Discover Financial Services
Form 10-Q
October 27, 2016

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 September 30, 2016

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, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting 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

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

As of October 21, 2016, there were 394,398,659 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 September 30, 2016
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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℠, Discover® Network 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.

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

	September 30, 2016 (unaudited)	December 31, 2015
	(dollars in millions, except share amounts)	
Assets		
Cash and cash equivalents	$12,076	$ 9,572
Restricted cash	947	99
Other short-term investments	850	—
Investment securities (includes $1,697 and $2,963 at fair value at September 30, 2016 and December 31, 2015, respectively)	1,855	3,084
Loan receivables		
Loan receivables	73,551	72,385
Allowance for loan losses	(2,024)	(1,869)
Net loan receivables	71,527	70,516
Premises and equipment, net	722	693
Goodwill	255	255
Intangible assets, net	166	168
Other assets	2,143	2,412
Total assets	$90,541	$ 86,799
Liabilities and Stockholders' Equity		
Deposits		
Interest-bearing deposit accounts	$48,785	$ 47,094
Non-interest bearing deposit accounts	460	437
Total deposits	49,245	47,531
Long-term borrowings	26,830	24,650
Accrued expenses and other liabilities	3,119	3,343
Total liabilities	79,194	75,524
Commitments, contingencies and guarantees (Notes 9, 12 and 13)		
Stockholders' Equity:		
Common stock, par value $0.01 per share; 2,000,000,000 shares authorized; 562,391,470 and 560,679,352 shares issued at September 30, 2016 and December 31, 2015, respectively	5	5
Preferred stock, par value $0.01 per share; 200,000,000 shares authorized; 575,000 shares issued and outstanding and aggregate liquidation preference of $575 at September 30, 2016 and December 31, 2015	560	560
Additional paid-in capital	3,946	3,885
Retained earnings	14,696	13,250
Accumulated other comprehensive loss	(165)	(160)
Treasury stock, at cost; 165,954,687 and 139,000,423 shares at September 30, 2016 and December 31, 2015, respectively	(7,695)	(6,265)
Total stockholders' equity	11,347	11,275
Total liabilities and stockholders' equity	$90,541	$ 86,799

Upon adoption of ASU 2015-03, Interest—Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, certain balances as of December 31, 2015 have been restated to reflect the classification of debt

issuance costs as a direct deduction of the related liability. See Note 1: Background and Basis of Presentation for additional information.

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.

	September 30, 2016 (unaudited)	December 31, 2015
	(dollars in millions)	
Assets		
Restricted cash	$947	$ 99
Loan receivables	$31,837	$ 30,551
Allowance for loan losses allocated to securitized loan receivables	$(904)	$ (811)
Other assets	$5	$ 5
Liabilities		
Long-term borrowings	$17,780	$ 16,735
Accrued expenses and other liabilities	$14	$ 12

See Notes to the Condensed Consolidated Financial Statements.

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DISCOVER FINANCIAL SERVICES
Condensed Consolidated Statements of Income

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2016	2015	2016	2015
	(unaudited)			
	(dollars in millions, except per share amounts)			
Interest income				
Credit card loans	$1,812	$1,676	$5,279	$4,902
Other loans	347	314	1,004	926
Investment securities	9	11	30	36
Other interest income	16	7	45	20
Total interest income	2,184	2,008	6,358	5,884
Interest expense				
Deposits	178	157	506	464
Short-term borrowings	—	—	—	1
Long-term borrowings	181	166	526	469
Total interest expense	359	323	1,032	934
Net interest income	1,825	1,685	5,326	4,950
Provision for loan losses	445	332	1,281	1,028
Net interest income after provision for loan losses	1,380	1,353	4,045	3,922
Other income				
Discount and interchange revenue, net	263	288	801	854
Protection products revenue	60	62	180	201
Loan fee income	91	87	250	248
Transaction processing revenue	40	39	115	121
Gain on investments	—	—	—	8
Gain on origination and sale of mortgage loans	—	2	—	68
Other income	22	25	69	84
Total other income	476	503	1,415	1,584
Other expense				
Employee compensation and benefits	342	337	1,027	994
Marketing and business development	195	168	555	549
Information processing and communications	81	84	258	262
Professional fees	143	160	453	440
Premises and equipment	25	24	72	71
Other expense	109	109	322	366
Total other expense	895	882	2,687	2,682
Income before income tax expense	961	974	2,773	2,824
Income tax expense	322	362	943	1,027
Net income	$639	$612	$1,830	$1,797
Net income allocated to common stockholders	$625	$599	$1,789	$1,758
Basic earnings per common share	$1.56	$1.38	$4.37	$3.99
Diluted earnings per common share	$1.56	$1.38	$4.36	$3.98
Dividends declared per common share	$0.30	$0.28	$0.88	$0.80

See Notes to the Condensed Consolidated Financial Statements.

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DISCOVER FINANCIAL SERVICES
Condensed Consolidated Statements of Comprehensive Income

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2016	2015	2016	2015
	(unaudited)			
	(dollars in millions)			
Net income	$639	$612	$1,830	$1,797
Other comprehensive income (loss), net of taxes				
Unrealized (loss) gain on available-for-sale investment securities, net of tax	(4)	3	14	(7)
Unrealized gain (loss) on cash flow hedges, net of tax	13	(22)	(19)	(34)
Foreign currency translation adjustments, net of tax	—	(1)	—	(1)
Other comprehensive income (loss)	9	(20)	(5)	(42)
Comprehensive income	$648	$592	$1,825	$1,755

See Notes to the Condensed Consolidated Financial Statements.

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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) Income	Treasury Stock	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
	(unaudited)								
	(dollars in millions, shares in thousands)								
Balance at December 31, 2014	575	$ 560	558,194	$ 5	$ 3,790	$11,467	$ (138)	$(4,550)	$ 11,134
Net income	—	—	—	—	—	1,797	—	—	1,797
Other comprehensive loss	—	—	—	—	—	—	(42)	—	(42)
Purchases of treasury stock	—	—	—	—	—	—	—	(1,280)	(1,280)
Common stock issued under employee benefit plans	—	—	61	—	3	—	—	—	3
Common stock issued and stock-based compensation expense	—	—	2,382	—	75	—	—	—	75
Dividends — common stock	—	—	—	—	—	(356)	—	—	(356)
Dividends — preferred stock	—	—	—	—	—	(28)	—	—	(28)
Balance at September 30, 2015	575	$ 560	560,637	$ 5	$ 3,868	$12,880	$ (180)	$(5,830)	$ 11,303
Balance at December 31, 2015	575	$ 560	560,679	$ 5	$ 3,885	$13,250	$ (160)	$(6,265)	$ 11,275
Net income	—	—	—	—	—	1,830	—	—	1,830
Other comprehensive loss	—	—	—	—	—	—	(5)	—	(5)
Purchases of treasury stock	—	—	—	—		—	—	(1,430)	(1,430)
Common stock issued under employee benefit plans	—	—	66	—	3	—	—	—	3
Common stock issued and stock-based compensation expense	—	—	1,646	—	58	—	—	—	58
Dividends — common stock	—	—	—	—	—	(356)	—	—	(356)
Dividends — preferred stock	—	—	—	—	—	(28)	—	—	(28)
Balance at September 30, 2016	575	$ 560	562,391	$ 5	$ 3,946	$14,696	$ (165)	$(7,695)	$ 11,347

See Notes to the Condensed Consolidated Financial Statements.

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DISCOVER FINANCIAL SERVICES
Condensed Consolidated Statements of Cash Flows

	For the Nine Months Ended September 30,	
	2016	2015
	(unaudited)	
	(dollars in millions)	
Cash flows from operating activities		
Net income	$1,830	$1,797
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for loan losses	1,281	1,028
Depreciation and amortization	262	291
Amortization of deferred revenues and accretion of accretable yield on acquired loans	(298)	(329)
Net loss (gain) on origination and sale of loans, investments and other assets	40	(39)
Proceeds from sale of mortgage loans originated for sale	—	2,713
Net principal disbursed on mortgage loans originated for sale	—	(2,519)
Other, net	119	18
Changes in assets and liabilities:		
Decrease (increase) in other assets	104	(145)
Decrease in accrued expenses and other liabilities	(205)	(5)
Net cash provided by operating activities	3,133	2,810
Cash flows from investing activities		
Maturities of other short-term investments	200	—
Purchases of other short-term investments	(1,050)	—
Maturities and sales of available-for-sale investment securities	1,279	1,330
Maturities of held-to-maturity investment securities	17	13
Purchases of held-to-maturity investment securities	(56)	(36)
Net principal disbursed on loans originated for investment	(1,990)	(953)
Purchases of other investments	(23)	(32)
(Increase) decrease in restricted cash	(848)	8
Proceeds from sale of premises and equipment	—	1
Purchases of premises and equipment	(132)	(119)
Net cash (used for) provided by investing activities	(2,603)	212
Cash flows from financing activities		
Net decrease in short-term borrowings	—	(113)
Proceeds from issuance of securitized debt	3,026	1,750
Maturities and repayment of securitized debt	(2,043)	(3,303)
Proceeds from issuance of other long-term borrowings	1,100	2,759
Proceeds from issuance of common stock	5	3
Purchases of treasury stock	(1,430)	(1,280)
Net increase in deposits	1,702	513
Dividends paid on common and preferred stock	(386)	(385)
Net cash provided by (used for) financing activities	1,974	(56)
Net increase in cash and cash equivalents	2,504	2,966
Cash and cash equivalents, at beginning of period	9,572	7,284
Cash and cash equivalents, at end of period	$12,076	$10,250

See Notes to the Condensed Consolidated Financial Statements.

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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 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 segments are Direct Banking and Payment Services. 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.

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.

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 2015 audited consolidated financial statements filed with the Company's annual report on Form 10-K for the year ended December 31, 2015.

Change in Accounting Principle

In April 2015, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2015-03, Interest—-Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, which makes the presentation of debt issuance costs consistent with that of debt discounts and premiums. This ASU requires that debt issuance costs related to a recognized liability be presented in the balance sheet as a direct deduction from the carrying amount of that liability. Before becoming effective for the Company on January 1, 2016, these costs were recorded as deferred charges presented in other assets on the consolidated statements of financial condition. The

guidance requires retrospective application in the financial statements. As such, some balances as of December 31, 2015 have been restated to

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reflect the classification of debt issuance costs as a direct deduction of a related liability. The impact of adopting this ASU was a reduction of other assets of $137 million, a reduction of long-term borrowings of $74 million and a reduction of deposits of $63 million at December 31, 2015. There was no impact to the consolidated statements of income.

Recently Issued Accounting Pronouncements

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 eliminates the incurred loss threshold for initial recognition in current GAAP and replaces it with the expected loss concept. For all loans carried at amortized cost, companies will be required to measure their allowance for loan losses based on management's current estimate of all expected credit losses over the remaining contractual term of the assets. Because it eliminates the incurred loss trigger, the new accounting guidance will require companies, upon the origination of a loan, to record their estimate of all expected credit losses on that loan through an immediate charge to earnings. The estimate of loan losses must be based on historical experience, current conditions and reasonable and supportable forecasts. The ASU does not mandate the use of any specific method for estimating credit loss, permitting companies to use judgment in selecting the approach that is most appropriate in their circumstances.

The new rules also impact the specialized accounting requirements pertaining to purchased credit-impaired ("PCI") assets, which the ASU refers to as purchased credit-deteriorated ("PCD") assets, that the Company applies today to the acquired portion of its student loan portfolio. PCD assets will be reported at their gross amount with a related allowance equal to the current estimate of expected losses. That allowance will then be adjusted on a periodic basis in accordance with the new standards. The separate measurement guidance applicable today for loans modified in a troubled debt restructuring ("TDR") will also be affected. Both TDRs and PCD assets will still be subject to certain separate disclosure requirements. Measurement of credit impairment of available-for-sale debt securities will 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, with an offsetting entry to provision expense in the income statement.

The ASU will become effective for the Company on January 1, 2020, with early adoption permitted no sooner than January 1, 2019. Upon adoption, a cumulative effect adjustment to retained earnings will be recorded as of the beginning of the first reporting period in which the guidance is effective in an amount necessary to adjust the allowance for loan losses to equal the current estimate of expected losses on financial assets held at that date. Additionally, upon adoption, the carrying value of PCD loans will be increased through an offsetting addition to the allowance for loan losses for the amount of expected credit losses on those loans, to be evaluated and adjusted on a periodic basis, and any non-credit premium or discount will be amortized or accreted to interest income from that point forward over the remaining life of PCD loans. Management is evaluating the ASU, and it could have a potentially significant impact on how the Company records and reports its financial condition and results of operations, and on regulatory capital.

In March 2016, the FASB issued ASU No. 2016-09, Compensation—Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. This ASU requires excess tax benefits and tax deficiencies, which arise due to differences between the measure of compensation expense for GAAP accounting purposes and the amount deductible for tax purposes, to be recorded directly through the income statement as a component of income tax expense. Under current GAAP, these differences are generally recorded in additional paid-in capital and thus have no impact on net income today. The change in treatment of excess tax benefits and tax deficiencies will also impact the computation of diluted earnings per share, and the cash flows associated with those items will be classified as operating activities on the statement of cash flows. The ASU will permit certain elective changes associated with stock compensation accounting. For example, companies can elect to account for forfeitures of awards as they occur rather than projecting forfeitures in the accrual of compensation expense. In addition, the ASU increases the proportion of shares an employer is permitted (though not required) to withhold on behalf of an employee to satisfy the employee's income tax burden on a share-based award without causing the award to become subject to liability accounting. This ASU will become effective for the Company on January 1, 2017. The impact to net income and earnings per share that will result from the treatment of excess tax benefits after adoption of ASU 2016-09 will depend on the difference between the market price of Company stock between the grant dates and subsequent vesting dates of

share-based awards, and this impact could be positive or negative depending on how the Company's stock price moves. If the Company elects to permit employees to request withholdings of shares in excess of the statutory minimum to cover personal tax liabilities, it will have no financial statement impact. The Company has not made any change concerning this practice at this time.

In March 2016, the FASB issued ASU No. 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net). 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, Revenue from

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Contracts with Customers (Topic 606). 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. This guidance will become effective for the Company on January 1, 2018 and management is evaluating the impact of these changes as part of its overall evaluation of ASU 2014-09.

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 is in the process of evaluating its impact.

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. The ASU will have 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 will be 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. This ASU will become effective for the Company on January 1, 2018 and is not expected to have a material impact to the financial statements.

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. This ASU establishes 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. ASU Topic 606 does not apply to rights or obligations associated with financial instruments (for example, interest income from loans or investments, or interest expense on debt), and therefore the Company's net interest income should not be affected. The Company's revenue from discount and interchange, protection products, transaction processing and certain fees are within the scope of these rules. Throughout 2015, management followed the discussions of the FASB and evaluated the conclusions published by its Transition Resource Group ("TRG"), specifically those pertaining to how the new revenue recognition rules should be interpreted for credit card arrangements, loyalty programs, and transaction processing arrangements. Those discussions support the conclusion that 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 will not be impacted by the new rules. The FASB TRG discussions and guidance also support the conclusion that the timing and measurement of revenue associated with the Company's transaction processing services, including discount and interchange and other transaction processing fees, will remain substantially unchanged under the new accounting model. This conclusion covers the vast majority of the Company's revenue that is within the scope of the new standard. While management continues to evaluate the remaining in-scope revenue items to determine what, if any, impact the rules will have on their accounting and reporting, no substantive impacts are expected. The new revenue recognition model will become effective for the Company on January 1, 2018. Upon adoption in 2018, the Company will record an adjustment, if needed, to retained earnings as of the beginning of the year of initial application, which can be either

the earliest comparative period presented, with all periods presented under the new rules, or January 1, 2018, without restating prior periods presented. Because little if any change in timing or measurement of the Company's revenue is expected to occur under the new standard, management does not expect to present any restated prior period amounts when the standard becomes effective in 2018.

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2. Business Dispositions

On June 16, 2015, the Company announced the closing of the mortgage origination business it acquired in 2012, which was part of its Direct Banking segment. The disposition represented the exiting of an ancillary business and did not have a major impact on the Company's operations.

