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

(Mark One)

- ☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended September 30, 2023
- ☐ **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

(State or other jurisdiction of incorporation or organization)

36-2517428

(I.R.S. Employer Identification No.)

2500 Lake Cook Road, Riverwoods, Illinois 60015

(Address of principal executive offices, including zip code)

(224) 405-0900

(Registrant's telephone number, including area code)

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

<u>Title of each class</u>	<u>Trading symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, par value \$0.01 per share	DFS	New York Stock Exchange

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large Accelerated Filer	<input checked="" type="checkbox"/>	Accelerated Filer	<input type="checkbox"/>
Non-accelerated Filer	<input type="checkbox"/>	Smaller Reporting Company	<input type="checkbox"/>
		Emerging Growth Company	<input type="checkbox"/>

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

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

As of October 20, 2023, there were 250,057,955 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, 2023

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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. See Glossary of Acronyms, located after Part I — Item 4, for terms and abbreviations used throughout the quarterly report.

We own or have rights to use the trademarks, trade names and service marks that we use in conjunction with the operation of our business, including, but not limited to Discover®, PULSE®, Cashback Bonus®, Discover Cashback Checking®, Discover it®, Freeze it®, College Covered® and Diners Club International®. All other trademarks, trade names and service marks included in this quarterly report on Form 10-Q are the property of their respective owners.

Part I. FINANCIAL INFORMATION
Item 1. Financial Statements

DISCOVER FINANCIAL SERVICES
Condensed Consolidated Statements of Financial Condition (unaudited)
(dollars in millions, except for share amounts)

	September 30, 2023	December 31, 2022
Assets		
Cash and cash equivalents	\$ 9,194	\$ 8,856
Restricted cash	39	41
Investment securities (includes available-for-sale securities of \$13,079 and \$11,987 reported at fair value with associated amortized cost of \$13,447 and \$12,167 at September 30, 2023 and December 31, 2022, respectively)	13,336	12,208
Loan receivables		
Loan receivables	122,676	112,120
Allowance for credit losses	(8,665)	(7,374)
Net loan receivables	114,011	104,746
Premises and equipment, net	1,084	1,003
Goodwill	255	255
Other assets	5,513	4,597
Total assets	\$ 143,432	\$ 131,706
Liabilities and Stockholders' Equity		
Liabilities		
Deposits		
Interest-bearing deposit accounts	\$ 102,638	\$ 90,151
Non-interest bearing deposit accounts	1,381	1,485
Total deposits	104,019	91,636
Long-term borrowings	19,467	20,108
Accrued expenses and other liabilities	5,710	5,618
Total liabilities	129,196	117,362
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; 570,780,616 and 569,689,007 shares issued at September 30, 2023 and December 31, 2022, respectively	6	6
Preferred stock, par value \$0.01 per share; 200,000,000 shares authorized; 10,700 shares issued and outstanding at September 30, 2023 and December 31, 2022, respectively	1,056	1,056
Additional paid-in capital	4,520	4,468
Retained earnings	30,236	28,207
Accumulated other comprehensive loss	(573)	(339)
Treasury stock, at cost; 320,724,371 and 302,305,216 shares at September 30, 2023 and December 31, 2022, respectively	(21,009)	(19,054)
Total stockholders' equity	14,236	14,344
Total liabilities and stockholders' equity	\$ 143,432	\$ 131,706

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, 2023	December 31, 2022
Assets		
Restricted cash	\$ 39	\$ 41
Loan receivables	\$ 24,946	\$ 25,937
Allowance for credit losses allocated to securitized loan receivables	\$ (1,129)	\$ (1,152)
Other assets	\$ 4	\$ 3
Liabilities		
Long-term borrowings	\$ 10,889	\$ 10,259
Accrued expenses and other liabilities	\$ 17	\$ 14

See Notes to the Condensed Consolidated Financial Statements.

DISCOVER FINANCIAL SERVICES
Condensed Consolidated Statements of Income (unaudited)
(dollars in millions, except for share amounts)

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2023	2022	2023	2022
Interest income				
Credit card loans	\$ 3,726	\$ 2,783	\$ 10,513	\$ 7,475
Other loans	653	476	1,823	1,343
Investment securities	120	35	327	104
Other interest income	111	63	314	86
Total interest income	4,610	3,357	12,977	9,008
Interest expense				
Deposits	1,061	345	2,722	658
Short-term borrowings	2	1	2	2
Long-term borrowings	225	168	622	416
Total interest expense	1,288	514	3,346	1,076
Net interest income	3,322	2,843	9,631	7,932
Provision for credit losses	1,702	773	4,109	1,476
Net interest income after provision for credit losses	1,620	2,070	5,522	6,456
Other income				
Discount and interchange revenue, net	377	335	1,077	1,023
Protection products revenue	42	42	129	128
Loan fee income	194	168	546	450
Transaction processing revenue	82	65	221	183
Gains (losses) on equity investments	6	(4)	(11)	(208)
Other income	21	19	71	64
Total other income	722	625	2,033	1,640
Other expense				
Employee compensation and benefits	575	551	1,788	1,566
Marketing and business development	283	276	792	722
Information processing and communications	149	124	438	370
Professional fees	281	241	729	607
Premises and equipment	22	22	64	70
Other expense	144	154	430	386
Total other expense	1,454	1,368	4,241	3,721
Income before income taxes	888	1,327	3,314	4,375
Income tax expense	205	314	762	1,026
Net income	\$ 683	\$ 1,013	\$ 2,552	\$ 3,349
Net income allocated to common stockholders	\$ 647	\$ 975	\$ 2,473	\$ 3,267
Basic earnings per common share	\$ 2.59	\$ 3.57	\$ 9.70	\$ 11.70
Diluted earnings per common share	\$ 2.59	\$ 3.56	\$ 9.69	\$ 11.69

See Notes to the Condensed Consolidated Financial Statements.

DISCOVER FINANCIAL SERVICES
Condensed Consolidated Statements of Comprehensive Income (unaudited)
(dollars in millions)

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2023	2022	2023	2022
Net income	\$ 683	\$ 1,013	\$ 2,552	\$ 3,349
Other comprehensive loss, net of tax				
Unrealized losses on available-for-sale investment securities, net of tax	(83)	(100)	(142)	(262)
Unrealized (losses) gains on cash flow hedges, net of tax	(20)	(2)	(92)	3
Other comprehensive loss	(103)	(102)	(234)	(259)
Comprehensive income	<u>\$ 580</u>	<u>\$ 911</u>	<u>\$ 2,318</u>	<u>\$ 3,090</u>

See Notes to the Condensed Consolidated Financial Statements.

DISCOVER FINANCIAL SERVICES
Condensed Consolidated Statements of Changes in Stockholders' Equity (unaudited)
(dollars in millions, shares in thousands)

	Preferred Stock		Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
For the Three Months Ended September 30, 2022									
Balance at June 30, 2022	11	\$ 1,056	569,564	\$ 6	\$ 4,417	\$ 26,531	\$ (251)	\$ (18,240)	\$ 13,519
Net income	—	—	—	—	—	1,013	—	—	1,013
Other comprehensive loss	—	—	—	—	—	—	(102)	—	(102)
Purchases of treasury stock	—	—	—	—	—	—	—	(212)	(212)
Common stock issued under employee benefit plans	—	—	31	—	2	—	—	—	2
Common stock issued and stock-based compensation expense	—	—	42	—	25	—	—	—	25
Dividends — common stock (\$0.60 per share)	—	—	—	—	—	(166)	—	—	(166)
Dividends — Series C preferred stock (\$2,750 per share)	—	—	—	—	—	(15)	—	—	(15)
Dividends — Series D preferred stock (\$3,062.50 per share)	—	—	—	—	—	(16)	—	—	(16)
Balance at September 30, 2022	11	\$ 1,056	569,637	\$ 6	\$ 4,444	\$ 27,347	\$ (353)	\$ (18,452)	\$ 14,048
For the Three Months Ended September 30, 2023									
Balance at June 30, 2023	11	\$ 1,056	570,628	\$ 6	\$ 4,508	\$ 29,761	\$ (470)	\$ (21,005)	\$ 13,856
Net income	—	—	—	—	—	683	—	—	683
Other comprehensive loss	—	—	—	—	—	—	(103)	—	(103)
Purchases of treasury stock	—	—	—	—	—	—	—	(4)	(4)
Common stock issued under employee benefit plans	—	—	32	—	3	—	—	—	3
Common stock issued and stock-based compensation expense	—	—	121	—	9	—	—	—	9
Dividends — common stock (\$0.70 per share)	—	—	—	—	—	(177)	—	—	(177)
Dividends — Series C preferred stock (\$2,750 per share)	—	—	—	—	—	(15)	—	—	(15)
Dividends — Series D preferred stock (\$3,062.50 per share)	—	—	—	—	—	(16)	—	—	(16)
Balance at September 30, 2023	11	\$ 1,056	570,781	\$ 6	\$ 4,520	\$ 30,236	\$ (573)	\$ (21,009)	\$ 14,236

See Notes to the Condensed Consolidated Financial Statements.

	Preferred Stock		Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
For the Nine Months Ended September 30, 2022									
Balance at December 31, 2021	11	\$ 1,056	568,831	\$ 6	\$ 4,369	\$ 24,538	\$ (94)	\$ (16,695)	\$ 13,180
Net income	—	—	—	—	—	3,349	—	—	3,349
Other comprehensive loss	—	—	—	—	—	—	(259)	—	(259)
Purchases of treasury stock	—	—	—	—	—	—	—	(1,757)	(1,757)
Common stock issued under employee benefit plans	—	—	80	—	7	—	—	—	7
Common stock issued and stock-based compensation expense	—	—	726	—	68	—	—	—	68
Dividends — common stock (\$1.70 per share)	—	—	—	—	—	(478)	—	—	(478)
Dividends — Series C preferred stock (\$5,500 per share)	—	—	—	—	—	(31)	—	—	(31)
Dividends — Series D preferred stock (\$6,125 per share)	—	—	—	—	—	(31)	—	—	(31)
Balance at September 30, 2022	11	\$ 1,056	569,637	\$ 6	\$ 4,444	\$ 27,347	\$ (353)	\$ (18,452)	\$ 14,048
For the Nine Months Ended September 30, 2023									
Balance at December 31, 2022	11	\$ 1,056	569,689	\$ 6	\$ 4,468	\$ 28,207	\$ (339)	\$ (19,054)	\$ 14,344
Cumulative effect of ASU No. 2022-02 adoption	—	—	—	—	—	52	—	—	52
Net income	—	—	—	—	—	2,552	—	—	2,552
Other comprehensive loss	—	—	—	—	—	—	(234)	—	(234)
Purchases of treasury stock	—	—	—	—	—	—	—	(1,955)	(1,955)
Common stock issued under employee benefit plans	—	—	90	—	9	—	—	—	9
Common stock issued and stock-based compensation expense	—	—	1,002	—	43	—	—	—	43
Dividends — common stock (\$2.00 per share)	—	—	—	—	—	(513)	—	—	(513)
Dividends — Series C preferred stock (\$5,500 per share)	—	—	—	—	—	(31)	—	—	(31)
Dividends — Series D preferred stock (\$6,125 per share)	—	—	—	—	—	(31)	—	—	(31)
Balance at September 30, 2023	11	\$ 1,056	570,781	\$ 6	\$ 4,520	\$ 30,236	\$ (573)	\$ (21,009)	\$ 14,236

See Notes to the Condensed Consolidated Financial Statements.

DISCOVER FINANCIAL SERVICES
Condensed Consolidated Statements of Cash Flows (unaudited)
(dollars in millions)

	For the Nine Months Ended September 30,	
	2023	2022
Cash flows provided by operating activities		
Net income	\$ 2,552	\$ 3,349
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for credit losses	4,109	1,476
Deferred income taxes	(470)	(317)
Depreciation and amortization	354	424
Amortization of deferred revenues	(335)	(261)
Net losses on investments and other assets	40	246
Other, net	63	73
Changes in assets and liabilities:		
Increase in other assets	(436)	(350)
(Decrease) increase in accrued expenses and other liabilities	(190)	325
Net cash provided by operating activities	5,687	4,965
Cash flows provided by (used for) investing activities		
Maturities of available-for-sale investment securities	1,431	1,677
Purchases of available-for-sale investment securities	(2,627)	(2,001)
Maturities of held-to-maturity investment securities	12	26
Purchases of held-to-maturity investment securities	(49)	(40)
Net change in principal on loans originated for investment	(13,145)	(12,297)
Proceeds from the sale of other investments	4	325
Purchases of other investments	(60)	(135)
Purchases of premises and equipment	(235)	(178)
Net cash used for investing activities	(14,669)	(12,623)
Cash flows provided by (used for) financing activities		
Net change in short-term borrowings	—	(1,750)
Net change in deposits	12,348	10,482
Proceeds from issuance of securitized debt	2,232	4,626
Maturities and repayment of securitized debt	(1,489)	(2,566)
Proceeds from issuance of other long-term borrowings	523	—
Maturities and repayments of other long-term borrowings	(1,808)	(322)
Proceeds from issuance of common stock	9	7
Purchases of treasury stock	(1,937)	(1,757)
Dividends paid on common and preferred stock	(560)	(524)
Net cash provided by financing activities	9,318	8,196
Net increase in cash, cash equivalents and restricted cash	336	538
Cash, cash equivalents and restricted cash, at the beginning of the period	8,897	11,332
Cash, cash equivalents and restricted cash, at the end of the period	\$ 9,233	\$ 11,870
Reconciliation of cash, cash equivalents and restricted cash		
Cash and cash equivalents	\$ 9,194	\$ 10,004
Restricted cash	39	1,866
Cash, cash equivalents and restricted cash, at the end of the period	\$ 9,233	\$ 11,870

See Notes to the Condensed Consolidated Financial Statements.

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 digital banking and payment services company. The Company is a bank holding company under the Bank Holding Company Act of 1956 and a financial holding company under the Gramm-Leach-Bliley Act. Therefore, the Company is subject to oversight, regulation and examination by the Board of Governors of the Federal Reserve System (the "Federal Reserve"). The Company provides digital banking products and services and payment services through its subsidiaries. The Company offers its customers credit card loans, private student loans, personal loans, home loans and deposit products. The Company also operates the Discover Network, the PULSE network ("PULSE") and Diners Club International ("Diners Club"), collectively known as the Discover Global Network. The Discover Network processes transactions for Discover-branded credit and debit cards and provides payment transaction processing and settlement services. PULSE operates an electronic funds transfer network, providing financial institutions issuing debit cards on the PULSE network with access to ATMs domestically and internationally, as well as merchant acceptance throughout the United States of America ("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 credit and charge cards and/or provide card acceptance services.

The Company manages its business activities in two segments, Digital Banking and Payment Services, based on the products and services provided. See Note 16: Segment Disclosures for a detailed description of each segment's operations and the allocation conventions used in business segment reporting.

Basis of Presentation

The accompanying condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the U.S. ("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 necessary for the fair presentation of 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 2022 audited consolidated financial statements filed with the Company's annual report on Form 10-K for the year ended December 31, 2022.

Immaterial Restatement of Prior Period Financial Statements

As reported in the second quarter of 2023, beginning in 2007, the Company incorrectly classified certain credit card accounts into its highest merchant and merchant acquirer pricing tier. The Company determined the revenue impact of the incorrect card product classification was immaterial to the consolidated financial statements for all impacted prior periods. For comparative purposes, the Company has made these corrections to the consolidated financial statements for the prior periods presented in this Form 10-Q. Additionally, prior period amounts in the applicable notes to the consolidated financial statements have been corrected. The impacts of the misclassification and subsequent corrections are contained entirely within the Digital Banking segment. See Note 18: Immaterial Restatement of Prior Period Financial Statements for additional information and quantification of the prior period restatement impacts.

Recently Issued Accounting Pronouncement (Not Yet Adopted)

In March 2023, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2023-02, *Investments—Equity Method and Joint Ventures (Topic 323): Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method*. The ASU expands the use of the proportional amortization method of accounting for tax credit investments. Currently, the method is limited to Low Income Housing Tax Credit investments. Under the amended guidance, use of proportional amortization will be available to any qualifying tax credit investments, including but not limited to investments in New Markets Tax Credit and Renewable Energy Tax Credit programs. The amendments in the ASU are to be applied on a retrospective or modified retrospective basis. The ASU is effective for the Company on January 1, 2024. Management does not expect the amendments to have a material impact on the Company’s consolidated financial statements.

2. Investments

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

	September 30, 2023	December 31, 2022
U.S. Treasury ⁽¹⁾ and U.S. GSE ⁽²⁾ securities	\$ 12,606	\$ 11,423
Residential mortgage-backed securities - Agency ⁽³⁾	730	785
Total investment securities	<u>\$ 13,336</u>	<u>\$ 12,208</u>

(1) Includes \$285 million and \$97 million of U.S. Treasury securities pledged as swap collateral as of September 30, 2023 and December 31, 2022, respectively.

(2) Consists of a security issued by the Federal Home Loan Bank.

(3) Consists of securities issued by Fannie Mae, Freddie Mac, or 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, 2023				
Available-for-Sale Investment Securities⁽¹⁾				
U.S. Treasury and U.S. GSE securities	\$ 12,942	\$ —	\$ (336)	\$ 12,606
Residential mortgage-backed securities - Agency	505	—	(32)	473
Total available-for-sale investment securities	<u>\$ 13,447</u>	<u>\$ —</u>	<u>\$ (368)</u>	<u>\$ 13,079</u>
Held-to-Maturity Investment Securities⁽²⁾				
Residential mortgage-backed securities - Agency ⁽³⁾	\$ 257	\$ —	\$ (31)	\$ 226
Total held-to-maturity investment securities	<u>\$ 257</u>	<u>\$ —</u>	<u>\$ (31)</u>	<u>\$ 226</u>
At December 31, 2022				
Available-for-Sale Investment Securities⁽¹⁾				
U.S. Treasury and U.S. GSE securities	\$ 11,580	\$ 21	\$ (178)	\$ 11,423
Residential mortgage-backed securities - Agency	587	—	(23)	564
Total available-for-sale investment securities	<u>\$ 12,167</u>	<u>\$ 21</u>	<u>\$ (201)</u>	<u>\$ 11,987</u>
Held-to-Maturity Investment Securities⁽²⁾				
Residential mortgage-backed securities - Agency ⁽³⁾	\$ 221	\$ —	\$ (22)	\$ 199
Total held-to-maturity investment securities	<u>\$ 221</u>	<u>\$ —</u>	<u>\$ (22)</u>	<u>\$ 199</u>

(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 (“RMBS”) that were classified as held-to-maturity as they were entered into as a part of the Company’s community reinvestment initiatives.

The Company invests in U.S. Treasury obligations and securities issued by government agencies and government-sponsored enterprises of the U.S. ("U.S. GSEs"), which have long histories with no credit losses and are explicitly or implicitly guaranteed by the U.S. federal government. Therefore, management has concluded that there is no expectation of non-payment on its investment securities and does not record an allowance for credit losses on these investments. In addition, the Company does not have the intent to sell any available-for-sale securities in an unrealized loss position and does not believe it is more likely than not that it will be required to sell any such security before recovery of its amortized cost basis.

The following table provides information about available-for-sale 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
<u>At September 30, 2023</u>					
Available-for-Sale Investment Securities					
U.S. Treasury and U.S. GSE securities	203	\$ 8,314	\$ (205)	\$ 4,292	\$ (131)
Residential mortgage-backed securities - Agency	31	\$ —	\$ —	\$ 473	\$ (32)
<u>At December 31, 2022</u>					
Available-for-Sale Investment Securities					
U.S. Treasury and U.S. GSE securities	123	\$ 9,060	\$ (175)	\$ 106	\$ (3)
Residential mortgage-backed securities - Agency	34	\$ 559	\$ (22)	\$ 5	\$ (1)

There were no proceeds from sales or recognized gains or losses on available-for-sale securities during the three and nine months ended September 30, 2023 and 2022. See Note 8: Accumulated Other Comprehensive Income for unrealized gains and losses on available-for-sale securities during the three and nine months ended September 30, 2023 and 2022.

Maturities of available-for-sale debt securities and held-to-maturity debt securities are provided in the following table (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, 2023					
Available-for-Sale Investment Securities — Amortized Cost					
U.S. Treasury and U.S. GSE securities	\$ 1,874	\$ 10,747	\$ 321	\$ —	\$ 12,942
Residential mortgage-backed securities - Agency ⁽¹⁾	1	76	33	395	505
Total available-for-sale investment securities	\$ 1,875	\$ 10,823	\$ 354	\$ 395	\$ 13,447
Held-to-Maturity Investment Securities — Amortized Cost					
Residential mortgage-backed securities - Agency ⁽¹⁾	\$ —	\$ —	\$ —	\$ 257	\$ 257
Total held-to-maturity investment securities	\$ —	\$ —	\$ —	\$ 257	\$ 257
Available-for-Sale Investment Securities — Fair Values					
U.S. Treasury and U.S. GSE securities	\$ 1,842	\$ 10,449	\$ 315	\$ —	\$ 12,606
Residential mortgage-backed securities - Agency ⁽¹⁾	1	72	31	369	473
Total available-for-sale investment securities	\$ 1,843	\$ 10,521	\$ 346	\$ 369	\$ 13,079
Held-to-Maturity Investment Securities — Fair Values					
Residential mortgage-backed securities - Agency ⁽¹⁾	\$ —	\$ —	\$ —	\$ 226	\$ 226
Total held-to-maturity investment securities	\$ —	\$ —	\$ —	\$ 226	\$ 226

(1) Maturities of RMBS are reflective of the contractual maturities of the investment.

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 and stimulate economic development in low- to moderate-income communities. These investments are accounted for using the equity method of accounting and are recorded within other assets. The related commitment for future investments is recorded in accrued expenses and other liabilities within the condensed consolidated statements of financial condition. The portion of each investment's operating results allocable to the Company reduces the carrying value of the investments and is recorded in other expense within the condensed consolidated statements of income. The Company further reduces the carrying value of the investments by recognizing any amounts that are in excess of future net tax benefits in other expense. The Company earns a return primarily through tax credits allocated to the affordable housing projects and the community revitalization projects. The Company does not consolidate these investments as the Company does not have a controlling financial interest in the investee entities. As of September 30, 2023 and December 31, 2022, the Company had outstanding investments in these entities of \$426 million and \$416 million, respectively, and related contingent liabilities for unconditional and legally binding delayed equity contributions of \$126 million and \$111 million, respectively. Of the above outstanding equity investments, the Company had \$395 million and \$375 million of investments related to affordable housing projects as of September 30, 2023 and December 31, 2022, respectively, which had \$120 million and \$100 million of related contingent liabilities for unconditional and legally binding delayed equity contributions, respectively.

The Company holds non-controlling equity positions in several payment services entities and third-party venture capital funds which invest in such entities. Most of the direct investments in such entities are not subject to equity method accounting because the Company does not have significant influence over the investee. The Company's investments in third-party venture capital funds represent limited partnership interests and are accounted for under the equity method. The common or preferred equity securities that the Company holds typically do not have readily determinable fair values. As a result, these investments are carried at cost minus impairment, if any. As of September 30, 2023 and December 31, 2022, the carrying value of these investments, which are recorded within other assets on the Company's condensed consolidated statements of financial condition, was \$34 million and \$39 million, respectively.

The Company also holds non-controlling equity positions in payment services entities that have publicly traded stock and therefore have readily determinable fair values. As a result, these investments are carried at fair value based on the quoted share prices. As of September 30, 2023 and December 31, 2022, the carrying value of these investments, which are recorded within other assets on the Company's condensed consolidated statements of financial condition, was \$39 million and \$41 million, respectively. During the three and nine months ended September 30, 2023, the Company recognized a \$6 million net gain and an \$11 million net loss, respectively, on the condensed consolidated statements of income related to these investments. The Company recognized net losses of \$5 million and \$212 million during the three and nine months ended September 30, 2022, respectively.

3. Loan Receivables

The Company has two loan portfolio segments: credit card loans and other loans.

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

	September 30, 2023	December 31, 2022
Credit card loans ⁽¹⁾⁽²⁾	\$ 97,389	\$ 90,113
Other loans ⁽³⁾		
Private student loans ⁽⁴⁾	10,448	10,308
Personal loans	9,559	7,998
Other loans	5,280	3,701
Total other loans	25,287	22,007
Total loan receivables	122,676	112,120
Allowance for credit losses	(8,665)	(7,374)
Net loan receivables	\$ 114,011	\$ 104,746

(1) Amounts include carrying values of \$13.9 billion and \$13.5 billion underlying investors' interest in trust debt at September 30, 2023 and December 31, 2022, respectively, and \$10.9 billion and \$12.2 billion in seller's interest at September 30, 2023 and December 31, 2022, respectively. See Note 4: Credit Card and Private Student Loan Securitization Activities for additional information.

(2) Unbilled accrued interest receivable on credit card loans, which is presented as part of other assets in the Company's condensed consolidated statements of financial condition, was \$663 million and \$611 million at September 30, 2023 and December 31, 2022, respectively.

(3) Accrued interest receivable on private student, personal and other loans, which is presented as part of other assets in the Company's condensed consolidated statements of financial condition, was \$573 million, \$62 million and \$18 million, respectively, at September 30, 2023 and \$468 million, \$49 million and \$11 million, respectively, at December 31, 2022.

(4) Private student loans in repayment were \$5.8 billion and \$6.0 billion at September 30, 2023 and December 31, 2022, respectively.

Credit Quality Indicators

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 and information from credit bureaus, such as FICO or other credit scores, relating to the customer's broader credit performance. The Company actively monitors key credit quality indicators, including FICO scores and delinquency status, for credit card, private student and personal loans. These indicators are important to understand the overall credit performance of the Company's customers and their ability to repay.

FICO scores are generally obtained at the origination of the account and are refreshed monthly or quarterly thereafter to assist in predicting customer behavior. Historically, the Company has noted that accounts with FICO scores below 660 have larger delinquencies and credit losses than those with higher credit scores.

The following table provides the distribution of the amortized cost basis (excluding accrued interest receivable presented in other assets) by the most recent FICO scores available for the Company's customers for credit card, private student and personal loan receivables (dollars in millions):

	Credit Risk Profile by FICO Score							
	September 30, 2023				December 31, 2022			
	660 and Above		Less than 660 or No Score		660 and Above		Less than 660 or No Score	
	\$	%	\$	%	\$	%	\$	%
Credit card loans	\$ 78,585	81 %	\$ 18,804	19 %	\$ 73,827	82 %	\$ 16,286	18 %
Private student loans by origination year ⁽¹⁾⁽²⁾								
2023	\$ 833	93 %	\$ 58	7 %				
2022	1,528	95 %	78	5 %	\$ 1,172	94 %	\$ 77	6 %
2021	1,511	95 %	82	5 %	1,668	95 %	81	5 %
2020	1,213	95 %	69	5 %	1,365	95 %	65	5 %
2019	1,069	94 %	71	6 %	1,221	95 %	67	5 %
Prior	3,674	93 %	262	7 %	4,306	94 %	286	6 %
Total private student loans	\$ 9,828	94 %	\$ 620	6 %	\$ 9,732	94 %	\$ 576	6 %
Personal loans by origination year								
2023	\$ 4,172	99 %	\$ 50	1 %				
2022	2,988	95 %	172	5 %	\$ 4,270	98 %	\$ 77	2 %
2021	1,242	93 %	95	7 %	1,958	96 %	91	4 %
2020	437	93 %	32	7 %	790	95 %	40	5 %
2019	219	90 %	25	10 %	444	92 %	38	8 %
Prior	104	82 %	23	18 %	249	86 %	41	14 %
Total personal loans	\$ 9,162	96 %	\$ 397	4 %	\$ 7,711	96 %	\$ 287	4 %

(1) A majority of private student loan originations occur in the third quarter and disbursements can span multiple calendar years.

(2) FICO score represents the higher credit score of the cosigner or borrower.

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 amortized cost basis (excluding accrued interest receivable presented in other assets) of delinquent loans in the Company's loan portfolio is shown below for credit card, private student and personal loan receivables (dollars in millions):

	September 30, 2023			December 31, 2022		
	30-89 Days Delinquent	90 or More Days Delinquent	Total Past Due	30-89 Days Delinquent	90 or More Days Delinquent	Total Past Due
Credit card loans	\$ 1,797	\$ 1,527	\$ 3,324	\$ 1,250	\$ 1,028	\$ 2,278
Private student loans by origination year ⁽¹⁾						
2023	\$ —	\$ —	\$ —			
2022	8	1	9	\$ —	\$ —	\$ —
2021	20	5	25	6	1	7
2020	23	6	29	14	3	17
2019	28	8	36	19	5	24
Prior	129	45	174	128	36	164
Total private student loans	\$ 208	\$ 65	\$ 273	\$ 167	\$ 45	\$ 212
Personal loans by origination year						
2023	\$ 13	\$ 3	\$ 16			
2022	40	14	54	\$ 12	\$ 3	\$ 15
2021	20	7	27	15	6	21
2020	7	2	9	8	2	10
2019	5	2	7	6	2	8
Prior	4	2	6	6	3	9
Total personal loans	\$ 89	\$ 30	\$ 119	\$ 47	\$ 16	\$ 63

(1) Private student loans may include a deferment period, during which borrowers are not required to make payments while enrolled in school at least half time as determined by the school. During a deferment period, these loans do not advance into delinquency.

Allowance for Credit Losses

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

For the Three Months Ended September 30, 2023					
	Credit Card Loans	Private Student Loans	Personal Loans	Other Loans	Total Loans
Balance at June 30, 2023	\$ 6,525	\$ 849	\$ 622	\$ 68	\$ 8,064
Additions					
Provision for credit losses ⁽¹⁾	1,518	52	93	8	1,671
Deductions					
Charge-offs	(1,171)	(40)	(76)	—	(1,287)
Recoveries	198	5	14	—	217
Net charge-offs	(973)	(35)	(62)	—	(1,070)
Balance at September 30, 2023	\$ 7,070	\$ 866	\$ 653	\$ 76	\$ 8,665
For the Three Months Ended September 30, 2022					
	Credit Card Loans	Private Student Loans	Personal Loans	Other Loans	Total Loans
Balance at June 30, 2022	\$ 5,307	\$ 832	\$ 572	\$ 46	\$ 6,757
Additions					
Provision for credit losses ⁽¹⁾	649	20	69	5	743
Deductions					
Charge-offs	(592)	(29)	(38)	—	(659)
Recoveries	197	6	17	—	220
Net charge-offs	(395)	(23)	(21)	—	(439)
Balance at September 30, 2022	\$ 5,561	\$ 829	\$ 620	\$ 51	\$ 7,061
For the Nine Months Ended September 30, 2023					
	Credit Card Loans	Private Student Loans	Personal Loans	Other Loans	Total Loans
Balance at December 31, 2022	\$ 5,883	\$ 839	\$ 595	\$ 57	\$ 7,374
Cumulative effect of ASU No. 2022-02 adoption ⁽²⁾	(66)	—	(2)	—	(68)
Balance at January 1, 2023	5,817	839	593	57	7,306
Additions					
Provision for credit losses ⁽¹⁾	3,752	121	211	19	4,103
Deductions					
Charge-offs	(3,101)	(111)	(194)	—	(3,406)
Recoveries	602	17	43	—	662
Net charge-offs	(2,499)	(94)	(151)	—	(2,744)
Balance at September 30, 2023	\$ 7,070	\$ 866	\$ 653	\$ 76	\$ 8,665
For the Nine Months Ended September 30, 2022					
	Credit Card Loans	Private Student Loans	Personal Loans	Other Loans	Total Loans
Balance at December 31, 2021	\$ 5,273	\$ 843	\$ 662	\$ 44	\$ 6,822
Additions					
Provision for credit losses ⁽¹⁾	1,395	54	19	7	1,475
Deductions					
Charge-offs	(1,720)	(86)	(115)	—	(1,921)
Recoveries	613	18	54	—	685
Net charge-offs	(1,107)	(68)	(61)	—	(1,236)
Balance at September 30, 2022	\$ 5,561	\$ 829	\$ 620	\$ 51	\$ 7,061

(1) Excludes a \$31 million and \$30 million adjustment of the liability for expected credit losses on unfunded commitments for the three months ended September 30, 2023 and 2022, respectively, and \$6 million and \$1 million for the nine months ended September 30, 2023 and 2022, respectively, as the liability is recorded in accrued expenses and other liabilities in the Company's condensed consolidated statements of financial condition.

(2) Represents the adjustment to the allowance for credit losses as a result of the adoption of ASU No. 2022-02 on January 1, 2023, which eliminated the requirement to apply discounted cash flow measurements for certain troubled debt restructurings.

The allowance for credit losses was approximately \$8.7 billion at September 30, 2023, which reflects a \$601 million build over June 30, 2023, and a \$1.3 billion build from December 31, 2022. The build in the allowance for credit losses for the three and nine months ended September 30, 2023 was primarily driven by loan growth, increasing delinquencies, and macroeconomic variables impacting household cash flows.

The allowance estimation process begins with a loss forecast that uses certain macroeconomic variables and multiple macroeconomic scenarios among its inputs. In estimating the allowance at September 30, 2023, the Company used a macroeconomic forecast that projected the following weighted average amounts: (i) unemployment rate ending 2023 at 3.8% and peaking at 4.2% in the fourth quarter of 2024 and (ii) 2.02% growth rate in real gross domestic product in 2023.

In estimating expected credit losses, the Company considered the uncertainties associated with borrower behavior and payment trends, as well as recent and expected macroeconomic conditions, such as high consumer price inflation and the fiscal and monetary policy responses to that inflation. The Federal Reserve raised its federal funds rate target range substantially during 2022 and the first three quarters of 2023 in an effort to slow economic growth and reduce inflation. Although real GDP growth and labor market conditions have exceeded most economists' expectations this year, restrictive monetary policy, as manifested in relatively high interest rates, typically precedes weaker consumer credit conditions caused by rising unemployment as economic growth slows. Credit performance in the Company's lending portfolios has evolved in line with its expectations this year, but may weaken if the economy fails to avert a recession in response to tighter credit conditions or other factors. The Company assessed the prospects for various macroeconomic outcomes in setting its allowance for credit losses.

The forecast period the Company deemed to be reasonable and supportable was 18 months for all periods presented. The 18 months reasonable and supportable forecast period was deemed appropriate given the current economic conditions. For all periods presented, the Company determined that a reversion period of 12 months was appropriate for the same reason. The Company applied a weighted reversion method to provide a more reasonable transition to historical losses for all loan products for all periods presented.

The net charge-offs for credit card loans, private student loans and personal loans increased for the three and nine months ended September 30, 2023, when compared to the same periods in 2022, primarily due to portfolio seasoning.

Net charge-offs of principal are recorded against the allowance for credit 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,	
	2023	2022	2023	2022
Interest and fees accrued subsequently charged-off, net of recoveries (recorded as a reduction of interest income)	\$ 176	\$ 74	\$ 460	\$ 209
Fees accrued subsequently charged-off, net of recoveries (recorded as a reduction to other income)	\$ 47	\$ 24	\$ 134	\$ 68

Gross principal charge-offs of the Company's loan portfolio are presented in the table below, on a year-to-date basis, for credit card, private student and personal loan receivables (dollars in millions):

	For the Nine Months Ended September 30, 2023
Credit card loans	\$ 3,101
Private student loans by origination year	
2023	\$ —
2022	2
2021	11
2020	15
2019	17
Prior	66
Total private student loans	\$ 111
Personal loans by origination year	
2023	\$ 5
2022	74
2021	58
2020	26
2019	19
Prior	12
Total personal loans	\$ 194

Delinquent and Non-Accruing Loans

The amortized cost basis (excluding accrued interest receivable presented in other assets) of delinquent and non-accruing loans in the Company's loan portfolio is shown below for each class of loan receivables (dollars in millions):⁽¹⁾

	30-89 Days Delinquent	90 or More Days Delinquent	Total Past Due	90 or More Days Delinquent and Accruing	Total Non-accruing ⁽²⁾
At September 30, 2023					
Credit card loans	\$ 1,797	\$ 1,527	\$ 3,324	\$ 1,460	\$ 226
Other loans					
Private student loans	208	65	273	66	8
Personal loans	89	30	119	29	7
Other loans	25	15	40	4	27
Total other loans	322	110	432	99	42
Total loan receivables	\$ 2,119	\$ 1,637	\$ 3,756	\$ 1,559	\$ 268
At December 31, 2022					
Credit card loans	\$ 1,250	\$ 1,028	\$ 2,278	\$ 1,003	\$ 176
Other loans					
Private student loans	167	45	212	45	8
Personal loans	47	16	63	16	7
Other loans	13	12	25	1	23
Total other loans	227	73	300	62	38
Total loan receivables	\$ 1,477	\$ 1,101	\$ 2,578	\$ 1,065	\$ 214

(1) The payment status of both modified and unmodified loans is included in this table.

