributory asset charges, among other factors), the discount rate, reflecting the

- risks inherent in the future cash flow stream, an assessment of the asset's life cycle and the tax amortization benefit, among other factors.
- Technology and trade name intangible assets were valued using the RFR method. The significant assumptions used include the estimated annual net cash flows (including appropriate revenue attributable to the asset, applicable tax rate, royalty rate and other factors such as technology related obsolescence rates), the discount rate, reflecting the risks inherent in the future cash flow stream and the tax amortization benefit, among other factors.
 - The cost approach, which estimates value by determining the current cost of replacing an asset with another of equivalent economic utility, was used, as appropriate, for property and equipment. The cost to replace a given asset reflects the estimated reproduction or replacement cost for the property, less an allowance for loss in value due to depreciation.
 - The market approach, which estimates value by leveraging comparable land sale data/listings and qualitatively comparing them to the in-scope properties, was used to value the land.
 - An income approach was applied to derive fair value for both consolidated investments with a noncontrolling interest and equity method investments accounted for under the equity method of accounting. The significant assumptions used include the estimated annual cash flows, the discount rate, the long-term growth rate and operating margin, among other factors.

The Company believes that the information provides a reasonable basis for estimating the fair values of the acquired assets and assumed liabilities, but the potential for additional measurement period adjustments exists based on the Company's continuing review of matters related to the acquisition. The Company expects to complete the purchase price allocation as soon as practicable, but no later than one year from the acquisition date.

The amounts, based on preliminary valuations and subject to final adjustment, allocated to intangible assets are as follows:

(In millions)	Gross Carrying Amount	Weighted-Average Useful Life
Customer relationships	\$ 13,613	15 years
Acquired software and technology	2,321	7 years
Trade names	490	9 years
Total	<u>\$ 16,424</u>	14 years

Since the acquisition date, the results of operations for First Data of \$4.1 billion of revenue and \$1.0 billion of operating income have been included within the accompanying consolidated statement of income for the year ended December 31, 2019 (see Note 21).

The Company incurred transaction expenses of approximately \$175 million for the year ended December 31, 2019. Approximately \$77 million of these expenses were included in selling, general and administrative expenses and \$98 million were included in debt financing activities within the Company's consolidated statement of income for the year ended December 31, 2019.

The following unaudited supplemental pro forma combined financial information presents the Company's results of operations for the years ended December 31, 2019 and 2018 as if the acquisition of First Data had occurred on January 1, 2018. The pro forma financial information is presented for comparative purposes only and is not necessarily indicative of the Company's operating results that may have actually occurred had the acquisition of First Data been completed on January 1, 2018. In addition, the unaudited pro forma financial information does not give effect to any anticipated cost savings, operating efficiencies or other synergies that may be associated with the acquisition, or any estimated costs that have been or will be incurred by the Company to integrate the assets and operations of First Data.

(In millions, except for per share data)	2019	2018
Total revenue	\$ 15,775	\$ 15,284
Net income	1,520	1,125
Net income attributable to Fiserv, Inc.	1,457	1,040
Net income per share attributable to Fiserv, Inc.:		
Basic	\$ 2.14	\$ 1.50
Diluted	\$ 2.10	\$ 1.47

The unaudited pro forma financial information reflects pro forma adjustments to present the combined pro forma results of operations as if the acquisition had occurred on January 1, 2018 to give effect to certain events the Company believes to be directly attributable to the acquisition. These pro forma adjustments primarily include:

- a net increase in amortization expense that would have been recognized due to acquired intangible assets;
- an adjustment to interest expense to reflect (i) the additional borrowings of the Company in conjunction with the acquisition and (ii) the repayment of First Data's historical debt in conjunction with the acquisition;
- a reduction in expenses for the year ended December 31, 2019 and a corresponding increase in the year ended December 31, 2018 for acquisition-related transaction costs and other one-time costs directly attributable to the acquisition;
- a reduction in operating revenues due to the elimination of deferred revenues assigned no value at the acquisition date;
- an adjustment to stock compensation expense to reflect the cost of the replacement awards as if they had been issued on January 1, 2018; and
- the related income tax effects of the adjustments noted above.

Acquisition of Elan

On October 31, 2018, the Company acquired the debit card processing, ATM Managed Services, and MoneyPass® surcharge-free network of Elan Financial Services, a unit of U.S. Bancorp ("Elan"), for approximately \$659 million. Such purchase price includes an initial cash payment of \$691 million, less post-closing working capital adjustments of \$57 million, plus contingent consideration related to earn-out provisions estimated at a fair value of \$12 million and future payments under a transition services agreement estimated to be in excess of fair value of \$13 million. This acquisition, included within the Payments segment, deepens the Company's presence in debit card processing, broadens its client reach and scale and provides new solutions to enhance the value proposition for its existing debit solution clients.

During the third quarter of 2019, the Company identified and recorded measurement period adjustments to the preliminary purchase price allocation, which were the result of additional analysis performed and information identified based on facts and circumstances that existed as of the acquisition date. The measurement period adjustments resulted in a decrease in goodwill of \$24 million with an offset to intangible assets and prepaid expenses and other current assets. The following allocation of purchase price for Elan was finalized in the third quarter of 2019:

(In millions)

Trade accounts receivable	\$	20
Prepaid expenses and other current assets		98
Property and equipment		9
Intangible assets		373
Goodwill		214
Accounts payable and other current liabilities		(55)
Total purchase price	\$	659

Goodwill, deductible for tax purposes, is primarily attributed to synergies, including the migration of Elan's clients to the Company's debit platform, and the anticipated value created by selling the Company's products and services outside of card payments to Elan's existing client base. The values allocated to intangible assets are as follows:

(In millions)	Gross Carrying Amount	Weighted-Average Useful Life
Customer relationships	\$ 370	15 years
Trade name	3	8 years
Total	\$ 373	15 years

In conjunction with the acquisition, the Company entered into a transition services agreement for the provision of certain processing, network, administrative and managed services for a period of two years. The results of operations for Elan, consisting of \$176 million and \$29 million of revenue and \$8 million and \$6 million of operating income, including \$37 million and \$4 million of acquired intangible asset amortization, for the years ended December 31, 2019 and 2018, respectively, have been included within the accompanying consolidated statements of income.

Other Acquisitions

On January 17, 2017, the Company completed its acquisition of Online Banking Solutions, Inc. ("OBS"), a provider of cash management and digital business banking solutions that complement and enrich the Company's existing solutions. On July 31, 2017, the Company acquired the assets of PCLender, LLC ("PCLender"), a leader in internet-based mortgage software and mortgage lending technology solutions. The OBS and PCLender acquisitions are included in the Financial segment as their products are integrated across a number of the Company's account processing solutions and enable the Company's bank and credit union clients to better serve their commercial and mortgage customers. On August 18, 2017, the Company acquired Dovetail Group Limited ("Dovetail"), a leading provider of bank payments and liquidity management solutions. On September 1, 2017, the Company completed its acquisition of Monitise plc ("Monitise"), a provider of digital solutions that enables innovative digital banking experiences for leading financial institutions worldwide. The Dovetail and Monitise acquisitions are included in the Payments segment and further enable the Company to help financial institutions around the world transform their payments infrastructure and to expand its digital leadership, respectively.

The Company acquired these four businesses for an aggregate purchase price of \$384 million, net of \$33 million of acquired cash, along with earn-out provisions estimated at a fair value of \$15 million (see Note 10). The purchase price allocations for these acquisitions resulted in acquired software and technology and customer related intangible assets totaling \$163 million and goodwill of \$217 million. The other net assets of \$19 million include \$50 million of assets held for sale and approximately \$20 million of deferred tax liabilities. The purchase price allocations were finalized for the OBS and PCLender acquisitions in 2017 and for the Dovetail and Monitise acquisitions in the first quarter of 2018, and did not materially change from the preliminary allocations. The goodwill from these acquisitions is primarily attributed to synergies and the anticipated value created by selling the products and services that these businesses provide into the Company's existing client base. Approximately \$70 million of the goodwill is deductible for tax purposes. The values allocated to intangible assets were as follows:

(In millions)	Gross Carrying Amount	Weighted-Average Useful Life
Customer relationships	\$ 92	15 years
Acquired software and technology	71	7 years
Total	\$ 163	12 years

Dispositions

On December 4, 2019, the Company entered into a definitive agreement to sell a 60% controlling interest of its Investment Services business, which is reported within the Payments segment. The Company completed the sale of the 60% interest of the Investment Services business on February 18, 2020 for gross proceeds of \$591 million, resulting in an estimated pre-tax gain, including the remeasurement of the Company's 40% retained interest, of approximately \$430 million during the first quarter of 2020. Accordingly, the assets and liabilities of the Investment Services business were classified as held for sale in the Company's consolidated balance sheet at December 31, 2019. The corresponding assets of \$360 million, consisting primarily of goodwill, intangible assets, and trade accounts receivable, are presented within prepaid expenses and other current assets and the corresponding liabilities of \$43 million, consisting primarily of accrued expenses and deferred income tax liabilities, are presented within accounts payable and accrued expenses in the Company's consolidated balance sheet at December 31, 2019. The Company will account for its 40% retained interest of the Investment Services business as an equity method investment.

On May 11, 2017, the Company sold its Australian item processing business, which was reported within the Financial segment, for approximately \$17 million. The Company recognized a gain on the sale of \$10 million, with the related tax expense of \$5 million recorded through the income tax provision, in the consolidated statements of income.

5. Discontinued Operations

Income from discontinued operations in 2017 included a litigation settlement related to a prior disposition of \$19 million, net of income tax of \$7 million, and earnings related to an acquired business held for sale as described below.

On January 10, 2018, the Company completed the sale of the retail voucher business, MyVoucherCodes, acquired as part of its acquisition of Monitise in September 2017 for proceeds of £37 million (\$50 million). The corresponding proceeds received in 2018 are presented within discontinued operations since the business was never considered part of the Company's ongoing operations. There was no impact to operating income or gain/loss recognized on the sale in 2018. Cash flows from discontinued operations in 2018 also included tax payments of \$7 million related to income recognized in 2017 from the litigation settlement described above.

In connection with the acquisition of First Data, the Company acquired two businesses, which it intended to sell. In October 2019, the Company completed the sales, at acquired fair value, of these two businesses for aggregate proceeds of \$133 million. The sale proceeds are presented within discontinued operations in the consolidated statement of cash flows since the businesses were never considered part of the Company's ongoing operations. The financial results of these businesses from the date of acquisition were not significant.

6. Settlement Assets and Obligations

Settlement assets and obligations represent intermediary balances arising from the settlement process which involves the transferring of funds between card issuers, payment networks, merchants and consumers. The Company records settlement assets and obligations upon processing a payment transaction. Settlement assets represent amounts receivable from agents and from payment networks for submitted merchant transactions, and funds received by the Company in advance of paying to the merchant or payee. Settlement obligations represent the unpaid amounts that are due to merchants or payees for their payment transactions.

The principal components of the Company's settlement assets and obligations were as follows at December 31:

(In millions)	2019	2018
Settlement assets		
Cash and cash equivalents	\$ 1,656	\$ 141
Receivables	10,212	345
Total settlement assets	<u>\$ 11,868</u>	<u>\$ 486</u>
Settlement obligations		
Payment instruments outstanding	\$ 345	\$ 480
Card settlements due to merchants	11,523	—
Total settlement obligations	<u>\$ 11,868</u>	<u>\$ 480</u>

The changes in settlement assets and obligations are presented on a net basis within operating activities in the consolidated statements of cash flows.

7. Intangible Assets

Identifiable intangible assets consisted of the following at December 31:

<u>(In millions)</u>	Gross Carrying Amount	Accumulated Amortization	Net Book Value
2019			
Customer relationships	\$ 16,187	\$ 2,145	\$ 14,042
Acquired software and technology	2,607	639	1,968
Trade names	620	105	515
Capitalized software development costs	942	332	610
Purchased software	680	173	507
Total	<u>\$ 21,036</u>	<u>\$ 3,394</u>	<u>\$ 17,642</u>

<u>(In millions)</u>	Gross Carrying Amount	Accumulated Amortization	Net Book Value
2018			
Customer relationships	\$ 2,642	\$ 1,294	\$ 1,348
Acquired software and technology	591	490	101
Trade names	120	71	49
Capitalized software development costs	810	314	496
Purchased software	261	112	149
Total	<u>\$ 4,424</u>	<u>\$ 2,281</u>	<u>\$ 2,143</u>

Gross software development costs capitalized for new products and enhancements to existing products totaled \$339 million, \$193 million and \$159 million in 2019, 2018 and 2017, respectively.

Amortization expense associated with the above identifiable intangible assets was as follows for the years ended December 31:

<u>(In millions)</u>	2019	2018	2017
Amortization expense	\$ 1,299	\$ 347	\$ 326

The Company estimates that annual amortization expense with respect to intangible assets recorded at December 31, 2019 will be as follows:

<u>(In millions)</u>	
Year ending December 31,	
2020	\$ 2,490
2021	2,400
2022	2,168
2023	1,891
2024	1,572
Thereafter	7,121
Total	<u>\$ 17,642</u>

8. Goodwill

The changes in goodwill during 2019 and 2018 were as follows:

(In millions)	Reportable Segments			
	First Data	Payments	Financial	Total
Goodwill - December 31, 2017	\$ —	\$ 3,757	\$ 1,833	\$ 5,590
Acquisitions and valuation adjustments	—	240	7	247
Dispositions	—	—	(131)	(131)
Foreign currency translation	—	(1)	(3)	(4)
Goodwill - December 31, 2018	—	3,996	1,706	5,702
Acquisitions and valuation adjustments	30,507	(27)	2	30,482
Dispositions	—	—	(2)	(2)
Goodwill reclassified to assets held for sale ⁽¹⁾	—	(220)	—	(220)
Foreign currency translation	74	—	2	76
Goodwill - December 31, 2019	\$ 30,581	\$ 3,749	\$ 1,708	\$ 36,038

⁽¹⁾ In December 2019, the Company entered into a definitive agreement to sell a 60% controlling interest of its Investment Services business (see Note 4). As a result, the corresponding assets of the Investment Services business, including \$220 million of goodwill, were classified as held for sale within prepaid expenses and other current assets in the Company's consolidated balance sheet at December 31, 2019.

