Discover Financial Services
Form 10-Q
May 01, 2018

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-Q
(Mark One)

x QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended March 31, 2018

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

Commission File Number 001-33378
DISCOVER FINANCIAL SERVICES
(Exact name of registrant as specified in its charter)

Delaware	36-2517428
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
2500 Lake Cook Road, Riverwoods, Illinois 60015	(224) 405-0900
(Address of principal executive offices, including zip code)	(Registrant’s telephone number, including area code)

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 x No o

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

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 x	Accelerated filer o
Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o
	Emerging growth company o

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. o

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

As of April 27, 2018, there were 348,977,139 shares of the registrant’s Common Stock, par value $0.01 per share, outstanding.

DISCOVER FINANCIAL SERVICES
Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2018
TABLE OF CONTENTS

Part I	FINANCIAL INFORMATION	
Item 1.	Financial Statements	1
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	43
Item 3.	Quantitative and Qualitative Disclosures about Market Risk	64
Item 4.	Controls and Procedures	66
Part II	OTHER INFORMATION	
Item 1.	Legal Proceedings	67
Item 1A.	Risk Factors	67
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	67
Item 3.	Defaults Upon Senior Securities	67
Item 4.	Mine Safety Disclosures	67
Item 5.	Other Information	67
Item 6.	Exhibits	67

Except as otherwise indicated or unless the context otherwise requires, “Discover Financial Services,” “Discover,” “DFS,” “we,” “us,” “our,” and “the Company” refer to Discover Financial Services and its subsidiaries.
We own or have rights to use the trademarks, trade names and service marks that we use in conjunction with the operation of our business, including, but not limited to: Discover®, PULSE®, Cashback Bonus®, Discover Cashback Checking®, Discover it®, Freeze It℠, College Covered®, and Diners Club International®. All other trademarks, trade names and service marks included in this quarterly report on Form 10-Q are the property of their respective owners.

Table of Contents

Part I. FINANCIAL INFORMATION
Item 1. Financial Statements
DISCOVER FINANCIAL SERVICES
Condensed Consolidated Statements of Financial Condition

	March 31, 2018	December 31, 2017
	(unaudited)	
	(dollars in millions, except share amounts)	
Assets		
Cash and cash equivalents	$17,011	$ 13,306
Restricted cash	87	81
Investment securities (includes $1,340 and $1,395 at fair value at March 31, 2018 and December 31, 2017, respectively)	1,543	1,568
Loan receivables		
Loan receivables	82,744	84,248
Allowance for loan losses	(2,736)	(2,621)
Net loan receivables	80,008	81,627
Premises and equipment, net	848	825
Goodwill	255	255
Intangible assets, net	162	163
Other assets	2,053	2,262
Total assets	$101,967	$ 100,087
Liabilities and Stockholders’ Equity		
Deposits:		
Interest-bearing deposit accounts	$60,530	$ 58,165
Non-interest bearing deposit accounts	600	599
Total deposits	61,130	58,764
Long-term borrowings	26,244	26,326
Accrued expenses and other liabilities	3,722	4,105
Total liabilities	91,096	89,195
Commitments, contingencies and guarantees (Notes 8, 11 and 12)		
Stockholders’ Equity:		
Common stock, par value $0.01 per share; 2,000,000,000 shares authorized; 564,510,213 and 563,497,702 shares issued at March 31, 2018 and December 31, 2017, respectively	6	6
Preferred stock, par value $0.01 per share; 200,000,000 shares authorized; 5,700 shares issued and outstanding and aggregate liquidation preference of $570 at March 31, 2018 and December 31, 2017	563	563
Additional paid-in capital	4,068	4,042
Retained earnings	17,211	16,687
Accumulated other comprehensive loss	(139)	(152)
Treasury stock, at cost; 213,093,774 and 205,577,507 shares at March 31, 2018 and December 31, 2017, respectively	(10,838)	(10,254)
Total stockholders’ equity	10,871	10,892
Total liabilities and stockholders’ equity	$101,967	$ 100,087

The table below presents the carrying amounts of certain assets and liabilities of Discover Financial Services’ consolidated variable interest entities ("VIEs"), which are included in the condensed consolidated statements of

financial condition above. The assets in the table below include those assets that can only be used to settle obligations of the consolidated VIEs. The liabilities in the table below include third-party liabilities of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation. The liabilities also exclude amounts for which creditors have recourse to the general credit of Discover Financial Services.

	March 31, 2018	December 31, 2017
	(unaudited)	
	(dollars in millions)	
Assets		
Restricted cash	$87	$ 81
Loan receivables	$29,894	$ 31,781
Allowance for loan losses allocated to securitized loan receivables	$(1,006)	$ (998)
Other assets	$6	$ 5
Liabilities		
Long-term borrowings	$16,385	$ 16,536
Accrued expenses and other liabilities	$17	$ 16

See Notes to the Condensed Consolidated Financial Statements.

1

Table of Contents

DISCOVER FINANCIAL SERVICES
Condensed Consolidated Statements of Income

	For the Three Months Ended March 31,	
	2018	2017
	(unaudited) (dollars in millions, except per share amounts)	
Interest income		
Credit card loans	$2,090	$1,876
Other loans	417	367
Investment securities	7	7
Other interest income	55	28
Total interest income	2,569	2,278
Interest expense		
Deposits	262	191
Long-term borrowings	207	195
Total interest expense	469	386
Net interest income	2,100	1,892
Provision for loan losses	751	586
Net interest income after provision for loan losses	1,349	1,306
Other income		
Discount and interchange revenue, net	254	233
Protection products revenue	53	58
Loan fee income	96	89
Transaction processing revenue	43	39
Other income	29	28
Total other income	475	447
Other expense		
Employee compensation and benefits	405	363
Marketing and business development	185	168
Information processing and communications	82	80
Professional fees	155	147
Premises and equipment	26	25
Other expense	115	102
Total other expense	968	885
Income before income tax expense	856	868
Income tax expense	190	304
Net income	$666	$564
Net income allocated to common stockholders	$646	$551
Basic earnings per common share	$1.82	$1.43
Diluted earnings per common share	$1.82	$1.43
Dividends declared per common share	$0.35	$0.30

See Notes to the Condensed Consolidated Financial Statements.

2

Table of Contents

DISCOVER FINANCIAL SERVICES
Condensed Consolidated Statements of Comprehensive Income

	For the Three Months Ended March 31,	
	2018	2017
	(unaudited) (dollars in millions)	
Net income	$666	$564
Other comprehensive income, net of taxes		
Unrealized (loss) gain on available-for-sale investment securities, net of tax	(7)	1
Unrealized gain on cash flow hedges, net of tax	19	5
Unrealized pension and post-retirement plan gain, net of tax	1	—
Other comprehensive income	13	6
Comprehensive income	$679	$570

See Notes to the Condensed Consolidated Financial Statements.

Table of Contents

DISCOVER FINANCIAL SERVICES
Condensed Consolidated Statements of Changes in Stockholders' Equity

	Preferred Stock		Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
	(unaudited)								
	(dollars in millions, shares in thousands)								
Balance at December 31, 2016	575	$ 560	562,414	$ 5	$ 3,962	$ 15,130	$ (161)	$ (8,173)	$ 11,323
Net income	—	—	—	—	—	564	—	—	564
Other comprehensive income	—	—	—	—	—	—	6	—	6
Purchases of treasury stock	—	—	—	—	—	—	—	(520)	(520)
Common stock issued under employee benefit plans	—	—	20	—	1	—	—	—	1
Common stock issued and stock-based compensation expense	—	—	968	1	16	—	—	—	17
Dividends — common stock	—	—	—	—	—	(117)	—	—	(117)
Dividends — preferred stock	—	—	—	—	—	(9)	—	—	(9)
Balance at March 31, 2017	575	$ 560	563,402	$ 6	$ 3,979	$ 15,568	$ (155)	$ (8,693)	$ 11,265
Balance at December 31, 2017	6	$ 563	563,498	$ 6	$ 4,042	$ 16,687	$ (152)	$ (10,254)	$ 10,892
Net income	—	—	—	—	—	666	—	—	666
Other comprehensive income	—	—	—	—	—	—	13	—	13
Purchases of treasury stock	—	—	—	—	—	—	—	(584)	(584)
Common stock issued under employee benefit plans	—	—	23	—	2	—	—	—	2
Common stock issued and stock-based compensation expense	—	—	989	—	24	—	—	—	24
Dividends — common stock	—	—	—	—	—	(126)	—	—	(126)
Dividends — preferred stock	—	—	—	—	—	(16)	—	—	(16)
Balance at March 31, 2018	6	$ 563	564,510	$ 6	$ 4,068	$ 17,211	$ (139)	$ (10,838)	$ 10,871

See Notes to the Condensed Consolidated Financial Statements.

Table of Contents

DISCOVER FINANCIAL SERVICES
Condensed Consolidated Statements of Cash Flows

	For the Three Months Ended March 31,	
	2018	2017
	(unaudited)	
	(dollars in millions)	
Cash flows from operating activities		
Net income	$666	$564
Adjustments to reconcile net income to net cash provided by (used for) operating activities:		
Provision for loan losses	751	586
Depreciation and amortization	107	93
Amortization of deferred revenues and accretion of accretable yield on acquired loans	(101)	(98)
Net loss on investments and other assets	11	14
Other, net	(96)	11
Changes in assets and liabilities:		
Decrease in other assets	251	181
Decrease in accrued expenses and other liabilities	(351)	(338)
Net cash provided by operating activities	1,238	1,013
Cash flows from investing activities		
Maturities of available-for-sale investment securities	44	52
Maturities of held-to-maturity investment securities	4	4
Purchases of held-to-maturity investment securities	(33)	(17)
Net principal disbursed on loans originated for investment	959	1,010
Purchases of other investments	—	(14)
Purchases of premises and equipment	(58)	(47)
Net cash used for investing activities	916	988
Cash flows from financing activities		
Proceeds from issuance of securitized debt	1,666	1,290
Maturities and repayment of securitized debt	(1,794)	(925)
Proceeds from issuance of other long-term borrowings	822	1,005
Maturities and repayment of other long-term borrowings	(751)	—
Proceeds from issuance of common stock	2	1
Purchases of treasury stock	(584)	(520)
Net increase in deposits	2,338	1,529
Dividends paid on common and preferred stock	(142)	(127)
Net cash provided by financing activities	1,557	2,253
Net increase in cash, cash equivalents and restricted cash	3,711	4,254
Cash, cash equivalents and restricted cash, at beginning of period	13,387	12,009
Cash, cash equivalents and restricted cash, at end of period	$17,098	$16,263
Reconciliation of cash, cash equivalents and restricted cash:		
Cash and cash equivalents	$17,011	$15,163
Restricted cash	87	1,100
Cash, cash equivalents and restricted cash, at end of period	$17,098	$16,263

See Notes to the Condensed Consolidated Financial Statements.

Table of Contents

Notes to the Condensed Consolidated Financial Statements
(unaudited)

1. Background and Basis of Presentation

Description of Business

Discover Financial Services ("DFS" or the "Company") is a direct banking and payment services company. The Company is a bank holding company under the Bank Holding Company Act of 1956 as well as a financial holding company under the Gramm-Leach-Bliley Act and therefore is subject to oversight, regulation and examination by the Board of Governors of the Federal Reserve System (the "Federal Reserve"). The Company provides direct banking products and services and payment services through its subsidiaries. The Company offers its customers credit card loans, private student loans, personal loans, home equity loans and deposit products. The Company also operates the Discover Network, the PULSE network ("PULSE") and Diners Club International ("Diners Club"). The Discover Network processes transactions for Discover-branded credit and debit cards and provides payment transaction processing and settlement services. PULSE operates an electronic funds transfer network, providing financial institutions issuing debit cards on the PULSE network with access to ATMs domestically and internationally, as well as point-of-sale terminals at retail locations throughout the U.S. for debit card transactions. Diners Club is a global payments network of licensees, which are generally financial institutions, that issue Diners Club branded charge cards and/or provide card acceptance services.

The Company's business activities are managed in two segments, Direct Banking and Payment Services, based on the products and services provided. For a detailed description of the operations of each segment, as well as the allocation conventions used in business segment reporting, see Note 15: Segment Disclosures.

Basis of Presentation

The accompanying condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP") for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by GAAP for complete consolidated financial statements. In the opinion of management, the financial statements reflect all adjustments which are necessary for a fair presentation of the results for the interim period. All such adjustments are of a normal, recurring nature. The preparation of financial statements in conformity with GAAP requires the Company to make estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and related disclosures. These estimates are based on information available as of the date of the condensed consolidated financial statements. The Company believes that the estimates used in the preparation of the condensed consolidated financial statements are reasonable. Actual results could differ from these estimates. These interim condensed consolidated financial statements should be read in conjunction with the Company's 2017 audited consolidated financial statements filed with the Company's annual report on Form 10-K for the year ended December 31, 2017.

Recently Issued Accounting Pronouncements

In February 2018, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2018-02, Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income. The ASU permits, but does not require, issuers to reclassify into retained earnings any tax effects that are stranded in accumulated other comprehensive income ("AOCI") as a result of the change in the statutory federal tax rate enacted by the Tax Cuts and Jobs Act of 2017 ("TCJA"). Tax effects that are stranded in AOCI for other reasons, such as prior changes in tax law or changes in a valuation allowance, may not be reclassified directly through retained earnings. The guidance is effective for fiscal years beginning after December 15, 2018. The Company is permitted to early adopt the guidance in any interim or annual period and apply it either (1) in the period of adoption, or (2) retrospectively to each period in which the effect of the change in the federal corporate income tax rate is recognized. The Company has not elected to early adopt the ASU as of March 31, 2018. The reclassification of stranded tax effects from AOCI to retained earnings will not be material to the Company's consolidated statements of financial condition and will have no impact on the Company's cash flows or consolidated statements of income.

In August 2017, the FASB issued ASU No. 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities. The amendments of ASU 2017-12 are intended to improve the financial

reporting of hedging relationships to better reflect the economic results of an entity's risk management activities through changes to both the designation and measurement guidance for qualifying hedges and improvements to the presentation of hedge results. The amendments expand an entity's ability to apply hedge accounting for both financial and non-financial risk components and

Table of Contents

allow for a simplified approach for fair value hedging of interest rate risk. ASU 2017-12 eliminates the requirement to separately measure and report hedge ineffectiveness and generally requires the entire change in fair value of a hedging instrument to be presented in the same income statement line as the hedged item. Additionally, the standard simplifies the hedge documentation and effectiveness assessment requirements under the previous guidance and amends the disclosures about hedging activities.

The Company early adopted ASU 2017-12 effective January 1, 2018. Accordingly, the Company is no longer required to separately measure and immediately recognize ineffectiveness related to cash flow hedges. The Company has also elected to measure changes in the fair value of hedged items designated under certain existing fair value hedges transitioned at adoption using the benchmark rate component of the contractual rate cash flows. As a result, the Company recorded separate cumulative-effect adjustments to (a) AOCI with respect to cash flow hedges and (b) the basis adjustment for certain hedged items with respect to fair value hedges. This resulted in an immaterial adjustment to the opening balance of retained earnings as of January 1, 2018, and thus did not have a material impact to the Company’s financial statements.

In January 2017, the FASB issued ASU No. 2017-04, Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment. The purpose of this ASU is to simplify the test for goodwill impairment by eliminating Step 2 of the current impairment test. Under the current rules, if the reporting unit’s carrying value exceeds its fair value (Step 1), goodwill impairment is measured as the difference between the carrying value of goodwill and its implied fair value. To compute the implied fair value of goodwill under Step 2, an entity has to perform procedures to determine the fair value at the impairment testing date of its assets and liabilities (including unrecognized assets and liabilities) following the procedure that would be required in determining the fair value of assets acquired and liabilities assumed in a business combination. Under the new standard, the Company will perform its annual goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. The Company should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit’s fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. The amendments in this ASU apply to the Company’s annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The amendments in this ASU apply on a prospective basis. All of the Company’s recorded goodwill is associated with its PULSE debit business. This ASU has no impact on cash flows, and its adoption is not expected to have any impact on the Company’s condensed consolidated financial condition or results of operations because the estimated fair value of the PULSE reporting unit is well in excess of its carrying value. The Company did not early adopt this standard, but is still evaluating whether it will prior to the 2020 effective date.

In November 2016, the FASB issued ASU No. 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash. Whereas restricted cash balances have traditionally been excluded from the statement of cash flows, this ASU requires restricted cash and restricted cash equivalents to be included within the beginning and ending totals of cash, cash equivalents and restricted cash presented on the statement of cash flows for all periods presented. Restricted cash and restricted cash equivalent inflows and outflows with external parties are required to be classified within the operating, investing, and/or financing activity sections of the statement of cash flows whereas transfers between cash and cash equivalents and restricted cash and restricted cash equivalents should no longer be presented on the statement of cash flows. ASU 2016-18 also requires the nature of the restrictions to be disclosed to help provide information about the sources and uses of these balances during a reporting period and a reconciliation of the cash, cash equivalents and restricted cash totals on the statement of cash flows to the related balance sheet line items when cash, cash equivalents, and restricted cash are presented in more than one line item on the balance sheet. The reconciliation can be presented either on the face of the statement of cash flows or in the notes to the financial statements and must be provided for each period that a balance sheet is presented. The ASU became effective for the Company on January 1, 2018 and did not have a material impact to the Company’s statement of cash flows.

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This ASU replaces the incurred loss model with the current expected credit loss ("CECL") approach. For loans carried at amortized cost, the allowance for loan losses will be based on

management's current estimate of all expected credit losses over the remaining contractual term of the loans. Upon the origination of a loan, the Company will have to record its estimate of all expected credit losses on that loan through an immediate charge to earnings. Updates to that estimate each period will be recorded through provision expense. The CECL estimate is to be based on historical experience, current conditions and reasonable and supportable forecasts. No specific method for estimating credit loss is mandated, permitting companies to use judgment in selecting the approach that is most appropriate in their circumstances.

Table of Contents

The CECL approach is expected to affect the Company’s allowance for loan losses as a result of: (1) encompassing expected losses, not simply those deemed to be already incurred, (2) extending the loss estimate period over the entire life of the loan, and (3) reclassification of the credit loss component of the purchased credit-impaired ("PCI") loan portfolio out of loan carrying value and into the allowance for loan losses. All loans carried at amortized cost, including PCI loans and loans modified in a troubled debt restructuring ("TDR") will be measured under the CECL approach. Existing specialized measurement guidance for PCI loans, which the ASU refers to as purchased credit-deteriorated ("PCD"), and TDRs will be eliminated, although certain separate disclosure guidance will be retained. Measurement of credit impairment of available-for-sale debt securities will generally remain unchanged under the new rules, but any such impairment will be recorded through an allowance, rather than a direct write-down of the security.
The ASU is effective beginning January 1, 2020, with early adoption permitted no sooner than January 1, 2019. Management is not considering early adoption at this time. On the date of adoption, the allowance for loan losses will be adjusted to the CECL estimate for loans held at that date with an offsetting adjustment to retained earnings. Additionally, the carrying value of PCD loans will be increased through an offsetting addition to the allowance for loan losses for the CECL estimate on those loans. The CECL allowance will be re-evaluated in subsequent periods and adjusted through provision expense as needed. The Company is actively engaged in cross-functional implementation efforts and planning for loss modeling requirements consistent with lifetime expected loss estimates. The Company has also been involved in efforts to identify and resolve various implementation issues specific to the application of the standard to credit card receivables. Adoption of the standard has the potential to materially impact stockholders' equity and regulatory capital as well as the Company's financial condition and results of operations. The extent of the impact upon adoption will likely depend on the characteristics of the Company's loan portfolio and economic conditions at that date, as well as forecasted conditions thereafter.
In March 2016, the FASB issued ASU No. 2016-08, Principal versus Agent Considerations (Reporting Revenue Gross versus Net). This guidance became effective for the Company on January 1, 2018, along with ASU 2014-09, Revenue from Contracts with Customers (Topic 606), discussed below. This ASU did not result in a change to the accounting or reporting of the Company's revenue arrangements that involve a principal-agent relationship. Therefore, its adoption has had no impact on the Company's condensed consolidated financial condition, results of operations or cash flows. The guidance in this ASU provides clarification on the principal versus agent concept in relation to revenue recognition guidance issued as part of ASU 2014-09. Topic 606 requires a company to determine whether it is a principal or an agent in a transaction in which another party is involved in providing goods or services to a customer by evaluating the nature of its promise to the customer. ASU 2016-08 provides clarification for identifying the good, service or right being transferred in a revenue transaction and identifies the principal as the party that controls the good, service or right prior to its transfer to the customer. The ASU provides further clarity on how to evaluate control in this context.
In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). The guidance will require lessees to capitalize most leases on their balance sheet whereas under current GAAP only capital leases are recognized on the lessee’s balance sheet. Leases which today are identified as capital leases will generally be identified as financing leases under the new guidance but otherwise their accounting treatment will remain relatively unchanged. Leases identified today as operating leases will generally remain in that category under the new standard, but both a right-of-use asset and a liability for remaining lease payments will now be required to be recognized on the balance sheet for this type of lease. The manner in which expenses associated with all leases are reported on the income statement will remain mostly unchanged. Lessor accounting also remains substantially unchanged by the new standard. The new guidance will become effective for the Company on January 1, 2019, and management does not expect it to have a material impact on the condensed consolidated financial statements.
In January 2016, the FASB issued ASU No. 2016-01, Financial Instruments—Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities. This ASU became effective for the Company on January 1, 2018 and has not had a material impact to the financial statements. The ASU has had limited impact on the Company since it does not change the guidance for classifying and measuring investments in debt securities or loans. The standard requires entities to measure certain cost-method equity investments at fair value with changes in value

recognized in net income. Equity investments that do not have readily determinable fair values are carried at cost, less any impairment, plus or minus changes resulting from any observable price changes in orderly transactions for an identical or similar investment of the same issuer. This ASU requires public entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes and requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset (i.e., securities or loans) on the balance sheet or the accompanying notes to the financial statements.

Table of Contents

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606). The guidance in this ASU supersedes existing revenue recognition requirements in Topic 605, Revenue Recognition, including an assortment of transaction-specific and industry-specific rules. The new revenue recognition model became effective for the Company on January 1, 2018. The model generally results in the same revenue recognition patterns as have historically been applied to the Company's revenues that are subject to this guidance. The timing and measurement of fee revenues associated with the Company's credit card arrangements and costs associated with the Company's credit card reward programs have not been affected as a result of the adoption of Accounting Standards Codification ("ASC") 606. Accounting and reporting for the Company's transaction processing services, including discount and interchange revenue and other transaction processing fees, remains substantially unchanged from treatments under GAAP in effect prior to 2018. As permitted by the ASU, management has elected to adopt this standard using a modified retrospective approach, which means that the cumulative effect of initially applying the standard is recognized at the date of initial application through an adjustment to beginning retained earnings, but no restatement of prior periods is made. Based on its evaluations, management has concluded that no adjustment to beginning retained earnings is required as of January 1, 2018, the date of adoption. See Note 16: Revenue from Contracts with Customers for additional information resulting from this standard.

2. Investments

The Company's investment securities consist of the following (dollars in millions):

	March 31, 2018	December 31, 2017
U.S. Treasury securities[1]	$ 672	$ 672
States and political subdivisions of states	—	1
Residential mortgage-backed securities - Agency[2]	871	895
Total investment securities	$ 1,543	$ 1,568

(1) Includes $38 million and $48 million of U.S. Treasury securities pledged as swap collateral as of March 31, 2018 and December 31, 2017, respectively.

(2) Consists of residential mortgage-backed securities issued by Fannie Mae, Freddie Mac and Ginnie Mae.