3. Investments

The Company's other short-term investments and investment securities consist of the following (dollars in millions):

	September 30, 2016	December 31, 2015
Certificates of deposit[1]	$ 850	$ —
Total other short-term investments	$ 850	$ —
U.S. Treasury securities[2]	$ 678	$ 1,273
U.S. government agency securities	—	494
States and political subdivisions of states	2	7
Residential mortgage-backed securities - Agency[3]	1,175	1,310
Total investment securities	$ 1,855	$ 3,084

(1) Includes certificates of deposit with maturity dates greater than 90 days but less than one year at the time of acquisition.

(2) Includes $86 million and $7 million of U.S. Treasury securities pledged as swap collateral in lieu of cash as of September 30, 2016 and December 31, 2015, respectively.

(3) 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 September 30, 2016				
Available-for-Sale Investment Securities[1]				
U.S. Treasury securities	$ 676	$ 2	$ —	$678
Residential mortgage-backed securities - Agency	998	21	—	1,019
Total available-for-sale investment securities	$ 1,674	$ 23	$ —	$1,697
Held-to-Maturity Investment Securities[2]				
States and political subdivisions of states	$ 2	$ —	$ —	$2
Residential mortgage-backed securities - Agency[3]	156	4	—	160
Total held-to-maturity investment securities	$ 158	$ 4	$ —	$162
At December 31, 2015				
Available-for-Sale Investment Securities[1]				
U.S. Treasury securities	$ 1,277	$ 1	$ (6)	$1,272
U.S. government agency securities	492	2	—	494
Residential mortgage-backed securities - Agency	1,195	6	(4)	1,197
Total available-for-sale investment securities	$ 2,964	$ 9	$ (10)	$2,963
Held-to-Maturity Investment Securities[2]				
U.S. Treasury securities[4]	$ 1	$ —	$ —	$1
States and political subdivisions of states	7	—	—	7
Residential mortgage-backed securities - Agency[3]	113	1	—	114
Total held-to-maturity investment securities	$ 121	$ 1	$ —	$122

(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.
(4) At December 31, 2015, amount represents securities pledged as collateral to a government-related merchant for which transaction settlement occurs beyond the normal 24-hour period. Beginning in the third quarter of 2016, collateral is no longer required.

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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 December 31, 2015					
Available-for-Sale Investment Securities					
U.S. Treasury securities	1	$670	$ (6)	$ —	$ —
Residential mortgage-backed securities - Agency	15	$486	$ (4)	$ —	$ —

Aggregate gross unrealized losses were not material as of September 30, 2016. There were no losses related to other-than-temporary impairments during the three and nine months ended September 30, 2016 and 2015.

The following table provides information about proceeds from sales, recognized gains and losses and net unrealized gains and losses on available-for-sale securities (dollars in millions):

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2016	2015	2016	2015
Proceeds from the sales of available-for-sale investment securities	$ —	$ —	$ —	$899
Gain on sales of available-for-sale investment securities	$ —	$ —	$ —	$8
Net unrealized (loss) gain recorded in other comprehensive income, before-tax	$ (6)	$ 4	$23	$(12)
Net unrealized (loss) gain recorded in other comprehensive income, after-tax	$ (4)	$ 3	$14	$(7)

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 September 30, 2016					
Available-for-Sale Investment Securities—Amortized Cost					
U.S. Treasury securities	$ —	$ 676	$ —	$ —	$676
Residential mortgage-backed securities - Agency	—	—	309	689	998
Total available-for-sale investment securities	$ —	$ 676	$ 309	$ 689	$1,674
Held-to-Maturity Investment Securities—Amortized Cost					
State and political subdivisions of states	$ —	$ —	$ —	$ 2	$2
Residential mortgage-backed securities - Agency	—	—	—	156	156
Total held-to-maturity investment securities	$ —	$ —	$ —	$ 158	$158
Available-for-Sale Investment Securities—Fair Values					
U.S. Treasury securities	$ —	$ 678	$ —	$ —	$678
Residential mortgage-backed securities - Agency	—	—	315	704	1,019
Total available-for-sale investment securities	$ —	$ 678	$ 315	$ 704	$1,697
Held-to-Maturity Investment Securities—Fair Values					
State and political subdivisions of states	$ —	$ —	$ —	$ 2	$2

Residential mortgage-backed securities - Agency	—	—	—	160	160
Total held-to-maturity investment securities	$ —	$ —	$ —	$ 162	$ 162

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

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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 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 September 30, 2016 and December 31, 2015, the Company had outstanding investments in these entities of $298 million and $328 million, respectively, and related contingent liabilities of $45 million and $57 million, respectively. Of the above outstanding equity investments, the Company had $233 million and $238 million, respectively, of investments related to affordable housing projects, which had $45 million and $57 million related contingent liabilities as of September 30, 2016 and December 31, 2015, respectively.

4. 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):

	September 30, 2016	December 31, 2015
Loan receivables		
Credit card loans[1]	$ 58,006	$ 57,896
Other loans		
Personal loans	6,273	5,490
Private student loans	6,287	5,647
Other	277	236
Total other loans	12,837	11,373
Purchased credit-impaired loans[2]	2,708	3,116
Total loan receivables	73,551	72,385
Allowance for loan losses	(2,024)	(1,869)
Net loan receivables	$ 71,527	$ 70,516

(1) Amounts include $22.2 billion and $21.6 billion underlying investors' interest in trust debt at September 30, 2016 and December 31, 2015, respectively, and $8.2 billion and $7.2 billion in seller's interest at September 30, 2016 and December 31, 2015, respectively. The increase in the seller's interest from December 31, 2015 to September 30, 2016 is due in part to the addition of randomly-selected accounts to the credit card loan receivables restricted for securitization investors in order to increase excess seller's interest and related securitization capacity. See Note 5: Credit Card and Student Loan Securitization Activities for further information.

(2) Amounts include $1.5 billion and $1.7 billion of loans pledged as collateral against the notes issued from the Student Loan Corporation ("SLC") securitization trusts at September 30, 2016 and December 31, 2015, respectively. See Note 5: Credit Card and Student Loan Securitization Activities for additional information.

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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 September 30, 2016					
Credit card loans[2]	$ 586	$ 500	$1,086	$ 452	$ 181
Other loans					
Personal loans[3]	46	16	62	15	8
Private student loans (excluding PCI)[4]	89	28	117	28	—
Other	3	1	4	—	21
Total other loans (excluding PCI)	138	45	183	43	29
Total loan receivables (excluding PCI)	$ 724	$ 545	$1,269	$ 495	$ 210
At December 31, 2015					
Credit card loans[2]	$ 505	$ 490	$995	$ 422	$ 198
Other loans					
Personal loans[3]	34	15	49	13	6
Private student loans (excluding PCI)[4]	84	24	108	25	—
Other	—	1	1	—	20
Total other loans (excluding PCI)	118	40	158	38	26
Total loan receivables (excluding PCI)	$ 623	$ 530	$1,153	$ 460	$ 224

(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 $8 million for both the three months ended September 30, 2016 and 2015, and $23 million and $21 million for the nine months ended September 30, 2016 and 2015, 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 $47 million and $42 million of loans accounted for as troubled debt restructurings at September 30, 2016 and December 31, 2015, respectively.

(3) Personal loans that are 90 or more days delinquent and accruing interest include $2 million and $4 million of loans accounted for as troubled debt restructurings at September 30, 2016 and December 31, 2015, respectively.

(4) Private student loans that are 90 or more days delinquent and accruing interest include $3 million of loans accounted for as troubled debt restructurings at September 30, 2016 and December 31, 2015.

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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 September 30,					
	2016			2015		
	Net Charge-Off Dollars	Net Charge-off Rate[1]		Net Charge-Off Dollars	Net Charge-off Rate[1]	
Credit card loans	$314	2.17	%	$285	2.04	%
Other loans						
Personal loans	41	2.63	%	26	1.99	%
Private student loans (excluding PCI)	15	1.02	%	13	0.94	%
Total other loans	56	1.79	%	39	1.44	%
Net charge-offs (excluding PCI)	$370	2.10	%	$324	1.94	%
Net charge-offs (including PCI)	$370	2.02	%	$324	1.85	%

	For the Nine Months Ended September 30,					
	2016			2015		
	Net Charge-Off Dollars	Net Charge-off Rate[1]		Net Charge-Off Dollars	Net Charge-off Rate[1]	
Credit card loans	$974	2.30	%	$911	2.24	%
Other loans						
Personal loans	108	2.49	%	81	2.10	%
Private student loans (excluding PCI)	44	0.99	%	39	0.99	%
Total other loans	152	1.69	%	120	1.51	%
Net charge-offs (excluding PCI)	$1,126	2.19	%	$1,031	2.12	%
Net charge-offs (including PCI)	$1,126	2.10	%	$1,031	2.01	%

(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 proportion 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 September 30, 2016				
Credit card loans	82	%	18	%
Personal loans	96	%	4	%

Private student loans (excluding PCI)[1]	96	%	4	%
At December 31, 2015				
Credit card loans	83	%	17	%
Personal loans	96	%	4	%
Private student loans (excluding PCI)[1]	96	%	4	%

(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

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ability to temporarily suspend payments. Eligible borrowers have a lifetime cap on forbearance of 12 months. At September 30, 2016 and December 31, 2015, there were $23 million and $31 million, respectively, of private student loans, including PCI, in forbearance, representing 0.4% and 0.5%, respectively, of total student loans in repayment and forbearance.

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 September 30, 2016				
	Credit Card	Personal Loans	Student Loans[1]	Other	Total
Balance at beginning of period	$1,603	$ 176	$ 151	$ 19	$1,949
Additions					
Provision for loan losses	372	51	21	1	445
Deductions					
Charge-offs	(425)	(46)	(17)	—	(488)
Recoveries	111	5	2	—	118
Net charge-offs	(314)	(41)	(15)	—	(370)
Balance at end of period	$1,661	$ 186	$ 157	$ 20	$2,024

	For the Three Months Ended September 30, 2015				
	Credit Card	Personal Loans	Student Loans[1]	Other	Total
Balance at beginning of period	$1,441	$ 131	$ 143	$ 20	$1,735
Additions					
Provision for loan losses	303	30	—	(1)	332
Deductions					
Charge-offs	(394)	(31)	(15)	—	(440)
Recoveries	109	5	2	—	116
Net charge-offs	(285)	(26)	(13)	—	(324)
Balance at end of period	$1,459	$ 135	$ 130	$ 19	$1,743

	For the Nine Months Ended September 30, 2016				
	Credit Card	Personal Loans	Student Loans[1]	Other	Total
Balance at beginning of period	$1,554	$ 155	$ 143	$ 17	$1,869
Additions					
Provision for loan losses	1,081	139	58	3	1,281
Deductions					
Charge-offs	(1,312)	(123)	(51)	—	(1,486)
Recoveries	338	15	7	—	360
Net charge-offs	(974)	(108)	(44)	—	(1,126)
Balance at end of period	$1,661	$ 186	$ 157	$ 20	$2,024

	For the Nine Months Ended September 30, 2015				
				Other	Total

	Credit Card	Personal Loans	Student Loans[1]		
Balance at beginning of period	$1,474	$ 120	$ 135	$ 17	$1,746
Additions					
Provision for loan losses	896	96	34	2	1,028
Deductions					
Charge-offs	(1,245)	(93)	(45)	—	(1,383)
Recoveries	334	12	6	—	352
Net charge-offs	(911)	(81)	(39)	—	(1,031)
Balance at end of period	$1,459	$ 135	$ 130	$ 19	$1,743

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

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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 September 30,		For the Nine Months Ended September 30,	
	2016	2015	2016	2015
Interest and fees accrued subsequently charged off, net of recoveries (recorded as a reduction of interest income)	$ 65	$ 65	$201	$210
Fees accrued subsequently charged off, net of recoveries (recorded as a reduction to other income)	$ 15	$ 16	$49	$53

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 September 30, 2016					
Allowance for loans evaluated for impairment as					
Collectively evaluated for impairment in accordance with ASC 450-20	$1,502	$ 169	$ 103	$ 3	$1,777
Evaluated for impairment in accordance with ASC 310-10-35[2][3]	159	17	18	17	211
Acquired with deteriorated credit quality, evaluated in accordance with ASC 310-30	—	—	36	—	36
Total allowance for loan losses	$1,661	$ 186	$ 157	$ 20	$2,024
Recorded investment in loans evaluated for impairment as					
Collectively evaluated for impairment in accordance with ASC 450-20	$56,960	$ 6,197	$ 6,216	$ 219	$69,592
Evaluated for impairment in accordance with ASC 310-10-35[2][3]	1,046	76	71	58	1,251
Acquired with deteriorated credit quality, evaluated in accordance with ASC 310-30	—	—	2,708	—	2,708
Total recorded investment	$58,006	$ 6,273	$ 8,995	$ 277	$73,551
At December 31, 2015					
Allowance for loans evaluated for impairment as					
Collectively evaluated for impairment in accordance with ASC 450-20	$1,394	$ 140	$ 92	$ 1	$1,627
Evaluated for impairment in accordance with ASC 310-10-35[2][3]	160	15	15	16	206
Acquired with deteriorated credit quality, evaluated in accordance with ASC 310-30	—	—	36	—	36
Total allowance for loan losses	$1,554	$ 155	$ 143	$ 17	$1,869
Recorded investment in loans evaluated for impairment as					
Collectively evaluated for impairment in accordance with ASC 450-20	$56,877	$ 5,422	$ 5,599	$ 179	$68,077
Evaluated for impairment in accordance with ASC 310-10-35[2][3]	1,019	68	48	57	1,192
Acquired with deteriorated credit quality, evaluated in accordance with ASC 310-30	—	—	3,116	—	3,116

Total recorded investment	$57,896	$ 5,490	$ 8,763	$ 236	$72,385

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

(2) Loan receivables evaluated for impairment in accordance with Accounting Standards Codification ("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 troubled debt restructurings. Other loans are individually evaluated for impairment and generally do not represent troubled debt restructurings.

(3) The unpaid principal balance of credit card loans was $899 million and $869 million at September 30, 2016 and December 31, 2015, respectively. The unpaid principal balance of personal loans was $75 million and $67 million at September 30, 2016 and December 31, 2015, respectively. The unpaid principal balance of student loans was $69 million and $47 million at September 30, 2016 and December 31, 2015, respectively. All loans accounted for as troubled debt restructurings have a related allowance for loan losses.

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Troubled Debt Restructurings

The Company has internal loan modification programs that provide relief to credit card, personal loan and student loan borrowers who are experiencing financial hardship. 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, are considered to be individually impaired. In addition, loans that defaulted or graduated from modification programs or forbearance are considered to be individually impaired. As a result, the above mentioned loans are accounted for as troubled debt restructurings.

For credit card customers, the temporary hardship program primarily consists of a reduced minimum payment and an interest rate reduction, 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 unpaid principal, but may allow for the reversal of certain unpaid interest or fee assessments. The Company also makes loan modifications for customers who request financial assistance through external sources, such as a consumer credit counseling agency program (referred to here as external programs). 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.

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 of the loan may not exceed nine years. The Company also allows 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 troubled debt restructurings.

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, reduction, or extended terms. With the seasoning of the student loan portfolio, a greater amount of borrower performance data has become available to enable the Company to analyze borrower characteristics that aid in the determination of whether or not loans entering a payment assistance program should be accounted for as troubled debt restructurings. Through this analysis management concluded that a modified loan typically meets the definition of a troubled debt restructuring based on the cumulative length of the concession period and an evaluation of the credit quality of the borrower, whereas previously only a second forbearance when the borrower was 30 days or greater delinquent was considered a troubled debt restructuring. As a result of these analyses, updates were implemented in July 2016 that modestly increased the student loan balances being accounted for as troubled debt restructurings, although it did not lead to significant changes in the balance of the overall allowance for loan loss.

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 troubled debt restructurings in the future.