9. Investments in Unconsolidated Affiliates

Lending Joint Ventures

On March 29, 2018, the Company completed the sale of a 55% controlling interest of each of Fiserv Automotive Solutions, LLC and Fiserv LS LLC, which were subsidiaries of the Company that owned its Lending Solutions business (collectively, the "Lending Joint Ventures"). The Lending Joint Ventures, which were reported within the Financial segment, included all of the Company's automotive loan origination and servicing products, as well as its LoanServ™ mortgage and consumer loan servicing platform. The Company received gross sale proceeds of \$419 million from the transactions. In 2018, the Company recognized a pre-tax gain on the sale of \$227 million, with the related tax expense of \$77 million recorded through the income tax provision, in the consolidated statement of income. The pre-tax gain included \$124 million related to the remeasurement of the Company's 45% retained interests based upon the estimated enterprise value of the Lending Joint Ventures. In 2019, the Company recognized a pre-tax gain on the sale of \$10 million, with the related tax expense of \$2 million recorded through the income tax provision, as contingent special distribution provisions within the transaction agreement were resolved and thereby realized.

Prior to the sale transactions described above, the Lending Joint Ventures entered into variable-rate term loan facilities for an aggregate amount of \$350 million in senior unsecured debt and variable-rate revolving credit facilities for an aggregate amount of \$35 million with a syndicate of banks, which transferred to the Lending Joint Ventures as part of the sale. The Company has guaranteed this debt of the Lending Joint Ventures and does not anticipate that the Lending Joint Ventures will fail to fulfill their debt obligations. These debt facilities mature in March 2023, and there were no outstanding borrowings on the revolving credit facilities at December 31, 2019 and 2018. The Company recorded an initial \$34 million liability as a reduction to the gain on sale transactions for the estimated fair value of its obligations to stand ready to perform over the term of the guarantees, which is reported primarily within other long-term liabilities in the consolidated balance sheets. Such guarantees will be amortized in future periods over the contractual term. The Company recognized \$7 million and \$5 million in 2019 and 2018, respectively, within other (expense) income in its consolidated statements of income related to its release from risk under the guarantees. The Company has not made any payments under the guarantees, nor has it been called upon to do so. In conjunction with the sale transactions described above, the Company also entered into certain transition services agreements to provide, at fair value, various administration, business process outsourcing, technical and data center related services for defined periods to the Lending Joint Ventures. Amounts transacted through these agreements approximated \$36 million and \$30 million in 2019 and 2018, respectively, and were primarily recognized as processing and services revenue in the consolidated statements of income.

In August 2019, the Sagent Auto, LLC joint venture formerly known as Fiserv Automotive Solutions, LLC, completed a merger with a third-party, resulting in a dilution of the Company's ownership interest in the new combined entity, defi SOLUTIONS Group, LLC ("defi SOLUTIONS"). The Company recognized a pre-tax gain of \$14 million within income from investments in

unconsolidated affiliates in the consolidated statement of income, with related tax expense of \$3 million, in 2019, reflecting the Company's 31% ownership interest in defi SOLUTIONS. In connection with the merger, Sagent Auto, LLC borrowed in aggregate an additional \$50 million on its variable-rate term loan facility and increased the notional amount of its variable-rate revolving credit facility by \$10 million. The Company has guaranteed this incremental debt and does not anticipate that the joint venture will fail to fulfill its debt obligations. The Company recorded a \$4 million liability for the estimated fair value of its obligations to stand ready to perform over the term of the guarantees. Such guarantees will be amortized in future periods over the contractual term, based upon amounts to be received by the Company for the respective guarantees. The Company has not made any payments under the guarantees, nor has it been called upon to do so.

The Company's remaining ownership interests in the Lending Joint Ventures are accounted for as equity method investments, with the Company's share of net income (loss) reported as income from investments in unconsolidated affiliates and the related tax (benefit) expense reported within the income tax provision in the consolidated statements of income. The revenues, expenses and cash flows of the Lending Joint Ventures after the sale transactions described above are not included in the Company's consolidated financial statements.

Acquisition of First Data

On July 29, 2019, the Company acquired unconsolidated investments in connection with the acquisition of First Data (see Note 4). At December 31, 2019, there were 18 affiliates accounted for as equity method investments, comprised of merchant alliances and strategic investments in companies in related markets. The Company's share of net income is reported as income from investments in unconsolidated affiliates and the related tax expense reported within the income tax provision in the consolidated statements of income. 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 (see Note 20).

StoneRiver Group, L.P.

The Company owns a 49% interest in StoneRiver Group, L.P. ("StoneRiver"), which is accounted for as an equity method investment. The Company reports its share of StoneRiver's net income as income from investment in unconsolidated affiliates, with the related tax expense reported within the income tax provision, in the consolidated statements of income. In 2019, 2018 and 2017, the Company received cash distributions from StoneRiver of \$0 million, \$2 million and \$45 million, respectively. The distributions, in their entirety, represented returns on the Company's investment and are reported in cash flows from operating activities.

During 2017, StoneRiver recognized a gain on the sale of a business. The Company's pre-tax share of the gain was \$26 million, with related tax expense of \$9 million. During 2017, the Company received cash distributions of \$45 million from StoneRiver, which were funded from sale transactions and recorded as reductions in the Company's investment in StoneRiver. These distributions exceeded the Company's investment carrying amount, resulting in the reduction of its investment balance to zero, with the excess cash distribution of \$6 million recorded as income, and related tax expense of \$2 million, in 2017.

Summary of Financial Information

A summary of financial information for the Company's unconsolidated affiliates accounted for under the equity method of accounting is presented below:

(In millions)

December 31,	2019	
Total current assets	\$	4,288
Total long-term assets		1
Total assets	\$	4,289
Total current liabilities	\$	4,243
Total long-term liabilities		—
Total liabilities	\$	4,243

The primary components of assets and liabilities are settlement asset and obligation related accounts similar to those described in Note 6 of these consolidated financial statements.

(In millions)

Year ended December 31,

2019

Total revenue	\$	467
Total expenses		249
Operating income	\$	218
Net income	\$	215
Income from investments in unconsolidated affiliates ⁽¹⁾	\$	27

⁽¹⁾ Amount reflects the Company's share of investee's net income or loss and the amortization basis difference between the estimated fair value and the underlying book value of equity method intangibles.

In 2019, 2018 and 2017, the Company received cash distributions from unconsolidated affiliates of \$136 million, \$2 million and \$45 million, respectively, which were recorded as reductions in the Company's investments in unconsolidated affiliates.

In addition, the Company holds equity securities without a readily determinable fair value, which are only adjusted for observable price changes in orderly transactions for the same or similar equity securities or any impairment, totaling \$167 million at December 31, 2019, and are included within other long-term assets in the Company's consolidated balance sheet. The equity securities were acquired primarily through the First Data acquisition and were recorded at fair market value at the acquisition date and no adjustments were made during the year ended December 31, 2019.

10. Fair Value Measurements

The fair values of cash equivalents, trade accounts receivable, settlement assets and obligations, accounts payable and client deposits approximate their respective carrying values due to the short period of time to maturity. The Company's derivative instruments are measured on a recurring basis based on foreign currency spot rates and forwards quoted by banks and foreign currency dealers and are marked-to-market each period (see Note 14). The Company's net contingent consideration liability relating to the acquisition of Elan (see Note 4) was estimated at a fair value of \$1 million and \$12 million at December 31, 2019 and 2018, respectively, based on the present value of a probability-weighted assessment approach derived from the likelihood of achieving the earn-out criteria. During 2019, the Company made a cash payment of \$13 million, included in cash flows from financing activities in the consolidated statement of cash flows, as a result of the achievement of various earn-out criteria, and also adjusted the contingent consideration liability by \$2 million as a result of an increased likelihood of achieving the remaining earn-out criteria.

Assets and liabilities measured at fair value on a recurring basis consisted of the following at December 31:

(In millions)	Classification	Fair Value Hierarchy	Fair Value	
			2019	2018
Assets				
Cash flow hedges	Prepaid expenses and other current assets	Level 2	\$ 4	\$ —
Liabilities				
Contingent consideration	Other long-term liabilities	Level 3	\$ 1	\$ 12

The Company's senior notes are recorded at amortized cost, but measured at fair value for disclosure purposes. The estimated fair value of senior notes was based on matrix pricing which considers readily observable inputs of comparable securities (Level 2 of the fair value hierarchy). The carrying value of the Company's term loan credit agreement, revolving credit facility borrowings and debt associated with the receivables securitization agreement approximates fair value as these instruments have variable interest rates and the Company has not experienced any change to its credit ratings (Level 2 of the fair value hierarchy). The estimated fair value of total debt, excluding finance leases and other financing obligations, was \$22.6 billion and \$6.0 billion at December 31, 2019 and 2018, respectively, and the carrying value was \$21.5 billion and \$6.0 billion at December 31, 2019 and 2018, respectively. See Note 12 for a description of debt financing activities in connection with the Company's acquisition of First Data.

The Company's debt guarantee arrangements are recorded at amortized cost, but measured at fair value for disclosure purposes. The aggregate carrying value of the Company's debt guarantee arrangements of \$26 million and \$29 million approximate the

fair values at December 31, 2019 and 2018, respectively (Level 3 of the fair value hierarchy). See Note 9 for a description of the Company's debt guarantee arrangements with the Lending Joint Ventures.

11. Leases

The Company adopted ASU 2016-02 and its related amendments (collectively known as "ASC 842") effective January 1, 2019 using the optional transition method in ASU 2018-11. Therefore, the reported results for the year ended December 31, 2019 and the financial position as of December 31, 2019 reflect the application of ASC 842 while the reported results for the years ended December 31, 2018 and 2017 and the financial position as of December 31, 2018 were not adjusted and continue to be reported under the accounting guidance, ASC 840, *Leases* ("ASC 840"), in effect for the prior periods.

Company as Lessee

The Company primarily leases office space, land, data centers and equipment from third parties. The Company determines if a contract is a lease at inception. A contract contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The lease term begins on the commencement date, which is the date the Company takes possession of the asset, and may include options to extend or terminate the lease when it is reasonably certain that the option will be exercised. Many of the Company's leases contain renewal options for varying periods, which can be exercised at the Company's sole discretion. Leases are classified as operating or finance leases based on factors such as the lease term, lease payments, and the economic life, fair value and estimated residual value of the asset. Certain leases include options to purchase the leased asset at the end of the lease term, which is assessed as a part of the Company's lease classification determination. The Company elected the package of practical expedients permitted under the transition guidance within ASU 2016-02 to not reassess prior conclusions related to contracts containing leases, lease classification and initial direct costs. The Company's leases have remaining lease terms ranging from one to 18 years.

The Company uses the right-of-use ("ROU") model to account for its leases. 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. ROU assets and lease liabilities are recognized on the commencement date based on the present value of lease payments over the lease term. ROU assets are based on the lease liability and are increased by prepaid lease payments and decreased by lease incentives received. For leases where the Company is reasonably certain to exercise a renewal option, such option periods have been included in the determination of the Company's ROU assets and lease liabilities. Certain leases require the Company to pay taxes, insurance, maintenance and other operating expenses associated with the leased asset. Such amounts are not included in the measurement of the ROU assets and lease liabilities to the extent they are variable in nature. These variable lease costs are recognized as a variable lease expense when incurred. As a practical expedient, lease agreements with lease and non-lease components are accounted for as a single lease component for all asset classes. The Company estimates contingent lease incentives when it is probable that the Company is entitled to the incentive at lease commencement. The Company elected the short-term lease recognition exemption for all leases that qualify. Therefore, leases with an initial term of 12 months or less are not recorded on the balance sheet; instead, lease payments are recognized as lease expense on a straight-line basis over the lease term. The depreciable life of the ROU assets and leasehold improvements are limited by the expected lease term unless the Company is reasonably certain of a transfer of title or purchase option. The Company uses its incremental borrowing rate to discount future lease payments in the calculation of the lease liability and ROU asset based on the information available on the commencement date for each lease. The Company's leases typically do not provide an implicit rate. The determination of the incremental borrowing rate requires judgment and is determined using the Company's current unsecured borrowing rate, adjusted for various factors such as collateralization, currency and term to align with the terms of the lease.

Lease Balances

(In millions)

December 31,

2019

Assets	
Operating lease assets ⁽¹⁾	\$ 684
Finance lease assets ⁽²⁾	235
Total lease assets	\$ 919
Liabilities	
Current	
Operating lease liabilities ⁽¹⁾	\$ 140
Finance lease liabilities ⁽²⁾	78
Noncurrent	
Operating lease liabilities ⁽¹⁾	603
Finance lease liabilities ⁽²⁾	144
Total lease liabilities	\$ 965

⁽¹⁾ Operating lease assets are included within other long-term assets, and operating lease liabilities are included within accounts payable and accrued expenses (current portion) and other long-term liabilities (noncurrent portion) in the Company's consolidated balance sheet.

⁽²⁾ Finance lease assets are included within property and equipment, net and finance lease liabilities are included within short-term and current maturities of long-term debt (current portion) and long-term debt (noncurrent portion) in the Company's consolidated balance sheets.

Components of Lease Cost

(In millions)

Year ended December 31,

2019

Operating lease cost ⁽¹⁾	\$ 207
Finance lease cost ⁽²⁾	
Amortization of right-of-use assets	40
Interest on lease liabilities	8
Total lease cost	\$ 255

⁽¹⁾ Operating lease expense is included within cost of processing and services, cost of product and selling, general and administrative expense, dependent upon the nature and use of the ROU asset, in the Company's consolidated statements of income. Operating lease cost includes approximately \$56 million of variable lease costs for the year ended December 31, 2019.

⁽²⁾ Finance lease expense is recorded as depreciation and amortization expense within cost of processing and services, cost of product and selling, general and administrative expense, dependent upon the nature and use of the ROU asset, and interest expense, net in the Company's consolidated statements of income.