(2) The Company estimates that the gross interest income that would have been recorded under the original terms of non-accruing credit card loans was \$11 million and \$6 million for the three months ended September 30, 2023 and 2022, respectively, and \$29 million and \$17 million for the nine months ended September 30, 2023 and 2022, respectively. The Company does not separately track the amount of gross interest income that would have been recorded under the original terms of loans. Instead, the Company estimated this amount based on customers' current balances and most recent interest rates.

Loan Modifications to Borrowers Experiencing Financial Difficulty

The Company has internal loan modification programs that provide relief to credit card, private student and personal 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, through third party consumer credit counseling agencies, are also available for credit card and personal loans. Those programs feature interest rate reductions, payment delays, term extensions, or a combination thereof.

For credit card customers, the Company offers both temporary and permanent hardship programs. The temporary hardship programs consist of an interest rate reduction lasting for a period no longer than 12 months. Charging privileges on these accounts are generally suspended while in the program. However, if the customer meets certain criteria, charging privileges may be reinstated following completion of the program.

The permanent modification program involves closing the account, changing the structure of the loan to a fixed payment loan with a maturity no longer than 72 months and reducing the interest rate on the loan. The permanent modification program does not typically provide for the forgiveness of unpaid principal, but may allow for the reversal of certain unpaid interest or fee assessments. The Company also makes permanent loan modifications for customers who request financial assistance through external sources, such as a consumer credit counseling agency program. These loans typically receive a reduced interest rate, typically continue to be subject to the original minimum payment terms and do not normally include waiver of unpaid principal, interest or fees.

To assist private student loan borrowers who are experiencing temporary financial difficulties but are willing to resume making payments, the Company may offer a payment delay (in the form of hardship forbearance or a temporary payment reduction), or a temporary interest rate reduction. Typically programs are offered up to six consecutive months at one time with a lifetime usage cap, most commonly, of 12 months.

For personal loan customers, the Company offers various payment programs, including temporary and permanent programs, in certain situations. The temporary programs normally consist of reducing the minimum payment for no longer than 12 months and, in certain circumstances, the interest rate on the loan is reduced. The permanent programs involve extending the loan term and, in certain circumstances, reducing the interest rate on the loan. The total term of the loan, including modification, may not exceed nine years. The Company also allows permanent loan modifications for customers who request financial assistance through external sources, similar to the credit card customers discussed above. Payments are modified based on the new terms agreed upon with the credit counseling agency.

In addition to the programs described above, the Company will in certain cases accept partial payment in full satisfaction of the outstanding receivable. This is a form of principal forgiveness also known as a settlement. The difference between the loan balance and the amount received in settlement is recorded as a charge-off.

The Company monitors borrower performance after using payment programs or forbearance. The Company believes the programs are useful in assisting customers experiencing financial difficulties and allowing them to make timely payments. In addition to helping customers with their credit needs, these programs are designed to maximize collections and ultimately the Company's profitability. The Company plans to continue to use payment programs to provide relief to customers experiencing financial difficulties.

ASU No. 2022-02, *Financial Instruments—Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures*, became effective for the Company on January 1, 2023. The new guidance eliminated Subtopic 310-40, *Troubled Debt Restructurings*, and implemented enhanced disclosure requirements regarding loan modifications to borrowers experiencing financial difficulty. The new disclosures are required to be applied on a prospective basis. There will be no comparative disclosures to prior periods until such time as both periods disclosed are subject to the new guidance.

The following table provides the period-end amortized cost basis, by modification category, of loans to borrowers experiencing financial difficulty that entered a modification program during the period (dollars in millions). Some of the loans presented in the table below may no longer be enrolled in a program at period-end:

	For the Three Months Ended September 30,	For the Nine Months Ended September 30, ⁽¹⁾
	2023	2023
Credit card loans⁽²⁾⁽³⁾		
Interest rate reduction	\$ 685	\$ 1,712
Total credit card loans ⁽⁴⁾	\$ 685	\$ 1,712
% of total class of financing receivables	0.70 %	1.76 %
Private student loans⁽²⁾		
Payment delay ⁽⁵⁾	\$ 12	\$ 32
Interest rate reduction and payment delay ⁽⁵⁾	28	74
Total private student loans ⁽⁴⁾	\$ 40	\$ 106
% of total class of financing receivables	0.38 %	1.01 %
Personal loans⁽²⁾		
Payment delay ⁽⁵⁾	\$ 4	\$ 8
Term extension ⁽⁶⁾	9	24
Interest rate reduction and payment delay ⁽⁵⁾	21	48
Interest rate reduction and term extension ⁽⁶⁾	9	22
Total personal loans ⁽⁴⁾	\$ 43	\$ 102
% of total class of financing receivables	0.45 %	1.07 %

- (1) The current quarter-to-date enrollment figures, when aggregated with previously disclosed quarter-to-date amounts, will not equal the year-to-date amounts in this table because all year-to-date enrollments are presented using the current period-end amortized cost basis.
- (2) Accrued interest receivable (including unbilled accrued interest receivable for credit card loans) on modified loans to borrowers experiencing financial difficulty, which is presented as part of other assets in the Company's condensed consolidated statements of financial condition, was immaterial at September 30, 2023.
- (3) Accounts that entered a credit card loan modification program include \$120 million and \$302 million that were converted from revolving line-of-credit arrangements to term loans during the three and nine months ended September 30, 2023, respectively.
- (4) For settlements, the amortized cost basis is zero at period-end and therefore there is no amount reported for principal forgiveness in the table above. See financial effects table below for principal forgiveness to borrowers experiencing financial difficulty.
- (5) The Company defines a payment delay as a temporary reduction in payments below the original contractually required payment amounts (e.g., interest only payments). The Company's credit card loan modification programs do not result in an other than insignificant delay in payment.
- (6) The Company defines term extensions as only those modifications for which the maturity date is extended beyond the original contractual maturity date by virtue of a change in terms other than a payment delay as defined above. Modifications to credit card loans are not considered term extensions because credit card loans do not have a fixed repayment term.

The only non-cancellable commitments the Company has to lend additional funds to borrowers experiencing financial difficulty relate to certain private student loans. As of September 30, 2023, the amount of such commitments associated with loans modified during the periods presented was immaterial.

The following table provides information on the financial effects of loan modifications to borrowers experiencing financial difficulty, by modification type, made during the period (dollars in millions):

	For the Three Months Ended September 30,	For the Nine Months Ended September 30,
	2023	2023
Credit card loans		
Weighted-average interest rate reduction	13.84 %	13.68 %
Principal forgiven	\$ 35	\$ 81
Interest and fees forgiven ⁽¹⁾	\$ 30	\$ 77
Private student loans		
Weighted-average interest rate reduction	8.94 %	8.77 %
Payment delay duration (in months) ⁽²⁾	6 to 12	6 to 12
Principal forgiven	\$ —	\$ —
Personal loans		
Weighted-average interest rate reduction	12.30 %	12.01 %
Weighted-average term extension (in months)	38	38
Payment delay duration (in months) ⁽²⁾	6 to 12	6 to 12
Principal forgiven	\$ —	\$ —

- (1) Represents the amount of interest and fees forgiven resulting from accounts entering into a credit card loan modification program and pre-charge off settlements. Interest and fees forgiven are reversed against the respective line items in the consolidated statements of income.
- (2) For private student loan payment delays, the Company offers up to six consecutive months of delay and most commonly limits assistance to a life of loan maximum of 12 months. For personal loan payment delays, the Company limits this assistance to a life of loan maximum of 12 months.

Loan receivables that have been modified are subject to the same requirements for the accrual of expected credit loss over their expected remaining lives as for unmodified loans. The allowance for credit losses incorporates modeling of historical loss data and thereby captures the higher risk associated with modified loans to borrowers experiencing financial difficulty based on their account attributes.

The following table presents the payment status and period-end amortized cost basis, by class of loan receivable, of loans that were modified on or after January 1, 2023 to borrowers experiencing financial difficulty (dollars in millions):⁽¹⁾

	Current	30-89 Days Delinquent	90 or More Days Delinquent
At September 30, 2023			
Credit card loans	\$ 1,399	\$ 190	\$ 123
Private student loans	92	11	2
Personal loans	81	13	8
Total	\$ 1,572	\$ 214	\$ 133

- (1) This table includes any loan that entered a modification program during the period without regard to whether it remained in a modification program as of the reporting date.

The following table presents the defaulted amount and period-end amortized cost basis, by modification category, of loans that defaulted during the period and were modified on or after January 1, 2023 through the end of the reporting period to borrowers experiencing financial difficulty (dollars in millions):

	For the Three Months Ended September 30, 2023		For the Nine Months Ended September 30, 2023	
	Defaulted Amount ⁽¹⁾	Period-end Amortized Cost Basis	Defaulted Amount ⁽¹⁾	Period-end Amortized Cost Basis
Credit card loans				
Interest rate reduction	\$ 120	\$ 96	\$ 203	\$ 124
Total credit card loans	\$ 120	\$ 96	\$ 203	\$ 124

- (1) For purposes of this disclosure, a loan is considered to be defaulted when it is 60 days or more delinquent at month end and has advanced two stages of delinquency subsequent to modification. Loans that entered a modification program in any stage of delinquency but did not experience a further payment default are included in the payment status table above but are not counted as defaulted for purposes of this disclosure.

The defaulted amounts and period-end amortized cost basis of private student loans and personal loans modified on or after January 1, 2023 to borrowers experiencing financial difficulty which subsequently defaulted were immaterial for the three and nine months ended September 30, 2023.

Troubled Debt Restructurings (Prior to 2023)

Prior to the adoption of ASU 2022-02, the Company considered a modified loan in which a concession had been granted to the borrower to be a TDR based generally on the cumulative length of the concession period and credit quality of the borrower. Due to differences between the legacy TDR requirements and current loan modification disclosure requirements, information presented in the disclosures below is not directly comparable to the disclosures under the current guidance.

To evaluate the primary financial effects that resulted from credit card loans entering into a TDR program during the three and nine months ended September 30, 2022, the Company quantified the amount by which interest and fees were reduced during the periods. During the three and nine months ended September 30, 2022, the Company forgave approximately \$7 million and \$20 million of interest and fees resulting from accounts entering into a credit card loan TDR program.

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

	For the Three Months Ended September 30, 2022		For the Nine Months Ended September 30, 2022	
	Number of Accounts	Balances	Number of Accounts	Balances
Accounts that entered a TDR program during the period				
Credit card loans ⁽¹⁾	63,803	\$ 414	167,655	\$ 1,071
Private student loans	1,863	\$ 36	5,141	\$ 96
Personal loans	1,799	\$ 25	4,561	\$ 62

(1) Accounts that entered a credit card TDR program include \$80 million and \$225 million that were converted from revolving line-of-credit arrangements to term loans during the three and nine months ended September 30, 2022, respectively.

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

	For the Three Months Ended September 30, 2022		For the Nine Months Ended September 30, 2022	
	Number of Accounts	Aggregated Outstanding Balances Upon Default	Number of Accounts	Aggregated Outstanding Balances Upon Default
TDRs that subsequently defaulted				
Credit card loans ⁽¹⁾⁽²⁾	7,784	\$ 38	18,022	\$ 89
Private student loans ⁽³⁾	391	\$ 7	658	\$ 12
Personal loans ⁽²⁾	606	\$ 9	1,142	\$ 16

(1) For credit card loans that default from a temporary loan modification program, accounts revert back to the pre-modification terms and charging privileges remain suspended in most cases.

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

(3) For student loans, a customer defaults from a loan modification after they 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, 2022, approximately 60%, and for the nine months ended September 30, 2022, approximately 62%, of the total balances were charged off at the end of the month in which they defaulted from a TDR program. For the three and nine months ended September 30, 2022, for accounts that had defaulted from a TDR program and had not been subsequently charged off, the balances were included in the allowance for credit loss analysis.

4. Credit Card and Private Student Loan Securitization Activities

The Company's securitizations are accounted for as secured borrowings and the related trusts are treated as consolidated subsidiaries of the Company. For a description of the Company's principles of consolidation with respect to VIEs, see Note 1: Background and Basis of Presentation to the consolidated financial statements in the Company's annual report on Form 10-K for the year ended December 31, 2022.

Credit Card Securitization Activities

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

The DCENT debt structure consists of four classes of securities (DiscoverSeries Class A, B, C and D notes), with the most senior class generally receiving a triple-A rating. 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. Wholly-owned subsidiaries of Discover Bank hold the subordinated classes of notes. The Company is exposed to credit risk associated with trust receivables as of the balance sheet date through the retention of these subordinated interests. The estimate of expected credit losses on trust receivables is included in the allowance for credit losses estimate.

The Company's retained interests in the trust's assets, consisting of investments in DCENT notes held by subsidiaries of Discover Bank, constitute intercompany positions that 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 trust's creditors. Further, the transferred credit card loan receivables are owned by the trust and are not available to the Company's third-party creditors. The trusts have ownership of cash balances, the amounts of which are reported in restricted cash within the Company's condensed consolidated statements of financial condition. Except for the seller's interest in trust receivables, the Company's interests in trust assets are generally subordinate to the interests of third-party investors in trust debt and, as such, may not be realized by the Company if needed to absorb deficiencies in cash flows that are allocated to those investors. 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.

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 following table (dollars in millions):

	September 30, 2023	December 31, 2022
Restricted cash	\$ 31	\$ 33
Investors' interests held by third-party investors	10,975	10,200
Investors' interests held by wholly-owned subsidiaries of Discover Bank	2,918	3,341
Seller's interest	10,898	12,220
Loan receivables ⁽¹⁾	24,791	25,761
Allowance for credit losses allocated to securitized loan receivables ⁽¹⁾	(1,129)	(1,152)
Net loan receivables	23,662	24,609
Other assets	3	2
Carrying value of assets of consolidated variable interest entities	\$ 23,696	\$ 24,644

(1) The Company maintains its allowance for credit losses at an amount equal to lifetime expected credit losses associated with all loan receivables, which includes all loan receivables in the trusts. Therefore, the credit risk associated with the transferred receivables is fully reflected on the Company's statements of financial condition in accordance with GAAP.

The debt securities issued by the consolidated trusts are subject to credit, payment and interest rate risks on the transferred credit card loan receivables. To protect investors in the securities, there are certain features or triggering events that will cause an early amortization of the debt securities, including triggers related to the impact of the performance of the trust receivables on the availability and adequacy of cash flows to meet contractual requirements. As of September 30, 2023, no economic or other early amortization events have occurred.

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

Private Student Loan Securitization Activities

The Company's private student loan trust receivables reported in loan receivables and the related debt issued by the trust reported in long-term borrowings were immaterial as of September 30, 2023 and December 31, 2022. The amounts are included, together with amounts related to the Company's credit card securitizations, in the supplemental information about assets and liabilities of consolidated variable interest entities, which is presented with the Company's condensed consolidated statements of financial condition.

5. Deposits

The Company obtains deposits from consumers directly or through affinity relationships ("direct-to-consumer deposits"). Additionally, the Company obtains deposits through third-party securities brokerage firms that offer the Company's deposits to their customers ("brokered deposits"). Direct-to-consumer deposit products include savings accounts, certificates of deposit, money market accounts, IRA savings accounts, IRA certificates of deposit and checking accounts. Brokered deposit products include certificates of deposit and sweep accounts.

Customer deposits held with Discover Bank are currently insured for up to \$250,000 per account holder through the Federal Deposit Insurance Corporation ("FDIC"). At September 30, 2023 and December 31, 2022, the Company had approximately \$5.9 billion and \$8.9 billion of uninsured deposits, respectively. The decrease in uninsured deposits reported was primarily driven by leveraging technological capabilities, beginning in the first quarter of 2023, enabling improved application of deposit account ownership attributes in deriving this amount. The amounts of uninsured deposits above were estimated based on the same methodologies and assumptions used for Discover Bank's regulatory reporting at each respective balance sheet date.

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

	At September 30, 2023
2023	\$ 5,274
2024	17,743
2025	7,070
2026	3,626
2027	4,258
Thereafter	2,777
Total	\$ 40,748

6. Long-Term Borrowings

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

	September 30, 2023			December 31, 2022	
	Maturity	Interest Rate	Weighted-Average Interest Rate	Outstanding Amount	Outstanding Amount
Securitized Debt					
Fixed-rate asset-backed securities ⁽¹⁾	2024-2026	0.58% - 5.03%	3.17%	\$ 9,895	\$ 8,401
Floating-rate asset-backed securities ⁽²⁾	2024	6.05%	6.05%	925	1,774
Total Discover Card Master Trust I and Discover Card Execution Note Trust				10,820	10,175
Floating-rate asset-backed security ⁽³⁾⁽⁴⁾	2031	9.50%	9.50%	69	84
Total private student loan securitization trust				69	84
Total long-term borrowings - owed to securitization investors				10,889	10,259
Discover Financial Services (Parent Company)					
Fixed-rate senior notes	2024-2032	3.75% - 6.70%	4.68%	3,335	3,333
Fixed-rate retail notes	2023-2031	3.00% - 4.40%	3.80%	147	154
Discover Bank					
Fixed-rate senior bank notes ⁽¹⁾	2024-2030	2.45% - 4.65%	3.53%	3,548	5,348
Fixed-rate subordinated bank notes	2028	5.97%	5.97%	500	489
Fixed-rate Federal Home Loan Bank advances	2030	4.77% - 4.82%	4.82%	523	—
Floating-rate Federal Home Loan Bank advance ⁽⁵⁾	2023	5.54%	5.54%	525	525
Total long-term borrowings				\$ 19,467	\$ 20,108

(1) The Company uses interest rate swaps to hedge portions of these long-term borrowings against changes in fair value attributable to changes in the applicable benchmark interest rates. The use of these interest rate swaps impacts the carrying value of the debt. See Note 15: Derivatives and Hedging Activities.

(2) DCENT floating-rate asset-backed securities include issuances with the following interest rate terms: 1-month Term SOFR + 0.11448% Tenor Spread Adjustment + 60 basis points as of September 30, 2023.

(3) The private student loan securitization trust floating-rate asset-backed security includes an issuance with the following interest rate term: Prime rate + 100 basis points as of September 30, 2023.

(4) Repayment of this debt is dependent upon the timing of principal and interest payments on the underlying private student loans. The date shown represents the final maturity date.

(5) The floating-rate Federal Home Loan Bank ("FHLB") advance includes the following interest rate term: SOFR + 23 basis points as of September 30, 2023.

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):

	September 30, 2023
2023	\$ 532
2024	3,727
2025	6,086
2026	4,854
2027	1,000
Thereafter	3,268
Total	\$ 19,467

As a member of the FHLB of Chicago, the Company has access to both short- and long-term advance structures with maturities ranging from overnight to 30 years. As of September 30, 2023, the Company had total committed borrowing capacity of \$3.3 billion based on the amount and type of assets pledged, of which the outstanding balance was comprised of \$1.0 billion in long-term advances. As of December 31, 2022, the Company had total committed borrowing capacity of \$2.2 billion based on the amount and type of assets pledged, of which the outstanding balance was comprised solely of a \$525 million long-term advance. These advances are presented as short- or long-term borrowings on the condensed consolidated statements of financial condition as appropriate.

Additionally, the Company has access to committed borrowing capacity through private securitizations to support the funding of its credit card loan receivables. As of September 30, 2023 and December 31, 2022, the total commitment of secured credit facilities through private providers was \$3.5 billion, none of which was drawn. Access to the unused portions of the secured credit facilities is subject to the terms of the agreements with each of the providers. The secured credit facilities have various expirations in 2025. Borrowings outstanding under each facility bear interest at a margin above the Term Secured Overnight Financing Rate ("SOFR") or the asset-backed commercial paper costs of each provider. The terms of each agreement provide for a commitment fee to be paid on the unused capacity and include various affirmative and negative covenants, including performance metrics and legal requirements similar to those required to issue any term securitization transaction.

7. Preferred Stock

The table below presents a summary of the Company's non-cumulative perpetual preferred stock that is outstanding at September 30, 2023 (dollars in millions, except per depositary share amounts):

Series	Description	Initial Issuance Date	Liquidation Preference and Redemption Price per Depositary Share ⁽¹⁾	Per Annum Dividend Rate in effect at September 30, 2023	Total Depositary Shares Authorized, Issued and Outstanding		Carrying Value	
					September 30, 2023	December 31, 2022	September 30, 2023	December 31, 2022
C ⁽²⁾⁽³⁾⁽⁴⁾	Fixed-to-Floating Rate	10/31/2017	\$ 1,000	5.500 %	570,000	570,000	\$ 563	\$ 563
D ⁽²⁾⁽⁵⁾⁽⁶⁾	Fixed-Rate Reset	6/22/2020	\$ 1,000	6.125 %	500,000	500,000	493	493
Total Preferred Stock					1,070,000	1,070,000	\$ 1,056	\$ 1,056

(1) Redeemable at the redemption price plus declared and unpaid dividends.

(2) Issued as depositary shares, each representing 1/100th interest in a share of the corresponding series of preferred stock. Each preferred share has a par value of \$0.01.

(3) Redeemable at the Company's option, subject to regulatory approval, either (i) in whole or in part on any dividend payment date on or after October 30, 2027, or (ii) in whole but not in part, at any time within 90 days following a regulatory capital treatment event (as defined in the certificate of designations for the Series C preferred stock).

(4) Any dividends declared are payable semi-annually in arrears at a rate of 5.500% per annum until October 30, 2027. Thereafter, dividends declared will be payable quarterly in arrears at a floating rate equal to 3-month Term SOFR plus a spread of 3.338% per annum.

(5) Redeemable at the Company's option, subject to regulatory approval, either (i) in whole or in part during the three-month period prior to, and including, each reset date (as defined in the certificate of designations for the Series D preferred stock) or (ii) in whole but not in part, at any time within 90 days following a regulatory capital treatment event (as defined in the certificate of designations for the Series D Preferred Stock).

(6) Any dividends declared are payable semi-annually in arrears at a rate of 6.125% per annum until September 23, 2025, after which the dividend rate will reset every 5 years to a fixed annual rate equal to the 5-year Treasury plus a spread of 5.783%.

8. Accumulated Other Comprehensive Income

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

	Unrealized (Losses) Gains on Available- for-Sale Investment Securities, Net of Tax	Losses on Cash Flow Hedges, Net of Tax	Losses on Pension Plan, Net of Tax	AOCI
<u>For the Three Months Ended September 30, 2023</u>				
Balance at June 30, 2023	\$ (195)	\$ (86)	\$ (189)	\$ (470)
Net change	(83)	(20)	—	(103)
Balance at September 30, 2023	<u>\$ (278)</u>	<u>\$ (106)</u>	<u>\$ (189)</u>	<u>\$ (573)</u>
<u>For the Three Months Ended September 30, 2022</u>				
Balance at June 30, 2022	\$ (48)	\$ (4)	\$ (199)	\$ (251)
Net change	(100)	(2)	—	(102)
Balance at September 30, 2022	<u>\$ (148)</u>	<u>\$ (6)</u>	<u>\$ (199)</u>	<u>\$ (353)</u>
<u>For the Nine Months Ended September 30, 2023</u>				
Balance at December 31, 2022	\$ (136)	\$ (14)	\$ (189)	\$ (339)
Net change	(142)	(92)	—	(234)
Balance at September 30, 2023	<u>\$ (278)</u>	<u>\$ (106)</u>	<u>\$ (189)</u>	<u>\$ (573)</u>
<u>For the Nine Months Ended September 30, 2022</u>				
Balance at December 31, 2021	\$ 114	\$ (9)	\$ (199)	\$ (94)
Net change	(262)	3	—	(259)
Balance at September 30, 2022	<u>\$ (148)</u>	<u>\$ (6)</u>	<u>\$ (199)</u>	<u>\$ (353)</u>

The following table presents each component of other comprehensive income ("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
<u>For the Three Months Ended September 30, 2023</u>			
Available-for-Sale Investment Securities			
Net unrealized holding losses arising during the period	\$ (111)	\$ 28	\$ (83)
Net change	\$ (111)	\$ 28	\$ (83)
Cash Flow Hedges			
Net unrealized losses arising during the period	\$ (55)	\$ 13	\$ (42)
Amounts reclassified from AOCI	29	(7)	22
Net change	\$ (26)	\$ 6	\$ (20)
<u>For the Three Months Ended September 30, 2022</u>			
Available-for-Sale Investment Securities			
Net unrealized holding losses arising during the period	\$ (133)	\$ 33	\$ (100)
Net change	\$ (133)	\$ 33	\$ (100)
Cash Flow Hedges			
Net unrealized losses arising during the period	\$ (4)	\$ 1	\$ (3)
Amounts reclassified from AOCI	2	(1)	1
Net change	\$ (2)	\$ —	\$ (2)
<u>For the Nine Months Ended September 30, 2023</u>			
Available-for-Sale Investment Securities			
Net unrealized holding losses arising during the period	\$ (188)	\$ 46	\$ (142)
Net change	\$ (188)	\$ 46	\$ (142)
Cash Flow Hedges			
Net unrealized losses arising during the period	\$ (172)	\$ 42	\$ (130)
Amounts reclassified from AOCI	50	(12)	38
Net change	\$ (122)	\$ 30	\$ (92)
<u>For the Nine Months Ended September 30, 2022</u>			
Available-for-Sale Investment Securities			
Net unrealized holding losses arising during the period	\$ (346)	\$ 84	\$ (262)
Net change	\$ (346)	\$ 84	\$ (262)
Cash Flow Hedges			
Net unrealized losses arising during the period	\$ (2)	\$ —	\$ (2)
Amounts reclassified from AOCI	4	1	5
Net change	\$ 2	\$ 1	\$ 3

9. Income Taxes

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

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2023	2022	2023	2022
Income before income taxes	\$ 888	\$ 1,327	\$ 3,314	\$ 4,375
Income tax expense	\$ 205	\$ 314	\$ 762	\$ 1,026
Effective income tax rate	23.1 %	23.7 %	23.0 %	23.5 %

The Company is subject to examination by the Internal Revenue Service and tax authorities in various state, local and foreign tax jurisdictions. The Company's federal income tax filings are open to examinations for the tax years ended December 31, 2019 and forward. The Company regularly assesses the likelihood of additional assessments or settlements in each of the taxing jurisdictions. At this time, the potential change in unrecognized tax benefits is expected to be immaterial 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") (dollars and shares in millions, except per share amounts):

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2023	2022	2023	2022
Numerator				
Net income	\$ 683	\$ 1,013	\$ 2,552	\$ 3,349
Preferred stock dividends	(31)	(31)	(62)	(62)
Net income available to common stockholders	652	982	2,490	3,287
Income allocated to participating securities	(5)	(7)	(17)	(20)
Net income allocated to common stockholders	\$ 647	\$ 975	\$ 2,473	\$ 3,267
Denominator				
Weighted-average shares of common stock outstanding	250	273	255	279
Effect of dilutive common stock equivalents	—	1	—	—
Weighted-average shares of common stock outstanding and common stock equivalents	250	274	255	279
Basic earnings per common share	\$ 2.59	\$ 3.57	\$ 9.70	\$ 11.70
Diluted earnings per common share	\$ 2.59	\$ 3.56	\$ 9.69	\$ 11.69

Anti-dilutive securities were not material and had no impact on the computation of diluted EPS for the three or nine months ended September 30, 2023 and 2022.

11. Capital Adequacy

DFS is subject to the capital adequacy guidelines of the Federal Reserve. Discover Bank, the Company's 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 limit the Company's business activities and have a direct material effect on the financial condition and operating results of DFS and Discover Bank. Under capital adequacy guidelines and the regulatory framework for prompt corrective action, DFS and Discover Bank must meet specific risk-based capital requirements and leverage ratios 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.

DFS and Discover Bank are subject to regulatory and capital rules issued by the Federal Reserve and FDIC, respectively, under the Basel Committee's December 2010 framework ("Basel III rules"). Under the Basel III rules, DFS and Discover Bank are classified as "standardized approach" entities. Standardized approach entities are 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 exposure less than \$10 billion.

In accordance with the final rule on the impact of current expected credit losses ("CECL") on regulatory capital, the Company has elected to phase in the impact over three years beginning in 2022. Accordingly, the Company's Common Equity Tier 1 ("CET1") capital ratios are higher than they otherwise would have been. The Company's CET1 capital ratios will continue to be favorably impacted by this election over the phase-in period, which ends December 31, 2024.

As of September 30, 2023 and December 31, 2022, DFS and Discover Bank met all Basel III minimum capital ratio requirements to which they were subject. DFS and Discover Bank also met the requirements to be considered "well-capitalized" under Regulation Y and prompt corrective action rules, respectively. There have been no conditions or events that management believes have changed DFS' or Discover Bank's category. To be categorized as "well-capitalized", DFS and Discover Bank must maintain minimum capital ratios outlined in the table below.

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

	Actual		Minimum Capital Requirements		Capital Requirements To Be Classified as Well-Capitalized	
	Amount	Ratio ⁽¹⁾	Amount	Ratio	Amount ⁽²⁾	Ratio ⁽²⁾
September 30, 2023						
Total capital (to risk-weighted assets)						
Discover Financial Services	\$ 17,667	14.1 %	\$ 10,040	≥8.0%	\$ 12,550	≥10.0%
Discover Bank	\$ 16,691	13.5 %	\$ 9,912	≥8.0%	\$ 12,390	≥10.0%
Tier 1 capital (to risk-weighted assets)						
Discover Financial Services	\$ 15,627	12.5 %	\$ 7,530	≥6.0%	\$ 7,530	≥6.0%
Discover Bank	\$ 13,821	11.2 %	\$ 7,434	≥6.0%	\$ 9,912	≥8.0%
Tier 1 capital (to average assets)						
Discover Financial Services	\$ 15,627	11.0 %	\$ 5,678	≥4.0%	N/A	N/A
Discover Bank	\$ 13,821	9.9 %	\$ 5,596	≥4.0%	\$ 6,995	≥5.0%
Common Equity Tier 1 (to risk-weighted assets)						
Discover Financial Services	\$ 14,572	11.6 %	\$ 5,647	≥4.5%	N/A	N/A
Discover Bank	\$ 13,821	11.2 %	\$ 5,575	≥4.5%	\$ 8,053	≥6.5%
December 31, 2022						
Total capital (to risk-weighted assets)						
Discover Financial Services ⁽³⁾	\$ 18,004	15.8 %	\$ 9,139	≥8.0%	\$ 11,424	≥10.0%
Discover Bank	\$ 16,579	14.7 %	\$ 9,015	≥8.0%	\$ 11,268	≥10.0%
Tier 1 capital (to risk-weighted assets)						
Discover Financial Services ⁽³⁾	\$ 16,039	14.0 %	\$ 6,854	≥6.0%	\$ 6,854	≥6.0%
Discover Bank	\$ 13,683	12.1 %	\$ 6,761	≥6.0%	\$ 9,015	≥8.0%
Tier 1 capital (to average assets)						
Discover Financial Services ⁽³⁾	\$ 16,039	12.5 %	\$ 5,147	≥4.0%	N/A	N/A
Discover Bank	\$ 13,683	10.8 %	\$ 5,086	≥4.0%	\$ 6,357	≥5.0%
Common Equity Tier 1 (to risk-weighted assets)						
Discover Financial Services ⁽³⁾	\$ 14,983	13.1 %	\$ 5,141	≥4.5%	N/A	N/A
Discover Bank	\$ 13,683	12.1 %	\$ 5,071	≥4.5%	\$ 7,324	≥6.5%

(1) Capital ratios are calculated based on the Basel III standardized approach rules, subject to applicable transition provisions, including CECL transition provisions.

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

(3) Capital amounts and ratios have been updated to reflect the impact of the restatement described in Note 18: Immaterial Restatement of Prior Period Financial Statements.

12. Commitments, Contingencies and Guarantees

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

Commitments

Unused Credit Arrangements

At September 30, 2023, the Company had unused credit arrangements for loans of approximately \$231.8 billion. Such arrangements arise primarily from agreements with customers for unused lines of credit on certain credit cards and certain other loan products, provided there is no violation of conditions in the related agreements. These arrangements, substantially all of which the Company can terminate at any time and which do not necessarily represent future cash requirements, are periodically reviewed based on account usage, customer creditworthiness, loan qualification and the cost of capital. As the Company's credit card loans are unconditionally cancellable, no liability for expected credit losses is required for unused lines of credit. For all other loans, the Company records a liability for expected credit losses for unfunded commitments, which is presented as part of accrued expenses and other liabilities in the consolidated statements of financial condition.

Contingencies

See Note 13: Litigation and Regulatory Matters for a description of potential liability arising from pending litigation or regulatory proceedings involving the Company.

Guarantees

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

Securitizations Representations and Warranties

As part of the Company's financing activities, the Company provides representations and warranties that certain assets pledged as collateral in secured borrowing arrangements conform to specified guidelines. Due diligence is performed by the Company, which is intended to ensure that asset guideline qualifications are met. If the assets pledged as collateral do not meet certain conforming guidelines, the Company may be required to replace, repurchase or sell such assets. In its credit card securitization activities, the Company would replace nonconforming receivables through the allocation of excess seller's interest or from additional transfers from the unrestricted pool of receivables. If the Company could not add enough receivables to satisfy the requirement, an early amortization (or repayment) of investors' interests would be triggered. In its student loan securitizations, the Company would generally repurchase the loans from the trust at the outstanding principal amount plus interest.

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

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.
- *Global Network Alliance Guarantee.* Discover Network, Diners Club and PULSE have entered into contractual relationships with certain international payment networks in which DFS Services LLC retains the counterparty exposure if a network fails to fulfill its settlement obligation.

The maximum potential amount of future payments related to such contingent obligations is dependent upon the transaction volume processed between the time a potential counterparty defaults on its settlement and the time at which the Company disables the settlement of any further transactions for the defaulting party. The Company has some contractual remedies to offset these counterparty settlement exposures (such as letters of credit or pledged deposits), 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. In the event 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 would be approximately \$90 million as of September 30, 2023.

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, 2023, 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.

Discover Network Merchant Chargeback Guarantees

The Company operates the Discover Network, issues payment cards and permits third parties to issue payment cards. The Company is contingently liable for certain transactions processed on the Discover Network in the event of a dispute between the payment card customer and a merchant. The contingent liability arises if the disputed transaction involves a merchant or merchant acquirer with whom the Discover Network has a direct relationship. If a dispute is resolved in the customer's favor, the Discover Network will credit or refund the disputed amount to the Discover Network card issuer, who in turn credits its customer's account. The Discover Network will then charge back the disputed amount of the payment card transaction to the merchant or merchant acquirer, where permitted by the applicable agreement, to seek recovery of amounts already paid to the merchant for payment card transactions. If the Discover Network is unable to collect the amount subject to dispute from the merchant or merchant acquirer (e.g., in the event of merchant default or dissolution or after expiration of the time period for chargebacks in the applicable agreement), the Discover Network will bear the loss for the amount credited or refunded to the customer. In most instances, a loss by the Discover Network is unlikely to arise in connection with payments on card transactions because most products or services are delivered when purchased and credits are issued by merchants on returned items in a timely fashion, thus minimizing the likelihood of cardholder disputes with respect to amounts paid by the Discover Network. However, where the product or service is not scheduled to be provided to the customer until a later date following the purchase, the likelihood of a contingent payment obligation by the Discover Network increases. Losses related to merchant chargebacks were not material for the three and nine months ended September 30, 2023 and 2022.

The maximum potential amount of obligations of the Discover Network arising from 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 following table summarizes certain information regarding merchant chargeback guarantees (dollars in millions):

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2023	2022	2023	2022
Aggregate sales transaction volume ⁽¹⁾	\$ 65,490	\$ 66,766	\$ 192,173	\$ 189,505

(1) Represents 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, 2023 and December 31, 2022. 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 a higher risk due to various factors such as time delays in the delivery of products or services. As of September 30, 2023 and December 31, 2022, the Company had escrow deposits and settlement withholdings of \$10 million and \$11 million, respectively, which are recorded in interest-bearing deposit accounts and accrued expenses and other liabilities on the Company's condensed consolidated statements of financial condition.

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 offered its customers an arbitration clause in its customer agreements. The arbitration clause allows the Company and its customers to quickly and economically resolve disputes. Additionally, the arbitration clause has in some instances limited the costs of, and the Company's exposure to, litigation. Future legal and regulatory challenges and prohibitions may cause the Company to discontinue its offering and use of such clauses. From time to time, the Company is involved in legal actions challenging its arbitration clause. Bills may be periodically introduced in Congress to directly or indirectly prohibit the use of pre-dispute arbitration clauses.