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Additional information about modified loans classified as troubled debt restructurings 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 September 30, 2016			
Credit card loans			
Modified credit card loans[3]	$ 282	$ 13	$ —
Internal programs	$ 473	$ 4	$ 15
External programs	$ 275	$ 6	$ 3
Personal loans	$ 74	$ 2	$ 1
Private student loans	$ 63	$ 1	$ —
For the Three Months Ended September 30, 2015			
Credit card loans			
Modified credit card loans[3]	$ 263	$ 12	$ —
Internal programs	$ 446	$ 3	$ 16
External programs	$ 300	$ 5	$ 2
Personal loans	$ 63	$ 2	$ 1
Private student loans	$ 44	$ —	N/A
For the Nine Months Ended September 30, 2016			
Credit card loans			
Modified credit card loans[3]	$ 277	$ 38	$ 2
Internal programs	$ 467	$ 11	$ 47
External programs	$ 279	$ 16	$ 8
Personal loans	$ 71	$ 6	$ 2
Private student loans	$ 57	$ 3	$ —
For the Nine Months Ended September 30, 2015			
Credit card loans			
Modified credit card loans[3]	$ 258	$ 35	$ 2
Internal programs	$ 449	$ 9	$ 46
External programs	$ 311	$ 17	$ 8
Personal loans	$ 60	$ 5	$ 2
Private student loans	$ 42	$ 2	N/A

(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) This balance is considered impaired, but is excluded from the internal and external program amounts reflected in this table. Represents credit card loans that were modified in troubled debt restructurings, but are no longer enrolled in troubled debt restructuring program due to noncompliance with the terms of the modification or successful completion of a program.

In order to evaluate the primary financial effects that resulted from credit card loans entering into a loan modification program during the three and nine months ended September 30, 2016 and 2015, the Company quantified the amount by which interest and fees were reduced during the periods. During the three months ended September 30, 2016 and 2015, the Company forgave approximately $8 million and $11 million, respectively, of interest and fees as a result of accounts entering into a credit card loan modification program. During the nine months ended September 30, 2016 and 2015, the Company forgave approximately $25 million and $33 million, respectively, of interest and fees as a result of accounts entering into a credit card loan modification program.

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

	For the Three Months Ended September 30,			
	2016		2015	
	Number of Accounts	Balances	Number of Accounts	Balances
Accounts that entered a loan modification program during the period				
Credit card loans				
Internal programs	17,388	$ 106	12,701	$ 80
External programs	8,339	$ 43	7,818	$ 39
Personal loans	1,221	$ 14	1,107	$ 13
Private student loans	1,057	$ 19	307	$ 4

	For the Nine Months Ended September 30,			
	2016		2015	
	Number of Accounts	Balances	Number of Accounts	Balances
Accounts that entered a loan modification program during the period				
Credit card loans				
Internal programs	45,003	$ 283	37,933	$ 244
External programs	22,788	$ 119	22,731	$ 115
Personal loans	3,309	$ 38	3,082	$ 37
Private student loans	1,798	$ 31	1,067	$ 15

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

	For the Three Months Ended September 30,			
	2016		2015	
	Number of Accounts	Aggregated Outstanding Balances Upon Default	Number of Accounts	Aggregated Outstanding Balances Upon Default
Troubled debt restructurings that subsequently defaulted				
Credit card loans				
Internal programs[1][2]	4,602	$ 28	2,466	$ 15
External programs[1][2]	2,195	$ 8	1,833	$ 7
Personal loans[2]	277	$ 3	160	$ 2
Private student loans[3]	197	$ 3	243	$ 4

	For the Nine Months Ended September 30,			
	2016		2015	
	Number of Accounts	Aggregated Outstanding Balances Upon Default	Number of Accounts	Aggregated Outstanding Balances Upon Default
Troubled debt restructurings that subsequently defaulted				
Credit card loans				
Internal programs[1][2]	10,417	$ 63	8,665	$ 53
External programs[1][2]	5,460	$ 21	5,067	$ 20
Personal loans[2]	711	$ 8	445	$ 5
Private student loans[3]	571	$ 9	827	$ 12

(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 September 30, 2016 and 2015, approximately 39% and 36%, respectively, of the total balances were charged off at the end of the month in which they defaulted. Of the account balances that defaulted as shown above for the nine months ended September 30, 2016 and 2015, approximately 37% and 41%, 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 September 30, 2016 and December 31, 2015. Total PCI student loans had an outstanding balance of $2.9 billion and $3.3 billion, including accrued interest, and a related carrying amount of $2.7 billion and $3.1 billion as of September 30, 2016 and December 31, 2015, respectively.

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

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2016	2015	2016	2015
Balance at beginning of period	$888	$1,124	$965	$1,341
Accretion into interest income	(46)	(53)	(142)	(169)
Other changes in expected cash flows	—	(68)	19	(169)
Balance at end of period	$842	$1,003	$842	$1,003

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 and nine months ended September 30, 2016 and 2015. The allowance for PCI loan losses at September 30, 2016 and December 31, 2015 was $36 million. For the three months ended September 30, 2016, there were no changes in cash flow assumptions. For the nine months ended September 30, 2016, the increase in the rates on variable loans during the first half of 2016 was primarily responsible for an increase in accretable yield. For the three and nine months ended September 30, 2015, the changes in expected cash flow assumptions resulted in a decrease in accretable yield primarily related to an increase in the borrower prepayment assumptions on certain pools as well as an increase in actual prepayments. Changes to accretable yield are recognized prospectively as an adjustment to yield over the remaining life of the pools.

At September 30, 2016, 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 2.77% and 0.86%, respectively. At December 31, 2015, 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 2.53% and 0.88%, 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 0.45% and 0.53% for the three months ended September 30, 2016 and 2015, respectively, and 0.45% and 0.47% for the nine months ended September 30, 2016 and 2015, respectively.

5. Credit Card and Student Loan Securitization Activities

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”), which are trusts into which credit card loan receivables are transferred (or, in the case of DCENT, into which beneficial interests in DCMT are transferred) and from which DCENT issues notes to investors.

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 loss estimate.

The Company’s credit card securitizations are accounted for as secured borrowings and the trusts and Discover Funding LLC are treated as consolidated subsidiaries of the Company. 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 that also have restrictions, the amounts of which are reported in restricted cash. Investment of trust cash balances is limited to investments that are permitted under the governing documents of the trusts and which have maturities no later than the related date on which funds must be made available for distribution to trust investors. 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

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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.

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):

	September 30, 2016	December 31, 2015
Restricted cash	$ 873	$ 19
Investors' interests held by third-party investors	16,875	15,625
Investors' interests held by wholly-owned subsidiaries of Discover Bank	5,305	6,017
Seller's interest	8,200	7,231
Loan receivables[(1)]	30,380	28,873
Allowance for loan losses allocated to securitized loan receivables[(1)]	(876)	(783)
Net loan receivables	29,504	28,090
Other[(2)]	5	5
Carrying value of assets of consolidated variable interest entities	$ 30,382	$ 28,114

(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.

(2) Upon adoption of ASU 2015-03, Interest—Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, certain balances as of December 31, 2015 have been restated to reflect the classification of debt issuance costs as a direct deduction of the related liability. See Note 1: Background and Basis of Presentation for additional information.

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, the securitization structures include certain features that could result in earlier-than-expected repayment of the securities. The primary investor protection feature relates to the availability and adequacy of cash flows in the securitized pool of receivables to meet contractual requirements. Insufficient cash flows would trigger the early repayment of the securities. This is referred to as the "economic early amortization" feature.

Investors are allocated cash flows derived from activities related to the accounts comprising the securitized pool of receivables, the amounts of which reflect finance charges billed, certain fee assessments, allocations of merchant discount and interchange, and recoveries on charged-off accounts. From these cash flows, investors are reimbursed for charge-offs occurring within the securitized pool of receivables and receive a contractual rate of return and Discover Bank is paid a servicing fee as servicer. Any cash flows remaining in excess of these requirements are reported to investors as excess spread. An excess spread rate of less than 0% for a contractually specified period, generally a three-month average, would trigger an economic early amortization event. In such an event, the Company would be required to seek immediate sources of replacement funding. 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.

Through its wholly-owned indirect subsidiary, Discover Funding LLC, the Company is 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 the Company). If the level of receivables in the trust was to fall below the required minimum, the Company 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 the Company could not add enough receivables to satisfy the requirement, an early amortization (or repayment) of investors’ interests would be triggered. The Company retains significant exposure to the performance of trust assets through holdings of the seller's interest and subordinated security classes of DCENT. The Company may elect to add receivables to the restricted pool of receivables subject to certain requirements. The Company also has the right to remove a random selection of accounts, which would serve to decrease the amount of credit card loan receivables restricted for securitization investors, subject to certain requirements including that the minimum seller's interest is still met. The Company elected to add receivables to the restricted pool of receivables as of the end of second quarter 2016. In third quarter, no accounts were added to or removed from those restricted for securitization investors.

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In addition to performance measures associated with the transferred credit card loan receivables or the inability to add receivables to satisfy the seller's interest requirement, there are other events or conditions which could trigger an early amortization event, such as non-payment of principal at expected maturity. As of September 30, 2016, no economic or other early amortization events have occurred.

The table below provides information concerning investors' interests and related excess spread (dollars in millions):

At September 30, 2016	Investors' Interests[1]	Number of Series Outstanding	3-Month Rolling Average Excess Spread	
Discover Card Execution Note Trust (DiscoverSeries notes)	$ 22,180	38	13.27	%

(1) Investors' interests include third-party interests and subordinated interests held by wholly-owned subsidiaries of Discover Bank.

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

The Company's student loan securitizations are accounted for as secured borrowings and the trusts are treated as consolidated subsidiaries of the Company. 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 Company's consolidated VIEs 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.

Currently there are three 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 and, for certain securitizations, no cash will be released to the Company until all outstanding trust borrowings have been repaid. 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.

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):

	September 30, 2016	December 31, 2015
Restricted cash	$ 74	$ 80
Student loan receivables[1]	1,457	1,678
Allowance for loan losses allocated to securitized loan receivables[1]	(28)	(28)
Net student loan receivables	1,429	1,650
Carrying value of assets of consolidated variable interest entities	$ 1,503	$ 1,730

(1) The Company maintains its allowance for loan losses on PCI loans sufficient to absorb probable decreases in cash flows that were previously expected. Therefore, credit risk associated with the transferred receivables is fully reflected on the Company's balance sheet in accordance with GAAP.

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6. 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):

	September 30, 2016	December 31, 2015
Certificates of deposit in amounts less than $100,000[1]	$ 18,225	$ 20,491
Certificates of deposit in amounts $100,000 or greater[2]	5,890	5,228
Savings deposits, including money market deposit accounts	24,670	21,375
Total interest-bearing deposits[1]	$ 48,785	$ 47,094

(1) Upon adoption of ASU 2015-03, Interest—Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, certain balances as of December 31, 2015 have been restated to reflect the classification of debt issuance costs as a direct deduction of the related liability. See Note 1: Background and Basis of Presentation for additional information.

(2) Includes $1.4 billion and $1.1 billion in certificates of deposit greater than $250,000, the Federal Deposit Insurance Corporation ("FDIC") insurance limit, as of September 30, 2016 and December 31, 2015, respectively.

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

Maturity Period	September 30, 2016
Three months or less	$ 849
Over three months through six months	803
Over six months through twelve months	1,406
Over twelve months	2,832
Total	$ 5,890

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	September 30, 2016
2016	$ 2,485
2017	9,065
2018	4,488
2019	2,324
2020	2,071
Thereafter	3,682

Total	$ 24,115

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7. 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):

	September 30, 2016				December 31, 2015
	Maturity	Interest Rate	Weighted-Average Interest Rate	Outstanding Amount	Outstanding Amount
Securitized Debt					
Fixed-rate asset-backed securities[1][8]	2016-2021	1.04%-5.65%	1.97%	$ 10,768	$ 9,152
Floating-rate asset-backed securities[2][3][8]	2016-2019	0.82%-1.06%	0.94%	6,092	6,440
Total Discover Card Master Trust I and Discover Card Execution Note Trust[8]				16,860	15,592
Floating-rate asset-backed securities[4][5][6][7]	2031-2042	0.85%-4.50%	2.34%	920	1,143
Total SLC Private Student Loan Trusts				920	1,143
Total long-term borrowings - owed to securitization investors[8]				17,780	16,735
Discover Financial Services (Parent Company)					
Fixed-rate senior notes[1][8]	2017-2025	3.75%-10.25%	4.74%	2,084	2,066
Fixed-rate retail notes[8]	2016-2028	2.85%-4.40%	3.71%	148	39
Discover Bank					
Fixed-rate senior bank notes[1][8]	2018-2026	2.00%-4.25%	3.21%	6,122	5,115
Fixed-rate subordinated bank notes[8]	2019-2020	7.00%-8.70%	7.49%	696	695
Total long-term borrowings[8]				$ 26,830	$ 24,650

(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.

(2) Discover Card Execution Note Trust floating-rate asset-backed securities include issuances with the following interest rate terms: 1-month LIBOR + 30 to 54 basis points and 3-month LIBOR + 20 basis points as of September 30, 2016.

(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 15: Derivatives and Hedging Activities for additional information.

(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, Prime rate + 75 to 100 basis points and 1-month LIBOR + 350 basis points as of September 30, 2016.

(5) The Company acquired an interest rate swap related to the securitized debt assumed in the SLC transaction. The swap does not qualify for hedge accounting and has no impact on debt carrying value. See Note 15: Derivatives and Hedging Activities for additional information.

(6) 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.

(7) Includes $283 million of senior notes maturing in 2031, $543 million of senior and subordinated notes maturing in 2036 and $94 million of senior notes maturing in 2042 as of September 30, 2016.

(8) Upon adoption of ASU 2015-03, Interest—Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, certain balances as of December 31, 2015 have been restated to reflect the classification of debt issuance costs as a direct deduction of the related liability. See Note 1: Background and Basis of Presentation for additional information.

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	September 30, 2016
2016	$ 1,250
2017	5,099
2018	5,265
2019	6,017
2020	3,096
Thereafter	6,103
Total	$ 26,830

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The Company has access to committed undrawn capacity through private securitizations to support the funding of its credit card loan receivables. As of September 30, 2016, the total commitment of secured credit facilities through private providers was $6.0 billion, none of which was drawn as of September 30, 2016. 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 2017 and 2018. 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.

8. Accumulated Other Comprehensive Income

Changes in each component of accumulated other comprehensive income (loss) ("AOCI") were as follows (dollars in millions):

	Unrealized Gain (Loss) on Available-for-Sale Investment Securities, Net of Tax	(Loss) Gain on Cash Flow Hedges, Net of Tax	Foreign Currency Translation Adjustments, Net of Tax[(1)]	Pension Plan Loss, Net of Tax	AOCI
For the Three Months Ended September 30, 2016					
Balance at June 30, 2016	$ 18	$ (52)	$ —	$ (140)	$ (174)
Net change	(4)	13	—	—	9
Balance at September 30, 2016	$ 14	$ (39)	$ —	$ (140)	$ (165)
For the Three Months Ended September 30, 2015					
Balance at June 30, 2015	$ 13	$ (19)	$ —	$ (154)	$ (160)
Net change	3	(22)	(1)	—	(20)
Balance at September 30, 2015	$ 16	$ (41)	$ (1)	$ (154)	$ (180)
For the Nine Months Ended September 30, 2016					
Balance at December 31, 2015	$ —	$ (20)	$ —	$ (140)	$ (160)
Net change	14	(19)	—	—	(5)
Balance at September 30, 2016	$ 14	$ (39)	$ —	$ (140)	$ (165)
For the Nine Months Ended September 30, 2015					
Balance at December 31, 2014	$ 23	$ (7)	$ —	$ (154)	$ (138)
Net change	(7)	(34)	(1)	—	(42)
Balance at September 30, 2015	$ 16	$ (41)	$ (1)	$ (154)	$ (180)

(1) Includes unrealized gains/losses on hedge of net investment in foreign subsidiary, net of tax expense/benefit and net gains/losses on foreign currency translation adjustments.

