# DISCOVER 

the power of a brand

## DISCOVER

Discover made a name for itself by consistently exceeding customer expectations in the credit card industry. We have built on our brand to expand into private student loans, personal loans, home loans and deposit products. We have also expanded in the payments industry by partnering with innovative companies and leading financial institutions around the world. As a result, we have produced record financial results, and we are positioning ourselves as the leading direct bank and payments partner.

## The leading direct bank and payments partner

## DIRECT BANKING

Discover is one of the largest direct banks in the United States, with $\$ 61$ billion in loans and $\$ 105$ billion in credit card sales volume. In addition to the company's flagship credit card business, the Direct Banking segment includes personal loans, student loans, home loans, prepaid cards and deposit products.

## PAYMENT SERVICES

The Payment Services segment consists of PULSE, one of the nation's leading ATM/debit networks; Diners Club International, a global payments network; and our network partners business, which includes credit, debit and prepaid cards issued by third parties on the Discover Network.

## DISCOVER

## DISCOVER CARD

- $\$ 49.6$ billion in loans
- Leading cash rewards program
- 1 in 4 U.S. households


## STUDENT LOANS

- $\$ 7.7$ billion in private student loans
- Available at more than 1,200 colleges


## PERSONAL LOANS

- $\$ 3.3$ billion in loans
- Consolidation and major purchases

HOME LOANS

- $\$ 2$ billion of originations in 2012
- Conventional and FHA loans


## SAVINGS DEPOSITS

- $\$ 27.9$ billion direct-to-consumer deposits
- Money market accounts, certificates of deposit and savings accounts


DISCOVER NETWORK

- \$117 billion volume
- 30+ issuers

PULSE DEBIT NETWORK

- $\$ 160$ billion volume
- 4,100+ issuers


Diners Club INTERNATIONAL

DINERS CLUB
INTERNATIONAL

- $\$ 29$ billion volume
- 80 licensees
- 185+ countries/territories

[^0]Certain historical numbers in this Annual Report are shown on an "as adjusted" basis where indicated. The as-adjusted basis assumes that the trusts used in our securitization activities were consolidated into our financial results and excludes from results income received in connection with the antitrust litigation settlement in 2009. For an explanation as to why management believes that the "as adjusted" numbers are useful to investors and for a reconciliation of these numbers, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Reconciliations of GAAP to Non-GAAP As-Adjusted Data" in the accompanying Annual Report on Form 10-K.

## David Nelms Chairman and Chief Executive Officer <br> To Our Shareholders



2012 was one of the most successful years in Discover's history. We achieved record net income, organic growth in all of our lending products, record volume on our networks, and a very strong return on equity. We also established new partnerships in payments, diversified our direct banking product offerings, and demonstrated our commitment to returning excess capital to shareholders via stock repurchases and dividends.

We are focused on being the leading direct bank and payments partner, and our results in 2012 are proof that our strategy and business model are working. Today, we are successful and profitableand gaining market share. We are causing people to think about the Discover brand in new ways, which is leading to new opportunities for your company. Accordingly, we will continue to build on the Discover brand by further expanding our suite of direct banking products, and by partnering in payments with other innovative companies and financial institutions around the world.

## "Our results in 2012 are proof that our strategy and business model are working."

## 2012 Highlights included:

- Net income of $\$ 2.3$ billion, or $\$ 4.46$ per diluted share, and return on equity of $26 \%$
- Ending loan growth of $6 \%$
- Record low credit card delinquency and charge-off rates
- Network volume of $\$ 306$ billion, including $\$ 105$ billion in Discover card sales volume
- Strong expansion of merchant acceptance, domestically and around the world
- Repurchase of $6 \%$ of our outstanding common stock and a $40 \%$ higher quarterly dividend declared in December 2012

We also leveraged the power of our brand and the commitment of Discover employees to invest for future growth as we launched Discover Home Loans, introduced the Discover it card, and announced payments relationships with PayPal and with major financial institutions in Russia, China, India and elsewhere.

## Defining Direct Banking

Our credit card business is the cornerstone of our direct banking operations, and the Discover brand is known for rewards, service and value in the card industry. We have built on our brand by expanding into private student loans, personal loans, home loans, savings accounts and certificates of deposit, and now checking accounts. In many ways, Discover is defining what it means to be a "direct bank" by providing not just the products that
customers want, but by also providing an outstanding customer experience.

## Our Discover card accomplishments in 2012 included:

- Loan growth of $6 \%$
- Sales growth of $5 \%$
- Net principal charge-off rate of $2.62 \%$
- Launch of the Discover it card

In 2012, we successfully grew credit card sales and loans in a challenging environment by increasing our wallet share with existing customers and achieving double-digit new account growth. We increased customer engagement through our rewards program and marketing initiatives, and by expanding our best-inclass online and mobile capabilities. We also increased merchant participation in our rewards program, which provides additional value for our cardmembers.

We believe that our strong loan and sales growth demonstrate the effectiveness of our marketing programs, consumers' preference for cash rewards, and the success of our acceptance and awareness initiatives. Our industry-leading prime credit underwriting and loan management capabilities contributed to remarkably strong credit results.

Our focus going forward is to continue to grow Discover card loans while maintaining superb credit quality. In 2012, Discover grew faster than our peer competitors on average, and card loan growth in the fourth quarter of 2012
was the highest it has been in more than five years. We are doing several things to build on that momentum going forward, including the rollout of the Discover it card nationwide, enhancing and expanding our cash rewards program, and leveraging innovations in mobile offers, e-commerce and customer service.

I believe the Discover it card is the most innovative new credit card to be introduced by the industry in years. Discover it provides cardmembers with a unique set of benefits, including no late fee for the first late payment, job loss support, payment flexibility, and a special customer service experience. I am very excited about this new card, and believe it will contribute to new account and wallet share growth for Discover.

We also expect our cash rewards program to help us achieve loan growth.

More U.S. households have a Discover card than any other cash rewards card (TNS 2012 Consumer Card Strategies Research), and as we enter our 27 th year, we have

## "I believe the Discover it card is the most innovative new credit card to be introduced by the industry in years."

rewarded cardmembers with more than $\$ 11$ billion in cash rewards. In 2013, we will make our cash rewards program even better with higher cash rewards on purchases using Discover it, integrated programs with retail category leaders, the rollout of additional online/mobile functionality, and efforts to increase cardmember participation in existing programs.

TOTAL NETWORK VOLUME
[Billions]
DIRECT BANKING LOANS
[Billions]
CONSUMER DEPOSITS
[Billions]


*Includes other consumer loans and loans held for sale
**2008-2009 Non-GAAP, as-adjusted

One of the pillars of the Discover brand is service. Our goal is to build a stronger relationship with each customer interaction. We provide $100 \%$ of our customer service with our own employees at U.S. locations. We regard that as a competitive advantage, because every call is an opportunity to promote card usage and increase customer loyalty, and we believe that no one can do that better than our employees. In fact, we believe so strongly in our employees that we have implemented a program called "iShine," which is designed to let the enthusiasm and individual personalities of our employees "shine" through during interactions with customers, resulting in more natural, more engaging conversations. Our approach is making a difference, as evidenced by increased card usage by cardmembers following interactions with our account managers,
and as evidenced by strong third-party assessments of both our online capabilities and superior telephone customer service.

## Other Direct Banking recent accomplishments included:

- Disbursed $\$ 1$ billion of private student loans
- Originated $\$ 1.8$ billion of personal loans
- Launched Discover Home Loans and originated $\$ 2$ billion of mortgages
- Developed Discover Cashback Checking

Part of our success in private student loans can be attributed to an expanded product set that now includes a fixed-rate product and loans targeted to graduate students. In addition to helping customers

pay for college expenses, we also help customers consolidate and pay down debt through our popular and successful personal loans product.

In June 2012, we further expanded our suite of direct banking products with the launch of Discover Home Loans. Our goal is to become a market leader in direct home loan originations, and one of the ways we are going to accomplish that goal is by doing better than our competitors at helping customers navigate the complex process of obtaining a mortgage.

During 2012, we also developed what we believe will be one of the best checking account values in the industry. Discover Cashback Checking, now in limited release, rewards customers for every debit card, online bill payment and check transaction. Our checking account also has a unique set of customer benefits, including
ease-of-use with advanced online and mobile functionality, no monthly fee, no minimum balance, access to a nationwide group of no-fee ATMs and free checks.
> "The relationship between Discover and PayPal is a prime example of how Discover is innovating in the emerging payments landscape..."

## The Best Payments Partner

The Payment Services segment of Discover is built on multiple brandsthe Discover, PULSE and Diners Club International networks. Discover has always been a trusted and reputable network brand in the United States. We built on that brand and expanded internationally through

STOCK PRICE

RETURN OF EQUITY FROM
CONTINUING OPERATIONS
CONTINUING OPERATIONS



[^1]litigation settlement.
T FISCAL YEAR-END

[^2]

relationships with PayPal and other leading brands in the United States, as well as some of the largest global financial institutions.

## Our Payment Services accomplishments in 2012 included:

- Volume growth of $12 \%$ across our Payment Services segment
- Pretax income growth of $9 \%$
- Record number of active merchants accepting Discover transactions
- Significant new domestic and international partners

The relationship between Discover and PayPal is a prime example of how Discover is innovating in the emerging payments landscape by supporting new technologies and nontraditional methods of payment to facilitate commerce. In 2012, we announced plans to make PayPal available at millions of brick-and-mortar locations across the United States starting in 2013. We expect our collaboration to increase network volume and give merchants even more reason to accept payments through our network.