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. The investigations and proceedings may result in significant adverse judgments, settlements, fines, penalties, injunctions, decreases in regulatory ratings, customer restitution or other relief. These outcomes could materially impact the Company's condensed consolidated financial statements, increase its cost of operations, or limit the Company's ability to execute its business strategies and engage in certain business activities. Certain subsidiaries of the Company are subject to consent orders with the Consumer Financial Protection Bureau ("CFPB") and FDIC, as described below. Pursuant to powers granted under federal banking laws, regulatory agencies have broad and sweeping discretion and may assess civil money penalties, require changes to certain business practices or require customer restitution at any time.

In accordance with applicable accounting guidance, the Company establishes an accrued liability for legal and regulatory matters when those matters present loss contingencies that are both probable and estimable. Litigation and regulatory settlement-related expenses were immaterial for the three and nine months ended September 30, 2023 and 2022.

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 the likelihood of losses 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 \$230 million as of September 30, 2023. This estimated range of reasonably possible losses is based on currently available information for those proceedings in which the Company is involved and considers the Company's best estimate of such losses for those matters for which an estimate can be made. It 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 noted 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 adversely affect the Company's reputation and 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.

In July 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 with respect to certain private student loan servicing practices (the "2015 Order"). The 2015 Order expired in July 2020. In December 2020, the Discover Subsidiaries agreed to a consent order (the "2020 Order") with the CFPB resolving the agency's investigation into Discover Bank's compliance with the 2015 Order. In connection with the 2020 Order, Discover is required to implement a redress and compliance plan and must pay at least \$10 million in consumer redress to consumers who may have been harmed and has paid a \$25 million civil money penalty to the CFPB.

On September 25, 2023, following the consent of the Board of Directors of Discover Bank, the FDIC issued a consent order ("consent order") to Discover Bank. The consent order addresses shortcomings in Discover Bank's compliance management system for consumer protection laws and related matters. As part of the consent order, Discover Bank has agreed to improve its consumer compliance management system and enhance related corporate governance and enterprise risk management practices, and increase the level of Board oversight over such matters. Discover Bank has been taking significant steps to strengthen the organization's compliance management system and address the other issues identified in the consent order. Management and the Board are committed to ensuring that all of the requirements of the consent order are met. The consent order does not contain any monetary penalties or fines.

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 a conspiracy by defendants to shift fraud liability to merchants with the migration to the EMV security standard and chip technology. The plaintiffs assert joint and several liability among the defendants and seek unspecified damages, including treble damages, attorneys' fees, costs and injunctive relief. The Company filed its motion to compel arbitration, motion for summary judgment, and Daubert challenges on November 30, 2022, and awaits rulings. 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. However, the Company will seek to defend itself vigorously against all claims asserted by the plaintiffs.

Card Product Misclassification

As reported in the second quarter of 2023, beginning in 2007, the Company incorrectly classified certain credit card accounts into its highest merchant and merchant acquirer pricing tier. The misclassification affected pricing for certain merchants and merchant acquirers, but not for cardholders. In the second quarter of 2023, the Company recorded a liability of \$365 million within accrued expenses and other liabilities to provide refunds to merchants and merchant acquirers as a result of the card product misclassification. As of September 30, 2023, the balance of the liability was \$376 million, reflecting an additional \$11 million for the estimated effect of the current price tiering on discount and interchange assessments for the third quarter. As of September 30, 2023, no disbursements had been made against this liability as the Company continues to develop its plan to provide refunds to merchants and merchant acquirers and engage in ongoing discussions about such plans with its regulators.

Management is taking actions to correct the card product misclassification going forward and to prepare a program to compensate affected merchants and merchant acquirers. It is not possible to know with certainty the final amount of potential refunds at this time given differences in individual merchant agreements, changes in network terms and availability of historical data. Regulators may require refunds or other remediation that may result in other charges or an amount different than the Company's current estimate.

The Company remains in discussions with its regulators regarding this matter. The Company expects these discussions will likely result in enforcement actions, which may include, among other remedies, monetary penalties, the amount of which cannot be estimated at this time.

In addition, the Company and its subsidiaries have been named as defendants in various lawsuits, including putative class actions on behalf of affected merchants, a putative class action on behalf of shareholders and shareholder derivative actions. The Company also is cooperating with an SEC investigation into the card product misclassification matter.

14. Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Accounting Standards Codification ("ASC") Topic 820, *Fair Value Measurement*, provides a three-level hierarchy for classifying the inputs to valuation techniques used to measure fair value of financial instruments based on whether the inputs 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 where the inputs used to measure fair value may fall into different levels of the fair value hierarchy, the level in the fair value hierarchy in which the measurements are classified is based on the lowest level input that is significant to the fair value measurement in its entirety. Accordingly, the Company may utilize both observable and unobservable inputs in determining the fair values of financial instruments classified within the Level 3 category.

The Company evaluates the classification of each fair value measurement within the hierarchy at least quarterly.

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.

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, 2023				
Assets				
Fair value - OCI				
U.S. Treasury and U.S. GSE securities	\$ 12,598	\$ 8	\$ —	\$ 12,606
Residential mortgage-backed securities - Agency	—	473	—	473
Available-for-sale investment securities	<u>\$ 12,598</u>	<u>\$ 481</u>	<u>\$ —</u>	<u>\$ 13,079</u>
Derivative financial instruments - cash flow hedges ⁽¹⁾	\$ —	\$ 9	\$ —	\$ 9
Fair value - Net income				
Marketable equity securities	\$ 39	\$ —	\$ —	\$ 39
Derivative financial instruments - fair value hedges ⁽¹⁾	\$ —	\$ 5	\$ —	\$ 5
Liabilities				
Fair value - OCI				
Derivative financial instruments - cash flow hedges ⁽¹⁾	\$ —	\$ 1	\$ —	\$ 1
Balance at December 31, 2022				
Assets				
Fair value - OCI				
U.S. Treasury and U.S. GSE securities	\$ 11,416	\$ 7	\$ —	\$ 11,423
Residential mortgage-backed securities - Agency	—	564	—	564
Available-for-sale investment securities	<u>\$ 11,416</u>	<u>\$ 571</u>	<u>\$ —</u>	<u>\$ 11,987</u>
Derivative financial instruments - cash flow hedges ⁽¹⁾	\$ —	\$ 1	\$ —	\$ 1
Fair value - Net income				
Marketable equity securities	\$ 41	\$ —	\$ —	\$ 41
Liabilities				
Fair value - OCI				
Derivative financial instruments - cash flow hedges ⁽¹⁾	\$ —	\$ 3	\$ —	\$ 3
Fair value - Net income				
Derivative financial instruments - fair value hedges ⁽¹⁾	\$ —	\$ 2	\$ —	\$ 2

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

Available-for-Sale Investment Securities

Investment securities classified as available-for-sale consist of U.S. Treasury and U.S. GSE securities and RMBS. The fair value estimates of investment securities classified as Level 1, consisting of U.S. Treasury securities, are determined based on quoted market prices for the same securities. The fair value estimates of U.S. GSE securities and RMBS are classified as Level 2 and are valued by maximizing the use of relevant observable inputs, including quoted prices for similar securities, benchmark yield curves and market-corroborated inputs.

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

At September 30, 2023, amounts reported in RMBS reflect U.S. government agency and U.S. GSE obligations issued by Ginnie Mae, Fannie Mae and Freddie Mac with an aggregate par value of \$505 million, a weighted-average coupon of 4.08% and a weighted-average remaining maturity of four years.

Marketable Equity Securities

The Company holds non-controlling equity positions in payment service entities that have actively traded stock and therefore have readily determinable fair values. The Company classifies these equity securities as Level 1, the fair value estimates of which are determined based on quoted share prices for the same securities.

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 by 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 among 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 of any changes to the valuation techniques performed by proprietary pricing models before implementation, working closely with the third-party valuation service and reviewing the service's control objectives 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. For these assets, measurement at fair value in periods subsequent to the initial recognition of the assets may be applicable whenever one is tested for impairment. No impairments were recognized related to these assets during the three and nine months ended September 30, 2023 and 2022.

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, 2023					
Assets					
<i>Amortized cost</i>					
Residential mortgage-backed securities - Agency	\$ —	\$ 226	\$ —	\$ 226	\$ 257
Held-to-maturity investment securities	\$ —	\$ 226	\$ —	\$ 226	\$ 257
Net loan receivables	\$ —	\$ —	\$ 121,102	\$ 121,102	\$ 114,011
<i>Carrying value approximates fair value⁽¹⁾</i>					
Cash and cash equivalents	\$ 9,194	\$ —	\$ —	\$ 9,194	\$ 9,194
Restricted cash	\$ 39	\$ —	\$ —	\$ 39	\$ 39
Accrued interest receivables ⁽²⁾	\$ —	\$ 1,396	\$ —	\$ 1,396	\$ 1,396
Liabilities					
<i>Amortized cost</i>					
Time deposits ⁽³⁾	\$ —	\$ 40,490	\$ —	\$ 40,490	\$ 40,748
Long-term borrowings - owed to securitization investors	\$ —	\$ 10,607	\$ 69	\$ 10,676	\$ 10,889
Other long-term borrowings	—	8,010	—	8,010	8,578
Long-term borrowings	\$ —	\$ 18,617	\$ 69	\$ 18,686	\$ 19,467
<i>Carrying value approximates fair value⁽¹⁾</i>					
Accrued interest payables ⁽²⁾	\$ —	\$ 357	\$ —	\$ 357	\$ 357
Balance at December 31, 2022					
Assets					
<i>Amortized cost</i>					
Residential mortgage-backed securities - Agency	\$ —	\$ 199	\$ —	\$ 199	\$ 221
Held-to-maturity investment securities	\$ —	\$ 199	\$ —	\$ 199	\$ 221
Net loan receivables	\$ —	\$ —	\$ 110,796	\$ 110,796	\$ 104,746
<i>Carrying value approximates fair value⁽¹⁾</i>					
Cash and cash equivalents	\$ 8,856	\$ —	\$ —	\$ 8,856	\$ 8,856
Restricted cash	\$ 41	\$ —	\$ —	\$ 41	\$ 41
Accrued interest receivables ⁽²⁾	\$ —	\$ 1,211	\$ —	\$ 1,211	\$ 1,211
Liabilities					
<i>Amortized cost</i>					
Time deposits ⁽³⁾	\$ —	\$ 32,710	\$ —	\$ 32,710	\$ 33,070
Long-term borrowings - owed to securitization investors	\$ —	\$ 9,862	\$ 84	\$ 9,946	\$ 10,259
Other long-term borrowings	—	9,468	—	9,468	9,849
Long-term borrowings	\$ —	\$ 19,330	\$ 84	\$ 19,414	\$ 20,108
<i>Carrying value approximates fair value⁽¹⁾</i>					
Accrued interest payables ⁽²⁾	\$ —	\$ 308	\$ —	\$ 308	\$ 308

(1) The carrying values of these assets and liabilities approximate fair value due to their short-term nature.

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

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

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 foreign currency are not designated as hedges and do not qualify for hedge accounting.

Derivatives may give rise to counterparty credit risk, which generally is mitigated 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 before engaging in any transaction with the Company. The Company regularly monitors counterparties 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, if any, 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 for a description of the valuation methodologies used for derivatives. Cash collateral amounts associated with derivative positions that are cleared through an exchange are legally characterized as settlement of the derivative positions. Such collateral amounts are reflected as offsets to the associated derivatives balances recorded in other assets or in accrued expenses and other liabilities. Other 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 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 variability in cash flows related to changes in interest rates on interest-earning assets and funding instruments. These interest rate swaps qualify for hedge accounting in accordance with ASC Topic 815, *Derivatives and Hedging* ("ASC 815"). At September 30, 2023 and December 31, 2022, the Company's outstanding cash flow hedges primarily relate to interest receipts from credit card receivables and had an initial maximum period of four years and three years, respectively.

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. Amounts reported in AOCI related to derivatives at September 30, 2023, will be reclassified to interest income and interest expense as interest receipts and payments are accrued on the Company's then outstanding credit card receivables and certain floating-rate debt, respectively. During the next 12 months, the Company estimates it will reclassify \$113 million into pretax earnings related to its cash flow hedges.

Fair Value Hedges

The Company is exposed to changes in the fair value 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 the fair value of certain fixed-rate long-term borrowings, including securitized debt and bank notes, attributable to changes in the respective benchmark rates. These interest rate swaps qualify as fair value hedges in accordance with ASC 815. Changes in the fair values of both (i) the derivatives and (ii) the hedged long-term borrowings attributable to the interest-rate risk being hedged are recorded in interest expense. The changes generally provide substantial offset to one another, with any difference recognized in interest expense.

Derivatives Not Designated as Hedges

Foreign Exchange Forward Contracts

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

Derivatives Cleared Through an Exchange

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

Derivatives Activity

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

	September 30, 2023				December 31, 2022			
	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	\$ 8,900	15	\$ 9	\$ 1	\$ 5,000	\$ 1	\$ 3	
Interest rate swaps—fair value hedge	\$ 6,750	8	5	—	\$ 4,425	—	2	
Derivatives not designated as hedges								
Foreign exchange forward contracts ⁽¹⁾	\$ 25	7	—	—	\$ 25	—	—	
Total gross derivative assets/liabilities ⁽²⁾			14	1		1	5	
Less: collateral held/posted ⁽³⁾			—	(1)		—	(5)	
Total net derivative assets/liabilities			\$ 14	\$ —		\$ 1	\$ —	

(1) The foreign exchange forward contracts have notional amounts of EUR 6 million, GBP 6 million, SGD 1 million, INR 788 million and AUD 2 million as of September 30, 2023 and December 31, 2022.

(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 September 30, 2023, the Company had no outstanding contracts. At December 31, 2022, the Company had one outstanding contract with a total notional amount of \$48 million and an immaterial fair value.

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

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

	September 30, 2023		December 31, 2022	
	Carrying Amount of Hedged Liabilities	Cumulative Amount of Fair Value Hedging Adjustment (Decreasing) the Carrying Amount of Hedged Liabilities ⁽¹⁾	Carrying Amount of Hedged Liabilities	Cumulative Amount of Fair Value Hedging Adjustment (Decreasing) the Carrying Amount of Hedged Liabilities ⁽¹⁾
Long-term borrowings	\$ 6,595	\$ (127)	\$ 4,386	\$ (3)

(1) The balance includes \$14 million and \$28 million of cumulative hedging adjustments related to discontinued hedging relationships as of September 30, 2023 and December 31, 2022, respectively.

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

	Location and Amount of (Losses) Gains Recognized on the Condensed Consolidated Statements of Income		
	Interest Expense		
	Long-Term Borrowings	Interest Income (Credit Card)	Other Income
For the Three Months Ended September 30, 2023			
Total amounts of income and expense line items presented in the condensed consolidated statements of income, where the effects of fair value or cash flow hedges are recorded	\$ (225)	\$ 3,726	\$ 21
The effects of cash flow and fair value hedging			
Gains (losses) on fair value hedging relationships			
Amounts reclassified from OCI into earnings	\$ 2	\$ (31)	\$ —
Gains (losses) on fair value hedging relationships			
Gains on hedged items	\$ 24	\$ —	\$ —
Losses on interest rate swaps	(53)	—	—
Total losses on fair value hedging relationships	<u>\$ (29)</u>	<u>\$ —</u>	<u>\$ —</u>
For the Three Months Ended September 30, 2022			
Total amounts of income and expense line items presented in the condensed consolidated statements of income, where the effects of fair value or cash flow hedges are recorded	\$ (168)	\$ 2,783	\$ 19
The effects of cash flow and fair value hedging			
Losses on cash flow hedging relationships			
Amounts reclassified from OCI into earnings	\$ (1)	\$ (1)	\$ —
Gains (losses) on fair value hedging relationships			
Gains on hedged items	\$ 3	\$ —	\$ —
Losses on interest rate swaps	(11)	—	—
Total losses on fair value hedging relationships	<u>\$ (8)</u>	<u>\$ —</u>	<u>\$ —</u>
The effects of derivatives not designated in hedging relationships			
Gains on derivatives not designated as hedges	\$ —	\$ —	\$ 1

	Location and Amount of (Losses) Gains Recognized on the Condensed Consolidated Statements of Income		
	Interest Expense		
	Long-Term Borrowings	Interest Income (Credit Card)	Other Income
For the Nine Months Ended September 30, 2023			
Total amounts of income and expense line items presented in the condensed consolidated statements of income, where the effects of fair value or cash flow hedges are recorded	\$ (622)	\$ 10,513	\$ 71
The effects of cash flow and fair value hedging			
Gains (losses) on cash flow hedging relationships			
Amounts reclassified from OCI into earnings	\$ 6	\$ (56)	\$ —
Gains (losses) on fair value hedging relationships			
Gains on hedged items	\$ 111	\$ —	\$ —
Losses on interest rate swaps	(181)	—	—
Total losses on fair value hedging relationships	<u>\$ (70)</u>	<u>\$ —</u>	<u>\$ —</u>
For the Nine Months Ended September 30, 2022			
Total amounts of income and expense line items presented in the condensed consolidated statements of income, where the effects of fair value or cash flow hedges are recorded	\$ (416)	\$ 7,475	\$ 64
The effects of cash flow and fair value hedging			
Losses on cash flow hedging relationships			
Amounts reclassified from OCI into earnings	\$ (3)	\$ (1)	\$ —
Gains (losses) on fair value hedging relationships			
Gains on hedged items	\$ 72	\$ —	\$ —
Losses on interest rate swaps	(61)	—	—
Total gains on fair value hedging relationships	<u>\$ 11</u>	<u>\$ —</u>	<u>\$ —</u>
The effects of derivatives not designated in hedging relationships			
Gains on derivatives not designated as hedges	\$ —	\$ —	\$ 2

For the impact of the derivative instruments on OCI, see Note 8: Accumulated Other Comprehensive Income.

Collateral Requirements and Credit-Risk Related Contingency Features

The Company has master netting arrangements and minimum collateral posting thresholds with its counterparties for its fair value and cash flow hedge interest rate swaps and foreign exchange forward contracts. The Company has not sought a legal opinion in relation to the enforceability of its master netting arrangements and, as such, does not report any of these positions on a net basis. Collateral is required by either the Company or its subsidiaries or the counterparty depending on the net fair value position of the derivatives held with that counterparty. These collateral receivable or payable amounts are generally not offset against the fair value of these derivatives but are recorded separately in other assets or deposits. Most of the Company's cash collateral amounts relate to positions cleared through an exchange and are reflected as offsets to the associated derivatives balances recorded in other assets and accrued expenses and other liabilities.

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

16. Segment Disclosures

The Company manages its business activities in two segments: Digital Banking and Payment Services.

- *Digital Banking:* The Digital 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 loans and other consumer lending and deposit products. The majority of Digital 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 Digital Banking segment.
- Through its operation of the Discover Network, the Digital Banking segment incurs fixed marketing, servicing and infrastructure costs that are not specifically allocated among the segments, except for an allocation of direct and incremental costs driven by the Company's Payment Services segment.
- The Company's assets 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.

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

	Digital Banking	Payment Services	Total
<u>For the Three Months Ended September 30, 2023</u>			
Interest income			
Credit card loans	\$ 3,726	\$ —	\$ 3,726
Private student loans	261	—	261
Personal loans	305	—	305
Other loans	87	—	87
Other interest income	231	—	231
Total interest income	4,610	—	4,610
Interest expense	1,288	—	1,288
Net interest income	3,322	—	3,322
Provision for credit losses	1,702	—	1,702
Other income	592	130	722
Other expense	1,409	45	1,454
Income before income taxes	\$ 803	\$ 85	\$ 888
<u>For the Three Months Ended September 30, 2022</u>			
Interest income			
Credit card loans	\$ 2,783	\$ —	\$ 2,783
Private student loans	211	—	211
Personal loans	221	—	221
Other loans	44	—	44
Other interest income	98	—	98
Total interest income	3,357	—	3,357
Interest expense	514	—	514
Net interest income	2,843	—	2,843
Provision for credit losses	773	—	773
Other income	530	95	625
Other expense	1,326	42	1,368
Income before income taxes	\$ 1,274	\$ 53	\$ 1,327

	Digital Banking	Payment Services	Total
<u>For the Nine Months Ended September 30, 2023</u>			
Interest income			
Credit card loans	\$ 10,513	\$ —	\$ 10,513
Private student loans	768	—	768
Personal loans	831	—	831
Other loans	224	—	224
Other interest income	641	—	641
Total interest income	12,977	—	12,977
Interest expense	3,346	—	3,346
Net interest income	9,631	—	9,631
Provision for credit losses	4,109	—	4,109
Other income	1,700	333	2,033
Other expense	4,110	131	4,241
Income before income taxes	\$ 3,112	\$ 202	\$ 3,314
<u>For the Nine Months Ended September 30, 2022</u>			
Interest income			
Credit card loans	\$ 7,475	\$ —	\$ 7,475
Private student loans	597	—	597
Personal loans	633	—	633
Other loans	113	—	113
Other interest income	190	—	190
Total interest income	9,008	—	9,008
Interest expense	1,076	—	1,076
Net interest income	7,932	—	7,932
Provision for credit losses	1,476	—	1,476
Other income	1,551	89	1,640
Other expense	3,604	117	3,721
Income (loss) before income taxes	\$ 4,403	\$ (28)	\$ 4,375

17. Revenue from Contracts with Customers

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

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

	Digital Banking	Payment Services	Total
For the Three Months Ended September 30, 2023			
Other income subject to ASC 606			
Discount and interchange revenue, net ⁽¹⁾	\$ 354	\$ 23	\$ 377
Protection products revenue	42	—	42
Transaction processing revenue	—	82	82
Other income	2	19	21
Total other income subject to ASC 606 ⁽²⁾	398	124	522
Other income not subject to ASC 606			
Loan fee income	194	—	194
Gains on equity investments	—	6	6
Total other income not subject to ASC 606	194	6	200
Total other income by operating segment	\$ 592	\$ 130	\$ 722
For the Three Months Ended September 30, 2022			
Other income subject to ASC 606			
Discount and interchange revenue, net ⁽¹⁾	\$ 316	\$ 19	\$ 335
Protection products revenue	42	—	42
Transaction processing revenue	—	65	65
Other income	3	16	19
Total other income subject to ASC 606 ⁽²⁾	361	100	461
Other income not subject to ASC 606			
Loan fee income	168	—	168
Gains (losses) on equity investments	1	(5)	(4)
Total other income (loss) not subject to ASC 606	169	(5)	164
Total other income by operating segment	\$ 530	\$ 95	\$ 625

	Digital Banking	Payment Services	Total
For the Nine Months Ended September 30, 2023			
Other income subject to ASC 606			
Discount and interchange revenue, net ⁽¹⁾	\$ 1,013	\$ 64	\$ 1,077
Protection products revenue	129	—	129
Transaction processing revenue	—	221	221
Other income	12	59	71
Total other income subject to ASC 606 ⁽²⁾	1,154	344	1,498
Other income not subject to ASC 606			
Loan fee income	546	—	546
Gains (losses) on equity investments	—	(11)	(11)
Total other income (loss) not subject to ASC 606	546	(11)	535
Total other income by operating segment	\$ 1,700	\$ 333	\$ 2,033
For the Nine Months Ended September 30, 2022			
Other income subject to ASC 606			
Discount and interchange revenue, net ⁽¹⁾	\$ 962	\$ 61	\$ 1,023
Protection products revenue	128	—	128
Transaction processing revenue	—	183	183
Other income	9	55	64
Total other income subject to ASC 606 ⁽²⁾	1,099	299	1,398
Other income not subject to ASC 606			
Loan fee income	450	—	450
Gains (losses) on equity investments	2	(210)	(208)
Total other income (loss) not subject to ASC 606	452	(210)	242
Total other income (loss) by operating segment	\$ 1,551	\$ 89	\$ 1,640

- (1) Net of rewards, including Cashback Bonus rewards, of \$787 million and \$811 million for the three months ended September 30, 2023 and 2022, respectively, and \$2.3 billion and \$2.2 billion for the nine months ended September 30, 2023 and 2022, respectively.
- (2) Excludes \$3 million and \$13 million of deposit product fees that are reported within net interest income for the three and nine months ended September 30, 2023, respectively. Deposit product fees were immaterial for the three and nine months ended September 30, 2022.

For a detailed description of the Company's significant revenue recognition accounting policies, see Note 2: Summary of Significant Accounting Policies to the consolidated financial statements in the Company's annual report on Form 10-K for the year ended December 31, 2022.

18. Immaterial Restatement of Prior Period Financial Statements

As reported in the second quarter of 2023, beginning in 2007, the Company incorrectly classified certain credit card accounts into its highest merchant and merchant acquirer pricing tier. The card product classification impacts the pricing and charging of discount and interchange revenue, which is recorded within discount and interchange revenue, net, on the consolidated statements of income. The Company determined the revenue impact of the incorrect card product classification was immaterial to the consolidated financial statements for all impacted prior periods. For comparative purposes, the Company has made these immaterial corrections to the recognition of discount and interchange revenue, as well as the related impacts to assets, liabilities and retained earnings in the prior periods presented in this Form 10-Q. Assets were impacted by adjustments to deferred tax assets, and liabilities were impacted by an adjustment to the liability for estimated refunds to merchants and merchant acquirers.

The prior period impacts to the Company's consolidated statement of financial condition were as shown below (dollars in millions):

	December 31, 2022		
	As Previously Reported	Restatement Impacts	As Restated
Assets			
Other assets	\$ 4,519	\$ 78	\$ 4,597
Total assets	\$ 131,628	\$ 78	\$ 131,706
Liabilities and Stockholders' Equity			
Liabilities			
Accrued expenses and other liabilities	\$ 5,294	\$ 324	\$ 5,618
Total liabilities	\$ 117,038	\$ 324	\$ 117,362
Stockholders' Equity			
Retained earnings	\$ 28,453	\$ (246)	\$ 28,207
Total stockholders' equity	\$ 14,590	\$ (246)	\$ 14,344
Total liabilities and stockholders' equity	\$ 131,628	\$ 78	\$ 131,706

The prior period impacts to the Company's consolidated statements of income and the related impacts to the consolidated statements of comprehensive income were as shown below (dollars in millions):

	For the Three Months Ended September 30, 2022			For the Nine Months Ended September 30, 2022		
	As Previously Reported	Restatement Impacts	As Restated	As Previously Reported	Restatement Impacts	As Restated
Other income						
Discount and interchange revenue, net	\$ 346	\$ (11)	\$ 335	\$ 1,056	\$ (33)	\$ 1,023
Total other income	\$ 636	\$ (11)	\$ 625	\$ 1,673	\$ (33)	\$ 1,640
Other expense						
Other expense	\$ 174	\$ (20)	\$ 154	\$ 406	\$ (20)	\$ 386
Total other expense	\$ 1,388	\$ (20)	\$ 1,368	\$ 3,741	\$ (20)	\$ 3,721
Income before income taxes	\$ 1,318	\$ 9	\$ 1,327	\$ 4,388	\$ (13)	\$ 4,375
Income tax expense	\$ 312	\$ 2	\$ 314	\$ 1,029	\$ (3)	\$ 1,026
Net income	\$ 1,006	\$ 7	\$ 1,013	\$ 3,359	\$ (10)	\$ 3,349
Net income allocated to common stockholders	\$ 967	\$ 8	\$ 975	\$ 3,277	\$ (10)	\$ 3,267
Basic earnings per common share	\$ 3.54	\$ 0.03	\$ 3.57	\$ 11.74	\$ (0.04)	\$ 11.70
Diluted earnings per common share	\$ 3.54	\$ 0.02	\$ 3.56	\$ 11.73	\$ (0.04)	\$ 11.69

The prior period impacts to the Company's consolidated statements of changes in stockholders' equity were as shown below (dollars in millions):

	Retained Earnings	Total Stockholders' Equity
As Previously Reported		
For the Three Months Ended September 30, 2022		
Balance at June 30, 2022	\$ 26,776	\$ 13,764
Net income	\$ 1,006	\$ 1,006
Balance at September 30, 2022	<u>\$ 27,585</u>	<u>\$ 14,286</u>
Restatement Impacts		
For the Three Months Ended September 30, 2022		
Balance at June 30, 2022	\$ (245)	\$ (245)
Net income	\$ 7	\$ 7
Balance at September 30, 2022	<u>\$ (238)</u>	<u>\$ (238)</u>
As Restated		
For the Three Months Ended September 30, 2022		
Balance at June 30, 2022	\$ 26,531	\$ 13,519
Net income	\$ 1,013	\$ 1,013
Balance at September 30, 2022	<u>\$ 27,347</u>	<u>\$ 14,048</u>
	Retained Earnings	Total Stockholders' Equity
As Previously Reported		
For the Nine Months Ended September 30, 2022		
Balance at December 31, 2021	\$ 24,766	\$ 13,408
Net income	\$ 3,359	\$ 3,359
Balance at September 30, 2022	<u>\$ 27,585</u>	<u>\$ 14,286</u>
Restatement Impacts		
For the Nine Months Ended September 30, 2022		
Balance at December 31, 2021	\$ (228)	\$ (228)
Net income	\$ (10)	\$ (10)
Balance at September 30, 2022	<u>\$ (238)</u>	<u>\$ (238)</u>
As Restated		
For the Nine Months Ended September 30, 2022		
Balance at December 31, 2021	\$ 24,538	\$ 13,180
Net income	\$ 3,349	\$ 3,349
Balance at September 30, 2022	<u>\$ 27,347</u>	<u>\$ 14,048</u>

The prior period impacts to the Company's consolidated statements of cash flows were as follows (dollars in millions):

	For the Nine Months Ended September 30, 2022		
	As Previously Reported	Restatement Impacts	As Restated
Cash flows provided by operating activities			
Net income	\$ 3,359	\$ (10)	\$ 3,349
Adjustments to reconcile net income to net cash provided by operating activities:			
Deferred income taxes	\$ (314)	\$ (3)	\$ (317)
Changes in assets and liabilities:			
Increase in accrued expenses and liabilities	\$ 312	\$ 13	\$ 325
Net cash provided by operating activities	\$ 4,965	\$ —	\$ 4,965

19. Subsequent Events

The Company has evaluated events and transactions that have occurred subsequent to September 30, 2023, and determined that there were no subsequent events that would require recognition or disclosure in the condensed consolidated financial statements.

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," "may," "should," "could," "would," "likely," "forecast," and similar expressions. Such statements are based on 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 accounting guidance, tax reform, 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 and merchants; our ability to sustain and grow our private student loan, personal loan and home loan products; difficulty obtaining regulatory approval for, financing, closing, 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 our or others' 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, climate change, pandemics and unforeseen or catastrophic events; our ability to introduce new products and services; our ability to manage our relationships with third-party vendors, as well as those with which we have no direct relationship such as our employees' internet service providers; our ability to maintain current technology and integrate new and acquired systems and technology; 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; our ability to comply with regulatory requirements; 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 of this quarterly report and in "Risk Factors," "Business," 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, 2022, which is filed with the Securities and Exchange Commission ("SEC") and available at the SEC's internet site (<https://www.sec.gov>).

Introduction and Overview

Discover Financial Services ("DFS") is a digital banking and payment services company. We provide digital banking products and services and payment services through our subsidiaries. We offer our customers credit card loans, private student loans, personal loans, home loans and deposit products. We also operate the Discover Network, the PULSE network ("PULSE") and Diners Club International ("Diners Club"), collectively known as the Discover Global Network. The Discover Network processes transactions for Discover-branded credit and debit cards and provides payment transaction processing and settlement services. PULSE operates an electronic funds transfer network, providing financial institutions issuing debit cards on the PULSE network with access to ATMs domestically and internationally and merchant acceptance throughout the United States of America ("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 credit and charge cards and/or provide card acceptance services.

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

The highlights below compare results as of and for the three months ended September 30, 2023, against results for the same period in the prior year.

- Net income was \$683 million, or \$2.59 per diluted share, compared to net income of \$1.0 billion, or \$3.56 per diluted share, in the prior year.
- Total loans grew \$17.8 billion, or 17%, to \$122.7 billion.
- Credit card loans grew \$13.8 billion, or 16%, to \$97.4 billion.
- The net charge-off rate for credit card loans increased 211 basis points to 4.03% and the delinquency rate for credit card loans over 30 days past due increased 130 basis points to 3.41%.
- Direct-to-consumer deposits grew \$15.0 billion, or 23%, to \$81.2 billion.
- Payment Services transaction volume for the segment was \$91.8 billion, up 9%.

Outlook

The outlook below provides our current expectations for our financial results based on market conditions, the regulatory and legal environment and our business strategies.

- We expect continued loan growth driven by moderation in the payment rate, recent account growth and our current expectation of sales trends.
- Based on the current interest rate environment, net interest margin is expected to be relatively flat in comparison to 2022.
- We expect the total net charge-off rate to increase, in comparison to the prior year, driven by the seasoning of recent vintages with higher delinquencies.
- Total expenses are expected to increase, driven by investments in acquisition and brand, compliance and risk management capabilities, technology and analytics. We remain committed to managing expenses while continuing to make investments in profitable long-term growth.

Regulatory Environment and Developments

Banking

Capital Standards and Stress Testing

As a bank holding company, DFS is subject to mandatory supervisory stress tests every other year and is required to submit annual capital plans to the Federal Reserve based on forward-looking internal analysis of income and capital levels under baseline and stressful conditions. DFS is also subject to capital buffer requirements, including the Stress Capital Buffer ("SCB"), which requires maintaining regulatory capital levels above a threshold based on the results of supervisory stress tests after accounting for planned dividend payments.

In January 2021, the Federal Reserve finalized regulatory amendments that made targeted changes to the capital planning, regulatory reporting and SCB requirements for firms subject to Category IV standards, including DFS, to be consistent with the Federal Reserve's regulatory tailoring framework. The final rules generally align to instructions the Federal Reserve previously provided to Category IV firms regarding their respective capital plan submissions. The amended rules also provide Category IV firms with the option to submit to supervisory stress tests during off years if they wish for the Federal Reserve to reset the stress test portion of their SCB requirement. The Federal Reserve also revised the scope of application of its existing regulatory guidance for capital planning to align with the tailoring framework. However, the timing and substance of any additional changes to existing guidance or new guidance are uncertain. Moreover, following the failure of two domestic banks during March 2023, members of Congress, the President of the United States and various bank regulatory authorities have made public statements indicating a desire for additional prudential regulation for Category IV firms like DFS.

In July 2023, the Federal Reserve, the Office of the Comptroller of the Currency ("OCC") and the Federal Deposit Insurance Corporation ("FDIC") issued a proposal to amend the risk-based capital framework, which includes replacing the current "advanced approach" with a new expanded risk-based approach. In addition, the proposal introduces new standardized approaches for credit risk, operational risk and credit valuation adjustment risk, and would significantly revise risk-based capital requirements for all banking institutions with assets of \$100 billion or more, including DFS. If adopted, the new requirements would be effective July 1, 2025 with a three-year transition period.

In August 2023, the Federal Reserve, the FDIC and the OCC (the "Agencies") issued a proposal that would require banking institutions in Categories II through IV of the tailoring framework, including DFS, and their insured depository institution subsidiaries with \$100 billion or more in assets such as Discover Bank, to have minimum levels of outstanding long-term debt. Under the proposed rule, a covered banking institution would be required to have a minimum outstanding amount of eligible long-term debt that is at least 6% of the institution's total risk-weighted assets, 2.5% of its total leverage exposure (if it is required to maintain a minimum supplementary leverage ratio) and 3.5% of its average total consolidated assets, whichever is greater. If adopted, banking institutions would have three years to comply with the new requirements, though the Agencies would retain the authority to accelerate or extend the transition period.

While we cannot currently predict the timing or substance of the finalization of these proposals or other regulatory changes, if any such change were adopted, it could present changes to some or all of the regulatory tailoring currently applicable to DFS, otherwise tighten the prudential regulatory requirements that would apply to DFS and increase our expenses.

In June 2022, the Federal Reserve released results of the 2022 Comprehensive Capital Analysis and Review ("CCAR") exercise. Our capital levels demonstrated resiliency under stress, staying well above regulatory minimums. Based on these results, in August 2022, our new SCB was set at 2.5%, the lowest possible requirement. This new SCB was effective October 1, 2022, through September 30, 2023. In accordance with the capital plan rule amendments, we elected not to participate in the 2023 supervisory stress tests. Nevertheless, on April 5, 2023, we submitted to the Federal Reserve a capital plan based on a forward-looking internal assessment of income and capital under baseline and stressful conditions. On July 27, 2023, the Federal Reserve disclosed that our SCB was unchanged at 2.5%, effective beginning October 1, 2023 through September 30, 2024.