The amortized cost, gross unrealized gains and losses, and fair value of available-for-sale and held-to-maturity investment securities are as follows (dollars in millions):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
At March 31, 2018				
Available-for-Sale Investment Securities[1]				
U.S. Treasury securities	$ 675	$ —	$ (3)	$ 672
Residential mortgage-backed securities - Agency	683	—	(15)	668
Total available-for-sale investment securities	$ 1,358	$ —	$ (18)	$ 1,340
Held-to-Maturity Investment Securities[2]				
Residential mortgage-backed securities - Agency[3]	$ 203	$ 1	$ (4)	$ 200
Total held-to-maturity investment securities	$ 203	$ 1	$ (4)	$ 200
At December 31, 2017				
Available-for-Sale Investment Securities[1]				
U.S. Treasury securities	$ 675	$ —	$ (3)	$ 672
Residential mortgage-backed securities - Agency	728	1	(6)	723
Total available-for-sale investment securities	$ 1,403	$ 1	$ (9)	$ 1,395
Held-to-Maturity Investment Securities[2]				
States and political subdivisions of states	$ 1	$ —	$ —	$ 1

Residential mortgage-backed securities - Agency[3]	172	1	(1)	172
Total held-to-maturity investment securities	$ 173	$ 1	$ (1)	$ 173

(1) Available-for-sale investment securities are reported at fair value.
(2) Held-to-maturity investment securities are reported at amortized cost.
(3) Amounts represent residential mortgage-backed securities that were classified as held-to-maturity as they were entered into as a part of the Company's community reinvestment initiatives.

Table of Contents

The following table provides information about investment securities with aggregate gross unrealized losses and the length of time that individual investment securities have been in a continuous unrealized loss position (dollars in millions):

	Number of Securities in a Loss Position	Less than 12 months		More than 12 months	
		Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
At March 31, 2018					
Available-for-Sale Investment Securities					
U.S. Treasury securities	1	$—	$ —	$672	$ (3)
Residential mortgage-backed securities - Agency	31	$546	$ (10)	$122	$ (5)
Held-to-Maturity Investment Securities					
Residential mortgage-backed securities - Agency	80	$125	$ (2)	$40	$ (2)
At December 31, 2017					
Available-for-Sale Investment Securities					
U.S. Treasury securities	1	$—	$ —	$672	$ (3)
Residential mortgage-backed securities - Agency	27	$457	$ (3)	$132	$ (3)
Held-to-Maturity Investment Securities					
Residential mortgage-backed securities - Agency	45	$56	$ —	$38	$ (1)

There were no losses related to other-than-temporary impairments and no proceeds from sales or recognized gains and losses on available-for-sale securities during the three months ended March 31, 2018 and 2017. See Note 7: Accumulated Other Comprehensive Income for unrealized gains and losses on available-for-sale securities during the three months ended March 31, 2018 and 2017.

Maturities of available-for-sale debt securities and held-to-maturity debt securities are provided in the table below (dollars in millions):

	One Year or Less	After One Year Through Five Years	After Five Years Through Ten Years	After Ten Years	Total
At March 31, 2018					
Available-for-Sale Investment Securities—Amortized Cost					
U.S. Treasury securities	$ 675	$ —	$ —	$ —	$675
Residential mortgage-backed securities - Agency[(1)]	—	78	506	99	683
Total available-for-sale investment securities	$ 675	$ 78	$ 506	$ 99	$1,358
Held-to-Maturity Investment Securities—Amortized Cost					
Residential mortgage-backed securities - Agency[(1)]	$ —	$ —	$ —	$ 203	$203
Total held-to-maturity investment securities	$ —	$ —	$ —	$ 203	$203
Available-for-Sale Investment Securities—Fair Values					
U.S. Treasury securities	$ 672	$ —	$ —	$ —	$672
Residential mortgage-backed securities - Agency[(1)]	—	77	493	98	668
Total available-for-sale investment securities	$ 672	$ 77	$ 493	$ 98	$1,340
Held-to-Maturity Investment Securities—Fair Values					
Residential mortgage-backed securities - Agency[(1)]	$ —	$ —	$ —	$ 200	$200
Total held-to-maturity investment securities	$ —	$ —	$ —	$ 200	$200

(1) Maturities of residential mortgage-backed securities are reflective of the contractual maturities of the investment.

Table of Contents

Other Investments

As a part of the Company's community reinvestment initiatives, the Company has made equity investments in certain limited partnerships and limited liability companies that finance the construction and rehabilitation of affordable rental housing, as well as stimulate economic development in low to moderate income communities. These investments are accounted for using the equity method of accounting and are recorded within other assets. The related commitment for future investments is recorded in accrued expenses and other liabilities within the condensed consolidated statements of financial condition. The portion of each investment's operating results allocable to the Company is recorded in other expense within the condensed consolidated statements of income. The Company reduces the carrying value of the investments by recognizing any amounts that are in excess of future net tax benefits in other expense. The Company earns a return primarily through the receipt of tax credits allocated to the affordable housing projects and the community revitalization projects. These investments are not consolidated as the Company does not have a controlling financial interest in the entities. As of March 31, 2018 and December 31, 2017, the Company had outstanding investments in these entities of $286 million and $297 million, respectively, and related contingent liabilities of $66 million. Of the above outstanding equity investments, the Company had $279 million and $288 million of investments related to affordable housing projects as of March 31, 2018 and December 31, 2017, respectively, which had $66 million related contingent liabilities.

3. Loan Receivables

The Company has three loan portfolio segments: credit card loans, other loans and PCI loans.

The Company's classes of receivables within the three portfolio segments are depicted in the table below (dollars in millions):

	March 31, 2018	December 31, 2017
Loan receivables		
Credit card loans[1]	$ 65,577	$ 67,291
Other loans		
Personal loans	7,307	7,374
Private student loans	7,416	7,076
Other	488	423
Total other loans	15,211	14,873
PCI loans[2]	1,956	2,084
Total loan receivables	82,744	84,248
Allowance for loan losses	(2,736)	(2,621)
Net loan receivables	$ 80,008	$ 81,627

(1) Amounts include $21.1 billion and $21.2 billion underlying investors’ interest in trust debt at March 31, 2018 and December 31, 2017, respectively, and $8.1 billion and $9.9 billion in seller's interest at March 31, 2018 and December 31, 2017, respectively. See Note 4: Credit Card and Student Loan Securitization Activities for additional information.

(2) Amounts include $712 million and $762 million of loans pledged as collateral against the notes issued from the Student Loan Corporation ("SLC") securitization trusts at March 31, 2018 and December 31, 2017, respectively. See Note 4: Credit Card and Student Loan Securitization Activities for additional information.

Table of Contents

Credit Quality Indicators

The Company regularly reviews its collection experience (including delinquencies and net charge-offs) in determining its allowance for loan losses.

Information related to the delinquent and non-accruing loans in the Company's loan portfolio is shown below by each class of loan receivables except for PCI student loans, which is shown under the heading "— Purchased Credit-Impaired Loans" (dollars in millions):

	30-89 Days Delinquent	90 or More Days Delinquent	Total Past Due	90 or More Days Delinquent and Accruing	Total Non-accruing[1]
At March 31, 2018					
Credit card loans[2]	$ 752	$ 777	$1,529	$ 719	$ 209
Other loans					
Personal loans[3]	73	28	101	26	11
Private student loans (excluding PCI)[4]	118	49	167	48	10
Other	2	1	3	—	19
Total other loans (excluding PCI)	193	78	271	74	40
Total loan receivables (excluding PCI)	$ 945	$ 855	$1,800	$ 793	$ 249
At December 31, 2017					
Credit card loans[2]	$ 781	$ 751	$1,532	$ 693	$ 203
Other loans					
Personal loans[3]	73	30	103	28	10
Private student loans (excluding PCI)[4]	134	33	167	33	2
Other	3	1	4	—	18
Total other loans (excluding PCI)	210	64	274	61	30
Total loan receivables (excluding PCI)	$ 991	$ 815	$1,806	$ 754	$ 233

(1) The Company estimates that the gross interest income that would have been recorded in accordance with the original terms of non-accruing credit card loans was $9 million and $8 million for the three months ended March 31, 2018 and 2017, respectively. The Company does not separately track the amount of gross interest income that would have been recorded in accordance with the original terms of loans. This amount was estimated based on customers' current balances and most recent interest rates.

(2) Credit card loans that are 90 or more days delinquent and accruing interest include $83 million and $72 million of loans accounted for as TDRs at March 31, 2018 and December 31, 2017, respectively.

(3) Personal loans that are 90 or more days delinquent and accruing interest include $4 million and $5 million of loans accounted for as TDRs at March 31, 2018 and December 31, 2017, respectively.

(4) Private student loans that are 90 or more days delinquent and accruing interest include $7 million and $5 million of loans accounted for as TDRs at March 31, 2018 and December 31, 2017, respectively.

Table of Contents

Information related to the net charge-offs in the Company's loan portfolio is shown below by each class of loan receivables except for PCI student loans, which is shown under the heading "— Purchased Credit-Impaired Loans" (dollars in millions):

	For the Three Months Ended March 31,					
	2018			2017		
	Net Charge-offs	Net Charge-off Rate[1]		Net Charge-offs	Net Charge-off Rate[1]	
Credit card loans	$540	3.32	%	$422	2.84	%
Other loans						
Personal loans	73	4.03	%	51	3.16	%
Private student loans (excluding PCI)	22	1.17	%	14	0.83	%
Other	—	—	%	2	3.45	%
Total other loans	95	2.52	%	67	2.02	%
Net charge-offs (excluding PCI)	$635	3.17	%	$489	2.69	%
Net charge-offs (including PCI)	$635	3.09	%	$489	2.60	%

(1) Net charge-off rate represents net charge-off dollars (annualized) divided by average loans for the reporting period.

As part of credit risk management activities, on an ongoing basis, the Company reviews information related to the performance of a customer's account with the Company as well as information from credit bureaus, such as FICO or other credit scores, relating to the customer's broader credit performance. FICO scores are generally obtained at origination of the account and are refreshed monthly or quarterly thereafter to assist in predicting customer behavior. Historically, the Company has noted that a significant portion of delinquent accounts have FICO scores below 660.

The following table provides the most recent FICO scores available for the Company's customers as a percentage of each class of loan receivables:

	Credit Risk Profile by FICO Score			
	660 and Above		Less than 660 or No Score	
At March 31, 2018				
Credit card loans	81	%	19	%
Personal loans	95	%	5	%
Private student loans (excluding PCI)[1]	95	%	5	%
At December 31, 2017				
Credit card loans	82	%	18	%
Personal loans	95	%	5	%
Private student loans (excluding PCI)[1]	95	%	5	%

(1) PCI loans are discussed under the heading "— Purchased Credit-Impaired Loans."

For private student loans, additional credit risk management activities include monitoring the amount of loans in forbearance. Forbearance allows borrowers experiencing temporary financial difficulties and willing to make payments, the ability to temporarily suspend payments. Eligible borrowers have a lifetime cap on forbearance of 12 months. At March 31, 2018 and December 31, 2017, there were $40 million and $29 million, respectively, of private student loans, including PCI, in forbearance, representing 0.7% and 0.5%, respectively, of total student loans in

repayment and forbearance.

Table of Contents

Allowance for Loan Losses

The following tables provide changes in the Company's allowance for loan losses (dollars in millions):

	For the Three Months Ended March 31, 2018				
	Credit Card	Personal Loans	Student Loans[1]	Other	Total
Balance at beginning of period	$2,147	$ 301	$ 162	$ 11	$2,621
Additions					
Provision for loan losses	645	73	31	2	751
Deductions					
Charge-offs	(663)	(81)	(25)	—	(769)
Recoveries	123	8	3	—	134
Net charge-offs	(540)	(73)	(22)	—	(635)
Other[2]	—	—	(1)	—	(1)
Balance at end of period	$2,252	$ 301	$ 170	$ 13	$2,736

	For the Three Months Ended March 31, 2017				
	Credit Card	Personal Loans	Student Loans[1]	Other	Total
Balance at beginning of period	$1,790	$ 200	$ 158	$ 19	$2,167
Additions					
Provision for loan losses	524	58	12	(8)	586
Deductions					
Charge-offs	(535)	(57)	(17)	(2)	(611)
Recoveries	113	6	3	—	122
Net charge-offs	(422)	(51)	(14)	(2)	(489)
Balance at end of period	$1,892	$ 207	$ 156	$ 9	$2,264

(1) Includes both PCI and non-PCI private student loans.
(2) Net change in reserves on PCI pools having no remaining non-accretable difference.

Net charge-offs of principal are recorded against the allowance for loan losses, as shown in the preceding table. Information regarding net charge-offs of interest and fee revenues on credit card and other loans is as follows (dollars in millions):

	For the Three Months Ended March 31,	
	2018	2017
Interest and fees accrued subsequently charged off, net of recoveries (recorded as a reduction of interest income)	$109	$ 84
Fees accrued subsequently charged off, net of recoveries (recorded as a reduction to other income)	$27	$ 22

Table of Contents

The following tables provide additional detail of the Company's allowance for loan losses and recorded investment in its loan portfolio by impairment methodology (dollars in millions):

	Credit Card	Personal Loans	Student Loans[1]	Other Loans	Total
At March 31, 2018					
Allowance for loans evaluated for impairment as					
Collectively evaluated for impairment in accordance with ASC 450-20	$2,007	$ 266	$ 122	$ 5	$2,400
Evaluated for impairment in accordance with ASC 310-10-35[2][3]	245	35	21	8	309
Acquired with deteriorated credit quality, evaluated in accordance with ASC 310-30	—	—	27	—	27
Total allowance for loan losses	$2,252	$ 301	$ 170	$ 13	$2,736
Recorded investment in loans evaluated for impairment as					
Collectively evaluated for impairment in accordance with ASC 450-20	$64,054	$ 7,186	$ 7,271	$ 435	$78,946
Evaluated for impairment in accordance with ASC 310-10-35[2][3]	1,523	121	145	53	1,842
Acquired with deteriorated credit quality, evaluated in accordance with ASC 310-30	—	—	1,956	—	1,956
Total recorded investment	$65,577	$ 7,307	$ 9,372	$ 488	$82,744
At December 31, 2017					
Allowance for loans evaluated for impairment as					
Collectively evaluated for impairment in accordance with ASC 450-20	$1,921	$ 269	$ 112	$ 4	$2,306
Evaluated for impairment in accordance with ASC 310-10-35[2][3]	226	32	21	7	286
Acquired with deteriorated credit quality, evaluated in accordance with ASC 310-30	—	—	29	—	29
Total allowance for loan losses	$2,147	$ 301	$ 162	$ 11	$2,621
Recorded investment in loans evaluated for impairment as					
Collectively evaluated for impairment in accordance with ASC 450-20	$65,975	$ 7,263	$ 6,939	$ 370	$80,547
Evaluated for impairment in accordance with ASC 310-10-35[2][3]	1,316	111	137	53	1,617
Acquired with deteriorated credit quality, evaluated in accordance with ASC 310-30	—	—	2,084	—	2,084
Total recorded investment	$67,291	$ 7,374	$ 9,160	$ 423	$84,248

(1) Includes both PCI and non-PCI private student loans.

(2) Loan receivables evaluated for impairment in accordance with ASC 310-10-35 include credit card loans, personal loans and student loans collectively evaluated for impairment in accordance with ASC Subtopic 310-40, Receivables, which consists of modified loans accounted for as TDRs. Other loans are individually evaluated for impairment and generally do not represent TDRs.

(3) The unpaid principal balance of credit card loans was $1.3 billion and $1.1 billion at March 31, 2018 and December 31, 2017, respectively. The unpaid principal balance of personal loans was $121 million and $109 million at March 31, 2018 and December 31, 2017, respectively. The unpaid principal balance of student loans was $145 million and $135 million at March 31, 2018 and December 31, 2017, respectively. All loans accounted for as TDRs have a related allowance for loan losses.

Troubled Debt Restructurings

The Company has internal loan modification programs that provide relief to credit card, personal loan and student loan borrowers who may be experiencing financial hardship. The Company continually evaluates new programs to

determine which of them meet the definition of a TDR. The internal loan modification programs include both temporary and permanent programs which vary by product. External loan modification programs are also available for credit card and personal loans. Temporary and permanent modifications on credit card and personal loans, as well as temporary modifications on student loans and certain grants of student loan forbearance, result in the loans being considered individually impaired. In addition, loans that defaulted or graduated from modification programs or forbearance are considered to be individually impaired.

For credit card customers, the Company offers temporary hardship programs consisting of an interest rate reduction and in some cases a reduced minimum payment, both lasting for a period no longer than 12 months. The permanent workout program involves changing the structure of the loan to a fixed payment loan with a maturity no longer than 60 months and reducing the interest rate on the loan. The permanent modification program does not normally provide for the forgiveness of

Table of Contents

unpaid principal, but may allow for the reversal of certain unpaid interest or fee assessments. The Company also makes permanent loan modifications for customers who request financial assistance through external sources, such as a consumer credit counseling agency program. These loans typically receive a reduced interest rate but continue to be subject to the original minimum payment terms and do not normally include waiver of unpaid principal, interest or fees. Modified credit card loans that are deemed to meet the definition of TDRs includes loans in both temporary and permanent programs.

For personal loan customers, in certain situations the Company offers various payment programs, including temporary and permanent programs. The temporary programs normally consist of a reduction of the minimum payment for a period of no longer than 12 months with the option of a final balloon payment required at the end of the loan term or an extension of the maturity date with the total term not exceeding nine years. Further, in certain circumstances the interest rate on the loan is reduced. The permanent program involves changing the terms of the loan in order to pay off the outstanding balance over a longer term and also in certain circumstances reducing the interest rate on the loan. Similar to the temporary programs, the total term may not exceed nine years. The Company also allows permanent loan modifications for customers who request financial assistance through external sources, similar to the credit card customers discussed above. Payments are modified based on the new terms agreed upon with the credit counseling agency. Personal loans included in temporary and permanent programs are accounted for as TDRs.

To assist student loan borrowers who are experiencing temporary financial difficulties but are willing to resume making payments, the Company may offer hardship forbearance or programs that include payment deferral, temporary payment reduction, temporary interest rate reduction or extended terms. A modified loan typically meets the definition of a TDR based on the cumulative length of the concession period and an evaluation of the credit quality of the borrower, based on FICO scores.

The Company monitors borrower performance after using payment programs or forbearance and the Company believes the programs help to prevent defaults and are useful in assisting customers experiencing financial difficulties. The Company plans to continue to use payment programs and forbearance and, as a result, expects to have additional loans classified as TDRs in the future.

Additional information about modified loans classified as TDRs is shown below (dollars in millions):

	Average recorded investment in loans	Interest income recognized during period loans were impaired[1]	Gross interest income that would have been recorded with original terms[2]
For the Three Months Ended March 31, 2018			
Credit card loans[3]	$ 1,413	$ 34	$ 26
Personal loans	$ 117	$ 3	$ 1
Private student loans	$ 142	$ 3	$ —
For the Three Months Ended March 31, 2017			
Credit card loans[3]	$ 1,108	$ 25	$ 20
Personal loans	$ 84	$ 2	$ 1
Private student loans	$ 94	$ 2	$ —

(1)

The Company does not separately track interest income on loans in modification programs. Amounts shown are estimated by applying an average interest rate to the average loans in the various modification programs.

(2) The Company does not separately track the amount of additional gross interest income that would have been recorded if the loans in modification programs had not been restructured and interest had instead been recorded in accordance with the original terms. Amounts shown are estimated by applying the difference between the average interest rate earned on non-impaired loans and the average interest rate earned on loans in the modification programs to the average loans in the modification programs.

(3) Includes credit card loans that were modified in TDRs, but are no longer enrolled in a TDR program due to noncompliance with the terms of the modification or due to successful completion of a program after which charging privileges may be reinstated based on customer-level evaluation. The average balance of credit card loans that were no longer enrolled in a TDR program was $399 million and $311 million, respectively, for the three months ended March 31, 2018 and 2017.

Table of Contents

In order to evaluate the primary financial effects that resulted from credit card loans entering into a loan modification program during the three months ended March 31, 2018 and 2017, the Company quantified the amount by which interest and fees were reduced during the periods. During the three months ended March 31, 2018 and 2017, the Company forgave approximately $12 million and $11 million, respectively, of interest and fees as a result of accounts entering into a credit card loan modification program.

The following table provides information on loans that entered a loan modification program during the period (dollars in millions):

	For the Three Months Ended March 31,					
	2018			2017		
	Number of Accounts	Balances		Number of Accounts	Balances	
Accounts that entered a loan modification program during the period						
Credit card loans	60,055	$	380	30,893	$	181
Personal loans	2,128	$	29	1,563	$	18
Private student loans	906	$	16	1,017	$	17

The following table presents the carrying value of loans that experienced a payment default during the period that had been modified in a TDR during the 15 months preceding the end of each period (dollars in millions):

	For the Three Months Ended March 31,					
	2018			2017		
	Number of Accounts	Aggregated Outstanding Balances Upon Default		Number of Accounts	Aggregated Outstanding Balances Upon Default	
TDRs that subsequently defaulted						
Credit card loans[(1)(2)]	8,814	$	47	8,166	$	44
Personal loans[(2)]	575	$	8	307	$	4
Private student loans[(3)]	271	$	5	185	$	3

(1) Terms revert back to the pre-modification terms for customers who default from a temporary program and charging privileges remain revoked in most cases.

(2) For credit card loans and personal loans, a customer defaults from a modification program after two consecutive missed payments. The outstanding balance upon default is generally the loan balance at the end of the month prior to default.

(3) For student loans, defaults have been defined as loans that are 60 or more days delinquent. The outstanding balance upon default is generally the loan balance at the end of the month prior to default.

Of the account balances that defaulted as shown above for the three months ended March 31, 2018 and 2017, approximately 37% and 38%, respectively, of the total balances were charged off at the end of the month in which they defaulted. For accounts that have defaulted from a loan modification program and have not been subsequently charged off, the balances are included in the allowance for loan loss analysis discussed above under "— Allowance for Loan Losses."

Purchased Credit-Impaired Loans

Purchased loans with evidence of credit deterioration since origination for which it is probable that not all contractually required payments will be collected are considered impaired at acquisition and are reported as PCI loans. The private student loans acquired in the SLC transaction, as well as the additional acquired private student loan

portfolio comprise the Company’s only PCI loans at March 31, 2018 and December 31, 2017. Total PCI student loans had an outstanding balance of $2.0 billion and $2.2 billion, including accrued interest, and a related carrying amount of $2.0 billion and $2.1 billion as of March 31, 2018 and December 31, 2017, respectively.

Table of Contents

The following table provides changes in accretable yield for the acquired loans during each period (dollars in millions):

	For the Three Months Ended March 31,	
	2018	2017
Balance at beginning of period	$669	$796
Accretion into interest income	(36)	(41)
Balance at end of period	$633	$755

Periodically, the Company updates the estimate of cash flows expected to be collected based on management's latest expectations of future credit losses, borrower prepayments and certain other assumptions that affect cash flows. No provision expense was recorded during the three months ended March 31, 2018 and 2017. The allowance for PCI loan losses at March 31, 2018 and December 31, 2017 was $27 million and $29 million, respectively. For the three months ended March 31, 2018 and 2017, there were no changes in cash flow assumptions. Changes to accretable yield are recognized prospectively as an adjustment to yield over the remaining life of the pools.

At March 31, 2018, the 30 or more days delinquency and 90 or more days delinquency rates on PCI student loans (which include loans not yet in repayment) were 2.92% and 0.83%, respectively. At December 31, 2017, the 30 or more days delinquency and 90 or more days delinquency rates on PCI student loans (which include loans not yet in repayment) were 3.24% and 0.93%, respectively. These rates include private student loans that are greater than 120 days delinquent that are covered by an indemnification agreement or insurance arrangements through which the Company expects to recover a substantial portion of the loan. The net charge-off rate on PCI student loans was 0.99% and 0.53% for the three months ended March 31, 2018 and 2017, respectively.