Discover has also expanded significantly in international markets by signing innovative network-to-network agreements. Our current "net-to-net" partners include UnionPay (China), JCB (Japan), BC Card (Korea), RuPay (India), ATH (Puerto Rico), and others.

In 2012, we expanded our relationship with Russian Standard Bank, which was already a partner as a Diners Club International franchise, and is now going to
issue Discover cards in Russia and Ukraine. In addition, we completed an agreement with Industrial and Commercial Bank of China to issue Diners Club cards in China.

We are also working closely with acquirer partners in the United States and around the world to continue increasing merchant acceptance. In the United States, we have increased the number of active merchants by $47 \%$ since 2006. In international markets, we have widened our acceptance footprint substantially over the past few years to include many of the top 25 travel destinations worldwide. Cardmembers also can now enjoy unprecedented cash access at more than 850,000 ATMs in more than 100 countries around the world.

In our PULSE ATM/debit network, we achieved continued volume growth in 2012, and we are innovating to respond to competitive challenges in the debit market. For example, PULSE is promoting Discover Debit, a signature debit product with broad national acceptance, a competitive rate and fee structure, and flexibility to customize the front of the card with a focus on the issuer's brand.

## The Power of a Brand

Over the past several years, your company has demonstrated the power of the Discover brand. We have expanded our product offerings and market share in direct banking. We have grown in the payments industry by being the best partner in the industry. We have produced
record financial results and strong returns to shareholders. And we have received awards and recognition from many organizations, including being ranked \#1 in customer loyalty among leading credit card brands for 16 years in a row by Brand Keys, among the best in identity fraud resolution in Javelin Strategy \& Research's Eighth Annual Card Issuer's Safety Scorecard Report, and winner of the 2012 Call Center Excellence Award by IQPC.

The Discover brand is also strong in our communities. In 2012, employees volunteered 40,000 hours and Discover donated millions of dollars to nearly 1,500 non-profit organizations, including $\$ 3$ million in grants to schools as part of Pathway to Financial Success, Discover's five-year commitment to bring financial education into America's public high
schools. For more information, see the Corporate Responsibility section of www.discoverfinancial.com.

Discover is backed by a dedicated and diverse group of employees, and by many others who have contributed to the strength of our brand-including our loyal customers, our business partners, our shareholders, and our talented Board of Directors. Thank you all for helping to make Discover one of the strongest and most reputable brands in financial services. Together, we will continue to build on our brand as we focus on being the leading direct bank and payments partner.

## Daid Nemom

## David Nelms

Chairman and Chief Executive Officer February 15, 2013

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION 

Washington, D.C. 20549
FORM 10-K
(Mark One)
$\boxtimes$ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended November 30, 2012
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)
2500 Lake Cook Road, Riverwoods, Illinois 60015
(Address of principal executive offices, including zip code)

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

## Title of each class

Common Stock, par value $\$ 0.01$ per share Depositary Shares, each representing 1/40th interest in a share of Fixed Rate Non-Cumulative Perpetual Preferred

Stock, Series B, par value $\$ 0.01$ per share

36-2517428
(I.R.S. Employer Identification No.)
(224) 405-0900
(Registrant's telephone number, including area code)

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes $\boxtimes \quad$ No $\square$
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes $\square$ No $\boxtimes$
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 $\boxtimes$ No

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. $\boxtimes$

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

Large accelerated filer $\boxtimes$
Non-accelerated filer $\square$ (Do not check if a smaller reporting company)

Accelerated filer
Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes $\square$ No $\boxtimes$
The aggregate market value of the common equity held by non-affiliates of the registrant on the last business day of the registrant's most recently completed second fiscal quarter was approximately $\$ 17,034,420,270$.

As of January 18, 2013, there were 497,503,969 shares of the registrant's Common Stock, par value $\$ 0.01$ per share, outstanding.

## DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for its annual stockholders' meeting to be held on April 17, 2013 are incorporated by reference in Part III of this Form 10-K.

## DISCOVER FINANCIAL SERVICES

## Annual Report on Form 10-K for the year ended November 30, 2012

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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.

[^3]
## Part l. | Item 1. Business

## Introduction

Discover Financial Services is a direct banking and payment services company. We are a bank holding company under the Bank Holding Company Act of 1956 and a financial holding company under the Gramm-Leach-Bliley Act, subject to oversight, regulation and examination by the Board of Governors of the Federal Reserve System (the "Federal Reserve"). We offer credit cards, student loans, personal loans and deposit products through our Discover Bank subsidiary and home loans through our Discover Home Loans, Inc. subsidiary ("Discover Home Loans"). We had $\$ 61.0$ billion in loan receivables and $\$ 27.9$ billion in deposits issued through direct-to-consumer channels and affinity relationships at November 30, 2012. We operate the Discover Network, our credit card payments network; the PULSE network ("PULSE"), our automated teller machine ("ATM"), debit and electronic funds transfer network; and Diners Club International ("Diners Club"), our global payments network.

On June 6, 2012, we acquired, through our subsidiary, Discover Home Loans, substantially all of the operating and related assets and certain liabilities of Home Loan Center, Inc. ("Home Loan Center"), a subsidiary of Tree.com, Inc. ("Tree.com"), adding a residential mortgage lending component to our direct banking business. In exchange for the net assets acquired, we paid an aggregate of $\$ 49$ million, including payments made prior to the closing that were applied to the closing price. An additional $\$ 10$ million of purchase price will be due from us on the first anniversary of the closing, subject to certain conditions being satisfied.

On December 3, 2012, our board of directors approved a change in our fiscal year end from November 30 to December 31 of each year. The fiscal year change is effective beginning with our 2013 fiscal year, which began on January 1, 2013 and will end on December 31, 2013. As a result of the change, we will have a December 2012 fiscal month transition period, the results of which we will separately report in our quarterly report on Form 10-Q for the quarter ending March 31, 2013 and in our annual report on Form 10-K for the year ending December 31, 2013.

We were incorporated in Delaware in 1960. Our principal executive offices are located at 2500 Lake Cook Road, Riverwoods, Illinois 60015 . Our main telephone number is (224) 405-0900.

## Available Information

We make available, free of charge through the investor relations page of our internet site www.discoverfinancial.com, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements, Forms 3,4 and 5 filed by or on behalf of directors and executive officers, and any amendments to those documents filed with or furnished to the Securities and Exchange Commission (the "SEC") pursuant to the Securities Exchange Act of 1934. These filings are available as soon as reasonably practicable after they are filed with or furnished to the SEC.

In addition, the following information is available on the investor relations page of our internet site: (i) our Corporate Governance Policies; (ii) our Code of Ethics and Business Conduct; and (iii) the charters of the Audit and Risk, Compensation and Leadership Development, and Nominating and Governance Committees of our board of directors. These documents are also available in print without charge to any person who requests them by writing or telephoning our principal executive offices: Discover Financial Services, Office of the Corporate Secretary, 2500 Lake Cook Road, Riverwoods, Illinois 60015, U.S.A., telephone number (224) 405-0900.

## Operating Model

We manage our business activities in two segments: Direct Banking and Payment Services. Our Direct Banking segment includes Discover card-branded credit cards issued to individuals and small businesses on the Discover Network and other consumer banking products and services, including private student loans, personal loans, home loans, prepaid cards and other consumer lending and deposit products. Our Payment Services segment includes PULSE, Diners Club and our network partners (formerly "third-party issuers") business, which includes credit, debit and prepaid cards issued on the Discover Network by third parties.

We are principally engaged in providing products and services to customers in the United States, although the royalty and licensee revenue we receive from Diners Club licensees is mainly derived from sources outside of the United States. For quantitative information concerning our geographic distribution, see Note 5: Loan Receivables to our consolidated financial statements, and for quantitative information concerning our royalty revenue, see Note 15: Other Income and Other Expense.

Below are descriptions of the principal products and services of each of our reportable segments. For additional financial information relating to our business and our operating segments, see Note 23: Segment Disclosures to our consolidated financial statements.

## Direct Banking

Set forth below are descriptions of our credit cards, student loans, personal loans, home loans and deposit products. For additional information regarding the terms and conditions of these products, see "- Product Terms and Conditions."

## Credit Cards

We offer credit cards to consumers and small businesses. Our credit card customers are permitted to "revolve" their balances and repay their obligations over a period of time and at an interest rate set forth in their cardmember agreements, which may be either fixed or variable. The interest that we earn on revolving credit card balances makes up approximately $86 \%$ of our total interest income. We also charge customers other fees, including fees for late payments, balance transfer transactions and cash advance transactions.

Our credit card customers' transactions in the U.S. are processed over the Discover Network. Where we have a direct relationship with a merchant, which is the case with respect to our large merchants representing a majority of Discover card sales volume, we receive discount and fee revenue from merchants. Discount and fee revenue is based on pricing that is set forth in contractual agreements with each such merchant and is based on a number of factors including industry practices, special marketing arrangements, competitive pricing levels and merchant size. Where we do not have a direct relationship with a merchant, we receive acquirer interchange and assessment fees from the merchant acquirer that settles transactions with the merchant. The amount of this fee is based on a standardized schedule and can vary based on the type of merchant or type of card (e.g., consumer or business).