London Interbank Offered Rate Transition

In March 2021, the United Kingdom's Financial Conduct Authority ("FCA") announced that it would no longer encourage or compel banks to continue to contribute quotes and maintain the London Interbank Offered Rate ("LIBOR") after December 31, 2021, and the most commonly used U.S. dollar ("USD") LIBOR settings ceased to be published on a representative basis in July 2023.

On December 16, 2022, the Federal Reserve adopted a final rule, which became effective on February 27, 2023, implementing the Adjustable Interest Rate (LIBOR) Act ("LIBOR Act"), which provides a statutory framework to replace LIBOR with a benchmark rate based on the Secured Overnight Financing Rate ("SOFR") for contracts governed by U.S. law that do not have fallback provisions or that have fallback provisions resulting in a replacement rate based on LIBOR.

In connection with the transition, \$1.8 billion of our LIBOR-based capital markets securities transitioned to the corresponding tenor for Chicago Mercantile Exchange ("CME") Term SOFR Reference Rate plus the applicable tenor spread adjustment in a manner consistent with the LIBOR Act and the regulation implementing the LIBOR Act. Additionally, approximately \$500 million of Discover Bank's subordinated notes not covered under the LIBOR Act reset in August 2023 consistent with their fallback provisions.

As of September 30, 2023, LIBOR-indexed variable-rate loans comprised approximately 33% of our private student loan portfolio and approximately 3% of our aggregate loan portfolio. These outstanding private student loans converted to a SOFR index in October 2023. As of November 2021, we no longer originate new variable-rate student loans indexed to LIBOR. Instead, new originations of such loans are indexed solely to 3-month term SOFR, as published by the CME.

For additional information regarding the replacement of LIBOR and other benchmark rates, see "Management's Discussion and Analysis of Financial Condition and Results of Operations — Regulatory Environment and Developments — Banking — London Interbank Offered Rate" in our annual report on Form 10-K for the year ended December 31, 2022.

Consumer Financial Services

The CFPB regulates consumer financial products and services and examines certain providers of consumer financial products and services, including Discover. The CFPB's authority includes rulemaking, supervisory and enforcement powers with respect to federal consumer protection laws; preventing "unfair, deceptive or abusive acts or practices" ("UDAAP") and ensuring that consumers have access to fair and transparent financial products and services. Historically, the CFPB's policy priorities focused on several financial products of the type we offer (e.g., credit cards and other consumer lending products). In addition, the CFPB is required by statute to undertake certain actions including its biennial review of the consumer credit card market.

The CFPB's priorities have continued to focus on, among other things, increased enforcement of existing consumer protection laws, with a particular focus on fees charged to consumers, UDAAP, fair lending, student lending and servicing, debt collection and credit reporting. Additionally, detection of repeat offenders, such as companies that violate a formal court or agency order, has also become a priority for the CFPB. Director Chopra, in March 2022, identified, as repeat offenders, several companies that have had multiple enforcement actions, including Discover. The CFPB has recently taken action against financial institutions for violating prior enforcement actions. In December 2020, certain of our subsidiaries entered into a consent order with the CFPB regarding identified private student loan servicing practices. See Note 13: Litigation and Regulatory Matters to our condensed consolidated financial statements for more information.

On February 1, 2023, the CFPB proposed a rule to alter Regulation Z's late fee standards that includes caps on fees for late payments, which could result in increased cardholder delinquencies and credit losses.

Enhanced regulatory requirements, potential supervisory findings, or enforcement actions and ratings could negatively impact our ability to implement certain consumer-focused enhancements to product features and functionality and business strategies, limit or change our business practices, limit our consumer product offerings, cause us to invest more management time and resources in compliance efforts or limit our ability to obtain related required regulatory approvals. The additional expense, time and resources needed to comply with ongoing or new regulatory requirements may adversely impact the cost of and access to credit for consumers and results of business operations.

Data Security and Privacy

Policymakers at the federal and state levels remain focused on enhancing data security and data breach incident response requirements. Furthermore, regulations and legislation at various levels of government continue to be proposed and enacted to augment consumer data privacy standards and require companies to assess and/or disclose cybersecurity metrics, risks, opportunities, policies and practice. At the federal level, Discover is subject to the Gramm-Leach-Bliley Act ("GLBA") and its implementing regulations and guidance, which regulate Discover's use and disclosure of our consumers' nonpublic personal information ("NPI"). At the state level, the California Consumer Privacy Act ("CCPA"), which became effective in 2020, created a broad set of privacy rights and remedies. The California Privacy Rights Act ("CPRA"), which became effective on January 1, 2023, amends the CCPA, enhancing consumer privacy protections and creating a new California Privacy Protection Agency ("CPPA"). A California court recently issued an order delaying enforcement of the CPRA regulations from July 1, 2023, until March 29, 2024, although the CPPA may still decide to enforce the provisions of the CCPA, as amended. By the end of 2023, thirteen U.S. states will have passed comprehensive privacy laws, with five of those laws effective in California, Colorado, Connecticut, Utah and Virginia. These laws exempt either NPI or financial institutions subject to the GLBA from their scope, so the impact of these state privacy laws on several Discover businesses is limited. We continue to evaluate the impact of the CCPA, as well as other federal and state laws, on our businesses and other providers of consumer financial services, including laws regulating the capture and use of consumer biometrics. For more information on the impact to Discover of data security and privacy laws on regulation, see "Supervision and Regulation" and "Risk Factors" to our consolidated financial statements in our annual report on Form 10-K for the year ended December 31, 2022.

Environmental, Social and Governance Matters

Environmental, social and governance ("ESG") issues, including climate change, human capital and governance practices, are a significant area of focus by U.S. federal, state and international lawmakers and regulatory agencies, as well as shareholders and other stakeholders. In recent months, there have been substantial legislative and regulatory developments on such issues, including proposed, issued or implemented legislation and rulemakings that would require companies to assess and/or disclose climate and other ESG metrics, risks, opportunities, policies and practice. For example, in March 2022, the Securities and Exchange Commission proposed climate-related disclosure requirements. The potential impact to us of these legislative and regulatory developments is uncertain at this time, although we expect that the emerging legal and regulatory requirements on ESG issues will result in additional compliance and reporting costs to us.

We continue to monitor and assess the potential impact of these legislative and regulatory developments.

Segments

We manage our business activities in two segments, Digital Banking and Payment Services, based on the products and services provided. For a detailed description of the operations of each segment, as well as the allocation conventions used in our business segment reporting, see Note 16: Segment Disclosures to our condensed consolidated financial statements.

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

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2023	2022	2023	2022
Digital Banking				
Interest income				
Credit card loans	\$ 3,726	\$ 2,783	\$ 10,513	\$ 7,475
Private student loans	261	211	768	597
Personal loans	305	221	831	633
Other loans	87	44	224	113
Other interest income	231	98	641	190
Total interest income	4,610	3,357	12,977	9,008
Interest expense	1,288	514	3,346	1,076
Net interest income	3,322	2,843	9,631	7,932
Provision for credit losses	1,702	773	4,109	1,476
Other income	592	530	1,700	1,551
Other expense	1,409	1,326	4,110	3,604
Income before income taxes	803	1,274	3,112	4,403
Payment Services				
Other income (loss)	130	95	333	89
Other expense	45	42	131	117
Income (loss) before income taxes	85	53	202	(28)
Total income before income taxes	\$ 888	\$ 1,327	\$ 3,314	\$ 4,375

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

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2023	2022	2023	2022
Network Transaction Volume				
PULSE Network	\$ 72,146	\$ 63,437	\$ 206,422	\$ 186,265
Network Partners	9,899	11,894	30,935	34,109
Diners Club ⁽¹⁾	9,723	8,793	28,831	24,350
Total Payment Services	91,768	84,124	266,188	244,724
Discover Network — Proprietary ⁽²⁾	57,228	56,633	166,153	160,600
Total Network Transaction Volume	\$ 148,996	\$ 140,757	\$ 432,341	\$ 405,324
Transactions Processed on Networks				
Discover Network	\$ 964	\$ 924	\$ 2,754	\$ 2,671
PULSE Network	2,011	1,611	5,397	4,534
Total Transaction Processed on Networks	\$ 2,975	\$ 2,535	\$ 8,151	\$ 7,205
Credit Card Volume				
Discover Card Volume ⁽³⁾	\$ 58,965	\$ 58,561	\$ 171,868	\$ 165,324
Discover Card Sales Volume ⁽⁴⁾	\$ 54,952	\$ 54,793	\$ 160,769	\$ 154,982

(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 Discover card sales volume on the Discover Network.

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

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

Digital Banking

Our Digital Banking segment reported pretax income of \$803 million and \$3.1 billion, respectively, for the three and nine months ended September 30, 2023, as compared to \$1.3 billion and \$4.4 billion, respectively, for the three and nine months ended September 30, 2022.

Net interest income increased for the three and nine months ended September 30, 2023, as compared to the same periods in 2022, primarily driven by a higher yield on loans and a higher average level of loan receivables, partially offset by higher funding costs. Interest income increased for the three and nine months ended September 30, 2023, as compared to the same periods in 2022, primarily due to higher market rates and a higher average level of loan receivables. Interest expense increased for the three and nine months ended September 30, 2023, as compared to the same periods in 2022, primarily due to higher funding costs driven by higher market rates and a larger funding base.

For the three and nine months ended September 30, 2023, the provision for credit losses increased as compared to the same periods in 2022, primarily driven by loan growth, increasing delinquencies, and macroeconomic variables impacting household cash flows. For a detailed discussion on provision for credit losses, see "— Loan Quality — Provision and Allowance for Credit Losses."

Total other income for the Digital Banking segment increased for the three months ended September 30, 2023, as compared to the same periods in 2022, primarily due to increases in net discount and interchange revenue and loan fee income. The increase in net discount and interchange revenue was primarily driven by lower rewards due to lower promotional rewards. Loan fee income increased primarily due to a higher volume of late payments. Total other income increased for the nine months ended September 30, 2023, as compared to the same period in 2022, primarily due to increases in loan fee income and net discount and interchange revenue. Loan fee income increased primarily due to a higher volume of late payments. The increase in net discount and interchange revenue was partially offset by an increase in rewards, both of which were driven by higher sales volume.

Total other expense increased for the three months ended September 30, 2023, as compared to the same period in 2022, primarily due to increases in professional fees, information processing and communications and employee compensation and benefits. Professional fees increased primarily due to increased consulting supporting consumer compliance initiatives. The increase in information processing and communications was driven primarily from investments in technology. The increase in employee compensation and benefits was driven primarily by higher headcount.

Total other expense increased for the nine months ended September 30, 2023, as compared to the same period in 2022, primarily due to increases in employee compensation and benefits, professional fees, marketing and business development and information processing and communications. The increase in employee compensation and benefits was driven primarily by higher headcount. Professional fees increased primarily due to increased consulting supporting consumer compliance initiatives. The marketing and business development increase was due primarily from growth investments in consumer banking products. The increase in information processing and communications was driven primarily from software write-downs and investments in technology.

Discover card sales volume was \$55.0 billion and \$160.8 billion, respectively, for the three and nine months ended September 30, 2023, which was an increase of 0.3% and 3.7%, respectively, as compared to the same periods in 2022. Volume was relatively flat for the three months ended September 30, 2023. For the nine months ended September 30, 2023, the volume growth was primarily driven by higher consumer spending.

Payment Services

Our Payment Services segment reported pretax income of \$85 million and \$202 million, respectively, for the three and nine months ended September 30, 2023, as compared to pretax income of \$53 million and a pretax loss of \$28 million, respectively, for the same periods in 2022. The increase in segment pretax income for the three months ended September 30, 2023, was driven primarily from an increase in transaction processing revenue in the current period and losses on equity investments in the prior period. Transaction processing revenue increased primarily from higher volume. The losses on equity investments in the prior period were the result of larger mark-to-market adjustments for equity investments measured at fair value.

The increase in segment pretax income for the nine months ended September 30, 2023, was primarily due to losses on equity investments in the prior period, which were the result of larger mark-to-market adjustments for equity investments measured at fair value.

Critical Accounting Estimates

In preparing our consolidated financial statements in conformity with accounting principles generally accepted in the U.S. ("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 consolidated financial statements are appropriate. However, if actual experience differs from the assumptions and other considerations used in estimating amounts in our 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 credit losses as a critical accounting estimate.

Allowance for Credit Losses

The allowance for credit losses was \$8.7 billion at September 30, 2023, which reflects a \$601 million build from the amount of the allowance for credit losses at June 30, 2023. The allowance for credit losses represents management's estimate of expected credit losses over the remaining expected life of our financial assets measured at amortized cost. Changes in the allowance for credit losses, and in the related provision for credit losses, can materially affect net income.

In estimating the expected credit losses, we use a combination of statistical models and qualitative analysis. There is a significant amount of judgment applied in selecting inputs and analyzing the results produced to estimate the allowance for credit losses. For more information on these judgments and our accounting policies and methodologies used to determine the allowance for credit losses, see "Management's Discussion and Analysis of Financial Condition and Results of Operations — Loan Quality," Note 4: Loan Receivables and Note 2: Summary of Significant Accounting Policies to our consolidated financial statements in our annual report on Form 10-K for the year ended December 31, 2022.

One of the key assumptions requiring significant judgment in estimating the current expected credit losses ("CECL") on a quarterly basis is the determination of the macroeconomic forecasts used in the loss forecast models. For the reasonable and supportable loss forecast period, we consider forecasts of multiple economic scenarios that generally include a base scenario with one or more optimistic (upside) or pessimistic (downside) scenarios. These scenarios comprise a variety of macroeconomic variables, including annualized gross domestic product growth and unemployment rate. The scenarios that are chosen each quarter and the amount of weighting given to each scenario depend on a variety of factors including recent economic events, leading economic indicators, views of internal and third-party economists and industry trends. Assumptions about the macroeconomic environment are inherently uncertain and, as a result, actual changes in the allowance for credit losses may be different from the simulated scenario presented below.

To demonstrate the sensitivity of the estimated credit losses to the macroeconomic scenarios, we measured the impact of altering the weighting of macroeconomic scenarios used in our loss forecast. Our allowance for credit losses would increase by approximately \$587 million at September 30, 2023 if we applied 100% weight to the most adverse scenario in our sensitivity analysis to reflect continued inflationary pressures, including persistent supply-chain disruptions and the influence of geopolitical events, as well as high interest rates and reduced credit availability.

The sensitivity disclosed above is hypothetical. It is difficult to estimate how potential changes in any one factor or input, such as the weighting of macroeconomic forecasts, might affect the overall allowance for credit losses because we consider a variety of factors and inputs in estimating the allowance for credit losses. The macroeconomic scenarios used are constructed with interrelated projections of multiple economic variables and loss estimates are produced that consider the historical correlation of those economic variables with credit losses. The inputs in the macroeconomic scenarios may not change at the same rate and may not be consistent across all geographies or product types, and changes in factors and inputs may be directionally inconsistent, such that improvement in one factor or input may offset deterioration in others. As a result, the sensitivity analysis above does not necessarily reflect the nature and extent of future changes in the allowance for credit losses. It is intended to provide insights into the impact of different judgments about the economy on our modeled loss estimates for the loan portfolio and does not imply any expectation of future losses. Furthermore, the hypothetical increase in our allowance for credit losses for loans does not incorporate the impact of management judgment for qualitative factors applied in the current allowance for credit losses, which may have a positive or negative effect on our actual financial condition and results of operations.

The overall economic environment directly impacts the macroeconomic variables that are used in the loss forecast models. If management used different assumptions about the economic environment in estimating expected credit losses, the impact to the allowance for credit losses could have a material effect on our consolidated financial condition and results of operations. In addition, if we experience significant instability in the economic environment, the uncertainty around the credit loss forecasts may increase, both due to the uncertainty of the economic forecasts and the challenges our models may have in incorporating them.

Earnings Summary

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

	For the Three Months Ended September 30,		2023 vs. 2022 Increase (Decrease)		For the Nine Months Ended September 30,		2023 vs. 2022 Increase (Decrease)	
	2023	2022	\$	%	2023	2022	\$	%
Interest income	\$ 4,610	\$ 3,357	\$ 1,253	37 %	\$ 12,977	\$ 9,008	\$ 3,969	44 %
Interest expense	1,288	514	774	151 %	3,346	1,076	2,270	211 %
Net interest income	3,322	2,843	479	17 %	9,631	7,932	1,699	21 %
Provision for credit losses	1,702	773	929	120 %	4,109	1,476	2,633	178 %
Net interest income after provision for credit losses	1,620	2,070	(450)	(22)%	5,522	6,456	(934)	(14)%
Other income	722	625	97	16 %	2,033	1,640	393	24 %
Other expense	1,454	1,368	86	6 %	4,241	3,721	520	14 %
Income before income taxes	888	1,327	(439)	(33)%	3,314	4,375	(1,061)	(24)%
Income tax expense	205	314	(109)	(35)%	762	1,026	(264)	(26)%
Net income	\$ 683	\$ 1,013	\$ (330)	(33)%	\$ 2,552	\$ 3,349	\$ (797)	(24)%
Net income allocated to common stockholders	\$ 647	\$ 975	\$ (328)	(34)%	\$ 2,473	\$ 3,267	\$ (794)	(24)%

Net Interest Income

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

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

- 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 interest rates necessary to attract and maintain direct-to-consumer deposits;
- The level and composition of other interest-earning assets, including our liquidity portfolio, and interest-bearing liabilities;
- Changes in the interest rate environment, including the levels of interest rates and the relationships among interest rate indices, such as the prime rate, the federal funds rate, the interest rate on reserve balances, LIBOR and SOFR; and
- The effectiveness of interest rate swaps in our interest rate risk management program.

Net interest income increased for the three and nine months ended September 30, 2023, as compared to the same periods in 2022, primarily driven by a higher yield on loans and a higher average level of loan receivables, partially offset by higher funding costs. Interest income increased for the three and nine months ended September 30, 2023, as compared to the same periods in 2022, primarily due to higher market rates and a higher average level of loan receivables. Interest expense increased for the three and nine months ended September 30, 2023, as compared to the same periods in 2022, primarily due to higher funding costs driven by higher market rates and a larger funding base.

Average Balance Sheet Analysis

(dollars in millions)

	For the Three Months Ended September 30,					
	2023			2022		
	Average Balance	Yield/Rate	Interest	Average Balance	Yield/Rate	Interest
Assets						
Interest-earning assets						
Cash and cash equivalents	\$ 7,711	5.36 %	\$ 104	\$ 10,057	2.29 %	\$ 58
Restricted cash	238	10.65 %	7	853	2.25 %	5
Investment securities	13,499	3.51 %	120	6,000	2.32 %	35
Loan receivables ⁽¹⁾						
Credit card loans ⁽²⁾⁽³⁾	95,796	15.43 %	3,726	81,445	13.56 %	2,783
Private student loans	10,274	10.11 %	261	10,132	8.26 %	211
Personal loans	9,368	12.94 %	305	7,408	11.83 %	221
Other	4,942	6.95 %	87	3,050	5.70 %	44
Total loan receivables	120,380	14.44 %	4,379	102,035	12.67 %	3,259
Total interest-earning assets	141,828	12.90 %	4,610	118,945	11.20 %	3,357
Allowance for credit losses	(8,063)			(6,758)		
Other assets	7,116			5,923		
Total assets ⁽⁴⁾	\$ 140,881			\$ 118,110		
Liabilities and Stockholders' Equity						
Interest-bearing liabilities						
Interest-bearing deposits						
Time deposits	\$ 39,795	4.09 %	410	\$ 25,279	1.97 %	125
Money market deposits	8,067	4.41 %	90	8,432	1.92 %	41
Other interest-bearing savings deposits	51,744	4.31 %	561	44,372	1.60 %	179
Total interest-bearing deposits	99,606	4.23 %	1,061	78,083	1.76 %	345
Borrowings						
Short-term borrowings	171	5.32 %	2	98	1.62 %	1
Securitized borrowings ⁽⁵⁾⁽⁶⁾⁽⁷⁾	11,161	4.60 %	129	10,246	2.79 %	72
Other long-term borrowings ⁽⁶⁾⁽⁷⁾⁽⁸⁾	8,702	4.32 %	96	9,087	4.20 %	96
Total borrowings	20,034	4.49 %	227	19,431	3.45 %	169
Total interest-bearing liabilities	119,640	4.27 %	1,288	97,514	2.09 %	514
Other liabilities and stockholders' equity ⁽⁹⁾	21,241			20,596		
Total liabilities and stockholders' equity	\$ 140,881			\$ 118,110		
Net interest income			\$ 3,322			\$ 2,843
Net interest margin ⁽¹⁰⁾		10.95 %			11.05 %	
Net yield on interest-earning assets ⁽¹¹⁾		9.29 %			9.48 %	
Interest rate spread ⁽¹²⁾		8.63 %			9.11 %	

	For the Nine Months Ended September 30,					
	2023			2022		
	Average Balance	Yield/Rate	Interest	Average Balance	Yield/Rate	Interest
Assets						
Interest-earning assets						
Cash and cash equivalents	\$ 7,907	5.06 %	\$ 299	\$ 9,074	1.20 %	\$ 81
Restricted cash	299	6.76 %	15	556	1.19 %	5
Investment securities	12,779	3.42 %	327	6,094	2.28 %	104
Loan receivables ⁽¹⁾						
Credit card loans ⁽²⁾⁽³⁾	92,383	15.21 %	10,513	76,832	13.01 %	7,475
Private student loans	10,387	9.88 %	768	10,225	7.81 %	597
Personal loans	8,760	12.69 %	831	7,101	11.92 %	633
Other	4,396	6.82 %	224	2,697	5.60 %	113
Total loan receivables	115,926	14.23 %	12,336	96,855	12.17 %	8,818
Total interest-earning assets	136,911	12.67 %	12,977	112,579	10.70 %	9,008
Allowance for credit losses	(7,690)			(6,740)		
Other assets	6,762			6,014		
Total assets ⁽⁴⁾	\$ 135,983			\$ 111,853		
Liabilities and Stockholders' Equity						
Interest-bearing liabilities						
Interest-bearing deposits						
Time deposits	\$ 36,828	3.68 %	1,014	\$ 21,772	1.73 %	281
Money market deposits	8,370	4.08 %	255	8,322	1.14 %	71
Other interest-bearing savings deposits	50,238	3.87 %	1,453	43,476	0.94 %	306
Total interest-bearing deposits	95,436	3.81 %	2,722	73,570	1.20 %	658
Borrowings						
Short-term borrowings	58	5.32 %	2	300	0.69 %	2
Securitized borrowings ⁽⁵⁾⁽⁶⁾⁽⁷⁾	10,353	4.20 %	325	8,758	2.06 %	135
Other long-term borrowings ⁽⁶⁾⁽⁷⁾⁽⁸⁾	9,045	4.39 %	297	9,233	4.07 %	281
Total borrowings	19,456	4.29 %	624	18,291	3.05 %	418
Total interest-bearing liabilities	114,892	3.89 %	3,346	91,861	1.57 %	1,076
Other liabilities and stockholders' equity ⁽⁹⁾	21,091			19,992		
Total liabilities and stockholders' equity	\$ 135,983			\$ 111,853		
Net interest income			\$ 9,631			\$ 7,932
Net interest margin ⁽¹⁰⁾		11.11 %			10.95 %	
Net yield on interest-earning assets ⁽¹¹⁾		9.40 %			9.42 %	
Interest rate spread ⁽¹²⁾		8.78 %			9.13 %	

- (1) Average balances of loan receivables and yield calculations include non-accruing loans. If the non-accruing loan balances were excluded, there would not be a material impact on the amounts reported above.
- (2) Interest income on credit card loans includes \$121 million and \$99 million of amortization of balance transfer fees for the three months ended September 30, 2023 and 2022, respectively, and \$335 million and \$261 million for the nine months ended September 30, 2023 and 2022, respectively.
- (3) Includes the impact of interest rate swap agreements used to change a portion of floating-rate assets to fixed-rate assets for the three and nine months ended September 30, 2023 and 2022.
- (4) The return on average assets, based on net income, was 0.48% and 0.85% for the three months ended September 30, 2023 and 2022, respectively, and 1.88% and 3.00% for the nine months ended September 30, 2023 and 2022, respectively.
- (5) Includes the impact of one terminated derivative formerly designated as a cash flow hedge for the three and nine months ended September 30, 2023 and 2022.
- (6) Includes the impact of interest rate swap agreements used to change a portion of fixed-rate funding to floating-rate funding for the three and nine months ended September 30, 2023 and 2022.
- (7) Includes the impact of terminated derivatives formerly designated as fair value hedges for the three and nine months ended September 30, 2023 and 2022.
- (8) Includes the impact of interest rate swap agreements used to change a portion of floating-rate funding to fixed-rate funding for the three and nine months ended September 30, 2023 and 2022.
- (9) The return on average stockholders' equity, based on net income, was 19% and 29% for the three months ended September 30, 2023 and 2022, respectively, and 24% and 33% for the nine months ended September 30, 2023 and 2022, respectively.
- (10) Net interest margin represents net interest income as a percentage of average total loan receivables.
- (11) Net yield on interest-earning assets represents net interest income as a percentage of average total interest-earning assets.
- (12) Interest rate spread represents the difference between the rate on total interest-earning assets and the rate on total interest-bearing liabilities.

Loan Quality

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

	September 30, 2023	December 31, 2022
Credit card loans	\$ 97,389	\$ 90,113
Other loans		
Private student loans	10,448	10,308
Personal loans	9,559	7,998
Other loans	5,280	3,701
Total other loans	25,287	22,007
Total loan receivables	122,676	112,120
Allowance for credit losses	(8,665)	(7,374)
Net loan receivables	\$ 114,011	\$ 104,746

Provision and Allowance for Credit Losses

Provision for credit losses is the expense related to maintaining the allowance for credit losses at an appropriate level to absorb the estimate of credit losses anticipated over the remaining expected life of loan receivables at each period end date. In deriving the estimate of expected credit losses, we consider the collectability of principal, interest and fees associated with our loan receivables. We also consider expected recoveries of amounts that were either previously charged-off or are expected to be charged-off. Establishing the estimate for expected credit losses requires significant management judgment. The factors that influence the provision for credit losses include:

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

Refer to "Management's Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Estimates — Allowance for Credit Losses" and Note 3: Loan Receivables to our condensed consolidated financial statements for more details on how we estimate the allowance for credit losses.

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

For the Three Months Ended September 30, 2023					
	Credit Card Loans	Private Student Loans	Personal Loans	Other Loans	Total Loans
Balance at June 30, 2023	\$ 6,525	\$ 849	\$ 622	\$ 68	\$ 8,064
Additions					
Provision for credit losses ⁽¹⁾	1,518	52	93	8	1,671
Deductions					
Charge-offs	(1,171)	(40)	(76)	—	(1,287)
Recoveries	198	5	14	—	217
Net charge-offs	(973)	(35)	(62)	—	(1,070)
Balance at September 30, 2023	\$ 7,070	\$ 866	\$ 653	\$ 76	\$ 8,665
For the Three Months Ended September 30, 2022					
	Credit Card Loans	Private Student Loans	Personal Loans	Other Loans	Total Loans
Balance at June 30, 2022	\$ 5,307	\$ 832	\$ 572	\$ 46	\$ 6,757
Additions					
Provision for credit losses ⁽¹⁾	649	20	69	5	743
Deductions					
Charge-offs	(592)	(29)	(38)	—	(659)
Recoveries	197	6	17	—	220
Net charge-offs	(395)	(23)	(21)	—	(439)
Balance at September 30, 2022	\$ 5,561	\$ 829	\$ 620	\$ 51	\$ 7,061
For the Nine Months Ended September 30, 2023					
	Credit Card Loans	Private Student Loans	Personal Loans	Other Loans	Total Loans
Balance at December 31, 2022	\$ 5,883	\$ 839	\$ 595	\$ 57	\$ 7,374
Cumulative effect of ASU No. 2022-02 adoption ⁽²⁾	(66)	—	(2)	—	(68)
Balance at January 1, 2023	5,817	839	593	57	7,306
Additions					
Provision for credit losses ⁽¹⁾	3,752	121	211	19	4,103
Deductions					
Charge-offs	(3,101)	(111)	(194)	—	(3,406)
Recoveries	602	17	43	—	662
Net charge-offs	(2,499)	(94)	(151)	—	(2,744)
Balance at September 30, 2023	\$ 7,070	\$ 866	\$ 653	\$ 76	\$ 8,665
For the Nine Months Ended September 30, 2022					
	Credit Card Loans	Private Student Loans	Personal Loans	Other Loans	Total Loans
Balance at December 31, 2021	\$ 5,273	\$ 843	\$ 662	\$ 44	\$ 6,822
Additions					
Provision for credit losses ⁽¹⁾	1,395	54	19	7	1,475
Deductions					
Charge-offs	(1,720)	(86)	(115)	—	(1,921)
Recoveries	613	18	54	—	685
Net charge-offs	(1,107)	(68)	(61)	—	(1,236)
Balance at September 30, 2022	\$ 5,561	\$ 829	\$ 620	\$ 51	\$ 7,061

- (1) Excludes a \$31 million and \$30 million adjustment of the liability for expected credit losses on unfunded commitments for the three months ended September 30, 2023 and 2022, respectively, and \$6 million and \$1 million for the nine months ended September 30, 2023 and 2022, respectively, as the liability is recorded in accrued expenses and other liabilities in our condensed consolidated statements of financial condition.
- (2) Represents the adjustment to the allowance for credit losses as a result of the adoption of ASU No. 2022-02 on January 1, 2023.

The allowance for credit losses was approximately \$8.7 billion at September 30, 2023, which reflects a \$601 million build over June 30, 2023, and a \$1.3 billion build from December 31, 2022. The build in the allowance for credit losses for the three and nine months ended September 30, 2023 was primarily driven by loan growth, increasing delinquencies, and macroeconomic variables impacting household cash flows.

The allowance estimation process begins with a loss forecast that uses certain macroeconomic variables and multiple macroeconomic scenarios among its inputs. In estimating the allowance at September 30, 2023, we used a macroeconomic forecast that projected the following weighted average amounts: (i) unemployment rate ending 2023 at 3.8% and peaking at 4.2% in the fourth quarter of 2024 and (ii) 2.02% growth rate in real gross domestic product in 2023.

In estimating expected credit losses, we considered the uncertainties associated with borrower behavior and payment trends, as well as recent and expected macroeconomic conditions, such as high consumer price inflation and the fiscal and monetary policy responses to that inflation. The Federal Reserve raised its federal funds rate target range substantially during 2022 and the first three quarters of 2023 in an effort to slow economic growth and reduce inflation. Although real GDP growth and labor market conditions have exceeded most economists' expectations this year, restrictive monetary policy, as manifested in relatively high interest rates, typically precedes weaker consumer credit conditions caused by rising unemployment as economic growth slows. Credit performance in our lending portfolios has evolved in line with our expectations this year, but may weaken if the economy fails to avert a recession in response to tighter credit conditions or other factors. We assessed the prospects for various macroeconomic outcomes in setting our allowance for credit losses.

The forecast period we deemed to be reasonable and supportable was 18 months for all periods presented. The 18 months reasonable and supportable forecast period was deemed appropriate given the current economic conditions. For all periods presented, we determined that a reversion period of 12 months was appropriate for the same reason. We applied a weighted reversion method to provide a more reasonable transition to historical losses for all loan products for all periods presented.

The provision for credit 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 credit losses at the balance sheet date. For the three and nine months ended September 30, 2023, the provision for credit losses increased by \$928 million and \$2.6 billion compared to the same periods in 2022, primarily driven by loan growth, increasing delinquencies, and macroeconomic variables impacting household cash flows.

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 credit losses, while fraud losses are recorded in other expense.

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,			
	2023		2022		2023		2022	
	\$	%	\$	%	\$	%	\$	%
Credit card loans	\$ 973	4.03 %	\$ 395	1.92 %	\$ 2,499	3.62 %	\$ 1,107	1.93 %
Private student loans	\$ 35	1.32 %	\$ 23	0.91 %	\$ 94	1.21 %	\$ 68	0.89 %
Personal loans	\$ 62	2.63 %	\$ 21	1.14 %	\$ 151	2.30 %	\$ 61	1.16 %

The net charge-offs and net charge-off rate for credit card loans, private student loans and personal loans increased for the three and nine months ended September 30, 2023, when compared to the same periods in 2022, primarily due to portfolio seasoning.

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, and loan receivables that are not accruing interest regardless of delinquency (dollars in millions):

	September 30, 2023		December 31, 2022	
	\$	%	\$	%
Loans 30 or more days delinquent				
Credit card loans	\$ 3,324	3.41 %	\$ 2,278	2.53 %
Private student loans	\$ 273	2.62 %	\$ 212	2.05 %
Personal loans	\$ 119	1.24 %	\$ 63	0.80 %
Total loan receivables	\$ 3,756	3.06 %	\$ 2,578	2.30 %
Loans 90 or more days delinquent				
Credit card loans	\$ 1,527	1.57 %	\$ 1,028	1.14 %
Private student loans	\$ 65	0.63 %	\$ 45	0.43 %
Personal loans	\$ 30	0.32 %	\$ 16	0.21 %
Total loan receivables	\$ 1,637	1.34 %	\$ 1,101	0.98 %
Loans not accruing interest	\$ 268	0.22 %	\$ 214	0.19 %

The 30-day and 90-day delinquency rates for credit card loans, private student loans and personal loans at September 30, 2023, increased compared to December 31, 2022, primarily driven by portfolio seasoning.

Modified and Restructured Loans

For information regarding modified and restructured loans, see Note 3: Loan Receivables to our condensed consolidated financial statements.

Other Income

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

	For the Three Months Ended September 30,		2023 vs 2022 Increase		For the Nine Months Ended September 30,		2023 vs. 2022 Increase	
	2023	2022	\$	%	2023	2022	\$	%
Discount and interchange revenue, net ⁽¹⁾	\$ 377	\$ 335	\$ 42	13 %	\$ 1,077	\$ 1,023	\$ 54	5 %
Protection products revenue	42	42	—	— %	129	128	1	1 %
Loan fee income	194	168	26	15 %	546	450	96	21 %
Transaction processing revenue	82	65	17	26 %	221	183	38	21 %
Gains (losses) on equity investments	6	(4)	10	(250)%	(11)	(208)	197	(95)%
Other income	21	19	2	11 %	71	64	7	11 %
Total other income	\$ 722	\$ 625	\$ 97	16 %	\$ 2,033	\$ 1,640	\$ 393	24 %

(1) Net of rewards, including Cashback Bonus rewards, of \$787 million and \$811 million for the three months ended September 30, 2023 and 2022, respectively, and \$2.3 billion and \$2.2 billion for the nine months ended September 30, 2023 and 2022, respectively.

Total other income increased for the three months ended September 30, 2023, as compared to the same period in 2022, primarily due to increases in net discount and interchange revenue and loan fee income. The increase in net discount and interchange revenue was primarily driven by lower rewards due to lower promotional rewards. Loan fee income increased primarily due to a higher volume of late payments.

Total other income increased for the nine months ended September 30, 2023, as compared to the same period in 2022, primarily due to smaller losses on equity investments and increases in loan fee income and net discount and interchange revenue. The smaller losses on equity investments were the result of smaller mark-to-market adjustments for equity investments measured at fair value. Loan fee income increased primarily due to a higher volume of late payments. The increase in net discount and interchange revenue was partially offset by an increase in rewards, both of which were driven by higher sales volume.

Other Expense

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

	For the Three Months Ended September 30,		2023 vs. 2022 Increase (Decrease)		For the Nine Months Ended September 30,		2023 vs. 2022 Increase (Decrease)	
	2023	2022	\$	%	2023	2022	\$	%
Employee compensation and benefits	\$ 575	\$ 551	\$ 24	4 %	\$ 1,788	\$ 1,566	\$ 222	14 %
Marketing and business development	283	276	7	3 %	792	722	70	10 %
Information processing and communications	149	124	25	20 %	438	370	68	18 %
Professional fees	281	241	40	17 %	729	607	122	20 %
Premises and equipment	22	22	—	— %	64	70	(6)	(9) %
Other expense	144	154	(10)	(6) %	430	386	44	11 %
Total other expense	\$ 1,454	\$ 1,368	\$ 86	6 %	\$ 4,241	\$ 3,721	\$ 520	14 %

Total other expense increased for the three months ended September 30, 2023, as compared to the same period in 2022, primarily due to increases in professional fees, information processing and communications and employee compensation and benefits. Professional fees increased primarily due to increased consulting supporting consumer compliance initiatives. The increase in information processing and communications was driven primarily from investments in technology. The increase in employee compensation and benefits was driven primarily by higher headcount.