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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 September 30, 2016			
Available-for-Sale Investment Securities			
Net unrealized holding loss arising during the period	$(6)	$ 2	$(4)
Net change	$(6)	$ 2	$(4)
Cash Flow Hedges			
Net unrealized gain arising during the period	$12	$ (5)	$7
Amounts reclassified from AOCI	9	(3)	6
Net change	$21	$ (8)	$13
For the Three Months Ended September 30, 2015			
Available-for-Sale Investment Securities			
Net unrealized holding gain arising during the period	$4	$ (1)	$3
Net change	$4	$ (1)	$3
Cash Flow Hedges			
Net unrealized loss arising during the period	$(49)	$ 19	$(30)
Amounts reclassified from AOCI	12	(4)	8
Net change	$(37)	$ 15	$(22)
Foreign Currency Translation Adjustments			
Net unrealized loss arising during the period	$(1)	$ —	$(1)
Net change	$(1)	$ —	$(1)
For the Nine Months Ended September 30, 2016			
Available-for-Sale Investment Securities			
Net unrealized holding gain arising during the period	$23	$ (9)	$14
Net change	$23	$ (9)	$14
Cash Flow Hedges			
Net unrealized loss arising during the period	$(58)	$ 22	$(36)
Amounts reclassified from AOCI	27	(10)	17
Net change	$(31)	$ 12	$(19)
For the Nine Months Ended September 30, 2015			
Available-for-Sale Investment Securities			
Net unrealized holding loss arising during the period	$(4)	$ 2	$(2)
Amounts reclassified from AOCI	(8)	3	(5)
Net change	$(12)	$ 5	$(7)
Cash Flow Hedges			
Net unrealized loss arising during the period	$(90)	$ 34	$(56)
Amounts reclassified from AOCI	35	(13)	22
Net change	$(55)	$ 21	$(34)
Foreign Currency Translation Adjustments			
Net unrealized loss arising during the period	$(1)	$ —	$(1)
Net change	$(1)	$ —	$(1)

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9. 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 September 30,		For the Nine Months Ended September 30,	
	2016	2015	2016	2015
Income before income tax expense	$961	$974	$2,773	$2,824
Income tax expense	$322	$362	$943	$1,027
Effective income tax rate	33.5 %	37.2 %	34.0 %	36.4 %

Income tax expense decreased $40 million and $84 million for the three and nine months ended September 30, 2016, respectively, compared to the same periods in 2015. The effective tax rates for the three and nine months ended September 30, 2016 of 33.5% and 34.0%, respectively, decreased from 37.2% and 36.4% for the same periods in 2015. The decrease in rates is due to certain tax benefits, the settlement with the United States Congress Joint Committee on Taxation that occurred in the second quarter of 2016 and the resolution of certain federal and state tax matters.

The Company is subject to examination by the Internal Revenue Service ("IRS") and the 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 2008-2010 federal audit is currently under Administrative Appeals and the IRS is currently examining the years 2011-2012. 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.

10. 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 September 30,		For the Nine Months Ended September 30,	
	2016	2015	2016	2015
Numerator				
Net income	$639	$612	$1,830	$1,797
Preferred stock dividends	(9)	(9)	(28)	(28)
Net income available to common stockholders	630	603	1,802	1,769
Income allocated to participating securities	(5)	(4)	(13)	(11)
Net income allocated to common stockholders	$625	$599	$1,789	$1,758
Denominator				
Weighted-average shares of common stock outstanding	402	433	410	440
Effect of dilutive common stock equivalents	—	1	—	1
Weighted-average shares of common stock outstanding and common stock equivalents	402	434	410	441
Basic earnings per common share	$1.56	$1.38	$4.37	$3.99
Diluted earnings per common share	$1.56	$1.38	$4.36	$3.98

Anti-dilutive securities were not material and had no impact on the computation of diluted EPS for the three and nine months ended September 30, 2016 and 2015.

11. 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

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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 of Basel III ("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 September 30, 2016, 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.

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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	Amount	Ratio	Amount[1]	Ratio[1]
September 30, 2016						
Total capital (to risk-weighted assets)						
Discover Financial Services	$12,450	16.3%	$6,125	≥8.0%	$ 7,656	≥10.0%
Discover Bank	$12,214	16.1%	$6,063	≥8.0%	$ 7,579	≥10.0%
Tier 1 capital (to risk-weighted assets)						
Discover Financial Services	$11,178	14.6%	$4,594	≥6.0%	$ 4,594	≥6.0%
Discover Bank	$10,335	13.6%	$4,547	≥6.0%	$ 6,063	≥8.0%
Tier 1 capital (to average assets)						
Discover Financial Services	$11,178	12.6%	$3,561	≥4.0%	N/A	N/A
Discover Bank	$10,335	11.7%	$3,528	≥4.0%	$ 4,409	≥5.0%
CET1 capital (to risk-weighted assets) (Basel III transition)						
Discover Financial Services	$10,618	13.9%	$3,445	≥4.5%	N/A	N/A
Discover Bank	$10,335	13.6%	$3,411	≥4.5%	$ 4,926	≥6.5%
December 31, 2015[2]						
Total capital (to risk-weighted assets)						
Discover Financial Services	$12,497	16.5%	$6,052	≥8.0%	$ 7,565	≥10.0%
Discover Bank	$11,905	15.9%	$5,991	≥8.0%	$ 7,488	≥10.0%
Tier 1 capital (to risk-weighted assets)						
Discover Financial Services	$11,126	14.7%	$4,539	≥6.0%	$ 4,539	≥6.0%
Discover Bank	$9,941	13.3%	$4,493	≥6.0%	$ 5,991	≥8.0%
Tier 1 capital (to average assets)						
Discover Financial Services	$11,126	12.9%	$3,446	≥4.0%	N/A	N/A
Discover Bank	$9,941	11.7%	$3,410	≥4.0%	$ 4,263	≥5.0%
CET1 capital (to risk-weighted assets) (Basel III transition)						
Discover Financial Services	$10,566	14.0%	$3,404	≥4.5%	N/A	N/A
Discover Bank	$9,941	13.3%	$3,370	≥4.5%	$ 4,867	≥6.5%

The Basel III rules do not establish well-capitalized thresholds for these measures for bank holding companies.

(1) Existing well-capitalized thresholds established in the Federal Reserve's Regulation Y have been included where available.

(2) Upon adoption of ASU 2015-03, Interest—Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, certain balances as of December 31, 2015 have been restated to reflect the classification of debt issuance costs as a direct deduction of the related liability. See Note 1: Background and Basis of Presentation for additional information.

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12. Commitments, Contingencies and Guarantees

Lease Commitments

The Company leases various office space and equipment under capital and non-cancelable operating leases, which expire at various dates through 2028. Future minimum payments on capital leases were not material at September 30, 2016. The following table shows future minimum payments on non-cancelable operating leases with original terms in excess of one year (dollars in millions):

	September 30, 2016
2016	$ 4
2017	14
2018	12
2019	9
2020	8
Thereafter	36
Total minimum lease payments	$ 83

Unused Commitments to Extend Credit

At September 30, 2016, the Company had unused commitments to extend credit for loans of approximately $190.8 billion. Such commitments 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 commitments, 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.

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.

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 plus the principal amount of any other outstanding 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

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September 30, 2016, this amount was not material and was included in accrued expenses and other liabilities on the condensed consolidated statements of financial condition.

Guarantees

The Company has obligations under certain guarantee arrangements, including contracts and indemnification agreements, 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.

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.

The maximum potential amount of future payments related to such contingent obligations is dependent upon the transaction volume processed between the time a counterparty defaults on its settlement and the time at which the Company disables the settlement of any further transactions for the defaulting party, which could be one month depending on the type of guarantee/counterparty. 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 as follows (dollars in millions):

	September 30, 2016
Diners Club:	
Merchant guarantee	$ 157
PULSE:	
ATM guarantee	$ 1

With regard to the counterparty settlement guarantees discussed above, 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 September 30, 2016, the Company had not recorded any contingent liability in the condensed consolidated financial statements for these counterparty exposures, and management believes that the probability of any payments under

these arrangements is low.

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

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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 and nine months ended September 30, 2016 and 2015.

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 September 30,		For the Nine Months Ended September 30,	
	2016	2015	2016	2015
Aggregate sales transaction volume[(1)]	$34,210	$33,761	$100,125	$97,058

(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 September 30, 2016 or December 31, 2015. 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.

The table below provides information regarding escrow deposits and settlement withholdings, which are recorded in interest-bearing deposit accounts and accrued expenses and other liabilities on the Company's condensed consolidated statements of financial condition, respectively (dollars in millions):

	September 30, 2016	December 31, 2015
Settlement withholdings and escrow deposits	$ 8	$ 7

13. 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 relied on the arbitration clause in its cardmember agreements, which has in some instances limited the costs of, and the Company's exposure to litigation, but there can be no assurance that the Company will continue to be successful in enforcing its arbitration clause in the future. Legal challenges to the enforceability of these clauses have led most card issuers, and may cause the Company, to discontinue their use. From time to time, the Company is involved in legal actions challenging its arbitration clause. Bills are periodically introduced in Congress to directly or indirectly prohibit the use of pre-dispute arbitration clauses, and the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") authorized the Consumer Financial Protection Bureau (the "CFPB") to conduct a study on pre-dispute arbitration clauses and, based on the study, potentially limit or ban arbitration clauses. On March 10, 2015, the CFPB released its report to Congress on pre-dispute arbitration as required by the Dodd-Frank Act. On October 7,

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2015, the CFPB published a potential rulemaking on arbitration agreements. On May 5, 2016, the CFPB issued its proposed arbitration rule that would (i) effectively ban consumer financial companies from using arbitration clauses to prevent class action cases and (ii) require records of all other arbitrations to be provided to the CFPB for potential publication on its website. The deadline for submitting comments to the proposed rule was August 22, 2016. The timing and provisions of any final rule are uncertain at this time.

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, Discover Bank and Discover Financial Services have been the subject of actions by the FDIC and the Federal Reserve, respectively, with respect to anti-money laundering and related compliance programs as described more fully below. 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. Regulatory actions generally can include demands for civil money penalties, changes to certain business practices and customer restitution. Supervisory actions 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 September 30, 2016 and 2015. Litigation and regulatory settlement related expense was $8 million and $22 million for the nine months ended September 30, 2016 and 2015, respectively.

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 $150 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 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 August 14, 2012, a purported shareholder, James Groen, filed a shareholder derivative action in the U.S. District Court for the Northern District of Illinois (Groen v. Nelms et al.) against the Company's board of directors, certain current and former officers and directors and the Company as nominal defendant. On August 27, 2012, a second

purported shareholder, the Charter Township of Clinton Police and Fire Retirement System, filed a substantially identical shareholder derivative action in the same court against the same parties (Charter Township of Clinton Police and Fire Retirement System v. Nelms et al.). On September 25, 2012, the actions were consolidated, and on February 19, 2013, the plaintiffs filed an amended consolidated complaint. The consolidated complaint asserts claims against the board of directors and certain current and former officers and directors for alleged breach of fiduciary duty, corporate waste and unjust enrichment arising out of

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the Company's alleged violations of the law in connection with the marketing and sale of its protection products. The relief sought in the consolidated complaint includes changes to the Company's corporate governance procedures; unspecified damages, injunctive relief, restitution and disgorgement from the individual defendants; and attorneys' fees. On April 5, 2013, the defendants filed a motion to dismiss the amended consolidated complaint, and on June 5, 2013, briefing on the motion to dismiss was completed. On March 23, 2015, the Court granted the defendants' motion to dismiss the amended consolidated shareholder derivative complaint without prejudice, while also allowing the plaintiffs until April 10, 2015 to request permission to file a further amended complaint in order to avoid having the case dismissed with prejudice. On April 6, 2015, the plaintiffs filed a motion requesting reconsideration by the Court of its order dismissing the complaint. In addition, on April 10, 2015, the plaintiffs filed a motion requesting permission to file a further amended complaint. On March 17, 2016, the Court denied both the motion for reconsideration and motion for leave to amend and dismissed the case with prejudice. On April 18, 2016, the plaintiffs filed a notice of appeal to the United States Court of Appeal for the Seventh Circuit (Jeanette Bokhari et al. v Discover Financial Services et al.). On October 6, 2016, plaintiffs moved to dismiss this appeal with each party to bear their own costs, fees and expenses, and the appeal was dismissed by the Seventh Circuit on October 11, 2016.

On September 2, 2014, a purported shareholder, Steamfitters Local 449 Pension Fund, filed a shareholder derivative action in the Circuit Court of the Nineteenth Judicial Circuit, Lake County, Illinois (Steamfitters Local 449 Pension Fund, derivatively on behalf of Discover Financial Services v. David W. Nelms, et al.) against the Company's board of directors and certain current and former officers and directors of the Company. The complaint asserts claims for alleged breach of fiduciary duty, corporate waste and unjust enrichment arising out of the Company's alleged violations of the law in connection with the marketing and sale of protection products. The relief sought in the consolidated complaint includes changes to the Company's corporate governance procedures, unspecified damages, restitution and disgorgement from the individual defendants and attorneys' fees. On September 25, 2014, the court entered an order staying the case until 30 days after the U.S. District Court for the Northern District of Illinois enters an order on defendants' motion to dismiss the amended consolidated complaint in Groen v. Nelms et al. and Charter Township of Clinton Police and Fire Retirement System v. Nelms et al. (as consolidated, the Groen and Charter Township cases are now captioned: In re Discover Financial Services Derivative Litigation), and on April 26, 2016, the court entered an order staying the case until 30 days after the U.S. Court of Appeals for the Seventh Circuit issues a decision in the appeal discussed above (Jeanette Bokhari et al. v. Discover Financial Services et al.). The stay expires on November 10, 2016. On October 20, 2016, the court approved an agreed stipulation of dismissal and entered an order dismissing the action with prejudice.

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. This agreement follows 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. In the consent order, Discover Bank agreed to, among other things, enhance its anti-money laundering and related compliance programs.

On July 9, 2015, a class action lawsuit was filed against the Company in the U.S. District Court for the Northern District of Illinois (Polly Hansen v. Discover Financial Services and Discover Home Loans, Inc.). The plaintiff alleges that the Company contacted her, and members of the class she seeks to represent, on their cellular and residential telephones without their express consent or after consent was revoked in violation of the Telephone Consumer Protection Act ("TCPA"). Plaintiff seeks statutory damages for alleged negligent and willful violations of the TCPA, attorneys' fees, costs and injunctive relief. The TCPA provides for statutory damages of $500 for each violation ($1,500 for willful violations). On March 9, 2016, Sumner Davenport was substituted as lead plaintiff for Polly Hansen. The Company will seek to vigorously defend against all claims asserted by the plaintiff.

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

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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 other networks, including the Company. Discovery will now proceed. 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.

14. Fair Value Measurements and Disclosures

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.

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During the nine months ended September 30, 2016, there were no changes to the Company's valuation techniques that had, or are expected to have, a material impact on the Company's condensed consolidated financial position or results of operations.

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 September 30, 2016				
Assets				
U.S. Treasury securities	$ 678	$ —	$ —	$678
Residential mortgage-backed securities - Agency	—	1,019	—	1,019
Available-for-sale investment securities	$ 678	$ 1,019	$ —	$1,697
Derivative financial instruments	$ —	$ 48	$ —	$48
Liabilities				
Derivative financial instruments	$ —	$ 66	$ —	$66
Balance at December 31, 2015				
Assets				
U.S. Treasury securities	$ 1,272	$ —	$ —	$1,272
U.S. government agency securities	494	—	—	494
Residential mortgage-backed securities - Agency	—	1,197	—	1,197
Available-for-sale investment securities	$ 1,766	$ 1,197	$ —	$2,963
Derivative financial instruments	$ —	$ 22	$ —	$22
Liabilities				
Derivative financial instruments	$ —	$ 38	$ —	$38

There were no transfers between Levels 1 and 2 within the fair value hierarchy for the three or nine months ended September 30, 2016 and 2015.

Available-for-Sale Investment Securities

Investment securities classified as available-for-sale consist of U.S. Treasury securities, U.S. government agency securities and residential mortgage-backed securities. The fair value estimates of investment securities classified as Level 1, consisting of U.S. Treasury and government agency securities, are determined based on quoted market prices for the same securities. The Company classifies all other available-for-sale investment securities as Level 2, the fair value estimates of which are obtained from pricing services, where fair values are estimated using pricing models based on observable market inputs or recent trades of similar securities. The fair value estimates of residential mortgage-backed securities 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 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.

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At September 30, 2016, 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 $1.0 billion, 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 and nine months ended September 30, 2016 and 2015, the Company had no material impairments related to these assets.