Most of our cards offer the Cashback Bonus rewards program, the costs of which we record as a reduction of discount and interchange revenue. See "Marketing - Rewards/Cashback Bonus" for further discussion of our programs offered.

The following chart* shows the Discover card transaction cycle as processed on the Discover Network:


1. Cardmember makes purchase
of Merchant accepting Discover

## Direct Merchant

2. Merchant submits transaction to Discover
3. Discover reimburses Merchant for amount of transaction less fees (skip to step 8)
Indirect Merchant
4. Merchant submits transaction to Acquirer
5. Acquirer reimburses Merchant for amount of transaction less discount fee
6. Acquirer submits transaction to Discover
7. Discover reimburses Acquirer for amount of transaction less acquirer interchange fee
8. Discover bills Cardmember for amount of transaction
9. Cardmember makes payment to Discover
"This is a simplified illustration of a lypical credit card ransaction. It does not reflect certain operotions and assessment fees, cosh or balance transfer transactions, authorizations, disputes or other specifics.

## Student Loans

Our private student loans are available to students attending non-profit four-year undergraduate and graduate schools. We encourage students to borrow responsibly and maximize grants, scholarships and other free financial aid before taking student loans and to consider federal loans before applying for a private loan. We began providing both federal and private student loans in 2007. In 2010, Congress enacted the Healthcare and Education Reconciliation Act, which required that all new federal student loans be originated by the federal government. We sold the majority of our federal loan porffolio in 2010 with subsequent sale of the remaining porffolio in 2012. We accelerated our growth and market share in private student loans when we acquired The Student Loan Corporation ("SLC") in 2010 and additional private student loans from Citibank, N.A. ("Citibank") in 2011.

We currently offer fixed and variable rate private student loans originated by Discover Bank. We market our student loans online and through direct mail and e-mail to existing and potential customers. We also work with school financial aid offices to market our student loans to students. Students can apply for our student loans online, by phone, or by mail, and we have dedicated staff within our call centers to service student loans. All applicants are encouraged to apply with a creditworthy cosigner, which may improve the likelihood for loan approval and a lower interest rate.

As part of the loan approval process, all of our student loans for undergraduate and graduate school are certified and disbursed through the school to ensure students do not borrow more than they need. Upon graduation, students with variable rate loans are generally eligible to receive a graduation reward. Students may redeem their graduation reward as a credit to the balance of any of their Discover student loans or as a direct deposit to a bank account.

## Personal Loans

Our personal loans are unsecured loans with fixed interest rates, terms and payments. These loans are primarily intended to help customers consolidate existing debt, although they can be used for other reasons. We generally market personal loans to our existing credit card customers through direct mail, statement inserts and email. We also market personal loans to non-Discover customers through direct mail. Customers can submit applications via phone, online or through the mail, and can service their accounts online or by phone.

## Home Loans

We offer home mortgage loans and related services to help consumers finance home purchases and refinance existing home mortgages. We offer prime variable, fixed-rate conventional, and Federal Housing Administration ("FHA") loans to qualified applicants. We generally market home loans to existing Discover customers through direct mail, e-mail, statement envelopes and inserts, and advertising on Discover websites. We also market home loans to non-Discover customers through internet advertising, including search engine marketing, display banners, internet lead aggregators, rate tables on financial websites, and social media. Consumers can apply for or obtain information about home loans by mail or online, or they can speak directly to a dedicated mortgage banker over the phone. Loans are funded and closed using proceeds principally from borrowings under a third-party warehouse line of credit. Substantially all funded loans and the related loan servicing rights are sold to investors in the secondary market, generally within 30 days of funding. The proceeds from such sales are used to repay borrowings under the warehouse line of credit. In addition to funding loans, we offer escrow and title services to home loan customers. For more information regarding our warehouse line of credit, see "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources - Funding Sources - Short-Term Borrowings."

## Deposits

We obtain deposits from consumers directly or through affinity relationships ("direct-to-consumer deposits") and through third-party securities brokerage firms that offer our deposits to their customers ("brokered deposits"). Our deposit products include certificates of deposit, money market accounts, savings accounts and Individual Retirement Account ("IRA") certificates of deposit. We market our direct-to-consumer deposit products to our existing customer base and other prospective customers through the use of our website, print materials, affinity arrangements with third parties and internet advertising. Customers can apply for, fund, and service their deposit accounts online or via phone, where we have a dedicated staff within our call centers to service deposit accounts. For more information regarding our deposit products, see "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources - Funding Sources - Deposits."

## Payment Services

Set forth below are descriptions of PULSE, Diners Club and our network partners (formerly "third-party issuers") business, which includes credit, debit and prepaid cards issued on the Discover Network by third parties.

## PULSE Network

Our PULSE network is one of the nation's leading ATM/debit networks. PULSE links cardholders of approximately 6,100 financial institutions with ATMs and point-of-sale ("POS") terminals located throughout the United States. This includes more than 4,100 financial institutions with which PULSE has direct relationships and approximately 2,000 additional financial institutions through agreements PULSE has with other debit networks. PULSE also provides cash access at more than 850,000 ATMs in over 100 countries.

PULSE's primary source of revenue is transaction fees charged for switching and settling ATM, personal identification number ("PIN") POS debit and signature debit transactions initiated through the use of debit cards issued by participating financial institutions. In addition, PULSE offers a variety of optional products and services that produce income for the network, including signature debit transaction processing, debit card fraud detection and risk mitigation services, and connections to other regional and national electronic funds transfer networks.

When a financial institution joins the PULSE network, debit cards issued by that institution are eligible to be used at all of the ATMs and PIN POS debit terminals that participate in the PULSE network, and the PULSE mark can be used on that institution's debit cards and ATMs. In addition, financial institution participants may sponsor merchants, direct processors and independent sales organizations to participate in the PULSE PIN POS and ATM debit service. A participating financial institution assumes liability for transactions initiated through the use of debit cards issued by that institution, as well as for ensuring compliance with PULSE's operating rules and policies applicable to that institution's debit cards, ATMs and, if applicable, sponsored merchants, direct processors and independent sales organizations.

When PULSE enters into a network-to-network agreement with another debit network, the other network's participating financial institutions' debit cards can be used at terminals in the PULSE network. PULSE does not have a direct relationship with these financial institutions and the other network bears the financial responsibility for transactions of those financial institutions' cardholders and for ensuring compliance with PULSE's operating rules.

## Diners Club

Our Diners Club business maintains an acceptance network in over 185 countries and territories through its relationships with over 80 licensees, which are generally financial institutions. We generally do not directly issue Diners Club cards to consumers, but grant our licensees the right to issue Diners Club branded cards and/or provide card acceptance services. Our licensees pay us royalties for the right to use the Diners Club brand, which is our primary source of Diners Club revenues. We also earn revenue from providing various support services to our Diners Club licensees, including processing and settlement of cross border transactions. We also provide a centralized service center and internet services to our licensees.

When Diners Club cardholders use their cards outside the host country or territory of the issuing licensee, transactions are routed and settled over the Diners Club network through its centralized service center. In order to increase merchant acceptance in certain targeted countries and territories, we work with merchant acquirers to offer Diners Club and Discover acceptance to their merchants. These acquirers are granted licenses to market the Diners Club brands to existing and new merchants. As we continue to work toward achieving full card acceptance across our networks, Discover customers are using their cards at an increasing number of merchant and ATM locations that accept Diners Club cards around the world. Diners Club cardholders with cards issued by licensees outside of North America continue to use their cards on the Discover Network in North America and on the PULSE and Diners Club network domestically and internationally.

## Network Partners Business

We have agreements related to issuing credit, debit and prepaid cards with a number of other financial institutions or networks for issuance of card products on the Discover Network. We refer to these financial institutions as "network partners" (formerly "third-party issuers"). We earn merchant discount and acquirer interchange revenue, net of issuer interchange paid, plus assessments and fees for processing transactions for network partners who issue signature cards on the Discover Network.

The following chart* shows the network partner transaction cycle:


The discussion below provides additional detail concerning the supporting functions of our two segments. The credit card, student loan, personal loan, home loan and deposit products issued through our Direct Banking segment require significant investments in credit risk management, marketing, customer service and technology, whereas the operation of the Discover Network and our Payment Services business requires that we invest in technology as well as relationships with issuers, merchants and merchant acquirers.

## Credit Risk Management

Credit risk management is a critical component of our management and growth strategy. Credit risk refers to the risk of loss arising from borrower default when borrowers are unable or unwilling to meet their financial obligations to us. Our credit risk arising from consumer lending products is generally highly diversified across millions of accounts without significant individual exposures. We manage risk primarily according to customer segments and product types. See "Risk Management" for more information regarding how we define and manage our credit and other risks.

## Account Acquisition (New Customers)

We acquire new credit card customers through our marketing efforts, including direct mail, internet, media advertising and merchant or partner relationships, or through unsolicited individual applications. We also acquire new student loan, personal loan and home loan customers through similar targeted marketing efforts, although student and home loan customers may also submit unsolicited individual applications. In all cases, we believe that we have a rigorous process for screening applicants.

To identify credit-worthy prospective customers, our credit risk management team uses proprietary targeting and analytical models and our marketing team matches them with our product offerings. We consider the prospective customer's financial stability, as well as ability and willingness to pay. In order to make the best use of our resources to acquire new accounts, we seek production efficiencies, conduct creative testing, and aim to continuously improve our product offerings and enhance our targeting and analytical models.