4. Credit Card and Student Loan Securitization Activities

The Company’s securitizations are accounted for as secured borrowings and the related trusts are treated as consolidated subsidiaries of the Company. For a description of the Company’s principles of consolidation with respect to VIEs, see Note 1: Background and Basis of Presentation of the Company’s annual report on Form 10-K for the year ended December 31, 2017.

Credit Card Securitization Activities

The Company accesses the term asset securitization market through the Discover Card Master Trust I (“DCMT”) and the Discover Card Execution Note Trust (“DCENT”). Credit card loan receivables are transferred into DCMT and beneficial interests in DCMT are transferred into DCENT. DCENT issues debt securities to investors that are reported in long-term borrowings.

The DCENT debt structure consists of four classes of securities (DiscoverSeries Class A, B, C and D notes), with the most senior class generally receiving a triple-A rating. In order to issue senior, higher rated classes of notes, it is necessary to obtain the appropriate amount of credit enhancement, generally through the issuance of junior, lower rated or more highly subordinated classes of notes. The subordinated classes are held by wholly-owned subsidiaries of Discover Bank. The Company is exposed to credit-related risk of loss associated with trust assets as of the balance sheet date through the retention of these subordinated interests. The estimated probable incurred loss is included in the allowance for loan losses estimate.

The Company’s retained interests in the assets of the trusts, consisting of investments in DCENT notes held by subsidiaries of Discover Bank, constitute intercompany positions which are eliminated in the preparation of the Company’s condensed consolidated statements of financial condition.

Upon transfer of credit card loan receivables to the trust, the receivables and certain cash flows derived from them become restricted for use in meeting obligations to the trusts’ creditors. Further, the transferred credit card loan receivables are owned by the trust and are not available to third-party creditors of the Company. The trusts have ownership of cash balances, the amounts of which are reported in restricted cash. With the exception of the seller’s

interest in trust receivables, the Company’s interests in trust assets are generally subordinate to the interests of third-party investors and, as such, may not be realized by the Company if needed to absorb deficiencies in cash flows that are allocated to the investors in the trusts’ debt. Apart from the restricted assets related to securitization activities, the investors and the securitization trusts have no recourse to the Company’s other assets or the Company's general credit for a shortage in cash flows.

Table of Contents

The carrying values of these restricted assets, which are presented on the Company's condensed consolidated statements of financial condition as relating to securitization activities, are shown in the table below (dollars in millions):

	March 31, 2018	December 31, 2017
Restricted cash	$ 29	$ 26
Investors' interests held by third-party investors	15,950	16,025
Investors' interests held by wholly-owned subsidiaries of Discover Bank	5,126	5,133
Seller's interest	8,106	9,861
Loan receivables[(1)]	29,182	31,019
Allowance for loan losses allocated to securitized loan receivables[(1)]	(1,006)	(998)
Net loan receivables	28,176	30,021
Other	6	5
Carrying value of assets of consolidated variable interest entities	$ 28,211	$ 30,052

(1) The Company maintains its allowance for loan losses at an amount sufficient to absorb probable losses inherent in all loan receivables, which includes all loan receivables in the trusts. Therefore, credit risk associated with the transferred receivables is fully reflected on the Company's balance sheet in accordance with GAAP.

The debt securities issued by the consolidated trusts are subject to credit, payment and interest rate risks on the transferred credit card loan receivables. To protect investors in the securities, there are certain features or triggering events that could cause an early amortization of the debt securities, including triggers related to the impact of the performance of the trust receivables on the availability and adequacy of cash flows to meet contractual requirements. As of March 31, 2018, no economic or other early amortization events have occurred.

The Company continues to own and service the accounts that generate the loan receivables held by the trusts. Discover Bank receives servicing fees from the trusts based on a percentage of the monthly investor principal balance outstanding. Although the fee income to Discover Bank offsets the fee expense to the trusts and thus is eliminated in consolidation, failure to service the transferred loan receivables in accordance with contractual requirements could lead to a termination of the servicing rights and the loss of future servicing income, net of related expenses.

Student Loan Securitization Activities

Student loan trust receivables underlying third-party investors' interests are recorded in PCI loans and the related debt issued by the trusts is reported in long-term borrowings. The assets of the trusts are restricted from being sold or pledged as collateral for other borrowings and the cash flows from these restricted assets may be used only to pay obligations of the trusts. With the exception of the trusts' restricted assets, the trusts and investors have no recourse to the Company's other assets or the Company's general credit for a shortage in cash flows.

Currently there are two trusts from which securities were issued to investors. Principal payments on the long-term secured borrowings are made as cash is collected on the underlying loans that are used as collateral on the secured borrowings. The Company does not have access to cash collected by the securitization trusts until cash is released in accordance with the trust indenture agreements. Similar to the credit card securitizations, the Company continues to own and service the accounts that generate the student loan receivables held by the trusts and receives servicing fees from the trusts based on either a percentage of the principal balance outstanding or a flat fee per borrower. Although the servicing fee income offsets the fee expense related to the trusts and thus is eliminated in consolidation, failure to service the transferred loan receivables in accordance with contractual requirements could lead to a termination of the servicing rights and the loss of future servicing income, net of related expenses.

Under terms of all the trust arrangements, the Company has the option, but not the obligation, to provide financial support to the trusts, but has never provided such support. A substantial portion of the credit risk associated with the securitized loans has been transferred to third parties under private credit insurance or indemnification arrangements.

Table of Contents

The carrying values of these restricted assets, which are presented on the Company's condensed consolidated statements of financial condition as relating to securitization activities, are shown in the table below (dollars in millions):

	March 31, 2018	December 31, 2017
Restricted cash	$ 58	$ 55
Student loan receivables	712	762
Carrying value of assets of consolidated variable interest entities	$ 770	$ 817

5. Deposits

The Company offers its deposit products to customers through two channels: (i) through direct marketing, internet origination and affinity relationships ("direct-to-consumer deposits"); and (ii) indirectly through contractual arrangements with securities brokerage firms ("brokered deposits"). Direct-to-consumer deposits include certificates of deposit, money market accounts, online savings and checking accounts and IRA certificates of deposit, while brokered deposits include certificates of deposit and sweep accounts.

The following table provides a summary of interest-bearing deposit accounts (dollars in millions):

	March 31, 2018	December 31, 2017
Certificates of deposit in amounts less than $100,000	$ 24,063	$ 23,768
Certificates of deposit in amounts $100,000 or greater[(1)]	6,035	5,984
Savings deposits, including money market deposit accounts	30,432	28,413
Total interest-bearing deposits	$ 60,530	$ 58,165

(1) Includes $1.4 billion in certificates of deposit greater than $250,000, the Federal Deposit Insurance Corporation ("FDIC") insurance limit, as of March 31, 2018 and December 31, 2017.

The following table summarizes certificates of deposit in amounts of $100,000 or greater by contractual maturity (dollars in millions):

Maturity Period	March 31, 2018
Three months or less	$778
Over three months through six months	830
Over six months through twelve months	1,739
Over twelve months	2,688
Total	$6,035

The following table summarizes certificates of deposit maturing over the remainder of this year, over each of the next four years, and thereafter (dollars in millions):

Year

	March 31, 2018
2018	$10,263
2019	7,408
2020	4,370
2021	2,912
2022	2,094
Thereafter	3,051
Total	$30,098

Table of Contents

6. Long-Term Borrowings

Long-term borrowings consist of borrowings having original maturities of one year or more. The following table provides a summary of the Company's long-term borrowings and weighted-average interest rates on outstanding balances (dollars in millions):

	March 31, 2018				December 31, 2017
	Maturity	Interest Rate	Weighted-Average Interest Rate	Outstanding Amount	Outstanding Amount
Securitized Debt					
Fixed-rate asset-backed securities[1]	2018-2024	1.39%-3.03%	1.92%	$ 9,478	$ 8,888
Floating-rate asset-backed securities[2][3]	2018-2024	2.01%-2.59%	2.25%	6,337	7,038
Total Discover Card Master Trust I and Discover Card Execution Note Trust				15,815	15,926
Floating-rate asset-backed securities[4][5][6]	2031-2036	1.89%-5.50%	3.45%	570	610
Total SLC Private Student Loan Trusts				570	610
Total long-term borrowings - owed to securitization investors				16,385	16,536
Discover Financial Services (Parent Company)					
Fixed-rate senior notes	2019-2027	3.75%-10.25%	4.25%	2,718	2,710
Fixed-rate retail notes	2018-2031	2.85%-4.40%	3.71%	328	302
Discover Bank					
Fixed-rate senior bank notes[1]	2018-2026	2.60%-4.25%	3.37%	6,115	6,080
Fixed-rate subordinated bank notes	2019-2020	7.00%-8.70%	7.49%	698	698
Total long-term borrowings				$ 26,244	$ 26,326

(1) The Company uses interest rate swaps to hedge portions of these long-term borrowings against changes in fair value attributable to changes in London Interbank Offered Rate ("LIBOR"). Use of these interest rate swaps impacts carrying value of the debt. See Note 14: Derivatives and Hedging Activities.

(2) Discover Card Execution Note Trust floating-rate asset-backed securities include issuances with the following interest rate terms: 1-month LIBOR + 23 to 60 basis points and Commercial paper rate + 55 basis points as of March 31, 2018.

(3) The Company uses interest rate swaps to manage its exposure to changes in interest rates related to future cash flows resulting from interest payments on a portion of these long-term borrowings. There is no impact on debt carrying value from use of these interest rate swaps. See Note 14: Derivatives and Hedging Activities.

(4) SLC Private Student Loan Trusts floating-rate asset-backed securities include issuances with the following interest rate terms: 3-month LIBOR + 17 to 45 basis points and Prime rate + 100 basis points as of March 31, 2018.

(5) Repayment of this debt is dependent upon the timing of principal and interest payments on the underlying student loans. The dates shown represent final maturity dates.

(6) Includes $226 million of senior notes maturing in 2031 and $344 million of senior and subordinated notes maturing in 2036 as of March 31, 2018.

The following table summarizes

long-term borrowings maturing over the remainder of this year, over each of the next four years, and thereafter (dollars in millions):

Year	March 31, 2018
2018	$ 3,270
2019	5,988
2020	4,694
2021	1,036
2022	2,776
Thereafter	8,480
Total	$ 26,244

The Company has access to committed borrowing capacity through private securitizations to support the funding of its credit card loan receivables. As of March 31, 2018, the total commitment of secured credit facilities through private providers was $6.0 billion, $500 million of which was drawn as of March 31, 2018. Access to the unused portions of the secured credit facilities is subject to the terms of the agreements with each of the providers which have various expirations in calendar years

Table of Contents

2019 through 2020. Borrowings outstanding under each facility bear interest at a margin above LIBOR or the asset-backed commercial paper costs of each individual conduit provider. The terms of each agreement provide for a commitment fee to be paid on the unused capacity and include various affirmative and negative covenants, including performance metrics and legal requirements similar to those required to issue any term securitization transaction.

7. Accumulated Other Comprehensive Income

Changes in each component of AOCI were as follows (dollars in millions):

	Unrealized Loss on Available-for-Sale Investment Securities, Net of Tax	Gain (Loss) on Cash Flow Hedges, Net of Tax	Loss on Pension Plan, Net of Tax	AOCI
For the Three Months Ended March 31, 2018				
Balance at December 31, 2017	$ (5)	$ 10	$ (157)	$ (152)
Net change	(7)	19	1	13
Balance at March 31, 2018	$ (12)	$ 29	$ (156)	$ (139)
For the Three Months Ended March 31, 2017				
Balance at December 31, 2016	$ (3)	$ (13)	$ (145)	$ (161)
Net change	1	5	—	6
Balance at March 31, 2017	$ (2)	$ (8)	$ (145)	$ (155)

The table below presents each component of other comprehensive income (loss) ("OCI") before reclassifications and amounts reclassified from AOCI for each component of OCI before- and after-tax (dollars in millions):

	Before Tax	Tax Benefit (Expense)	Net of Tax
For the Three Months Ended March 31, 2018			
Available-for-Sale Investment Securities			
Net unrealized holding loss arising during the period	$ (9)	$ 2	$ (7)
Net change	$ (9)	$ 2	$ (7)
Cash Flow Hedges			
Net unrealized gain arising during the period	$ 24	$ (6)	$ 18
Amounts reclassified from AOCI	1	—	1
Net change	$ 25	$ (6)	$ 19
Pension Plan			
Unrealized gain arising during the period	$ 1	$ —	$ 1
Net change	$ 1	$ —	$ 1
For the Three Months Ended March 31, 2017			
Available-for-Sale Investment Securities			
Net unrealized holding gain arising during the period	$ 2	$ (1)	$ 1
Net change	$ 2	$ (1)	$ 1
Cash Flow Hedges			
Net unrealized gain arising during the period	$ 6	$ (3)	$ 3
Amounts reclassified from AOCI	5	(3)	2
Net change	$ 11	$ (6)	$ 5

Table of Contents

8. Income Taxes

The following table presents the calculation of the Company's effective income tax rate (dollars in millions, except effective income tax rate):

	For the Three Months Ended March 31,	
	2018	2017
Income before income tax expense	$856	$868
Income tax expense	$190	$304
Effective income tax rate	22.2 %	35.0 %

Income tax expense and the effective tax rate decreased $114 million and 12.8%, respectively, for the three months ended March 31, 2018, as compared to the same period in 2017 as a result of a reduction in the U.S. federal statutory income tax rate from 35% to 21% offset by other provisions of the TCJA. For the three months ended March 31, 2018, the effective tax rate was also favorably impacted by the resolution of certain tax matters.

The Company is subject to examination by the Internal Revenue Service ("IRS") and tax authorities in various state, local and foreign tax jurisdictions. The Company regularly assesses the likelihood of additional assessments or settlements in each of the taxing jurisdictions resulting from these and subsequent years' examinations. The IRS is currently examining the years 2011-2015. At this time, the potential change in unrecognized tax benefits is not expected to be significant over the next 12 months. The Company believes that its reserves are sufficient to cover any tax, penalties and interest that would result from such examinations.

9. Earnings Per Share

The following table presents the calculation of basic and diluted earnings per share ("EPS") (in millions, except per share amounts):

	For the Three Months Ended March 31,	
	2018	2017
Numerator		
Net income	$666	$564
Preferred stock dividends	(16)	(9)
Net income available to common stockholders	650	555
Income allocated to participating securities	(4)	(4)
Net income allocated to common stockholders	$646	$551
Denominator		
Weighted-average shares of common stock outstanding	355	386
Weighted-average shares of common stock outstanding and common stock equivalents	355	386
Basic earnings per common share	$1.82	$1.43
Diluted earnings per common share	$1.82	$1.43

There were no anti-dilutive securities on the computation of diluted EPS for the three months ended March 31, 2018 and 2017.

Table of Contents

10. Capital Adequacy

The Company is subject to the capital adequacy guidelines of the Federal Reserve, and Discover Bank, the Company's main banking subsidiary, is subject to various regulatory capital requirements as administered by the FDIC. Failure to meet minimum capital requirements can result in the initiation of certain mandatory and possibly additional discretionary actions by regulators that, if undertaken, could have a direct material effect on the financial position and results of the Company and Discover Bank. Under capital adequacy guidelines and the regulatory framework for prompt corrective action, the Company and Discover Bank must meet specific capital guidelines that involve quantitative measures of assets, liabilities and certain off-balance sheet items, as calculated under regulatory guidelines. Capital amounts and classification are also subject to qualitative judgments by the regulators about components, risk weightings and other factors.

In 2013, the Federal Reserve, the Office of the Comptroller of the Currency, and the FDIC issued final capital rules under the Basel Committee's December 2010 framework (referred to as "Basel III") establishing a new comprehensive capital framework for U.S. banking organizations. The final capital rules ("Basel III rules") substantially revise Basel I rules regarding the risk-based capital requirements applicable to bank holding companies and depository institutions, including the Company. The Basel III rules became effective for the Company on January 1, 2015. This timing is based on the Company being classified as a "Standardized Approach" entity.

Among other things, the Basel III rules (i) introduced a new capital measure called Common Equity Tier 1 ("CET1"), (ii) specify that Tier 1 capital consists of CET1 and additional Tier 1 capital instruments meeting specified requirements, (iii) apply most deductions/adjustments to regulatory capital measures to CET1 and not to the other components of capital, thus potentially requiring higher levels of CET1 in order to meet minimum ratios and (iv) expand the scope of the deductions/adjustments from capital as compared to existing regulations.

The Basel III minimum capital ratios are as follows:

- 8.0% Total capital (i.e., Tier 1 plus Tier 2) to risk-weighted assets;
- 6.0% Tier 1 capital (i.e., CET1 plus Additional Tier 1) to risk-weighted assets;
- 4.0% Tier 1 capital to average consolidated assets as reported on consolidated financial statements (known as the "leverage ratio"); and
- 4.5% CET1 to risk-weighted assets.

As of March 31, 2018, the Company and Discover Bank met all Basel III minimum capital ratio requirements to which they were subject. The Company and Discover Bank also met the requirements to be considered "well-capitalized" under Regulation Y and prompt corrective action regulations, respectively, and there have been no conditions or events that management believes have changed the Company's or Discover Bank's category. To be categorized as "well-capitalized," the Company and Discover Bank must maintain minimum capital ratios as set forth in the table below.

Table of Contents

The following table shows the actual capital amounts and ratios of the Company and Discover Bank and comparisons of each to the regulatory minimum and "well-capitalized" requirements (dollars in millions):

	Actual		Minimum Capital Requirements		Capital Requirements To Be Classified as Well-Capitalized	
	Amount	Ratio[1]	Amount	Ratio	Amount[2]	Ratio[2]
March 31, 2018						
Total capital (to risk-weighted assets)						
Discover Financial Services	$11,901	14.0 %	$6,792	≥8.0%	$ 8,490	≥10.0%
Discover Bank	$12,372	14.7 %	$6,716	≥8.0%	$ 8,395	≥10.0%
Tier 1 capital (to risk-weighted assets)						
Discover Financial Services	$10,644	12.5 %	$5,094	≥6.0%	$ 5,094	≥6.0%
Discover Bank	$10,563	12.6 %	$5,037	≥6.0%	$ 6,716	≥8.0%
Tier 1 capital (to average assets)						
Discover Financial Services	$10,644	10.6 %	$4,016	≥4.0%	N/A	N/A
Discover Bank	$10,563	10.6 %	$3,973	≥4.0%	$ 4,967	≥5.0%
CET1 capital (to risk-weighted assets)						
Discover Financial Services	$10,081	11.9 %	$3,820	≥4.5%	N/A	N/A
Discover Bank	$10,563	12.6 %	$3,778	≥4.5%	$ 5,457	≥6.5%
December 31, 2017						
Total capital (to risk-weighted assets)						
Discover Financial Services	$11,952	13.8 %	$6,946	≥8.0%	$ 8,683	≥10.0%
Discover Bank	$12,364	14.4 %	$6,872	≥8.0%	$ 8,589	≥10.0%
Tier 1 capital (to risk-weighted assets)						
Discover Financial Services	$10,677	12.3 %	$5,210	≥6.0%	$ 5,210	≥6.0%
Discover Bank	$10,533	12.3 %	$5,154	≥6.0%	$ 6,872	≥8.0%
Tier 1 capital (to average assets)						
Discover Financial Services	$10,677	10.8 %	$3,949	≥4.0%	N/A	N/A
Discover Bank	$10,533	10.8 %	$3,912	≥4.0%	$ 4,890	≥5.0%
CET1 capital (to risk-weighted assets)						
Discover Financial Services	$10,114	11.6 %	$3,907	≥4.5%	N/A	N/A
Discover Bank	$10,533	12.3 %	$3,865	≥4.5%	$ 5,583	≥6.5%

(1) Capital ratios are calculated based on the Basel III Standardized Approach rules, subject to applicable transition provisions.

(2) The Basel III rules do not establish well-capitalized thresholds for these measures for bank holding companies. Existing well-capitalized thresholds established in the Federal Reserve's Regulation Y have been included where available.

Table of Contents

11. Commitments, Contingencies and Guarantees

In the normal course of business, the Company enters into a number of off-balance sheet commitments, transactions and obligations under guarantee arrangements that expose the Company to varying degrees of risk. The Company's commitments, contingencies and guarantee relationships are described below.

Commitments

Lease Commitments

The Company leases various office space and equipment under capital and non-cancelable operating leases, which expire at various dates through 2029. Future minimum payments on capital leases were not material at March 31, 2018. The following table shows future minimum payments on non-cancelable operating leases with original terms in excess of one year (dollars in millions):

	March 31, 2018
2018	$ 10
2019	12
2020	11
2021	10
2022	7
Thereafter	41
Total minimum lease payments	$ 91

Unused Credit Arrangements

At March 31, 2018, the Company had unused credit arrangements for loans of approximately $190.7 billion. Such arrangements arise primarily from agreements with customers for unused lines of credit on certain credit cards and certain other loan products, provided there is no violation of conditions in the related agreements. These arrangements, substantially all of which the Company can terminate at any time and which do not necessarily represent future cash requirements, are periodically reviewed based on account usage, customer creditworthiness and loan qualification.

Contingencies

See Note 12: Litigation and Regulatory Matters for a description of potential liability arising from pending litigation or regulatory proceedings involving the Company.

Guarantees

The Company has obligations under certain guarantee arrangements, including contracts, indemnification agreements, and representations and warranties, which contingently require the Company to make payments to the guaranteed party based on changes in an underlying asset, liability or equity security of a guaranteed party, rate or index. Also included as guarantees are contracts that contingently require the Company to make payments to a guaranteed party based on another entity's failure to perform under an agreement. The Company's use of guarantees is disclosed below by type of guarantee.

Securitizations Representations and Warranties

As part of the Company’s financing activities, the Company provides representations and warranties that certain assets pledged as collateral in secured borrowing arrangements conform to specified guidelines. Due diligence is performed by the Company which is intended to ensure that asset guideline qualifications are met. If the assets pledged as collateral do not meet certain conforming guidelines, the Company may be required to replace, repurchase or sell such

assets. In its credit card securitization activities, the Company would replace nonconforming receivables through the allocation of excess seller's interest or from additional transfers from the unrestricted pool of receivables. If the Company could not add enough receivables to satisfy the requirement, an early amortization (or repayment) of investors' interests would be triggered. In its student loan securitizations, the Company would generally repurchase the loans from the trust at the outstanding principal amount plus interest.

Table of Contents

The maximum potential amount of future payments the Company could be required to make would be equal to the current outstanding balances of third-party investor interests in credit card asset-backed securities, and the principal amount of any student loan secured borrowings, plus any unpaid interest for the corresponding secured borrowings. The Company has recorded substantially all of the maximum potential amount of future payments in long-term borrowings on the Company’s condensed consolidated statements of financial condition. The Company has not recorded any incremental contingent liability associated with its secured borrowing representations and warranties. Management believes that the probability of having to replace, repurchase or sell assets pledged as collateral under secured borrowing arrangements, including an early amortization event, is low.

Mortgage Loans Representations and Warranties

The Company sold loans it originated to investors on a servicing-released basis and the risk of loss or default by the borrower is generally transferred to the investor. However, the Company was required by these investors to make certain representations and warranties relating to credit information, loan documentation and collateral. These representations and warranties may extend through the contractual life of the mortgage loan, even though the Company closed the mortgage origination business. Subsequent to the sale, if underwriting deficiencies, borrower fraud or documentation defects are discovered in individual mortgage loans, the Company may be obligated to repurchase the respective mortgage loan or indemnify the investors for any losses from borrower defaults if such deficiency or defect cannot be cured within the specified period following discovery. The Company has established a repurchase reserve based on expected losses. At March 31, 2018, this amount was not material and was included in accrued expenses and other liabilities on the condensed consolidated statements of financial condition.

Counterparty Settlement Guarantees

Diners Club and DFS Services LLC (on behalf of PULSE) have various counterparty exposures, which are listed below.