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Financial Instruments Measured at Other Than Fair Value

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 September 30, 2016					
Assets					
States and political subdivisions of states	$ —	$ 2	$ —	$2	$2
Residential mortgage-backed securities - Agency	—	160	—	160	156
Held-to-maturity investment securities	$ —	$ 162	$ —	$162	$158
Cash and cash equivalents	$ 12,076	$ —	$ —	$12,076	$12,076
Restricted cash	$ 947	$ —	$ —	$947	$947
Other short-term investments	$ 850	$ —	$ —	$850	$850
Net loan receivables	$ —	$ —	$ 72,360	$72,360	$71,527
Accrued interest receivables	$ —	$ 711	$ —	$711	$711
Liabilities					
Deposits	$ —	$ 49,605	$ —	$49,605	$49,245
Long-term borrowings - owed to securitization investors	$ —	$ 17,024	$ 977	$18,001	$17,780
Other long-term borrowings	$ —	$ 9,686	$ —	$9,686	$9,050
Accrued interest payables	$ —	$ 169	$ —	$169	$169
Balance at December 31, 2015					
Assets					
U.S Treasury securities	$ 1	$ —	$ —	$1	$1
States and political subdivisions of states	—	7	—	7	7
Residential mortgage-backed securities - Agency	—	114	—	114	113
Held-to-maturity investment securities	$ 1	$ 121	$ —	$122	$121
Cash and cash equivalents	$ 9,572	$ —	$ —	$9,572	$9,572
Restricted cash	$ 99	$ —	$ —	$99	$99
Net loan receivables	$ —	$ —	$ 71,455	$71,455	$70,516
Accrued interest receivables	$ —	$ 660	$ —	$660	$660
Liabilities					
Deposits[(1)]	$ —	$ 47,714	$ —	$47,714	$47,531
Long-term borrowings - owed to securitization investors[(1)]	$ —	$ 15,634	$ 1,220	$16,854	$16,735
Other long-term borrowings[(1)]	$ —	$ 8,355	$ —	$8,355	$7,915
Accrued interest payables	$ —	$ 158	$ —	$158	$158

(1) Upon adoption of ASU 2015-03, Interest—Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, certain balances as of December 31, 2015 have been restated to reflect the classification of debt issuance costs as a direct deduction of the related liability. See Note 1: Background and Basis of Presentation for additional information.

The fair values of these financial assets and liabilities, which are not carried at fair value on the condensed consolidated statements of financial condition, were determined by applying the fair value provisions discussed herein. The use of different assumptions or estimation techniques may have a material effect on these estimated fair value amounts. The following describes the valuation techniques of these financial instruments measured at other than fair value.

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Cash and Cash Equivalents

The carrying value of cash and cash equivalents approximates fair value due to the low level of risk these assets present to the Company, as well as the relatively liquid nature of these assets, particularly given their short maturities.

Restricted Cash

The carrying value of restricted cash approximates fair value due to the low level of risk these assets present to the Company, as well as the relatively liquid nature of these assets, particularly given their short maturities.

Other Short-Term Investments

The carrying value of other short-term investments approximates fair value due to the low level of risk these assets present to the Company, as well as the relatively liquid nature of these assets, particularly given their short maturities.

Held-to-Maturity Investment Securities

Held-to-maturity investment securities consist of residential mortgage-backed securities issued by agencies and municipal bonds. The fair value of residential mortgage-backed securities included in the held-to-maturity portfolio is estimated similarly to residential mortgage-backed securities carried at fair value on a recurring basis discussed herein. Municipal bonds are valued based on quoted market prices for the same or similar securities.

Net Loan Receivables

The Company's loan receivables are comprised of credit card and installment loans, including the PCI student loans. Fair value estimates are derived utilizing discounted cash flow analyses, the calculations of which are performed on groupings of loan receivables that are similar in terms of loan type and characteristics. Inputs to the cash flow analysis of each grouping consider recent prepayment and interest accrual trends and leverage forecasted loss estimates. The expected future cash flows, derived through the cash flow analysis, of each grouping are discounted at rates at which similar loans within each grouping could be originated under current market conditions. Significant inputs to the fair value measurement of the loan portfolio are unobservable and, as such, are classified as Level 3.

Accrued Interest Receivables

The carrying value of accrued interest receivables, which is included in other assets on the condensed consolidated statements of financial condition, approximates fair value as it is due in less than one year.

Deposits

The carrying values of money market deposits, savings deposits and demand deposits approximate fair value due to the potentially liquid nature of these deposits. For time deposits for which readily available market rates do not exist, fair values are estimated by discounting expected future cash flows using market rates currently offered for deposits with similar remaining maturities.

Long-Term Borrowings - Owed to Securitization Investors

Fair values of long-term borrowings owed to credit card securitization investors are determined utilizing quoted market prices of the same transactions and, as such, are classified as Level 2. Fair values of long-term borrowings owed to student loan securitization investors are calculated by discounting cash flows using estimated assumptions including, among other things, maturity and market discount rates. A portion of the difference between the carrying value and the fair value of the long-term borrowings owed to student loan securitization investors relates to purchase accounting adjustments recorded in connection with the December 2010 purchase of SLC. Significant inputs to these fair value measurements are unobservable and, as such, are classified as Level 3.

Other Long-Term Borrowings

Fair values of other long-term borrowings, consisting of subordinated and senior debt, are determined utilizing current observable market prices for those transactions and, as such, are classified as Level 2. A portion of the difference between the carrying value and the fair value of other long-term borrowings relates to the cash premiums paid in connection with the 2012 fiscal year debt exchanges.

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Accrued Interest Payables

The carrying value of accrued interest payables, which is included in accrued expenses and other liabilities on the condensed consolidated statements of financial condition, approximates fair value as it is payable in less than one year.

15. 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 interest rate movements and other identified risks 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 14: Fair Value Measurements and Disclosures 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 master netting arrangement with each counterparty.

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 fluctuations in foreign exchange rates on investments in foreign entities are referred to as net investment 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 five years for securitized debt and seven years for 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").

The effective portion of the 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. The ineffective portion of the change in fair value of the derivative, if any, is recognized directly in earnings. Amounts reported in AOCI related to derivatives at September 30, 2016 will be reclassified to interest expense as interest payments are made on certain of the Company's floating-rate securitized debt or deposits. During the next 12 months, the Company estimates it will reclassify $26 million of pretax losses 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 senior notes, securitized debt, bank notes and interest-bearing brokered 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 fixed-rate senior notes,

securitized debt, bank notes and interest-bearing brokered deposits relating to the risk being hedged are recorded in interest expense. The changes generally provide substantial offset to one another, with any difference, or ineffectiveness recorded in interest expense. Any basis differences

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between the fair value and the carrying amount of the hedged item at the inception of the hedging relationship are amortized to 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.

Interest Rate Swaps

The Company may have, from time to time, interest rate swap agreements that are not designated as hedges. Such agreements are not speculative and are also used to manage interest rate risk but are not designated for hedge accounting. Changes in the fair value of these contracts are recorded in other income.

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

	September 30, 2016				December 31, 2015		
	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	$4,100	8	$ —	$ 66	$4,100	$ —	$ 35
Interest rate swaps—fair value hedge	$6,241	62	48	—	$4,110	22	3
Derivatives not designated as hedges							
Foreign exchange forward contracts[1]	$16	6	—	—	$32	—	—
Interest rate swap	$165	1	—	—	$217	—	—
Total gross derivative assets/liabilities[2]			48	66		22	38
Less: Collateral held/posted[3]			(25)	(66)		(8)	(33)
Total net derivative assets/liabilities			$ 23	$ —		$ 14	$ 5

(1) The foreign exchange forward contracts have notional amounts of EUR 6 million, GBP 6 million and SGD 1 million as of September 30, 2016, and notional amounts of EUR 19 million, GBP 7 million and SGD 1 million as of December 31, 2015.

(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 December 31, 2015, the Company had one outstanding contract with a notional amount of $52 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.

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

		Amount of Gain (Loss) Recognized in OCI			
		For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	Location	2016	2015	2016	2015
Derivatives designated as hedges					
Interest rate swaps - cash flow/net investment hedges					
Total gain (loss) recognized in OCI after amounts reclassified into earnings, pre-tax	OCI	$22	$(37)	$(31)	$(54)
Total gain (loss) recognized in OCI		$22	$(37)	$(31)	$(54)

		Amount of (Loss) Gain Recognized in Income			
		For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	Location	2016	2015	2016	2015
Derivatives designated as hedges					
Interest rate swaps - cash flow hedges					
Amount reclassified from OCI into income	Interest Expense	$(9)	$(12)	$(27)	$(35)
Total amount reclassified from OCI into income on cash flow hedges		(9)	(12)	(27)	(35)
Interest rate swaps - fair value hedges					
(Loss) gain on interest rate swaps		(19)	12	25	13
Gain (loss) on hedged items		18	(13)	(26)	(13)
Net ineffectiveness loss	Interest Expense	(1)	(1)	(1)	—
Increase to interest expense related to net settlements on interest rate swaps	Interest Expense	9	8	26	23
Total gain on fair value hedges		8	7	25	23
Total loss on derivatives designated as hedges recognized in income		$(1)	$(5)	$(2)	$(12)
Derivatives not designated as hedges					
Total (loss) gain on derivatives not designated as hedges recognized in income[1]	Other Income	$—	$(2)	$—	$74

(1)

During the three and nine months ended September 30, 2015, the Company recognized in income total loss of $4 million and total gain of $2 million, respectively, on forward delivery contracts related to the mortgage loan business that was closed during 2015. During the three and nine months ended September 30, 2015, the Company recognized in income total gain of $3 million and $71 million, respectively, on interest rate lock commitments related to the mortgage loan business that was closed during 2015. See Note 2: Business Dispositions for additional information.

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, foreign exchange forward contracts and forward delivery 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 not offset against the fair value of these derivatives, but are recorded separately in other assets or deposits.

As of September 30, 2016, DFS had a right to reclaim $4 million of cash collateral that had been posted (net of amounts required to be posted by the counterparty) because the credit rating of the Company did not meet specified

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thresholds. At September 30, 2016, Discover Bank's credit rating met specified thresholds set by its counterparties. However, if its credit rating is reduced by one ratings notch, Discover Bank would be required to post additional collateral, which would have been $58 million as of September 30, 2016.

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.

16. 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.

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

	Direct Banking	Payment Services	Total
For the Three Months Ended September 30, 2016			
Interest income			
Credit card loans	$ 1,812	$ —	$ 1,812
Private student loans	112	—	112
PCI student loans	46	—	46
Personal loans	185	—	185
Other	29	—	29
Total interest income	2,184	—	2,184
Interest expense	359	—	359
Net interest income	1,825	—	1,825
Provision for loan losses	445	—	445
Other income	408	68	476
Other expense	857	38	895
Income before income tax expense	$ 931	$ 30	$ 961
For the Three Months Ended September 30, 2015			
Interest income			
Credit card loans	$ 1,676	$ —	$ 1,676
Private student loans	95	—	95
PCI student loans	54	—	54
Personal loans	161	—	161
Other	22	—	22
Total interest income	2,008	—	2,008
Interest expense	323	—	323
Net interest income	1,685	—	1,685
Provision for loan losses	332	—	332
Other income	435	68	503
Other expense	838	44	882
Income before income tax expense	$ 950	$ 24	$ 974

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

	Direct Banking	Payment Services	Total
For the Nine Months Ended September 30, 2016			
Interest income			
Credit card loans	$ 5,279	$ —	$5,279
Private student loans	329	—	329
PCI student loans	142	—	142
Personal loans	523	—	523
Other	85	—	85
Total interest income	6,358	—	6,358
Interest expense	1,032	—	1,032
Net interest income	5,326	—	5,326
Provision for loan losses	1,279	2	1,281
Other income	1,210	205	1,415
Other expense	2,576	111	2,687
Income before income tax expense	$ 2,681	$ 92	$2,773
For the Nine Months Ended September 30, 2015			
Interest income			
Credit card loans	$ 4,902	$ —	$4,902
Private student loans	277	—	277
PCI student loans	170	—	170
Personal loans	468	—	468
Other	67	—	67
Total interest income	5,884	—	5,884
Interest expense	934	—	934
Net interest income	4,950	—	4,950
Provision for loan losses	1,026	2	1,028
Other income	1,371	213	1,584
Other expense	2,550	132	2,682
Income before income tax expense	$ 2,745	$ 79	$2,824

17. Subsequent Events

The Company has evaluated events and transactions that have occurred subsequent to September 30, 2016 and determined that there were no subsequent events that would require recognition or disclosure in the condensed consolidated financial statements.

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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, 2015, 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 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, merchants and issuers. The primary expenses required to operate our business include funding costs (interest expense), loan

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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 September 30, 2016 was $639 million compared to $612 million for the same period in 2015.
- Total loans grew $3.5 billion, or 5%, from September 30, 2015 to $73.6 billion, credit card loans grew 4% to $58.0 billion, and Discover card sales volume increased 1% from the prior year.
- Net charge-off rate excluding PCI loans increased 16 basis points from the prior year to 2.10% and the credit card delinquency rate for loans over 30 days past due increased 22 basis points from the prior year to 1.87%.
- Direct-to-consumer deposits grew $5.5 billion, or 18%, from the prior year to $35.3 billion.
- Payment Services transaction dollar volume for the segment was $44.6 billion, down 3% from the prior year.

Outlook

We continue to focus on deploying capital through profitable, organic loan growth as well as through our quarterly dividends and share repurchase program. We are pursuing new card accounts and wallet share gains with existing customers through investments in marketing and rewards as well as new card features. We expect total loan growth to be in our targeted range of 4-6% for the year.

We expect total expenses in 2016 to be relatively flat year over year as additional compliance staffing headcount and higher marketing investments are offset by savings related to exiting the mortgage business in 2015 and lower anti-money laundering look-back project costs in 2016.

We expect lower total other income as compared to 2015 driven by the exit of our mortgage origination business, the decline in protection products revenue and a higher credit card rewards rate, which reflects an intense competitive environment in this area.

The total charge-off rate is expected to be slightly higher for the remainder of the year. We expect to continue to add to the loan loss reserve due to loan growth and seasoning of accounts.

We continue to leverage our proprietary network to support our card-issuing business and we expect intense competition in the payments industry to persist. This environment will likely continue to impact our payments segment.

Regulatory Environment and Developments

In recent years, federal banking regulators have implemented and continue to propose and finalize new regulations and supervisory guidance, including under the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), and have been increasing their examination and enforcement action activities. The Dodd-Frank Act creates a framework for regulation of large systemically significant financial firms, including Discover, through a variety of measures, including increased capital and liquidity requirements, limits on leverage and enhanced supervisory authority. The Dodd-Frank Act contains comprehensive provisions governing the practices and oversight of financial institutions and other participants in the financial markets. We expect regulators to continue taking formal enforcement actions against financial institutions in addition to addressing concerns through non-public supervisory actions or findings.

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 and those of our competitors and other marketplace participants, and the behavior of consumers. Regulatory developments, enforcement actions, findings and ratings could affect supervisory priorities, actions, and rule-making as well as negatively impact our business strategies, require us to limit or change our business practices, limit our product offerings, invest more management time and resources in compliance efforts, limit the fees we can charge for services, limit our ability to pursue certain business opportunities and obtain related required regulatory approvals, or change how we compensate certain of our employees. For example, from April to May 2016, federal banking regulators issued an interagency notice of proposed rulemaking on incentive compensation arrangements that replaces rules proposed in 2011 and incorporates consideration of supervisory experience with the 2010 Interagency

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Guidance on Sound Incentive Compensation Policies ("2010 Guidance"). Unlike the principles-based 2010 Guidance, the proposed rules are prescriptive in nature and would require an extensive restructuring of certain incentive compensation practices for “senior executive officers” and “significant risk takers.” Comments on the proposed rules were due July 22, 2016. Any changes to our business or compensation structure arising out of this rule could impact our ability to attract, hire or retain certain personnel. For more information on recent matters affecting Discover, see Note 13: Litigation and Regulatory Matters to our condensed consolidated financial statements. Regulatory developments, enforcement actions, findings and ratings also could impact our strategies, the value of our assets, or otherwise adversely affect our businesses.