We assess the creditworthiness of each consumer loan applicant through our underwriting process. We evaluate prospective customers' applications using credit information provided by the credit bureaus and other sources. We use credit scoring systems, both externally developed and proprietary, to evaluate consumer and credit bureau data. For our unsecured lending products, we also use experienced credit underwriters to supplement our automated decision-making processes. For our home loan products, experienced credit underwriters must review and approve each application.

Upon approval of a customer's application for one of our unsecured lending products, we assign a specific annual percentage rate ("APR") using an analytical pricing strategy that provides competitive pricing for customers and seeks to maximize revenue on a risk-adjusted basis. For our credit card loans, we also assign a revolving credit line based on risk level and expected return.

## Porffolio Management (Existing Customers)

The revolving nature of our credit card loans requires that we regularly assess the credit risk exposure of such accounts. This assessment reflects information relating to the performance of the individual's Discover account as well as information from credit bureaus relating to the customer's broader credit performance. We utilize statistical evaluation models to support the measurement and management of credit risk. At the individual customer level, we use custom risk models together with generic industry models as an integral part of the credit decision-making process. Depending on the duration of the customer's account, risk profile and other performance metrics, the account may be subject to a range of account management treatments, including limits on transaction authorization and increases or decreases in purchase and cash credit limits. Our installment loans are billed according to an amortization schedule that is calculated at the time of the disbursement of the loan and, in the case of student loans, at the time the loan enters repayment.

## Customer Assistance

We provide our customers with a variety of tools to proactively manage their accounts, including electronic payment reminders and a website dedicated to customer education, as further discussed under the heading "-Customer Service." These tools are designed to limit a customer's risk of becoming delinquent. When a customer's account becomes delinquent or is at risk of becoming delinquent, we employ a variety of strategies to assist customers in becoming current on their accounts.

All monthly billing statements of accounts with past due amounts include a request for payment of such amounts. Customer assistance personnel generally initiate contact with customers within 30 days after any portion of their balance becomes past due. The nature and the timing of the initial contact, typically a personal call or letter, are determined by a review of the customer's prior account activity and payment habits.

We re-evaluate our collection efforts and consider the implementation of other techniques, including internal collection activities and use of external vendors, as a customer becomes increasingly delinquent. We limit our exposure to delinquencies through controls within our process for authorizing transactions and credit limits and criteria-based account suspension and revocation. In situations involving customers with financial difficulties, we may enter into arrangements to extend or otherwise change payment schedules, lower interest rates and/or waive fees to aid customers in becoming current on their obligations to us.

## Marketing

In addition to working with our credit risk management personnel on account acquisition and porffolio management, our marketing group provides other key functions, including product development, management of our Cashback Bonus and other rewards programs, protection product management, and brand and advertising management.

## Product Development

In order to attract and retain customers and merchants, we continue to develop new programs, features, and benefits and market them through a variety of channels, including mail, phone and online. Targeted marketing efforts may include balance transfer offers and reinforcement of our Cashback Bonus and other rewards programs. Through the development of a large prospect database, use of credit bureau data and use of a customer contact strategy and management system, we have been able to improve our modeling and customer engagement capabilities, which helps optimize product, pricing and channel selection.

## Rewards / Cashback Bonus

Our cardmembers use several card products that allow them to earn their rewards based on how they want to use credit, as set forth below.

- Discover it card offers 5\% Cashback Bonus in categories that change throughout the year up to a quarterly maximum (signing up is required) and $1 \%$ Cashback Bonus on all other purchases, as well as other benefits.
- Discover More card offers 5\% Cashback Bonus in categories that change throughout the year up to a quarterly maximum (signing up is required) and up to $1 \%$ Cashback Bonus" on all other purchases.
- Discover Open Road card offers 2\% Cashback Bonus on the first $\$ 250$ in gas and restaurant purchases each billing period and up to $1 \%$ Cashback Bonus" on all other purchases.
- Discover Motiva card provides customers with Cashback Bonus equal to $5 \%$ of their interest charges each month for making on-time payments and up to $1 \%$ Cashback Bonus* on all purchases.
- Miles by Discover customers receive two miles for every $\$ 1$ on the first $\$ 3,000$ in travel and restaurant purchases each year and one mile for every $\$ 1$ on all other purchases.
- Escape by Discover customers earn two miles for every $\$ 1$ on all purchases. This card has a $\$ 60$ annual fee.
- Discover Business card offers 5\% Cashback Bonus on the first \$2,000 in office supply purchases, 2\% Cashback Bonus on the first $\$ 2,000$ in gas purchases each year and up to $1 \%$ Cashback Bonus" on all other purchases.
* Up to $1 \%$ Cashback Bonus is based upon a customer's spending level and type of purchase. Customers earn $.25 \%$ on their first $\$ 3,000$ in annual purchases and on all purchases made at select warehouse clubs, wholesale distributors, discount stores and their affiliates. Customers earn $1 \%$ once their total qualified annual purchases exceed $\$ 3,000$.

Customers can earn 5-20\% Cashback Bonus at over 200 online retailers when they shop through our exclusive online shopping portal, ShopDiscover. Miles by Discover customers earn double miles for their purchases made at retailers through ShopDiscover.

Customers who are not delinquent or otherwise disqualified may pay with Cashback Bonus by redeeming instantly at select retailers in any dollar amount. They can also redeem their Cashback Bonus for (i) brand-name merchandise with free shipping in any dollar amount; (ii) merchant partner gift cards (starting at \$20) that add $\$ 5$ or more to their reward; (iii) Discover giff cards (starting at \$20); or (iv) charitable donations to select charities (starting at \$20). Cashback Bonus can be redeemed (starting at and in increments of $\$ 50$ ) in the form of a statement credit or direct deposit to a bank account.

Miles by Discover customers who are not delinquent or otherwise disqualified may pay with miles by redeeming instantly for select retailers in any amount. Miles can also be redeemed for brand-name merchandise with free shipping starting at 2,000 miles, travel credits starting at 10,000 miles, partner gift cards starting at 1,000 miles, Discover gift cards starting at 5,000 miles, cash in the form of statement credits or direct deposit to a bank account starting at 5,000 miles, or charitable donations starting at 5,000 miles.

## Protection Products

We currently service and maintain existing enrollments in the following protection products for our credit card customers. Although we suspended new sales of these products to consumers at the end of 2012, we may resume offering these products later this year.

- Identity Theft Protection. The most comprehensive identity theft monitoring product we offer includes an initial credit report, credit bureau report monitoring, prompt alerts that help customers spot possible identity theft quickly, identity theft insurance up to $\$ 25,000$ to cover certain out-of-pocket expenses due to identity theft, and access to knowledgeable professionals who can provide information about identity theft issues.
- Payment Protection. This product allows customers to suspend their payments for up to two years, depending on the product, in the event of certain covered events. Different products cover different events, such as unemployment, disability, natural disasters or other life events, such as marriage or birth of a child. Depending on the product and availability under state laws, outstanding balances up to certain amounts are cancelled in the event of death.
- Wallet Protection. This product offers one-call convenience if a customer's wallet is lost or stolen, including requesting cancellation and replacement of the customer's credit and debit cards, monitoring the customer's credit bureau reports for 180 days, providing up to $\$ 100$ to replace the customer's wallet and, if needed, giving the customer up to a $\$ 1,000$ cash advance on his or her Discover card account.
- Credit ScoreTracker. This product offers customers resources that help them understand and monitor their credit scores. Credit ScoreTracker is specifically designed for score monitoring by alerting customers when their score changes, allowing customers to set a target score, and providing resources to help customers understand the factors that may be influencing their scores.

In addition to the protection products above, our credit card customers can purchase online service warranties from our extended warranty provider to protect purchases of new electronics and appliances as well as certain other purchases.

## Brand and Advertising Management

We maintain a full-service marketing department charged with delivering integrated mass and direct communications to foster customer engagement with our products and services. Our brand team utilizes consumer insights and market intelligence to define our mass communication strategy, create multi-channel advertising messages and develop marketing partnerships with sponsorship properties. This work is performed in house as well as with a variety of external agencies and vendors.

## Customer Service

Our customers can contact our customer service personnel by calling 1-800-Discover. Credit card customers also can manage their accounts online or through applications for certain mobile devices. Our internet and mobile solutions offer a range of benefits, including:

- Online account services that allow customers to customize their accounts, choose how and when they pay their bills, create annual account summaries that assist them with budgeting and taxes, research transaction details, initiate transaction disputes, and chat with or email a customer representative;
- Email and mobile text reminders to help customers avoid fees and track big purchases or returns;
- Money management tools like the Spend Analyzer, Paydown Planner and Purchase Planner;
- Secure online account numbers that let customers shop online without ever revealing their actual account numbers; and
- An online portal where customers automatically earn 5-20\% Cashback Bonus when they shop at well-known online merchants using their Discover card.

Our student loan, personal loan and deposit product customers can utilize our online account services to manage their accounts, and to use interactive tools and calculators. For the home loan origination process, we have an online portal for home loan customers to educate themselves on the home loan process, monitor the status of their loans prior to funding, upload documents, and e-sign initial loan documents.