- Merchant Guarantee. Diners Club has entered into contractual relationships with certain international merchants, which generally include travel-related businesses, for the benefit of all Diners Club licensees. The licensees hold the primary liability to settle the transactions of their customers with these merchants. However, Diners Club retains a counterparty exposure if a licensee fails to meet its financial payment obligation to one of these merchants.
- ATM Guarantee. PULSE entered into contractual relationships with certain international ATM acquirers in which DFS Services LLC retains counterparty exposure if an issuer fails to fulfill its settlement obligation.
- Network Alliance Guarantee. Discover Network, Diners Club and PULSE have entered into contractual relationships with certain international payment networks in which DFS Services LLC retains the counterparty exposure if a network fails to fulfill its settlement obligation.

The maximum potential amount of future payments related to such contingent obligations is dependent upon the transaction volume processed between the time a potential counterparty defaults on its settlement and the time at which the Company disables the settlement of any further transactions for the defaulting party. However, there is no limitation on the maximum amount the Company may be liable to pay. The actual amount of the potential exposure cannot be quantified as the Company cannot determine whether particular counterparties will fail to meet their settlement obligations.

While the Company has some contractual remedies to offset these counterparty settlement exposures (such as letters of credit or pledged deposits), in the event that all licensees and/or issuers were to become unable to settle their transactions, the Company estimates its maximum potential counterparty exposures to these settlement guarantees, based on historical transaction volume, would be $164 million for merchant guarantees as of March 31, 2018. The maximum potential counterparty exposures to these settlement guarantees for ATM guarantees would be immaterial as of March 31, 2018. The maximum potential counterparty exposures for network alliance guarantees would be $33 million as of March 31, 2018.

The Company believes that the estimated amounts of maximum potential future payments are not representative of the Company's actual potential loss exposure given Diners Club's and PULSE's insignificant historical losses from these counterparty exposures. As of March 31, 2018, the Company had not recorded any contingent liability in the consolidated financial statements for these counterparty exposures, and management believes that the probability of any payments under these arrangements is low.

Table of Contents

Discover Network Merchant Chargeback Guarantees

The Company operates the Discover Network, issues payment cards and permits third parties to issue payment cards. The Company is contingently liable for certain transactions processed on the Discover Network in the event of a dispute between the payment card customer and a merchant. The contingent liability arises if the disputed transaction involves a merchant or merchant acquirer with whom the Discover Network has a direct relationship. If a dispute is resolved in the customer's favor, the Discover Network will credit or refund the disputed amount to the Discover Network card issuer, who in turn credits its customer's account. The Discover Network will then charge back the disputed amount of the payment card transaction to the merchant or merchant acquirer, where permitted by the applicable agreement, to seek recovery of amounts already paid to the merchant for payment card transactions. If the Discover Network is unable to collect the amount subject to dispute from the merchant or merchant acquirer (e.g., in the event of merchant default or dissolution or after expiration of the time period for chargebacks in the applicable agreement), the Discover Network will bear the loss for the amount credited or refunded to the customer. In most instances, a loss by the Discover Network is unlikely to arise in connection with payments on card transactions because most products or services are delivered when purchased and credits are issued by merchants on returned items in a timely fashion, thus minimizing the likelihood of cardholder disputes with respect to amounts paid by the Discover Network. However, where the product or service is not scheduled to be provided to the customer until a later date following the purchase, the likelihood of a contingent payment obligation by the Discover Network increases. Losses related to merchant chargebacks were not material for the three months ended March 31, 2018 and 2017.

The maximum potential amount of obligations of the Discover Network arising as a result of such contingent obligations is estimated to be the portion of the total Discover Network transaction volume processed to date for which timely and valid disputes may be raised under applicable law and relevant issuer and customer agreements. There is no limitation on the maximum amount the Company may be liable to pay to issuers. However, the Company believes that such amount is not representative of the Company's actual potential loss exposure based on the Company's historical experience. The actual amount of the potential exposure cannot be quantified as the Company cannot determine whether the current or cumulative transaction volumes may include or result in disputed transactions.

The table below summarizes certain information regarding merchant chargeback guarantees (in millions):

	For the Three Months Ended March 31,	
	2018	2017
Aggregate sales transaction volume[1]	$36,017	$32,654

(1) Represents period transactions processed on the Discover Network for which a potential liability exists that, in aggregate, can differ from credit card sales volume.

The Company did not record any contingent liability in the condensed consolidated financial statements for merchant chargeback guarantees as of March 31, 2018 or December 31, 2017. The Company mitigates the risk of potential loss exposure by withholding settlement from merchants, obtaining third-party guarantees, or obtaining escrow deposits or letters of credit from certain merchant acquirers or merchants that are considered higher risk due to various factors such as time delays in the delivery of products or services. As of March 31, 2018 and December 31, 2017, the Company had escrow deposits and settlement withholdings of $9 million and $10 million, respectively, which are recorded in interest-bearing deposit accounts and accrued expenses and other liabilities on the Company's condensed consolidated statements of financial condition.

12. Litigation and Regulatory Matters

In the normal course of business, from time to time, the Company has been named as a defendant in various legal actions, including arbitrations, class actions and other litigation, arising in connection with its activities. Certain of the actual or threatened legal actions include claims for substantial compensatory and/or punitive damages or claims for indeterminate amounts of damages. The litigation process is not predictable and can lead to unexpected results. The

Company contests liability and/or the amount of damages as appropriate in each pending matter.
The Company has historically offered its customers an arbitration clause in its customer agreements. The arbitration clause allows the Company and its customers to quickly and economically resolve disputes. Additionally, the arbitration clause has in some instances limited the costs of, and the Company's exposure to, litigation. Future legal and regulatory challenges and prohibitions may cause the Company to discontinue its offering and use of such clauses. From time to time, the Company is involved in legal actions challenging its arbitration clause. Bills may be periodically introduced in Congress to directly or indirectly prohibit the use of pre-dispute arbitration clauses. On July 10, 2017, the Consumer Financial

Protection Bureau (the "CFPB") issued a final arbitration rule (the "Arbitration Rule") that would have effectively banned consumer financial companies from including class action waivers in arbitration clauses. On November 1, 2017, a resolution of disapproval of the Arbitration Rule was signed into law and the Arbitration Rule was blocked from taking effect and cannot be reissued in substantially the same form, nor can a new rule that is substantially similar be issued unless specifically authorized by a law enacted after the date of the resolution of disapproval.

The Company is also involved, from time to time, in other reviews, investigations and proceedings (both formal and informal) by governmental agencies regarding the Company's business including, among other matters, consumer regulatory, accounting, tax and other operational matters, some of which may result in significant adverse judgments, settlements, fines, penalties, injunctions, decreases in regulatory ratings, customer restitution or other relief, which could materially impact the Company's condensed consolidated financial statements, increase its cost of operations, or limit its ability to execute its business strategies and engage in certain business activities. For example, the Company is currently the subject of an action by the Federal Reserve with respect to anti-money laundering and related compliance programs as referred to below. This agreement followed the consent order that Discover Bank entered into with the FDIC on June 13, 2014 related to Discover Bank's anti-money laundering and related compliance programs. This consent order was terminated in August 2017. In addition, certain subsidiaries of the Company are subject to a consent order with the CFPB regarding certain student loan servicing practices, as described below. Pursuant to powers granted under federal banking laws, regulatory agencies have broad and sweeping discretion, and may assess civil money penalties, require changes to certain business practices or require customer restitution at any time. The existing supervisory action related to anti-money laundering and related laws and regulations will limit for a period of time the Company's ability to enter into certain types of acquisitions and make certain types of investments.

In accordance with applicable accounting guidance, the Company establishes an accrued liability for legal and regulatory matters when those matters present loss contingencies which are both probable and estimable. Litigation and regulatory settlement related expense was not material for the three months ended March 31, 2018 and 2017. There may be an exposure to loss in excess of any amounts accrued. The Company believes the estimate of the aggregate range of reasonably possible losses (meaning those losses the likelihood of which is more than remote but less than likely) in excess of the amounts that the Company has accrued for legal and regulatory proceedings is up to $140 million. This estimated range of reasonably possible losses is based upon currently available information for those proceedings in which the Company is involved, takes into account the Company's best estimate of such losses for those matters for which an estimate can be made, and does not represent the Company's maximum potential loss exposure. Various aspects of the legal proceedings underlying the estimated range will change from time to time and actual results may vary significantly from the estimate.

The Company's estimated range above involves significant judgment, given the varying stages of the proceedings, the existence of numerous yet to be resolved issues, the breadth of the claims (often spanning multiple years and, in some cases, a wide range of business activities), unspecified damages and/or the novelty of the legal issues presented. The outcome of pending matters could be material to the Company's condensed consolidated financial condition, operating results and cash flows for a particular future period, depending on, among other things, the level of the Company's income for such period, and could adversely affect the Company's reputation.

On July 5, 2012, the Antitrust Division of the United States Department of Justice (the "Division") issued a Civil Investigative Demand ("CID") to the Company seeking information regarding an investigation related to potential violations of Sections 1 and 2 of the Sherman Act, 15 U.S.C. §§1-2, by an unidentified party other than Discover. The CID seeks documents, data and narrative responses to several interrogatories and document requests, related to the debit card market. A CID is a request for information in the course of a civil investigation and does not constitute the commencement of legal proceedings. The Division is permitted by statute to issue a CID to anyone whom it believes may have information relevant to an investigation. The receipt of a CID does not presuppose that there is probable cause to believe that a violation of the antitrust laws has occurred or that a formal complaint ultimately will be filed. The Company is cooperating with the Division in connection with the CID.

On May 26, 2015, the Company entered into a written agreement with the Federal Reserve Bank of Chicago where the Company agreed to enhance the Company's enterprise-wide anti-money laundering and related compliance programs. The agreement does not include civil money penalties.

On July 22, 2015, the Company announced that its subsidiaries, Discover Bank, SLC and Discover Products Inc. (the "Discover Subsidiaries"), agreed to a consent order with the CFPB resolving the agency's investigation with respect to

---

Table of Contents

certain student loan servicing practices. The CFPB’s investigation into these practices has been previously disclosed by the Company, initially in February 2014. The order required the Discover Subsidiaries to provide redress of approximately $16 million to consumers who may have been affected by the activities described in the order related to certain collection calls, overstatements of minimum payment due amounts in billing statements, and provision of interest paid information to consumers, and provide regulatory disclosures with respect to loans acquired in default. In addition, the Discover Subsidiaries were required to pay a $2.5 million civil money penalty to the CFPB. As required by the consent order, on October 19, 2015, the Discover Subsidiaries submitted to the CFPB a redress plan and a compliance plan designed to ensure that the Discover Subsidiaries provide redress and otherwise comply with the terms of the order.

On September 4, 2015, the District Attorney of Trinity County, California filed a protection products lawsuit against the Company in California state court (The People of the State of California Ex Rel, Eric L. Heryford, District Attorney, Trinity County v. Discover Financial Services, et al.). The District Attorney subsequently dismissed this lawsuit on February 19, 2016 and filed a new complaint in federal court in the Eastern District of California on March 4, 2016 alleging the same cause of action. An amended complaint was filed on March 25, 2016. The lawsuit asserts various claims under California's Unfair Competition Law with respect to the Company's marketing and administration of various protection products. Plaintiff seeks declaratory relief, statutory civil penalties, and attorneys’ fees. The Company filed a motion to dismiss the first amended complaint on April 26, 2016. The Company is not in a position at this time to assess the likely outcome or its exposure, if any, with respect to this matter, but will seek to vigorously defend against all claims asserted by the plaintiff.

On March 8, 2016, a class action lawsuit was filed against the Company, other credit card networks, other issuing banks, and EMVCo in the U.S. District Court for the Northern District of California (B&R Supermarket, Inc., d/b/a Milam’s Market, et al. v. Visa, Inc. et al.) alleging violations of the Sherman Antitrust Act, California's Cartwright Act, and unjust enrichment. Plaintiffs allege a conspiracy by defendants to shift fraud liability to merchants with the migration to the EMV security standard and chip technology. Plaintiffs assert joint and several liability among the defendants and seek unspecified damages, including treble damages, attorneys' fees, costs and injunctive relief. On July 15, 2016, plaintiffs filed an amended complaint that includes additional named plaintiffs, reasserts the original claims, and includes additional state law causes of action. The defendants filed motions to dismiss on August 5, 2016. On September 30, 2016, the court granted the motions to dismiss for certain issuing banks and EMVCo but denied the motions to dismiss filed by the networks, including the Company. In May 2017, while discovery was proceeding and after class certification was fully briefed but not yet ruled upon, the Court entered an order transferring the entire action to a federal court in New York that is presiding over certain related claims that are pending in the actions consolidated as MDL 1720. In June 2017, the federal court in New York declined to consolidate the B&R case with MDL 1720, but ordered the parties to coordinate discovery across the actions to the extent they involved related issues. On July 6, 2017, the Company requested permission to file a motion to dismiss the claims against it in the federal court in New York. On August 24, 2017, the Court held a status conference at which it set a briefing schedule on Discover’s motion to dismiss. In September 2017, Discover filed its motion to dismiss. On November 29, 2017, the Court heard argument on class certification and took the motion under advisement. On January 23, 2018, the Court heard argument on Discover's motion to dismiss. On March 11, 2018, the Court entered an order denying the plaintiffs' motion of class certification without prejudice to filing a renewed motion with additional detail on the proposed class period and alleged antitrust injuries. Plaintiffs have requested permission to file such a motion on July 16, 2018. Discovery is ongoing, and for most fact issues and defenses is scheduled to conclude on April 30, 2018, subject to a proposed extension through June 14, 2018 for certain discovery related to questions in the Court’s March 11, 2018 class certification order. The Company is not in a position at this time to assess the likely outcome or its exposure, if any, with respect to this matter, but will seek to vigorously defend against all claims asserted by the plaintiffs.

Table of Contents

13. Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. ASC Topic 820, Fair Value Measurement, provides a three-level hierarchy for classifying financial instruments, which is based on whether the inputs to the valuation techniques used to measure the fair value of each financial instrument are observable or unobservable. It also requires certain disclosures about those measurements. The three-level valuation hierarchy is as follows:

- Level 1: Fair values determined by Level 1 inputs are defined as those that utilize quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company has the ability to access.
- Level 2: Fair values determined by Level 2 inputs are those that utilize inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. Level 2 inputs include quoted prices for similar assets and liabilities in active or inactive markets, quoted prices for the identical assets in an inactive market, and inputs other than quoted prices that are observable for the asset or liability, such as interest rates and yield curves that are observable at commonly quoted intervals. The Company evaluates factors such as the frequency of transactions, the size of the bid-ask spread and the significance of adjustments made when considering transactions involving similar assets or liabilities to assess the relevance of those observed prices. If relevant and observable prices are available, the fair values of the related assets or liabilities would be classified as Level 2.
- Level 3: Fair values determined by Level 3 inputs are those based on unobservable inputs and include situations where there is little, if any, market activity for the asset or liability being valued. In instances in which the inputs used to measure fair value may fall into different levels of the fair value hierarchy, the level in the fair value hierarchy within which the fair value measurement in its entirety is classified is based on the lowest level input that is significant to the fair value measurement in its entirety. The Company may utilize both observable and unobservable inputs in determining the fair values of financial instruments classified within the Level 3 category.

The determination of classification of its financial instruments within the fair value hierarchy is performed at least quarterly by the Company. For transfers in and out of the levels of the fair value hierarchy, the Company discloses the fair value measurement based on the value immediately preceding the transfer.

The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and involves consideration of factors specific to the asset or liability. Furthermore, certain techniques used to measure fair value involve some degree of judgment and, as a result, are not necessarily indicative of the amounts the Company would realize in a current market exchange.

Table of Contents

Assets and Liabilities Measured at Fair Value on a Recurring Basis

Assets and liabilities measured at fair value on a recurring basis are as follows (dollars in millions):

	Quoted Price in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Balance at March 31, 2018				
Assets				
Fair value - OCI				
U.S. Treasury securities	$ 672	$ —	$ —	$672
Residential mortgage-backed securities - Agency	—	668	—	668
Available-for-sale investment securities	$ 672	$ 668	$ —	$1,340
Derivative financial instruments - cash flow hedges[1]	$ —	$ 7	$ —	$7
Fair value - Net income				
Derivative financial instruments - fair value hedges[1]	$ —	$ 3	$ —	$3
Liabilities				
Fair value - OCI				
Derivative financial instruments - cash flow hedges[1]	$ —	$ 1	$ —	$1
Balance at December 31, 2017				
Assets				
Fair value - OCI				
U.S. Treasury securities	$ 672	$ —	$ —	$672
Residential mortgage-backed securities - Agency	—	723	—	723
Available-for-sale investment securities	$ 672	$ 723	$ —	$1,395
Derivative financial instruments - cash flow hedges[1]	$ —	$ 2	$ —	$2
Fair value - Net income				
Derivative financial instruments - fair value hedges[1]	$ —	$ 4	$ —	$4
Liabilities				
Fair value - OCI				
Derivative financial instruments - cash flow hedges[1]	$ —	$ 3	$ —	$3

(1) Derivative instrument carrying values in an asset or liability position are presented as part of Other assets or Accrued expenses and other liabilities, respectively, in the Company's condensed consolidated statements of financial condition.

Fair value hedge derivative financial instruments in a liability position were immaterial at March 31, 2018 and December 31, 2017. There were no transfers between Levels 1 and 2 within the fair value hierarchy for the three months ended March 31, 2018 and 2017.

Available-for-Sale Investment Securities

Investment securities classified as available-for-sale consist of U.S. Treasury securities and residential mortgage-backed securities. The fair value estimates of investment securities classified as Level 1, consisting of U.S. Treasury securities, are determined based on quoted market prices for the same securities. The Company classifies

residential mortgage-backed securities as Level 2, the fair value estimates of which are based on the best information available. This data may consist of observed market prices, broker quotes or discounted cash flow models that incorporate assumptions such

Table of Contents

as benchmark yields, issuer spreads, prepayment speeds, credit ratings and losses, the priority of which may vary based on availability of information.

The Company validates the fair value estimates provided by the pricing services primarily by comparison to valuations obtained through other pricing sources. The Company evaluates pricing variances amongst different pricing sources to ensure that the valuations utilized are reasonable. The Company also corroborates the reasonableness of the fair value estimates with analysis of trends of significant inputs, such as market interest rate curves. The Company further performs due diligence in understanding the procedures and techniques performed by the pricing services to derive fair value estimates.

At March 31, 2018, amounts reported in residential mortgage-backed securities reflect government-rated obligations issued by Fannie Mae, Freddie Mac and Ginnie Mae with a par value of $668 million, a weighted-average coupon of 2.81% and a weighted-average remaining maturity of three years.

Derivative Financial Instruments

The Company's derivative financial instruments consist of interest rate swaps and foreign exchange forward contracts. These instruments are classified as Level 2 as their fair values are estimated using proprietary pricing models, containing certain assumptions based on readily observable market-based inputs, including interest rate curves, option volatility and foreign currency forward and spot rates. In determining fair values, the pricing models use widely accepted valuation techniques including discounted cash flow analysis on the expected cash flows of each derivative. This analysis reflects the contractual terms of the derivatives, including the period to maturity and the observable market-based inputs. The fair values of the interest rate swaps are determined using the market standard methodology of netting the discounted future fixed cash receipts (or payments) and the discounted expected variable cash payments (or receipts). The variable cash payments are based on an expectation of future interest rates derived from the observable market interest rate curves. The Company considers collateral and master netting agreements that mitigate credit exposure to counterparties in determining the counterparty credit risk valuation adjustment. The fair values of the currency instruments are valued comparing the contracted forward exchange rate pertaining to the specific contract maturities to the current market exchange rate.

The Company validates the fair value estimates of interest rate swaps primarily through comparison to the fair value estimates computed by the counterparties to each of the derivative transactions. The Company evaluates pricing variances amongst different pricing sources to ensure that the valuations utilized are reasonable. The Company also corroborates the reasonableness of the fair value estimates with analysis of trends of significant inputs, such as market interest rate curves. The Company performs due diligence in understanding the impact to any changes to the valuation techniques performed by proprietary pricing models prior to implementation, working closely with the third-party valuation service, and reviews the control objectives of the service at least annually. The Company corroborates the fair value of foreign exchange forward contracts through independent calculation of the fair value estimates.

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

The Company also has assets that under certain conditions are subject to measurement at fair value on a non-recurring basis. These assets include those associated with acquired businesses, including goodwill and other intangible assets. For these assets, measurement at fair value in periods subsequent to the initial recognition of the assets is applicable if one or more of the assets is determined to be impaired. During the three months ended March 31, 2018 and 2017, the Company had no material impairments related to these assets.

Table of Contents

Financial Instruments Measured at Other Than Fair Value

In accordance with ASU 2016-01, Financial Instruments—Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities, the Company uses the exit price notion when measuring the fair value of financial instruments. See Note 1: Background and Basis of Presentation for additional information.

The following tables disclose the estimated fair value of the Company's financial assets and financial liabilities that are not required to be carried at fair value (dollars in millions):

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total	Carrying Value
Balance at March 31, 2018					
Assets					
Amortized cost					
States and political subdivisions of states	$ —	$ —	$ —	$—	$—
Residential mortgage-backed securities - Agency	—	200	—	200	203
Held-to-maturity investment securities	$ —	$ 200	$ —	$200	$203
Net loan receivables	$ —	$ —	$ 83,634	$83,634	$80,008
Carrying value approximates fair value[1]					
Cash and cash equivalents	$ 17,011	$ —	$ —	$17,011	$17,011
Restricted cash	$ 87	$ —	$ —	$87	$87
Accrued interest receivables[2]	$ —	$ 830	$ —	$830	$830
Liabilities					
Amortized cost					
Time deposits[3]	$ —	$ 30,005	$ —	$30,005	$30,098
Long-term borrowings - owed to securitization investors	$ —	$ 15,848	$ 596	$16,444	$16,385
Other long-term borrowings	—	10,148	—	10,148	9,859
Long-term borrowings	$ —	$ 25,996	$ 596	$26,592	$26,244
Carrying value approximates fair value[1]					
Accrued interest payables[2]	$ —	$ 210	$ —	$210	$210

(1) The carrying values of these assets and liabilities approximate fair value due to the nature of their liquidity (i.e., due or payable in less than one year).

(2) Accrued interest receivable and payable carrying values are presented as part of Other assets or Accrued expenses and other liabilities, respectively, in the Company's condensed consolidated statements of financial condition.

(3) Excludes deposits without contractually defined maturities for all periods presented.

Table of Contents

The following tables disclose the estimated fair value of the Company's financial assets and financial liabilities that are not required to be carried at fair value (dollars in millions):

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total	Carrying Value
Balance at December 31, 2017					
Assets					
Amortized cost					
States and political subdivisions of states	$ —	$ 1	$ —	$1	$1
Residential mortgage-backed securities - Agency	—	172	—	172	172
Held-to-maturity investment securities	$ —	$ 173	$ —	$173	$173
Net loan receivables	$ —	$ —	$ 85,108	$85,108	$81,627
Carrying value approximates fair value[1]					
Cash and cash equivalents	$ 13,306	$ —	$ —	$13,306	$13,306
Restricted cash	$ 81	$ —	$ —	$81	$81
Accrued interest receivables[2]	$ —	$ 818	$ —	$818	$818
Liabilities					
Amortized cost					
Time deposits[3]	$ —	$ 29,848	$ —	$29,848	$29,752
Long-term borrowings - owed to securitization investors	$ —	$ 15,851	$ 640	$16,491	$16,536
Other long-term borrowings	—	10,293	—	10,293	9,790
Long-term borrowings	$ —	$ 26,144	$ 640	$26,784	$26,326
Carrying value approximates fair value[1]					
Accrued interest payables[2]	$ —	$ 214	$ —	$214	$214

(1) The carrying values of these assets and liabilities approximate fair value due to the nature of their liquidity (i.e., due or payable in less than one year).

(2) Accrued interest receivable and payable carrying values are presented as part of Other assets or Accrued expenses and other liabilities, respectively, in the Company's condensed consolidated statements of financial condition.