Total other expense increased for the nine months ended September 30, 2023, as compared to the same period in 2022, primarily due to increases in employee compensation and benefits, professional fees, marketing and business development and information processing and communications. The increase in employee compensation and benefits was driven primarily by higher headcount. Professional fees increased primarily due to increased consulting supporting consumer compliance initiatives. The marketing and business development increase was due primarily from growth investments in consumer banking products. The increase in information processing and communications was driven primarily from software write-downs and investments in technology.

Income Tax Expense

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

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2023	2022	2023	2022
Income before income taxes	\$ 888	\$ 1,327	\$ 3,314	\$ 4,375
Income tax expense	\$ 205	\$ 314	\$ 762	\$ 1,026
Effective income tax rate	23.1 %	23.7 %	23.0 %	23.5 %

Liquidity and Capital Resources

Funding and Liquidity

We seek to maintain stable, diversified and cost-effective funding sources and a strong liquidity profile to fund our business and repay or refinance our maturing obligations under 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 contingency liquidity sources. Our primary funding sources include direct-to-consumer and brokered deposits, public term asset-backed securitizations and other short-term and long-term borrowings. Our primary liquidity sources include a portfolio composed of highly liquid, unencumbered assets, including cash and cash equivalents and investment securities, as well as secured borrowing capacity through private term asset-backed securitizations and Federal Home Loan Bank ("FHLB") advances. In addition, we have unused borrowing capacity at the Federal Reserve discount window, which provides another source of contingency liquidity.

Funding Sources

Deposits

We obtain deposits from consumers directly or through affinity relationships ("direct-to-consumer deposits"). Additionally, we obtain deposits through third-party securities brokerage firms that offer our deposits to their customers ("brokered deposits"). Direct-to-consumer deposit products include savings accounts, certificates of deposit, money market accounts, IRA savings accounts, IRA certificates of deposit and checking accounts. We gather these deposits from retail customers of our bank, many of whom have more than one Discover product. These deposits originate from a large and diverse customer base, and therefore, the majority of these deposit account balances are insured according to the FDIC's insurance limits. Our cost of insuring these deposits is likely to rise as the FDIC recently stated it plans, as required by law, to charge banks a special assessment to cover the cost of losses to the Deposit Insurance Fund incurred after the failure of two domestic banks in March 2023. Brokered deposit products include certificates of deposit and sweep accounts. In accordance with the FDIC final rule on revisions to its brokered deposits regulation, we no longer categorize certain retail deposit products such as affinity deposits and deposits generated through certain sweep deposit relationships as brokered for regulatory reporting purposes. At September 30, 2023, we had \$81.2 billion of direct-to-consumer deposits and \$22.8 billion of brokered deposits, of which there are \$82.7 billion of deposit balances due in less than one year and \$21.3 billion of deposit balances due in one year or thereafter.

Credit Card Securitization Financing

We securitize 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"). In connection with our securitization transactions, credit card receivables are transferred to DCMT. DCMT has issued a certificate representing the beneficial interest in its credit card receivables to DCENT. We issue DCENT DiscoverSeries notes in public and private transactions, which are collateralized by the beneficial interest certificate held by DCENT. From time to time, we may add credit card receivables to DCMT to create sufficient funding capacity for future securitizations while managing seller's interest. We retain significant exposure to the performance of the securitized credit card receivables through holding the seller's interest and subordinated classes of DCENT DiscoverSeries notes. At September 30, 2023, we had \$11.0 billion of outstanding public asset-backed securities and \$2.9 billion of outstanding subordinated asset-backed securities that had been issued to our wholly-owned subsidiaries.

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 with respect to the securitized credit card receivables during a collection period including interest collections, fees and interchange, exceeds the fees and expenses of DCENT 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 all outstanding securitized borrowings using available collections received with respect to the securitized credit card receivables. For the three months ended September 30, 2023, the DiscoverSeries three-month rolling average excess spread was 14.42%. The period of ultimate repayment would be determined by the amount and timing of collections received.

Through our wholly-owned indirect subsidiary, Discover Funding LLC, we are required to maintain an interest in a contractual minimum level of receivables in DCMT in excess of the face value of outstanding investors' interests. This minimum interest is referred to as the minimum seller's interest. The required minimum seller's interest in the pool of trust receivables is approximately 7% in excess of the total investors' interests, which includes interests held by third parties as well as those interests held by us. If the level of receivables in DCMT were to fall below the required minimum, we would be required to add receivables from the unrestricted pool of receivables, which would increase the amount of credit card 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 exhibits seasonality as higher receivable balance repayments tend to occur in the first calendar year quarter. If we could not add enough receivables to satisfy the minimum seller's interest requirement, an early amortization (or repayment) of investors' interests would be triggered.

An early amortization event would impair our liquidity and may require us to utilize our available non-securitization-related contingent liquidity or rely on alternative funding sources, which may or may not be available at the time. We have several strategies we can deploy to prevent an early amortization event. For instance, we could add receivables to DCMT, which would reduce our available borrowing capacity at the Federal Reserve discount window. As of September 30, 2023, there were \$24.8 billion of credit card receivables in the trust and no accounts were added to those restricted for securitization investors for the three and nine months ended September 30, 2023. Alternatively, we could employ structured discounting, which was used effectively in 2009 to bolster excess spread and mitigate early amortization risk.

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):

<u>At September 30, 2023</u>	Total	Less Than One Year	One Year and Thereafter
Scheduled maturities of borrowings - owed to credit card securitization investors	\$ 10,820	\$ 2,475	\$ 8,345

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

Federal Home Loan Bank Advances

Discover Bank is a member bank of the FHLB of Chicago, one of 11 FHLBs that, along with the Office of Finance, compose the FHLB System. The FHLBs are government-sponsored enterprises of the U.S. ("U.S. GSEs") chartered to improve the availability of funds to support home ownership. As such, senior debt obligations of the FHLBs feature the same credit ratings as U.S. Treasury securities and are considered high-quality liquid assets for bank regulatory purposes. Consequently, the FHLBs benefit from consistent capital market access during nearly all macroeconomic and financial market conditions and low funding costs, which they pass on to their member banks when they borrow advances. Thus, we consider FHLB advances a stable and reliable funding source for Discover Bank for short-term contingency liquidity and long-term asset-liability management.

As a member of the FHLB of Chicago, Discover Bank has access to short- and long-term advance structures with maturities ranging from overnight to 30 years. At September 30, 2023, we had total committed borrowing capacity of \$3.3 billion based on the amount and type of assets pledged, of which \$1.0 billion of long-term advances were outstanding with the FHLB of Chicago. Under certain stressed conditions, we could pledge our liquidity portfolio securities and borrow against them at a modest reduction to their value.

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, 2023	Principal Amount Outstanding	
Discover Financial Services (Parent Company) fixed-rate senior notes, maturing 2024-2032	\$	3,350
Discover Financial Services (Parent Company) fixed-rate retail notes, maturing 2023-2031	\$	148
Discover Bank fixed-rate senior bank notes, maturing 2024-2030	\$	3,550
Discover Bank fixed-rate subordinated bank notes, maturing 2028	\$	500

At September 30, 2023, \$657 million of interest on our fixed-rate debt is due in less than one year and \$1.5 billion of interest is due in one year and thereafter. See Note 6: Long-Term Borrowings to our condensed consolidated financial statements for more information on the maturities of our long-term borrowings.

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 mortgage bonds or debentures issued by government agencies or U.S. GSEs. At September 30, 2023, there were no outstanding balances in the federal funds market or under repurchase agreements.

Additional Funding Sources

Private Asset-Backed Securitizations

We have access to committed borrowing capacity through privately placed asset-backed securitizations. While we may utilize funding from these private securitizations from time to time for normal business operations, their committed nature also makes them a reliable contingency funding source. Therefore, we reserve some undrawn capacity, informed by our liquidity stress test results, for any contingency funding needs. At September 30, 2023, we had a total committed capacity of \$3.5 billion, none of which was drawn. We seek to ensure the stability and reliability of these securitizations by staggering their maturity dates, renewing them well ahead of their scheduled maturity dates and periodically drawing them for operational tests and seasonal funding needs.

Federal Reserve

Discover Bank has access to the Federal Reserve Bank of Philadelphia's discount window. As of September 30, 2023, Discover Bank had \$48.7 billion of available borrowing capacity through the discount window based on the amount and type of assets pledged, primarily consumer loans. We also have access to, and have tested our ability to borrow from, the Federal Reserve's Bank Term Funding Program ("BTFP"), which offers loans up to one year in length collateralized by U.S. Treasuries, U.S. agency securities and U.S. agency mortgage-backed securities. As of September 30, 2023, we have no borrowings outstanding under the discount window or the BTFP and reserve this capacity as a source of contingency liquidity.

Funding Uses

Our primary uses of funds include the extensions of loans and credit to customers, primarily through Discover Bank; the maintenance of sufficient working capital for routine operations; the service of our debt and capital obligations, including interest, principal and dividend payments; and the purchase of investment securities for our liquidity portfolio.

In addition to originating consumer loans to new customers, we also extend credit to existing customers, which primarily arises from agreements for unused lines of credit on certain credit cards and certain other loan products, provided there is no violation of conditions established in the related agreement. At September 30, 2023, our unused credit arrangements were approximately \$231.8 billion. These arrangements, substantially all of which we can terminate at any time and which do not necessarily represent future cash requirements, are periodically reviewed based on account usage, customer creditworthiness, loan qualification and the cost of capital.

In the normal course of business, we enter into various contracts for goods and services, such as consulting, outsourcing, data, sponsorships, software licenses, telecommunications and global merchant acceptance, among other things. These contracts are legally binding and specify all significant terms, including any applicable fixed future cash payments.

As of September 30, 2023, we have debt obligations, common stock and preferred stock outstanding, for which we incur servicing costs. Refer to “— Funding Sources” and “— Capital” for more information related to our debt obligations and capital service, respectively, and the timing of expected payments.

We assess funding uses and liquidity needs under stressed and normal operating conditions, considering primary uses of funding, such as on-balance sheet loans and contingency uses of funding, such as the need to post additional collateral for derivatives positions. To anticipate funding needs under stress, we conduct liquidity stress tests to assess the impact of idiosyncratic, systemic and hybrid (i.e., idiosyncratic and systemic) scenarios with varying levels of liquidity risk reflecting a range of stress severity. If we determine we have excess cash and cash equivalents above what is required for daily operations, we may invest in highly liquid, unencumbered assets that we expect to be able to convert to cash quickly and with little loss of value using the repo market or other secured borrowing or outright sales.

Guarantees

Guarantees are contracts or indemnification agreements that may 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 may 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. 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 consolidated financial statements. See Note 12: Commitments, Contingencies and Guarantees to our consolidated financial statements for further discussion regarding our guarantees.

Credit Ratings

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

During the third quarter of 2023, Moody's affirmed our credit ratings, but changed the rating outlook on our senior unsecured debt from "stable" to "negative" following our disclosure of the card product misclassification and the reaching of a consent order with the FDIC on matters related to our compliance management system. The table below reflects our current credit ratings and outlooks:

	Moody's Investors Service	Standard & Poor's	Fitch Ratings
Discover Financial Services			
Senior unsecured debt	Baa2	BBB-	BBB+
Outlook for Discover Financial Services senior unsecured debt	Negative	Stable	Stable
Discover Bank			
Senior unsecured debt	Baa1	BBB	BBB+
Outlook for Discover Bank senior unsecured debt	Negative	Stable	Stable
Subordinated debt	Baa1	BBB-	BBB
Discover Card Execution Note Trust (DCENT)			
Class A ⁽¹⁾	Aaa(sf)	AAA(sf)	AAA(sf)

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

A credit rating is not a recommendation to buy, sell or hold securities and may be subject to revision or withdrawal at any time by the assigning rating organization. Each rating should be evaluated independently of any other rating. A credit rating outlook reflects an agency's opinion regarding the likely rating direction over the medium term, often a period of about a year, and indicates the agency's belief that the issuer's credit profile is consistent with its current rating level at that point in time.

Liquidity

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

We maintain a liquidity risk and funding management policy, which outlines the overall framework and general principles we follow in managing liquidity risk across our business. The Board of Directors approves the policy and the Asset and Liability Management Committee (the "ALCO") is responsible for its implementation. Additionally, we maintain a liquidity management framework document that outlines the general strategies, objectives and principles we utilize to manage our liquidity position and the various liquidity risks inherent in our business model. We seek to balance the trade-offs between maintaining too much liquidity, which may be costly, with having too little liquidity, which could cause financial distress. The ALCO, chaired by our Treasurer, has cross-functional membership and manages liquidity risk centrally. The ALCO monitors the liquidity risk profiles of DFS and Discover Bank and oversees any actions Corporate Treasury may take to ensure that we maintain ready access to our funding sources and sufficient liquidity to meet current and projected needs. In addition, the ALCO and our Board of Directors regularly review our compliance with our liquidity limits at DFS and Discover Bank, which are established in accordance with the liquidity risk appetite set by our Board of Directors.

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

In addition, we conduct liquidity stress tests regularly and ensure contingency funding is in place to address potential liquidity shortfalls. We evaluate a range of stress scenarios that are designed to follow 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 periods by comparing estimated contingency funding needs to available contingency liquidity.

Our primary contingency liquidity sources include our liquidity portfolio securities, which we could sell, repo or borrow against, and private securitizations with unused borrowing capacity. In addition, we could borrow FHLB advances by pledging securities to the FHLB of Chicago. Moreover, we have unused borrowing capacity with the Federal Reserve discount window and BTFP, which provide additional sources of contingency liquidity. We seek to maintain sufficient liquidity to satisfy all maturing obligations and fund business operations for at least 12 months in a severe stress environment. In such an environment, we may also take actions to curtail the size of our balance sheet, which would reduce the need for funding and liquidity.

At September 30, 2023, our liquidity portfolio was composed of highly liquid, unencumbered assets, including cash and cash equivalents and investment securities. Cash and cash equivalents were primarily deposits with the Federal Reserve. Investment securities primarily included debt obligations of the U.S. Treasury and U.S. GSEs and residential mortgage-backed securities issued by U.S. government agencies or U.S. GSEs. These investments, nearly all of which are classified as available-for-sale, 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 on the size of our balance sheet as well as operational requirements, market conditions and interest rate risk management objectives.

At September 30, 2023, our liquidity portfolio and undrawn credit facilities were \$75.5 billion, which was \$8.3 billion higher than the balance at December 31, 2022. Our liquidity portfolio and undrawn credit facilities grew primarily as a result of the additional borrowing capacity with the Federal Reserve. During the three and nine months ended September 30, 2023, the average balance of our liquidity portfolio was \$20.9 billion and \$20.6 billion, respectively. Our liquidity portfolio and undrawn facilities consist of the following (dollars in millions):

	September 30, 2023	December 31, 2022
Liquidity portfolio		
Cash and cash equivalents ⁽¹⁾	\$ 7,917	\$ 7,585
Investment securities ⁽²⁾	13,269	12,213
Total liquidity portfolio	21,186	19,798
Private asset-backed securitizations ⁽³⁾	3,500	3,500
Federal Home Loan Bank of Chicago	2,202	1,712
Primary liquidity sources	26,888	25,010
Federal Reserve discount window ⁽³⁾	48,658	42,268
Total liquidity portfolio and undrawn credit facilities	\$ 75,546	\$ 67,278

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

(2) Excludes \$285 million and \$97 million of U.S. Treasury securities that have been pledged as swap collateral in lieu of cash as of September 30, 2023 and December 31, 2022, respectively.

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

Bank Holding Company Liquidity

The primary uses of funds at the unconsolidated DFS level include debt service obligations (interest payments and return of principal) and capital service and management activities, including dividend payments on capital instruments and the periodic repurchase of shares of our common stock. Our primary sources of funds at the bank holding company level include the proceeds from the issuance of unsecured debt and capital securities, as well as dividends from our subsidiaries, notably 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 DFS can meet upcoming funding obligations, including common and preferred stock dividend payments and debt service obligations using existing cash resources. In managing this metric, we structure our debt maturity schedule to manage prudently the amount of debt maturing within a short period. See Note 6: Long-Term Borrowings to our condensed consolidated financial statements for further information regarding our debt.

Capital

Our primary sources of capital are the earnings generated by our businesses and the proceeds from issuances of capital securities. We seek to manage capital to a level and composition sufficient to support our businesses' growth, account for their risks, and meet regulatory requirements, rating agency targets and debt investor expectations. Within these constraints, we are focused on deploying capital in a manner that provides attractive returns to our stockholders. The level, composition and utilization of capital are influenced by changes in the economic environment, strategic initiatives and legislative and regulatory developments.

Under regulatory capital requirements adopted by the Federal Reserve and the FDIC, DFS, along with Discover Bank, must maintain minimum capital levels. 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 condition and operating results. We must meet specific capital requirements that involve quantitative measures of assets, liabilities and certain off-balance sheet items, as calculated under regulatory guidance and regulations. Current or future legislative or regulatory reforms, such as those related to the adoption of the CECL accounting model or those related to the proposed revisions to the Basel Committee's December 2010 framework ("Basel III rules"), may require us to hold more capital and/or adversely impact our capital level. We consider the potential impacts of these reforms in managing our capital position.

DFS and Discover Bank are subject to regulatory capital rules issued by the Federal Reserve and the FDIC, respectively, under the Basel III rules. Under these rules, DFS and Discover Bank are classified as "standardized approach" entities as they are 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. The Basel III rules require DFS and Discover Bank to maintain minimum risk-based capital and leverage ratios and define what constitutes capital for purposes of calculating those ratios.

In accordance with the final rule on the impact of CECL on regulatory capital, we have elected to phase in the impact over three years, beginning in 2022. By electing this option, our Common Equity Tier 1 ("CET1") capital ratios are higher than they otherwise would have been. The phase-in of the CECL accounting model decreased CET1 by \$1.1 billion as of January 1, 2023. For additional information regarding the risk-based capital and leverage ratios, see Note 11: Capital Adequacy to our condensed consolidated financial statements.

On March 4, 2020, the Federal Reserve announced the SCB final rule, which imposes limitations on DFS' capital distributions if we do not maintain our risk-based capital ratios above stated regulatory minimum ratios based on the results of supervisory stress tests. Under this rule, DFS is required to assess whether our planned capital actions are consistent with the effective capital distribution limitations that will apply on a pro-forma basis throughout the planning horizon.

The SCB requirement is institution-specific and is calculated as the greater of (i) 2.5% and (ii) the sum of (a) the difference between DFS' actual CET1 ratio at the beginning of the forecast and the projected minimum CET1 ratio based on the Federal Reserve's models in its nine-quarter Severely Adverse stress scenario, plus (b) the sum of the dollar amount of DFS' planned common stock dividend distributions for each of the fourth through seventh quarters of its nine-quarter capital planning horizon, expressed as a percentage of risk-weighted assets. For Category IV firms, including DFS, the Federal Reserve calculates each firm's SCB biennially in even-numbered calendar years, and did so in 2022. Based on the results of the 2022 CCAR exercise released by the Federal Reserve, our new SCB was set at 2.5%, the lowest possible requirement, effective October 1, 2022, through September 30, 2023. In odd-numbered years, each firm subject to Category IV standards that did not opt-in to such year's supervisory stress tests as part of the Federal Reserve's CCAR process receives an adjusted SCB requirement that is updated to reflect its planned common stock dividends per the firm's annual capital plan. On July 27, 2023, the Federal Reserve disclosed SCB requirements to firms subject to Category IV standards that did not opt-in to this year's stress test. Our SCB remains unchanged at 2.5%, effective beginning October 1, 2023 through September 30, 2024. See "— Regulatory Environment and Developments — Banking — Capital Standards and Stress Testing" for additional information.

At September 30, 2023, DFS and Discover Bank met the requirements for "well-capitalized" status under the Federal Reserve's Regulation Y and the prompt corrective action rules and corresponding FDIC requirements, respectively, exceeding the regulatory minimums to which they were subject under the applicable rules.

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

We disclose tangible common equity, which represents common equity less goodwill and intangibles. Management believes that common stockholders' equity excluding goodwill and intangibles is meaningful to investors as a measure of our true net asset value. At September 30, 2023, tangible common equity is considered to be a non-GAAP financial measure as it is not formally defined by GAAP or codified in the federal banking regulations. Other financial services companies may also disclose this measure and definitions may vary. We advise users of this information to exercise caution in comparing this measure among different companies.

The following table reconciles total common stockholders' equity (a GAAP financial measure) to tangible common equity (dollars in millions):

	September 30, 2023	December 31, 2022
Total common stockholders' equity ⁽¹⁾	\$ 13,180	\$ 13,288
Less: goodwill	(255)	(255)
Tangible common equity	<u>\$ 12,925</u>	<u>\$ 13,033</u>

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

Our Board of Directors declared the following common stock dividends during 2023 and 2022:

Declaration Date	Record Date	Payment Date	Dividend per Share
2023			
October 16, 2023	November 22, 2023	December 07, 2023	\$ 0.70
July 17, 2023	August 24, 2023	September 07, 2023	0.70
April 17, 2023	May 25, 2023	June 08, 2023	0.70
January 17, 2023	February 23, 2023	March 09, 2023	0.60
Total common stock dividends			<u>\$ 2.70</u>
2022			
October 18, 2022	November 23, 2022	December 08, 2022	\$ 0.60
July 20, 2022	August 25, 2022	September 08, 2022	0.60
April 27, 2022	May 26, 2022	June 09, 2022	0.60
January 18, 2022	February 17, 2022	March 03, 2022	0.50
Total common stock dividends			<u>\$ 2.30</u>

Our Board of Directors declared the following Series C preferred stock dividends during 2023 and 2022:

Declaration Date	Record Date	Payment Date	Dividend per Depositary Share
2023			
July 17, 2023	October 13, 2023	October 30, 2023	\$ 27.50
January 17, 2023	April 14, 2023	May 01, 2023	27.50
Total Series C preferred stock dividends			<u>\$ 55.00</u>
2022			
July 20, 2022	October 14, 2022	October 31, 2022	\$ 27.50
January 18, 2022	April 15, 2022	May 02, 2022	27.50
Total Series C preferred stock dividends			<u>\$ 55.00</u>

Our Board of Directors declared the following Series D preferred stock dividends during 2023 and 2022:

Declaration Date	Record Date	Payment Date	Dividend per Depositary Share
2023			
July 17, 2023	September 08, 2023	September 25, 2023	\$ 30.625
January 17, 2023	March 08, 2023	March 23, 2023	30.625
Total Series D preferred stock dividends			<u>\$ 61.250</u>
2022			
July 20, 2022	September 08, 2022	September 23, 2022	\$ 30.625
January 18, 2022	March 08, 2022	March 23, 2022	30.625
Total Series D preferred stock dividends			<u>\$ 61.250</u>

Our Board of Directors approved a new share repurchase program in April 2023. The new program authorized up to \$2.7 billion of share repurchases through June 30, 2024, and replaced the prior \$4.2 billion share repurchase program. If and when we repurchase our shares under the program, we may use various methods, including open market purchases, privately negotiated transactions or other purchases, including block trades, accelerated share repurchase transactions, or any combination of such methods. During the three months ended September 30, 2023, we did not repurchase any shares. During the nine months ended September 30, 2023, we repurchased approximately 18.1 million shares for approximately \$1.9 billion.

The amount and size of any future dividends and share repurchases will depend on our results of operations, financial condition, capital levels, cash requirements, future prospects, regulatory review and other factors. As reported in the second quarter of 2023, we have decided to pause share repurchases while an internal review of compliance, risk management and corporate governance is ongoing. See Note 13: Litigation and Regulatory Matters for additional information on the card product misclassification. The declaration and payment of future dividends and 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. No dividend may be declared or paid or set aside for payment on our common stock if full dividends have not been declared and paid on all outstanding shares of preferred stock in any dividend period. 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 our banking subsidiary (Discover Bank) can provide funds to us through dividends, loans or otherwise. Further, current or future regulatory reforms, such as those that propose to alter the Basel III standards, may require us to hold more capital or could adversely impact our capital level. As a result, there can be no assurance that we will declare and pay any dividends or repurchase any shares of our common stock in the future.

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 an investment position or portfolio. We are exposed to market risk primarily from changes in interest rates.

Interest Rate Risk

We borrow money from various depositors and institutions to provide loans to our customers and invest in other assets and our business. These loans to customers and other assets earn interest, which we use to pay interest on the money borrowed. Our net interest income and, therefore, earnings will be reduced if the interest rate earned on assets increases at a slower pace than the interest rate paid on our borrowings. Changes in interest rates and our competitors' responses to those changes may influence customer payment rates, loan balances or deposit account activity. As a result, we may incur higher funding costs that could decrease our 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 portfolio that reflects our mix of variable- and fixed-rate assets and liabilities. To the extent that the repricing characteristics of the assets and liabilities in a particular portfolio are not sufficiently matched, we may utilize interest rate derivative contracts, such as swap agreements, to achieve our objectives. Interest rate swap agreements effectively convert the underlying asset or liability from fixed- to floating-rate or from floating- to fixed-rate. See Note 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 months from our reporting date, we assume that all interest-rate-sensitive assets and liabilities are subject to a hypothetical, immediate 100 basis point change in interest rates relative to market consensus expectations as of the beginning of the period. The sensitivity simulation includes the hypothetical assumption that all relevant types of interest rates would change instantaneously, simultaneously and to the same degree.

Our interest-rate-sensitive assets include our variable-rate loan receivables and certain assets in our liquidity portfolio. We have limitations on our ability to mitigate interest rate risk by adjusting rates on existing balances. Further, competitive actions may limit our ability to increase the rates that we charge to customers for new loans. At September 30, 2023, the majority of our credit card and private student loans charge variable rates. Fixed-rate assets that will mature or otherwise contractually reset to a market-based indexed rate or other fixed-rate prior to the end of the 12-month measurement 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 assets with a fixed interest rate that contractually will, or is 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 credit losses. For purposes of this analysis, expected credit losses 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 months. Thus, liabilities that vary with changes in a market-based index, such as the federal funds rate or SOFR, which will reset before the end of the next 12 months, or liabilities that have fixed rates at the fiscal period end but will mature and are assumed to be replaced with a market-based indexed rate prior to the end of the next 12 months, are also considered to be rate sensitive. For these fixed-rate liabilities, earnings sensitivity is measured from the expected maturity date.

Net interest income sensitivity simulations require assumptions regarding market conditions, consumer behavior and the growth and composition of our balance sheet. The degree by which our deposit rates change when benchmark interest rates change, our deposit “beta,” is one of the most significant of these assumptions. Assumptions about deposit beta and other matters are inherently uncertain and, as a result, actual earnings may differ from the simulated earnings presented below. Our actual earnings depend on multiple factors including, but not limited to, the direction and timing of changes in interest rates, the movement of short-term interest rates relative to long-term rates, balance sheet composition, competitor actions affecting pricing decisions in our loans and deposits, the mix of promotional balances in our card portfolio, the level of interest charge-offs and recoveries, the influence of loan repayment rates on revolving balances and strategic actions undertaken by our management.

We have taken actions to bring our net interest income sensitivity closer to neutral as the Federal Reserve has slowed its pace of monetary policy tightening and the outlook for near-term U.S. economic growth may be weakening. The following table shows the impacts to net interest income over the following 12-month period that we estimate would result from an immediate and parallel change in interest rates affecting all interest rate sensitive assets and liabilities (dollars in millions):

Basis point change	At September 30, 2023		At December 31, 2022	
	\$	%	\$	%
+100	\$ 116	0.86 %	\$ 183	1.40 %
-100	\$ (113)	(0.83)%	\$ (190)	(1.45)%

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.

Glossary of Acronyms

- **ALCO:** Asset and Liability Management Committee
- **AOCI:** Accumulated Other Comprehensive Income (Loss)
- **ARRC:** Alternative Reference Rates Committee
- **ASC:** Accounting Standards Codification
- **ASU:** Accounting Standards Update
- **BTFP:** Bank Term Funding Program
- **CCAR:** Comprehensive Capital Analysis and Review
- **CCPA:** California Consumer Privacy Act
- **CECL:** Current Expected Credit Loss
- **CET1:** Common Equity Tier 1
- **CFPB:** Consumer Financial Protection Bureau
- **CME:** Chicago Mercantile Exchange
- **CPPA:** California Privacy Protection Agency
- **CPRA:** California Privacy Rights Act
- **DCENT:** Discover Card Execution Note Trust
- **DCMT:** Discover Card Master Trust I
- **DFS:** Discover Financial Services
- **EPS:** Earnings Per Share
- **ESG:** Environmental, Social and Governance
- **EWI:** Early Warning Indicator
- **FASB:** Financial Accounting Standards Board
- **FCA:** UK Financial Conduct Authority
- **FDIC:** Federal Deposit Insurance Corporation
- **FHLB:** Federal Home Loan Bank
- **GAAP:** Accounting Principles Generally Accepted in the United States
- **GLBA:** Gramm-Leach-Bliley Act
- **LIBOR:** London Interbank Offered Rate
- **NPI:** Nonpublic Personal Information
- **OCC:** Office of the Comptroller of the Currency
- **OCI:** Other Comprehensive Income (Loss)
- **RMBS:** Residential Mortgage-Backed Securities
- **SCB:** Stress Capital Buffer
- **SEC:** Securities and Exchange Commission
- **SOFR:** Secured Overnight Financing Rate
- **TDR:** Troubled Debt Restructuring
- **UDAAP:** Unfair, Deceptive or Abusive Acts or Practices
- **U.S.:** United States of America
- **USD:** United States Dollar
- **U.S. GSE:** Government-sponsored Enterprise of the U.S.
- **VIE:** Variable Interest Entity

Part II. OTHER INFORMATION

Item 1. Legal Proceedings

See Note 13: Litigation and Regulatory Matters to our condensed consolidated financial statements for a description of legal proceedings.

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, 2022.

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

Issuer Purchases of Equity Securities

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

Period	Total Number of Shares Purchased	Average Price Paid Per Share ⁽³⁾	Total Number of Shares Purchased as Part of Publicly Announced Plan or Program ⁽¹⁾⁽⁴⁾	Maximum Dollar Value of Shares that may yet be purchased under the Plans or Programs ⁽¹⁾⁽⁴⁾
July 1 - 31, 2023				
Repurchase program ⁽¹⁾⁽⁴⁾	—	\$ —	—	\$ 2,225,091,655
Employee transactions ⁽²⁾	2,009	\$ 118.11	N/A	N/A
August 1 - 31, 2023				
Repurchase program ⁽¹⁾⁽⁴⁾	—	\$ —	—	\$ 2,225,091,655
Employee transactions ⁽²⁾	36,754	\$ 104.49	N/A	N/A
September 1 - 30, 2023				
Repurchase program ⁽¹⁾⁽⁴⁾	—	\$ —	—	\$ 2,225,091,655
Employee transactions ⁽²⁾	1,666	\$ 90.31	N/A	N/A
Total				
Repurchase program ⁽¹⁾⁽⁴⁾	—	\$ —	—	\$ 2,225,091,655
Employee transactions ⁽²⁾	40,429	\$ 104.59	N/A	N/A

- (1) In April 2023, our Board of Directors approved a new share repurchase program authorizing the purchase of up to \$2.7 billion of our outstanding shares of common stock through June 30, 2024. This share repurchase authorization replaced our prior \$4.2 billion share repurchase program.
- (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.
- (3) Average price paid per share excludes any excise tax.
- (4) Share repurchases were suspended because of an ongoing internal review of compliance, risk management and corporate governance. See "— Liquidity and Capital Resources — Capital" for additional information.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

None.

Item 5. Other Information

Insider Trading Arrangements

During the period covered by this report, none of the Company's directors or executive officers has adopted or terminated a Rule 10b5-1 trading arrangement or a non-Rule 10b5-1 trading arrangement (each as defined in Item 408 of Regulation S-K under the Securities Exchange Act of 1934, as amended).

Amended and Restated Company Bylaws

On October 26, 2023, the Company's Board of Directors (the "Board") approved and adopted, effective immediately, amended and restated bylaws of the Company (the "Amended and Restated Bylaws") to: (i) revise provisions regarding adjournment and lists of stockholders entitled to vote at stockholder meetings in light of recent amendments to the Delaware General Corporation Law (the "DGCL"); (ii) update the Company's bylaws in connection with the SEC rules relating to universal proxy cards (the "Universal Proxy Rules"), including requiring stockholders providing notice pursuant to Rule 14a-19(b) under the Securities Exchange Act of 1934, as amended, to certify to the Company that they have complied with certain requirements under the Universal Proxy Rules no later than five business days prior to the applicable stockholder meeting; (iii) clarify certain representations and agreements that must be completed by proposing stockholders and proposed nominees, as applicable, in connection with a stockholder nomination; (iv) require any stockholder directly or indirectly soliciting proxies from other stockholders to use a proxy card color other than white; (v) shortened the period for which a proxy may validly be used from three years to eleven months; (vi) clarify that the power of the Board and the meeting chair to determine and address deficient nominations or proposals; and (vii) make certain other clarifications and administrative, technical or conforming revisions.

The preceding summary of the Amended and Restated Bylaws does not purport to be complete and is qualified in its entirety by reference to the Amended and Restated Bylaws, a copy of which is included as Exhibit 3.1 to this report and incorporated herein by reference.

Immaterial Restatement of Prior Period Financial Statements

The following tables reflect the impacts of the card product misclassification and subsequent restatements of certain prior period amounts reported on the Company's consolidated financial statements. See Note 18 Immaterial Restatement of Prior Period Financial Statements to the Company's condensed consolidated financial statements for more information on the card product misclassification.