## Processing Services

Our processing services cover four functional areas: card personalization/embossing, print/mail, remittance processing and document processing. Card personalization/embossing is responsible for the embossing and mailing of plastic credit cards for new accounts, replacements and reissues, and gift cards. Print/mail specializes in statement and lefter printing and mailing for merchants and customers. Remittance processing, currently a function outsourced to thirdparty vendors, handles account payments and check processing. Document processing handles hard-copy forms, including new account applications.

## Fraud Prevention

We monitor our customers' accounts to prevent, detect, investigate and resolve fraud. Our fraud prevention processes are designed to protect the security of cards, applications and accounts in a manner consistent with our customers' needs to easily acquire and use our products. Prevention systems handle the authorization of application information, verification of customer identity, sales, processing of convenience and balance transfer checks, and electronic transactions.

Each credit card transaction is subject to screening, authorization and approval through a proprietary POS decision system. We use a variety of techniques that help identify and halt fraudulent transactions, including adaptive models, rules-based decision-making logic, report analysis, data integrity checks and manual account reviews. We manage accounts identified by the fraud detection system through technology that integrates fraud prevention and customer service. Strategies are subject to regular review and enhancement to enable us to respond quickly to changing conditions as well as to protect our customers and our business from emerging fraud activity.

## Product Terms and Conditions

## Credit Cards

The terms and conditions governing our credit card products vary by product and change over time. Each credit card customer enters into a cardmember agreement governing the terms and conditions of the customer's account. Discover
card's terms and conditions are generally uniform from state to state. The cardmember agreement permits us, to the extent permitted by law, to change any term of the cardmember agreement, including any finance charge, rate or fee, or add or delete any term of the cardmember agreement, with notice to the customer as required by law. The customer has the right to opt out of certain changes of terms and pay their balance off under the unchanged terms. Each cardmember agreement provides that the account can be used for purchases, cash advances and balance transfers. Each Discover card account is assigned a credit limit when the account is initially opened. Thereafter, individual credit limits may be increased or decreased from time to time, at our discretion, based primarily on our evaluation of the customer's creditworthiness. We offer various features and services with the Discover card accounts, including the Cashback Bonus rewards programs described under "- Marketing - Rewards/Cashback Bonus."

All Discover card accounts generally have the same billing structure, though there are some differences between the consumer and business credit cards. We generally send a monthly billing statement to each customer who has an outstanding debit or credit balance. Customers also can waive their right to receive a physical copy of their bill, in which case they will receive email notifications of the availability of their billing statement online. Discover card accounts are grouped into multiple billing cycles for operational purposes. Each billing cycle has a separate billing date, on which we process and bill to customers all activity that occurred in the related accounts during a period of approximately 28 to 32 days that ends on the billing date.

Discover card accounts are assessed periodic finance charges using fixed and/or variable interest rates. Certain account balances, such as balance transfers, may accrue periodic finance charges at lower fixed rates for a specified period of time. Variable rates are indexed to the highest prime rate published in The Wall Street Journal on the last business day of the month. Periodic finance charges are calculated using the daily balance (including current transactions) method, which results in daily compounding of periodic finance charges, subject to a grace period on new purchases. The grace period essentially provides that periodic finance changes are not imposed on new purchases, or any portion of a new purchase, that is paid by the due date on the customer's current billing statement if the customer paid the balance on his or her previous billing statement in full by the due date on that statement. Neither cash advances nor balance transfers are subject to a grace period.

Each customer with an outstanding debit balance on his or her Discover card account must generally make a minimum payment each month. If a customer exceeds his or her credit limit as of the last day of the billing period, we may include all or a portion of this excess amount in the customer's minimum monthly payment. A customer may pay the total amount due at any time. We also may enter into arrangements with delinquent customers to extend or otherwise change payment schedules, and to waive finance charges and/or fees, including re-aging accounts in accordance with regulatory guidance.

In addition to periodic finance charges, we may impose other charges and fees on Discover card accounts, including cash advance transaction fees, late fees where a customer has not made a minimum payment by the required due date, balance transfer fees and returned payment fees. We also charge fees each time we decline to honor a balance transfer check, cash advance check, or other promotional check due to such reasons as insufficient credit availability, delinquency or default.

The Credit Card Accountability Responsibility and Disclosure Act of 2009 (the "CARD Act") required us, beginning February 2011, to review, every six months, certain interest rates that were increased on accounts since January 1, 2009 to determine whether to reduce the interest rate based on the factors that prompted the increase or factors we currently consider in determining interest rates applicable to similar new credit card accounts. The amount of any rate decrease must be determined based upon our reasonable policies and procedures. Any reduced interest rate must be applied to the account not later than 45 days after completion of the review.

## Student Loans

The terms and conditions governing our student loans vary by product and are specified in the borrower's promissory note and disclosures. Each borrower signs a promissory note and separately accepts the loan terms during the application process. Student loans feature zero origination fees, fixed or variable interest rates, and a $2 \%$ graduation reward for certain types of loans. Student loans have a deferment period during which borrowers are not required to make payments while enrolled in school at least half time. This period begins on the date the loan is first disbursed and
ends six to nine months after the borrower ceases to be enrolled in school at least half time. When the repayment period begins, multiple student loans may be grouped for combined billing on one monthly statement. The standard repayment period is 15 to 20 years, depending on the type of student loan. Borrowers can choose to receive electronic communications, in which case they will receive e-mail notifications of the availability of their monthly billing statements online. There is no prepayment penalty, and borrowers may choose to apply any excess payments toward principal or their next monthly payments.

We calculate interest on a daily basis on the outstanding principal loan balance until the loan is paid in full. The interest rate will never be higher than the maximum allowed by law, as stated in the promissory note and disclosures. If a student loan has a variable interest rate, it is equal to a variable index (e.g., based on the prime rate, LIBOR or T-Bill) plus a fixed margin assigned to the loan during origination. Variable interest rates may adjust quarterly if the index changes, causing the monthly payment amount, the number of scheduled monthly payments, or both, to increase or decrease. We notify borrowers of any changes in the interest rate as required by law. We may impose other charges, including late charges when a customer has not made a minimum payment by the required due date, and a returned check charge.

## Personal Loans

The terms and conditions governing personal loans are set at the time the loan is accepted and generally do not change for the life of the loan. Personal loan account terms and conditions are generally uniform from state to state. All personal loan accounts generally have the same billing structure. Customers receive monthly statements approximately 20 days prior to payment due dates. The statement provides detail on all transactions processed since the last statement was generated, as well as a summary of the current amount due. Customers also can waive their right to receive physical copies of their bills, in which case they will receive email notifications of the availability of their billing statements online. Personal loan accounts are assessed periodic finance charges using simple interest. We may impose other charges, including late charges when a customer has not made a minimum payment by the required due date, and a returned check charge. There is no prepayment penalty for repaying a personal loan balance in full prior to the scheduled maturity date.

## Deposits

We offer three main types of deposit products directly to consumers on a national basis: certificates of deposit, savings accounts, and money market accounts. All of these deposits are FDIC-insured to the maximum extent permitted by law. Interest is compounded daily and credited monthly for each account, using the daily balance method and daily periodic rates. We offer a range of ownership options, including single, joint, trust and custodial. Deposit accounts may be funded through electronic fund transfer, check or wire transfer. Customers may access account servicing through a variety of convenient methods, including online at www.discoverbank.com, mobile device applications, and by telephone.

Certificates of deposit are offered on a full range of tenors from three months through 10 years with interest rates that are fixed for the full period. We offer automatic renewal along with options on reinvestment or disbursement of interest. There are minimum balance requirements to open accounts and penalties for early withdrawals. Certificates of deposit are offered with interest that is taxable either in the current year or deferred through either traditional or Roth IRA structures. Money market accounts are transactional accounts with minimum balance requirements. Money market account funds may be accessed through electronic fund transfer, checks, wire transfer and debit cards. Savings accounts may be accessed through electronic fund transfer, wire transfer and official checks. Money market accounts and savings accounts have limitations on withdrawal frequency, as required by law. Interest rates on money market accounts and savings accounts are subject to change at any time. Fees apply to some transactions, and availability of funds varies based on product and method of funding.

We also issue certificates of deposit through select contracted brokerage firms. All of these deposits are also FDICinsured to the maximum extent permitted by law. All settlements occur through the Depository Trust Company. Tenors issued, interest, and commission rates are determined weekly with typical tenor issuances of six months to five years. Simple interest is applied to brokered certificates of deposit. At any given time, we may choose to not issue these certificates of deposit or to issue only certain tenors in a given week. Early redemption of these certificates occurs only at maturity or in the event of death.

## Discover Nełwork Operations

We support our growing base of merchants through a merchant acquiring model that includes direct relationships with large merchants in the United States and arrangements with merchant acquirers for small- and mid-size merchants. In
addition to our U.S.-based merchant acceptance locations, Discover Network cards also are accepted at many locations in Canada, Mexico, the Caribbean, China, Japan and a growing number of countries around the world on the Diners Club network.

We maintain direct relationships with most of our largest merchant accounts, which enables us to benefit from joint marketing programs and opportunities and to retain the entire discount revenue from the merchants. The terms of our direct merchant relationships are governed by merchant services agreements. These agreements also are accompanied by additional program documents that further define our network functionality and requirements, including operating regulations, technical specifications and dispute rules. To enable ongoing improvements in our network's functionality and in accordance with industry convention, we publish updates to our program documents on a semi-annual basis. Discover card transaction volume was concentrated among our top 100 merchants in 2012, with our largest merchant accounting for approximately $8 \%$ of total Discover card transaction volume.