Supplemental Cash Flow Information

(In millions)

Year ended December 31,

2019

Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	\$	139
Operating cash flows from finance leases		8
Financing cash flows from finance leases		37
Right-of-use assets obtained in exchange for lease liabilities: ⁽¹⁾		
Operating leases	\$	441
Finance leases		288

(1) Includes right-of-use assets and lease liabilities obtained through the acquisition of First Data

Lease Term and Discount Rate

December 31,

2019

Weighted-average remaining lease term:		
Operating leases		7 years
Finance leases		3 years
Weighted-average discount rate:		
Operating leases		3.0%
Finance leases		3.5%

Maturity of Lease Liabilities under ASC 842

Future minimum rental payments on leases with initial non-cancellable lease terms in excess of one year were due as follows at December 31, 2019:

(In millions)

Year ending December 31,

Operating Leases ⁽¹⁾

Finance Leases ⁽²⁾

2020	\$	153	\$	83
2021		139		73
2022		123		64
2023		104		10
2024		86		3
Thereafter		212		5
Total lease payments		817		238
Less: Interest		(74)		(16)
Present value of lease liabilities	\$	743	\$	222

(1) Operating lease payments include \$47 million related to options to extend lease terms that are reasonably certain of being exercised and exclude \$4 million of legally binding minimum lease payments for leases signed but not yet commenced. Operating leases that have been signed but not yet commenced are for real estate and will commence in 2020 with lease terms of 5 years.

(2) Finance lease payments exclude \$302 million of legally binding minimum lease payments for leases signed but not yet commenced. Finance leases that have been signed but not yet commenced are for equipment and will commence in 2020 with lease terms of 5 years.

Maturity of Lease Liabilities under ASC 840

Future minimum rental payments on operating leases with initial non-cancellable lease terms in excess of one year were due as follows at December 31, 2018:

(In millions)

Year ending December 31,

2019	\$	94
2020		75
2021		62
2022		51
2023		40
Thereafter		108
Total	\$	430

Rent expense for all operating leases was \$118 million and \$126 million during the years ended December 31, 2018 and 2017, respectively.

Company as Lessor

The Company owns certain POS terminal equipment which it leases to merchants. Leases are classified as operating or sales-type leases based on factors such as the lease term, lease payments, and the economic life, fair value and estimated residual value of the asset. The terms of the leases typically range from two to five years. For operating leases, the minimum lease payments received are recognized as lease income on a straight-line basis over the lease term and the leased asset is included in property and equipment, net in the consolidated balance sheet and depreciated to its estimated residual value over the lease term. For sales-type leases, selling profit is recognized at the commencement date of the lease to the extent the fair value of the underlying asset is different from its carrying amount. Selling profit is directly impacted by the Company's estimate of the amount to be derived from the residual value of the asset at the end of the lease term. The residual value of the asset is computed using various assumptions, including the expected fair value of the underlying asset at the end of the lease term. Unearned income is recognized as interest income over the lease term. For sales-type leases, the Company derecognizes the carrying amount of the underlying leased asset and recognizes a net investment in the leased asset in the consolidated balance sheet. The net investment in a leased asset is computed based on the present value of the minimum lease payments not yet received and the present value of the residual value of the asset.

Components of Lease Income

(In millions)

Year ended December 31,

	2019
Sales-type leases:	
Selling profit ⁽¹⁾	\$ 20
Interest income ⁽¹⁾	33
Operating lease income ⁽²⁾	36

⁽¹⁾ Selling profit includes \$48 million recorded within product revenue with a corresponding charge of \$28 million recorded in cost of product in the consolidated statement of income for the year ended December 31, 2019. Interest income is included within product revenue in the consolidated statement of income.

⁽²⁾ Operating lease income includes a nominal amount of variable lease income and is included within product revenue in the Company's consolidated statement of income for the year ended December 31, 2019.

Components of Net Investment in Sales-Type Leases

(In millions)

December 31,

2019

Minimum lease payments	\$	376
Residual values		34
Less: Unearned interest income		(160)
Net investment in leases ⁽¹⁾	\$	250

⁽¹⁾ Net investments in leased assets are included within prepaid expenses and other current assets (current portion) and other long-term assets (noncurrent portion) in the consolidated balance sheet.

Maturities of Future Minimum Lease Payment Receivables

Future minimum lease payments receivable on sales-type leases were as follows at December 31, 2019:

(In millions)

Year ending December 31,

Sales-Type Leases

2020	\$	161
2021		120
2022		70
2023		23
2024		2
Thereafter		—
Total minimum lease payments	\$	376

12. Debt

The Company's debt consisted of the following at December 31:

<u>(In millions)</u>	2019	2018
Short-term and current maturities of long-term debt:		
Lines of credit	\$ 150	\$ —
Finance lease and other financing obligations	137	4
Total short-term and current maturities of long-term debt	<u>\$ 287</u>	<u>\$ 4</u>
Long-term debt:		
2.7% senior notes due 2020	\$ 850	\$ 850
4.75% senior notes due 2021	400	400
3.5% senior notes due 2022	700	700
3.8% senior notes due 2023	1,000	1,000
0.375% senior notes due 2023	559	—
2.75% senior notes due 2024	2,000	—
3.85% senior notes due 2025	900	900
2.25% senior notes due 2025	687	—
3.2% senior notes due 2026	2,000	—
1.125% senior notes due 2027	559	—
4.2% senior notes due 2028	1,000	1,000
3.5% senior notes due 2029	3,000	—
1.625% senior notes due 2030	559	—
3.0% senior notes due 2031	687	—
4.4% senior notes due 2049	2,000	—
Receivable securitized loan	500	—
Term loan facility	3,950	—
Unamortized discount and deferred financing costs	(160)	(29)
Revolving credit facility	174	1,129
Finance lease and other financing obligations	247	5
Total long-term debt	<u>\$ 21,612</u>	<u>\$ 5,955</u>

The Company was in compliance with all financial debt covenants during 2019. Annual maturities of the Company's total debt were as follows at December 31, 2019:

<u>(In millions)</u>		
Year ending December 31,		
2020	\$	287
2021		520
2022		2,546
2023		2,608
2024		4,702
Thereafter		11,396
Total principal payments		<u>22,059</u>
Unamortized discount and deferred financing costs		(160)
Total debt	\$	<u>21,899</u>

Bridge Term Loan Facility

On January 16, 2019, in connection with the definitive merger agreement to acquire First Data (see Note 4), the Company entered into a bridge facility commitment letter pursuant to which a group of financial institutions committed to provide a 364-day senior unsecured bridge term loan facility in an aggregate principal amount of \$17.0 billion for the purpose of funding the repayment of certain indebtedness of First Data and its subsidiaries on the closing date of the acquisition of First Data, making

cash payments in lieu of fractional shares as part of the acquisition consideration and paying fees and expenses related to the acquisition, the refinancing and the related transactions. The Company recorded \$98 million of expenses, reported within debt financing activities in the consolidated statements of income, related to the bridge term loan facility during the year ended December 31, 2019. The aggregate commitments of \$17.0 billion under the bridge facility commitment letter were replaced with a corresponding amount of permanent financing through the term loan credit agreement and issuance of senior notes, as described below, resulting in the termination of the bridge term loan facility effective July 1, 2019.

Senior Notes

On June 24, 2019, the Company completed an offering of \$9.0 billion aggregate principal amount of senior notes comprised of \$2.0 billion aggregate principal amount of 2.75% senior notes due in July 2024, \$2.0 billion aggregate principal amount of 3.2% senior notes due in July 2026, \$3.0 billion aggregate principal amount of 3.5% senior notes due in July 2029 and \$2.0 billion aggregate principal amount of 4.4% senior notes due in July 2049. The senior notes pay interest semi-annually on January 1 and July 1, commencing on January 1, 2020. The indentures governing the senior notes contain covenants that, among other matters, limit (i) the Company's ability to consolidate or merge with or into, or convey, transfer or lease all or substantially all of its properties and assets to another person, (ii) the Company's and certain of its subsidiaries' ability to create or assume liens, and (iii) the Company's and certain of its subsidiaries' ability to engage in sale and leaseback transactions. The Company may, at its option, redeem the senior notes, in whole or in part, at any time prior to the applicable par call date.

On July 1, 2019, the Company completed an offering of €1.5 billion aggregate principal amount and £1.05 billion aggregate principal amount of senior notes comprised of €500 million aggregate principal amount of 0.375% senior notes due in July 2023, €500 million aggregate principal amount of 1.125% senior notes due in July 2027, €500 million aggregate principal amount of 1.625% senior notes due in July 2030, £525 million aggregate principal amount of 2.25% senior notes due in July 2025 and £525 million aggregate principal amount of 3.0% senior notes due in July 2031. The senior notes pay interest annually on July 1, commencing on July 1, 2020. The indentures governing the senior notes contain covenants that are substantially the same as those set forth in the Company's U.S. dollar-denominated senior notes described above.

In connection with the anticipated issuance of the foreign currency-denominated senior notes described above, the Company entered into foreign exchange forward contracts in June 2019 to minimize foreign currency exposure to the Euro and British Pound upon settlement of the proceeds from the foreign currency-denominated senior notes. The foreign exchange forward contracts matured on July 1, 2019, concurrent with the closing of the offering of the foreign currency-denominated senior notes. The Company realized foreign currency transaction gains of \$3 million, reported within debt financing activities in the consolidated statements of income during the year ended December 31, 2019, from these foreign exchange forward contracts. Further, upon completion of the acquisition of First Data, the Company designated its Euro- and British Pound-denominated senior notes as net investment hedges to hedge a portion of its net investment in certain Euro- and British Pound-denominated subsidiaries (see Note 14). Prior to designating the foreign currency-denominated senior notes as net investment hedges, the Company realized foreign currency transaction gains of \$69 million, reported within debt financing activities in the consolidated statements of income during the year ended December 31, 2019, as a result of changes in the U.S. dollar equivalent of the Euro- and British Pound-denominated senior notes due to fluctuations in foreign currency exchange rates. In addition, the Company held a portion of the proceeds from the issuance of these foreign currency-denominated senior notes in Euro- and British Pound-denominated cash and cash equivalents. The Company realized foreign currency transaction losses of \$19 million, reported within debt financing activities in the consolidated statements of income during the year ended December 31, 2019, as a result of changes in the U.S. dollar equivalent of the Euro- and British Pound-denominated cash due to fluctuations in foreign currency exchange rates.

A portion of the net proceeds from the senior note offerings described above was used in June 2019 to repay outstanding borrowings totaling \$790 million under the Company's amended and restated revolving credit facility. On July 29, 2019, concurrent with the acquisition of First Data, the Company used the remaining net proceeds from the senior notes offerings described above, as well as the net proceeds of the term loan facility described below and a drawing on its revolving credit facility described below, to repay \$16.4 billion of existing First Data debt and to pay fees and expenses related to such repayment, the First Data acquisition and related transactions.

In September 2018, the Company completed an offering of \$2.0 billion of senior notes comprised of \$1.0 billion aggregate principal amount of 3.8% senior notes due in October 2023 and \$1.0 billion aggregate principal amount of 4.2% senior notes due in October 2028. The Company used the net proceeds from such offering to repay the outstanding principal balance of \$540 million under its then-existing term loan and the then-outstanding borrowings under its amended and restated revolving credit facility totaling \$1.1 billion. In addition, the Company commenced a cash tender offer in September 2018 for any and all of its then-outstanding \$450 million aggregate principal amount of 4.625% senior notes due October 2020. Upon expiration of the tender offer on September 26, 2018, \$246 million was tendered. In October 2018, the Company retired the remaining outstanding \$204 million aggregate principal amount of 4.625% senior notes. The Company recorded a pre-tax loss, reported

within debt financing activities in the consolidated statements of income, on early debt extinguishment of \$14 million during the year ended December 31, 2018 related to these activities.

The Company's 3.8% senior notes due in October 2023 and 4.2% senior notes due in October 2028 described above pay interest semi-annually on April 1 and October 1, commencing on April 1, 2019. In addition, the Company has outstanding 2.7% senior notes due in June 2020, 3.85% senior notes due in June 2025, 4.75% senior notes due in June 2021 and 3.5% senior notes due in October 2022. The Company's 2.7% senior notes due in June 2020 and 3.85% senior notes due in June 2025 pay interest at the stated rates semi-annually on June 1 and December 1 of each year. The Company's 4.75% senior notes due in June 2021 pay interest at the stated rate on June 15 and December 15 of each year. The Company's 3.5% senior notes due in October 2022 pay interest at the stated rate on April 1 and October 1 of each year. The interest rate applicable to the senior notes described in this paragraph is subject to an increase of up to two percent in the event that the credit rating assigned to such notes is downgraded below investment grade. The indentures governing the senior notes described in this paragraph contain covenants that, among other matters, limit (i) the Company's ability to consolidate or merge with or into, or convey, transfer or lease all or substantially all of its properties and assets to, another person, (ii) the Company's and certain of its subsidiaries' ability to create or assume liens, and (iii) the Company's and certain of its subsidiaries' ability to engage in sale and leaseback transactions. At December 31, 2019, the 2.7% senior notes due in June 2020 were classified in the consolidated balance sheet as long-term and within the debt maturity schedule above as maturing in September 2023, the date that the Company's revolving credit facility expires, as the Company has the intent to refinance this debt on a long-term basis and the ability to do so under its revolving credit facility.

Term Loan Facility

On February 15, 2019, the Company entered into a new term loan credit agreement with a syndicate of financial institutions pursuant to which such financial institutions committed to provide the Company with a senior unsecured term loan facility in an aggregate principal amount of \$5.0 billion, consisting of \$1.5 billion in commitments to provide loans with a three-year maturity and \$3.5 billion in commitments to provide loans with a five-year maturity. On July 26, 2019, the Company entered into an amendment to its term loan credit facility to (i) remove as a condition precedent to borrowings on the closing date of the acquisition of First Data the requirement that amounts under the Receivables Financing Agreement, as defined below, be repaid and the related liens and guarantees be terminated in order to allow First Data's accounts receivable securitization program, as described below, to remain in place following consummation of the acquisition and (ii) amend the debt and liens covenants to increase the Company's flexibility to enter into receivables financing arrangements in the future. On July 29, 2019, concurrent with the closing of the acquisition of First Data, the term loan credit agreement was funded. Loans drawn under the term loan facility are subject to amortization at a quarterly rate of 1.25% for the first eight quarters and 1.875% each quarter thereafter (with loans outstanding under the five-year tranche subject to amortization at a quarterly rate of 2.5% after the fourth anniversary of the commencement of amortization), with accrued and unpaid amortization amounts required to be paid on the last business day in December of each year. Borrowings under the term loan facility bear interest at variable rates based on LIBOR or on a base rate, plus in each case, a specified margin based on the Company's long-term debt rating in effect from time to time. The variable interest rate on the term loan facility borrowings was 3.0% at December 31, 2019. The Company was also required to pay a ticking fee that accrued on the aggregate undrawn commitments under the term loan facility at a per annum rate based upon the Company's long-term debt rating in effect from time to time. The term loan credit agreement contains affirmative, negative and financial covenants, and events of default, that are substantially the same as those set forth in the Company's existing amended revolving credit facility, as described below.