Increasing cybersecurity threats and incidents regarding unauthorized access to consumer information have resulted in a continued focus by federal banking regulators, Congress and state legislators on legislation to address data security. In December 2015, the President signed an omnibus spending package that included the Cybersecurity Act of 2015. Title I of the Cybersecurity Act, the Cybersecurity Information Sharing Act ("CISA"), establishes a framework to facilitate and encourage confidential sharing of cybersecurity information among private sector and federal government entities and provides certain liability shields for cybersecurity information sharing under the Act. On June 15, 2016, the Attorney General and the Department of Homeland Security jointly published final guidelines related to CISA. The Federal Financial Institutions Examination Council recently revised the information security portion of its information technology examination handbook to update its guidance to examiners evaluating the adequacy of a financial institution's information security program and associated risk management practices. In addition, on October 19, 2016, federal banking regulators issued an advanced notice of proposed rulemaking (the “ANPR”) regarding enhanced cyber risk management standards. The agencies are considering establishing enhanced standards to increase the operational resilience of large financial services firms, including Discover, and reduce the impact on the financial system in the case of a cybersecurity event at a firm. Comments on the ANPR are due by January 17, 2017. The timing and final form of any final rule is uncertain at this time. Legislation at various levels of government has also been proposed to address security breach notification. These developments could ultimately result in the imposition of requirements on Discover or other card issuers or networks that could increase costs or adversely affect the competitiveness of our credit card or debit card products. It is too early to know the impact of these developments on Discover.

Compliance expenditures have increased significantly for Discover and other financial services firms, and we expect them to continue to increase as regulators remain focused on controls and operational processes. We may face additional compliance and regulatory risk to the extent that we enter into new business arrangements with third-party service providers, alternative payment providers or other industry participants. The additional expense, time and resources needed to comply with ongoing regulatory requirements may adversely impact our business and results of operations.

Consumer Financial Services

The Consumer Financial Protection Bureau (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 service providers. 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. The CFPB's policy priorities for 2016-17 include a focus on several financial products of the type we offer (e.g. credit cards and student loans). These have also been policy priorities for the CFPB in recent years. In the event of violations, the CFPB is authorized to collect civil penalties and order consumer restitution.

Under its rulemaking authority, the CFPB recently issued proposed regulations that would significantly limit the use of pre-dispute arbitration agreements and class action waivers. For more information, see Note 13: Litigation and Regulatory Matters to our condensed consolidated financial statements.

In addition, the CFPB publishes regular Complaint Reports and Supervisory Highlights that focus on specific products, services and practices. The CFPB also maintains an online consumer complaint portal that shows the nature of each consumer's complaint and the financial services provider's responses to such complaints, such as whether the

requested relief was provided. The complaint portal allows consumers' narratives of their complaints to be included, although the Bureau does not verify the accuracy of the narratives. On July 29, 2016 the CFPB proposed to replace the dispute function on the portal, whereby the customer can dispute a company’s response to the complaint, with a survey that will allow the customer to provide feedback on the financial services provider's handling of the complaint. The CFPB seeks to implement this survey in late 2016 or early 2017. In addition to conducting regular examinations of regulated financial services provides, including Discover, the CFPB regularly collects account level information about certain financial products (e.g. credit cards) from

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Discover and other large financial services providers. The CFPB's analysis of complaint and account level data, together with its supervisory examinations, can inform future decisions about its regulatory and examination focus and influence consumers' decisions about doing business with a financial services provider.

Credit Cards

The cost and availability of credit, credit disclosures and consumer experience with debt collectors continue to be a focus of the CFPB. We anticipate that the CFPB will propose debt collection regulations that apply to our lending business in 2017. The CFPB published an outline of proposals under consideration for rules applying to debt collectors collecting on debt they do not own and is expected to publish an outline for entities collecting their own debt in the near future. The CFPB has indicated that those regulations will ensure that debt collectors have sufficient information to collect the related debt, prevent unfair, deceptive and abusive acts and practices, inform consumers of their rights and provide interpretations on certain sections of the Fair Debt Collections Practices Act. Courts and legislators also have been focused on the debt collection practices of consumer financial services providers. The ultimate impact of this increased scrutiny is uncertain at this time.

Private Student Loans

There continues to be significant legislative and regulatory focus on the private student loan market, including by the CFPB, the Federal Deposit Insurance Corporation (the "FDIC") and state legislatures. Some state attorneys general also have focused on student loan servicing, including the servicing of private loans. This regulatory focus has resulted in an increase in supervisory examinations of Discover related to private student loans. On July 22, 2015, the CFPB issued a consent order with respect to certain student loan servicing practices of Discover Bank, The Student Loan Corporation and Discover Products, Inc. See Note 13: Litigation and Regulatory Matters to our condensed consolidated financial statements for more information.

The recent regulatory areas of focus include servicing, payments and collection practices, originations at for-profit schools, and other matters. The CFPB's enforcement actions in August and September 2016 evidence its focus on disclosure, origination and servicing practices of private student lenders. Additionally, on September 29, 2016, California enacted a student loan servicing law that will impose new licensing, servicing, reporting and regulatory oversight requirements on non-bank servicers in the state. The enactment of new legislation or the adoption of new regulations or guidance may increase the complexity and expense of servicing student loans. Legislators and regulators may take additional actions that impact the student loan market in the future, which could cause us to change our private student loan products or servicing practices in ways that we may not currently anticipate.

Mortgage Lending

The mortgage industry continues to be an area of supervisory focus and the CFPB has stated that it will concentrate its examinations on the variety of mortgage-related topics including steering consumers to less favorable products, discrimination, abusive or unfair lending practices, predatory lending, origination disclosures, minimum mortgage underwriting standards, mortgage loan origination compensation and servicing practices. The CFPB has recently published several final rules impacting the mortgage industry. For example, on August 4, 2016, the CFPB issued final rules amending its 2013 mortgage servicing rules to expand the obligations of servicers and resolve some ambiguities. These changes will generally take effect in 2017. The CFPB has also recently proposed changes to the rules for integrated mortgage origination disclosures and expects to issue a final rule on or before April 1, 2017.

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 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 competitor pricing strategies. In addition, PULSE filed a lawsuit against Visa in late 2014 with respect to these competitive concerns, which will significantly 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.

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European interchange fee regulation entered into force in June 2015. The regulation, among other things, caps interchange fees of "four-party" networks such as Visa and MasterCard. However, the regulation provides that “three-party” networks should be treated as “four-party” networks when they license third-party providers to issue cards and/or acquire merchants or when they issue cards with a co-brand partner or through an agent. This means the caps apply to elements of the financial arrangements agreed to between Diners Club and each of our stand-alone acquirers in Western Europe. The caps took effect in December 2015. The regulation excludes commercial card transactions from the scope of the caps. The regulation also contains a number of business rules, which we are, to the extent applicable, implementing in our Diners Club business. We are continuing to evaluate our business strategies.

There are additional initiatives in Europe that may have an impact on our Diners Club 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. Each European Union member state will transpose the PSD2 into its national law, and in January 2018 the PSD2 will enter into force. 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 European Parliament's Civil Liberties, Justice and Home Affairs Committee approved the final draft of the GDPR in December 2015. The final GDPR was published in the Official Journal of the European Union on May 4, 2016. Organizations have two years to prepare before the legislation comes into force on May 25, 2018. We are analyzing the impact of the final GDPR on our business.

The Chinese State Council previously announced that foreign payments companies would be able to participate in the Chinese domestic market and be eligible to apply for a license to operate a Bank Card Clearing Institution ("BCCI") in China. In June 2016 the People’s Bank of China, in conjunction with the China Banking Regulatory Commission, promulgated the Administrative Measures on BCCIs, but implementation guidelines are yet to be published. We are analyzing any potential impact on our business strategy in China.

Capital, Liquidity and Funding

Capital

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 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 above the new regulatory minimum capital requirements, which must consist entirely of Common Equity Tier 1 ("CET1") capital and result in higher required minimum ratios by up to 2.5%. The new capital conservation buffer requirement became effective on January 1, 2016; however, the buffer threshold amounts are subject to a gradual phase-in period. In 2016, the highest capital conservation buffer threshold is 0.625%. 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 capital conservation buffer 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."

The Basel Committee has recently proposed revisions to its standardized approach to measuring credit risk for purposes of calculating regulatory capital requirements. The proposed 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. This change could require credit card issuers, such as Discover, to substantially increase the amount of capital they hold against unused credit card lines. If the Basel Committee were to adopt the revisions as proposed, they would become applicable to Discover only if implemented within the United States by the domestic federal bank regulatory agencies, and made applicable to "Standardized Approach" banks. Those agencies have publicly acknowledged the Basel Committee’s proposals, indicating that the revisions “would apply primarily to large, internationally active banking organizations.”

Liquidity

We are subject to the Federal Reserve's final rule implementing certain enhanced prudential standards under the Dodd-Frank Act for large U.S. bank holding companies, including enhanced liquidity and risk management requirements, which became effective January 1, 2015. The final rule prescribes a broad range of qualitative liquidity risk management practices.

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Additionally, we are subject to the U.S. liquidity coverage ratio rule issued by federal banking regulators in 2014, which became effective on January 1, 2016. This new 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. Under the rule's transition period, we are required to maintain a liquidity ratio of 90% in 2016, which will increase to 100% in 2017. As of September 30, 2016, our liquidity coverage ratio was in excess of the current regulatory requirement.

In April 2016, the federal banking agencies issued a notice of proposed rulemaking to implement, within the United States, the long-term liquidity standards previously issued at the international level by the Basel Committee on Banking Supervision. The proposed rule would impose a new quantitative liquidity requirement called the Net Stable Funding Ratio (“NSFR”) to ensure that covered banking organizations maintain stable funding to meet their funding needs over a one year time horizon. The NSFR is intended to complement the shorter-term liquidity coverage ratio requirement. Under the proposed rule, we would be subject to a less stringent “modified” NSFR requirement. If adopted as a final rule, the minimum NSFR requirements would take effect on January 1, 2018.

On September 26, 2016, the Federal Reserve issued proposed amendments to its capital plan and stress test rules for the 2017 cycle for certain bank holding companies with total consolidated assets between $50 billion and $250 billion, including Discover. Under the proposal, institutions characterized as large and noncomplex by the Federal Reserve would no longer be subject to the qualitative assessment in the Comprehensive Capital Analysis and Review (“CCAR”). The proposal would also eliminate certain reporting requirements for large and noncomplex institutions and would reduce the de minimis threshold under which a well-capitalized bank holding company can increase capital distributions during a non-object period without a reassessment from regulators. The Federal Reserve is accepting comments on its proposed amendments through November 25, 2016. The timing and final form of the amendments is uncertain.

Segments

We manage our business activities in two segments: Direct Banking and Payment Services. In compiling the segment results that follow, our Direct Banking segment bears all corporate overhead costs that are not specifically associated with a particular segment and all costs associated with Discover Network marketing, servicing and infrastructure, with the exception of an allocation of direct and incremental costs driven by our Payment Services segment.

Direct Banking

Our 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, our credit card products generate substantially all of our revenues related to discount and interchange, protection products and loan fee income.

Payment Services

Our Payment Services segment includes PULSE, an automated teller machine, debit and electronic funds transfer network; Diners Club, a global payments network; and our 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.

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

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2016	2015	2016	2015
Direct Banking				
Interest income				
Credit card	$1,812	$1,676	$5,279	$4,902
Private student loans	112	95	329	277
PCI student loans	46	54	142	170
Personal loans	185	161	523	468
Other	29	22	85	67
Total interest income	2,184	2,008	6,358	5,884
Interest expense	359	323	1,032	934
Net interest income	1,825	1,685	5,326	4,950
Provision for loan losses	445	332	1,279	1,026
Other income	408	435	1,210	1,371
Other expense	857	838	2,576	2,550
Income before income tax expense	931	950	2,681	2,745
Payment Services				
Provision for loan losses	—	—	2	2
Other income	68	68	205	213
Other expense	38	44	111	132
Income before income tax expense	30	24	92	79
Total income before income tax expense	$961	$974	$2,773	$2,824

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

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2016	2015	2016	2015
Network Transaction Volume				
PULSE Network	$33,913	$36,267	$102,449	$114,243
Network Partners	3,313	3,206	10,598	9,691
Diners Club[1]	7,331	6,560	21,267	19,807
Total Payment Services	44,557	46,033	134,314	143,741
Discover Network—Proprietary[2]	31,759	31,408	92,115	89,816
Total Volume	$76,316	$77,441	$226,429	$233,557
Transactions Processed on Networks				
Discover Network	535	519	1,559	1,487
PULSE Network	871	972	2,565	2,985
Total	1,406	1,491	4,124	4,472
Credit Card Volume				
Discover Card Volume[3]	$33,471	$32,971	$96,884	$93,995
Discover Card Sales Volume[4]	$30,683	$30,374	$88,937	$86,770

(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.

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Direct Banking

Our Direct Banking segment reported pretax income of $931 million and $2.7 billion for the three and nine months ended September 30, 2016, respectively, as compared to pretax income of $950 million and $2.7 billion for the three and nine months ended September 30, 2015, respectively.

Loan receivables increased to $73.6 billion at September 30, 2016 as compared to $72.4 billion at December 31, 2015 primarily due to growth in credit card loans and other loan portfolios, partially offset by a decrease in purchased credit-impaired ("PCI") student loan balances. Discover card sales volume was $30.7 billion and $88.9 billion for the three and nine months ended September 30, 2016, respectively, which was an increase of 1.0% and 2.5%, respectively, as compared to the same periods in 2015. This volume increase was primarily driven by an increase in discretionary spending and new accounts partially offset by the impact of lower gas prices and competitive impacts on sales in certain merchant categories.

Net interest margin increased for the three and nine months ended September 30, 2016 as compared to the same periods in 2015 primarily driven by higher yields on total loan receivables. The increase in total loan receivables yields was primarily driven by higher credit card yields resulting from the portfolio mix and the prime rate increase. The increased cost of funding was primarily driven by higher market rates and funding mix. Interest income increased during the three and nine months ended September 30, 2016 as compared to the same periods in 2015 due to loan growth and higher yields. Interest expense increased during the three and nine months ended September 30, 2016 as compared to the same periods in 2015 primarily due to higher market rates as well as higher average borrowings and deposits.

At September 30, 2016 and December 31, 2015, our delinquency rate for credit card loans over 30 days past due was 1.87% and 1.72%, respectively. For the three and nine months ended September 30, 2016, our net charge-off rate on credit cards increased to 2.17% and 2.30%, respectively, as compared to 2.04% and 2.24% for the same periods in 2015. For the three and nine months ended September 30, 2016, the provision for loan losses increased as compared to the same periods in 2015 due to the larger build of the allowance for loan losses combined with higher levels of charge-offs. For a detailed discussion on provision for loan losses, see "— Loan Quality — Provision and Allowance for Loan Losses."

Total other income decreased in the three and nine months ended September 30, 2016 as compared to the same periods in 2015 due primarily to a decrease in discount and interchange revenue driven by higher rewards and a reduction in protection products revenue, which reflects the impact of our no longer selling these products and eliminating related retention efforts. The cessation of our mortgage banking operations in 2015 also contributed to the decline in total other income for the nine months ended September 30, 2016 as compared to the same period in 2015.

Total other expense increased in the three and nine months ended September 30, 2016 as compared to the same periods in 2015. The increase for the nine months ended September 30, 2016 was primarily driven by higher employee compensation and benefits costs and professional fees, offset by a decrease in other expense. The increase in employee compensation and benefits costs was primarily due to growth in overall headcount driven in part by regulatory and compliance needs. The increase in professional fees was driven by anti-money laundering and related compliance program expenses. The decrease in other expense was primarily due to exit charges related to the closure of our mortgage business in 2015. The increase in total other expense for the three months ended September 30, 2016 was primarily driven by higher marketing and business development costs, which was partially offset by a decrease in professional fees due to the completion of look back related anti-money laundering remediation expenses in the second quarter of 2016.

Payment Services

Our Payment Services segment reported pretax income of $30 million and $92 million for the three and nine months ended September 30, 2016, respectively, as compared to pretax income of $24 million and $79 million for the same periods in 2015. The increases in segment pretax income were primarily driven by decreases in other expense partially offset by decreases in other income. The decrease in other expense was primarily driven by lower expenses due to the sale of Diners Club Italy. The decrease in other income was due to a reduction in transaction processing revenue resulting from lower point-of-sale transactions.

A weakening of the global economy or negative impacts in foreign currency may adversely affect our financial condition or results of operations in our Payment Services segments. We regularly review our Diners Club licensees with regard to their financial condition, risk management practices and overall operating performance. Although support to licensees has declined since 2015, 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

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consider to be of concern accounted for approximately 4% of Diners Club revenues during both the three and nine months ended September 30, 2016.