(3) Excludes deposits without contractually defined maturities for all periods presented.

14. Derivatives and Hedging Activities

The Company uses derivatives to manage its exposure to various financial risks. The Company does not enter into derivatives for trading or speculative purposes. Certain derivatives used to manage the Company’s exposure to foreign currency are not designated as hedges and do not qualify for hedge accounting.

Derivatives may give rise to counterparty credit risk, which generally is addressed through collateral arrangements as described under the sub-heading "— Collateral Requirements and Credit-Risk Related Contingency Features." The Company enters into derivative transactions with established dealers that meet minimum credit criteria established by the Company. All counterparties must be pre-approved prior to engaging in any transaction with the Company. Counterparties are monitored on a regular basis by the Company to ensure compliance with the Company’s risk policies and limits. In determining the counterparty credit risk valuation adjustment for the fair values of derivatives, the Company considers collateral and legally enforceable master netting agreements that mitigate credit exposure to

related counterparties.
All derivatives are recorded in other assets at their gross positive fair values and in accrued expenses and other liabilities at their gross negative fair values. See Note 13: Fair Value Measurements for a description of the valuation methodologies of derivatives. Cash collateral posted and held balances are recorded in other assets and deposits, respectively, in the condensed consolidated statements of financial condition. Collateral amounts recorded in the condensed consolidated statements of financial condition are based on the net collateral posted or held position for each applicable legal entity's

Table of Contents

master netting arrangement with each counterparty. Certain cash collateral amounts associated with derivative positions that are cleared through an exchange are legally characterized as settlement of the derivative positions. Such collateral amounts are reflected as offsets to the associated derivatives balances recorded in other assets or in accrued expenses and other liabilities, instead of as collateral in other assets or deposits.

Derivatives Designated as Hedges

Derivatives designated and qualifying as a hedge of the exposure to variability in expected future cash flows arising from changes in interest rates, or other types of forecasted transactions, are considered cash flow hedges. Derivatives designated and qualifying as a hedge of the exposure to changes in the fair value of an asset, liability, or firm commitment attributable to a particular risk, such as interest rate risk, are considered fair value hedges.

Cash Flow Hedges

The Company uses interest rate swaps to manage its exposure to changes in interest rates related to future cash flows resulting from interest payments on credit card securitized debt and deposits. The Company's outstanding cash flow hedges are for an initial maximum period of seven years for securitized debt and deposits. The derivatives are designated as hedges of the risk of changes in cash flows on the Company's LIBOR or Federal Funds rate-based interest payments, and qualify for hedge accounting in accordance with ASC Topic 815, Derivatives and Hedging (“ASC 815”).

Prior to adopting ASU 2017-12, the ineffective portion of the change in the fair value of derivatives designated as cash flow hedges, if any, was required to be separately measured and recognized directly in earnings. As a result of adopting ASU 2017-12, the entire change in the fair value of derivatives designated as cash flow hedges is recorded in OCI and is subsequently reclassified into earnings in the period that the hedged forecasted cash flows affect earnings. Amounts reported in AOCI related to derivatives at March 31, 2018 will be reclassified to interest expense as interest payments are accrued on certain of the Company's floating-rate securitized debt and deposits. During the next 12 months, the Company estimates it will reclassify $7 million of pretax benefit to interest expense related to its derivatives designated as cash flow hedges.

Fair Value Hedges

The Company is exposed to changes in fair value of certain of its fixed-rate debt obligations due to changes in interest rates. The Company uses interest rate swaps to manage its exposure to changes in fair value of certain fixed-rate long-term borrowings, including securitized debt and bank or other senior notes, and deposits attributable to changes in LIBOR, a benchmark interest rate as defined by ASC 815. These interest rate swaps qualify as fair value hedges in accordance with ASC 815. Changes in both (i) the fair values of the derivatives and (ii) the hedged long-term borrowings and deposits relating to the risk being hedged are recorded in interest expense. The changes generally provide substantial offset to one another, with any difference in interest expense.

Derivatives Not Designated as Hedges

Foreign Exchange Forward Contracts

The Company has foreign exchange forward contracts that are economic hedges and are not designated as accounting hedges. The Company enters into foreign exchange forward contracts to manage foreign currency risk. Changes in the fair value of these contracts are recorded in other income.

Derivatives Cleared Through an Exchange

The legal characterization of cash variation margin payments on derivatives cleared through an exchange are legally considered settlement payments and are accounted for with corresponding derivative positions as one unit of account and not separately as collateral. With settlement payments on derivative positions cleared through this exchange reflected as offsets to the associated derivative asset and liability balances, the fair values of derivative instruments and collateral balances shown are generally reduced.

Table of Contents

Derivatives Activity

The following table summarizes the fair value (including accrued interest) and outstanding notional amounts of derivative instruments and related collateral balances (dollars in millions):

	March 31, 2018				December 31, 2017		
	Notional Amount	Number of Outstanding Derivative Contracts	Derivative Assets	Derivative Liabilities	Notional Amount	Derivative Assets	Derivative Liabilities
Derivatives designated as hedges							
Interest rate swaps—cash flow hedge	$3,000	6	$ 7	$ 1	$3,800	$ 2	$ 3
Interest rate swaps—fair value hedge	$7,230	9	3	—	$7,333	4	—
Derivatives not designated as hedges							
Foreign exchange forward contracts[(1)]	$23	7	—	—	$23	—	—
Total gross derivative assets/liabilities[(2)]			10	1		6	3
Less: Collateral held/posted[(3)]			(8)	(1)		(1)	(3)
Total net derivative assets/liabilities			$ 2	$ —		$ 5	$ —

(1) The foreign exchange forward contracts have notional amounts of EUR 6 million, GBP 5 million, SGD 1 million and INR 464 million as of March 31, 2018 and notional amounts of EUR 7 million, GBP 5 million, SGD 1 million and INR 464 million as of December 31, 2017.

(2) In addition to the derivatives disclosed in the table, the Company enters into forward contracts to purchase when-issued mortgage-backed securities as part of its community reinvestment initiatives. At March 31, 2018, the Company had one outstanding contract with a notional amount of $47 million and immaterial fair value. At December 31, 2017, the Company had one outstanding contract with a notional amount of $54 million and immaterial fair value.

(3) Collateral amounts, which consist of both cash and investment securities, are limited to the related derivative asset/liability balance and do not include excess collateral received/pledged.

The following amounts were recorded on the statements of financial condition related to cumulative basis adjustment for fair value hedges (dollars in millions):

	March 31, 2018	
	Carrying Amount of the Hedged Assets (Liabilities)	Cumulative Amount of Fair Value Hedging Adjustment Included in the Carrying Amount of the Hedged Assets (Liabilities)
Long-term borrowings	$7,027	$ 157

Table of Contents

The following table summarizes the impact of the derivative instruments on income and indicates where within the condensed consolidated financial statements such impact is reported (dollars in millions):

	Location and Amount of (Loss) Gain Recognized in Income		
	Interest (Expense)		
	Deposits	Long-Term Borrowings	Other Income
For the Three Months Ended March 31, 2018			
Total amounts of income and expense line items presented in the statements of income in which the effects of fair value or cash flow hedges are recorded	$(262)	$ (207)	$ 29
The effects of cash flow and fair value hedging:			
Loss on cash flow hedging relationship			
Amounts reclassified from OCI into earnings	$(1)	$ —	$ —
Gain (loss) on fair value hedging relationship			
Gain on hedged items	$—	$ 48	$ —
Loss on interest rate swaps	—	(52)	—
Total loss on fair value hedges	$—	$ (4)	$ —
The effects of derivatives not designated in hedging relationships:			
Loss on derivatives not designated as hedges	$—	$ —	$ (1)
For the Three Months Ended March 31, 2017			
Total amounts of income and expense line items presented in the statements of income in which the effects of fair value or cash flow hedges are recorded	$(191)	$ (195)	$ 28
The effects of cash flow and fair value hedging:			
Loss on cash flow hedging relationship			
Amounts reclassified from OCI into earnings	$(2)	$ (3)	$ —
Gain (loss) on fair value hedging relationship			
Gain on hedged items	$1	$ 15	$ —
Loss on interest rate swaps	(1)	(9)	—
Total gain on fair value hedges	$—	$ 6	$ —

For the three months ended March 31, 2017, the loss on derivatives not designated as hedges was immaterial. For the impact of the derivative instruments on OCI, see Note 7: Accumulated Other Comprehensive Income.

Collateral Requirements and Credit-Risk Related Contingency Features

The Company has master netting arrangements and minimum collateral posting thresholds with its counterparties for its fair value and cash flow hedge interest rate swaps and foreign exchange forward contracts. The Company has not sought a legal opinion in relation to the enforceability of its master netting arrangements and, as such, does not report any of these positions on a net basis. Collateral is required by either the Company or its subsidiaries or the counterparty depending on the net fair value position of these derivatives held with that counterparty. The Company may also be required to post collateral with a counterparty for its fair value and cash flow hedge interest rate swaps depending on the credit rating it or Discover Bank receives from specified major credit rating agencies. Collateral receivable or payable amounts are generally not offset against the fair value of these derivatives, but are recorded

separately in other assets or deposits. However, certain cash collateral amounts related to positions cleared through an exchange are reflected as offsets to the associated derivatives balances recorded in other assets and accrued expenses and other liabilities.

At March 31, 2018, Discover Bank's credit rating met specified thresholds set by its counterparties. However, if its credit rating is reduced below investment grade, Discover Bank would be required to post additional collateral. The amount

of additional collateral as of March 31, 2018 would have been $20 million. DFS (Parent Company) had no outstanding derivatives as of March 31, 2018, and therefore, no collateral was required.

The Company also has agreements with certain of its derivative counterparties that contain a provision where if the Company defaults on any of its indebtedness, including default where repayment of the indebtedness has not been accelerated by the lender, then the Company could also be declared in default on its derivative obligations.

15. Segment Disclosures

The Company's business activities are managed in two segments: Direct Banking and Payment Services.

- Direct Banking: The Direct Banking segment includes Discover-branded credit cards issued to individuals on the Discover Network and other consumer products and services, including private student loans, personal loans, home equity loans, and other consumer lending and deposit products. The majority of Direct Banking revenues relate to interest income earned on the segment's loan products. Additionally, the Company's credit card products generate substantially all revenues related to discount and interchange, protection products and loan fee income.
- Payment Services: The Payment Services segment includes PULSE, an automated teller machine, debit and electronic funds transfer network; Diners Club, a global payments network; and the Company's Network Partners business, which provides payment transaction processing and settlement services on the Discover Network. The majority of Payment Services revenues relate to transaction processing revenue from PULSE and royalty and licensee revenue from Diners Club.

The business segment reporting provided to and used by the Company's chief operating decision maker is prepared using the following principles and allocation conventions:

- The Company aggregates operating segments when determining reportable segments.
- Corporate overhead is not allocated between segments; all corporate overhead is included in the Direct Banking segment.
- Through its operation of the Discover Network, the Direct Banking segment incurs fixed marketing, servicing and infrastructure costs that are not specifically allocated among the segments, with the exception of an allocation of direct and incremental costs driven by the Company's Payment Services segment.
- The assets of the Company are not allocated among the operating segments in the information reviewed by the Company's chief operating decision maker.
- The revenues of each segment are derived from external sources. The segments do not earn revenue from intercompany sources.
- Income taxes are not specifically allocated between the operating segments in the information reviewed by the Company's chief operating decision maker.

Table of Contents

The following table presents segment data (dollars in millions):

	Direct Banking	Payment Services	Total
For the Three Months Ended March 31, 2018			
Interest income			
Credit card loans	$ 2,090	$ —	$ 2,090
Private student loans	147	—	147
PCI student loans	37	—	37
Personal loans	226	—	226
Other	69	—	69
Total interest income	2,569	—	2,569
Interest expense	469	—	469
Net interest income	2,100	—	2,100
Provision for loan losses	751	—	751
Other income	394	81	475
Other expense	932	36	968
Income before income tax expense	$ 811	$ 45	$ 856
For the Three Months Ended March 31, 2017			
Interest income			
Credit card loans	$ 1,876	$ —	$ 1,876
Private student loans	124	—	124
PCI student loans	41	—	41
Personal loans	198	—	198
Other	39	—	39
Total interest income	2,278	—	2,278
Interest expense	386	—	386
Net interest income	1,892	—	1,892
Provision for loan losses	594	(8)	586
Other income	375	72	447
Other expense	849	36	885
Income before income tax expense	$ 824	$ 44	$ 868

16. Revenue from Contracts with Customers

FASB ASC Topic 606, Revenue from Contracts with Customers, generally applies to the sales of any good or service for which no other specific accounting guidance is provided. ASC 606 defines a principles-based model under which revenue from a contract is allocated to the distinct performance obligations within the contract and recognized in income as each performance obligation is satisfied. The Company's revenue that is subject to this model includes discount and interchange, protection products fees, transaction processing revenue, and amounts classified as other income.

Table of Contents

The following table presents revenue from contracts with customers disaggregated by business segment and reconciles revenue from contracts with customers to total other income (dollars in millions):

	Direct Banking	Payment Services	Total
For the Three Months Ended March 31, 2018			
Other income subject to ASC 606			
Discount and interchange revenue, net[1]	$ 242	$ 12	$254
Protection products	53	—	53
Transaction processing revenue	—	43	43
Other income	3	26	29
Total other income subject to ASC 606[2]	298	81	379
Other income not subject to ASC 606			
Loan Fee Income	96	—	96
Total other income not subject to ASC 606	96	—	96
Total other income by operating segment	$ 394	$ 81	$475
For the Three Months Ended March 31, 2017			
Other income subject to ASC 606			
Discount and interchange revenue, net[1]	$ 223	$ 10	$233
Protection products	58	—	58
Transaction processing revenue	—	39	39
Other income	5	23	28
Total other income subject to ASC 606[2]	286	72	358
Other income not subject to ASC 606			
Loan Fee Income	89	—	89
Total other income not subject to ASC 606	89	—	89
Total other income by operating segment	$ 375	$ 72	$447

(1) Net of rewards, including Cashback Bonus rewards, of $392 million and $363 million for the three months ended March 31, 2018 and 2017, respectively.

(2) Excludes $1 million of deposit product fees that are reported within net interest income for the three months ended March 31, 2018. Deposit product fees were immaterial for the three months ended March 31, 2017.

Discount and Interchange Revenue

The Company earns discount revenue from fees charged to merchants with whom it has entered into card acceptance agreements for processing credit card purchase transactions. The Company earns acquirer interchange revenue primarily from merchant acquirers on all Discover Network card transactions and certain Diners Club transactions made by credit card customers at merchants with whom merchant acquirers have entered into card acceptance agreements for processing credit card purchase transactions. These card acceptance arrangements generally renew automatically and do not have fixed durations. Under these agreements, the Company stands ready to process payment transactions as and when each is presented to it. The Company earns discount, interchange and similar fees only if and when transactions are processed. Contractually defined per-transaction fee amounts typically apply to each type of transaction processed and are recognized as revenue at the time each transaction is captured for settlement. These fees are typically collected by the Company as part of the process of settling transactions daily with merchants and acquirers and are fully earned at the time settlement is made.

The Company pays issuer interchange to card-issuing entities that have entered into contractual arrangements to issue cards on the Discover Network and on certain transactions on the Diners Club network. This cost is contractually established and is based on the card-issuing organization's transaction volume. The Company classifies this cost as a reduction of discount and interchange revenue. Costs of cardholder reward arrangements, including the Cashback Bonus reward program, are classified as reductions of discount and interchange revenue pursuant to guidance under ASC 606 governing consideration payable to a customer. For both issuer interchange and cardholder rewards, the Company accrues the cost at the time each underlying card transaction is captured for settlement.

Table of Contents

Protection Products

The Company earns revenue related to fees received for marketing ancillary products and services, including payment protection and identity theft protection services, to its credit card customers. A portion of this revenue comprises amounts earned for arranging for the delivery of products offered by third-party service providers. The amount of revenue recorded is generally based on either a percentage of a customer's outstanding balance or a flat fee, in either case assessed monthly, and is recognized as earned. These contracts are month-to-month arrangements that are cancellable at any time. The Company recognizes each monthly fee in the period to which the service or coverage relates.

Transaction Processing Revenue

Transaction processing revenue represents switch fees charged to financial institutions and merchants under network participation agreements for processing ATM, debit and POS transactions over the PULSE network, as well as various participation and membership fees. Network participation agreements generally renew automatically and do not have fixed durations, although the Company does enter into fixed-term pricing or incentive arrangements with certain network participants. The impact of such incentives is not material to the Company's consolidated statements of income. Similar to discount and interchange fees, switch fees are contractually defined per-transaction fee amounts and are assessed and recognized as revenue at the time each transaction is captured for settlement. These fees are typically collected by the Company as part of the process of settling transactions daily with network participants. Membership and other participation fees are recognized over the periods to which each fee relates.

Other Income

Other income includes sales-based royalty revenues earned by Diners Club, merchant fees, certain payments from merchants related to reward programs, revenues from network partners and other miscellaneous revenue items. Sales-based royalty revenues are recognized as the related sales are reported by Diners franchisees. All remaining items of other income are recognized as the related performance obligations are satisfied.

Future Revenue Associated with Customer Contracts

For contracts under which the Company processes payment card transactions, the Company has the right to assess fees for services performed and to collect those fees through the settlement process. The Company generates essentially all of its discount and interchange revenue and transaction processing revenue, as well as some revenue reported as other income, through such contracts. There is no specified quantity of service promised in these contracts as the number of payment transactions is dependent upon cardholder behavior which is outside the control of the Company and its network customers (i.e., merchants, acquirers, issuers, and other network participants). As noted above, these contracts are typically without fixed durations and renew automatically. For these reasons, the Company does not make or disclose an estimate of revenue associated with performance obligations attributable to the remaining terms of these contracts. Future revenue associated with the Company's sales-based royalty revenues earned from Diners Club licensees is similarly variable and open ended, and therefore the Company does not make or disclose an estimate of royalties associated with performance obligations attributable to the remaining terms of the licensing and royalty arrangements. Because of the nature of the services and the manner of collection associated with the majority of the Company's revenue from contracts with customers, material receivables or deferred revenues are not generated.

17. Subsequent Events

The Company has evaluated events and transactions that have occurred subsequent to March 31, 2018 and determined that there were no subsequent events that would require recognition or disclosure in the condensed consolidated financial statements.

Table of Contents

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our condensed consolidated financial statements and related notes included elsewhere in this quarterly report. This quarterly report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements, which speak to our expected business and financial performance, among other matters, contain words such as “believe,” “expect,” “anticipate,” “intend,” “plan,” “aim,” “will,” “m “should,” “could,” “would,” “likely,” and similar expressions. Such statements are based upon the current beliefs and expectations of our management and are subject to significant risks and uncertainties. Actual results may differ materially from those set forth in the forward-looking statements. These forward-looking statements speak only as of the date of this quarterly report, and there is no undertaking to update or revise them as more information becomes available.

The following factors, among others, could cause actual results to differ materially from those set forth in the forward-looking statements: changes in economic variables, such as the availability of consumer credit, the housing market, energy costs, the number and size of personal bankruptcy filings, the rate of unemployment, the levels of consumer confidence and consumer debt and investor sentiment; the impact of current, pending and future legislation, regulation, supervisory guidance and regulatory and legal actions, including, but not limited to, those related to financial regulatory reform, consumer financial services practices, anti-corruption and funding, capital and liquidity; the actions and initiatives of current and potential competitors; our ability to manage our expenses; our ability to successfully achieve card acceptance across our networks and maintain relationships with network participants; our ability to sustain and grow our private student loan, personal loan and home equity loan products; losses as a result of mortgage loan repurchase and indemnification obligations to secondary market purchasers; difficulty obtaining regulatory approval for, financing, transitioning, integrating or managing the expenses of acquisitions of or investments in new businesses, products or technologies; our ability to manage our credit risk, market risk, liquidity risk, operational risk, legal and compliance risk and strategic risk; the availability and cost of funding and capital; access to deposit, securitization, equity, debt and credit markets; the impact of rating agency actions; the level and volatility of equity prices, commodity prices and interest rates, currency values, investments, other market fluctuations and other market indices; losses in our investment portfolio; limits on our ability to pay dividends and repurchase our common stock; limits on our ability to receive payments from our subsidiaries; fraudulent activities or material security breaches of key systems; our ability to remain organizationally effective; our ability to increase or sustain Discover card usage or attract new customers; our ability to maintain relationships with merchants; the effect of political, economic and market conditions, geopolitical events and unforeseen or catastrophic events; our ability to introduce new products and services; our ability to manage our relationships with third-party vendors; our ability to maintain current technology and integrate new and acquired systems; our ability to collect amounts for disputed transactions from merchants and merchant acquirers; our ability to attract and retain employees; our ability to protect our reputation and our intellectual property; and new lawsuits, investigations or similar matters or unanticipated developments related to current matters. We routinely evaluate and may pursue acquisitions of or investments in businesses, products, technologies, loan portfolios or deposits, which may involve payment in cash or our debt or equity securities.

Additional factors that could cause our results to differ materially from those described below can be found in this section in this quarterly report and in “Risk Factors,” “Business—Competition,” “Business—Supervision and Regulation” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our annual report on Form 10-K for the year ended December 31, 2017, which is filed with the SEC and available at the SEC’s internet site (http://www.sec.gov).

Introduction and Overview

Discover Financial Services ("DFS") is a direct banking and payment services company. We provide direct banking products and services and payment services through our subsidiaries. We offer our customers credit card loans, private student loans, personal loans, home equity loans and deposit products. We also operate the Discover Network, the PULSE network (“PULSE”) and Diners Club International (“Diners Club”). The Discover Network processes transactions for Discover-branded credit and debit cards and provides payment transaction processing and settlement services.

PULSE operates an electronic funds transfer network, providing financial institutions issuing debit cards on the PULSE network with access to ATMs domestically and internationally, as well as point-of-sale terminals at retail locations throughout the U.S. for debit card transactions. Diners Club is a global payments network of licensees, which are generally financial institutions, that issue Diners Club branded charge cards and/or provide card acceptance services.

Our primary revenues consist of interest income earned on loan receivables and fees earned from customers, financial institutions, merchants and issuers. The primary expenses required to operate our business include funding costs (interest

Table of Contents

expense), loan loss provisions, customer rewards and expenses incurred to grow, manage and service our loan receivables and networks. Our business activities are funded primarily through consumer deposits, securitization of loan receivables and the issuance of unsecured debt.

Quarter Highlights

- Net income for the three months ended March 31, 2018 was $666 million compared to $564 million for the same period in 2017.
- Total loans grew $6.9 billion, or 9%, from March 31, 2017 to $82.7 billion.
- Credit card loans grew $5.8 billion, or 10%, to $65.6 billion, and Discover card sales volume increased 6% from March 31, 2017.
- Net charge-off rate excluding PCI loans increased 48 basis points from the prior year to 3.17% and the credit card delinquency rate for loans over 30 days past due increased 27 basis points from the prior year to 2.33%.
- Direct-to-consumer deposits grew $4.2 billion, or 11%, from the prior year to $41.3 billion.
- Payment Services transaction dollar volume for the segment was $56.1 billion, up 19% from the prior year.

Outlook

We continue to focus on deploying capital through disciplined and profitable organic loan growth as well as through our quarterly dividends and share repurchase program as permitted by bank holding company regulation. We expect the reduction in income tax expense resulting from the Tax Cuts and Job Act ("TCJA") to continue to benefit us and allow for additional investments in business growth, technology, analytical capabilities, our employees and our community. New card accounts and wallet share gains with existing customers remain priorities as we invest in marketing and rewards to achieve continued loan growth. We expect our rewards rate to rise slightly as we leverage enhanced rewards programs to support growth.