Revolving Credit Facility

In September 2018, the Company entered into an amended and restated revolving credit agreement that restated its then-existing revolving credit agreement with a syndicate of banks and extended its maturity from April 2020 to September 2023. There are no significant commitment fees and no compensating balance requirements. The amended and restated revolving credit facility contained various restrictions and covenants that required the Company, among other things, to (i) limit its consolidated indebtedness as of the end of each fiscal quarter to no more than three and one-half times the Company's consolidated net earnings before interest, taxes, depreciation, amortization, non-cash charges and expenses and certain other adjustments ("EBITDA") during the period of four fiscal quarters then ended, subject to certain exceptions, and (ii) maintain EBITDA of at least three times its consolidated interest expense as of the end of each fiscal quarter for the period of four fiscal quarters then ended.

On February 6, 2019, the Company entered into an amendment to its amended and restated revolving credit facility to (i) amend the maximum leverage ratio covenant to permit it to elect to increase the permitted maximum leverage ratio from three and one-half times the EBITDA to either four times or four and one-half times the Company's EBITDA for a specified period following certain acquisitions and (ii) permit it to make drawings under the revolving credit facility on the closing date of its acquisition of First Data subject to only limited conditions. In November 2019, the Company elected to increase the

permitted maximum leverage ratio to four times the Company's consolidated EBITDA pursuant to the terms of the amendment described above. In addition, on February 15, 2019, the Company entered into a second amendment to its existing revolving credit agreement in order to increase the aggregate commitments available thereunder by \$1.5 billion to \$3.5 billion of total capacity, and to make certain additional amendments to facilitate the operation of the combined business following the acquisition of First Data. Further on July 26, 2019, the Company entered into a third amendment to its existing revolving credit agreement to (i) remove as a condition precedent to borrowings on the closing date of the acquisition of First Data the requirement that amounts under the Receivables Financing Agreement, as defined below, be repaid, and (ii) amend the debt and liens covenants to increase the Company's flexibility to enter into receivables financing arrangements in the future. The increased commitments and amendments contemplated by the second and third amendments to the revolving credit facility became effective upon the closing of the acquisition of First Data. Borrowings under the amended and restated revolving credit facility continue to bear interest at a variable rate based on LIBOR or on a base rate, plus in each case a specified margin based on the Company's long-term debt rating in effect from time to time. The variable interest rate on the revolving credit facility borrowings was 2.68% at December 31, 2019.

Foreign Lines of Credit and Other Arrangements

In connection with the acquisition of First Data, the Company assumed certain short-term lines of credit with foreign banks and alliance partners primarily to fund settlement activity. These arrangements are primarily associated with international operations and are in various functional currencies, the most significant of which are the Australian dollar, Polish zloty, Euro and Argentine peso. The Company had amounts outstanding on these lines of credit totaling \$150 million at a weighted-average interest rate of 13.4% at December 31, 2019.

Receivable Securitized Loan

In connection with the acquisition of First Data, the Company acquired a consolidated wholly-owned subsidiary, First Data Receivables, LLC ("FDR"). FDR is a party to certain receivables financing arrangements, including an agreement ("Receivables Financing Agreement") with certain financial institutions and other persons from time to time party thereto as lenders and group agents, pursuant to which certain wholly-owned subsidiaries of the Company have agreed to transfer and contribute receivables to FDR, and FDR in turn may obtain borrowings from the financial institutions and other lender parties to the Receivables Financing Agreement secured by liens on those receivables. FDR's assets are not available to satisfy the obligations of any other entities or affiliates of the Company, and FDR's creditors would be entitled, upon its liquidation, to be satisfied out of FDR's assets prior to any assets or value in FDR becoming available to the Company. The receivables held by FDR are recorded within trade accounts receivable, net in the Company's consolidated balance sheet. At December 31, 2019, FDR held \$773 million in receivables as part of the securitization program. The maximum borrowing capacity, subject to collateral availability, under the Receivables Financing Agreement at December 31, 2019 was \$500 million. FDR utilized the receivables as collateral in borrowings of \$500 million, at an average interest rate of 2.61%, at December 31, 2019. The term of the Receivables Financing Agreement is through July 2022.

Deferred Financing Costs

Deferred financing costs are amortized as a component of interest expense, net over the term of the underlying debt using the effective interest method. Deferred financing costs related to the Company's senior notes, term loan and receivable securitized loan totaled \$120 million and \$25 million at December 31, 2019 and 2018, respectively, and are reported as a direct reduction of the related debt instrument in the consolidated balance sheets. Deferred financing costs related to the Company's revolving credit facility are reported in other long-term assets in the consolidated balance sheets and totaled \$7 million and \$5 million at December 31, 2019 and 2018, respectively.

13. Redeemable Noncontrolling Interests

The Company assumed two redeemable noncontrolling interests through the acquisition of First Data (see Note 4) which are presented outside of equity and carried at their estimated redemption values. Each minority partner owns 1% of the equity in the joint venture; in addition, each minority partner is entitled to a contractually determined share of the entity's income. The agreements contain redemption features whereby interests held by the minority partner are redeemable either (i) at the option of the holder or (ii) upon the occurrence of an event that is not solely within the Company's control. The minority interests have a total estimated redemption value of \$252 million, which may be terminated by either party for convenience any time after September 1, 2021 and December 31, 2024, respectively. In the event of termination for cause, as a result of a change in control, or for convenience after the predetermined date, the Company may be required to purchase the minority partner membership interests at a price equal to the fair market value of the minority interest.

The following table presents a summary of the redeemable noncontrolling interests activity during the year ended December 31, 2019:

(In millions)

Balance at December 31, 2018	\$	—
Acquired		252
Distributions paid to redeemable noncontrolling interests		(7)
Share of income		17
Balance at December 31, 2019	\$	262

14. Accumulated Other Comprehensive Loss

Changes in accumulated other comprehensive loss by component, net of income taxes, consisted of the following:

(In millions)	Year ended December 31, 2019			
	Cash Flow Hedges	Foreign Currency Translation	Pension Plans	Total
Balance at December 31, 2018	\$ (16)	\$ (49)	\$ (2)	\$ (67)
Other comprehensive (loss) income before reclassifications	(134)	16	(4)	(122)
Amounts reclassified from accumulated other comprehensive loss	9	—	—	9
Net current-period other comprehensive (loss) income	(125)	16	(4)	(113)
Balance at December 31, 2019	\$ (141)	\$ (33)	\$ (6)	\$ (180)

(In millions)	Year ended December 31, 2018			
	Cash Flow Hedges	Foreign Currency Translation	Pension Plans	Total
Balance at December 31, 2017	\$ (14)	\$ (38)	\$ (2)	\$ (54)
Other comprehensive loss before reclassifications	(5)	(11)	—	(16)
Amounts reclassified from accumulated other comprehensive loss	3	—	—	3
Net current-period other comprehensive loss	(2)	(11)	—	(13)
Cumulative-effect adjustment of ASU 2017-12 adoption from retained earnings	3	—	—	3
Cumulative-effect adjustment of ASU 2018-02 adoption to retained earnings	(3)	—	—	(3)
Balance at December 31, 2018	\$ (16)	\$ (49)	\$ (2)	\$ (67)

The Company has entered into forward exchange contracts, which have been designated as cash flow hedges, to hedge foreign currency exposure to the Indian Rupee. At December 31, 2019, the notional amount of these derivatives was \$178 million, and the fair value totaling \$4 million is reported in prepaid expenses and other current assets in the consolidated balance sheet. At December 31, 2018, the notional amount of these derivatives was \$202 million, and the fair value was nominal. Based on the amounts recorded in accumulated other comprehensive loss at December 31, 2019, the Company estimates that it will recognize gains of approximately \$3 million in cost of processing and services during the next twelve months as foreign exchange forward contracts settle.

In March 2019, the Company entered into treasury lock agreements ("Treasury Locks"), designated as cash flow hedges, in the aggregate notional amount of \$5.0 billion to manage exposure to fluctuations in benchmark interest rates in anticipation of the issuance of fixed rate debt in connection with the refinancing of certain indebtedness of First Data and its subsidiaries. On June 24, 2019, concurrent with the issuance of U.S dollar-denominated senior notes (see Note 12), the Treasury Locks were settled resulting in a payment, included in cash flows from operating activities, of \$183 million recorded in accumulated other

comprehensive loss, net of income taxes, that will be amortized to earnings over the terms of the originally forecasted interest payments. Based on the amounts recorded in accumulated other comprehensive loss at December 31, 2019, the Company estimates that it will recognize approximately \$21 million in interest expense, net during the next twelve months related to settled interest rate hedge contracts.

To reduce exposure to changes in the value of the Company's net investments in certain of its foreign currency-denominated subsidiaries due to changes in foreign currency exchange rates, the Company uses its foreign currency-denominated debt as an economic hedge of its net investments in such foreign currency-denominated subsidiaries. In conjunction with the acquisition of First Data (see Note 4), the Company designated its Euro- and British Pound-denominated senior notes (see Note 12) as net investment hedges to hedge a portion of its net investment in certain subsidiaries whose functional currencies are the Euro and the British Pound. Accordingly, foreign currency transaction gains or losses on the qualifying net investment hedge instruments are recorded as foreign currency translation within other comprehensive loss in the consolidated statement of comprehensive income and will remain in accumulated other comprehensive loss on the consolidated balance sheet until the sale or complete liquidation of the underlying foreign subsidiaries. The Company recorded a foreign currency translation loss, net of tax, of \$62 million in accumulated other comprehensive loss during the year ended December 31, 2019 from the Euro- and British Pound-denominated senior notes.

15. Employee Benefit Plans

Defined Contribution Plans

The Company and its subsidiaries maintain defined contribution savings plans covering substantially all employees. Under the plans, eligible participants may elect to contribute a specified percentage of their salaries and the Company makes matching contributions, each subject to certain limitations. In connection with the acquisition of First Data (see Note 4), the Company assumed defined contribution savings plans and defined contribution pension plans covering substantially all employees of the former First Data. The Plans provide tax-deferred amounts for each participant, consisting of employee elective contributions, company matching and discretionary company contributions. Expenses for company contributions under these plans totaled \$65 million in 2019 and \$44 million in each of 2018 and 2017.

Defined Benefit Plans

In connection with the acquisition of First Data, the Company assumed noncontributory defined benefit pension plans covering a portion of the employees in the United Kingdom ("U.K."), the U.S., Germany and Austria. The majority of these plans are frozen and provide benefits to eligible employees based on an employee's average final compensation and years of service.

The following table provides a reconciliation of benefit obligations, plan assets and the funded status of these defined benefit plans:

(In millions)	U.K. plan		U.S. and other plans	
Change in projected benefit obligations:				
Balance at December 31, 2018	\$	—	\$	—
Acquired		(687)		(219)
Interest cost		(6)		(3)
Actuarial gain (loss)		28		(15)
Benefits paid		12		12
Foreign currency translation		(19)		—
Balance at December 31, 2019	\$	(672)	\$	(225)
Change in fair value of plan assets:				
Balance at December 31, 2018	\$	—	\$	—
Acquired		866		160
Actual return on plan assets		(19)		19
Benefits paid		(12)		(12)
Foreign currency translation		25		—
Balance at December 31, 2019	\$	860	\$	167
Funded status of the plans	\$	188	\$	(58)

The funded status of the defined benefit plans is recognized as an asset or a liability within other long-term assets or within other long-term liabilities in the consolidated balance sheet.

Projected Benefit Obligations

The Company records amounts relating to its defined benefit pension plan obligations and their associated expenses based on calculations which include actuarial assumptions, including the discount rate and the expected rate of return on plan assets. Changes in any of the assumptions and the amortization of differences between the assumptions and actual experience will affect the amount of pension expense in future periods. The Company reviews its actuarial assumptions at least annually and modifies the assumptions based on current rates and trends, as appropriate. The effects of modifications are recognized immediately within the consolidated balance sheet, and are generally amortized to operating income over future periods, with the deferred amount recorded in accumulated other comprehensive loss within the consolidated balance sheet. The Company's funding policy is to contribute quarterly an amount as recommended by the plans' independent actuaries. Company contributions under these plans were nominal in 2019 and are also expected to be nominal in 2020. The Company employs a building block approach in determining the expected long-term rate of return for plan assets with proper consideration of diversification and re-balancing. Historical markets are studied and long-term historical relationships between equities and fixed-income securities are preserved consistent with the widely accepted capital market principle that assets with higher volatility generate a greater return over the long run. Current market factors such as inflation and interest rates are evaluated before long-term capital market assumptions are determined. Peer data and historical returns are reviewed to check for reasonableness and appropriateness.

The weighted-average rate assumptions used in the measurement of the Company's projected benefit obligations at December 31, 2019 and net periodic benefit expense during the year ended December 31, 2019 were as follows:

	Projected Benefit Obligations	Net Periodic Benefit Expense
Discount rate	2.28%	2.16%
Expected long-term return on plan assets	n/a	2.83%

The estimated future benefit payments are expected to be as follows:

(In millions)

Year ending December 31,

2020	\$	30
2021		31
2022		32
2023		35
2024		35
2025-2029		191

Plan Assets

The Company's investment strategy for the U.K. plan is to allocate the assets into two pools: (i) off-risk assets whereby the focus is risk management, protection and insurance relative to the liability target invested in, but not limited to, debt, U.K. government bonds and U.K. government index-linked bonds; and (ii) on-risk assets whereby the focus is on return generation and taking risk in a controlled manner. Such assets could include equities, government bonds, high-yield bonds, property, commodities or hedge funds. The Company's target allocation for the U.K. plan is 45% on-risk assets and 55% off-risk assets. Investment risk is measured and monitored on an ongoing basis through quarterly investment portfolio reviews, annual liability measurements, and periodic asset and liability studies. The Company's investment strategy for the U.S. plan employs a total return investment approach whereby a mix of equities and fixed income investments are used to maximize the long-term return of plan assets for a prudent level of risk. The investment portfolio contains a diversified blend of equity and fixed-income investments. The Company sets an allocation mix necessary to support the underlying plan liabilities as influenced significantly by the demographics of the participants and the frozen nature of the plan. The Company's target allocation for the U.S. plan based on the investment policy at December 31, 2019 was 50% on-risk assets and 50% off-risk assets.