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, the accrual of income taxes and estimates of future cash flows associated with PCI loans 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, 2015. 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, 2015.

Earnings Summary

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

	For the Three Months Ended September 30,		2016 vs. 2015 Increase (Decrease)		For the Nine Months Ended September 30,		2016 vs. 2015 Increase (Decrease)	
	2016	2015	$	%	2016	2015	$	%
Interest income	$2,184	$2,008	$176	9 %	$6,358	$5,884	$474	8 %
Interest expense	359	323	36	11 %	1,032	934	98	10 %
Net interest income	1,825	1,685	140	8 %	5,326	4,950	376	8 %
Provision for loan losses	445	332	113	34 %	1,281	1,028	253	25 %
Net interest income after provision for loan losses	1,380	1,353	27	2 %	4,045	3,922	123	3 %
Other income	476	503	(27)	(5)%	1,415	1,584	(169)	(11)%
Other expense	895	882	13	1 %	2,687	2,682	5	— %
Income before income tax expense	961	974	(13)	(1)%	2,773	2,824	(51)	(2)%
Income tax expense	322	362	(40)	(11)%	943	1,027	(84)	(8)%
Net income	$639	$612	$27	4 %	$1,830	$1,797	$33	2 %

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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-bearing 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-bearing assets and liabilities, including our liquidity portfolio;
- 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 the London Interbank Offered Rate;
- 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 and nine months ended September 30, 2016 as compared to the same periods in 2015 primarily driven by higher yields on total loan receivables. The increase in total loan receivables yields was primarily driven by higher credit card yields resulting from the portfolio mix and the prime rate increase. The increased cost of funding was primarily driven by higher market rates and funding mix. Interest income increased during the three and nine months ended September 30, 2016 as compared to the same periods in 2015 due to loan growth and higher yields. Interest expense increased during the three and nine months ended September 30, 2016 as compared to the same periods in 2015 primarily due to higher market rates as well as higher average borrowings and deposits.

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Average Balance Sheet Analysis
(dollars in millions)

	For the Three Months Ended September 30,					
	2016			2015		
	Average Balance	Rate	Interest	Average Balance[1]	Rate[1]	Interest
Assets						
Interest-earning assets						
Cash and cash equivalents	$10,419	0.50 %	$13	$9,949	0.25 %	$6
Restricted cash	621	0.32 %	1	703	0.15 %	1
Other short-term investments	1,048	0.87 %	2	—	— %	—
Investment securities	2,294	1.49 %	9	2,660	1.64 %	11
Loan receivables[2]						
Credit card[3]	57,561	12.53%	1,812	55,281	12.03%	1,676
Personal loans	6,036	12.23%	186	5,307	12.08%	161
Private student loans	6,023	7.41 %	112	5,264	7.17 %	95
PCI student loans	2,772	6.52 %	45	3,316	6.42 %	54
Mortgage loans held for sale	—	— %	—	69	3.82 %	—
Other	276	4.96 %	4	225	4.63 %	4
Total loan receivables	72,668	11.82%	2,159	69,462	11.37%	1,990
Total interest-earning assets	87,050	9.98 %	2,184	82,774	9.62 %	2,008
Allowance for loan losses	(1,947)			(1,776)		
Other assets	4,282			4,333		
Total assets	$89,385			$85,331		
Liabilities and Stockholders' Equity						
Interest-bearing liabilities						
Interest-bearing deposits						
Time deposits[4]	$24,495	1.83 %	112	$26,364	1.61 %	107
Money market deposits[5]	6,939	1.10 %	19	7,236	0.97 %	17
Other interest-bearing savings deposits	17,321	1.05 %	47	12,734	1.01 %	33
Total interest-bearing deposits[6]	48,755	1.45 %	178	46,334	1.35 %	157
Borrowings						
Short-term borrowings	2	0.62 %	—	60	1.49 %	—
Securitized borrowings[4][5]	16,736	2.07 %	87	16,449	1.98 %	83
Other long-term borrowings[4]	8,746	4.27 %	94	7,401	4.44 %	83
Total borrowings	25,484	2.82 %	181	23,910	2.74 %	166
Total interest-bearing liabilities	74,239	1.92 %	359	70,244	1.82 %	323
Other liabilities and stockholders' equity	15,146			15,087		
Total liabilities and stockholders' equity	$89,385			$85,331		
Net interest income			$1,825			$1,685
Net interest margin[7]		9.99 %			9.62 %	
Net yield on interest-bearing assets[8]		8.34 %			8.08 %	
Interest rate spread[9]		8.06 %			7.80 %	

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Average Balance Sheet Analysis
(dollars in millions)

	For the Nine Months Ended September 30,					
	2016			2015		
	Average Balance	Rate	Interest	Average Balance[1]	Rate[1]	Interest
Assets						
Interest-earning assets						
Cash and cash equivalents	$10,541	0.50 %	$40	$9,881	0.25 %	$19
Restricted cash	562	0.37 %	2	665	0.13 %	1
Other short-term investments	635	0.86 %	3	—	— %	—
Investment securities	2,662	1.49 %	30	2,779	1.75 %	36
Loan receivables[2]						
Credit card[3]	56,606	12.46%	5,279	54,440	12.04%	4,902
Personal loans	5,717	12.23%	523	5,162	12.13%	468
Private student loans	5,953	7.38 %	329	5,180	7.15 %	277
PCI student loans	2,906	6.51 %	142	3,452	6.56 %	170
Mortgage loans held for sale	—	— %	—	125	3.63 %	3
Other	260	5.06 %	10	216	4.90 %	8
Total loan receivables	71,442	11.75%	6,283	68,575	11.36%	5,828
Total interest-earning assets	85,842	9.89 %	6,358	81,900	9.61 %	5,884
Allowance for loan losses	(1,910)			(1,779)		
Other assets	4,411			4,325		
Total assets	$88,343			$84,446		
Liabilities and Stockholders' Equity						
Interest-bearing liabilities						
Interest-bearing deposits						
Time deposits[4]	$24,874	1.75 %	325	$26,628	1.61 %	321
Money market deposits[5]	6,942	1.07 %	55	7,343	0.97 %	53
Other interest-bearing savings deposits	16,260	1.03 %	126	12,128	0.99 %	90
Total interest-bearing deposits[6]	48,076	1.41 %	506	46,099	1.35 %	464
Borrowings						
Short-term borrowings	2	0.63 %	—	113	1.41 %	1
Securitized borrowings[4][5]	16,773	2.06 %	258	16,983	1.93 %	246
Other long-term borrowings[4]	8,224	4.35 %	268	6,228	4.79 %	223
Total borrowings	24,999	2.81 %	526	23,324	2.69 %	470
Total interest-bearing liabilities	73,075	1.89 %	1,032	69,423	1.80 %	934
Other liabilities and stockholders' equity	15,268			15,023		
Total liabilities and stockholders' equity	$88,343			$84,446		
Net interest income			$5,326			$4,950
Net interest margin[7]		9.96 %			9.65 %	
Net yield on interest-bearing assets[8]		8.29 %			8.08 %	
Interest rate spread[9]		8.00 %			7.81 %	

(1) Upon adoption of ASU 2015-03, Interest—Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, certain balances as of September 30, 2015 have been restated to reflect the classification of debt issuance costs as a direct deduction of the related liability. See Note 1: Background and Basis of Presentation to our condensed consolidated financial statements for additional information.

(2)

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.

(3) Interest income on credit card loans includes $51 million and $144 million of amortization of balance transfer fees for the three and nine months ended September 30, 2016, respectively, and $49 million and $145 million of amortization of balance transfer fees for the three and nine months ended September 30, 2015, respectively.

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

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

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

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

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

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

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Loan Quality

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

	September 30, 2016	December 31, 2015
Loan receivables		
Credit card loans	$ 58,006	$ 57,896
Other loans		
Personal loans	6,273	5,490
Private student loans	6,287	5,647
Other	277	236
Total other loans	12,837	11,373
Purchased credit-impaired loans[(1)]	2,708	3,116
Total loan receivables	73,551	72,385
Allowance for loan losses	(2,024)	(1,869)
Net loan receivables	$ 71,527	$ 70,516

(1) Represents purchased credit-impaired private student loans. See Note 4: Loan Receivables to our condensed consolidated financial statements for additional 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 management judgment, the factors that influence the provision for loan losses include:

- The impact of general economic conditions on the consumer, including unemployment levels, bankruptcy trends and interest rate movements;
- Changes in consumer spending and payment 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 and nine months ended September 30, 2016, the provision for loan losses increased by $113 million, or 34%, and $253 million, or 25%, respectively, as compared to the same periods in 2015. The increase was primarily due to the larger build of the allowance for loan losses combined with higher levels of charge-offs for the three and nine months ended September 30, 2016 as compared to the same periods in 2015.

The allowance for loan losses was $2.0 billion at September 30, 2016, which reflects a $155 million reserve build over the amount of the allowance for loan losses at December 31, 2015. The reserve build, which relates primarily to credit card loans along with builds in personal and student loan reserves, was due to loan growth and seasoning of accounts. At September 30, 2016, the level of allowance related to other loans remained relatively flat as compared to December 31, 2015.

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

	For the Three Months Ended September 30, 2016				
	Credit Card	Personal Loans	Student Loans[1]	Other	Total
Balance at beginning of period	$1,603	$ 176	$ 151	$ 19	$1,949
Additions					
Provision for loan losses	372	51	21	1	445
Deductions					
Charge-offs	(425)	(46)	(17)	—	(488)
Recoveries	111	5	2	—	118
Net charge-offs	(314)	(41)	(15)	—	(370)
Balance at end of period	$1,661	$ 186	$ 157	$ 20	$2,024

	For the Three Months Ended September 30, 2015				
	Credit Card	Personal Loans	Student Loans[1]	Other	Total
Balance at beginning of period	$1,441	$ 131	$ 143	$ 20	$1,735
Additions					
Provision for loan losses	303	30	—	(1)	332
Deductions					
Charge-offs	(394)	(31)	(15)	—	(440)
Recoveries	109	5	2	—	116
Net charge-offs	(285)	(26)	(13)	—	(324)
Balance at end of period	$1,459	$ 135	$ 130	$ 19	$1,743

	For the Nine Months Ended September 30, 2016				
	Credit Card	Personal Loans	Student Loans[1]	Other	Total
Balance at beginning of period	$1,554	$ 155	$ 143	$ 17	$1,869
Additions					
Provision for loan losses	1,081	139	58	3	1,281
Deductions					
Charge-offs	(1,312)	(123)	(51)	—	(1,486)
Recoveries	338	15	7	—	360
Net charge-offs	(974)	(108)	(44)	—	(1,126)
Balance at end of period	$1,661	$ 186	$ 157	$ 20	$2,024

	For the Nine Months Ended September 30, 2015				
	Credit Card	Personal Loans	Student Loans[1]	Other	Total
Balance at beginning of period	$1,474	$ 120	$ 135	$ 17	$1,746
Additions					
Provision for loan losses	896	96	34	2	1,028
Deductions					

Charge-offs	(1,245)	(93)	(45)	—	(1,383)
Recoveries	334	12	6	—	352
Net charge-offs	(911)	(81)	(39)	—	(1,031)
Balance at end of period	$1,459	$ 135	$ 130	$ 19	$1,743

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

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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 September 30,				For the Nine Months Ended September 30,			
	2016		2015		2016		2015	
	$	%	$	%	$	%	$	%
Credit card loans	$314	2.17%	$285	2.04%	$974	2.30%	$911	2.24%
Personal loans	$41	2.63%	$26	1.99%	$108	2.49%	$81	2.10%
Private student loans (excluding PCI[(1)])	$15	1.02%	$13	0.94%	$44	0.99%	$39	0.99%

(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 4: Loan Receivables to our condensed consolidated financial statements for additional information regarding the accounting for charge-offs on PCI loans.

The net charge-off rate on our credit card loans for the three and nine months ended September 30, 2016 increased by 13 and 6 basis points, respectively, when compared to the same periods in 2015 primarily driven by seasoning of recent growth. The net charge-off rate on our personal loans for the three and nine months ended September 30, 2016 increased by 64 and 39 basis points, respectively, when compared to the same periods in 2015 primarily driven by higher charge-offs as a result of continued loan growth and seasoning effect. The net charge-off rate on our private student loans excluding PCI loans for the three months ended September 30, 2016 increased by 8 basis points, when compared to the same period in 2015 as a result of continued seasoning of the student loan portfolio as more loans have entered into repayment. The net charge-off rate on our private student loans excluding PCI loans for the nine months ended September 30, 2016 remained flat as compared to the same period in 2015.

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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):

	September 30, 2016		December 31, 2015	
	$	%	$	%
Loans 30 or more days delinquent				
Credit card loans	$1,086	1.87%	$995	1.72%
Personal loans	$62	0.98%	$49	0.89%
Private student loans (excluding PCI loans[1])	$117	1.87%	$108	1.91%
Loans 90 or more days delinquent				
Credit card loans	$500	0.86%	$490	0.85%
Personal loans	$16	0.25%	$15	0.27%
Private student loans (excluding PCI loans[1])	$28	0.45%	$24	0.43%
Loans not accruing interest	$210	0.30%	$224	0.32%
Restructured loans				
Credit card loans[2]	$1,046	1.80%	$1,019	1.76%
Personal loans[3]	$76	1.21%	$68	1.24%
Private student loans (excluding PCI loans[1])[4]	$71	1.13%	$48	0.85%

(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 $49 million and $44 million at September 30, 2016 and December 31, 2015, respectively, that are also included in loans over 90 days delinquent or more.

(3) Restructured personal loans include $2 million and $4 million at September 30, 2016 and December 31, 2015, respectively, that are also included in loans over 90 days delinquent or more.

(4) Restructured private student loans include $3 million at September 30, 2016 and December 31, 2015, that are also included in loans over 90 days delinquent or more.

The 30-day delinquency rates for credit card loans and personal loans at September 30, 2016 increased compared to December 31, 2015 as a result of seasoning of the loan portfolio. Private student loans 30-day delinquency rate at September 30, 2016 decreased compared to December 31, 2015 primarily driven by improving vintage performance and seasonality. The 90-day delinquency rates for credit card loans, personal loans and private student loans at September 30, 2016 remained relatively flat compared to December 31, 2015.

The restructured credit card loan and personal loan balances at September 30, 2016 remained relatively flat compared to December 31, 2015. The restructured private student loan balance at September 30, 2016 increased compared to December 31, 2015 primarily due to enhanced analysis beginning in the third quarter of 2016 to determine whether student loans should be accounted for as troubled debt restructurings.

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. The temporary hardship program primarily consists of a reduced

minimum payment and an interest rate reduction, 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 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. For additional information regarding the accounting treatment for these loans as

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well as amounts recorded in the financial statements related to these loans, see Note 4: Loan Receivables to our condensed consolidated financial statements.

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, reduction, or extended terms. With the seasoning of the student loan portfolio, a greater amount of borrower performance data has become available to enable us to analyze borrower characteristics that aid in the determination of whether or not loans entering a payment assistance program should be accounted for as troubled debt restructurings. Through this analysis management concluded that a modified loan typically meets the definition of a troubled debt restructuring based on the cumulative length of the concession period and an evaluation of the credit quality of the borrower, whereas previously only a second forbearance when the borrower was 30 days or greater delinquent was considered a troubled debt restructuring. As a result of these analyses, updates were implemented in July 2016 that modestly increased the student loan balances being accounted for as troubled debt restructurings, although it did not lead to significant changes in the balance of the overall allowance for loan loss.

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 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 troubled debt restructurings.

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 troubled debt restructurings in the future.

Other Income

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

	For the Three Months Ended September 30,		2016 vs. 2015 (Decrease) Increase		For the Nine Months Ended September 30,		2016 vs. 2015 (Decrease) Increase	
	2016	2015	$	%	2016	2015	$	%
Discount and interchange revenue[1]	$263	$288	$(25)	(9)%	$801	$854	$(53)	(6)%
Protection products revenue	60	62	(2)	(3)%	180	201	(21)	(10)%
Loan fee income	91	87	4	5 %	250	248	2	1 %
Transaction processing revenue	40	39	1	3 %	115	121	(6)	(5)%
Gain on investments	—	—	—	NM	—	8	(8)	(100)%
Gain on origination and sale of mortgage loans	—	2	(2)	(100)%	—	68	(68)	(100)%
Other income	22	25	(3)	(12)%	69	84	(15)	(18)%
Total other income	$476	$503	$(27)	(5)%	$1,415	$1,584	$(169)	(11)%

(1) Net of rewards, including Cashback Bonus rewards, of $368 million and $326 million for the three months ended September 30, 2016 and 2015, respectively, and of $1,031 million and $908 million for the nine months ended September 30, 2016 and 2015, respectively.