The total charge-off rate is expected to increase in comparison to the prior year and we expect to add to the loan loss reserve to provide for the seasoning of recent loan growth and supply-driven credit normalization. We expect net interest margin to increase slightly during the year, driven by the impact of recent and anticipated prime rate increases on our asset sensitive balance sheet. These increases may be partially offset by higher deposit rates, promotional card balances and interest charge-offs.

In our payments segment, we will continue to pursue new ways to drive volume growth in 2018. We continue to leverage our network to support our card-issuing business and we expect the payments industry to remain competitive.

Regulatory Environment and Developments

Over the past several years, regulators have proposed and implemented new regulations and supervisory guidance, including under the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), and increased their examination and enforcement activities. In February 2017, an executive order was signed identifying principles by which the administration would regulate the U.S financial system, including making regulation appropriately tailored and efficient. The executive order also directed the Treasury Secretary to identify laws, regulations, guidance and other government policies, among other things, that are inconsistent with those principles. In June, October and November 2017 as well as February 2018, the Treasury Department issued reports that recommended significant changes to many of the rules and regulations implemented in response to the financial crisis of 2007.

In addition, Congress has addressed regulation of the financial services sector in several ways. For example, it exercised its authority to reject recently promulgated regulations, rarely used in the past under the Congressional Review Act, to overturn a regulation adopted by the Consumer Financial Protection Bureau (the "CFPB") that limited pre-dispute arbitration agreements. The joint resolution repealing the arbitration rule was signed by the President in November 2017. Additionally, the House and Senate have approved different versions of regulatory relief legislation that modifies provisions of the Dodd-Frank Act. Included in both are amendments to Dodd-Frank provisions that currently impose enhanced supervisory and capital requirements automatically on banks with more than $50 billion in assets. This and other changes would provide relief to mid-sized banks like Discover. The House bill makes significant changes to the structure and funding of the CFPB. While prospects for the enactment of financial regulatory reform legislation in 2018 are favorable, the breadth and form of the final law are uncertain at this time.

Table of Contents

Despite a growing focus on regulatory reform, banking regulators and policymakers at the federal and state levels are increasingly focused on measures to enhance data security and incident response capabilities as a result of growing cybersecurity threats and the number of incidents involving unauthorized access to consumer information, including the September 2017 disclosure of a large data breach at a national credit reporting agency. Regulations at various levels of government have been proposed to address security breach notification and data security standards. For example, several states have recently issued regulations for certain firms operating within their jurisdiction. While it is too early to know their impact, these developments could ultimately result in the imposition of requirements on Discover and other card issuers or networks that could increase costs or adversely affect the competitiveness of our credit card or debit card products. In addition, the size and scope of the 2017 national credit reporting agency breach may result in the financial services industry shifting to new means of identifying and authenticating consumers.
The impact of the evolving regulatory environment on our business and operations depends upon a number of factors, including supervisory priorities and actions, our actions, actions of our competitors and other marketplace participants, and the behavior of consumers. For more information on how the regulatory environment, enforcement actions, findings and ratings could also have an impact on our strategies, the value of our assets, or otherwise adversely affect our business see “Risk Factors — Economic and Regulatory Environment” of our annual report on Form 10-K for the year ended December 31, 2017. For more information on recent matters affecting us, see Note 12: Litigation and Regulatory Matters to our condensed consolidated financial statements.
Consumer Financial Services
The CFPB regulates consumer financial products and services, as well as certain financial services providers, including Discover. The CFPB has rulemaking and interpretive authority under the Dodd-Frank Act and other federal consumer financial services laws, as well as broad supervisory, examination and enforcement authority over designated financial services providers, including Discover. The CFPB’s regulatory authority includes the exercise of rulemaking, supervision and enforcement powers with respect to “unfair, deceptive or abusive acts or practices” and consumer access to fair, transparent and competitive financial products and services. Historically, the CFPB's policy priorities focused on several financial products of the type we offer (e.g. credit cards and student loans).
Under its interim director, the CFPB has recently issued a 5-year strategic plan that focuses on ensuring that all consumers have access to markets for consumer financial products and services, implementing and enforcing the law consistently to ensure that markets for consumer financial products and services are fair, transparent and competitive, and fostering operational excellence through efficient and effective process governance and security of resources and information. In furtherance of each of these areas, the CFPB has recently issued formal requests for information on various topics. It is unclear when a new director will be nominated and confirmed and whether the new director will continue the interim director's priorities or goals. Notwithstanding any changes in the CFPB's leadership, the CFPB is required by statute to undertake certain actions. For example, pursuant to the Credit Card Accountability Responsibility and Disclosure Act of 2009, the CFPB recently completed its bi-annual review of the consumer credit card market. The review may result in additional guidance for credit card issuers, regulatory changes or legislative recommendations to Congress.
Notwithstanding the leadership changes at the CFPB and other federal regulators, there continues to be legislative and regulatory focus on the private student loan market, including by some state legislatures and state attorneys general. Recent areas of regulatory attention include servicing, payments and collection practices, and other matters. This regulatory focus has resulted in an increase in supervisory examinations of Discover related to private student loans. At the legislative level, the focus on student loans has resulted in the enactment of student loan servicing laws in several states, and similar legislation is being considered in other states that could impose new licensing, servicing, reporting and regulatory oversight requirements on student loan servicers. The enactment of new legislation or the adoption of new regulations or guidance may increase the complexity and expense of servicing student loans and impact the entire student loan market, which could cause us to change our private student loan products or servicing practices in ways that we may not currently anticipate.
Payment Networks
The Dodd-Frank Act contains several provisions impacting the debit card market, including network participation requirements and interchange fee limitations. The changing debit card environment, including competitor actions

related to merchant and acquirer pricing and transaction routing strategies, has adversely affected, and is expected to continue to adversely affect, our PULSE network's business practices, network transaction volume, revenue and prospects for future growth. We continue to closely monitor competitor pricing and technology development strategies in order to assess their impact on our business and on competition in the marketplace. The U.S. Department of Justice is examining some of these

Table of Contents

competitor pricing strategies. In addition, PULSE filed a lawsuit against Visa in late 2014 with respect to these competitive concerns, which may impact expenses for the payment services segment. In addition, the Dodd-Frank Act's network participation requirements impact PULSE's ability to enter into exclusivity arrangements, which affects PULSE's current business practices and may materially adversely affect its network transaction volume and revenue.
There are initiatives in Europe that may have an impact on our business, including revisions to the Payment Services Directive ("PSD2") and the new General Data Protection Regulation ("GDPR"). The PSD2 was published in the Official Journal of the EU in December 2015 and may impact our Diners Club business. Each European Union member state was required to transpose the PSD2 into its national law by January 13, 2018. Among other terms, the PSD2 includes provisions that once transposed into local law will regulate surcharging and network access requirements, which may result in differential surcharging of Diners Club cards and may impact Diners Club licensing arrangements in Europe. The final draft of the GDPR was published in the Official Journal of the European Union in May 2016 and comes into force on May 25, 2018. The GDPR includes, among other things, a requirement for prompt notice of data breaches and requires companies processing personal data of individuals residing in the EU, regardless of the location of the company, to comply with EU privacy and data protection rules. We expect the GDPR to have an impact on how we process the personal data of EU individuals and we have a program underway to address GDPR requirements.

Banking

Capital

Discover is subject to the Federal Reserve’s Comprehensive Capital Analysis and Review (“CCAR”) program which requires a company to submit its capital plan to the Federal Reserve for approval each year, including planned dividends and share repurchases. In February 2018, the Federal Reserve published the supervisory scenarios and instructions for the 2018 CCAR submission. The severely adverse scenario simulates an economic recession with a sudden increase in unemployment not seen since the 1930's. In March 2018, the Federal Reserve announced that it had made enhancements to its internal models used for supervisory stress tests, including a change to its domestic credit card model that the Federal Reserve anticipates will result in "materially higher" projected losses for firms with large bank card exposures. These changes will be phased-in over two years. Our 2018 CCAR submission will include the impact of the TCJA. The TCJA has the effect of lowering the corporate tax rate; however, there are numerous other changes in the law that may impact our business, operations and financial results. For example, the TCJA has the effect of increasing the negative financial impact in capital stress testing scenarios due to larger disallowed deferred tax assets as net operating losses can now only be carried forward. These changes could reduce the amount of capital available to return to shareholders in such scenarios. For additional information, see "Business — Supervision and Regulation — Capital, Dividends and Share Repurchases" of our annual report on Form 10-K for the year ended December 31, 2017.
Discover Financial Services and Discover Bank are subject to regulatory capital requirements that became effective January 1, 2015 under final rules issued by the Federal Reserve and the Federal Deposit Insurance Corporation ("FDIC") to implement the provisions under the Basel Committee’s December 2010 framework (referred to as “Basel III”). The final capital rules ("Basel III rules") require minimum risk-based capital and leverage ratios and define what constitutes capital for purposes of calculating those ratios. In addition, the Basel III rules establish a capital conservation buffer ("CCB") above the regulatory minimum capital requirements, which must consist entirely of Common Equity Tier 1 ("CET1") capital and result in higher required minimum ratios by at least 2.5%. The new CCB requirement became effective January 2016; however, the buffer threshold amounts are subject to a gradual phase-in period. In 2017, the highest CCB threshold was 1.25%, which has risen to 1.875% for the 2018 calendar year. The full 2.5% buffer requirement will not be fully phased-in until January 2019. A banking organization is subject to limitations on paying dividends, engaging in share repurchases and paying discretionary bonuses if its capital level falls below any of the minimum capital requirements, taking into account the applicable CCB thresholds. Based on our current capital composition and levels and business plans, we are and expect to continue to be in compliance with the requirements for the foreseeable future. For additional information, see "— Liquidity and Capital Resources — Capital."

Federal banking regulators jointly issued a proposed rule in September 2017 that would simplify the treatment of certain assets and deductions for institutions that are not subject to the advanced approaches capital rule. Among other things, the proposed rule would increase or adjust the deduction thresholds for certain mortgage servicing assets, deferred tax assets, investments in the capital of unconsolidated financial institutions, and minority interests. As proposed, the new rules would apply to Discover Financial Services and its subsidiary banks. While the banking agencies consider comments on the proposed rule, the agencies adopted a rule in November 2017, that provides interim relief to non-advanced approaches

---

banking organizations, such as Discover, by extending the regulatory capital transition periods effective in 2017 for certain items, including regulatory capital deductions, risk weights, and certain minority interest limitations.
In December 2017, the Basel Committee adopted various standards meant to finalize remaining elements of the Basel III reforms first introduced in 2010. Among the new standards are revisions to the standardized approach for credit risk, which establishes standardized risk weightings used to measure credit risk for purposes of calculating regulatory capital requirements. The new revisions include a provision that would, for the first time, require banking organizations to include a percentage of “unconditionally cancellable commitments” in risk-weighted asset calculations. If this change were to be adopted in the United States by the domestic federal banking agencies and made applicable to all "Standardized Approach" banking organizations such as Discover, it could require credit card issuers to substantially increase the amount of capital they hold against unused credit card lines. The federal banking agencies have publicly indicated support for the new Basel standards but stated that the standards were “designed for internationally active banks” and that any changes to the regulatory capital rules in the United States “will be made through the standard notice-and-comment rulemaking process.”
On April 10, 2018, the Federal Reserve issued a notice of proposed rulemaking that would significantly revise the regulatory capital and stress testing frameworks for mid-sized bank holding companies such as Discover Financial Services. The proposal is intended to make regulatory capital requirements more forward-looking, risk-sensitive, and firm-specific by linking them to the annual CCAR stress testing and capital plan review process. The timing and substance of any final rulemaking is uncertain at this time, however the notice indicates the Federal Reserve intends to adopt a final rule that would be effective on December 31, 2018.
On April 17, 2018, federal banking agencies issued a joint proposal that would, among other things, give bank holding companies and banks, including Discover and its bank subsidiaries, the option to phase in the regulatory capital impacts of implementing the current expected credit loss ("CECL") approach over a three-year transition period. Recognition would be on a straight-line basis (i.e., 25% in year one, 50% in year two, 75% in year three and 100% thereafter). The timing and substance of any final rulemaking is uncertain at this time. For more information on CECL and how it may affect Discover, see Note 1: Background and Basis of Presentation to our condensed consolidated financial statements.
Liquidity
We are subject to the U.S. liquidity coverage ratio rule issued by federal banking regulators. This quantitative requirement is designed to promote the short-term resilience of the liquidity risk profile of large and internationally active banking organizations in the United States. The rule requires covered banks to maintain an amount of high-quality liquid assets sufficient to cover projected net cash outflows during a prospective 30-day calendar period under an acute, hypothetical liquidity stress scenario. Given our current asset size, we are subject to a modified liquidity coverage ratio requirement which requires a lower level of high-quality liquid assets to meet the minimum ratio requirement due to adjustments to the net cash outflow amount. As of March 31, 2018, our liquidity coverage ratio was in excess of the applicable regulatory requirement. Pursuant to the final rule issued by the Federal Reserve, we will be required to publish quarterly public disclosures regarding our liquidity risk profile and components of our liquidity coverage ratio beginning the fourth quarter of 2018.
Funding
On April 3, 2018, the Federal Reserve Bank of New York began publication of three new reference rates based on overnight repurchase agreement transactions secured by Treasury securities. These new reference rates may be used in future transactions as a replacement for London Interbank Offered Rate ("LIBOR"), which will no longer be maintained after 2021, in certain contracts.
Segments
We manage our business activities in two segments, Direct Banking and Payment Services, based on the products and services provided. For a detailed description of the operations of each segment, as well as the allocation conventions used in our business segment reporting, see Note 15: Segment Disclosures to our condensed consolidated financial statements.

Table of Contents

The following table presents segment data (dollars in millions):

	For the Three Months Ended March 31,	
	2018	2017
Direct Banking		
Interest income		
Credit card	$2,090	$1,876
Private student loans	147	124
PCI student loans	37	41
Personal loans	226	198
Other	69	39
Total interest income	2,569	2,278
Interest expense	469	386
Net interest income	2,100	1,892
Provision for loan losses	751	594
Other income	394	375
Other expense	932	849
Income before income tax expense	811	824
Payment Services		
Provision for loan losses	—	(8)
Other income	81	72
Other expense	36	36
Income before income tax expense	45	44
Total income before income tax expense	$856	$868

The following table presents information on transaction volume (in millions):

	For the Three Months Ended March 31,	
	2018	2017
Network Transaction Volume		
PULSE Network	$43,158	$36,066
Network Partners	4,553	3,661
Diners Club[1]	8,390	7,382
Total Payment Services	56,101	47,109
Discover Network—Proprietary[2]	32,382	29,859
Total Volume	$88,483	$76,968
Transactions Processed on Networks		
Discover Network	550	503
PULSE Network	989	870
Total	1,539	1,373
Credit Card Volume		
Discover Card Volume[3]	$34,327	$32,406
Discover Card Sales Volume[4]	$30,850	$29,134

(1)

Diners Club volume is derived from data provided by licensees for Diners Club branded cards issued outside North America and is subject to subsequent revision or amendment.

(2) Represents gross proprietary sales volume on the Discover Network.

(3) Represents Discover card activity related to net sales, balance transfers, cash advances and other activity.

(4) Represents Discover card activity related to net sales.

Direct Banking

Our Direct Banking segment reported pretax income of $811 million for the three months ended March 31, 2018 as compared to pretax income of $824 million for the three months ended March 31, 2017.

Table of Contents

Net interest margin increased for the three months ended March 31, 2018 as compared to the same period in 2017 primarily driven by higher yields on credit card loans, partially offset by higher funding costs, both of which were the result of higher market rates. Interest income increased during the three months ended March 31, 2018 as compared to the same period in 2017 primarily due to loan growth and yield expansion from prime rate increases. Interest expense increased during the three months ended March 31, 2018 as compared to the same period in 2017 primarily due to higher market rates and a larger funding base.

For the three months ended March 31, 2018, the provision for loan losses increased as compared to the same period in 2017 primarily due to higher levels of net charge-offs as well as a larger build of the allowance for loan losses as compared to the same period in 2017. For a detailed discussion on provision for loan losses, see "— Loan Quality — Provision and Allowance for Loan Losses."

Total other income increased in the three months ended March 31, 2018 as compared to the same period in 2017. The increase was primarily due to higher discount and interchange revenue, partially offset by higher standard rewards, both of which were the result of higher sales volume.

Total other expense increased in the three months ended March 31, 2018 as compared to the same period in 2017. The increase was primarily driven by higher employee compensation and benefits, marketing and business development and other expense. The increase in employee compensation and benefits was driven by additional headcount for business growth and regulatory and compliance needs, as well as higher average salaries. The increase in marketing and business development was primarily the result of higher brand advertising and acquisition costs that contributed to loan growth and deposit growth. The increase in other expense was primarily driven by incremental investments in philanthropic initiatives.

Discover card sales volume was $30.9 billion for the three months ended March 31, 2018, which was an increase of 5.9% as compared to the same period in 2017. This volume growth was primarily driven by an increase in active cardmembers.

Payment Services

Our Payment Services segment reported pretax income of $45 million for the three months ended March 31, 2018 which was relatively flat as compared to pretax income of $44 million for the same period in 2017 with higher volume driven revenue offset by a reserve release in 2017.

Downturns in the global economy or negative impacts in foreign currency may adversely affect our financial condition or results of operations in our Payment Services segment. We continue to work with our Diners Club licensees with regard to their ability to maintain financing sufficient to support business operations. We may continue to provide additional support in the future, including loans, facilitating transfer of ownership, or acquiring assets or licensees, which may cause us to incur losses. The licensees that we currently consider to be of concern accounted for approximately 4% of Diners Club revenues during the three months ended March 31, 2018.

Critical Accounting Estimates

In preparing our condensed consolidated financial statements in conformity with accounting principles generally accepted in the United States ("GAAP"), management must make judgments and use estimates and assumptions about the effects of matters that are uncertain. For estimates that involve a high degree of judgment and subjectivity, it is possible that different estimates could reasonably be derived for the same period. For estimates that are particularly sensitive to changes in economic or market conditions, significant changes to the estimated amount from period to period are also possible. Management believes the current assumptions and other considerations used to estimate amounts reflected in our condensed consolidated financial statements are appropriate. However, if actual experience differs from the assumptions and other considerations used in estimating amounts in our condensed consolidated financial statements, the resulting changes could have a material effect on our consolidated results of operations and, in certain cases, could have a material effect on our consolidated financial condition. Management has identified the estimates related to our allowance for loan losses, the evaluation of goodwill and other non-amortizable intangible assets for potential impairment and the accrual of income taxes as critical accounting estimates. These critical accounting estimates are discussed in greater detail in our annual report on Form 10-K for the year ended December 31, 2017. That discussion can be found within “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under the heading “— Critical Accounting Estimates.” There have not been any material changes in

the methods used to formulate these critical accounting estimates from those discussed in our annual report on Form 10-K for the year ended December 31, 2017.

Table of Contents

Earnings Summary

The following table outlines changes in our condensed consolidated statements of income (dollars in millions):

	For the Three Months Ended March 31,		2018 vs. 2017 Increase (Decrease)	
	2018	2017	$	%
Interest income	$2,569	$2,278	$291	13 %
Interest expense	469	386	83	22 %
Net interest income	2,100	1,892	208	11 %
Provision for loan losses	751	586	165	28 %
Net interest income after provision for loan losses	1,349	1,306	43	3 %
Other income	475	447	28	6 %
Other expense	968	885	83	9 %
Income before income tax expense	856	868	(12)	(1)%
Income tax expense	190	304	(114)	(38)%
Net income	$666	$564	$102	18 %

Net Interest Income

The table that follows this section has been provided to supplement the discussion below and provide further analysis of net interest income and net interest margin. Net interest income represents the difference between interest income earned on our interest-earning assets and the interest expense incurred to finance those assets. We analyze net interest income in total by calculating net interest margin (net interest income as a percentage of average total loan receivables) and net yield on interest-earning assets (net interest income as a percentage of average total interest-earning assets). We also separately consider the impact of the level of loan receivables and the related interest yield and the impact of the cost of funds related to each of our funding sources, along with the income generated by our liquidity portfolio, on net interest income.

Our interest-earning assets consist of: (i) cash and cash equivalents primarily related to amounts on deposit with the Federal Reserve Bank of Philadelphia, (ii) restricted cash, (iii) other short-term investments, (iv) investment securities and (v) loan receivables. Our interest-bearing liabilities consist primarily of deposits, both direct-to-consumer and brokered, and long-term borrowings, including amounts owed to securitization investors. Net interest income is influenced by the following:

- The level and composition of loan receivables, including the proportion of credit card loans to other loans, as well as the proportion of loan receivables bearing interest at promotional rates as compared to standard rates;
- The credit performance of our loans, particularly with regard to charge-offs of finance charges, which reduce interest income;
- The terms of long-term borrowings and certificates of deposit upon initial offering, including maturity and interest rate;
- The level and composition of other interest-earning assets, including our liquidity portfolio and interest-bearing liabilities;
- Changes in the interest rate environment, including the levels of interest rates and the relationships among interest rate indices, such as the prime rate, the Federal Funds rate and LIBOR;
- The effectiveness of interest rate swaps in our interest rate risk management program; and
- The difference between the carrying amount and future cash flows expected to be collected on PCI loans.

Net interest margin increased for the three months ended March 31, 2018 as compared to the same period in 2017 primarily driven by higher yields on credit card loans, partially offset by higher funding costs, both of which were the result of higher market rates. Interest income increased during the three months ended March 31, 2018 as compared to the same period in 2017 primarily due to loan growth and yield expansion from prime rate increases. Interest expense

increased during the three months ended March 31, 2018 as compared to the same period in 2017 primarily due to higher market rates and a larger funding base.

Table of Contents

Average Balance Sheet Analysis
(dollars in millions)

	For the Three Months Ended March 31,					
	2018			2017		
	Average Balance	Rate	Interest	Average Balance	Rate	Interest
Assets						
Interest-earning assets						
Cash and cash equivalents	$13,509	1.55 %	$52	$13,693	0.81 %	$27
Restricted cash	821	1.68 %	3	819	0.70 %	1
Investment securities	1,549	1.76 %	7	1,731	1.61 %	7
Loan receivables[1]						
Credit card[2]	65,983	12.85 %	2,090	60,122	12.65 %	1,876
Personal loans	7,387	12.43 %	226	6,582	12.18 %	198
Private student loans	7,413	8.03 %	147	6,678	7.52 %	124
PCI student loans	2,019	7.38 %	37	2,519	6.67 %	41
Other	452	5.98 %	7	284	5.39 %	4
Total loan receivables	83,254	12.21 %	2,507	76,185	11.94 %	2,243
Total interest-earning assets	99,133	10.51 %	2,569	92,428	9.99 %	2,278
Allowance for loan losses	(2,615)			(2,166)		
Other assets	4,221			4,166		
Total assets	$100,739			$94,428		
Liabilities and Stockholders’ Equity						
Interest-bearing liabilities						
Interest-bearing deposits						
Time deposits[3]	$30,221	2.03 %	151	$26,619	1.86 %	122
Money market deposits[4]	6,772	1.59 %	27	6,911	1.16 %	20
Other interest-bearing savings deposits	22,470	1.52 %	84	19,028	1.05 %	49
Total interest-bearing deposits[5]	59,463	1.79 %	262	52,558	1.48 %	191
Borrowings						
Short-term borrowings	1	1.75 %	—	1	0.67 %	—
Securitized borrowings[3][4]	16,180	2.43 %	97	16,960	2.17 %	91
Other long-term borrowings[3]	9,945	4.49 %	110	9,600	4.38 %	104
Total borrowings	26,126	3.21 %	207	26,561	2.97 %	195
Total interest-bearing liabilities	85,589	2.22 %	469	79,119	1.98 %	386
Other liabilities and stockholders’ equity	15,150			15,309		
Total liabilities and stockholders’ equity	$100,739			$94,428		
Net interest income			$2,100			$1,892
Net interest margin[6]		10.23 %			10.07 %	
Net yield on interest-earning assets[7]		8.59 %			8.30 %	
Interest rate spread[8]		8.29 %			8.01 %	

(1) Average balances of loan receivables include non-accruing loans, which are included in the yield calculations. If the non-accruing loan balances were excluded, there would not be a material impact on the amounts reported above.