The following table sets forth the Company's plan assets carried and measured at fair value on a recurring basis at December 31, 2019:

(In millions)	Level 1	Level 2	Level 3
Cash and cash equivalents	\$ 17	\$ —	\$ —
Equity securities ⁽¹⁾	134	123	—
Fixed income securities ⁽²⁾	188	214	—
Other investments ⁽³⁾	315	(22)	10
Total investments at fair value	\$ 654	\$ 315	\$ 10

⁽¹⁾ Equity securities primarily consist of domestic, international and global equity pooled funds.

⁽²⁾ Fixed income securities primarily consist of debt securities issued by U.S. and foreign government agencies and debt obligations issued by a variety of private and public corporations.

⁽³⁾ Other investments primarily consist of index linked government bonds, derivatives and other investments.

In addition to the investments presented within the fair value hierarchy table above, the Company's plan assets include investments in various hedge funds that are measured at fair value using the net asset value per share (or its equivalent) practical expedient. Such investments totaled \$48 million at December 31, 2019.

Net Periodic Benefit Cost

The components of net periodic benefit expense were as follows for the year ended December 31:

(In millions)	2019
Interest cost	\$ 9
Expected return on plan assets	(10)
Net periodic benefit income	\$ (1)

16. Share-Based Compensation

The Company recognizes the fair value of share-based compensation awards granted to employees in cost of processing and services, cost of product, and selling, general and administrative expense in its consolidated statements of income.

The Company's share-based compensation awards are typically granted in the first quarter of the year and primarily consist of the following:

Stock Options – The Company grants stock options to employees and non-employee directors at exercise prices equal to the fair market value of the Company's stock on the dates of grant. Stock options generally vest over a three-year period beginning on the first anniversary of the grant. All stock options expire ten years from the date of the award. The Company recognizes compensation expense for the fair value of the stock options over the requisite service period of the stock option award.

Restricted Stock Units and Awards – The Company grants restricted stock units and awards to employees and non-employee directors. The Company recognizes compensation expense for restricted stock units and awards based on the market price of the common stock on the grant date over the period during which the units and awards vest.

Performance Share Units and Awards – The Company grants performance share units and awards to employees. The number of shares issued at the end of the performance period is determined by the level of achievement of pre-determined performance and market goals, including earnings, revenue growth, synergy attainment and shareholder return. The Company recognizes compensation expense on performance share units and awards ratably over the requisite performance period of the award to the extent management views the performance goals as probable of attainment. The Company recognizes compensation expense for the fair value of the shareholder return component over the requisite service period of the award.

Employee Stock Purchase Plan – The Company maintains an employee stock purchase plan that allows eligible employees to purchase a limited number of shares of common stock each quarter through payroll deductions at 85% of the closing price of the Company's common stock on the last business day of each calendar quarter. The Company recognizes compensation expense related to the 15% discount on the purchase date. Effective January 1, 2020, the employee discount under the employee stock purchase plan was modified to 10%.

The Company recognized \$229 million, \$73 million and \$63 million of share-based compensation expense during the years ended December 31, 2019, 2018 and 2017, respectively. At December 31, 2019, the total remaining unrecognized compensation cost for unvested stock options, restricted stock units and awards and performance share units and awards, net of estimated forfeitures, of \$496 million is expected to be recognized over a weighted-average period of 1.7 years. During the years ended December 31, 2019, 2018 and 2017, stock options to purchase 4.7 million, 2.7 million and 2.9 million shares, respectively, were exercised.

Acquisition of First Data

Upon the completion of the First Data acquisition on July 29, 2019 (see Note 4), First Data's equity awards, whether vested or unvested, were either settled in shares of the Company's common stock or converted into equity awards denominated in shares of the Company's common stock based on a defined exchange ratio of 0.303, as described below.

First Data time-vesting awards that were granted at or prior to the initial public offering of First Data (the "First Data IPO") were accelerated in full in accordance with their terms, except for certain executive officer awards and certain awards held by retirement-eligible employees, which were not accelerated and instead converted into equity awards denominated in shares of the Company's common stock. Each such time-vesting, pre-IPO restricted stock and restricted stock unit award was settled in shares of the Company's common stock based on the exchange ratio. Each time-vesting, pre-IPO stock option award was converted into an option to purchase a number of shares of the Company's common stock based on the exchange ratio with an exercise price per share equal to the exercise price per share of such stock option award immediately prior to the completion of the acquisition divided by the exchange ratio.

First Data equity awards granted at the time of the First Data IPO that were subject to vesting solely upon achievement of a \$32 price per share of First Data common stock were converted into equity awards denominated in shares of the Company's common stock and remained eligible to vest upon satisfaction of an adjusted target price per share of the Company's common stock equal to the existing First Data target price divided by the exchange ratio. Such awards vested during the third quarter of 2019. Each restricted stock and restricted stock unit award that was a performance-vesting IPO award was converted into an award denominated in shares of the Company's common stock based on the exchange ratio, and each stock option award that was a performance-vesting award was converted into an option to purchase a number of shares of the Company's common

stock based on the exchange ratio with an exercise price per share equal to the exercise price per share of such stock option award immediately prior to the completion of the acquisition divided by the exchange ratio. As converted, the performance-vesting awards continued to be governed by the same terms and conditions as were applicable prior to the acquisition and vested during the year ended December 31, 2019 upon satisfaction of the adjusted performance condition.

The remaining existing First Data equity awards, whether vested or unvested, were converted into equity awards denominated in shares of the Company's common stock based on the exchange ratio, with an exercise price per share for option awards equal to the exercise price per share of such stock option award immediately prior to the completion of the acquisition divided by the exchange ratio, and will continue to be governed by generally the same terms and conditions as were applicable prior to the acquisition; provided that, subject to compliance with Section 409A of the Internal Revenue Code, such awards will accelerate upon a covered termination as defined in the merger agreement.

The portion of the fair value of the replacement awards related to services provided prior to the acquisition was \$768 million and was accounted for as consideration transferred. The remaining portion of the fair value of \$467 million is associated with future service and is recognized as compensation expense, net of estimated forfeitures, over the weighted-average remaining vesting period of 1.2 years. The fair value of options that the Company assumed in connection with the acquisition of First Data were estimated using the Black-Scholes model with the following assumptions:

Expected life (in years)	2.5
Average risk-free interest rate	1.9%
Expected volatility	27.4%
Expected dividend yield	0%

The Company determined the expected life of stock options using a midpoint approach considering the vesting schedule, contractual terms and current option life-to-date. The risk-free interest rate was based on the U.S. treasury yield curve in effect as of the acquisition date. Expected volatility was determined using a weighted-average of the implied volatility and the mean reversion volatility of the Company's stock at the time of conversion.

Share-Based Compensation Activity

The weighted-average estimated fair value of stock options granted during 2019, 2018 and 2017 was \$28.52, \$22.48 and \$18.76 per share, respectively. The fair values of stock options granted were estimated on the date of grant using a binomial option-pricing model with the following assumptions:

	2019	2018	2017
Expected life (in years)	6.4	6.3	6.3
Average risk-free interest rate	2.7%	2.2%	2.2%
Expected volatility	28.5%	28.3%	28.9%
Expected dividend yield	0%	0%	0%

The Company determined the expected life of stock options using historical data adjusted for known factors that could alter historical exercise behavior. The risk-free interest rate was based on the U.S. treasury yield curve in effect as of the grant date. Expected volatility was determined using weighted-average implied market volatility combined with historical volatility. The Company believes that a blend of historical volatility and implied volatility better reflects future market conditions and better indicates expected volatility than purely historical volatility.

A summary of stock option activity is as follows:

	Shares (In thousands)	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (In millions)
Stock options outstanding - December 31, 2018	12,052	\$ 33.96		
Converted First Data stock options	7,591	42.13		
Granted	1,188	84.95		
Forfeited	(183)	69.38		
Exercised	(4,659)	28.43		
Stock options outstanding - December 31, 2019	15,989	\$ 42.83	4.97	\$ 1,164
Stock options exercisable - December 31, 2019	13,370	\$ 37.02	4.32	\$ 1,051

A summary of restricted stock unit and performance share unit activity is as follows:

	Restricted Stock Units		Performance Share Units	
	Shares (In thousands)	Weighted- Average Grant Date Fair Value	Shares (In thousands)	Weighted- Average Grant Date Fair Value
Units - December 31, 2018	1,821	\$ 53.22	524	\$ 57.60
Converted First Data units	6,025	102.30	1,333	101.96
Granted	564	92.24	1,114	92.95
Forfeited	(292)	83.23	(238)	50.96
Vested	(1,249)	76.95	(405)	90.03
Units - December 31, 2019	6,869	\$ 93.80	2,328	\$ 94.61

A summary of restricted stock award and performance share award activity is as follows:

	Restricted Stock Awards		Performance Share Awards	
	Shares (In thousands)	Weighted-Average Grant Date Fair Value	Shares (In thousands)	Weighted-Average Grant Date Fair Value
Awards - December 31, 2018	—	\$ —	—	\$ —
Converted First Data awards	96	102.30	264	87.57
Granted	—	—	—	—
Forfeited	—	—	(16)	87.57
Vested	(48)	102.30	(248)	87.57
Awards - December 31, 2019	48	\$ 102.30	—	\$ —

The table below presents additional information related to stock option and restricted stock unit activity:

(In millions)	2019	2018	2017
Total intrinsic value of stock options exercised	\$ 331	\$ 147	\$ 116
Fair value of restricted stock units vested	198	37	61
Income tax benefit from stock options exercised and restricted stock units vested	126	43	66
Cash received from stock options exercised	104	29	36

At December 31, 2019, 33.2 million share-based awards were available for grant under the Amended and Restated Fiserv, Inc. 2007 Omnibus Incentive Plan. Under its employee stock purchase plan, the Company issued 0.6 million shares in 2019, 0.7 million shares in 2018 and 0.8 million shares in 2017. At December 31, 2019, there were 24.7 million shares available for issuance under the employee stock purchase plan.

17. Restructuring and Other Charges

In connection with the acquisition of First Data, the Company has begun implementing certain integration plans focused on reducing the Company's overall cost structure, including vendor spend and the elimination of duplicate costs. The Company recorded restructuring charges related to certain of these integration activities of \$56 million, primarily reported in cost of processing and service and selling, general and administrative expenses within the consolidated statements of income, based upon committed actions during the year ended December 31, 2019. The Company continues to evaluate operating efficiencies and anticipates incurring additional costs in the next few years in connection with these activities, but is unable to estimate those amounts at this time as such plans are not yet finalized.

Employee Termination Costs

During 2019, the Company recorded \$32 million of employee termination costs related to severance and other separation costs for terminated employees in connection with the acquisition of First Data. The following table summarizes the changes in the reserve related to the Company's employee severance and other separation costs for the year ended December 31, 2019:

(In millions)

Balance at December 31, 2018	\$	—
Severance and other separation costs		32
Cash payments		(18)
Balance at December 31, 2019	\$	14

The employee severance and other separation costs accrual balance at December 31, 2019 of \$14 million is expected to be paid in 2020. In addition, the Company recorded share-based compensation costs totaled \$23 million in 2019 related to the accelerated vesting of previously issued equity awards for terminated employees. The Company expects to incur additional employee termination costs as a result of finalizing and executing further integration activities in 2020.

Facility Exit Costs

During 2019, the Company identified certain leased facilities that have been or will be exited in the future as part of the Company's efforts to reduce facility carrying costs. The Company recorded \$1 million in facility exit and related costs during 2019, primarily related to relocation costs and lease exit or termination fees, as well as ongoing operating expenses of certain vacated facilities. The Company anticipates exiting additional facilities as current lease agreements approach expiration.

Asset Impairment Charges

The Company recorded a \$48 million non-cash impairment charge, reported primarily in cost of processing and services within the consolidated statements of income, associated with an international core account processing platform. Such impairment charge primarily related to the write-off of certain of the Financial segment's purchased and capitalized software development costs; however, are presented within Corporate and Other as such charge was excluded from the Company's measure of the Financial segment's operating performance.

18. Income Taxes

Substantially all of the Company's pre-tax earnings are derived from domestic operations in all periods presented. The income tax provision (benefit) for continuing operations was as follows for the years ended December 31:

<u>(In millions)</u>	2019	2018	2017
Components of income tax provision (benefit):			
Current:			
Federal	\$ 25	\$ 189	\$ 342
State	69	39	44
Foreign	57	17	19
	<u>151</u>	<u>245</u>	<u>405</u>
Deferred:			
Federal	118	110	(250)
State	(18)	24	3
Foreign	(53)	(1)	—
	<u>47</u>	<u>133</u>	<u>(247)</u>
Income tax provision (benefit)	<u>\$ 198</u>	<u>\$ 378</u>	<u>\$ 158</u>

A reconciliation of the statutory federal income tax rate to the Company's effective income tax rate for continuing operations is as follows for the years ended December 31:

	2019	2018	2017
Statutory federal income tax rate	21.0 %	21.0 %	35.0 %
State income taxes, net of federal effect	3.7 %	3.2 %	2.3 %
Unconsolidated affiliates tax	0.6 %	0.1 %	0.9 %
Tax expense (benefit) due to federal tax reform	— %	1.2 %	(20.3)%
Excess tax benefit from share-based awards	(5.1)%	(2.2)%	(3.6)%
Sale of businesses	(2.6)%	1.3 %	— %
Domestic production activities deduction	— %	— %	(2.0)%
Other, net	0.7 %	(0.3)%	(0.7)%
Effective income tax rate	<u>18.3 %</u>	<u>24.3 %</u>	<u>11.6 %</u>

Significant components of deferred tax assets and liabilities consisted of the following at December 31:

(In millions)	2019	2018
Accrued expenses	\$ 303	\$ 74
Interest rate hedge contracts	34	5
Share-based compensation	216	43
Net operating loss and credit carry-forwards	1,444	131
Foreign tax credits on undistributed earnings	289	—
Leasing liabilities	219	—
Other	31	25
Subtotal	2,536	278
Valuation allowance	(1,145)	(101)
Total deferred tax assets	1,391	177
Capitalized software development costs	(622)	(129)
Intangible assets	(3,297)	(437)
Property and equipment	(143)	(66)
Capitalized commissions	(86)	(80)
Investments in joint ventures	(841)	(78)
Leasing right-of-use assets	(205)	—
Other	(332)	(112)
Total deferred tax liabilities	(5,526)	(902)
Total	\$ (4,135)	\$ (725)

In connection with the acquisition of First Data (see Note 4), the Company recorded, on a preliminary basis, \$3.5 billion of deferred tax liabilities for the deferred tax effects associated with the fair value of assets acquired and liabilities assumed using the applicable tax rates, with a corresponding adjustment to goodwill.