The prior period impacts to the Company's consolidated statements of financial condition were as follows (dollars in millions):

	December 31, 2021		
	As Previously Reported	Restatement Impacts	As Restated
Assets			
Other assets	\$ 3,906	\$ 72	\$ 3,978
Total assets	\$ 110,242	\$ 72	\$ 110,314
Liabilities and Stockholders' Equity			
Liabilities			
Accrued expenses and other liabilities	\$ 4,214	\$ 300	\$ 4,514
Total liabilities	\$ 96,834	\$ 300	\$ 97,134
Stockholders' Equity			
Retained earnings	\$ 24,766	\$ (228)	\$ 24,538
Total stockholders' equity	\$ 13,408	\$ (228)	\$ 13,180
Total liabilities and stockholders' equity	\$ 110,242	\$ 72	\$ 110,314

The prior period impacts to the Company's consolidated statements of income and the related impacts to the consolidated statements of comprehensive income were as follows (dollars in millions):

	For the Three Months Ended March 31, 2022			For the Year Ended December 31, 2022		
	As Previously Reported	Restatement Impacts	As Restated	As Previously Reported	Restatement Impacts	As Restated
Other income						
Discount and interchange revenue, net	\$ 320	\$ (11)	\$ 309	\$ 1,424	\$ (44)	\$ 1,380
Total other income	\$ 423	\$ (11)	\$ 412	\$ 2,338	\$ (44)	\$ 2,294
Other expense						
Other expense	\$ 112	\$ —	\$ 112	\$ 560	\$ (20)	\$ 540
Total other expense	\$ 1,130	\$ —	\$ 1,130	\$ 5,236	\$ (20)	\$ 5,216
Income before income taxes	\$ 1,618	\$ (11)	\$ 1,607	\$ 5,742	\$ (24)	\$ 5,718
Income tax expense	\$ 376	\$ (3)	\$ 373	\$ 1,350	\$ (6)	\$ 1,344
Net income	\$ 1,242	\$ (8)	\$ 1,234	\$ 4,392	\$ (18)	\$ 4,374
Net income allocated to common stockholders	\$ 1,205	\$ (8)	\$ 1,197	\$ 4,304	\$ (18)	\$ 4,286
Basic earnings per common share	\$ 4.23	\$ (0.03)	\$ 4.20	\$ 15.52	\$ (0.07)	\$ 15.45
Diluted earnings per common share	\$ 4.22	\$ (0.02)	\$ 4.20	\$ 15.50	\$ (0.06)	\$ 15.44

	For the Year Ended December 31, 2021			For the Year Ended December 31, 2020		
	As Previously Reported	Restatement Impacts	As Restated	As Previously Reported	Restatement Impacts	As Restated
Other income						
Discount and interchange revenue, net	\$ 1,224	\$ (36)	\$ 1,188	\$ 933	\$ (21)	\$ 912
Total other income	\$ 2,570	\$ (36)	\$ 2,534	\$ 1,858	\$ (21)	\$ 1,837
Income before income taxes	\$ 7,064	\$ (36)	\$ 7,028	\$ 1,435	\$ (21)	\$ 1,414
Income tax expense	\$ 1,615	\$ (9)	\$ 1,606	\$ 294	\$ (5)	\$ 289
Net income	\$ 5,449	\$ (27)	\$ 5,422	\$ 1,141	\$ (16)	\$ 1,125
Net income allocated to common stockholders	\$ 5,351	\$ (28)	\$ 5,323	\$ 1,104	\$ (16)	\$ 1,088
Basic earnings per common share	\$ 17.85	\$ (0.10)	\$ 17.75	\$ 3.60	\$ (0.05)	\$ 3.55
Diluted earnings per common share	\$ 17.83	\$ (0.09)	\$ 17.74	\$ 3.60	\$ (0.06)	\$ 3.54

The prior period impacts to the Company's consolidated statements of changes in stockholders' equity were as follows (dollars in millions):

	Retained Earnings	Total Stockholders' Equity
As Previously Reported		
For the Year Ended December 31, 2020		
Balance at December 31, 2019	\$ 21,290	\$ 11,859
Net income	\$ 1,141	\$ 1,141
Balance at December 31, 2020	<u>\$ 19,955</u>	<u>\$ 10,884</u>
Restatement Impacts		
For the Year Ended December 31, 2020		
Balance at December 31, 2019	\$ (185)	\$ (185)
Net income	\$ (16)	\$ (16)
Balance at December 31, 2020	<u>\$ (201)</u>	<u>\$ (201)</u>
As Restated		
For the Year Ended December 31, 2020		
Balance at December 31, 2019	\$ 21,105	\$ 11,674
Net income	\$ 1,125	\$ 1,125
Balance at December 31, 2020	<u>\$ 19,754</u>	<u>\$ 10,683</u>
	Retained Earnings	Total Stockholders' Equity
As Previously Reported		
For the Year Ended December 31, 2021		
Balance at December 31, 2020	\$ 19,955	\$ 10,884
Net income	\$ 5,449	\$ 5,449
Balance at December 31, 2021	<u>\$ 24,766</u>	<u>\$ 13,408</u>
Restatement Impacts		
For the Year Ended December 31, 2021		
Balance at December 31, 2020	\$ (201)	\$ (201)
Net income	\$ (27)	\$ (27)
Balance at December 31, 2021	<u>\$ (228)</u>	<u>\$ (228)</u>
As Restated		
For the Year Ended December 31, 2021		
Balance at December 31, 2020	\$ 19,754	\$ 10,683
Net income	\$ 5,422	\$ 5,422
Balance at December 31, 2021	<u>\$ 24,538</u>	<u>\$ 13,180</u>

	Retained Earnings	Total Stockholders' Equity
As Previously Reported		
For the Twelve Months Ended December 31, 2022		
Balance at December 31, 2021	\$ 24,766	\$ 13,408
Net income	\$ 4,392	\$ 4,392
Balance at December 31, 2022	<u>\$ 28,453</u>	<u>\$ 14,590</u>
Restatement Impacts		
For the Twelve Months Ended December 31, 2022		
Balance at December 31, 2021	\$ (228)	\$ (228)
Net income	\$ (18)	\$ (18)
Balance at December 31, 2022	<u>\$ (246)</u>	<u>\$ (246)</u>
As Restated		
For the Twelve Months Ended December 31, 2022		
Balance at December 31, 2021	\$ 24,538	\$ 13,180
Net income	\$ 4,374	\$ 4,374
Balance at December 31, 2022	<u>\$ 28,207</u>	<u>\$ 14,344</u>
	Retained Earnings	Total Stockholders' Equity
As Previously Reported		
For the Three Months Ended March 31, 2022		
Balance at December 31, 2021	\$ 24,766	\$ 13,408
Net income	\$ 1,242	\$ 1,242
Balance at March 31, 2022	<u>\$ 25,833</u>	<u>\$ 13,433</u>
Restatement Impacts		
For the Three Months Ended March 31, 2022		
Balance at December 31, 2021	\$ (228)	\$ (228)
Net income	\$ (8)	\$ (8)
Balance at March 31, 2022	<u>\$ (236)</u>	<u>\$ (236)</u>
As Restated		
For the Three Months Ended March 31, 2022		
Balance at December 31, 2021	\$ 24,538	\$ 13,180
Net income	\$ 1,234	\$ 1,234
Balance at March 31, 2022	<u>\$ 25,597</u>	<u>\$ 13,197</u>

The prior period impacts to the Company's consolidated statements of cash flows were as follows (dollars in millions):

	For the Three Months Ended March 31, 2022			For the Year Ended December 31, 2022		
	As Previously Reported	Restatement Impacts	As Restated	As Previously Reported	Restatement Impacts	As Restated
Cash flows provided by operating activities						
Net income	\$ 1,242	\$ (9)	\$ 1,233	\$ 4,392	\$ (18)	\$ 4,374
Adjustments to reconcile net income to net cash provided by operating activities:						
Deferred income taxes	\$ (10)	\$ (2)	\$ (12)	\$ (427)	\$ (6)	\$ (433)
Changes in assets and liabilities:						
Increase in accrued expenses and liabilities	\$ 219	\$ 11	\$ 230	\$ 1,080	\$ 24	\$ 1,104
Net cash provided by operating activities	\$ 1,734	\$ —	\$ 1,734	\$ 7,140	\$ —	\$ 7,140

	For the Year Ended December 31, 2021			For the Year Ended December 31, 2020		
	As Previously Reported	Restatement Impacts	As Restated	As Previously Reported	Restatement Impacts	As Restated
Cash flows provided by operating activities						
Net income	\$ 5,449	\$ (27)	\$ 5,422	\$ 1,141	\$ (16)	\$ 1,125
Adjustments to reconcile net income to net cash provided by operating activities:						
Deferred income taxes	\$ 327	\$ (9)	\$ 318	\$ (672)	\$ (5)	\$ (677)
Changes in assets and liabilities:						
Increase in accrued expenses and liabilities	\$ 410	\$ 36	\$ 446	\$ 136	\$ 21	\$ 157
Net cash provided by operating activities	\$ 6,019	\$ —	\$ 6,019	\$ 6,196	\$ —	\$ 6,196

The following tables reflect the impacts of the card product misclassification and subsequent restatements of certain prior period amounts reported on the Parent Company's financial statements.

The prior period impacts to the Parent Company's condensed statement of financial condition were as follows (dollars in millions):

	December 31, 2022			December 31, 2021		
	As Previously Reported	Restatement Impacts	As Restated	As Previously Reported	Restatement Impacts	As Restated
Assets						
Investments in non-bank subsidiaries	\$ 886	\$ (246)	\$ 640	\$ 1,209	\$ (228)	\$ 981
Total assets	\$ 18,553	\$ (246)	\$ 18,307	\$ 17,740	\$ (228)	\$ 17,512
Liabilities and Stockholders' Equity						
Stockholders' equity	\$ 14,590	\$ (246)	\$ 14,344	\$ 13,408	\$ (228)	\$ 13,180
Total liabilities and stockholders' equity	\$ 18,553	\$ (246)	\$ 18,307	\$ 17,740	\$ (228)	\$ 17,512

The prior period impacts to the Parent Company's condensed statements of income and the related impacts to the condensed statements of comprehensive income were as follows (dollars in millions):

	For the Year Ended December 31, 2022			For the Year Ended December 31, 2021		
	As Previously Reported	Restatement Impacts	As Restated	As Previously Reported	Restatement Impacts	As Restated
Equity in undistributed net income of subsidiaries	\$ (224)	\$ (18)	\$ (242)	\$ 2,350	\$ (27)	\$ 2,323
Net income	\$ 4,392	\$ (18)	\$ 4,374	\$ 5,449	\$ (27)	\$ 5,422
Comprehensive income	\$ 4,147	\$ (18)	\$ 4,129	\$ 5,310	\$ (27)	\$ 5,283

	For the Year Ended December 31, 2020		
	As Previously Reported	Restatement Impacts	As Restated
Equity in undistributed net income of subsidiaries	\$ 501	\$ (16)	\$ 485
Net income	\$ 1,141	\$ (16)	\$ 1,125
Comprehensive income	\$ 1,305	\$ (16)	\$ 1,289

The prior period impacts to the Parent Company's condensed statements of cash flows were as follows (dollars in millions):

	For the Year Ended December 31, 2022			For the Year Ended December 31, 2021		
	As Previously Reported	Restatement Impacts	As Restated	As Previously Reported	Restatement Impacts	As Restated
Cash flows provided by operating activities						
Net income	\$ 4,392	\$ (18)	\$ 4,374	\$ 5,449	\$ (27)	\$ 5,422
Adjustments to reconcile net income to net cash provided by operating activities:						
Equity in undistributed net income of subsidiaries	\$ 224	\$ 18	\$ 242	\$ (2,350)	\$ 27	\$ (2,323)
Net cash provided by operating activities	\$ 4,425	\$ —	\$ 4,425	\$ 3,169	\$ —	\$ 3,169

	For the Year Ended December 31, 2020		
	As Previously Reported	Restatement Impacts	As Restated
Cash flows provided by operating activities			
Net income	\$ 1,141	\$ (16)	\$ 1,125
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in undistributed net income of subsidiaries	\$ (501)	\$ 16	\$ (485)
Net cash provided by operating activities	\$ 730	\$ —	\$ 730

Item 6. Exhibits

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

Exhibit Index	
Exhibit Number	Description
3.1	Amended and Restated Bylaws of Discover Financial Services, as amended and restated on October 26, 2023.
10.1	Transition Letter, dated as of August 13, 2023, between Discover Financial Services and Roger C. Hochschild (filed as Exhibit 10.1 to Discover Financial Services' Current Report on Form 8-K filed on August 14, 2023, and incorporated herein by reference thereto).
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	Interactive Data File — the following financial statements from Discover Financial Services Quarterly Report on Form 10-Q formatted in inline XBRL: (1) Condensed Consolidated Statements of Financial Condition, (2) Condensed Consolidated Statements of Income, (3) Condensed Consolidated Statements of Comprehensive Income, (4) Condensed Consolidated Statements of Changes in Stockholders' Equity, (5) Condensed Consolidated Statements of Cash Flows and (6) Notes to the Condensed Consolidated Financial Statements.
104	Cover Page Interactive Data File — the cover page from Discover Financial Services Quarterly Report on Form 10-Q formatted in inline XBRL and contained in Exhibit 101.

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/ JOHN T. GREENE

John T. Greene
Executive Vice President, Chief Financial Officer

Date: October 26, 2023

AMENDED AND RESTATED BYLAWS

OF

DISCOVER FINANCIAL SERVICES

(hereinafter called the “Corporation”)

ARTICLE 1.

OFFICES AND RECORDS

Section 1.01. *Delaware Office.* The principal office of the Corporation in the State of Delaware shall be located in the City of Wilmington, County of New Castle.

Section 1.02. *Other Offices.* The Corporation may have such other offices, either within or without the State of Delaware, as the board of directors (the "Board of Directors" or the "Board") may designate or as the business of the Corporation may from time to time require.

Section 1.03. *Books and Records.* The books and records of the Corporation may be kept at the Corporation’s principal offices or at such other locations inside or outside the State of Delaware.

ARTICLE 2.

STOCKHOLDERS

Section 2.01. *Annual Meeting.* The annual meeting of the stockholders of the Corporation shall be held at such date, place (if any) and time as may be fixed by resolution of the Board of Directors adopted by the affirmative vote of a majority of the entire Board of Directors.

Section 2.02. *Special Meeting.* (a) Subject to the rights of the holders of any class or series of preferred stock of the Corporation (the “Preferred Stock”) or any other series or class of stock as set forth in the certificate of incorporation of the Corporation, as amended and restated from time to time (the “Restated Certificate of Incorporation”), special meetings of the stockholders, for any purpose or purposes, may be called at any time only by the Secretary of the Corporation (the "Secretary") at the direction of the Board of Directors (pursuant to a resolution adopted by the Board of Directors adopted by the affirmative vote of a majority of the entire Board of Directors) or at the written request of stockholders who have, or who are acting on behalf of beneficial owners who have, an aggregate “net long position” of at least 25% of the common stock of the Corporation (the "Common Stock") as of the Ownership Record Date (as defined in Section 2.02(b)) and who otherwise comply with the requirements of these amended and restated bylaws (these “Bylaws”); provided that each such stockholder, or beneficial owner directing such stockholder, must have held such “net long position” included in such aggregate amount continuously for the one-year period ending on the Ownership Record Date and must continue to hold such “net long position” through the date of the conclusion of the special meeting (such aggregate “net long position” held for the requisite period, the “Required Percentage”). “Net long position” shall be determined with respect to each stockholder requesting a special meeting and each beneficial owner who is directing a stockholder to act on such owner’s behalf (each stockholder and owner, a “party”) in accordance with the definition thereof set forth in Rule 14e-4 under the Securities Exchange Act of 1934, as amended from time to time (the "Exchange Act"), provided that (i) for purposes of such definition, in determining such party’s “short position,” the reference in Rule 14e-4 to “the date that a tender offer is first publicly announced or otherwise made known by the bidder to holders of the security to be acquired” shall be the Ownership Record Date, and the reference to the “highest tender offer price or stated amount of the consideration offered for the subject security” shall refer to the closing sales price of the Corporation’s Common Stock on the New York Stock Exchange (or such other securities exchange designated

by the Board of Directors if the Common Stock is not listed for trading on the New York Stock Exchange) on the Ownership Record Date (or, if such date is not a trading day, the next succeeding trading day) and (ii) the “net long position” of such party shall be reduced by the number of shares as to which the Board of Directors determines that such party does not, or will not, have the right to vote or direct the vote at the special meeting or as to which the Board of Directors determines that such party has entered into any derivative or other agreement, arrangement or understanding that hedges or transfers, in whole or in part, directly or indirectly, any of the economic consequences of ownership of such shares.

(b) *Ownership Record Date.* No stockholder may demand that the Secretary call a special meeting of the stockholders pursuant to Section 2.02(a) unless a stockholder of record has first submitted a request in writing that the Board of Directors fix a record date to determine the stockholders who are entitled to deliver a written request to call a special meeting (such record date, the “Ownership Record Date”), which request shall be in proper form and delivered to the Secretary at the principal offices of the Corporation. A written demand to fix an Ownership Record Date shall include all of the information that must be included in a written request to call a special meeting, as set forth in paragraph (d) of this Section 2.02. The Board of Directors may fix the Ownership Record Date within ten (10) days of the Secretary’s receipt of a valid demand to fix the Ownership Record Date. The Ownership Record Date shall not precede, and shall not be more than ten (10) days after, the date upon which the resolution fixing the Ownership Record Date is adopted by the Board of Directors. If an Ownership Record Date is not fixed by the Board of Directors within ten (10) days of the Secretary’s receipt of a valid demand, the Ownership Record Date shall be the date that the first written request to call a special meeting is received by the Secretary with respect to the proposed business to be submitted for stockholder approval at a special meeting.

(c) *Beneficial Ownership.* A beneficial owner who wishes to deliver a written request to call a special meeting must cause the nominee or other person who serves as the record stockholder of such beneficial owner’s stock to sign the written request to call a special meeting. If a record stockholder is the nominee for more than one beneficial owner of stock, the record stockholder may deliver a written request to call a special meeting solely with respect to the Common Stock owned by the beneficial owner who is directing the record stockholder to sign such written request to call a special meeting.

(d) *Written Requests to Call Special Meeting.* Each written request to call a special meeting shall include the following: (i) the signature of the record stockholder submitting such request and the date such request was signed, (ii) the complete text of each business proposal, including the complete text of any resolutions proposed for consideration and, in the event that such business includes a proposal to amend the Certificate of Incorporation or these Bylaws, the language of the proposed amendment, desired to be submitted for stockholder approval at the special meeting, and the nominee(s) for director election to be presented at such meeting (if applicable), each of which must be limited to the business or nominees set forth in the written demand for the Board of Directors to set an Ownership Record Date, and (iii) as to the beneficial owner, if any, directing such record stockholder to sign the written request to call a special meeting and as to such record stockholder (unless such record stockholder is acting solely as a nominee for a beneficial owner) (each such beneficial owner and each record stockholder who is not acting solely as a nominee, a “Disclosing Party”):

(A) the name and address of each Disclosing Party;

(B) all of the information, statements, questionnaires, consents and representations concerning the Disclosing Party and the business (and director nominee(s), as applicable) required to be submitted with respect to business (or director nominee(s)) at an annual meeting of stockholders, including as specified in Sections 2.07 and 2.09;

(C) with respect to each business proposal (and director nominee(s)) to be submitted for stockholder approval at the special meeting, the statement whether or not any Disclosing Party will deliver a proxy statement and form of proxy to holders of at least the percentage of the Corporation’s outstanding capital stock required to adopt or approve the proposal, or, in the case of a nominee, to holders of a majority of the voting power of the outstanding Voting Stock (such statement, a “Solicitation Statement”); and

(D) any additional information necessary to verify the “net long position” of such Disclosing Party (including such information for the one-year period prior to the Ownership Record Date).

Each written request must be delivered to the Secretary at the principal offices of the Corporation by hand or by registered or certified mail (return receipt requested) within sixty (60) days of the Ownership Record Date. Each time a Disclosing Party’s “net long position” decreases following the delivery of the foregoing information to the Secretary, such Disclosing Party shall notify the Corporation of his, her or its decreased “net long position,” together with all information necessary to verify such position, within ten (10) days of such decrease or as of the fifth day before the special meeting, whichever is earlier. In addition, each record stockholder submitting a request to call a special meeting, and each Disclosing Party, shall submit such other information as the Corporation may reasonably request within ten (10) business days of such a request.

(e) *Invalid Requests.* The Secretary shall not accept, and shall consider ineffective, a written request from a stockholder to call a special meeting if (i) the request does not comply with these Bylaws, (ii) the request relates to an item of business that is not a proper subject for stockholder action under applicable law, (iii) the request includes an item of business that is the same or substantially similar to an item presented at a stockholder meeting held within ninety (90) days before the Secretary’s receipt of such request (and the election, removal and/or appointment of directors will be considered substantially similar to the election of directors at a preceding stockholder meeting), (iv) the request is delivered during the period starting ninety (90) days before the first anniversary of the preceding year’s annual meeting and ending on the date of the next annual meeting or (v) the request does not comply with applicable law.

(f) *Revocations.*

(i) A record stockholder may revoke a request to call a special meeting at any time before the special meeting by sending written notice of such revocation to the Secretary.

(ii) All written requests for a special meeting shall be deemed revoked:

(A) upon the first date that, after giving effect to revocation(s) and “net long position” decreases (including pursuant to Section 2.02(f)(i) and the penultimate sentence of Section 2.02(d), respectively), the aggregate “net long position” of all the Disclosing Parties who are listed on the unrevoked written requests to call a special meeting decreases to a number of shares of Common Stock less than the Required Percentage;

(B) if any Disclosing Party who has provided a Solicitation Statement with respect to any business proposal to be submitted for stockholder approval at such special meeting does not act in accordance with the representations set forth therein; or

(C) if any Disclosing Party does not provide the information required by Section 2.02(d)(iii)(B), by the final two sentences of Section 2.02(d), or by Section 2.02(g), in accordance with such provisions.

(iii) If a deemed revocation of all written requests to call a special meeting has occurred after the special meeting has been called by the Secretary, the Board of Directors shall have the discretion to determine whether or not to proceed with the special meeting.

(g) *Requirement to Update or Supplement Information.* In connection with a special meeting called in accordance with this Section 2.02, the stockholder or stockholders who requested that the Board of Directors fix an Ownership Record Date in accordance with this Section 2.02 or who delivered a demand to call a special meeting to the Secretary shall update and supplement the information previously provided to the Corporation in connection with such request or demand, if necessary, so that the information provided or required to be provided in such request or demand pursuant to this Section 2.02 shall be true and correct as of the record date for

determining the record stockholders entitled to notice of the special meeting (such record date, the “Meeting Record Date”) and as of the date that is ten (10) business days prior to the special meeting or any rescheduling, adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary at the principal offices of the Corporation not later than five (5) business days after the Meeting Record Date and not later than eight (8) business days prior to the date of the special meeting or, if practicable, any rescheduling, adjournment or postponement thereof (and if not practicable, on the first practicable date prior to the date to which the special meeting has been rescheduled, adjourned or postponed).

(h) *Miscellaneous.* After receiving a request to call a special meeting, the Board of Directors shall determine in good faith whether the record stockholders submitting a request to call a special meeting have satisfied the requirements for calling a special meeting, and the Corporation shall notify the record stockholder requesting the meeting of the Board’s determination about whether the request to call a special meeting is valid, which determination shall be conclusive and binding on the Corporation and all stockholders and other persons. The Board of Directors shall determine the place, and fix the date and time, of any special meeting called at the request of one or more stockholders. The Board of Directors may submit its own proposal or proposals for consideration at a special meeting called at the request of one or more stockholders. The record date for determining the record stockholders entitled to notice of or to vote at a special meeting shall be fixed in accordance with Section 213 (or its successor provision) of the General Corporation Law of the State of Delaware, as amended (the “DGCL”). Business transacted at any special meeting shall be confined to the purpose or purposes stated in the notice of such special meeting. Notwithstanding the foregoing provisions of this Section 2.02, unless otherwise required by law or as otherwise determined by the Chair of the Board, if none of the stockholders who requested the meeting (and no qualified representative of such stockholders) appears at the special meeting to present the nomination or proposed business included in the requests to call the special meeting, such nomination shall be disregarded and such proposed business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation.

Section 2.03. *Place and Timing of Meetings; Remote Meetings.* If no designation is made by the Board of Directors, the place of meeting shall be the principal office of the Corporation, which will be 2500 Lake Cook Road, Riverwoods, Illinois. The Board of Directors may determine, in its sole discretion, that a meeting of stockholders shall be held in whole or in part by means of remote communication in accordance with the DGCL. The Board of Directors may establish guidelines and procedures in accordance with applicable provisions of the DGCL and any other applicable law or regulation for participation in a stockholder meeting held by means of remote communication. If authorized by the Board of Directors in its sole discretion and, subject to such guidelines and procedures as the Board of Directors may adopt, stockholders not physically present at a stockholder meeting may, by means of remote communication, (a) participate in the meeting and (b) be deemed present in person and vote, whether such meeting is to be held at a designated place or solely by means of remote communication, provided that (i) the Corporation shall implement measures to verify that each person deemed present and permitted to vote at the meeting by means of remote communication is a stockholder, (ii) the Corporation shall implement measures to provide such stockholders an opportunity to participate in the meeting and to vote on matters submitted to the stockholders, including an opportunity to read or hear the proceedings of the meeting substantially concurrently with such proceedings, and (iii) if any stockholder votes or takes other action at the meeting by means of remote communication, a record of such vote or other action shall be maintained by the Corporation or a delegate thereof.

Section 2.04. *Notice of Meeting.* A notice of meeting, stating the place (if any), day and hour of the meeting, the record date for determining the stockholders entitled to vote at the meeting if such date is different from the record date for determining the stockholders entitled to notice of the meeting, and, in the case of special meetings, the purpose or purposes for which such special meeting is called, shall be prepared and delivered not less than ten (10) days nor more than sixty (60) days before the date of the meeting, either personally or by mail, or, to the extent and in the manner permitted by applicable law, electronically (as permitted by Section 232 of the DGCL), to each stockholder of record entitled to vote at such meeting. Such further notice shall be given as may be required by law. Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the Corporation’s notice of meeting. Any previously scheduled meeting of the stockholders may be postponed, rescheduled or canceled by resolution of the Board of Directors upon public notice given prior to the time previously scheduled for such meeting of stockholders.

Section 2.05. *Quorum and Adjournment.* Except as otherwise required by law or by the Restated Certificate of Incorporation, the holders of a majority of the voting power of the outstanding shares of the Corporation entitled to vote generally in the election of directors (the “Voting Stock”), represented in person or by proxy, shall constitute a quorum at a meeting of stockholders, except that when specified business is to be voted on by one or more classes or series voting as a class, the holders of a majority of the voting power of the shares of such class or classes or series shall constitute a quorum for the transaction of such business. The Chair of the Board or the holders of a majority of the voting power of the shares of Voting Stock entitled to vote thereon may adjourn the meeting from time to time, whether or not there is such a quorum (or, in the case of specified business to be voted on by one or more classes or series, the Chair of the Board or the holders of a majority of the voting power of the shares of such class or classes or series entitled to vote thereon may adjourn the meeting with respect to such specified business). When a meeting is recessed or adjourned to another time or place, if any (including an adjournment taken to address a technical failure to convene or continue a meeting using remote communication), notice need not be given (except as required by law, including as may be required by Section 222 of the DGCL) of any such adjourned or recessed meeting (including an adjournment taken to address a technical failure to convene or continue a meeting using remote communication). Subject to applicable law, the stockholders present at a duly organized meeting may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder entitled to vote at the meeting.

Section 2.06. *Proxies.* At all meetings of stockholders, a stockholder may vote by proxy as may be permitted by law; *provided*, that no proxy shall be voted after eleven (11) months from its date, unless the proxy provides for a longer period. Unless the Chair of the Board determines otherwise, any proxy to be used at a meeting of stockholders must be filed with the Secretary or his or her representative at or before the time of the meeting.

Section 2.07. *Notice of Stockholder Business and Nominations.*

(a) Annual Meetings of Stockholders.

(i) Nominations of persons for election to the Board of Directors of the Corporation and the proposal of other business to be considered by the stockholders may be made at an annual meeting of stockholders only

(A) pursuant to the Corporation’s notice of meeting delivered pursuant to Section 2.04 of these Bylaws (or any supplement thereto);

(B) by or at the direction of the Board of Directors;

(C) by any stockholder of the Corporation who is entitled to vote at the meeting, who complied with the requirements set forth in clauses (ii) and (iii) of this Section 2.07(a) and who was a stockholder of record on the date such notice is delivered to the Secretary; or

(D) in the case of a nominee for director, pursuant to Section 2.08 of these Bylaws.

(ii) For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (C) of paragraph (a)(i) of this Section 2.07, the stockholder must have given timely notice thereof in writing to the Secretary and, in the case of business other than nominations, such other business must otherwise be a proper matter for stockholder action. To be timely, a stockholder’s notice shall be delivered to the Secretary at the principal offices of the Corporation not later than the close of business on the ninetieth (90th) day, nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year’s annual meeting; *provided, however*, that (1) if the date of the annual meeting is advanced by more than thirty (30) days, or

delayed by more than ninety (90) days, from such anniversary date, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the 10th day following the day on which public announcement of the date of such meeting is first made by the Corporation or (2) if no annual meeting was held in the preceding year, notice by the stockholders to be timely must be so delivered not later than the close of business on the 10th day following the day on which public announcement of the date of such meeting is first made by the Corporation. In no event shall the adjournment, recess, postponement, judicial stay or rescheduling (or the public announcement thereof) of an annual meeting, or the postponement of an annual meeting for which notice has already been given or public announcement of the date of the meeting has already been made, commence a new time period (or extend any time period) for the giving of a stockholder's notice as described in this Section 2.07(a). Such stockholder's notice shall set forth:

(A) as to each person whom the stockholder proposes to nominate for election as a director, all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to Section 14 of the Exchange Act (including Regulation 14A and Rule 14a-19), including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected for the full term for which such person is standing for election;

(B) as to any other business that the stockholder proposes to bring before the meeting, (1) a brief description of the business desired to be brought before the meeting, (2) the text of the proposal or business (including the complete text of any resolutions proposed for consideration and (3) if such business includes a proposal to amend these Bylaws, the text of the proposed amendment), the reasons for conducting such business at the meeting, and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and

(C) as to the stockholder giving the notice, the beneficial owner, if any, on whose behalf the nomination or proposal is made, each person whom the stockholder proposes to nominate for election as a director and each Stockholder Associated Person (as defined below):

(1) the name and address of such noticing stockholder, proposed nominee and Stockholder Associated Person (including, as applicable, as they appear on the Corporation's books), and of such beneficial owner;

(2) the class or series and number of shares of the Corporation that are, directly or indirectly, owned beneficially and/or of record (specifying the type of ownership) by such stockholder, proposed nominee, Stockholder Associated Person and such beneficial owner (including any rights to acquire beneficial ownership at any time in the future, whether such right is exercisable immediately or only after the passage of time or the fulfillment of a condition) and the date or dates such shares were acquired and the investment intent of such acquisition;

(3) the name of each nominee holder for, and number of, any securities of the Corporation owned beneficially but not of record by such noticing stockholder, any proposed nominee or any Stockholder Associated Person and any pledge by such noticing stockholder, any proposed nominee or any Stockholder Associated Person with respect to any of such securities;

(4) any Short Interest (as defined below) held by or involving such stockholder, any proposed nominee or any Stockholder Associated Person;

(5) a complete and accurate description of any agreement, arrangement or understanding with respect to the nomination or proposal between or among such noticing stockholder and such beneficial owner, any of their respective affiliates or associates, and any others acting in concert with any of the foregoing including, in the case of a nomination, the nominee;

(6) a complete and accurate description of any agreement, arrangement or understanding, written or oral, (including any derivative or short positions, profit interests, forwards, futures, swaps, convertible securities, options, warrants, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares) that has been entered into as of the date of the stockholder's notice by, or on behalf of, such stockholder and such beneficial owners, whether or not such agreement, arrangement or understanding shall be subject to settlement in underlying shares of capital stock of the Corporation, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such stockholder or such beneficial owner, with respect to shares of stock of the Corporation and without regard to whether such agreement, arrangement or understanding is required to be reported on a Schedule 13D, 13F or 13G in accordance with the Exchange Act (any of the foregoing, a "Derivative Instrument");

(7) a representation that the stockholder is a holder of record of stock of the Corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to propose such business or nomination;

(8) any substantial interest, direct or indirect (including any existing or prospective commercial, business or contractual relationship with the Corporation), by security holdings or otherwise, of such stockholder giving notice, the beneficial owner, if any, on whose behalf the nomination or proposal is made, each person whom the stockholder proposes to nominate for election as a director and each Stockholder Associated Person, in each case, in the Corporation or any affiliate thereof, other than an interest arising from the ownership of Corporation securities where such stockholder or beneficial owner receives no extra or special benefit not shared on a *pro rata* basis by all other holders of the same class or series;

(9) complete and accurate description of all agreements, arrangements or understandings, written or oral, (I) between or among such noticing stockholder and any of the Stockholder Associated Persons or (II) between or among such noticing stockholder or any Stockholder Associated Person and any other person or entity (naming each such person or entity) or any proposed nominee, in each case, in connection with the proposal of such nomination or other business, including, without limitation, (x) any proxy, contract, agreement, arrangement, understanding or relationship pursuant to which such noticing stockholder or any Stockholder Associated Person has a right to vote any security of the Corporation, (y) any agreements, arrangements or understandings, written or oral, that such noticing stockholder or any Stockholder Associated Person may have reached with any stockholder of the Corporation (including the name of such stockholder) with respect to how such stockholder will vote such stockholder's shares in the Corporation at any meeting of the Corporation's stockholders or take other action in support of any proposed nominee or other business, or other action to be taken, by such noticing stockholder or any Stockholder Associated Person and (z) any other agreements, arrangements or understandings that would be required to be disclosed by such noticing stockholder, any proposed nominee, any Stockholder Associated Person or any other person or entity pursuant to Item 5 or Item 6 of a Schedule 13D pursuant to Section 13 of the Exchange Act and the rules and regulations promulgated thereunder (regardless of whether the requirement to file a Schedule 13D is applicable to such noticing stockholder, any proposed nominee, any Stockholder Associated Person or any other person or entity);

(10) any rights to dividends on the shares of the Corporation owned beneficially by such noticing stockholder, any proposed nominee or any Stockholder Associated Person that are separated or separable from the underlying shares of the Corporation;

(11) any proportionate interest in shares of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership, limited liability company or similar entity in which such noticing stockholder, any proposed nominee or any Stockholder Associated Person is (I) a general partner or, directly or indirectly, beneficially owns an interest in a general partner of such general or limited partnership or (II) the manager, managing member or, directly or indirectly, beneficially owns an interest in the manager or managing member of such limited liability company or similar entity;

(12) any significant equity interests or any Derivative Instruments or Short Interests in any principal competitor of the Corporation held by such noticing stockholder, any proposed nominee or any Stockholder Associated Person;

(13) any direct or indirect interest of such noticing stockholder, any proposed nominee or any Stockholder Associated Person in any contract with the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation (including, without limitation, any employment agreement, collective bargaining agreement or consulting agreement);

(14) a description of any material interest of such noticing stockholder, any proposed nominee or any Stockholder Associated Person in the business proposed by such noticing stockholder, if any, or the election of any proposed nominee;

(15) a representation that (I) neither such noticing stockholder nor any Stockholder Associated Person has breached any material contract or other agreement, arrangement or understanding with the Corporation except as disclosed to the Corporation pursuant hereto, (II) neither such noticing stockholder nor any Stockholder Associated Person is a party or participant in any pending or, to such person's knowledge, threatened legal proceeding involving the Corporation or any publicly-disclosed officer, affiliate, or associate of the Corporation except as disclosed to the Corporation pursuant hereto, and (III) such noticing stockholder and each Stockholder Associated Person has complied, and will comply, with all applicable requirements of state law and the Exchange Act with respect to the matters set forth in this Section 2.07;

(16) a complete and accurate description of any performance-related fees (other than an asset-based fee) to which such noticing stockholder, any proposed nominee or any Stockholder Associated Person may be entitled as a result of any increase or decrease in the value of the Corporation's securities or any Derivative Instruments, including, without limitation, any such interests held by members of such noticing stockholder's, any proposed nominee's or Stockholder Associated Person's immediate family sharing the same household;

(17) a representation as to whether the noticing stockholder or the beneficial owner, if any, intends or is part of a group that intends (I) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Corporation's outstanding capital stock required to approve or adopt the proposal or, in the case of a nominee, to holders of a majority of the voting power of the Voting Stock, (II) otherwise to solicit proxies or votes from stockholders in support of such proposal or nomination, and/or (III) to solicit the holders of shares of the Corporation in accordance with Rule 14a-19 under the Exchange Act (or successor rule);

(18) a complete and accurate description of any pending or, to such noticing stockholder's knowledge, threatened legal proceeding in which such noticing stockholder, any

proposed nominee or any Stockholder Associated Person is a party or participant involving the Corporation or, to such noticing stockholder's knowledge, any officer, director, affiliate or associate of the Corporation;

(19) identification of the names and addresses of other stockholder(s) (including beneficial owner(s)) known by such noticing stockholder, beneficial owner or proposed nominee to support such nominations or other business proposal(s), and to the extent known, the class and number of all shares of the Corporation's capital stock owned beneficially or of record by such other stockholder(s) (or other beneficial owner(s));

(20) any business or personal interests that could reasonably be expected to place such noticing stockholder, beneficial owner or proposed nominee in a potential conflict of interest with the Corporation or any of its subsidiaries;

(21) all information that would be required to be set forth in a Schedule 13D filed pursuant to Rule 13d-1(a) under the Exchange Act or an amendment pursuant to Rule 13d-2(a) under the Exchange Act if such a statement were required to be filed under the Exchange Act by such noticing stockholder or any Stockholder Associated Person (regardless of whether such person or entity is actually required to file a Schedule 13D), including a description of any agreement that would be required to be disclosed by such noticing stockholder, any Stockholder Associated Person or any of their respective associates pursuant to Item 5 or Item 6 of Schedule 13D;

(22) a certification, which such noticing stockholder and each Stockholder Associated Person will provide to the Corporation as it may reasonably request, including any information required or requested by the Corporation's subsidiaries, or as required, requested or expected by banking or other regulators;

(23) any other information relating to the stockholder that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or the election of directors in an election contest pursuant to and in accordance with Section 14 of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of these Bylaws, "Short Interest" shall mean any agreement, arrangement, understanding, relationship or otherwise, including, without limitation, any repurchase or similar so-called "stock borrowing" agreement or arrangement, involving any noticing stockholder or any Stockholder Associated Person of any noticing stockholder directly or indirectly, the purpose or effect of which is to mitigate loss to, reduce the economic risk (of ownership or otherwise) of any class or series of shares of the Corporation by, manage the risk of share price changes for, or increase or decrease the voting power of, such noticing stockholder or any Stockholder Associated Person of any noticing stockholder with respect to any class or series of shares of the Corporation, or which provides, directly or indirectly, the opportunity to profit or share in any profit derived from any decrease in the price or value of any class or series of shares of the Corporation; and "Stockholder Associated Person" shall mean, with respect to any noticing stockholder, (I) any person directly or indirectly controlling, controlled by, under common control with such noticing stockholder, (II) any person who is acting in concert with such noticing stockholder, (III) any beneficial owner of shares of stock of the Corporation owned of record or beneficially by such noticing stockholder (other than a stockholder that is a depositary) or (IV) to the extent not inconsistent with applicable law or the Corporation's corporate governance guidelines, any affiliate or associate of such noticing stockholder or any Stockholder Associated Person;

provided, however, that the disclosures in the foregoing subclauses (1) through (23) shall not include any such disclosures with respect to the ordinary course of business activities of any broker, dealer, commercial bank, trust company or other nominee who is a noticing stockholder

solely as a result of being the stockholder directed to prepare and submit the notice required by these Bylaws on behalf of a beneficial owner.