In order to increase merchant acceptance, Discover Network has sold the majority of its small and mid-size merchant porffolios to third-party merchant acquirers to allow such acquirers to offer a comprehensive payments processing package to such merchants. Merchants also can apply to our merchant acquirer partners directly to accept Discover Network cards through the acquirers' integrated payments solutions. Merchant acquirers provide merchants with consolidated servicing for Discover, Visa and MasterCard transactions, resulting in streamlined statements and customer service for merchants, and reduced costs for us. These acquirer partners also perform credit evaluations and screen applications against unacceptable business types and the Office of Foreign Asset Control Specifically Designated Nationals list.

Discover Network operates systems and processes that seek to prevent fraud and ensure compliance with our operating regulations. Our systems evaluate incoming transaction activity to identify abnormalities that require investigation and fraud mitigation. Designated Discover Network personnel are responsible for validating compliance with our operating regulations and law, including enforcing our data security standards and prohibitions against internet gambling and other illegal or otherwise unacceptable activities. Discover Network is a founding and current member of the Payment Card Industry Security Standards Council, LLC, and is working to expand the adoption of the Council's security standards globally for merchants and service providers that store, transmit or process cardholder data.

## Technology

We provide technology systems processing through a combination of owned and hosted data centers and the use of third-party vendors. These data centers support our payment networks, provide customers with access to their accounts, and manage transaction authorizations, among other functions. Discover Network works with a number of vendors to maintain our connectivity in support of POS authorizations. This connectivity also enables merchants to receive timely payment for their Discover Network card transactions.

Our approach to technology development and management involves both third-party and in-house resources. We use third-party vendors for basic technology services (e.g., telecommunications, hardware and operating systems) as well as for processing and other services for our direct banking and payment services businesses. We subject each vendor to a formal approval process to ensure that the vendor can assist us in maintaining a cost-effective and reliable technology plafform. We use our in-house resources to build, maintain and oversee some of our technology systems. We believe this approach enhances our operations and improves cost efficiencies.

## Seasonality

In our credit card business, we experience fluctuations in transaction volumes and the level of loan receivables as a result of higher seasonal consumer spending and payment patterns around the winter holidays, summer vacations and back-to-school periods. In our student loan business, our loan disbursements peak at the beginning of a school's academic semester or quarter. Although there is a seasonal impact to transaction volumes and the levels of credit card and student loan receivables, seasonal trends have not caused significant fluctuations in our results of operations or credit quality metrics between quarterly and annual periods.

Revenues in our Diners Club business are generally higher in the first half of the year as a result of Diners Club's tiered pricing system where licensees qualify for lower royalty rate tiers as cumulative volume grows during the course of the year.

## Competition

We compete with other consumer financial services providers and payment networks on the basis of a number of factors, including brand, reputation, customer service, product offerings, incentives, pricing and other terms. Our credit card business also competes on the basis of reward programs and merchant acceptance. We compete for accounts and utilization with cards issued by other financial institutions (including American Express, Bank of America, Capital One, JPMorgan Chase and Citi) and, to a lesser extent, businesses that issue their own private label cards or otherwise extend credit to their customers. In comparison to our largest credit card competitors, our strengths include cash rewards, conservative porffolio management and strong customer service. Competition based on cash rewards programs, however, has increased in the past two years. Our student loan product competes for customers with Sallie Mae and Wells Fargo, as well as other financial institutions that offer student loans. Our personal loan product competes for customers primarily with JPMorgan Chase, Capital One, Wells Fargo and Citi. Our home loan product competes for customers primarily with traditional lending institutions, namely Wells Fargo, Bank of America, JPMorgan Chase and Citi, which are also developing their own direct, online lending channels. Our home loan product also faces additional competition from direct lending websites owned and operated by other online lenders that originate the bulk of their loans through their websites or by phone.

Although our student and personal loan receivables have increased, our credit card receivables continue to represent most of our receivables. The credit card business is highly competitive. Some of our competitors offer a wider variety of financial products than we do, including automobile loans, which may currently position them better among customers who prefer to use a single financial institution to meet all of their financial needs. Some of our competitors enjoy greater financial resources, diversification and scale than we do, and are therefore able to invest more in initiatives to attract and retain customers, such as advertising, targeted marketing, account acquisitions and pricing competition in interest rates, annual fees, reward programs and low-priced balance transfer programs. In addition, some of our competitors have assets such as branch locations and co-brand relationships that may help them compete more effectively. Another competitive factor in the credit card business is the increasing use of debit cards as an alternative to credit cards for purchases.

Because most domestically issued credit cards, other than those issued on the American Express network, are issued on the Visa and MasterCard networks, most other card issuers benefit from the dominant market share of Visa and MasterCard. The former exclusionary rules of Visa and MasterCard limited our ability to attract merchants and credit and debit card issuers, contributing to Discover not being as widely accepted in the U.S. as Visa and MasterCard. Merchant acceptance of the Discover card has increased in the past several years, both in the number of merchants enabled for acceptance and the number of merchants actively accepting Discover. We continue to make investments in expanding Discover and Diners Club acceptance in key international markets where an acceptance gap exists.

In our payment services business, we compete with other networks for volume and to attract network partners to issue credit, debit and prepaid cards on the Discover, PULSE and Diners Club networks. We generally compete on the basis of customization of services and various pricing strategies, including incentives and rebates. We also compete on the basis of issuer fees, fees paid to networks (including switch fees), merchant acceptance, network functionality, customer perception of service quality, brand image, reputation and market share. The Diners Club and Discover networks' primary competitors are Visa, MasterCard and American Express, and PULSE's network competitors include Visa's Interlink, MasterCard's Maestro and First Data's STAR. American Express is a particularly strong competitor to Diners Club as both cards target international business travelers. As the payments industry continues to evolve, we are also facing increasing competition from new entrants to the market, such as online networks, telecom providers and other alternative payment providers, that leverage new technologies and a customer's existing deposit and credit card accounts and bank relationships to create payment or other fee-based solutions.

In our direct-to-consumer deposits business, we have acquisition and servicing capabilities similar to other direct competitors, including USAA, Ally Financial, American Express, Capital One (ING), Sallie Mae and Nationwide. We also compete with traditional banks and credit unions that source deposits through branch locations. We seek to differentiate our deposit product offerings on the basis of brand reputation, convenience, customer service and value.

For more information regarding the nature of and the risks we face in connection with the competitive environment for our products and services, see the following in "Risk Factors:" "-Legislative and regulatory reforms related to the debit
card market may have a significant impact on our PULSE network business. We currently expect competitor strategies following such reforms to result in fewer transactions being routed to PULSE and a decline in the rate of PULSE transaction volume growth," "- We face competition from other consumer financial service providers, and we may not be able to compete effectively, which could result in fewer customers and lower account balances and could materially adversely affect our financial condition, cash flows and results of operations," "- We incur considerable expenses in competing with other consumer financial service providers, and many of our competitors have greater financial resources than we do, which may place us at a competitive disadvantage and negatively affect our financial results;" "- We face competition from other operators of payment networks, and we may not be able to compete effectively, which could result in reduced transaction volume, limited merchant acceptance of our cards, limited issuance of cards on our networks by third parties and materially reduced earnings;" and "- An inability to accept or maintain deposits in the future could materially adversely affect our liquidity position and our ability to fund our business."

## Intellecłual Property

We use a variety of methods, such as trademarks, patents, copyrights and trade secrets, to protect our intellectual property. We also place appropriate restrictions on our proprietary information to control access and prevent unauthorized disclosures. Our Discover, PULSE and Diners Club brands are important assets, and we take steps to protect the value of these assets and our reputation.

## Employees

As of January 18, 2013, we employed approximately 13,009 individuals.

## Risk Management

The understanding, identification and management of risk are important elements to our success. Accordingly, we maintain a comprehensive risk management program to identify, measure, monitor, evaluate, manage and report on the principal risks we assume in conducting our activities. These risks include credit, market, liquidity, operational, compliance and legal, and strategic risks.

## Enterprise Risk Management Principles

Our enterprise risk management philosophy is to ensure that all relevant risks inherent in our business activities are appropriately identified, measured, monitored, evaluated, managed and reported. Our enterprise risk management philosophy is expressed through six key principles that guide our approach to risk management: comprehensiveness, accountability, independence, defined risk appetite and strategic limits, risk and control self assessment, and transparency.

Comprehensiveness. We seek to maintain a comprehensive framework for managing risk enterprise wide, including policies, risk management processes, monitoring and reporting. Our framework is designed to be comprehensive with respect to our reporting segments and their control and support functions, and it extends across all risk types.

Accountability. We structure accountability along the principles of risk management execution, oversight and independent validation. Our business units hold primary accountability for management of the risks to which their businesses are exposed. Our principles apply across all businesses and risk types.

Independence. We maintain independent risk and control functions including our corporate risk management, law and compliance, and internal audit departments. Our Corporate Risk Officer, who leads our corporate risk management department, is appointed by our board of directors and is accountable for providing an independent perspective on the risks to which we are exposed; how well management is identifying, assessing and managing risk; and the capabilities we have to manage risk across the enterprise.