(2) Interest income on credit card loans includes $59 million and $51 million of amortization of balance transfer fees for the three months ended March 31, 2018 and 2017, respectively.

(3) Includes the impact of interest rate swap agreements used to change a portion of fixed-rate funding to floating-rate funding.

(4) Includes the impact of interest rate swap agreements used to change a portion of floating-rate funding to fixed-rate funding.

(5) Includes the impact of FDIC insurance premiums and Large Institution Surcharge.

(6) Net interest margin represents net interest income as a percentage of average total loan receivables.

(7) Net yield on interest-earning assets represents net interest income as a percentage of average total interest-earning assets.

(8) Interest rate spread represents the difference between the rate on total interest-earning assets and the rate on total interest-bearing liabilities.

Table of Contents

Loan Quality

Loan receivables consist of the following (dollars in millions):

	March 31, 2018	December 31, 2017
Loan receivables		
Credit card loans	$ 65,577	$ 67,291
Other loans		
Personal loans	7,307	7,374
Private student loans	7,416	7,076
Other	488	423
Total other loans	15,211	14,873
PCI loans[1]	1,956	2,084
Total loan receivables	82,744	84,248
Allowance for loan losses	(2,736)	(2,621)
Net loan receivables	$ 80,008	$ 81,627

(1) Represents PCI private student loans. See Note 3: Loan Receivables to our condensed consolidated financial statements for more information regarding PCI loans.

Provision and Allowance for Loan Losses

Provision for loan losses is the expense related to maintaining the allowance for loan losses at an appropriate level to absorb the estimated probable losses in the loan portfolio at each period end date. While establishing the estimate for probable losses requires significant management judgment, the factors that influence the provision for loan losses include:

- The impact of general economic conditions on the consumer, including national and regional conditions, unemployment levels, bankruptcy trends and interest rate movements;
- Changes in consumer spending, payment and credit utilization behaviors;
- Changes in our loan portfolio, including the overall mix of accounts, products and loan balances within the portfolio and maturation of the loan portfolio;
- The level and direction of historical and anticipated loan delinquencies and charge-offs;
- The credit quality of the loan portfolio, which reflects, among other factors, our credit granting practices and effectiveness of collection efforts; and
- Regulatory changes or new regulatory guidance.

In determining the allowance for loan losses, we estimate probable losses separately for segments of the loan portfolio that have similar risk characteristics. We use a migration analysis to estimate the likelihood that a loan will progress through the various stages of delinquency. We use other analyses to estimate losses incurred from non-delinquent accounts, which adds to the identification of loss emergence. We use these analyses together as a basis for determining our allowance for loan losses.

The provision for loan losses is the amount of expense realized after considering the level of net charge-offs in the period and the required amount of allowance for loan losses at the balance sheet date. For the three months ended March 31, 2018, the provision for loan losses increased by $165 million, or 28%, as compared to the same period in 2017 primarily due to higher levels of net charge-offs as well as a larger build of the allowance for loan losses as compared to the same period in 2017.

The allowance for loan losses was $2.7 billion at March 31, 2018, which reflects a $115 million reserve build over the amount of the allowance for loan losses at December 31, 2017. The reserve build, which related primarily to credit card loans, was due to higher losses driven by seasoning of continued loan growth and supply driven credit normalization.

52

Table of Contents

The following tables provide changes in our allowance for loan losses (dollars in millions):

	For the Three Months Ended March 31, 2018				
	Credit Card	Personal Loans	Student Loans(1)	Other	Total
Balance at beginning of period	$2,147	$ 301	$ 162	$ 11	$2,621
Additions					
Provision for loan losses	645	73	31	2	751
Deductions					
Charge-offs	(663)	(81)	(25)	—	(769)
Recoveries	123	8	3	—	134
Net charge-offs	(540)	(73)	(22)	—	(635)
Other(2)	—	—	(1)	—	(1)
Balance at end of period	$2,252	$ 301	$ 170	$ 13	$2,736

	For the Three Months Ended March 31, 2017				
	Credit Card	Personal Loans	Student Loans(1)	Other	Total
Balance at beginning of period	$1,790	$ 200	$ 158	$ 19	$2,167
Additions					
Provision for loan losses	524	58	12	(8)	586
Deductions					
Charge-offs	(535)	(57)	(17)	(2)	(611)
Recoveries	113	6	3	—	122
Net charge-offs	(422)	(51)	(14)	(2)	(489)
Balance at end of period	$1,892	$ 207	$ 156	$ 9	$2,264

(1) Includes both PCI and non-PCI private student loans.
(2) Net change in reserves on PCI pools having no remaining non-accretable difference.

Net Charge-offs

Our net charge-offs include the principal amount of losses charged off less principal recoveries and exclude charged-off and recovered interest and fees and fraud losses. Charged-off and recovered interest and fees are recorded in interest income and loan fee income, respectively, which is effectively a reclassification of the provision for loan losses, while fraud losses are recorded in other expense. Credit card loan receivables are charged off at the end of the month during which an account becomes 180 days contractually past due. Personal loans and private student loans, which are closed-end consumer loan receivables, are generally charged off at the end of the month during which an account becomes 120 days contractually past due. Generally, customer bankruptcies and probate accounts are charged off at the end of the month 60 days following the receipt of notification of the bankruptcy or death but not later than the 180-day or 120-day contractual time frame.

The following table presents amounts and rates of net charge-offs of key loan products (dollars in millions):

	For the Three Months Ended March 31,			
	2018		2017	
	$	%	$	%
Credit card loans	$540	3.32%	$422	2.84%
Personal loans	$73	4.03%	$51	3.16%

Private student loans (excluding PCI[1])	$22	1.17%	$14	0.83%

(1) Charge-offs for PCI loans did not result in a charge to earnings during any of the periods presented and are therefore excluded from the calculation. See Note 3: Loan Receivables to our condensed consolidated financial statements for more information regarding the accounting for charge-offs on PCI loans.

The net charge-off rates on our credit card loans, personal loans and private student loans excluding PCI increased by 48, 87, and 34 basis points for the three months ended March 31, 2018, respectively, when compared to the same period in 2017. The increase for all three portfolios was driven by seasoning of continued loan growth and supply driven credit normalization.

Table of Contents

Delinquencies

Delinquencies are an indicator of credit quality at a point in time. A loan balance is considered delinquent when contractual payments on the loan become 30 days past due.

The following table presents the amounts and delinquency rates of key loan products that are 30 and 90 days or more delinquent, loan receivables that are not accruing interest, regardless of delinquency and restructured loans (dollars in millions):

	March 31, 2018		December 31, 2017	
	$	%	$	%
Loans 30 or more days delinquent				
Credit card loans	$1,529	2.33%	$1,532	2.28%
Personal loans	$101	1.37%	$103	1.40%
Private student loans (excluding PCI loans[1])	$167	2.25%	$167	2.35%
Loans 90 or more days delinquent				
Credit card loans	$777	1.18%	$751	1.12%
Personal loans	$28	0.38%	$30	0.41%
Private student loans (excluding PCI loans[1])	$49	0.66%	$33	0.47%
Loans not accruing interest	$249	0.31%	$233	0.28%
Restructured loans				
Credit card loans[2]	$1,523	2.32%	$1,316	1.96%
Personal loans[3]	$121	1.66%	$111	1.51%
Private student loans (excluding PCI loans[1])[4]	$145	1.96%	$137	1.94%

(1) Excludes PCI loans which are accounted for on a pooled basis. Since a pool is accounted for as a single asset with a single composite interest rate and aggregate expectation of cash flows, the past-due status of a pool, or that of the individual loans within a pool, is not meaningful. Because we are recognizing interest income on a pool of loans, it is all considered to be performing.

(2) Restructured credit card loans include $86 million and $74 million at March 31, 2018 and December 31, 2017, respectively, that are also included in loans over 90 days delinquent or more.

(3) Restructured personal loans include $4 million and $5 million at March 31, 2018 and December 31, 2017, respectively, that are also included in loans over 90 days delinquent or more.

(4) Restructured private student loans include $7 million and $5 million at March 31, 2018 and December 31, 2017, respectively, that are also included in loans over 90 days delinquent or more.

The 30-day and 90-day delinquency rates for credit card and personal loans at March 31, 2018 were relatively flat as compared to December 31, 2017. The 30-day delinquency rate for private student loans at March 31, 2018 decreased as compared to December 31, 2017 primarily due to seasonality of the loan portfolio. The 90-day delinquency rate for private student loans at March 31, 2018 increased as compared to December 31, 2017 as a result of seasoning of recent loan growth as more loans have entered into repayment.

The restructured loan balances at March 31, 2018 increased as compared to December 31, 2017 due to seasoning of continued loan growth and greater utilization of programs available.

Modified and Restructured Loans

We have loan modification programs that provide for temporary or permanent hardship relief for our credit card loans to borrowers experiencing financial difficulties. We offer temporary hardship programs consisting of an interest rate reduction and in some cases a reduced minimum payment, both lasting for a period no longer than 12 months. The permanent modification program involves changing the structure of the loan to a fixed payment loan with a maturity

no longer than 60 months and reducing the interest rate on the loan. The permanent modification program does not normally provide for the forgiveness of unpaid principal, but may allow for the reversal of certain unpaid interest or fee assessments. We also make permanent loan modifications for customers who request financial assistance through external sources, such as a consumer credit counseling agency program. These loans continue to be subject to the original minimum payment terms and do not normally include waiver of unpaid principal, interest or fees. Modified credit card loans that are deemed to meet the definition of troubled debt restructurings ("TDRs") in both temporary and permanent programs.

Table of Contents

For personal loan customers, in certain situations we offer various payment programs, including temporary and permanent programs. The temporary programs normally consist of a reduction of the minimum payment for a period of no longer than 12 months with the option of a final balloon payment required at the end of the loan term or an extension of the maturity date with the total term not exceeding nine years. Further, in certain circumstances, the interest rate on the loan is reduced. The permanent programs involve changing the terms of the loan in order to pay off the outstanding balance over a longer term and also in certain circumstances reducing the interest rate on the loan. Similar to the temporary programs, the total term may not exceed nine years. We also allow permanent loan modifications for customers who request financial assistance through external sources, similar to our credit card customers discussed above. Payments are modified based on the new terms agreed upon with the credit counseling agency. Personal loans included in temporary and permanent programs are accounted for as TDRs.

At March 31, 2018, there was $5.6 billion of private student loans in repayment, which includes both PCI and non-PCI loans to students who are not in deferment. To assist student loan borrowers who are experiencing temporary financial difficulties but are willing to resume making payments, we may offer hardship forbearance or programs that include payment deferral, temporary payment reduction, temporary interest rate reduction or extended terms. A non-PCI modified loan typically meets the definition of a TDR based on the cumulative length of the concession period and an evaluation of the credit quality of the borrower based on FICO scores.

Borrower performance after using payment programs or forbearance is monitored and we believe the programs help to prevent defaults and are useful in assisting customers experiencing financial difficulties. We plan to continue to use payment programs and forbearance and, as a result, we expect to have additional loans classified as TDRs in the future.

For additional information regarding the accounting treatment for these loans as well as amounts recorded in the financial statements related to these loans, see Note 3: Loan Receivables to our condensed consolidated financial statements.

Other Income

The following table presents the components of other income (dollars in millions):

	For the Three Months Ended March 31,		2018 vs. 2017 Increase (Decrease)	
	2018	2017	$	%
Discount and interchange revenue, net[1]	$254	$233	$21	9 %
Protection products revenue	53	58	(5)	(9)%
Loan fee income	96	89	7	8 %
Transaction processing revenue	43	39	4	10 %
Other income	29	28	1	4 %
Total other income	$475	$447	$28	6 %

(1) Net of rewards, including Cashback Bonus rewards, of $392 million and $363 million for the three months ended March 31, 2018 and 2017, respectively.

Total other income increased in the three months ended March 31, 2018 as compared to the same period in 2017. The increase was primarily due to higher discount and interchange revenue, partially offset by higher standard rewards, both of which were the result of higher sales volume.

Table of Contents

Other Expense

The following table represents the components of other expense (dollars in millions):

	For the Three Months Ended March 31,		2018 vs. 2017 Increase	
	2018	2017	$	%
Employee compensation and benefits	$405	$363	$42	12%
Marketing and business development	185	168	17	10%
Information processing and communications	82	80	2	3 %
Professional fees	155	147	8	5 %
Premises and equipment	26	25	1	4 %
Other expense	115	102	13	13%
Total other expense	$968	$885	$83	9 %

Total other expense increased in the three months ended March 31, 2018 by $83 million as compared to the same period in 2017. The increase was primarily driven by higher employee compensation and benefits, marketing and business development and other expense. The increase in employee compensation and benefits was driven by additional headcount for business growth and regulatory and compliance needs, as well as higher average salaries. The increase in marketing and business development was primarily the result of higher brand advertising and acquisition costs that contributed to loan growth and deposit growth. The increase in other expense was primarily driven by incremental investments in philanthropic initiatives.

Income Tax Expense

The following table presents the calculation of the effective income tax rate (dollars in millions, except effective income tax rate):

	For the Three Months Ended March 31,	
	2018	2017
Income before income tax expense	$856	$868
Income tax expense	$190	$304
Effective income tax rate	22.2 %	35.0 %

Income tax expense and the effective tax rate decreased $114 million and 12.8% respectively for the three months ended March 31, 2018 as compared to the same period in 2017 as a result of a reduction in the U.S. federal statutory income tax rate from 35% to 21% offset by other provisions of the TCJA. For the three months ended March 31, 2018, the effective tax rate was also favorably impacted by the resolution of certain tax matters.

Liquidity and Capital Resources

Funding and Liquidity

We seek to maintain stable, diversified and cost-effective funding sources and a strong liquidity profile in order to fund our business and repay or refinance our maturing obligations under both normal operating conditions and periods of economic or financial stress. In managing our liquidity risk, we seek to maintain a prudent liability maturity profile and ready access to an ample store of primary and contingent liquidity sources. Our primary funding sources include direct-to-consumer and brokered deposits, public term asset-backed securitizations and other short-term and long-term borrowings. Our primary liquidity sources include a liquidity portfolio comprised of highly liquid, unencumbered assets, including cash and cash equivalents and investment securities, and borrowing capacity through private term

asset-backed securitizations. In addition, we have unused borrowing capacity with the Federal Reserve discount window which provides another source of contingent liquidity.

Table of Contents

Funding Sources

Deposits

We offer deposit products to customers through two channels: (i) through direct marketing, internet origination and affinity relationships (“direct-to-consumer deposits”); and (ii) indirectly through contractual arrangements with securities brokerage firms (“brokered deposits”). Direct-to-consumer deposits include certificates of deposit, money market accounts, online savings and checking accounts, and IRA certificates of deposit, while brokered deposits include certificates of deposit and sweep accounts. At March 31, 2018, we had $41.3 billion of direct-to-consumer deposits and $19.8 billion of brokered and other deposits.

Credit Card Securitization Financing

We use the securitization of credit card receivables as a source of funding. We access the asset-backed securitization market using the Discover Card Master Trust I ("DCMT") and the Discover Card Execution Note Trust ("DCENT"), through which we issue DCENT DiscoverSeries notes in both public and private transactions. From time to time, we may add credit card receivables to these trusts to create sufficient funding capacity for future securitizations while managing seller’s interest. We retain significant exposure to the performance of trust assets through holdings of the seller's interest and subordinated security classes of DCENT.

The securitization structures include certain features designed to protect investors. The primary feature relates to the availability and adequacy of cash flows in the securitized pool of receivables to meet contractual requirements, the insufficiency of which triggers early repayment of the securities. We refer to this as "economic early amortization", which is based on excess spread levels. Excess spread is the amount by which income received by a trust during a collection period, including interest collections, fees and interchange, exceeds the fees and expenses of the trust during such collection period, including interest expense, servicing fees and charged-off receivables. In the event of an economic early amortization, which would occur if the excess spread fell below 0% on a three-month rolling average basis, we would be required to repay the affected outstanding securitized borrowings using available collections received by the trust; the period of ultimate repayment would be determined by the amount and timing of collections received. An early amortization event would impair our liquidity, and may require us to utilize our available non-securitization related contingent liquidity or rely on alternative funding sources, which may or may not be available at the time. As of March 31, 2018, the DiscoverSeries three-month rolling average excess spread was 12.81%.

We may elect to add receivables to the restricted pool of receivables subject to certain requirements. Through our wholly-owned indirect subsidiary, Discover Funding LLC, we are required to maintain a contractual minimum level of receivables in the trust in excess of the face value of outstanding investors’ interests. This excess is referred to as the minimum seller’s interest. The required minimum seller’s interest in the pool of trust receivables, which is included in credit card loan receivables restricted for securitization investors, is set at approximately 7% in excess of the total investors’ interests (which includes interests held by third parties as well as those interests held by us). If the level of receivables in the trust were to fall below the required minimum, we would be required to add receivables from the unrestricted pool of receivables, which would increase the amount of credit card loan receivables restricted for securitization investors. A decline in the amount of the excess seller’s interest could occur if balance repayments and charge-offs exceeded new lending on the securitized accounts or as a result of changes in total outstanding investors’ interests. Seller's interest is impacted by seasonality as higher balance repayments tend to occur in the first calendar year quarter. If we could not add enough receivables to satisfy the minimum seller's interest requirement, an early amortization (or repayment) of investors’ interests would be triggered. No accounts were added to those restricted for securitization investors for the three months ended March 31, 2018.

At March 31, 2018, we had $16.0 billion of outstanding public asset-backed securities and $5.1 billion of outstanding subordinated asset-backed securities that had been issued to our wholly-owned subsidiaries.

The following table summarizes expected contractual maturities of the investors’ interests in credit card securitizations, excluding those that have been issued to our wholly-owned subsidiaries (dollars in millions):

At March 31, 2018	Total	Less Than	One Year Through	Four Years Through	After Five Years

		One Year	Three Years	Five Years	
Scheduled maturities of long-term borrowings - owed to credit card securitization investors	$15,815	$4,613	$ 6,321	$ 3,561	$1,320

Table of Contents

The triple-A rating of DCENT Class A Notes issued to date has been based, in part, on an FDIC rule which created a safe harbor that provides that the FDIC, as conservator or receiver, will not, using its power to disaffirm or repudiate contracts, seek to reclaim or recover assets transferred in connection with a securitization, or recharacterize them as assets of the insured depository institution, provided such transfer satisfies the conditions for sale accounting treatment under previous GAAP. Although the implementation of the Financial Accounting Standards Board Accounting Standards Codification Topic 860, Transfers and Servicing, no longer qualified certain transfers of assets for sale accounting treatment, the FDIC approved a final rule that preserved the safe-harbor treatment applicable to revolving trusts and master trusts, including DCMT, so long as those trusts would have satisfied the original FDIC safe harbor if evaluated under GAAP pertaining to transfers of financial assets in effect prior to December 1, 2009. Other legislative and regulatory developments may, however, impact our ability and/or desire to issue asset-backed securities in the future.

Other Long-Term Borrowings—Student Loans

At March 31, 2018, we had $577 million of remaining principal balance outstanding on securitized debt assumed as part of the acquisition of The Student Loan Corporation. Principal and interest payments on the underlying student loans will reduce the balance of these secured borrowings over time.

Other Long-Term Borrowings - Corporate and Bank Debt

The following table provides a summary of Discover Financial Services (Parent Company) and Discover Bank outstanding fixed-rate debt (dollars in millions):

At March 31, 2018	Principal Amount Outstanding
Discover Financial Services (Parent Company) fixed-rate senior notes, maturing 2019-2027	$ 2,900
Discover Financial Services (Parent Company) fixed-rate retail notes, maturing 2018-2031	$ 333
Discover Bank fixed-rate senior bank notes, maturing 2018-2026	$ 6,200
Discover Bank fixed-rate subordinated bank notes, maturing 2019-2020	$ 700

Certain Discover Financial Services senior notes require us to offer to repurchase the notes at a price equal to 101% of their aggregate principal amount plus accrued and unpaid interest in the event of a change of control involving us and a corresponding ratings downgrade to below investment grade.

Short-Term Borrowings

As part of our regular funding strategy, we may from time to time borrow short-term funds in the federal funds market or the repurchase (“repo”) market through repurchase agreements. Federal funds are short-term, unsecured loans between banks or other financial entities with a Federal Reserve account. Funds borrowed in the repo market are short-term, collateralized loans usually secured with highly-rated investment securities such as U.S. Treasury bills or notes, or federal agency mortgage bonds or debentures. At March 31, 2018 and December 31, 2017, there were no outstanding balances in the federal funds market or repurchase agreements.

Additional Funding Sources

Private Asset-Backed Securitizations

We have access to committed borrowing capacity through privately placed asset-backed securitizations. At March 31, 2018, we had total committed capacity of $6.0 billion, $500 million of which was drawn. While we may utilize funding from these private securitizations from time to time for normal business operations, their committed nature also makes them a reliable contingency funding source. Therefore, we reserve some undrawn capacity, informed by our liquidity stress testing results, for potential contingency funding needs. We also seek to ensure the stability and reliability of these securitizations by staggering their maturity dates, renewing them approximately one year prior to their scheduled maturity dates and periodically drawing them for operational testing purposes.

Federal Reserve

Discover Bank has access to the Federal Reserve Bank of Philadelphia’s discount window. As of March 31, 2018, Discover Bank had $29.6 billion of available borrowing capacity through the discount window based on the amount and type

Table of Contents

of assets pledged, primarily consumer loans. We have no borrowings outstanding under the discount window and reserve this capacity as a source of contingent liquidity.

Funding Uses

Our primary uses of funds include the extensions of loans and credit, primarily through Discover Bank, the purchase of investment securities for our liquidity portfolio, working capital, and debt and capital service. We assess funding uses and liquidity needs under stressed and normal operating conditions, considering primary uses of funding, such as on-balance sheet loans, and contingent uses of funding, such as the need to post additional collateral for derivatives positions. In order to anticipate funding needs under stress, we conduct liquidity stress testing to assess the impact of idiosyncratic, systemic, and hybrid (idiosyncratic and systemic) scenarios with varying levels of liquidity risk reflecting a range of stress severity.

Credit Ratings

Our borrowing costs and capacity in certain funding markets, including those for securitizations and unsecured senior and subordinated debt, may be affected by the credit ratings of DFS, Discover Bank and the securitization trusts. Downgrades in these credit ratings could result in higher interest expense on our unsecured debt and asset securitizations, as well as higher collateral enhancement requirements for both our public and private asset securitizations. In addition to increased funding costs, deterioration in credit ratings could reduce our borrowing capacity in the unsecured debt and asset securitization capital markets.

We also maintain agreements with certain of our derivative counterparties that contain provisions that require DFS and Discover Bank to maintain an investment grade credit rating from specified major credit rating agencies. At March 31, 2018, Discover Bank's credit rating met specified thresholds set by its counterparties. However, if Discover Bank's credit ratings were reduced below investment grade, Discover Bank would be required to post additional collateral, which, as of March 31, 2018, would have been $20 million. DFS (Parent Company) had no outstanding derivatives as of March 31, 2018, and therefore, no collateral was required.

A credit rating is not a recommendation to buy, sell or hold securities, may be subject to revision or withdrawal at any time by the assigning rating organization, and each rating should be evaluated independently of any other rating. Our credit ratings are summarized in the following table:

	Moody’s Investors Service	Standard & Poor’s	Fitch Ratings
Discover Financial Services			
Senior unsecured debt	Ba1	BBB-	BBB+
Outlook for Discover Financial Services senior unsecured debt	Positive	Stable	Stable
Discover Bank			
Senior unsecured debt	Baa3	BBB	BBB+
Outlook for Discover Bank senior unsecured debt	Positive	Stable	Stable
Subordinated debt	Ba1	BBB-	BBB
Discover Card Execution Note Trust			
Class A[1]	Aaa(sf)	AAA(sf)	AAA(sf)

(1) An “sf” in the rating denotes rating agency identification for structured finance product ratings.