(iii) A noticing stockholder shall update and supplement the information described in this Section 2.07 or Section 2.08, as applicable from time to time to the extent necessary so that such information shall be true and correct (A) as of the record date for determining the stockholders entitled to receive notice of the meeting and (B) as of the date that is ten (10) business days prior to the meeting (or any postponement, rescheduling or adjournment thereof), and such update shall (1) be received by the Secretary at the principal offices of the Corporation (x) not later than the close of business five (5) business days after the record date for determining the stockholders entitled to receive notice of such meeting (in the case of an update required to be made under clause (A)) and (y) not later than the close of business eight (8) business days prior to the date for the meeting or, if practicable, any postponement, rescheduling or adjournment thereof (and, if not practicable, on the first practicable date prior to the date to which the meeting has been postponed, rescheduled or adjourned) (in the case of an update required to be made pursuant to clause (B)), (2) be made only to the extent that information has changed since such noticing stockholder's prior submission and (3) clearly identify the information that has changed since such noticing stockholder's prior submission. For the avoidance of doubt, any information provided pursuant to this Section 2.07(a)(iii) shall not be deemed to cure any deficiencies or inaccuracies in a notice previously delivered pursuant to this Section 2.07 and shall not extend the time period for the delivery of notice pursuant to this Section 2.07. If a noticing stockholder fails to provide such written update within such period, the information as to which such written update relates may be deemed not to have been provided in accordance with this Section 2.07.

(iv) If any information submitted pursuant to this Section 2.07 by any noticing stockholder proposing individuals to nominate for election or reelection as a director or business for consideration at a stockholder meeting shall be inaccurate in any material respect (as determined by the Board or a committee thereof), such information shall be deemed not to have been provided in accordance with this Section 2.07. Any such noticing stockholder shall notify the Secretary in writing at the principal offices of the Corporation of any inaccuracy in any information submitted pursuant to this Section 2.07 within two (2) business days after becoming aware of such inaccuracy or change, and any such notification shall clearly identify the inaccuracy or change, it being understood that no such notification may cure any deficiencies or inaccuracies with respect to any prior submission by such noticing stockholder. Upon written request of the Secretary on behalf of the Board of Directors (or a duly authorized committee thereof), any such noticing stockholder shall provide, within five (5) business days after delivery of such request (or such other period as may be specified in such request), (A) written verification, reasonably satisfactory to the Board of Directors, any committee thereof or any authorized officer of the Corporation, to demonstrate the accuracy of any information submitted by such noticing stockholder pursuant to this Section 2.07; and (B) a written affirmation of any information submitted by such noticing stockholder pursuant to this Section 2.07 as of an earlier date. If a noticing stockholder fails to provide such written verification or affirmation within such period, the information as to which written verification or affirmation was requested may be deemed not to have been provided in accordance with this Section 2.07.

(v) In addition to the information required above, the Corporation may require the noticing stockholder and any proposed nominee to furnish such other information as it may reasonably require to determine the eligibility, suitability or qualifications of any proposed nominee to serve as a director of the Corporation and the impact that such service would have on the ability of the Corporation to satisfy the requirements of laws, rules, regulations and listing standards applicable to the Corporation or its directors, and such noticing stockholder or proposed nominee, as applicable, shall furnish such information to the Corporation within ten (10) business days of the Corporation's request.

(vi) Notwithstanding anything in the second sentence of clause (ii) of this Section 2.07(a) to the contrary, if the number of directors to be elected to the Board of Directors of the Corporation is increased and there is no public announcement by the Corporation disclosing, directly or indirectly, such increase at least ten (10) days before the last day a stockholder may deliver a notice in accordance with

clause (ii) of this Section 2.07(a), a stockholder's notice required by this Section 2.07 shall also be considered timely, but only with respect to nominees for any new directorships created by such increase, if it shall be delivered to the Secretary at the principal offices of the Corporation not later than the close of business on the 10th day following the day on which such public announcement is first made by the Corporation.

(vii) If any stockholder provides notice pursuant to Rule 14a-19(b) under the Exchange Act, such stockholder shall deliver to the Secretary, no later than five (5) business days prior to the applicable meeting date, a written certification (and upon request by the Corporation, reasonable evidence) that the requirements of Rule 14a-19(a)(3) under the Exchange Act have been satisfied. If (A) any stockholder or any Stockholder Associated Person provides notice pursuant to Rule 14a-19(b) under the Exchange Act with respect to any proposed nominee and (B) such stockholder or Stockholder Associated Person subsequently (x) notifies the Corporation that such stockholder or Stockholder Associated Person no longer intends to solicit proxies in support of the election or reelection of such proposed nominee in accordance with Rule 14a-19(b) under the Exchange Act or (y) then fails to comply with the requirements of Rule 14a-19(a)(2) or Rule 14a-19(a)(3) under the Exchange Act (or fails to timely provide reasonable evidence sufficient to satisfy the Corporation that such stockholder or its applicable affiliates has met the requirements of Rule 14a-19(a)(3) under the Exchange Act), then unless otherwise required by law, the Corporation shall disregard any proxies solicited for such proposed nominee.

(viii) Any stockholder directly or indirectly soliciting proxies from other stockholders in respect of any nomination or other business must use a proxy-card color other than white, which is reserved for the exclusive use by the Board of Directors.

(b) Special Meetings of Stockholders. Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the Corporation's notice of meeting pursuant to Section 2.04 of these Bylaws. Subject to the rights of the holders of Preferred Stock, nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting:

(i) by or at the direction of the Board of Directors; or

(ii) provided that the Board of Directors has determined that directors shall be elected at such meeting, by any stockholder of the Corporation who is entitled to vote at the meeting, who complies with the notice procedures set forth in this Section 2.07 and who is a stockholder of record at the time such notice is delivered to the Secretary. If the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any stockholder entitled to vote in such election may nominate such number of persons for election to such position(s) as are specified in the Corporation's notice of meeting, if the stockholder's notice as required by clause (ii) of Section 2.07(a) of these Bylaws shall be delivered to the Secretary at the principal offices of the Corporation not earlier than the close of business on the one hundred twentieth (120th) day prior to such special meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such special meeting or the 10th day following the day on which public announcement of the date of the special meeting and of either the nominees proposed by the Board of Directors or the number of directors to be elected at such meeting is first made by the Corporation. In no event shall the public announcement of an adjournment, recess, judicial stay, postponement or rescheduling of a special meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above. For the avoidance of doubt, stockholders are not permitted to nominate persons for election to the Board of Directors pursuant to Section 2.08 at a special meeting of stockholders. Notwithstanding any other provision of these Bylaws, in the case of a special meeting called at the request of one or more stockholders, no stockholder may nominate a person for election to the Board of Directors or propose any business to be considered at a meeting, except pursuant to a written request to call a special meeting pursuant to Section 2.02 that

identifies the nominees for election and business to be considered at the special meeting and that meets the requirements of these Bylaws.

(c) General.

(i) Only persons who are nominated in accordance with the procedures set forth in these Bylaws shall be eligible to be elected as directors at (A) an annual meeting of stockholders, in accordance with the procedures set forth in this Section 2.07 or in Section 2.08, or (B) a special meeting of stockholders, in accordance with the procedures set forth in this Section 2.07 (and Section 2.02, as applicable). The number of nominees a stockholder may nominate for election at a meeting may not exceed the number of directors to be elected at such meeting, and for the avoidance of doubt, no stockholder shall be entitled to make additional or substitute nominations following the expiration of the time periods set forth in Section 2.07(a)(ii) or Section 2.07(b)(ii), as applicable.

Only such other business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 2.07 (and Section 2.02, as applicable). Except as otherwise provided by law, the Restated Certificate of Incorporation or these Bylaws, the Board (which may act through a committee thereof or the Chair of the Board) or the chair of any meeting (except to the extent inconsistent with such rules and regulations as adopted by the Board of Directors) shall each have the power to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed in accordance with the procedures set forth in Section 2.02, this Section 2.07 and Section 2.08 (including whether the stockholder or beneficial owner, if any, on whose behalf the nomination or proposal is made (or is part of a group which solicited) did or did not so solicit, as the case may be, proxies in support of such stockholder's nominee or proposal in compliance with such stockholder's representation as required by clause (a)(ii)(C)(16) of this Section 2.07) and, if any proposed nomination or business is not in compliance with this Section 2.07 or Section 2.08 (or if a stockholder or beneficial owner did not comply with the foregoing solicitation representation), to declare that such defective proposal or nomination shall be disregarded. Notwithstanding the foregoing provisions of this Section 2.07 or Section 2.08, unless otherwise required by law or as otherwise determined by the Board (which may act through a committee thereof or the Chair of the Board) or the chair of any meeting (except to the extent inconsistent with such rules and regulations as adopted by the Board of Directors), if the stockholder (or a qualified representative of the stockholder) making the proposal or nomination does not appear at the annual or special meeting of stockholders of the Corporation to present a nomination or proposed business, such nomination shall be disregarded and such proposed business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of Sections 2.02, 2.07 and 2.08, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or must be authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting of stockholders.

(ii) For purposes of these Bylaws, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act. For purposes of these Bylaws, "close of business" means 6:00 p.m. local time at the principal offices of the Corporation on any calendar day, whether or not a business day.

(iii) Notwithstanding the foregoing provisions of this Section 2.07 and Section 2.08, a stockholder shall also comply with all applicable requirements, including under the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in this Section 2.07 and Section 2.08; provided, however, that any references in these Bylaws to the Exchange Act or the rules promulgated thereunder are not intended to and shall not limit any requirements (including paragraphs (a)(i)(C) and (b) of this Section 2.07) applicable to stockholder nominations or proposals as to any other business to be

considered pursuant to this Section 2.07 and Section 2.08 and compliance with paragraphs (a)(i)(C) and (b) of this Section 2.07 shall be the exclusive means for a stockholder to make nominations or submit proposals for any other business to be considered at an annual or special meeting of stockholders other than (A) matters brought properly under and in compliance with Rule 14a-8 of the Exchange Act, as may be amended from time to time, (B) nominations to be considered at an annual meeting of stockholders pursuant to Section 2.08 and (C) nominations or business permitted to be presented at a special meeting called at the request of stockholders pursuant to Section 2.02. Nothing in this Section 2.07 shall be deemed to limit any rights of the holders of any series of Preferred Stock to elect directors pursuant to any applicable provisions of the Restated Certificate of Incorporation.

(d) For purposes of this Section 2.07, Section 2.08 and Section 2.09, (A) "affiliate" and "associate" each shall have the respective meanings set forth in Rule 12b-2 under the Exchange Act and (B) "beneficial owner" or "beneficially owned" shall have the meaning set forth for such terms in Section 13(d) of the Exchange Act.

Section 2.08. *Proxy Access for Director Nominations.*

(a) Definitions. For purposes of this Section 2.08, the following terms shall have the following meanings:

(i) "Authorized Group Member" shall mean, with respect to any nomination by a Nominator Group, the member of that Nominator Group that is authorized to act on behalf of all members of that Nominator Group with respect to matters relating to the nomination, including withdrawal of the nomination.

(ii) "Compensation Arrangement" shall mean any direct or indirect compensatory, payment or other financial agreement, arrangement or understanding with any person or entity other than the Corporation, including, without limitation, any agreement, arrangement or understanding with respect to any direct or indirect compensation, reimbursement or indemnification in connection with candidacy, nomination, service or action as a nominee or as a director of the Corporation.

(iii) "Eligible Stockholder" shall mean a person who has either (A) been a record holder of the shares of Common Stock used to satisfy the eligibility requirements in Section 2.08(d) continuously for the required three-year period or (B) provides to the Secretary, within the time period referred to in Section 2.08(e), evidence of continuous Ownership of such shares for such three-year period from one or more securities intermediaries.

(iv) "Maximum Number" shall mean that number of directors constituting the greater of (A) two or (B) 20% of the total number of directors of the Corporation on the last day on which a Nomination Notice may be submitted pursuant to this Section 2.08 (rounded down to the nearest whole number), which number shall be reduced as set forth in Section 2.08(c)(i).

(v) "Minimum Number" shall mean 3% of the number of outstanding shares of Common Stock as of the most recent date for which such amount is given in any filing by the Corporation with the Securities and Exchange Commission prior to the submission of the Nomination Notice.

(vi) "Nominating Stockholder" shall mean any Eligible Stockholder or group of up to 20 stockholders (a "Nominator Group") that, collectively as a group, satisfy the requirements to qualify as an Eligible Stockholder, and that (A) has (individually and collectively, in the case of a Nominator Group) satisfied all applicable conditions and complied with all applicable procedures set forth in this Section 2.08 (including, without limitation, the timely submission of a Nomination Notice that meets the requirements set forth in this Section 2.08), and (B) has nominated a Stockholder Nominee.

(vii) “Nomination Notice” shall mean all information and documents that a Nominating Stockholder is required to submit to the Secretary pursuant to Section 2.08(f).

(viii) “Own” shall mean possession, with respect to those outstanding shares of Common Stock entitled to vote generally for the election of all directors of the Corporation, of both: (A) the full voting and investment rights pertaining to the shares; and (B) the full economic interest in (including the opportunity for profit and risk of loss on) such shares; provided, that the number of shares calculated in accordance with clauses (A) and (B) shall not include any shares: (1) sold by such stockholder or any of its affiliates in any transaction that has not been settled or closed, including any short sale; (2) borrowed by such stockholder or any of its affiliates for any purposes or purchased by such stockholder or any of its affiliates pursuant to an agreement to resell; or (3) subject to any option, warrant, forward contract, swap, contract of sale, or other derivative or similar agreement entered into by such stockholder or any of its affiliates, whether any such instrument or agreement is to be settled with shares or with cash based on the notional amount or value of outstanding shares of stock of the Corporation, in any such case which instrument or agreement has, or is intended to have, or if exercised by either party thereto would have, the purpose or effect of reducing in any manner, to any extent or at any time in the future, such stockholder’s or affiliates’ full right to vote or direct the voting of any such shares, and/or hedging, offsetting or altering to any degree any gain or loss arising from the full economic Ownership of such shares by such stockholder or affiliate, other than any such arrangements solely involving a national or multi-national multi-industry market index. A stockholder shall “Own” shares held in the name of a nominee or other intermediary so long as the stockholder retains the right to instruct how the shares are voted with respect to the election of directors and the right to direct the disposition thereof and possesses the full economic interest in the shares. A stockholder’s Ownership of shares shall be deemed to continue during any period in which the stockholder has loaned such shares or delegated any voting power over such shares by means of a proxy, power of attorney or other instrument or arrangement which in either case is revocable at any time by the stockholder; provided, however, in the event of a loan, the stockholder has the power to recall such loaned shares on five (5) business days’ notice. The terms “Owned,” “Owning,” “Ownership” and other variations of the word “Own” shall have correlative meanings. Whether outstanding shares of the Corporation are “owned” for these purposes shall be determined by the Board of Directors, which determination shall be conclusive and binding on the Corporation and the stockholders.

(ix) “Stock Exchange Rules” shall mean the rules of any stock exchange on which the Corporation’s securities are traded.

(x) “Stockholder Nominee” shall mean any person nominated for election pursuant to this Section 2.08.

(xi) “Voting Commitment” shall mean any agreement, arrangement or understanding with, and any commitment or assurance to, any person or entity as to how a person, if elected as a director of the Corporation, will act or vote on any issue or question.

(b) Proxy Access at Annual Meetings. Subject to the provisions of this Section 2.08, if expressly requested in the relevant Nomination Notice, the Corporation shall include in its proxy statement for any annual meeting of stockholders:

(i) the name of any Stockholder Nominee, which shall also be included on the Corporation’s form of proxy and ballot;

(ii) disclosure about the Stockholder Nominee and the Nominating Stockholder required under the rules of the Securities and Exchange Commission or other applicable law to be included in the proxy statement;

(iii) any statement included by the Nominating Stockholder in the Nomination Notice for inclusion in the proxy statement in support of the Stockholder Nominee’s election to the Board

of Directors (subject, without limitation, to Section 2.08(g)(iii)), if such statement does not exceed 500 words; and

(iv) any other information that the Corporation or the Board of Directors determines, in its discretion, to include in the proxy statement relating to the nomination of the Stockholder Nominee, including, without limitation, any statement in opposition to the nomination, information relating to any Compensation Arrangement and/or Voting Commitment, and any of the information provided pursuant to this Section 2.08.

For the avoidance of doubt, the provisions of this Section 2.08 shall not apply to a special meeting of stockholders, and the Corporation shall not be required to include a director nominee of a stockholder or group of stockholders under this Section 2.08 in the Corporation's proxy statement or form of proxy or ballot for any special meeting of stockholders.

(c) Maximum Number of Stockholder Nominees.

(i) The Corporation shall not be required to include in the proxy statement for an annual meeting of stockholders more Stockholder Nominees than the Maximum Number. In the event that one or more vacancies for any reason occurs on the Board of Directors after the deadline set forth in Section 2.08(e) but before the date of the annual meeting and the Board of Directors resolves to reduce the size of the Board of Directors in connection therewith, the Maximum Number shall be calculated based on the number of directors in office as so reduced. The Maximum Number for a particular annual meeting shall be reduced by:

(A) Stockholder Nominees whose nominations for election at such annual meeting are subsequently withdrawn;

(B) Stockholder Nominees whom the Board of Directors itself decides to nominate for election at such annual meeting;

(C) the number of incumbent directors or director candidates (including, without limitation, candidates who are not Stockholder Nominees) that in either case will be included in the Corporation's proxy materials for an annual meeting of stockholders as unopposed (by the Corporation) nominees pursuant to any agreement, arrangement or other understanding with any stockholder or group of stockholders; and

(D) the number of incumbent directors who had been Stockholder Nominees at any of the preceding two annual meetings of stockholders and whose reelection at the upcoming annual meeting is being recommended by the Board of Directors.

(ii) Any Nominating Stockholder submitting more than one Stockholder Nominee for inclusion in the Corporation's proxy materials pursuant to this Section 2.08 shall rank such Stockholder Nominees based on the order that the Nominating Stockholder desires such Stockholder Nominees to be selected for inclusion in the Corporation's proxy materials. In the event that the number of Stockholder Nominees submitted by Nominating Stockholders pursuant to this Section 2.08 exceeds the Maximum Number, the highest ranking Stockholder Nominee who meets the requirements of this Section 2.08 from each Nominating Stockholder will be selected for inclusion in the Corporation's proxy materials until the Maximum Number is reached, going in order of the amount (largest to smallest) of shares of stock of the Corporation that each Nominating Stockholder disclosed as Owned in its respective Nomination Notice submitted to the Corporation. This selection process will continue with the next highest ranked nominees as many times as necessary, following the same order each time, until the Maximum Number is reached.

(d) Eligible Stockholders.

(i) An Eligible Stockholder or Nominator Group may submit a nomination in accordance with this Section 2.08 only if the person or group (in the aggregate) has continuously Owned at least the Minimum Number (as adjusted for any stock splits, stock dividends, subdivisions, combinations, reclassifications, recapitalizations or similar events) of shares of the Corporation's Common Stock throughout the three-year period preceding and including the date of submission of the Nomination Notice, and continues to Own at least the Minimum Number of shares through the date of the annual meeting. No shares may be attributed to more than one Eligible Stockholder. The following shall be treated as one Eligible Stockholder or one member of a Nominator Group if such Eligible Stockholder or member of a Nominator Group shall provide together with the Nomination Notice documentation that demonstrates compliance with the following criteria: (A) funds under common management and investment control; (B) funds under common management and funded primarily by the same employer; or (C) a "family of investment companies" or a "group of investment companies" (each as defined in or under the Investment Company Act of 1940, as amended).

(ii) For the avoidance of doubt, in the event of a nomination by a Nominator Group, any and all requirements and obligations for a given Eligible Stockholder (including, without limitation, each and every fund or company that comprises the Nominator Group) that are set forth in this Section 2.08, including the minimum holding period, shall apply to each member of such Nominator Group; provided, however, that the Minimum Number shall apply to the Ownership of the Nominator Group in the aggregate. Should any stockholder withdraw from a Nominator Group at any time prior to the annual meeting of stockholders, the Nominator Group shall only be deemed to Own the shares held by the remaining members of that Nominator Group.

(iii) No stockholder shall be permitted to be in more than one Nominator Group, and if any stockholder appears as a member of more than one Nominator Group, or as a member of a Nominator Group and as a Nominating Stockholder without any such group, such stockholder shall be deemed to be a member of only the Nominator Group that has the largest Ownership position as reflected in the Nomination Notice and is not permitted to act as a Nominating Stockholder separate from such Nominator Group.

(e) Timely Nomination Notice. To be timely, a Nomination Notice must be delivered to the Secretary at the principal offices of the Corporation not later than the close of business on the one hundred twentieth (120th) day nor earlier than the close of business on the one hundred fiftieth (150th) day prior to the first anniversary of the date (as stated in the Corporation's proxy materials relating to that annual meeting) that the Corporation first mailed its proxy statement for the annual meeting of the previous year, except where information or documents are required to be provided after the date the Nomination Notice is first submitted, as set forth in this Section 2.08; *provided, however* that, if the date of the annual meeting is advanced by more than thirty (30) days, or delayed by more than ninety (90) days, from the anniversary date of the immediately preceding annual meeting of stockholders, the Nomination Notice to be timely must be so delivered not later than the close of business on the tenth (10th) day following the day on which such notice of the date of the annual meeting was mailed or such public announcement of the date of the annual meeting was made, whichever first occurs. In no event shall the adjournment of an annual meeting, or the postponement of an annual meeting for which notice has already been given or public announcement of the date of the meeting has already been made, commence a new time period (or extend any time period) for the giving of a Nomination Notice.

(f) Nomination Notice. The Nomination Notice shall consist of, collectively, the following information, documents and agreements which shall, for avoidance of doubt, be compiled, completed and submitted by the Nominating Stockholder or its representatives at its own cost:

(i) documentary evidence in the form of one or more written statements from the record holder of the shares (and from each intermediary through which the shares are or have been held during the requisite three-year holding period, provided that each such intermediary must be a participant in the Depository Trust Company or an affiliate of a participant in the Depository Trust Company) verifying and certifying that, as of a date within seven (7) calendar days prior to the date of the Nomination Notice,

the Nominating Stockholder Owns, and has continuously Owned for the preceding three years, the Minimum Number of shares, and the Nominating Stockholder's agreement to provide, within five (5) business days after the record date for the annual meeting, documentary evidence in the form of written statements from the record holder and intermediaries verifying and certifying the Nominating Stockholder's continuous Ownership of the Minimum Number of shares through the record date;

(ii) an undertaking to provide immediate notice if the Nominating Stockholder ceases to Own the Minimum Number of shares prior to the date of the annual meeting;

(iii) a copy of the Schedule 14N (or any successor form) relating to the Stockholder Nominee, completed and filed with the Securities and Exchange Commission by the Nominating Stockholder as applicable, in accordance with Securities and Exchange Commission rules;

(iv) the written consent of each Stockholder Nominee to being named in the Corporation's proxy statement, form of proxy and ballot as a nominee and to serving as a director if elected for the full term for which such person is standing for election;

(v) a written notice of the nomination of such Stockholder Nominee that includes the following additional information, agreements, representations and warranties by the Nominating Stockholder (including, for the avoidance of doubt, each member of a Nominator Group):

(A) the information and other deliverables that would be required to be set forth in a stockholder's notice of nomination pursuant to Section 2.07, as if the Nominating Stockholder were the proposing stockholder under that section;

(B) to the extent not included in the response to paragraph (A) above, a detailed description of all material relationships, between or among the Nominating Stockholder, on the one hand, and each Stockholder Nominee, on the other hand, including, without limitation, all information that would be required to be disclosed pursuant to Item 404 of Regulation S-K (or its successor Item) if the Nominating Stockholder were the "registrant" for purposes of such item and the Stockholder Nominee was a director or executive officer of such registrant;

(C) a detailed description of all communications by such Nominating Stockholder with any other stockholder or beneficial owner of any securities of the Corporation regarding such Stockholder Nominee;

(D) the details of any relationship that existed within the past three years and that would have been described pursuant to Item 6(e) of Schedule 14N (or any successor item) if it existed on the date of submission of the Schedule 14N;

(E) a representation and warranty that the Nominating Stockholder did not acquire, and is not holding, securities of the Corporation for the purpose or with the effect of influencing or changing control of the Corporation;

(F) a representation and warranty that the Nominating Stockholder has not nominated and will not nominate for election to the Board of Directors at the annual meeting any person other than such Nominating Stockholder's Stockholder Nominee(s);

(G) a representation and warranty that the Nominating Stockholder has not engaged in and will not engage in a "solicitation" within the meaning of Rule 14a-1(l) under the Exchange Act with respect to the annual meeting, other than with respect to such Nominating Stockholder's Stockholder Nominee(s) or any nominee of the Board of Directors;

(H) a representation and warranty that the Nominating Stockholder has not engaged in and will not engage in, other than with respect to such Nominating Stockholder's Stockholder Nominee(s) or any nominee of the Board of Directors, (1) an exempt solicitation as described in Rule 14a-2(b) under the Exchange Act, or (2) any communication, as described in Rule 14a-1(l)(2)(iv) under the Exchange Act, stating how the Nominating Stockholder intends to vote at the annual meeting and the reasons therefor;

(I) a representation and warranty that the Nominating Stockholder will not use or distribute any proxy card other than the Corporation's proxy card in soliciting stockholders in connection with the election of a Stockholder Nominee at the annual meeting;

(J) a representation and warranty that the Stockholder Nominee: (1) qualifies as independent under the Stock Exchange Rules and any publicly disclosed standards used by the Board of Directors in determining and disclosing the independence of the directors; and (2) is not and has not been subject to any event specified in Rule 506(d)(1) of Regulation D (or any successor rule) under the Securities Act of 1933, as amended, or Item 401(f) of Regulation S-K (or any successor rule), without reference to whether the event is material to an evaluation of the ability or integrity of the Stockholder Nominee;

(K) a representation and warranty that the Nominating Stockholder satisfies the eligibility requirements set forth in Section 2.08(d);

(L) a representation and warranty that the Nominating Stockholder will continue to satisfy the eligibility requirements described in Section 2.08(d) through the date of the annual meeting;

(M) the details of any position of the Stockholder Nominee as an officer or director of any competitor (that is, any entity that provides products or services that compete with or are alternatives to the principal products produced or services provided by the Corporation or its affiliates) of the Corporation, within the three years preceding the submission of the Nomination Notice;

(N) the details of any position of the Stockholder Nominee as a director, trustee, officer or employee with management functions for any (1) depository institution or depository holding company that is not affiliated with the Corporation, each as defined in the Depository Institution Management Interlocks Act, as amended (the "Interlocks Act") and the rules and regulations thereunder, or (2) entity that has been designated as a systemically important financial institution pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act, as amended (the "Dodd-Frank Act") and the rules and regulations thereunder;

(O) if desired, a statement for inclusion in the proxy statement in support of the Stockholder Nominee's election to the Board of Directors. Any such statement shall not exceed 500 words and shall fully comply with Section 14 of the Exchange Act and the rules and regulations thereunder; and

(P) in the case of a nomination by a Nominator Group, the designation by all group members of one Authorized Group Member;

(vi) an executed agreement (which form of agreement shall be provided by the Secretary upon written request), which must be submitted within ten (10) days of the Nominating Stockholder's first submission of any information required by this Section 2.08(f), pursuant to which the Nominating Stockholder (including each member of a Nominator Group) agrees:

(A) to comply with all applicable laws, rules and regulations in connection with the nomination, solicitation and election;

(B) to file any written solicitation or other communication with the Corporation's stockholders relating to one or more of the Corporation's directors or director nominees or any Stockholder Nominee with the Securities and Exchange Commission, regardless of whether any such filing is required under any rule or regulation or whether any exemption from filing is available for such materials under any rule or regulation;

(C) to assume all liability stemming from any action, suit or proceeding concerning any actual or alleged legal or regulatory violation arising out of any communication by the Nominating Stockholder or the Stockholder Nominee nominated by such Nominating Stockholder with the Corporation, its stockholders or any other person, including, without limitation, the Nomination Notice;

(D) to indemnify and hold harmless (jointly with all other members of a Nominator Group, if applicable) the Corporation and each of its directors, officers and employees individually against any liability, loss, damages, expenses or other costs (including attorneys' fees) incurred in connection with any action, suit or proceeding (whether threatened, pending or completed), whether legal, judicial administrative or investigative, against the Corporation or any of its directors, officers or employees arising out of or relating to a failure or alleged failure of the Nominating Stockholder or Stockholder Nominee to comply with, or any breach or alleged breach of, its, or his or her, as applicable, obligations, agreements or representations under or pursuant to this Section 2.08, or otherwise arising out of any nomination, solicitation or other activity by any Eligible Stockholder or any member of a Nominator Group in connection with its efforts pursuant to this Section 2.08;

(E) to promptly (and in any event within forty-eight (48) hours of discovering such misstatement or omission) notify the Corporation and any other recipient of any misstatement or omission if information included in the Nomination Notice or in any other communication by the Nominating Stockholder (including with respect to any member of a Nominator Group) with the Corporation, its stockholders or any other person in connection with the nomination or election ceases to be true and accurate in all material respects (or omits a material fact necessary to make the statements made not misleading), and promptly notify the Corporation and any other recipient of the information that is required to correct the misstatement or omission; and

(F) in the event that the Nominating Stockholder (including any member of a Nominator Group) has failed to continue to satisfy the eligibility requirements described in Section 2.08(d), to promptly notify the Corporation; and

(vii) an executed questionnaire, representation and agreement pursuant to Section 2.09 (which forms of questionnaire, representation and agreement shall be provided by the Secretary upon written request within ten (10) days after receiving such request), which must be submitted within ten (10) days of the Nominating Stockholder's first submission of any information required by this Section 2.08(f).

The information and documents required by this Section 2.08(f) shall be provided with respect to and executed by the Nominating Stockholder (and each member of a Nominator Group), and provided with respect to the persons specified in Instructions 1 and 2 to Items 6(c) and (d) of Schedule 14N (or any successor item). The Nomination Notice shall be deemed submitted on the date on which all the information and documents referred to in this Section 2.08(f) (other than such information and documents required to be provided after the date the Nomination Notice is first submitted) have been delivered to or, if sent by mail, received by the Secretary.

(g) Exclusion or Disqualification of Stockholder Nominees.

(i) If, after the deadline for submitting a Nomination Notice as set forth in Section 2.08(e), a Nominating Stockholder becomes ineligible or withdraws its nomination or a Stockholder Nominee becomes ineligible or unwilling to serve on the Board of Directors, whether before or after the mailing of the definitive proxy statement, the Corporation:

(A) shall not be required to include in its proxy statement or on any ballot or form of proxy the Stockholder Nominee or any successor or replacement nominee proposed by the Nominating Stockholder or by any other Nominating Stockholder; and

(B) may otherwise communicate to its stockholders, including without limitation by amending or supplementing its proxy statement or ballot or form of proxy, that the Stockholder Nominee will not be included as a Stockholder Nominee in the proxy statement or on any ballot or form of proxy and will not be voted on at the annual meeting.

(ii) Notwithstanding anything to the contrary contained in this Section 2.08, the Corporation may omit from its proxy materials any Stockholder Nominee, and any information concerning such Stockholder Nominee (including a Nominating Stockholder's statement in support), and in such case such nomination shall be disregarded and no vote on such Stockholder Nominee will occur (notwithstanding that proxies in respect of such vote may have been received by the Corporation), and the Nominating Stockholder may not, after the last day on which a Nomination Notice would be timely, cure in any way any defect preventing the nomination of the Stockholder Nominee, if:

(A) the Corporation receives a notice (whether or not subsequently withdrawn) that a stockholder intends to nominate any candidate for election to the Board of Directors at the annual meeting pursuant to the advance notice requirements for stockholder nominees set forth in Section 2.07;

(B) the Nominating Stockholder has engaged in a "solicitation" within the meaning of Rule 14a-1(l) under the Exchange Act with respect to the annual meeting, other than with respect to such Nominating Stockholder's Stockholder Nominee(s) or any nominee of the Board of Directors;

(C) the Nominating Stockholder has engaged in, other than with respect to such Nominating Stockholder's Stockholder Nominee(s) or any nominee of the Board of Directors, (1) an exempt solicitation as described in Rule 14a-2(b) under the Exchange Act, or (2) any communication, as described in Rule 14a-1(l)(2)(iv) under the Exchange Act, stating how the Nominating Stockholder intends to vote at the annual meeting and the reasons therefor;

(D) the Nominating Stockholder or the Authorized Group Member, as applicable, or any qualified representative thereof, does not appear at the annual meeting to present the nomination submitted in accordance with this Section 2.08;

(E) the Board of Directors, acting in good faith, determines that such Stockholder Nominee's nomination or election to the Board of Directors would result in the Corporation violating or failing to be in compliance with these Bylaws or the Restated Certificate of Incorporation, or any applicable law, rule or regulation to which the Corporation is subject, including the Stock Exchange Rules;

(F) the Stockholder Nominee was nominated for election to the Board of Directors pursuant to this Section 2.08 at one of the Corporation's two preceding annual meetings of stockholders and either withdrew from or became ineligible or unavailable for election at such annual meeting or received a vote of less than 25% of the shares of Common Stock entitled to vote for such Stockholder Nominee;

(G) the Stockholder Nominee has been, within the past three years, an officer or director of a competitor, as defined for purposes of Section 8 of the Clayton Antitrust Act of 1914, as amended;

(H) the Stockholder Nominee is a director, trustee, officer or employee with management functions for any (1) depository institution or depository holding company that is not affiliated with the Corporation, each as defined in the Interlocks Act and the rules and regulations thereunder, or (2) entity that has been designated as a systemically important financial institution pursuant to the Dodd-Frank Act and the rules and regulations thereunder;

(I) the Stockholder Nominee's election as a member of the Board of Directors would cause or otherwise require the Corporation to seek, or assist in the seeking of, advance approval or to obtain, or assist in the obtaining of, an interlock waiver pursuant to the rules or regulations of the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the State of Delaware, or the Office of the Comptroller of the Currency; and

(J) the Nominating Stockholder has failed to continue to satisfy the eligibility requirements described in Section 2.08(d), any of the representations and warranties made in the Nomination Notice ceases to be true and accurate in all material respects (or omits a material fact necessary to make the statement made not misleading), the Stockholder Nominee becomes unwilling or unable to serve on the Board of Directors or any violation or breach occurs of any of the obligations, agreements, representations or warranties of the Nominating Stockholder or the Stockholder Nominee under or pursuant to this Section 2.08.

(iii) Notwithstanding anything to the contrary contained in this Section 2.08, the Corporation may omit from its proxy statement, or may supplement or correct, any information, including all or any portion of the statement in support of the Stockholder Nominee included in the Nomination Notice, if:

(A) such information is not true in all material respects or omits a material statement necessary to make the statements made not misleading;

(B) such information directly or indirectly impugns the character, integrity or personal reputation of, or directly or indirectly makes charges concerning improper, illegal or immoral conduct or associations, without factual foundation, with respect to, any individual, corporation, partnership, association or other entity, organization or governmental authority;

(C) the inclusion of such information in the proxy statement would otherwise violate the Securities and Exchange Commission proxy rules or any other applicable law, rule or regulation; or

(D) the inclusion of such information in the proxy statement would impose a material risk of liability upon the Corporation.

(iv) The Corporation may solicit against, and include in the proxy statement its own statement relating to, any Stockholder Nominee.