Defined Risk Appetite and Strategic Limits. Our board of directors approves a risk appetite and strategic limit framework, which establishes an acceptable level of risk taking, considering desired financial returns and other objectives. To that end, management sets, maintains and enforces policies, as well as limits and escalation triggers, that are consistent with our risk appetite and strategic limits framework.

Risk and Control Self Assessment. Our Risk and Control Self Assessment (RCSA) program is designed to identify, selfassess, monitor and report risks and controls in our products, processes and systems, and is an integral part of our risk
management framework. As an enterprise risk management process, our overarching risk categories and related definitions are incorporated into the RCSA, and the risk governance structure is utilized for RCSA reporting. The entire process is subject to audit by our internal audit department with reporting to our Risk Committee and the Audit and Risk Committee of our board of directors.

Transparency. Our risk management framework seeks to provide transparency of exposures and outcomes and is core to our risk culture and operating style. We provide transparency through our risk committee structure, processes for escalating risk incidents, and risk reporting at each level, including quarterly reports to our Risk Committee and the Audit and Risk Committee of our board of directors.

## Risk Management Roles and Responsibilities

Responsibility for risk management is held at several different levels, including our board of directors, the Audit and Risk Committee of our board of directors, our Risk Committee, our Chief Executive Officer and senior executive officers, our Corporate Risk Officer, our corporate risk management department, our law and compliance department, and our internal audit department.

Board of Directors. Our board of directors is responsible for: (i) approval of certain risk management policies, (ii) approval of our risk appetite and strategic limit framework, (iii) oversight of our strategic plan, and (iv) appointment of our Corporate Risk Officer.

Audit and Risk Committee of our Board of Directors. The Audit and Risk Committee of our board of directors reviews reports from management on our enterprise-wide risk management program. The Committee also reviews with management the framework for assessing and managing our risk exposures and the steps management has taken to monitor and control such risk exposures. The Committee also reviews reports from management on the status of and changes to risk exposures, policies, procedures and practices.

Risk Committee. Our Risk Committee is an executive management-level committee, authorized by the Audit and Risk Committee of our board of directors and chaired by our Corporate Risk Officer, that provides a forum for our senior management team to review and discuss credit, market, liquidity, operational, legal and compliance, and strategic risks across the company and for each business unit. Risk Committee membership consists of all members of our Executive Committee and our Corporate Risk Officer. The Committee regularly reports through reports of our Corporate Risk Officer to the Audit and Risk Committee of our board of directors on risks and risk management. Our Risk Committee has formed a number of committees to assist it in carrying out its responsibilities. Each committee is guided by a charter that defines the mandates of the committee in further detail. These committees, made up of representatives from senior levels of management, escalate issues to our Risk Committee as necessary. These risk management committees include the Asset/ Liability Management Committee, the Capital Planning Committee, the Counterparty Credit Committee, the Discover Bank Credit Committee, the Discover Bank Pricing Committee, the Payment Services Steering Committee, the New Initiatives Committee, the Operational Risk Committee, the Privacy, Policy and Compliance Committee, and the Fair and Responsible Banking Committee.

Chief Executive Officer. Our Chief Executive Officer is ultimately responsible for our risk management. In that capacity, our Chief Executive Officer establishes our risk management culture and ensures the business operates in accordance with our risk culture. Our Corporate Risk Officer reports to our Chief Executive Officer.

Senior Executive Officers. Our senior executive officers are responsible for ensuring their business units operate within established risk limits. They are also responsible for identifying risks; explicitly considering risk when developing strategic plans, budgets and new products; and implementing appropriate risk controls when pursuing business strategies and objectives. Senior executive officers also coordinate with our corporate risk management department to produce relevant, sufficient, accurate and timely risk reporting that is consistent with the processes and methodology established by our corporate risk management department. In addition, our senior executive officers are responsible for ensuring that sufficient financial resources and qualified personnel are deployed to manage the risks inherent in our business activities.

Corporate Risk Officer. Our Corporate Risk Officer chairs our Risk Committee and manages our corporate risk management department. Our Corporate Risk Officer is responsible for establishing and implementing standards for the
identification, management and measurement of risk on an enterprise-wide basis, as well as for monitoring and reporting such risks.

Corporate Risk Management. Our corporate risk management department is led by our Corporate Risk Officer and supports business units by providing objective oversight of our risk profile and ensuring risks are managed as defined by policy. Our corporate risk management department also provides risk management tools and policies, and aggregates and reports our risks to our board of directors, the Audit and Risk Committee of our board of directors and our Risk Committee.

Law and Compliance Department. Our law and compliance department is responsible for establishing and maintaining a compliance program that includes compliance risk identification, assessment, policy development, monitoring, testing, training and reporting activities. Through collaboration with business units, our law and compliance department incorporates a commitment to compliance in our day-to-day activities. Our Chief Compliance Officer reports to our General Counsel.

Internal Audit Department. Our internal audit department is responsible for performing periodic, independent reviews and testing of compliance with our risk management policies and standards, performing assessments of the design and operating effectiveness of these policies and standards, and validating that all risk management controls are functioning as intended. The head of our internal audit department reports to the Audit and Risk Committee of our board of directors.

## Risk Appetite and Strategic Limit Structure

Our risk appetite and strategic limit structure establishes the amount of risk, on a broad level, that we are willing to accept in pursuit of shareholder value. It reflects our risk management philosophy and, in turn, influences our culture and operating style. Our determination of risk appetite and strategic limits is directly linked to our strategic planning process and is consistent with our aspirations and mission statement. Risk appetite expressions and strategic limits are categorized by risk type, cascade through our committees and business units, and are incorporated into business decisions, reporting and day-today business discussions. Our risk appetite expressions and strategic limits also serve as tools to preclude business activities that are inconsistent with our long-term goals. Our risk appetite and strategic limit structure is approved by our board of directors.

Management and our corporate risk management department monitor approved limits and escalation triggers to ensure that the business is operating within the expressed risk appetite and strategic limits. Risk limits are monitored and reported on to various risk committees and our board of directors, as appropriate. Through ongoing monitoring of risk exposures, management is able to identify appropriate risk response and mitigation strategies in order to react dynamically to changing conditions.

## Risk Categories

Our risk management program is organized around six major risk categories: credit risk, market risk, liquidity risk, operational risk, compliance and legal risk, and strategic risk. We evaluate the potential impact of a risk event on the company by assessing the financial impact, the impact to our reputation, the legal and regulatory impact, and the client/ customer impact. In addition, we have established various policies to help govern these risks.

Credit Risk. Credit risk arises from the potential that a borrower or counterparty will fail to perform on an obligation. Our credit risk includes consumer credit risk and counterparty credit risk. Consumer credit risk is primarily incurred by issuing loans to consumers. Counterparty credit risk is incurred through a number of activities including settlement, certain marketing programs, treasury and asset/liability management, network incentive programs, vendor relationships and insurers.

Management of consumer credit risk is the primary responsibility of the Discover Bank Credit Committee. The responsibilities of the Discover Bank Credit Committee include: (i) establishing consumer credit risk philosophy and tolerance; (ii) establishing procedures for implementing and ensuring compliance with risk identification, measurement, monitoring, and management policies and procedures for consumer credit risk management; and (iii) reviewing, on a periodic basis, aggregate risk exposures and efficacy of risk measurement, monitoring and management policies and procedures within the credit risk management department.

Our Counterparty Credit Committee has counterparty credit risk oversight. Our Counterparty Credit Committee's responsibilities include: (i) establishing an enterprise-wide approach to counterparty credit risk management through a program for the identification, measurement, management and reporting of counterparty credit risks; (ii) providing oversight for controls, limits, thresholds and governance processes related to our ongoing management of counterparty credit risks; (iii) reviewing our enterprise-wide portfolio of counterparty risks and ensuring those risks remain within our tolerances; and (iv) approving acceptance of and limits for counterparties that represent significant exposure to us.

Market Risk. Market risk is the risk to our financial condition resulting from adverse movements in market rates or prices, such as interest rates, foreign exchange rates, credit spreads or equity prices. We are exposed to various types of market risk, in particular interest rate risk and other risks that arise through the management of our investment porffolio. Market risk exposures are managed through our Asset/Liability Management Committee. The responsibilities of our Asset/Liability Management Committee include: (i) maintaining oversight and responsibility for all risks associated with the asset/liability management process, including risks associated with liquidity and funding, market risk and our investment portfolio; and (ii) recommending limits to be included in our risk appetite and limit structure.

Liquidity Risk. Liquidity risk is the potential that we will be unable to meet our obligations as they come due because of an inability to obtain adequate funding or liquidate assets without significantly lowering market prices because of inadequate market depth or market disruptions. Liquidity risk exposures are managed through our Asset/Liability Management Committee. The responsibilities of our Asset/Liability Management Committee are described above.

Operational Risk. Operational risk arises from the potential that inadequate information systems, operational problems, breaches in internal controls, fraud or external events will result in reputational harm or losses. Operational risk also arises from model risk, which is the potential that we will incur a financial loss, make incorrect business decisions or cause damage to our reputation as a result of: (i) errors in financial and decision model design and development, (ii) misapplication of financial or decision models, or (iii) errors in the financial and decision model production process. We further differentiate operational risk into the following sub-categories: theft and fraud; employment practices and workplace safety; customer, products and business practices; technology; physical asset and data security; processing; financial and reporting; and external provider.