Liquidity

We seek to ensure that we have adequate liquidity to sustain business operations, fund asset growth and satisfy debt obligations under stressed and normal operating conditions. In addition to the funding sources discussed in the previous section, we also maintain highly liquid, unencumbered assets in our liquidity portfolio that we expect to be able to convert to cash quickly and with little loss of value using either the repo market or outright sales.

We maintain a liquidity risk and funding management policy, which outlines the overall framework and general principles we follow in managing liquidity risk across our business. The policy is approved by the Board of Directors with implementation responsibilities delegated to the Asset and Liability Management Committee (the “ALCO”). Additionally, we maintain a liquidity management framework document, which outlines the general strategies, objectives and principles we utilize to manage our liquidity position and the various liquidity risks inherent in our

business model. We seek to balance the trade-offs between maintaining too much liquidity, which may be costly, with having too little liquidity, which could cause

59

Table of Contents

financial distress. Liquidity risk is centrally managed by the ALCO, which is chaired by our Treasurer and has cross-functional membership. The ALCO monitors the liquidity risk profiles of DFS and Discover Bank and oversees any actions Corporate Treasury may take to ensure that we maintain ready access to our funding sources and sufficient liquidity to meet current and projected needs. In addition, the ALCO and our Board of Directors regularly review our compliance with our liquidity limits at DFS and Discover Bank, which are established in accordance with the liquidity risk appetite set by our Board of Directors.

We employ a variety of metrics to monitor and manage liquidity. We utilize early warning indicators ("EWIs") to detect the initial phases of liquidity stress events and a reporting and escalation process that is designed to be consistent with regulatory guidance. The EWIs include both idiosyncratic and systemic measures, and are monitored on a daily basis and reported to the ALCO regularly. A warning from one or more of these indicators triggers prompt review and decision-making by our senior management team, and in certain instances may lead to the convening of a senior-level response team and activation of our contingency funding plan.

In addition, we conduct liquidity stress testing regularly and ensure contingency funding is in place to address potential liquidity shortfalls. We evaluate a range of stress scenarios that are designed in accordance with regulatory requirements, including idiosyncratic, systemic and a combination of such events that could impact funding sources and our ability to meet liquidity needs. These scenarios measure the projected liquidity position at DFS and Discover Bank across a range of time horizons by comparing estimated contingency funding needs to available contingent liquidity.

Our primary contingent liquidity sources include our liquidity portfolio and private securitizations with unused borrowing capacity. In addition, we have unused borrowing capacity with the Federal Reserve discount window, which provides an additional source of contingent liquidity. We seek to maintain sufficient liquidity to be able to satisfy all maturing obligations and fund business operations for at least 12 months in a severe stress environment. In such an environment, we may also take actions to curtail the size of our balance sheet, which would reduce the need for funding and liquidity.

At March 31, 2018, our liquidity portfolio is comprised of highly liquid, unencumbered assets, including cash and cash equivalents and investment securities. Cash and cash equivalents were primarily in the form of deposits with the Federal Reserve. Investment securities primarily included debt obligations of the U.S. Treasury and residential mortgage-backed securities issued by U.S. government housing agencies or Government Sponsored Enterprises. These investments are considered highly liquid, and we expect to have the ability to raise cash by selling them, utilizing repurchase agreements or pledging certain of these investments to access secured funding. The size and composition of our liquidity portfolio may fluctuate based upon the size of our balance sheet as well as operational requirements and market conditions.

At March 31, 2018, our liquidity portfolio and undrawn credit facilities were $52.6 billion, which was $3.9 billion higher than the balance at December 31, 2017. During the three months ended March 31, 2018, the average balance of our liquidity portfolio was $15.2 billion.

	March 31, 2018	December 31, 2017
	(dollars in millions)	
Liquidity portfolio		
Cash and cash equivalents[(1)]	$ 16,248	$ 12,213
Investment securities[(2)]	1,302	1,347
Total liquidity portfolio	17,550	13,560
Private asset-backed securitizations[(3)]	5,500	6,000
Primary liquidity sources	23,050	19,560
Federal Reserve discount window[(3)]	29,599	29,153
Total liquidity portfolio and undrawn credit facilities	$ 52,649	$ 48,713

(1)

Cash in the process of settlement and restricted cash are excluded from cash and cash equivalents for liquidity purposes.

(2) Excludes $38 million and $48 million of U.S. Treasury securities that have been pledged as swap collateral in lieu of cash as of March 31, 2018 and December 31, 2017, respectively.

(3) See "— Additional Funding Sources" for additional information.

Table of Contents

Bank Holding Company Liquidity
The primary uses of funds at the unconsolidated DFS level include debt service obligations (interest payments and return of principal) and capital service and management activities, which include dividend payments on capital instruments and the periodic repurchase of shares of our common stock. Our primary sources of funds at the bank holding company level include the proceeds from the issuance of unsecured debt and capital securities, as well as dividends from our subsidiaries, particularly Discover Bank. Under periods of idiosyncratic or systemic stress, the bank holding company could lose or experience impaired access to the capital markets. In addition, our regulators have the discretion to restrict dividend payments from Discover Bank to the bank holding company.
We utilize a measure referred to as Number of Months of Pre-Funding to determine the length of time Discover Financial Services can meet upcoming funding obligations including common and preferred stock dividend payments and debt service obligations using existing cash resources. At March 31, 2018, Discover Financial Services had sufficient cash resources to fund the dividend and debt service payments for more than 18 months.
We structure our debt maturity schedule to minimize the amount of debt maturing at the bank holding company within a short period of time. See Note 6: Long-Term Borrowings to our condensed consolidated financial statements for further information regarding our debt. Our ALCO and Board of Directors regularly review our compliance with our liquidity limits as a bank holding company, which are established in accordance with the liquidity risk appetite articulated by our Board.
Capital
Our primary sources of capital are the earnings generated by our businesses and the proceeds from issuances of capital securities. We seek to manage capital to a level and composition sufficient to support the growth and risks of our businesses and to meet regulatory requirements, rating agency targets and debt investor expectations. Within these constraints, we are focused on deploying capital in a manner that provides attractive returns to our stockholders. The level, composition and utilization of capital are influenced by changes in the economic environment, strategic initiatives, and legislative and regulatory developments.
Under regulatory capital requirements adopted by the Federal Reserve and the FDIC, DFS, along with Discover Bank, must maintain minimum levels of capital. Failure to meet minimum capital requirements can result in the initiation of certain mandatory and possibly additional discretionary actions by regulators that, if undertaken, could limit our business activities and have a direct material effect on our financial position and results. We must meet specific capital requirements that involve quantitative measures of assets, liabilities and certain off-balance sheet items, as calculated under regulatory guidance and regulations. Current or future legislative or regulatory initiatives may require us to hold more capital in the future.
In 2013, the Federal Reserve, the Office of the Comptroller of the Currency, and the FDIC issued the Basel III rules applicable to DFS and Discover Bank. Under those rules, DFS and Discover Bank are classified as "Standardized Approach" entities, defined as U.S. banking organizations with consolidated total assets over $50 billion but not exceeding $250 billion and consolidated total on-balance sheet foreign exposures less than $10 billion. Additional phase-in requirements related to components of the final capital rules will become effective through 2019. The Basel III rules include new minimum and "well-capitalized" risk-based capital and leverage ratios, effective January 1, 2015, and refine the definition of what constitutes "capital" for purposes of calculating those ratios of which certain requirements are subject to phase-in periods through the end of 2018 (the "transition period"). During the transition period, the effects of the changes to capital (i.e., certain deductions and adjustments) are recognized in 20% increments from 2015 through 2018. For example, one of the deductions from CET1 capital, goodwill and intangibles, was subject to a 40% of total deduction in 2015 that increased to 60% in 2016 and so on, until reaching 100% deduction of total in 2018. For additional information regarding the risk-based capital and leverage ratios, see Note 10: Capital Adequacy to our condensed consolidated financial statements.
The Basel III rules also introduced a CCB on top of the minimum risk-weighted asset ratios. The buffer is designed to absorb losses during periods of economic stress. The calculation of the buffer started to phase in beginning on January 1, 2016 at the rate of 0.625% and increases by 0.625% on each subsequent January 1 until it reaches the maximum 2.5% on January 1, 2019. When the CCB is fully phased-in on January 1, 2019, this will effectively result in minimum ratios of (i) CET1 to risk-weighted assets of at least 7.0%, (ii) Tier 1 capital to risk-weighted assets of at least 8.5%

and (iii) Total capital to risk-weighted assets of at least 10.5%. Banking institutions with a capital ratio below the required amount will face constraints on dividends, equity repurchases and compensation based on the amount of the shortfall.

Table of Contents

Another main component of the Basel III rules is a prescribed standardized approach for calculating risk-weighted assets that expands the risk-weight range from 0% to 100% (under Basel I) to 0% to 1,250% (under Basel III). The new range is intended to be more risk-sensitive and the risk weight assigned depends on the nature of the asset in question.

The Basel III rules provide for a number of the deductions from and adjustments to CET1, to the extent that any one such category exceeds 10% of CET1 or all such categories in the aggregate exceed 15%.

Basel III also requires disclosures relating to market discipline. This series of disclosures is commonly referred to as "Pillar 3." The objective is to increase transparency of capital requirements for banking organizations. We are required to make prescribed regulatory disclosures on a quarterly basis regarding our capital structure, capital adequacy, risk exposures and risk-weighted assets. The Pillar 3 disclosures are made publicly available on our website in a report called "Basel III Regulatory Capital Disclosures."

At March 31, 2018, DFS and Discover Bank met the requirements for "well-capitalized" status under Regulation Y and the prompt corrective action rules, respectively, exceeding the regulatory minimums to which they were subject under the applicable rules.

As discussed in Note 10: Capital Adequacy to our condensed consolidated financial statements, we are subject to a CET1 capital ratio requirement under the Basel III rules. We believe that providing an estimate of our capital position based on the Basel III fully phased-in rules is important to complement the existing capital ratios and for comparability to other financial institutions. In addition, we disclose tangible common equity, which represents common equity less goodwill and intangibles. Management believes that common stockholders' equity excluding goodwill and intangibles is a more meaningful measure to investors of our true net asset value. As of March 31, 2018, the CET1 capital ratio calculated under Basel III fully phased-in rules and tangible common equity are not formally defined by U.S. GAAP or codified in the federal banking regulations and, as such, they are considered to be non-GAAP financial measures. Other financial services companies may also disclose this ratio and metric and definitions may vary, so we advise users of this information to exercise caution in comparing this ratio and metric for different companies.

The following table provides a reconciliation of total common stockholders' equity (a U.S. GAAP financial measure) to tangible common equity (dollars in millions):

	March 31, 2018	December 31, 2017
Total common stockholders' equity[1]	$ 10,308	$ 10,329
Less: Goodwill	(255)	(255)
Less: Intangible assets, net	(162)	(163)
Tangible common equity	$ 9,891	$ 9,911

(1) Total common stockholders' equity is calculated as total stockholders' equity less preferred stock.

The following table provides a reconciliation of CET1 capital calculated under Basel III transition rules (a U.S. GAAP financial measure) to CET1 capital and risk-weighted assets calculated under fully phased-in Basel III rules (dollars in millions):

	March 31, 2018
CET1 capital (Basel III transition)	$ 10,081
Adjustments related to capital components during transition[1]	(27)
CET1 capital (Basel III fully phased-in)	$ 10,054
Risk-weighted assets (Basel III fully phased-in)[2]	$ 84,862
CET1 capital ratio (Basel III fully phased-in)	11.8 %

(1) Adjustments related to capital components for fully phased-in Basel III include the phase-in of the intangible asset exclusion.

(2) Key differences under fully phased-in Basel III rules in the calculation of risk-weighted assets include higher risk weighting for past-due loans and unfunded commitments.

Additionally, we are required to submit an annual capital plan to the Federal Reserve that includes an assessment of our expected uses and sources of capital over a nine-quarter planning horizon. We submitted our annual capital plan to the Federal Reserve under its CCAR program and received notice in June 2017 that the Federal Reserve does not object to our

Table of Contents

proposed capital plan, including planned quarterly capital distributions through June 30, 2018. Our ability to make capital distributions, including our ability to pay dividends on or repurchase shares of our common stock, will continue to be subject to the Federal Reserve's review and non-objection of the actions that we propose each year in our annual capital plan. On April 5, 2018, we submitted our 2018 CCAR plan and are awaiting a response from the Federal Reserve on our plan.

In June 2017, the Federal Reserve published the results of its annual supervisory stress tests for bank holding companies with $50 billion or more in total consolidated assets, including DFS. At that same time, we published company-run stress test results for DFS and Discover Bank. DFS is required to publish company-run stress tests results twice each year in accordance with Federal Reserve rules and Discover Bank is required to publish bank-run stress test results under FDIC rules.

We recently declared a quarterly cash dividend on our common stock of $0.35 per share, payable on June 7, 2018 to holders of record on May 24, 2018, which is consistent with last quarter. We also pay dividends on our preferred stock semi-annually.

On July 25, 2017, our Board of Directors approved a share repurchase program authorizing the repurchase of up to $2.8 billion of our outstanding shares of common stock. The program expires on October 31, 2018 and may be terminated at any time. This program replaced the prior $2.5 billion share repurchase program, which had $562 million of remaining authorization. During the three months ended March 31, 2018, we repurchased approximately 7 million shares, or 2%, of our outstanding common stock for $555 million. We expect to continue to repurchase shares under our program from time to time based on market conditions and other factors, subject to legal and regulatory requirements and restrictions, including non-objection from the Federal Reserve as described above. Share repurchases under the program may be made through a variety of methods, including open market purchases, privately negotiated transactions or other purchases, including block trades, accelerated share repurchase transactions, or any combination of such methods.

The amount and size of any future dividends and share repurchases will depend upon our results of operations, financial condition, capital levels, cash requirements, future prospects and other factors. The declaration and payment of future dividends, as well as the amount thereof, are subject to the discretion of our Board of Directors. Holders of our shares of common stock are subject to the prior dividend rights of holders of our preferred stock or the depositary shares representing such preferred stock outstanding, and if full dividends have not been declared and paid on all outstanding shares of preferred stock in any dividend period, no dividend may be declared or paid or set aside for payment on our common stock. In addition, as noted above, banking laws and regulations and our banking regulators may limit our ability to pay dividends and make share repurchases, including limitations on the extent to which our banking subsidiaries can provide funds to us through dividends, loans or otherwise. Further, current or future regulatory initiatives may require us to hold more capital in the future. There can be no assurance that we will declare and pay any dividends or repurchase any shares of our common stock in the future.

Certain Off-Balance Sheet Arrangements

Guarantees

Guarantees are contracts or indemnification agreements that contingently require us to make payments to a guaranteed party based on changes in an underlying asset, liability, or equity security of a guaranteed party, rate or index. Also included in guarantees are contracts that contingently require the guarantor to make payments to a guaranteed party based on another entity's failure to perform under an agreement. Our guarantees relate to transactions processed on the Discover Network and certain transactions processed by PULSE and Diners Club. See Note 11: Commitments, Contingencies and Guarantees to our condensed consolidated financial statements for further discussion regarding our guarantees.

Contractual Obligations and Contingent Liabilities and Commitments

In the normal course of business, we enter into various contractual obligations that may require future cash payments. Contractual obligations at March 31, 2018, which include deposits, long-term borrowings, operating and capital lease obligations, interest payments on fixed-rate debt, purchase obligations and other liabilities were $91.2 billion. For a description of our contractual obligations, see our annual report on Form 10-K for the year ended December 31, 2017 under “Management's Discussion and Analysis of Financial Condition and Results of Operations — Contractual

Obligations and Contingent Liabilities and Commitments."
We extend credit for consumer loans, primarily arising from agreements with customers for unused lines of credit on certain credit cards and certain other loan products, provided there is no violation of conditions established in the related

agreement. At March 31, 2018, our unused credit arrangements were approximately $190.7 billion. These arrangements, substantially all of which we can terminate at any time and which do not necessarily represent future cash requirements, are periodically reviewed based on account usage, customer creditworthiness and loan qualification. In addition, in the ordinary course of business, we guarantee payment on behalf of subsidiaries relating to contractual obligations with external parties. The activities of the subsidiaries covered by any such guarantees are included in our condensed consolidated financial statements.

Item 3. 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, rates, indices, correlations or other market factors will result in losses for a position or portfolio. We are exposed to market risk primarily from changes in interest rates.

Interest Rate Risk

We borrow money from a variety of depositors and institutions in order to provide loans to our customers, as well as invest in other assets and our business. These loans and other assets earn interest, which we use to pay interest on the money borrowed. Our net interest income and, therefore, earnings, will be reduced if the interest rate earned on assets increases at a slower pace than the interest rate on our borrowings. Changes in interest rates and our competitors' responses to those changes may influence customer payment rates, loan balances or deposit account activity. As a result, we may incur higher funding costs, which has the potential to decrease earnings.

Our interest rate risk management policies are designed to measure and manage the potential volatility of earnings that may arise from changes in interest rates by having a financing portfolio that reflects our mix of variable- and fixed-rate assets. To the extent that the repricing characteristics of the assets and liabilities in a particular portfolio are not sufficiently matched, we may utilize interest rate derivative contracts, such as swap agreements, to achieve our objectives. Interest rate swap agreements effectively convert the underlying asset or liability from fixed- to floating-rate or from floating- to fixed-rate. See Note 14: Derivatives and Hedging Activities to our condensed consolidated financial statements for information on our derivatives activity.

We use an interest rate sensitivity simulation to assess our interest rate risk exposure. For purposes of presenting the possible earnings effect of a hypothetical, adverse change in interest rates over the 12-month period from our reporting date, we assume that all interest rate sensitive assets and liabilities will be impacted by a hypothetical, immediate 100 basis point change in interest rates relative to market consensus expectations as of the beginning of the period. The sensitivity is based upon the hypothetical assumption that all relevant types of interest rates would change instantaneously, simultaneously and to the same degree.

Our interest rate sensitive assets include our variable-rate loan receivables and the assets that make up our liquidity portfolio. We have limitations on our ability to mitigate interest rate risk by adjusting rates on existing balances and competitive actions may limit our ability to increase the rates that we charge to customers for new loans. At March 31, 2018, the majority of our credit card and student loans charge variable rates. Assets with rates that are fixed at period end but which will mature, or otherwise contractually reset to a market-based indexed rate or other fixed rate prior to the end of the 12-month period, are considered to be rate sensitive. The latter category includes certain revolving credit card loans that may be offered at below-market rates for an introductory period, such as balance transfers and special promotional programs, after which the loans will contractually reprice in accordance with our normal market-based pricing structure. For purposes of measuring rate sensitivity for such loans, only the effect of the hypothetical 100 basis point increase in the underlying market-based indexed rate has been considered. For assets that have a fixed interest rate but which contractually will, or are assumed to, reset to a market-based indexed rate or other fixed rate during the next 12 months, earnings sensitivity is measured from the expected repricing date. In addition, for all interest rate sensitive assets, earnings sensitivity is calculated net of expected loan losses, which for purposes of this analysis are assumed to remain unchanged relative to our baseline expectations over the analysis horizon.

Interest rate sensitive liabilities are assumed to be those for which the stated interest rate is not contractually fixed for the next 12-month period. Thus, liabilities that vary with changes in a market-based index, such as federal funds or LIBOR, which will reset before the end of the 12-month period, or liabilities whose rates are fixed at the fiscal period end, but which will mature and are assumed to be replaced with a market-based indexed rate prior to the end of the 12-month period, also are considered to be rate sensitive. For these fixed-rate liabilities, earnings sensitivity is

measured from the expected maturity date.

Table of Contents

Net interest income sensitivity requires assumptions to be made regarding market conditions, consumer behavior, and the overall growth and composition of the balance sheet. These assumptions are inherently uncertain and, as a result, actual earnings may differ from the simulated earnings presented above. Our actual earnings depend on multiple factors including, but not limited to, the direction and timing of changes in interest rates, the movement of short-term versus long-term rates, balance sheet composition, competitor actions affecting pricing decisions in our loans and deposits, and strategic actions undertaken by management.

The table below shows the impacts to net interest income over the following 12-month period that we estimate would result from an immediate and parallel change in interest rates affecting all interest rate sensitive assets and liabilities (dollars in millions).

	At March 31, 2018		At December 31, 2017	
Basis point change	$	%	$	%
+100	$204	2.26 %	$179	2.03 %
-100	$(211)	(2.34)%	$(190)	(2.15)%

65

Table of Contents

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")), which are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified by the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting (as such term is defined in Exchange Act Rule 13a-15(f) and 15d-15(f)) that occurred during the period covered by this report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Table of Contents

Part II. OTHER INFORMATION

Item 1. Legal Proceedings

For a description of legal proceedings, see Note 12: Litigation and Regulatory Matters to our condensed consolidated financial statements.

Item 1A. Risk Factors

There have been no material changes to the risk factors disclosed in our annual report on Form 10-K for the year ended December 31, 2017.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Issuer Purchases of Equity Securities

The table below sets forth information regarding purchases of our common stock related to our share repurchase program and employee transactions that were made by us or on our behalf during the most recent quarter.

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plan or Program[1]	Maximum Dollar Value of Shares that may yet be purchased under the Plans or Programs [1]
January 1 - 31, 2018				
Repurchase program[1]	2,302,800	$ 78.58	2,302,800	$ 1,600,409,640
Employee transactions[2]	1,932	$ 79.18	N/A	N/A
February 1 - 28, 2018				
Repurchase program[1]	2,336,250	$ 77.95	2,336,250	$ 1,418,293,891
Employee transactions[2]	355,947	$ 80.57	N/A	N/A
March 1 - 31, 2018				
Repurchase program[1]	2,519,338	$ 76.18	2,519,338	$ 1,226,370,151
Employee transactions[2]	—	$ —	N/A	N/A
Total				
Repurchase program[1]	7,158,388	$ 77.53	7,158,388	$ 1,226,370,151
Employee transactions[2]	357,879	$ 80.57	N/A	N/A

(1) On July 25, 2017, our board of directors approved a share repurchase program authorizing the purchase of up to $2.8 billion of our outstanding shares of common stock. This share repurchase program expires on October 31, 2018 and may be terminated at any time.

(2) Reflects shares withheld (under the terms of grants under employee stock compensation plans) to offset tax withholding obligations that occur upon the delivery of outstanding shares underlying restricted stock units or upon the exercise of stock options.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

None.

Item 5. Other Information

None.

Item 6. Exhibits

See "Exhibit Index" for documents filed herewith and incorporated herein by reference.

67

Table of Contents

Exhibit Index

Exhibit Number	Description
10.1	Form 2018 Award Certificate for Restricted Stock Units under Discover Financial Services Directors' Compensation Plan.
10.2	Form 2018 Award Certificate for Restricted Stock Units under Discover Financial Services Amended and Restated Omnibus Incentive Plan.
10.3	Form 2018 Award Certificate for Performance Stock Units under Discover Financial Services Amended and Restated Omnibus Incentive Plan.
10.4	Amendment to 2017 Directors' Annual Equity Award Certificate for Restricted Stock Units of Discover Financial Services, effective February 22, 2018.
10.5	Amendment No. 6 to the Director's Compensation Plan of Discover Financial Services, effective as of February 22, 2018.
12.1	Statement regarding computation of ratio of earnings to fixed charges and computation of ratio of earnings to fixed charges and preferred stock dividends.
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934.
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934.
32.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

Table of Contents

Signature

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.

Discover Financial Services
(Registrant)

By: /s/ R. MARK GRAF
R. Mark Graf
Executive Vice President, Chief Financial Officer

Date: May 1, 2018