Total other income decreased in the three and nine months ended September 30, 2016 by $27 million and $169 million, respectively, as compared to the same periods in 2015 due primarily to a decrease in discount and interchange revenue driven by higher rewards and a reduction in protection products revenue, which reflects the impact of our no longer selling these products and eliminating related retention efforts. The cessation of our mortgage banking operations in 2015 also contributed to the decline in total other income for the nine months ended September 30, 2016 as compared to the same period in 2015.

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Other Expense

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

	For the Three Months Ended September 30,		2016 vs. 2015 Increase (Decrease)			For the Nine Months Ended September 30,		2016 vs. 2015 Increase (Decrease)		
	2016	2015	$	%		2016	2015	$	%	
Employee compensation and benefits	$342	$337	$5	1	%	$1,027	$994	$33	3	%
Marketing and business development	195	168	27	16	%	555	549	6	1	%
Information processing and communications	81	84	(3)	(4)	%	258	262	(4)	(2)	%
Professional fees	143	160	(17)	(11)	%	453	440	13	3	%
Premises and equipment	25	24	1	4	%	72	71	1	1	%
Other expense	109	109	—	—	%	322	366	(44)	(12)	%
Total other expense	$895	$882	$13	1	%	$2,687	$2,682	$5	—	%

Total other expense increased in the three and nine months ended September 30, 2016 by $13 million and $5 million, respectively, as compared to the same periods in 2015. The increase for the nine months ended September 30, 2016 was primarily driven by higher employee compensation and benefits costs and professional fees, offset by a decrease in other expense. The increase in employee compensation and benefits costs was primarily due to growth in overall headcount driven in part by regulatory and compliance needs. The increase in professional fees was driven by anti-money laundering and related compliance program expenses. The decrease in other expense was primarily due to exit charges related to the closure of our mortgage business in 2015. The increase in total other expense for the three months ended September 30, 2016 was primarily driven by higher marketing and business development costs, which was partially offset by a decrease in professional fees due to the completion of look back related anti-money laundering remediation expenses in the second quarter of 2016.

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 September 30,		For the Nine Months Ended September 30,	
	2016	2015	2016	2015
Income before income tax expense	$961	$974	$2,773	$2,824
Income tax expense	$322	$362	$943	$1,027
Effective income tax rate	33.5 %	37.2 %	34.0 %	36.4 %

Income tax expense decreased $40 million and $84 million for the three and nine months ended September 30, 2016, respectively, compared to the same periods in 2015. The effective tax rates for the three and nine months ended September 30, 2016 of 33.5% and 34.0%, respectively, decreased from 37.2% and 36.4% for the same periods in 2015. The decrease in rates is due to certain tax benefits, the settlement with the United States Congress Joint Committee on Taxation that occurred in the second quarter of 2016 and the resolution of certain federal and state 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 deposits, sourced directly from consumers or through brokers, 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 private term asset-backed securitizations. In addition, we have unused capacity with the Federal Reserve discount window which provides another source of contingent liquidity.

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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 September 30, 2016, we had $35.3 billion of direct-to-consumer deposits and $13.9 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 both publicly and through 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 negatively impact our liquidity and 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 September 30, 2016, the DiscoverSeries three-month rolling average excess spread was 13.27%.

We may elect to add receivables to the restricted pool of receivables subject to certain requirements. We elected to add receivables to the restricted pool of receivables as of the end of second quarter 2016. The addition increased the capacity to issue notes to investors or draw on commitments through privately placed securitizations, and resulted in a decrease in receivables pledged at the Federal Reserve discount window. In third quarter, no accounts were added to those restricted for securitization investors. For additional information regarding the seller's interest requirement, see Note 5: Credit Card and Student Loan Securitization Activities to our condensed consolidated financial statements.

At September 30, 2016, we had $16.9 billion of outstanding public asset-backed securities and $5.3 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 September 30, 2016	Total	Less Than One Year	One Year Through Three Years	Four Years Through Five Years	After Five Years
Scheduled maturities of long-term borrowings - owed to credit card securitization investors	$16,860	$4,748	$10,459	$ 1,653	$ —

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

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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 September 30, 2016, we had $956 million of remaining principal balance outstanding on securitized debt assumed as part of the acquisition of 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 September 30, 2016	Principal Amount Outstanding
Discover Financial Services (Parent Company) fixed-rate senior notes, maturing 2017-2025	$ 2,300
Discover Financial Services (Parent Company) fixed-rate retail notes, maturing 2016-2028	$ 150
Discover Bank fixed-rate senior bank notes, maturing 2018-2026	$ 6,150
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 September 30, 2016 and December 31, 2015, there were no outstanding balances under the Federal Funds market or repurchase agreements.

Additional Funding Sources

Private Asset-Backed Securitizations

We have access to committed, undrawn borrowing capacity through privately placed asset-backed securitizations. At September 30, 2016, we had total committed capacity of $6.0 billion, none 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, based upon 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 and renewing them approximately one year prior to their scheduled maturity dates.

Federal Reserve

Discover Bank has access to the Federal Reserve Bank of Philadelphia’s discount window. As of September 30, 2016, Discover Bank had $23.0 billion of available borrowing capacity through the discount window based on the amount and type of assets pledged. We have no borrowings outstanding under the discount window and reserve this capacity as a source of contingency funding.

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 both the normal course of business and hypothetical adverse environments, considering primary uses of

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funding, such as on-balance sheet loans, and contingency uses of funding, such as the need to post additional collateral for derivatives positions. In order to anticipate funding needs under adverse environments, we maintain liquidity stress scenarios that assess the impact of a range of unusual business events, such as severe economic recessions, financial market disruptions, adverse operational or reputational events and other forms of stress.

Credit Ratings

Our borrowing costs and capacity in certain funding markets, including 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 potentially higher fees related to borrowings under our lines of credit. 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. Because the credit rating of DFS did not meet the specified thresholds, we had posted $4 million of collateral with our counterparties at September 30, 2016. Discover Bank's credit rating met specified thresholds set by its counterparties. However, if Discover Bank's credit ratings were reduced by one ratings notch, Discover Bank would be required to post additional collateral, which, as of September 30, 2016, would have been approximately $58 million.

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[1]
Discover Financial Services			
Senior unsecured debt	Ba1	BBB-	BBB+
Outlook for Discover Financial Services senior unsecured debt	Stable	Stable	Stable
Discover Bank			
Senior unsecured debt	Baa3	BBB	BBB+
Outlook for Discover Bank senior unsecured debt	Stable	Stable	Stable
Subordinated debt	Ba1	BBB-	BBB
Discover Card Execution Note Trust			
Class A[2]	Aaa(sf)	AAA(sf)	AAA(sf)

(1) On September 28, 2016, Fitch Ratings affirmed its Long-Term Issuer Default Rating (senior unsecured credit rating) and outlook for DFS and Discover Bank at BBB+ (Stable).

(2) 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 both normal and stress 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 for managing liquidity risk across our businesses. The policy is approved by the Board of Directors with the implementation responsibilities delegated to the Asset and Liability Management Committee (the “ALCO”). We seek to balance the trade-offs between maintaining too much liquidity, which may be costly, with having too little liquidity, which could cause 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 financial obligations.

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

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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 liquidity sources include our liquidity portfolio and private securitizations with unused borrowing capacity, which we could utilize to satisfy liquidity needs during normal and stress conditions. 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 addition, we have unused capacity with the Federal Reserve discount window which provides a source of contingent liquidity.

At September 30, 2016, 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 U.S. government housing agencies, and residential mortgage-backed securities issued by U.S. government housing agencies. 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 Statement of Financial Condition as well as operational requirements and market conditions.

At September 30, 2016, our liquidity portfolio and undrawn credit facilities were $43.1 billion, which was $306 million higher than the balance at December 31, 2015. During the three and nine months ended September 30, 2016, the average balance of our liquidity portfolio was $13.1 billion and $13.6 billion, respectively.

	September 30, 2016	December 31, 2015
	(dollars in millions)	
Liquidity portfolio		
Cash and cash equivalents[1]	$ 12,406	$ 9,121
Investment securities[2]	1,611	2,956
Total liquidity portfolio	14,017	12,077
Private asset-backed securitizations[3]	6,000	6,750
Primary liquidity sources	20,017	18,827
Federal Reserve discount window[3]	23,048	23,932
Total liquidity portfolio and undrawn credit facilities	$ 43,065	$ 42,759

(1) Cash-in-process is excluded from cash and cash equivalents for liquidity purposes.

(2) Excludes $86 million and $7 million of U.S. Treasury securities that have been pledged as swap collateral in lieu of cash as of September 30, 2016 and December 31, 2015, respectively.

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

Bank Holding Company Liquidity

The primary uses of funds at the bank holding company include debt service obligations (interest payments and return of principal) and capital management activities, which include dividends 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 preferred stock in the capital markets, 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 dividend payments and debt

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service obligations using existing cash resources. At September 30, 2016, 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 7: 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 from the earnings generated by our businesses and common and preferred stock issuances in the capital markets. We seek to manage capital to a level and composition sufficient to support the risks of our businesses, meet regulatory requirements, meet rating agency targets and debt investor expectations and support future business growth. 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, Discover Financial Services, 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. Capital amounts and classification are also subject to qualitative judgments by the regulators about components, risk weightings and other factors. 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 Discover Financial Services and Discover Bank. Under those rules, Discover Financial Services 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 11: Capital Adequacy to our condensed consolidated financial statements.

The Basel III rules also introduce a new capital conservation buffer 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 will increase by 0.625% on each subsequent January 1 until it reaches the maximum 2.5% on January 1, 2019. When the capital conservation buffer 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.

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 additional 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

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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, as a stand-alone report called "Basel III Regulatory Capital Disclosures."

At September 30, 2016, Discover Financial Services 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 11: 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 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 September 30, 2016, 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):

	September 30, 2016	December 31, 2015
Total common stockholders' equity[1]	$ 10,787	$ 10,715
Less: Goodwill	(255)	(255)
Less: Intangible assets, net	(166)	(168)
Tangible common equity	$ 10,366	$ 10,292

(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 calculated and risk-weighted assets under fully phased-in Basel III rules (dollars in millions):

	September 30, 2016	
Common equity Tier 1 capital (Basel III transition)	$ 10,618	
Adjustments related to capital components during transition[1]	(52)	
Common equity Tier 1 capital (Basel III fully phased-in)	$ 10,566	
Risk-weighted assets (Basel III fully phased-in)[2]	$ 76,493	
Common equity Tier 1 capital ratio (Basel III fully phased-in)	13.8	%

(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. In April 2016, we submitted our annual capital plan to the Federal Reserve under the Federal Reserve's CCAR program, which included planned dividends and share repurchases over the nine quarter planning horizon. In June 2016, we received non-objection from the Federal

Reserve with respect to our proposed capital actions through June 30, 2017. On August 19, 2016, we received a non-objection from the Federal Reserve with respect to the repurchase of up to an additional $100 million of shares of our common stock. This amount is in addition to the $1.95 billion of share repurchases included in our 2016 capital plan. 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.

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Also in June 2016, 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 Discover Financial Services. At that same time, we published company-run stress test results for Discover Financial Services and Discover Bank. Discover Financial Services 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 published our most recent mid-year stress test results on October 6, 2016.

We recently declared a quarterly cash dividend on our common stock of $0.30 per share, payable on November 17, 2016 to holders of record on November 3, 2016, which is consistent with last quarter. We also recently declared a quarterly cash dividend on our preferred stock of $16.25 per share, equal to $0.40625 per depositary share, payable on November 28, 2016, to holders of record on November 11, 2016, which was the same as the amount paid on our preferred stock in the prior quarter.

On July 14, 2016, our board of directors approved a share repurchase program authorizing the repurchase of up to $2.5 billion of our outstanding shares of common stock. The program expires on October 31, 2017 and may be terminated at any time. This program replaced the prior $2.2 billion program, which had $158 million of remaining authorization. During the three months ended September 30, 2016, we repurchased approximately 10 million shares, or 2%, of our outstanding common stock for $581 million. We expect to continue to make share repurchases under our repurchase program from time to time based on market conditions and other factors, subject to legal and regulatory requirements and restrictions. 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, also noted above, 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 12: 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 September 30, 2016, which include deposits, long-term borrowings, operating and capital lease obligations, interest payments on fixed-rate debt, purchase obligations and other liabilities were $82.7 billion. For a description of our contractual obligations, see our annual report on Form 10-K for the year ended December 31, 2015 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, provided there is no violation of conditions established in the related agreement. At September 30,

2016, our unused commitments were approximately $190.8 billion. These commitments, substantially all of which we can terminate at any time and which do not necessarily represent future cash requirements, are periodically reviewed based on

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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 negatively affected if the interest rate earned on assets increases at a slower pace than increases to the interest rate we owe on our borrowings. Changes in interest rates and competitor responses to those changes may influence customer payment rates, loan balances or deposit account activity. We may face higher-cost alternative sources of funding as a result, 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 the mix of variable and fixed-rate assets. To the extent that asset and related financing repricing characteristics of a particular portfolio are not matched effectively, 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 15: 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 increase 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 that affect our results would increase 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 restrictions on our ability to mitigate interest rate risk by adjusting rates on existing balances and competitive actions may restrict our ability to increase the rates that we charge to customers for new loans. At September 30, 2016, the majority of our credit card and student loans were at 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 change 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.

Assuming an immediate 100 basis point increase in the interest rates affecting all interest rate sensitive assets and liabilities at September 30, 2016, we estimate that net interest income over the following 12-month period would increase by

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approximately $227 million, or 3%. Assuming an immediate 100 basis point increase in the interest rates affecting all interest rate sensitive assets and liabilities at December 31, 2015, we estimated that net interest income over the following 12-month period would increase by approximately $217 million, or 3%. We have not provided an estimate of any impact on net interest income of a decrease in interest rates as many of our interest rate sensitive assets and liabilities are tied to interest rates that are already at or near their historical minimum levels (i.e., Prime and LIBOR) and, therefore, could not materially decrease further assuming U.S. market interest rates continue to remain above zero percent. Sustained negative interest rates for an economy the size and complexity of the United States would likely lead to broad macroeconomic impacts that are difficult to foresee. While there is a possibility that U.S market interest rates could fall below zero percent, this has not historically occurred in the United States. 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 are dependent 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 design, competitor actions, which may affect pricing decisions in our loans and deposits, and strategic actions undertaken by management.

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.

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Part II. OTHER INFORMATION

Item 1. Legal Proceedings

For a description of legal proceedings, see Note 13: 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, 2015.

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]
July 1 - 31, 2016				
Repurchase program[1]	2,900,284	$ 55.41	2,900,284	$2,404,300,076
Employee transactions[2]	8,794	$ 54.87	N/A	N/A
August 1 - 31, 2016				
Repurchase program[1]	3,291,869	$ 57.59	3,291,869	$2,214,709,550
Employee transactions[2]	1,782	$ 54.64	N/A	N/A
September 1 - 30, 2016				
Repurchase program[1]	3,927,337	$ 58.73	3,927,337	$1,984,040,245
Employee transactions[2]	916	$ 59.60	N/A	N/A
Total				
Repurchase program[1]	10,119,490	$ 57.41	10,119,490	$1,984,040,245
Employee transactions[2]	11,492	$ 55.21	N/A	N/A

(1) On July 14, 2016, our board of directors approved a share repurchase program authorizing the purchase of up to $2.5 billion of our outstanding shares of common stock. This share repurchase program expires on October 31, 2017 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.

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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 and Chief Financial Officer

Date: October 27, 2016

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Exhibit Index

Exhibit Number	Description
4.1	Fiscal and Paying Agency Agreement, dated July 27, 2016, between Discover Bank, as issuer, and U.S. Bank National Association, as fiscal and paying agent (filed as Exhibit 4.1 to Discover Financial Services' current report on Form 8-K filed on July 28, 2016 and incorporated herein by reference thereto).
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.