The Company recorded a valuation allowance of \$1.1 billion and \$101 million at December 31, 2019 and 2018, respectively, against its deferred tax assets. The increase in the valuation allowance in 2019 is primarily a result of the Company's acquisition of First Data. Substantially all of the acquired First Data valuation allowance relates to certain foreign and state net operating loss carryforwards.

Deferred tax assets and liabilities are reported in the consolidated balance sheets as follows at December 31:

(In millions)	2019	2018
Noncurrent assets	\$ 112	\$ 20
Noncurrent liabilities	(4,247)	(745)
Total	\$ (4,135)	\$ (725)

Noncurrent deferred tax assets are included in other long-term assets at December 31, 2019 and 2018.

The tax effects described above, as well as other changes in deferred tax assets and liabilities as a result of the acquisition of First Data, may be adjusted as additional information becomes available during the measurement period.

The following table presents the amounts of federal, state and foreign net operating loss carryforwards and general business credit carryforwards at December 31:

<u>(In millions)</u>	2019	2018
Net operating loss carryforwards: ⁽¹⁾		
Federal	\$ 1,674	\$ 27
State	4,636	479
Foreign	3,201	465
General business credit carryforwards ⁽²⁾	57	—

⁽¹⁾ At December 31, 2019, the Company had federal net operating loss carryforwards of \$1.7 billion, which expire in 2020 through 2037, state net operating loss carryforwards of \$4.6 billion, which expire in 2021 through 2039, and foreign net operating loss carryforwards of \$3.2 billion, of which \$209 million expire in 2020 through 2039, and the remainder of which do not expire.

⁽²⁾ At December 31, 2019, the Company had general business credit carryforwards of \$57 million which expire in 2027 through 2039.

The Company asserts that its investment in its foreign subsidiaries is intended to be indefinitely reinvested with limited exceptions for select foreign subsidiaries. In addition, undistributed historical and future earnings of its foreign subsidiaries are not considered to be indefinitely reinvested. Should these earnings be distributed in the future in the form of dividends or otherwise, the Company may be subject to foreign taxes. The Company has the ability and intent to limit distributions so as to not make a distribution in excess of its investment in those subsidiaries. The Company will continue to monitor its global cash requirements and the need to recognize a deferred tax liability.

Unrecognized tax benefits were as follows at December 31:

<u>(In millions)</u>	2019	2018	2017
Unrecognized tax benefits - Beginning of year	\$ 49	\$ 42	\$ 45
Increases for assumed tax positions related to First Data	82	—	—
Increases for tax positions taken during the current year	8	3	11
Increases for tax positions taken in prior years	16	20	2
Decreases for tax positions taken in prior years	(2)	(8)	(15)
Decreases for settlements	(1)	—	(1)
Lapse of the statute of limitations	(7)	(8)	—
Unrecognized tax benefits - End of year	\$ 145	\$ 49	\$ 42

At December 31, 2019, unrecognized tax benefits of \$113 million, net of federal and state benefits, would affect the effective income tax rate from continuing operations if recognized. The Company believes it is reasonably possible that the liability for unrecognized tax benefits may decrease by up to \$32 million over the next twelve months 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.

The Company classifies interest expense and penalties related to income taxes as components of its income tax provision. The income tax provision included interest expense and penalties on unrecognized tax benefits of \$2 million in 2019, \$1 million in 2018 and less than \$1 million in 2017. Accrued interest expense and penalties related to unrecognized tax benefits totaled \$19 million and \$4 million at December 31, 2019 and 2018, respectively.

The Company's U.S. federal income tax returns for 2016 through 2019, and tax returns in certain states and foreign jurisdictions for 2005 through 2019 remain subject to examination by taxing authorities. In connection with the acquisition of First Data, the Company is subject to income tax examination from 2010 through 2015, 2018 and forward in relation to First Data's U.S. federal income tax return. State and local examinations are substantially complete through 2010 in relation to First Data's state and local tax filings. Foreign jurisdictions generally remain subject to examination by their respective authorities from 2006 forward, none of which are considered significant jurisdictions.

The Company accounts for research and development costs in accordance with ASC 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. In September 2017, the Internal Revenue Service issued Directive LB&I-04-0917-005 pertaining to the allowance of

the credit for increasing research activities under Internal Revenue Code section 41 allowing a safe harbor for LB&I taxpayers reporting research and development costs under ASC 730-10. During the year ended December 31, 2019, the Company incurred \$63 million of research and development costs related to First Data since the date of acquisition.

19. Commitments and Contingencies

Litigation

In the normal course of business, the Company or its subsidiaries are named as defendants in lawsuits in which claims are asserted against the Company. In addition, the Company assumed certain legal proceedings in connection with the acquisition of First Data primarily associated with its merchant business including claims associated with alleged processing errors and a tax matter. The Company has \$43 million accrued at December 31, 2019 related to its various legal proceedings, primarily associated with the Company's merchant business as described above. The Company's estimate of the possible range of exposure for various litigation matters in excess of amounts accrued is \$0 million to approximately \$50 million. In the opinion of management, the liabilities, if any, which may ultimately result from such lawsuits are not expected to have a material adverse effect on the Company's consolidated financial statements.

Electronic Payments Transactions

In connection with the Company's processing of electronic payments transactions, funds received from subscribers are invested from the time the Company collects the funds until payments are made to the applicable recipients. These subscriber funds are invested in short-term, highly liquid investments. Subscriber funds, which are not included in the Company's consolidated balance sheets, can fluctuate significantly based on consumer bill payment and debit card activity and totaled approximately \$2.0 billion at December 31, 2019.

Indemnifications and Warranties

The Company may indemnify its clients from certain costs resulting from claims of patent, copyright or trademark infringement associated with its clients' use of the Company's products or services. The Company may also warrant to clients that its products and services will operate substantially in accordance with identified specifications. From time to time, in connection with sales of businesses, the Company agrees to indemnify the buyers of such businesses for liabilities associated with the businesses that are sold. Payments, net of recoveries, under such indemnification or warranty provisions were not material to the Company's consolidated results of operations or financial position.

20. Related Party Transactions

Merchant Alliances

A significant portion of the Company's business within the First Data segment is conducted through merchant alliances between the Company and financial institutions. To the extent the Company maintains a controlling financial interest in an alliance, 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 in consolidation. To the extent the Company has significant influence but not control in an 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, administrative service fees, and other fees charged to alliances accounted for under the equity method. Such fees totaled \$76 million for the year ended December 31, 2019. 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. At December 31, 2019, the Company had approximately \$35 million of amounts due from unconsolidated merchant alliances included within trade accounts receivable, net in the Company's consolidated balance sheet.

In July 2019, the Company and Bank of America jointly announced the dissolution of the Banc of America Merchant Services joint venture ("BAMS"), to be effective June 2020. The Company owns 51% of BAMS and BAMS' financial results are consolidated into the Company's financial statements. Upon dissolution of the joint venture, the Company is entitled to receive a 51% share of the joint venture's value via an agreed upon contractual separation process. In addition, Bank of America has the right to require the Company to continue providing merchant processing and related services to the joint venture clients allocated to Bank of America in the dissolution of the joint venture through June 2023 at current pricing. The Company anticipates an ongoing relationship with Bank of America to provide processing and other support services to other Bank of America merchant clients following the joint venture's dissolution.

21. Business Segment Information

The Company's operations are comprised of the First Data segment, the Payments segment and the Financial segment. Since the Company's acquisition of First Data on July 29, 2019 (see Note 4), the chief operating decision maker of the Company has managed the operations of First Data as a separate business segment while evaluating its organizational structure and related integration plans, including the allocation of resources and the assessment of performance. The Company expects that it will realign its business segments in the first quarter of 2020 when its new reporting structure and First Data integration plans are finalized.

The First Data segment provides a wide-range of solutions to merchants, including retail point-of-sale merchant transaction processing and acquiring, e-commerce services, mobile payment services and the cloud-based Clover® point-of-sale operating system. The businesses in this segment also provide technology solutions for bank and non-bank issuers and a wide range of value-added solutions complementing the merchant and issuer technology solutions.

The Payments segment provides electronic bill payment and presentment services, internet and mobile banking software and services, account-to-account transfers, person-to-person payment services, debit and credit card processing and services, payments infrastructure services and other electronic payments software and services. The businesses in this segment also provide card and print personalization services, investment account processing services for separately managed accounts and fraud and risk management products and services.

The Financial segment provides financial institutions with account processing services, item processing and source capture services, loan origination and servicing products, cash management and consulting services and other products and services that support numerous types of financial transactions.

Corporate and Other primarily consists of intercompany eliminations, amortization of acquisition-related intangible assets, unallocated corporate expenses of the combined company and other activities that are not considered when management evaluates segment performance, such as gains on sales of businesses and associated transition services.

Operating results for each segment are presented below. The Company does not evaluate performance or allocate resources based on segment asset data, and therefore such information is not presented.

(In millions)	First Data ⁽¹⁾	Payments	Financial	Corporate and Other	Total
2019					
Processing and services revenue	\$ 3,291	\$ 2,993	\$ 2,240	\$ 49	\$ 8,573
Product revenue	787	751	167	(91)	1,614
Total revenue	4,078	3,744	2,407	(42)	10,187
Operating income	1,031	1,252	805	(1,479)	1,609
Capital expenditures	250	265	131	75	721
Depreciation and amortization expense	421	253	149	955	1,778
2018					
Processing and services revenue	\$ —	\$ 2,728	\$ 2,204	\$ 43	\$ 4,975
Product revenue	—	739	191	(82)	848
Total revenue	—	3,467	2,395	(39)	5,823
Operating income ⁽²⁾	—	1,122	798	(167)	1,753
Capital expenditures	—	239	115	6	360
Depreciation and amortization expense	—	225	145	186	556
2017					
Processing and services revenue	\$ —	\$ 2,476	\$ 2,347	\$ 10	\$ 4,833
Product revenue	—	758	183	(78)	863
Total revenue	—	3,234	2,530	(68)	5,696
Operating income	—	1,034	849	(351)	1,532
Capital expenditures	—	182	95	10	287
Depreciation and amortization expense	—	169	92	183	444

⁽¹⁾ Includes the results of First Data from July 29, 2019, the date of acquisition.

⁽²⁾ A gain of \$227 million from the sale of a 55% interest of the Company's Lending Solutions business is included within Corporate and Other.

Revenue generated outside the United States comprised approximately 12%, 6% and 5% of total revenue in 2019, 2018 and 2017, respectively.

22. Quarterly Financial Data (unaudited)

Quarterly financial data for 2019 and 2018 was as follows:

<u>(In millions, except per share data)</u>	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
2019 ⁽¹⁾					
Total revenue	\$ 1,502	\$ 1,512	\$ 3,128	\$ 4,045	\$ 10,187
Cost of processing and services	624	617	1,204	1,571	4,016
Cost of product	174	168	413	538	1,293
Selling, general and administrative expenses	341	343	1,137	1,463	3,284
Gain on sale of businesses	(10)	—	—	(5)	(15)
Total expenses	1,129	1,128	2,754	3,567	8,578
Operating income	373	384	374	478	1,609
Income from continuing operations	225	223	225	241	914
Net income attributable to Fiserv, Inc.	225	223	198	247	893
Comprehensive income attributable to Fiserv, Inc.	207	115	12	446	780
Net income attributable to Fiserv, Inc. per share - continuing operations: ⁽²⁾					
Basic	\$ 0.58	\$ 0.57	\$ 0.34	\$ 0.36	\$ 1.74
Diluted	\$ 0.56	\$ 0.56	\$ 0.33	\$ 0.36	\$ 1.71
2018					
Total revenue	\$ 1,440	\$ 1,420	\$ 1,412	\$ 1,551	\$ 5,823
Cost of processing and services	568	560	568	628	2,324
Cost of product	191	179	181	194	745
Selling, general and administrative expenses	305	320	305	298	1,228
(Gain) loss on sale of businesses	(232)	3	2	—	(227)
Total expenses	832	1,062	1,056	1,120	4,070
Operating income	608	358	356	431	1,753
Income from continuing operations	423	251	227	286	1,187
Net income attributable to Fiserv, Inc.	423	251	227	286	1,187
Comprehensive income attributable to Fiserv, Inc.	421	241	214	298	1,174
Net income attributable to Fiserv, Inc. per share - continuing operations: ⁽²⁾					
Basic	\$ 1.02	\$ 0.61	\$ 0.56	\$ 0.72	\$ 2.93
Diluted	\$ 1.00	\$ 0.60	\$ 0.55	\$ 0.71	\$ 2.87

⁽¹⁾ Includes the results of First Data from July 29, 2019, the date of acquisition.

⁽²⁾ Net income attributable to Fiserv, Inc. per share - continuing operations in each period is calculated using actual, unrounded amounts.

Fiserv, Inc.
Schedule II — Valuation and Qualifying Accounts
(In millions)

Description	Balance at Beginning of Period	Additions		Deductions	Balance at End of Period
		Charged to Costs and Expenses	Charged to Other Accounts		
Year ended December 31, 2019					
Deferred tax asset valuation allowance ⁽¹⁾	\$ 101	8	1,036	—	\$ 1,145
Year ended December 31, 2018					
Deferred tax asset valuation allowance	\$ 103	1	(3)	—	\$ 101
Year ended December 31, 2017					
Deferred tax asset valuation allowance ⁽²⁾	\$ 35	14	54	—	\$ 103

⁽¹⁾ Includes the valuation allowance adjustment associated with the acquisition of First Data.