Section 2.09. *Submission of Questionnaire, Representation and Agreement; Interviews.* To be eligible to be a nominee for election or reelection, and to serve, as a director of the Corporation, a person must deliver (in accordance with the time periods prescribed for delivery of notice or a request for special meeting under Section 2.02, Section 2.07 or Section 2.08, as applicable) to the Secretary at the Corporation's principal office (x) a written questionnaire with respect to the background and qualification of such person and the background of any other person or entity on whose behalf the nomination is being made (the form of which questionnaire shall be provided

by the Secretary upon written request within ten (10) days after receiving such request) and (y) a written representation and agreement (the form of which written representation and agreement shall be provided by the Secretary upon written request within ten (10) days after receiving such request) that such person, the noticing stockholder and any other person or entity on whose behalf the nomination is being made, as applicable: (a) is not and will not become a party to (i) any Voting Commitment that has not been disclosed to the Corporation or (ii) any Voting Commitment that could limit or interfere with such person's ability to comply, if elected as a director of the Corporation, with such person's fiduciary duties under applicable law, (b) is not and will not become a party to any Compensation Arrangement (i) in connection with such person's nomination or candidacy for director of the Corporation that has not been disclosed to the Corporation or (ii) in connection with service or action as a director of the Corporation, (c) will comply with all informational and other requirements of applicable insurance policies and laws and regulations, (d) in such person's individual capacity and on behalf of any person or entity on whose behalf the nomination is being made, if elected as a director of the Corporation, will be in compliance with, and will in the future comply with, all applicable laws (including, without limitation, fiduciary duty requirements), policies and guidelines of the Corporation, including, without limitation, those relating to corporate governance, conflict of interest, confidentiality, stock ownership and securities trading, (e) if elected as a director of the Corporation, will act in the best interests of the Corporation and its stockholders and not in the interests of individual constituencies, (f) has provided and will provide facts, statements, representations, warranties and other information in all communications with the Corporation and its stockholders that are or will be true and correct and that do not and will not omit to state any fact necessary in order to make the statements made, in light of the circumstances under which they are made, not misleading, (g) will tender his or her resignation as a director of the Corporation if the Board determines that the nomination of such proposed nominee failed to comply with these Bylaws (including the representation and agreements of such proposed nominee under this Section 2.09), provides such proposed nominee notice of any such determination and, if such non-compliance may be cured, such proposed nominee fails to cure such non-compliance within ten (10) business days after delivery of such notice to such proposed nominee, (h) the proposed nominee's candidacy or, if elected, membership on the Board of Directors would not violate applicable state or federal law or Stock Exchange Rules, (i) has not violated or breached any of the obligations, agreements, representations or warranties made pursuant to this Section 2.09, Section 2.07 or Section 2.08 of these Bylaws, as applicable and (j) will promptly provide to the Corporation such other information as it may reasonably request. The Board of Directors may require any proposed director nominee to submit to interviews with the Board of Directors or any committee thereof to determine the eligibility, suitability or qualifications of such nominee to serve as a director, and such nominee shall make himself or herself available for any such interviews within no less than ten (10) business days following the date of such request.

Section 2.10. *Procedure for Election of Directors; Voting.* Except as otherwise provided by law or pursuant to any regulation applicable to the Corporation or its securities, the rules or regulations of any stock exchange applicable to the Corporation, the Restated Certificate of Incorporation or these Bylaws, all matters other than the election of directors submitted to the stockholders at any meeting shall be decided by the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote thereon, and where a separate vote by class is required, a majority of the voting power of the shares of that class present in person or represented by proxy at the meeting and entitled to vote thereon.

Unless the Chair of the Board determines otherwise, the vote on any matter, including the election of directors, shall be by written ballot. Each ballot shall be signed by the stockholder voting, or by such stockholder's proxy, and, if required by the Chair of the Board, shall state the number of shares voted.

Section 2.11. *Inspector of Elections; Opening and Closing of Polls; Conduct of Meetings.* (a) The Board of Directors by resolution shall appoint one or more inspectors, which inspector or inspectors may not be directors, officers or employees of the Corporation, to act at the meeting and make a written report thereof. One or more persons may be designated as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate has been appointed to act, or if all inspectors or alternates who have been appointed are unable to act, at a meeting of stockholders, the Chair of the Board shall appoint one or more inspectors to act at the meeting. Each inspector, before discharging his or her duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his or her ability. The inspectors shall have the duties prescribed by the DGCL.

(a) The chair of the meeting shall fix and announce at the meeting the date and time of the opening and the closing of the polls for each matter upon which the stockholders will vote at the meeting.

(b) The Chair of the Board shall act as chair of meetings of stockholders of the Corporation. The Board of Directors may designate any other director or officer of the Corporation to act as chair of any meeting of stockholders in the absence of the Chair of the Board of Directors, and the Board of Directors may further provide for determining who shall act as chair of any meeting of stockholders in the absence of the Chair of the Board and such designee. The Board of Directors may adopt by resolution such rules and regulations for the conduct of the meeting of stockholders as it shall deem appropriate. Except to the extent inconsistent with such rules and regulations as adopted by the Board of Directors, the person presiding over any meeting of stockholders shall have the right and authority to convene and (for any or no reason) to recess or adjourn the meeting (whether or not a quorum is present), to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such presiding person, are appropriate or convenient for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the presiding person of the meeting, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) rules and procedures for maintaining order at the meeting and the safety of those present; (iii) limitations on attendance at or participation in the meeting to stockholders of record of the Corporation, their duly authorized and constituted proxies or such other persons as the presiding person of the meeting shall determine; (iv) restrictions on entry to the meeting after the time fixed for the commencement thereof; (v) limitations on the time allotted to questions or comments by participants and whether a session for questions and comments will occur only after the meeting has concluded; (vi) removal of any stockholder or any other individual who refuses to comply with meeting procedures, rules or guidelines; (vii) conclusion, recess or adjournment of the meeting, regardless of whether a quorum is present, to a later date and time and at a place, if any, announced at the meeting; (viii) restrictions on the use of audio and video recording devices, cell phones and other electronic devices; (ix) rules, regulations or procedures for compliance with any state and local laws and regulations concerning safety, health and security; (x) procedures (if any) requiring attendees to provide the Corporation advance notice of their intent to attend the meeting and (xi) any guidelines and procedures as the presiding person at any meeting of stockholders may deem appropriate regarding the participation by means of remote communication of stockholders and proxyholders not physically present at a meeting, whether such meeting is to be held at a designated place or solely by means of remote communication. The presiding person at any meeting of stockholders, in addition to making any other determinations that may be appropriate to the conduct of the meeting, shall, if the facts warrant, determine and declare to the meeting that a matter or business was not properly brought before the meeting and if such presiding person should so determine, such presiding person shall so declare to the meeting and any such matter or business not properly brought before the meeting shall not be transacted or considered. Unless and to the extent determined by the Board of Directors or the person presiding over the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

Section 2.12. *Confidential Stockholder Voting.* All proxies, ballots and votes, in each case to the extent they disclose the specific vote of an identified stockholder, shall be tabulated and certified by an independent tabulator, inspector of elections and/or other independent parties and shall not be disclosed to any director, officer or employee of the Corporation; *provided, however*, that, notwithstanding the foregoing, any and all proxies, ballots, and voting tabulations may be disclosed: (a) as necessary to meet legal requirements or to assist in the pursuit or defense of legal action; (b) if the Corporation concludes in good faith that a bona fide dispute exists as to the authenticity of one or more proxies, ballots or votes, or as to the accuracy of any tabulation of such proxies, ballots or votes; (c) in the event of a proxy, consent or other solicitation in opposition to the voting recommendation of the Board of Directors; or (d) if the stockholder requests, or consents to disclosure of the stockholder's vote or writes comments on the stockholder's proxy card or ballot.

ARTICLE 3. BOARD OF DIRECTORS

Section 3.01. *General Powers.* The business and affairs of the Corporation shall be managed by or under the direction of its Board of Directors. In addition to the powers and authorities by these Bylaws expressly conferred upon them, the Board of Directors may exercise all such powers of the Corporation and do all such lawful

acts and things as are by law or by the Restated Certificate of Incorporation or by these Bylaws required to be exercised or done by the stockholders.

Section 3.02. *Number, Tenure and Qualifications.* (a) Subject to the rights of the holders of any series of Preferred Stock, or any other series or class of stock as set forth in the Restated Certificate of Incorporation, to elect directors ("Preferred Stock Directors") under specified circumstances, the number of directors shall be fixed from time to time exclusively pursuant to a resolution adopted by the Board of Directors, but shall consist of not less than three nor more than fifteen directors (exclusive of Preferred Stock Directors). However, no decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

(b) Except as otherwise provided in this Section 3.02, each director shall be elected by the vote of the majority of the votes cast with respect to that director's election at any meeting for the election of directors at which a quorum is present, *provided* that if, as of the 10th day preceding the date the Corporation first mails its notice of meeting for such meeting to the stockholders of the Corporation, the number of nominees exceeds the number of directors to be elected (a "Contested Election"), the directors shall be elected by the vote of a plurality of the votes cast. For purposes of this Section 3.02, a majority of votes cast shall mean that the number of votes cast "for" a director's election exceeds the number of votes cast "against" that director's election (with "abstentions" and "broker nonvotes" not counted as a vote cast either "for" or "against" that director's election).

(c) In order for any incumbent director to become a nominee of the Board of Directors for further service on the Board of Directors, such person must submit an irrevocable resignation, *provided* that such resignation shall be effective if (i) that person shall not receive a majority of the votes cast in an election that is not a Contested Election, and (ii) the Board of Directors shall accept that resignation in accordance with the policies and procedures adopted by the Board of Directors for such purpose. In the event an incumbent director fails to receive a majority of the votes cast in an election that is not a Contested Election, the nominating governance and public responsibility committee of the Board of Directors, or such other committee designated by the Board of Directors pursuant to Section 3.09 of these Bylaws, shall make a recommendation to the Board of Directors as to whether to accept or reject the resignation of such incumbent director, or whether other action should be taken. The Board of Directors shall act on the resignation, taking into account the committee's recommendation, and publicly disclose (by a press release and filing an appropriate disclosure with the Securities and Exchange Commission) its decision regarding the resignation and, if such resignation is rejected, the rationale behind the decision within ninety (90) days following certification of the election results or as otherwise required by applicable rule or regulation.

(d) If the Board of Directors accepts a director's resignation pursuant to this Section 3.02, or if a nominee for director is not elected and the nominee is not an incumbent director, then the Board of Directors may fill the resulting vacancy pursuant to Article 7 of the Restated Certificate of Incorporation or may decrease the size of the Board of Directors pursuant to the provisions of this Section 3.02.

Section 3.03. *Regular Meetings.* The Board of Directors may, by resolution, provide the time and place (if any) for the holding of regular meetings without other notice than such resolution. Unless otherwise determined by the Board of Directors, the Secretary or an Assistant Secretary of the Corporation shall act as secretary at all regular meetings of the Board of Directors and in the absence of the Secretary and any Assistant Secretary, a temporary secretary shall be appointed by the chair of the meeting.

Section 3.04. *Special Meetings.* Special meetings of the Board of Directors shall be called at the request of the Chair of the Board or a majority of the Board of Directors. The person or persons authorized to call special meetings of the Board of Directors may fix the place (if any) and time of the meetings. Unless otherwise determined by the Board of Directors, the Secretary or an Assistant Secretary of the Corporation shall act as secretary at all special meetings of the Board of Directors and in the absence of the Secretary and any Assistant Secretary, a temporary secretary shall be appointed by the chair of the meeting.

Section 3.05. *Notice.* Notice of any special meeting shall be mailed to each director at his or her business or residence not later than three (3) days before the day on which such meeting is to be held, or shall be sent not later than the day before such day of meeting by facsimile or other electronic transmission, or, subject to

Section 8.01 of these Bylaws, personally or by telephone (including without limitation to a representative of the director or to the director's electronic voice message system) or on such shorter notice as the person or persons calling such meeting may deem necessary or appropriate in the circumstances. Unless required by law, neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board of Directors need be specified in the notice of such meeting, except for amendments to these Bylaws as provided pursuant to Section 8.01 hereof. A meeting may be held at any time without notice if all the directors are present (except as otherwise provided by law) or if those not present waive notice of the meeting in accordance with Section 6.04 hereof, either before or after such meeting. If mailed or sent by overnight courier, such notice shall be deemed to be given at the time when it is deposited in the United States mail with first class postage prepaid or deposited with the overnight courier. Notice by facsimile or other electronic transmission shall be deemed given when the notice is transmitted. Any director may waive notice of any meeting before or after the meeting. The attendance of a director at any meeting shall constitute a waiver of notice of such meeting, except where the director attends the meeting for the express purpose of objecting, and does so object, at the beginning of the meeting to the transaction of any business because the meeting is not lawfully called or convened.

Section 3.06. *Action Without Meeting.* Any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting if all members of the Board of Directors or such committee, as the case may be, consent thereto in writing, or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board, or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form. Any person (whether or not then a director) may provide, whether through instruction to an agent or otherwise, that a consent to action will be effective at a future time (including a time determined upon the happening of an event), no later than sixty (60) days after such instruction is given or such provision is made and such consent shall be deemed to have been given for purposes of this subsection at such effective time so long as such person is then a director and did not revoke the consent prior to such time. Any such consent shall be revocable prior to its becoming effective.

Section 3.07. *Conference Telephone Meetings.* Members of the Board of Directors, or any committee thereof, may participate in a meeting of the Board of Directors or such committee by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at such meeting.

Section 3.08. *Quorum.* At all meetings of the Board of Directors, a majority of the total number of directors specified in the resolution pursuant to Section 3.02 of these Bylaws which the Corporation would have if there were no vacancies (such total number of directors, the "entire Board of Directors") shall constitute a quorum for the transaction of business. At all meetings of the committees of the Board of Directors, the presence of 50% or more of the total number of members (assuming no vacancies) shall constitute a quorum. The act of the directors or committee members present at any meeting at which there is a quorum shall be the act of the Board of Directors or such committee, as the case may be, except as otherwise provided in the DGCL, the Restated Certificate of Incorporation or these Bylaws. If a quorum shall not be present at any meeting of the Board of Directors or any committee, a majority of the directors or members, as the case may be, present thereat may adjourn the meeting from time to time without further notice other than announcement at the meeting or notice provided in any other manner permitted by applicable law.

Section 3.09. *Committees.* (a) The Corporation shall have four standing committees: the nominating governance and public responsibility committee, the audit committee, the compensation and leadership development committee and the risk oversight committee. Each such standing committee shall consist of such number of directors of the Corporation and shall have such powers and authority as shall be determined by resolution of the Board of Directors.

(b) In addition, the Board of Directors may designate one or more additional committees, with each such committee consisting of such number of directors of the Corporation and having such powers and authority as shall be determined by resolution of the Board of Directors.

(c) All acts done by any committee within the scope of its powers and authority pursuant to these Bylaws, the charters of such committees, and the resolutions adopted by the Board of Directors in accordance with the terms hereof shall be deemed to be, and may be certified as being, done or conferred under authority of the Board of Directors. The Secretary or any Assistant Secretary is empowered to certify that any resolution duly adopted by any such committee is binding upon the Corporation and to execute and deliver such certifications from time to time as may be necessary or proper to the conduct of the business of the Corporation.

(d) Regular meetings of committees shall be held at such times as may be determined by resolution of the Board of Directors or the committee in question and no notice shall be required for any regular meeting other than such resolution. A special meeting of any committee shall be called by resolution of the Board of Directors, or by the Secretary or an Assistant Secretary upon the request of the chair or a majority of the members of such committee. Notice of special meetings shall be given to each member of the committee in the same manner as that provided for in Section 3.05 of these Bylaws.

Section 3.10. *Committee Members.* (a) Each member of any committee of the Board of Directors shall hold office until such member's successor is elected and has qualified, unless such member sooner dies, resigns or is removed.

(b) The Board of Directors may designate one or more directors as alternate members of any committee to fill any vacancy on a committee and to fill a vacant chair seat of a committee, occurring as a result of a member or chair leaving the committee, whether through death, resignation, removal or otherwise.

Section 3.11. *Committee Secretary.* Each committee may elect a secretary for such committee. Unless otherwise determined by the committee, the Secretary or an Assistant Secretary of the Corporation shall act as secretary at all regular meetings and special meetings of the committee, and in the absence of the Secretary or any Assistant Secretary a temporary secretary shall be appointed by the chair of the meeting.

Section 3.12. *Compensation.* The directors may be paid their expenses, if any, of attendance at each meeting of the Board of Directors and may be paid compensation as director, lead director or chair of any committee. Members of special or standing committees may be allowed compensation and payment of expenses.

ARTICLE 4. CHAIR AND OFFICERS

Section 4.01. *General.* The Board of Directors shall elect a Chair of the Board; a Chief Executive Officer; a President; a Chief Financial Officer; a General Counsel; a Secretary; one or more Assistant Secretaries; a Treasurer; one or more Assistant Treasurers; and such other officers as in the judgment of the Board of Directors may be necessary or desirable, including one or more Executive Vice Presidents, one or more Senior Vice Presidents and one or more Vice Presidents. All officers chosen by the Board of Directors shall have such powers and duties as generally pertain to their respective offices, subject to the specific provisions of this Article 4. Such officers shall also have powers and duties as from time to time may be conferred by the Board of Directors or any committee thereof. Any number of offices may be held by the same person, unless otherwise prohibited by law, the Restated Certificate of Incorporation or these Bylaws. The officers of the Corporation need not be stockholders or directors of the Corporation, except that the Chief Executive Officer shall be a member of the Board of Directors.

Section 4.02. *Election and Term of Office.* The elected officers of the Corporation shall be elected annually by the Board of Directors at the regular meeting of the Board of Directors held after each annual meeting of the stockholders. If the election of officers shall not be held at such meeting, such election shall be held as soon thereafter as convenient. Each officer shall hold office until his or her successor shall have been duly elected and shall have qualified or until his or her death or until he or she shall resign or be removed.

Section 4.03. *Chair of the Board.* The Chair of the Board may be, but need not be, a person other than the Chief Executive Officer of the Corporation. The Chair of the Board may be, but need not be, an officer or employee of the Corporation. The Chair of the Board, if present, shall preside at all meetings of the Board of

Directors and at all meetings of the stockholders of the Corporation. In the absence or disability of the Chair of the Board and subject to Section 2.11(c), the duties of the Chair of the Board shall be performed and the authority of the Chair of the Board may be exercised by a director (or in the case of the duties of the Chair at a meeting of stockholders, by any person) designated for this purpose by the Board of Directors.

Section 4.04. *Chief Executive Officer.* The Chief Executive Officer shall be a member of the Board of Directors. The Chief Executive Officer shall be the chief executive officer of the Corporation and shall supervise, coordinate and manage the Corporation's business and activities and supervise, coordinate and manage its operating expenses and capital allocation, shall have general authority to exercise all the powers necessary for the Chief Executive Officer of the Corporation and shall perform such other duties and have such other powers as may be prescribed by the Board of Directors or these Bylaws, all in accordance with basic policies as established by and subject to the oversight of the Board of Directors.

Section 4.05. *President.* The President shall have general authority to exercise all the powers necessary for the President of the Corporation and shall perform such other duties and have such other powers as may be prescribed by the Board of Directors or these Bylaws, all in accordance with basic policies as established by and subject to the oversight of the Board of Directors and the Chief Executive Officer.

Section 4.06. *Chief Financial Officer.* The Chief Financial Officer shall have responsibility for the financial affairs of the Corporation and shall exercise supervisory responsibility for the performance of the duties of the Treasurer. The Chief Financial Officer shall perform such other duties and have such other powers as may be prescribed by the Board of Directors or these Bylaws, all in accordance with basic policies as established by and subject to the oversight of the Board of Directors and the Chief Executive Officer.

Section 4.07. *General Counsel.* The General Counsel shall have responsibility for the legal affairs of the Corporation. The General Counsel shall perform such other duties and have such other powers as may be prescribed by the Board of Directors or these Bylaws, all in accordance with basic policies as established by and subject to the oversight of the Board of Directors and the Chief Executive Officer.

Section 4.08. *Vacancies.* A newly created office and a vacancy in any office because of death, resignation, or removal may be filled by the Board of Directors for the unexpired portion of the terms at any meeting of the Board of Directors.

ARTICLE 5. STOCK CERTIFICATES AND TRANSFERS

Section 5.01. *Stock Certificates and Transfers.* (a) The interest of each stockholder of the Corporation shall be evidenced by certificates for shares of stock in such form as the appropriate officers of the Corporation may from time to time prescribe; *provided* that the Board of Directors may provide by resolution or resolutions that all or some of all classes or series of the stock of the Corporation shall be represented by uncertificated shares. Every holder of stock represented by certificates shall be entitled to have a certificate, representing the number of shares registered in certificate form, signed by, or in the name of the Corporation by, any two authorized officers, which shall include any two of the Chair of the Board, the Chief Executive Officer, the President, any Vice President, the Treasurer, an Assistant Treasurer, the Secretary or an Assistant Secretary of the Corporation. Except as otherwise expressly provided by law, the rights and obligations of the holders of uncertificated stock and the rights and obligations of the holders of certificates representing stock of the same class and series shall be identical.

(b) Any or all of the signatures on the certificates (if any) representing the stock of the Corporation may be facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he or she were such officer, transfer agent or registrar at the date of issue.

(c) The shares of the stock of the Corporation represented by certificates shall be transferred on the books of the Corporation by the holder thereof in person or by his or her attorney, upon surrender for cancellation of certificates for the same number of shares, with an assignment and power of transfer endorsed thereon or attached thereto, duly executed, with such proof of the authenticity of the signature as the Corporation or its agents may reasonably require. Upon receipt of proper transfer instructions from the registered owner of uncertificated shares such uncertificated shares shall be canceled and issuance of new equivalent uncertificated shares or certificated shares (if authorized) shall be made to the person entitled thereto and the transaction shall be recorded upon the books of the Corporation. Within a reasonable time after the issuance or transfer of uncertificated stock, the Corporation shall send to the registered owner thereof a notice, in writing or by electronic transmission, containing the information required to be set forth or stated on certificates pursuant to the DGCL or, unless otherwise provided by DGCL, a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

Section 5.02. *Lost, Stolen or Destroyed Certificates.* The Corporation may issue a new certificate of stock or uncertificated shares in place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

ARTICLE 6. MISCELLANEOUS PROVISIONS

Section 6.01. *Fiscal Year.* The fiscal year of the Corporation shall be as specified by the Board of Directors.

Section 6.02. *Dividends.* The Board of Directors may from time to time declare, and the Corporation may pay, dividends on its outstanding shares in the manner and upon the terms and conditions provided by law and its Restated Certificate of Incorporation.

Section 6.03. *Seal.* The corporate seal shall have thereon the name of the Corporation and shall be in such form as may be approved from time to time by the Board of Directors or by any officer authorized to do so by the Board of Directors.

Section 6.04. *Waiver of Notice.* Whenever any notice is required to be given to any stockholder or director of the Corporation under the provisions of the DGCL, a waiver thereof in writing, signed by the person or persons entitled to such notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to the giving of such notice. Neither the business to be transacted at, nor the purpose of, any annual or special meeting of the stockholders or any meeting of the Board of Directors or committee thereof need be specified in any waiver of notice of such meeting.

Section 6.05. *Audits.* The accounts, books and records of the Corporation shall be audited upon the conclusion of each fiscal year by an independent certified public accountant.

Section 6.06. *Resignations.* Any director or any officer, whether elected or appointed, may resign at any time upon notice of such resignation to the Corporation.

Section 6.07. *Indemnification and Insurance.* (a) Each person who was or is made a party to or is threatened to be made a party to or is involved in any manner in any threatened, pending or completed action, suit, or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "proceeding"), by reason of the fact that he or she or a person of whom he or she is the legal representative is or was a director or officer of the Corporation or a director or officer of a Subsidiary, shall be indemnified and held harmless by the Corporation to the fullest extent permitted from time to time by the DGCL as the same exists or may hereafter be amended (but, if

permitted by applicable law, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment) or any other applicable laws as presently or hereafter in effect, and such indemnification shall continue as to a person who has ceased to be a director or officer and shall inure to the benefit of his or her heirs, executors and administrators; *provided, however*, that the Corporation shall indemnify any such person seeking indemnification in connection with a proceeding (or part thereof) initiated by such person only if such proceeding (or part thereof) was authorized by the Board of Directors or is a proceeding to enforce such person's claim to indemnification pursuant to the rights granted by this Bylaw. At the conclusion of a proceeding, the Board of Directors shall act promptly to determine whether indemnification under this Bylaw is proper in the circumstances and, if indemnification is appropriate, the Board of Directors shall use reasonable efforts to ensure that any indemnification payments are promptly paid. The Corporation shall pay the expenses incurred by such person in defending any such proceeding in advance of its final disposition upon receipt (unless the Corporation upon authorization of the Board of Directors waives such requirement to the extent permitted by applicable law) of an undertaking by or on behalf of such person to repay such amount if it shall ultimately be determined by a final judicial decision of a court of competent jurisdiction from which there is no further right to appeal that such person is not entitled to be indemnified by the Corporation as authorized in this Bylaw or otherwise.

(b) If a claim under this Section 6.07 is not paid in full by the Corporation within sixty (60) days after a written claim has been received by the Corporation, except in the case of a claim for an advancement of expenses, in which case the applicable period shall be twenty (20) days, the indemnitee may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim. To the fullest extent permitted by law, if successful in whole or in part in any such suit, or in a suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the indemnitee shall be entitled to be paid also the expense of prosecuting or defending such suit. In (i) any suit brought by the indemnitee to enforce a right to indemnification hereunder (but not in a suit brought by the indemnitee to enforce a right to an advancement of expenses) it shall be a defense that, and (ii) in any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that, the indemnitee has not met any applicable standard for indemnification set forth in the DGCL. Neither the failure of the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such suit that indemnification of the indemnitee is proper in the circumstances because the indemnitee has met the applicable standard of conduct set forth in the DGCL, nor an actual determination by the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) that the indemnitee has not met such applicable standard of conduct, shall create a presumption that the indemnitee has not met the applicable standard of conduct or, in the case of such a suit brought by the indemnitee, be a defense to such suit. In any suit brought by the indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Section 6.07 or otherwise shall be on the Corporation.

(c) The indemnification and the advancement of expenses incurred in defending a proceeding prior to its final disposition provided by, or granted pursuant to, this Bylaw shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, provision of the Restated Certificate of Incorporation, other provision of these Bylaws, agreement, vote of stockholders or otherwise. No repeal, modification or amendment of, or adoption of any provision inconsistent with, this Section 6.07, nor to the fullest extent permitted by applicable law, any modification of law, shall adversely affect any right or protection of any person granted pursuant hereto (i) existing at the time of such repeal, modification, amendment or adoption or (ii) arising out of, related to or with respect to any event, act or omission that occurred prior to the time of such repeal, modification, amendment or adoption (regardless, in the case of either clause (i) or (ii), of when the related proceeding (or part thereof) arises or is threatened, commenced or completed).

(d) The Corporation may maintain insurance, at its expense, to protect itself and any person who is or was a director, officer, partner, member, employee or agent of the Corporation or a Subsidiary or of another corporation, partnership, limited liability company, joint venture, trust or other enterprise against any expense,

liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the DGCL.

(e) The Corporation may, to the extent authorized from time to time by the Board of Directors, grant rights to indemnification, and rights to be paid by the Corporation the expenses incurred in defending any proceeding in advance of its final disposition, to any person who is or was an employee or agent (other than a director or officer) of the Corporation or a Subsidiary and to any person who is or was serving at the request of the Corporation or a Subsidiary as a director, officer, partner, member, employee or agent of another corporation, partnership, limited liability company, joint venture, trust or other enterprise, including service with respect to employee benefit plans maintained or sponsored by the Corporation or a Subsidiary, to the fullest extent of the provisions of this Bylaw with respect to the indemnification and advancement of expenses of directors and officers of the Corporation.

(f) If any provision or provisions of these Bylaws shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (i) the validity, the legality and enforceability of the remaining provisions of this Bylaw (including, without limitation, each portion of any paragraph or clause of this Bylaw containing any such provision held to be invalid, illegal or unenforceable, that is not itself held to be invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby; and (ii) to the fullest extent possible, the provisions of this Bylaw (including, without limitation, each such portion of any paragraph of this Bylaw containing any such provision held to be invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

(g) For purposes of these Bylaws: "Subsidiary" means any corporation, trust, limited liability company or other non-corporate business enterprise in which the Corporation directly or indirectly holds ownership interests representing (i) more than 50% of the voting power of all outstanding ownership interests of such entity (other than directors' qualifying shares, in the case of a corporation) or (ii) the right to receive more than 50% of the net assets of such entity available for distribution to the holders of outstanding ownership interests upon a liquidation or dissolution of such entity.

(h) Any notice, request, or other communication required or permitted to be given to the Corporation under this Bylaw shall be in writing and either delivered in person or sent by overnight mail or courier service, or certified or registered mail, postage prepaid, return receipt requested, to the Secretary or the General Counsel or any designee of the Secretary or the General Counsel and shall be effective only upon receipt by such officer or designee.

(i) In the event of payment under this Section 6.07, the Corporation shall be subrogated to the extent of such payment to all of the rights of recovery of the indemnitee (excluding insurance obtained on the indemnitee's own behalf), and the indemnitee shall execute all papers required and shall do everything that may be necessary to secure such rights, including the execution of such documents necessary to enable the Corporation effectively to bring suit to enforce such rights.

Section 6.08. *Forum for Certain Actions.* Unless a majority of the entire Board of Directors, acting on behalf of the Corporation, consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another state court located within the State of Delaware or, if no court located within the State of Delaware has jurisdiction, the federal district court for the District of Delaware) shall be the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of the Corporation, (b) any claim of breach of a fiduciary duty owed by any current or former director, officer or employee of the Corporation to the Corporation or the Corporation's stockholders, (c) any claim against the Corporation or any of its current or former directors, officers or employees arising pursuant to any provision of the DGCL, the Restated Certificate of Incorporation or these Bylaws (in each case, as may be amended from time to time) and (d) any claim against the Corporation or any of its current or former directors, officers or employees

governed by the internal affairs doctrine of the State of Delaware, in all cases subject to the court's having personal jurisdiction over all indispensable parties named as defendants.

ARTICLE 7. CONTRACTS, PROXIES, ETC.

Section 7.01. *Contracts.* Except as otherwise required by law, the Restated Certificate of Incorporation or these Bylaws, any contracts or other instruments may be executed and delivered in the name and on the behalf of the Corporation by such officer or officers of the Corporation as the Board of Directors may from time to time direct. Such authority may be general or confined to specific instances as the Board of Directors may determine. Subject to the control and direction of the Board of Directors, the Chief Executive Officer, the President, the Chief Financial Officer, the General Counsel and the Treasurer may enter into, execute, deliver and amend bonds, promissory notes, contracts, agreements, deeds, leases, guarantees, loans, commitments, obligations, liabilities and other instruments to be made or executed for or on behalf of the Corporation. Subject to any restrictions imposed by the Board of Directors, such officers of the Corporation may delegate such powers to others under his or her jurisdiction, it being understood, however, that any such delegation of power shall not relieve such officer of responsibility with respect to the exercise of such delegated power.

Section 7.02. *Proxies.* Unless otherwise provided by resolution adopted by the Board of Directors, the Chief Executive Officer or the President may from time to time appoint an attorney or attorneys or agent or agents of the Corporation, in the name and behalf of the Corporation, to cast the votes which the Corporation may be entitled to cast as the holder of stock or other securities in any other corporation or entity, any of whose stock or other securities may be held by the Corporation, at meetings of the holders of the stock or other securities of such other corporation or entity, or to consent in writing, in the name of the Corporation as such holder, to any action by such other corporation or entity, and may instruct the person or persons so appointed as to the manner of casting such vote or giving such consent, and may execute or cause to be executed in the name and on behalf of the Corporation and under its corporate seal or otherwise, all such written proxies or other instruments as he or she may deem necessary or proper in the premises.

ARTICLE 8. AMENDMENTS

Section 8.01. *Amendments.* Subject to Section 6.07(c), these Bylaws may be altered, amended or repealed, in whole or in part, or new amended and restated bylaws may be adopted by the stockholders or by the Board of Directors at any meeting thereof; *provided, however,* that notice of such alteration, amendment, repeal or adoption of new amended and restated bylaws is contained in the notice of such meeting of stockholders or in the notice of such meeting of the Board of Directors and, in the latter case, such notice is given not less than twenty-four (24) hours prior to the meeting. Unless a higher percentage is required by the Restated Certificate of Incorporation as to any matter which is the subject of these Bylaws, all such amendments must be approved by either the holders of a majority of the voting power of the then outstanding Voting Stock or by a majority of the entire Board of Directors.

ARTICLE 9. EMERGENCY BYLAWS

Section 9.01. *Emergency Bylaws.* This Article 9 shall be operative during any emergency, disaster or catastrophe, as referred to in Section 110 of the DGCL or other similar emergency condition (including, without limitation, a pandemic), as a result of which a quorum of the Board of Directors or a committee thereof cannot readily be convened for action (each, an "Emergency"), notwithstanding any different or conflicting provision of the preceding Articles of these Bylaws or in the Restated Certificate of Incorporation. To the extent not inconsistent with the provisions of this Article 9, the preceding Articles of these Bylaws and the provisions of the Restated Certificate of Incorporation shall remain in effect during such Emergency, and upon termination of such Emergency, the provisions of this Article 9 shall cease to be operative unless and until another Emergency shall occur.

Section 9.02. *Meetings; Notice.* During any Emergency, a meeting of the Board of Directors or any committee thereof may be called by any member of the Board of Directors or such committee or the Chair of the Board, the Chief Executive Officer, the President, the Secretary or a Designated Officer (as defined below) of the Corporation. Notice of the place, date and time of the meeting shall be given by any available means of communication by the person calling the meeting to such of the directors or committee members and Designated Officers as, in the judgment of the person calling the meeting, it may be feasible to reach. Such notice shall be given at such time in advance of the meeting as, in the judgment of the person calling the meeting, circumstances permit.

Section 9.03. *Quorum.* At any meeting of the Board of Directors called in accordance with Section 9.02 above, the presence or participation of one director shall constitute a quorum for the transaction of business, and at any meeting of any committee of the Board of Directors called in accordance with Section 9.02 above, the presence or participation of one committee member shall constitute a quorum for the transaction of business. In the event that no directors are able to attend a meeting of the Board of Directors or any committee thereof, then the Designated Officers in attendance shall serve as directors, or committee members, as the case may be, for the meeting, without any additional quorum requirement, and will have full powers to act as directors, or committee members, as the case may be, of the Corporation.

Section 9.04. *Liability.* No officer, director or employee of the Corporation acting in accordance with the provisions of this Article 9 shall be liable except for willful misconduct.

Section 9.05. *Amendments.* At any meeting called in accordance with Section 9.02 above, the Board of Directors, or any committee thereof, as the case may be, may modify, amend or add to the provisions of this Article 9 as it deems it to be in the best interests of the Corporation so as to make any provision that may be practical or necessary for the circumstances of the Emergency.

Section 9.06. *Repeal or Change.* The provisions of this Article 9 shall be subject to repeal or change by further action of the Board of Directors or by action of the stockholders, but no such repeal or change shall modify the provisions of Section 9.04 above with regard to action taken prior to the time of such repeal or change.

Section 9.07. *Definitions.* For purposes of this Article 9, the term "Designated Officer" means a member of the Corporation's executive committee, or any successor committee thereto, who shall be deemed to be a director of the Corporation, or a member of a committee of the Board of Directors, as the case may be, for purposes of obtaining a quorum and taking action during an Emergency pursuant to Section 9.03 above, if a quorum of directors or committee members, as the case may be, cannot otherwise be obtained during such Emergency.

CERTIFICATION

I, John B. Owen, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Discover Financial Services (the "registrant");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 26, 2023

/s/ JOHN B. OWEN

John B. Owen

Interim Chief Executive Officer and President

CERTIFICATION

I, John T. Greene, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Discover Financial Services (the "registrant");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 26, 2023

/s/ JOHN T. GREENE

John T. Greene

Executive Vice President, Chief Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Discover Financial Services (the "Company") on Form 10-Q for the period ended September 30, 2023, as filed with the Securities and Exchange Commission (the "Report"), each of John B. Owen, Interim Chief Executive Officer and President of the Company, and John T. Greene, Executive Vice President and Chief Financial Officer of the Company, certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 26, 2023

/s/ JOHN B. OWEN

John B. Owen
Interim Chief Executive Officer and President

Date: October 26, 2023

/s/ JOHN T. GREENE

John T. Greene
Executive Vice President, Chief Financial Officer