⁽²⁾ Includes the valuation allowance adjustment associated with the acquisition of Monitise.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Fiserv, Inc.:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Fiserv, Inc. and subsidiaries (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, equity, and cash flows, for each of the three years in the period ended December 31, 2019, and the related notes and the schedule listed in Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

We have also 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, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 27, 2020 expressed an unqualified opinion on the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 2 to the financial statements, the Company has changed its method of accounting for leases as of January 1, 2019 due to the adoption of Accounting Standards Update No. 2016-02, *Leases* (Topic 842) using the modified retrospective method.

As discussed in Note 1 to the financial statements, the Company has changed its method of accounting for revenue as of January 1, 2018 due to the adoption of Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers* (Topic 606) using the modified retrospective method.

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.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Revenue – Contract Modifications – Refer to Note 3 to the financial statements

Critical Audit Matter Description

The Company generates revenue from the delivery of processing, service and product solutions. Revenue is measured based on consideration specified in a contract with a customer, and the Company recognizes revenue when it satisfies a performance

obligation by transferring control over a product or service to a customer, which may be at a point in time or over time. Contract modifications occur when the Company and its customers agree to modify existing customer contracts to change the scope or price (or both) of the contract. Contract modifications also occur when a customer terminates some, or all, of the existing services provided by the Company, which typically results in the customer paying a termination fee to the Company based upon the terms in the initial contract. When a contract modification occurs, it requires the Company to exercise judgment to determine if the modification should be accounted for as: (i) a separate contract, (ii) the termination of the original contract and creation of a new contract, or (iii) a cumulative catch up adjustment to the original contract. Further, contract modifications require the identification and evaluation of the performance obligations of the modified contract, including the allocation of revenue to the remaining performance obligations and the period of recognition for each identified performance obligation.

We identified the determination of revenue recognition for customer contract modifications as a critical audit matter because of the management judgments necessary to determine the appropriate accounting. This required a high degree of auditor judgment and an increased extent of effort when performing audit procedures to evaluate whether contract modifications were recognized appropriately.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the revenue recognition associated with contract modifications included the following, among others:

- We evaluated management's significant accounting policies related to these customer contract modifications for reasonableness.
- We selected a sample of significant customer contract modifications and performed the following procedures:
 - Obtained and read the customer contracts.
 - Evaluated whether the contract represented a new contract or a contract modification and, if applicable, assessed the treatment of any change in scope or price.
 - Tested management's identification of remaining performance obligations.
 - Recalculated the transaction price and assessed the appropriateness of the allocation of transaction price to each performance obligation.
 - Assessed the pattern of delivery for each distinct performance obligation.
- We tested the effectiveness of internal controls over revenue recognition related to the Company's accounting for contract modifications.

Acquisition of First Data Corporation – Valuation of Intangible Assets – Refer to Note 4 to the financial statements

Critical Audit Matter Description

The Company completed the acquisition of First Data Corporation on July 29, 2019 by acquiring 100% of the First Data stock that was issued and outstanding as of the date of acquisition for a purchase price of \$46.5 billion. The Company accounted for the acquisition under the acquisition method of accounting for business combinations. Accordingly, the purchase price was preliminarily allocated to the assets acquired and liabilities assumed based on their respective fair values, including identifiable intangible assets of \$16.4 billion. In determining the fair value of these intangible assets, the Company, with assistance from a third-party valuation specialist, used various valuation methodologies, including discounted cash flow analyses, the multi-period excess earnings method, and the relief from royalty method. These methodologies required the Company to make significant judgments and assumptions related to the expected future cash flows, retention rates, discount rates, and royalty rates.

We identified the fair value determination of intangible assets related to the First Data acquisition as a critical audit matter because of the significant estimates and assumptions made by the Company. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of the Company's expected future cash flows, utilized valuation methodologies, retention rates, discount rates, and royalty rates.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the expected future cash flows, retention rates, discount rates, and royalty rates for the preliminary purchase price allocation of the First Data acquisition included the following, among others:

- We evaluated the reasonableness of management's expected future cash flows by comparing the projections to First Data's historical results, industry data and other publicly available data.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the (1) valuation methodologies and (2) the retention rates, discount rates, and royalty rates by:
 - Assessing the appropriateness of the valuation methodologies.
 - Developing independent estimates for the retention rates, discount rates, and royalty rates and comparing those to the estimates selected by management.
- We tested the effectiveness of internal controls over the valuation of the intangible assets, including the Company's controls over expected future cash flows, retention rates, discount rates, and royalty rates.

/s/ Deloitte & Touche LLP

Milwaukee, Wisconsin
February 27, 2020

We have served as the Company's auditor since 1985.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

Item 9A. Controls and Procedures

(a) Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934). Based on this evaluation, our chief executive officer and chief financial officer concluded that our disclosure controls and procedures were effective as of December 31, 2019.

(b) Management Report on Internal Control Over Financial Reporting

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

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

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2019. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control – Integrated Framework (2013)*. Based on management's assessment, our management believes that, as of December 31, 2019, our internal control over financial reporting was effective based on those criteria.

On July 29, 2019, we acquired First Data (see Note 4 "Acquisitions and Dispositions" to the accompanying consolidated financial statements for additional information). As a result of the timing of the acquisition and as permitted by the Securities and Exchange Commission, we have excluded internal controls at First Data from our assessment of the internal control over financial reporting as of December 31, 2019. Total assets and revenue of First Data that were excluded from our assessment constitute 26% and 40%, respectively, of our consolidated financial statement amounts as of and for the year ended December 31, 2019. We are in the process of integrating the acquired business into our existing operations and evaluating the internal controls over financial reporting of the acquired business.

Our independent registered public accounting firm has issued their attestation report on our internal control over financial reporting. The report is included below under the heading "Report of Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting."

(c) Changes in Internal Control Over Financial Reporting

During the year ended December 31, 2019, we acquired First Data. As part of our ongoing integration activities, we are incorporating our controls and procedures into this recently acquired business concurrent with the augmentation of our Company-wide controls. Other than the changes that have and may continue to result from the integration activities described above, there were no other changes in internal control over financial reporting that occurred during the quarter ended December 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

(d) Report of Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting

Our independent registered public accounting firm, Deloitte & Touche LLP, assessed the effectiveness of our internal control over financial reporting and has issued their report as set forth below.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Fiserv, Inc.:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Fiserv, Inc. and subsidiaries (the "Company") as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2019, of the Company and our report dated February 27, 2020, expressed an unqualified opinion on those financial statements and included explanatory paragraphs regarding the Company's adoption of new accounting standards.

As described in *Management's Annual Report on Internal Control Over Financial Reporting*, management excluded from its assessment the internal control over financial reporting at First Data, which was acquired on July 29, 2019, and whose financial statements constitute 26% of total assets and 40% of total revenue of the consolidated financial statement amounts as of and for the year ended December 31, 2019. Accordingly, our audit did not include the internal control over financial reporting at First Data.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ Deloitte & Touche LLP

Milwaukee, Wisconsin
February 27, 2020

Item 9B. Other Information

None.

PART III**Item 10. Directors, Executive Officers and Corporate Governance**

Except for information concerning our executive officers included in Part I of this Form 10-K under the caption "Information About Our Executive Officers," which is incorporated by reference herein, and the information regarding our Code of Conduct below, the information required by Item 10 is incorporated by reference to the information set forth under the captions "Our Board of Directors," "Nominees for Election," "Corporate Governance – Committees of the Board of Directors – Audit Committee," and "Corporate Governance – Nominations of Directors" in our definitive proxy statement for our 2020 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission no later than 120 days after the close of the fiscal year ended December 31, 2019.

Our board of directors has adopted a Code of Conduct and Business Ethics ("Code of Conduct") that applies to all of our directors and our chief executive officer, chief financial officer, chief accounting officer and other persons performing similar functions as well as our other executive officers. The Code of Conduct also applies to our other employees except for a group of First Data employees who remain subject to the First Data Code of Conduct, which has also been adopted by our board of directors. We have posted a copy of our Code of Conduct and the First Data Code of Conduct on the "About – Investor Relations – Corporate Governance – Governance Documents" section of our website at www.fiserv.com. We intend to satisfy the disclosure requirements under Item 5.05 of Form 8-K regarding amendments to, or waivers from, the Code of Conduct by posting such information on the "About – Investor Relations" section of our website at www.fiserv.com. We are not including the information contained on our website as part of, or incorporating it by reference into, this report.

Item 11. Executive Compensation

The information required by Item 11 is incorporated by reference to the information set forth under the captions "Director Compensation," "Compensation Discussion and Analysis," "Compensation Committee Report," "Compensation Committee Interlocks and Insider Participation," "Executive Compensation," and "Pay Ratio" in our definitive proxy statement for our 2020 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission no later than 120 days after the close of the fiscal year ended December 31, 2019.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information set forth under the caption "Security Ownership of Certain Beneficial Owners and Management" in our definitive proxy statement for our 2020 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission no later than 120 days after the close of the fiscal year ended December 31, 2019, is incorporated by reference herein.

Equity Compensation Plan Information

The table below sets forth information with respect to compensation plans under which equity securities are authorized for issuance as of December 31, 2019.

	(a)	(b)	(c)
Plan Category	Number of shares to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of shares remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by our shareholders ⁽¹⁾	11,175,475 ⁽²⁾	43.34 ⁽³⁾	33,193,365 ⁽⁴⁾
Equity compensation plans not approved by our shareholders	N/A	N/A	N/A
Total ⁽⁵⁾	11,175,475 ⁽²⁾	43.34 ⁽³⁾	33,193,365 ⁽⁴⁾

(1) Columns (a) and (c) of the table above do not include 1,561,995 unvested restricted stock units outstanding under the Amended and Restated Fiserv, Inc. 2007 Omnibus Incentive Plan (the "Incentive Plan") or 24,744,268 shares authorized for issuance under the Fiserv, Inc. Amended and Restated Employee Stock Purchase Plan.

(2) Consists of options outstanding under the Incentive Plan; 102,048 shares subject to performance share units under the Incentive Plan at the actual award level where the conditions to vesting have been satisfied; 1,204,174 shares subject to performance share units under the Incentive Plan at the target award level where the conditions to vesting have not yet been satisfied; and 97,361 shares subject to non-employee director deferred compensation notional units under the Incentive Plan.

(3) Represents the weighted-average exercise price of outstanding options under the Incentive Plan and does not take into account outstanding performance share units or non-employee director deferred compensation notional units under the Incentive Plan.

(4) Reflects the number of shares available for future issuance under the Incentive Plan.

(5) This table does not include 6,216,518 options outstanding under the 2007 Stock Incentive Plan for Key Employees of First Data Corporation and its Affiliates (the "2007 First Data Plan") and the First Data Corporation 2015 Omnibus Incentive Plan (the "2015 First Data Plan" and together with the 2007 First Data Plan, the "First Data Plans") as of December 31, 2019 at a weighted-average exercise price of \$42.04. We assumed the First Data Plans in connection with our acquisition of First Data Corporation on July 29, 2019 and converted certain outstanding First Data equity awards into corresponding equity awards relating to common stock of Fiserv, Inc. in accordance with an exchange ratio in the merger agreement as further described in Note 4 to the accompanying consolidated financial statements. This table also does not include 6,279,096 shares of restricted stock and restricted stock units outstanding under the 2015 First Data Plan, as of December 31, 2019. No additional equity awards will be made under the First Data Plans.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by Item 13 is incorporated by reference to the information set forth under the captions "Corporate Governance – Director Independence," and "Corporate Governance – Review, Approval or Ratification of Transactions with Related Persons," in our definitive proxy statement for our 2020 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission no later than 120 days after the close of the fiscal year ended December 31, 2019.

Item 14. Principal Accounting Fees and Services

The information required by Item 14 is incorporated by reference to the information set forth under the captions "Independent Registered Public Accounting Firm and Fees" and "Audit Committee Pre-Approval Policy" in our definitive proxy statement for our 2020 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission no later than 120 days after the close of the fiscal year ended December 31, 2019.

PART IV**Item 15. Exhibits, Financial Statement Schedules***Financial Statement Schedules*

Financial statement schedules have been omitted because they are not applicable or the required information is shown in the consolidated financial statements or accompanying notes.

Exhibits

The exhibits listed in the accompanying exhibit index are filed as part of this Annual Report on Form 10-K.

EXHIBIT INDEX

Exhibit Number	Exhibit Description
2.1	Agreement and Plan of Merger, dated as of January 16, 2019, among Fiserv, Inc., 300 Holdings, Inc. and First Data Corporation (1)
3.1	Restated Articles of Incorporation (2)
3.2	Amended and Restated By-laws (3)
4.1	Description of Securities of the Registrant
4.2	Third Amended and Restated Credit Agreement, dated as of September 19, 2018, among Fiserv, Inc. and the financial institutions party thereto (4)
4.3	Amendment No. 1 to Third Amended and Restated Credit Agreement, dated as of February 6, 2019, among Fiserv, Inc. and the financial institutions party thereto (5)
4.4	Amendment No. 2 to Third Amended and Restated Credit Agreement, dated as of February 15, 2019, among Fiserv, Inc. and the financial institutions party thereto (6)
4.5	Amendment No. 3 to Revolving Credit Agreement, dated as of July 26, 2019, among Fiserv, Inc. and the financial institutions party thereto (3)
4.6	Indenture, dated as of November 20, 2007, by and among Fiserv, Inc., the guarantors named therein and U.S. Bank National Association (7)
4.7	Eighth Supplemental Indenture, dated as of June 14, 2011, among Fiserv, Inc., the guarantors named therein and U.S. Bank National Association (8)
4.8	Tenth Supplemental Indenture, dated as of September 25, 2012, among Fiserv, Inc., the guarantors named therein and U.S. Bank National Association (9)
4.9	Twelfth Supplemental Indenture, dated as of May 22, 2015, between Fiserv, Inc. and U.S. Bank National Association (10)
4.10	Thirteenth Supplemental Indenture, dated as of May 22, 2015, between Fiserv, Inc. and U.S. Bank National Association (10)
4.11	Fourteenth Supplemental Indenture, dated as of September 25, 2018, between Fiserv, Inc. and U.S. Bank National Association (11)
4.12	Fifteenth Supplemental Indenture, dated as of September 25, 2018, between Fiserv, Inc. and U.S. Bank National Association (11)
4.13	Sixteenth Supplemental Indenture, dated as of June 24, 2019, between Fiserv, Inc. and U.S. Bank National Association (12)
4.14	Seventeenth Supplemental Indenture, dated as of June 24, 2019, between Fiserv, Inc. and U.S. Bank National Association (12)
4.15	Eighteenth Supplemental Indenture, dated as of June 24, 2019, between Fiserv, Inc. and U.S. Bank National Association (12)

4.16	Nineteenth Supplemental Indenture, dated as of June 24, 2019, between Fiserv, Inc. and U.S. Bank National Association (12)
4.17	Twentieth Supplemental Indenture, dated as of July 1, 2019, between Fiserv, Inc. and U.S. Bank National Association (13)
4.18	Twenty-First Supplemental Indenture, dated as of July 1, 2019, between Fiserv, Inc. and U.S. Bank National Association (13)
4.19	Twenty-Second Supplemental Indenture, dated as of July 1, 2019, between Fiserv, Inc. and U.S. Bank National Association (13)
4.20	Twenty-Third Supplemental Indenture, dated as of July 1, 2019, between Fiserv, Inc. and U.S. Bank National Association (13)
4.21	Twenty-Fourth Supplemental Indenture, dated as of July 1, 2019, between Fiserv, Inc. and U.S. Bank National Association (13)
4.22	Agency Agreement, dated as of July 1, 2019, by and among Fiserv, Inc., Elavon Financial Services DAC, UK Branch, and U.S. Bank National Association (13)
4.23	Shareholder Agreement, dated as of January 16, 2019, between Fiserv, Inc. and New Omaha Holdings L.P. (1)
4.24	Registration Rights Agreement, dated as of January 16, 2019, between Fiserv, Inc. and New Omaha Holdings L.P. (1)
4.25	Amendment to the Shareholder Agreement and Registration Rights Agreement, dated as of September 9, 2019, by and between New Omaha Holdings L.P. and Fiserv, Inc. (14)
4.26	Term Loan Credit Agreement, dated as of February 15, 2019, among Fiserv, Inc. and the financial institutions party thereto (6)
4.27	Amendment No. 1 to Term Loan Credit Agreement, dated as of July 26, 2019 (3)
	Pursuant to Item 601(b)(4)(iii) of Regulation S-K, the Company agrees to furnish to the Securities and Exchange Commission, upon request, any instrument defining the rights of holders of long-term debt that is not filed as an exhibit to this Form 10-K.
10.1	Amended and Restated Fiserv, Inc. 2007 Omnibus Incentive Plan (15)*
	Amended and Restated Fiserv, Inc. 2007 Omnibus Incentive Plan Forms of Award Agreements
10.2	- Form of Restricted Stock Unit Agreement (Non-Employee Director) (16)*
10.3	- Form of Restricted Stock Unit Agreement (Employee-PR) (17)*
10.4	- Form of Amendment to Restricted Stock Unit Agreement (Employee-PR) (18)*
10.5	- Form of Restricted Stock Unit Agreement (Employee-E) (17)*
10.6	- Form of Restricted Stock Unit Agreement (Employee-N) (17)*
10.7	- Form of Restricted Stock Unit Agreement (Employee-SO)*
10.8	- Form of Restricted Stock Unit Agreement (Employee-ST)*
10.9	- Form of Non-Qualified Stock Option Agreement (Non-Employee Director-LE) (16)*
10.10	- Form of First Amendment to Non-Qualified Stock Option Agreement (Non-Employee Director - LE) (19)*
10.11	- Form of Non-Qualified Stock Option Agreement (Non-Employee Director - EE) (19)*
10.12	- Form of Second Amendment to Non-Qualified Stock Option Agreement (Non-Employee Director - LE/EE) (20)*
10.13	- Form of Non-Qualified Stock Option Agreement (Non-Employee Director - N) (20)*
10.14	- Form of Stock Option Agreement (Employee-F) (17)*
10.15	- Form of Amendment to Stock Option Agreement (Employee-F) (18)*
10.16	- Form of Stock Option Agreement (Employee-E) (17)*
10.17	- Form of Stock Option Agreement (Employee-N) (17)*
10.18	- Form of Stock Option Agreement (Employee-SO)*
10.19	- Form of Stock Option Agreement (Employee-ST)*
10.20	- Form of Performance Share Unit Agreement (Employee-PR) (17)*
10.21	- Form of Performance Share Unit Agreement (Employee-E) (17)*
10.22	- Form of Performance Share Unit Agreement (Employee-N) (17)*

10.23	- Form of Performance Share Unit Agreement (Employee-SO)*
10.24	- Form of Performance Share Unit Agreement (Employee-ST)*
10.25	2007 Stock Incentive Plan for Key Employees of First Data Corporation and its Affiliates (21)*
	2007 Stock Incentive Plan for Key Employees of First Data Corporation and its Affiliates Forms of Award Agreements
10.26	- Form of Stock Option Agreement for Executive Committee Members (22)*
10.27	- Form of Stock Option Agreement for U.S. Employees effective for grants in or after January 2014 (22)*
10.28	First Data Corporation 2015 Omnibus Incentive Plan (21)*
	First Data Corporation 2015 Omnibus Incentive Plan Forms of Award Agreements
10.29	- Form of Option Agreement for Management Committee and Directors (22)*
10.30	- Form of Option Grant Notice and Option Grant Agreement (22)*
10.31	- Form of Restricted Stock Grant Notice and Restricted Stock Grant Agreement (22)*
10.32	- Form of Restricted Stock Award Agreement for Management Committee and Directors (22)*
10.33	- Form of Restricted Stock Award Agreement (22)*
10.34	Amended and Restated Employment Agreement, dated December 22, 2008, between Fiserv, Inc. and Jeffery W. Yabuki (23)*
10.35	Amendment No. 1 to Amended and Restated Employment Agreement, dated February 26, 2009, between Fiserv, Inc. and Jeffery W. Yabuki (24)*
10.36	Amendment No. 2 to Amended and Restated Employment Agreement, dated December 30, 2009, between Fiserv, Inc. and Jeffery W. Yabuki (25)*
10.37	Amendment No. 3 to Amended and Restated Employment Agreement, dated March 29, 2016, between Fiserv, Inc. and Jeffery W. Yabuki (26)*
10.38	Amended and Restated Key Executive Employment and Severance Agreement, dated December 22, 2008, between Fiserv, Inc. and Jeffery W. Yabuki (23)*
10.39	Amendment No. 1 to Amended and Restated Key Executive Employment and Severance Agreement, dated March 29, 2016, between Fiserv, Inc. and Jeffery W. Yabuki (26)*
10.40	Employment Agreement, dated February 23, 2010, between Fiserv, Inc. and Lynn S. McCreary (27)*
10.41	Amendment No. 1 to Employment Agreement, dated July 1, 2013, between Fiserv, Inc. and Lynn S. McCreary (27)*
10.42	Employment Agreement, dated November 7, 2013, between Fiserv, Inc. and Byron C. Vielehr (28)*
10.43	Form of Amended and Restated Key Executive Employment and Severance Agreement, between Fiserv, Inc. and each of Lynn McCreary and Byron Vielehr (23)*
10.44	Letter Agreement, effective February 10, 2016, between Fiserv, Inc. and Robert W. Hau (29)*
10.45	Form of Key Executive Employment and Severance Agreement between Fiserv, Inc. and Robert W. Hau (30)*
10.46	Letter Agreement, effective October 31, 2016, between Fiserv, Inc. and Devin B. McGranahan (17)*
10.47	Key Executive Employment and Severance Agreement, dated October 31, 2016, between Fiserv, Inc. and Devin B. McGranahan (17)*
10.48	Employment Agreement, dated January 16, 2019, between Fiserv, Inc. and Frank J. Bisignano (3)*
10.49	Key Executive Employment and Severance Agreement, dated January 16, 2019, between Fiserv, Inc. and Frank J. Bisignano (3)*
10.50	First Data Corporation Severance/Change in Control Policy (Management Committee Level) as amended and restated effective January 1, 2015 (31)*
10.51	Fiserv, Inc. Amended and Restated Non-Qualified Deferred Compensation Plan*
10.52	Form of Non-Employee Director Indemnity Agreement (32)
10.53	Fiserv, Inc. Non-Employee Director Deferred Compensation Plan (20)*
10.54	Non-Employee Director Compensation Schedule*
21.1	Subsidiaries of Fiserv, Inc.
23.1	Consent of Independent Registered Public Accounting Firm

31.1	Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of the Chief Executive Officer and the Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS**	Inline XBRL Instance Document - The XBRL Instance Document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL document.
101.SCH**	Inline XBRL Taxonomy Extension Schema Document
101.CAL**	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF**	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB**	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE**	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* This exhibit is a management contract or compensatory plan or arrangement.

** Filed with this Annual Report on Form 10-K are the following documents formatted in iXBRL (Inline Extensible Business Reporting Language): (i) the Consolidated Statements of Income for the years ended December 31, 2019, 2018, and 2017, (ii) the Consolidated Statements of Comprehensive Income for the years ended December 31, 2019, 2018, and 2017, (iii) the Consolidated Balance Sheets at December 31, 2019 and 2018, (iv) the Consolidated Statements of Equity for the years ended December 31, 2019, 2018, and 2017, (v) the Consolidated Statements of Cash Flows for the years ended December 31, 2019, 2018, and 2017, and (vi) Notes to Consolidated Financial Statements.

- (1) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on January 18, 2019, and incorporated herein by reference.
- (2) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on February 27, 2018, and incorporated herein by reference.
- (3) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on July 29, 2019, and incorporated herein by reference.
- (4) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on September 20, 2018, and incorporated herein by reference.
- (5) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on February 7, 2019, and incorporated herein by reference.
- (6) Previously filed as an exhibit to the Company's Annual Report on Form 10-K filed on February 21, 2019, and incorporated herein by reference.
- (7) Previously filed as an exhibit to the Company's Registration Statement on Form S-3 (File No. 333-147309) filed on November 13, 2007, and incorporated herein by reference.
- (8) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on June 14, 2011, and incorporated herein by reference.
- (9) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on September 25, 2012, and incorporated herein by reference.
- (10) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on May 22, 2015, and incorporated herein by reference.
- (11) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on September 25, 2018, and incorporated herein by reference.
- (12) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on June 24, 2019, and incorporated herein by reference.

- (13) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on July 1, 2019, and incorporated herein by reference.
- (14) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on September 9, 2019, and incorporated herein by reference.
- (15) Previously filed as an exhibit to the Company's Quarterly Report on Form 10-Q filed on May 2, 2018, and incorporated herein by reference.
- (16) Previously filed as an exhibit to the Company's Annual Report on Form 10-K filed on February 24, 2012, and incorporated herein by reference.
- (17) Previously filed as an exhibit to the Company's Annual Report on Form 10-K filed on February 23, 2017, and incorporated herein by reference.
- (18) Previously filed as an exhibit to the Company's Annual Report on Form 10-K filed on February 20, 2015, and incorporated herein by reference.
- (19) Previously filed as an exhibit to the Company's Quarterly Report on Form 10-Q filed on August 2, 2017, and incorporated herein by reference.
- (20) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on December 1, 2017, and incorporated herein by reference.
- (21) Previously filed as an exhibit to the Company's Post-Effective Amendment No. 1 on Form S-8 to the Form S-4 Registration Statement of Fiserv, Inc. filed July 29, 2019, and incorporated herein by reference.
- (22) Previously filed as an exhibit to the Company's Quarterly Report on Form 10-Q filed on November 7, 2019, and incorporated herein by reference.
- (23) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on December 23, 2008, and incorporated herein by reference.
- (24) Previously filed as an exhibit to the Company's Annual Report on Form 10-K filed on February 27, 2009, and incorporated herein by reference.
- (25) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on December 30, 2009, and incorporated herein by reference.
- (26) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on April 1, 2016, and incorporated herein by reference.
- (27) Previously filed as an exhibit to the Company's Quarterly Report on Form 10-Q filed on October 30, 2013, and incorporated herein by reference.
- (28) Previously filed as an exhibit to the Company's Annual Report on Form 10-K filed on February 20, 2014, and incorporated herein by reference.
- (29) Previously filed as an exhibit to the Company's Current Report on Form 8-K filed on February 16, 2016, and incorporated herein by reference.
- (30) Previously filed as an exhibit to the Company's Quarterly Report on Form 10-Q filed on May 6, 2016, and incorporated herein by reference.
- (31) Previously filed as an exhibit to First Data Corporation's Annual Report on Form 10-K filed on February 27, 2015 and incorporated herein by reference.
- (32) Previously filed as an exhibit to the Company's Annual Report on Form 10-K filed on February 28, 2008, and incorporated herein by reference.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on February 27, 2020.

FISERV, INC.

By: /s/ Jeffery W. Yabuki

Jeffery W. Yabuki

Chairman and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on February 27, 2020.

<u>Name</u>	<u>Capacity</u>
<u>/s/ Jeffery W. Yabuki</u> Jeffery W. Yabuki	Chairman and Chief Executive Officer (Principal Executive Officer)
<u>/s/ Robert W. Hau</u> Robert W. Hau	Chief Financial Officer and Treasurer (Principal Financial Officer)
<u>/s/ Kenneth F. Best</u> Kenneth F. Best	Chief Accounting Officer (Principal Accounting Officer)
<u>/s/ Frank J. Bisignano</u> Frank J. Bisignano	President and Chief Operating Officer, Director
<u>/s/ Alison Davis</u> Alison Davis	Director
<u>/s/ Henrique De Castro</u> Henrique De Castro	Director
<u>/s/ Harry F. DiSimone</u> Harry F. DiSimone	Director
<u>/s/ Dennis F. Lynch</u> Dennis F. Lynch	Director
<u>/s/ Heidi G. Miller</u> Heidi G. Miller	Director
<u>/s/ Scott C. Nuttall</u> Scott C. Nuttall	Director
<u>/s/ Denis J. O'Leary</u> Denis J. O'Leary	Director
<u>/s/ Doyle R. Simons</u> Doyle R. Simons	Director