Operational risk exposures are managed through a combination of business line management and enterprise-wide oversight. Enterprise-wide oversight is provided through our Operational Risk Committee. Responsibilities of our Operational Risk Committee include: (i) establishing and communicating operational risk policies, tolerance and philosophy; (ii) establishing procedures for implementing our operational risk measurement, monitoring and management policies; and (iii) reviewing aggregate risk exposures and the efficacy of our risk identification, measurement, monitoring and management policies and procedures, and related controls within our business units. In addition, model risk is managed through a model governance process and models are subject to independent validation.

Compliance and Legal Risk. Compliance risk is the operational risk of legal or regulatory sanctions, financial loss or damage to reputation resulting from failure to comply with laws, regulations, rules, other regulatory requirements, or codes of conduct and other standards of self-regulatory organizations applicable to us. Legal risk arises, in part, from the potential that unenforceable contracts, lawsuits or adverse judgments can disrupt or otherwise negatively affect our operations or condition. These risks are inherent in all of our businesses. Both compliance and legal risk are subsets of operational risk but are recognized together as a separate and complementary risk category by us given their importance and the specific capabilities and resources we deploy to manage these risk types effectively.

Compliance and legal risk exposures are actively and primarily managed by our business units in conjunction with our law and compliance department. Our compliance program governs the management of compliance risk. Our Risk Committee oversees our compliance and legal risk management. Our law and compliance department provides independent oversight for all of our compliance and legal risk management activities. Our law and compliance department coordinates with our corporate risk management department for the management of compliance and legal risks by reporting and escalating material incidents, completing risk and control self-assessments, and monitoring and reporting key risk indicators.

Strategic Risk. Strategic risk can arise from adverse business decisions, improper implementation of decisions, unanticipated economic events, failure to anticipate and respond to industry changes (including legislative and regulatory changes), failure to create and maintain a competitive business model, and failure to attract and profitably serve customers. Our Executive Committee actively manages strategic risk through the development, implementation and oversight of our business strategies, including the development of budgets and business plans. Our business units take and are accountable for managing strategic risk in pursuit of their objectives. In addition, the assessment of strategic risk is an important consideration of various sub-committees of our Risk Committee. For example, the strategic and other risks associated with new products or services are reviewed and reported on by our New Initiatives Committee and our Payment Services Steering Committee.

Our corporate risk management department also plays an important role in the management of strategic risk by: (i) overseeing the objective setting and strategic planning processes from a risk perspective, to gain comfort that strategic risks have been adequately considered in the setting of objectives and development of strategies; (ii) providing an independent risk perspective to the new initiatives process; and (iii) assessing if there is effective alignment of management's proposed long-term strategic objectives with the risk appetite and strategic limits approved by our board of directors.

## Capital Planning

Our capital planning and capital adequacy assessment process is designed to ensure capital adequacy against identified risks. Our Capital Planning Committee, which is chaired by our Chief Operating Officer, oversees the development of our strategic capital plans. Our plans are reviewed and approved by our board of directors. We submit an annual capital plan to the Federal Reserve as further described in "-Supervision and Regulation - Capital, Dividends and Share Repurchases" and "- Management's Discussion and Analysis of Financial Condition and Results of Operations - Capital."

## Risk Management Review of Compensation

We believe in a pay for performance philosophy which considers performance across the company, business segments and individual performance, as appropriate, and the long-term interests of our shareholders and the safety and soundness of the company. We design compensation to be competitive relative to our peers to attract, retain and motivate our employees. In addition to being competitive in the markets in which we compete for talent and encouraging employees to achieve objectives set out by our management, our compensation programs are designed to balance an appropriate mix of compensation components to align the interests of employees with the long-term interests of shareholders and the safety and soundness of the company.

The design and administration of our compensation programs provide incentives that appropriately balance risk and financial results in a manner that does not incentivize employees to take imprudent risks, is compatible with effective controls and enterprise-wide risk management, and is supported by strong corporate governance, including oversight by our board of directors and the Compensation and Leadership Development Committee of our board of directors.

## Supervision and Regulation

## General

Our operations are subject to extensive regulation, supervision and examination under U.S. federal, state and foreign laws and regulations. As a bank holding company under the Bank Holding Company Act of 1956 and a financial holding company under the Gramm-Leach-Bliley Act, we are subject to the supervision, examination and regulation of the Federal Reserve. As a large provider of consumer financial services, we are subject to the supervision, examination and regulation of the Consumer Financial Protection Bureau (the "CFPB").

We operate two banking subsidiaries, each of which is in the United States. Discover Bank, our main banking subsidiary, offers credit card loans, student loans and personal loans, as well as certificates of deposit, savings accounts and other types of deposit accounts. Discover Bank is chartered and regulated by the Office of the Delaware State Bank Commissioner (the "Delaware Commissioner"), and is also regulated by the Federal Deposit Insurance Corporation (the "FDIC"), which insures its deposits up to applicable limits and serves as the bank's primary federal banking regulator. Our other bank, Bank of New Castle, is also chartered and regulated by the Delaware Commissioner and insured and regulated by the FDIC.

## Bank Holding Company Regulation

Permissible activities for a bank holding company include those activities that are so closely related to banking as to be a proper incident thereto, such as consumer lending and other activities that have been approved by the Federal Reserve by regulation or order. Certain servicing activities are also permissible for a bank holding company if conducted for or on behalf of the bank holding company or any of its affiliates. Impermissible activities for bank holding companies include activities that are related to commerce such as retail sales of nonfinancial products.

A financial holding company and the non-bank companies under its control are permitted to engage in activities considered financial in nature, incidental to financial activities, or complementary to financial activities, if the Federal Reserve determines that such activities pose no risk to the safety or soundness of depository institutions or the financial system in general. Being a financial holding company under the Gramm-Leach-Bliley Act requires that the depository institutions that we control meet certain criteria, including capital, management and Community Reinvestment Act requirements. In addition, under the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Reform Act") enacted in July 2010, we are required to meet certain capital and management criteria to maintain our status as a financial holding company. If we or our depository institutions were to fail to continue to meet the criteria for financial holding company status, we could, depending on which requirements we failed to meet, face restrictions on new financial activities or acquisitions and/or be required to discontinue existing activities that are not generally permissible for bank holding companies.

Federal Reserve regulations and the Federal Deposit Insurance Act, as amended by the Reform Act, require that bank holding companies serve as a source of strength to each subsidiary bank and commit resources to support each subsidiary bank. This support may be required at times when a bank holding company may not be able to provide such support without adversely affecting its ability to meet other obligations.

The Reform Act addresses risks to the economy and the payments system, especially those posed by large systemically significant financial firms. Bank holding companies with $\$ 50$ billion or more in total consolidated assets, including Discover, are considered systemically significant under the Reform Act and are subject to heightened prudential standards to be established by the Federal Reserve. The Reform Act could have a significant impact on us by, for example, requiring us to limit or change our business practices, limiting our ability to pursue business opportunities, requiring continued investments of management time and resources in compliance efforts, limiting fees we can charge for services, requiring us to meet more stringent capital, liquidity and leverage ratio requirements (including those under Basel III), increasing costs, restricting our ability to access the securitization markets for our funding, impacting the value of our assets, or otherwise adversely affecting our businesses. For more information regarding the Reform Act, see "Management's Discussion and Analysis of Financial Condition and Results of Operations - Regulatory Environment and Developments" and "Risk Factors."

## Capital, Dividends and Share Repurchases

We, Discover Bank and Bank of New Castle are subject to capital adequacy guidelines adopted by federal banking regulators, which include maintaining minimum capital and leverage ratios for capital adequacy and higher ratios to be deemed "well-capitalized." As a bank holding company, we are required to maintain Tier 1 and total capital equal to at least $4 \%$ and $8 \%$ of our total risk-weighted assets, respectively. We are also required to maintain a minimum "leverage ratio" (Tier 1 capital to adjusted total assets) of $4 \%$ to $5 \%$, depending upon criteria defined and assessed by the Federal Reserve. Further, under the Federal Reserve's annual capital plan requirements, we are required to demonstrate that under stress scenarios we will maintain a Tier 1 common ratio (meaning the ratio of Tier 1 common capital to total riskweighted assets) above 5\%. At November 30, 2012, Discover Financial Services met all requirements to be deemed "well-capitalized." For related information regarding our bank subsidiaries, see "- FDIA" below.

Current or future regulatory initiatives may require us to hold more capital in the future. In June 2012, the Federal Reserve, FDIC and the Office of the Comptroller of the Currency ("OCC") proposed rules to implement the provisions of the Basel III regulatory capital reforms that would be applicable to us and Discover Bank. The proposed rules include new minimum and "well-capitalized" risk-based capital and leverage ratios, which would be phased in from 2013 to 2019, and refine the definition of what constitutes "capital" for purposes of calculating those ratios. The proposed rules received extensive comments. In a joint press release issued in November 2012, the agencies stated that they do not expect any of the proposed rules to become effective on the original target date of January 1,2013. Industry participants are expecting further guidance in early 2013. In October 2012, the Federal Reserve and the FDIC issued final rules implementing the
stress test requirements under the Reform Act. For additional information, see "Management's Discussion and Analysis of Financial Condition and Results of Operations - Regulatory Environment and Developments - Capital."

There are various federal and state law limitations on the extent to which our banking subsidiaries can provide funds to us through dividends, loans or otherwise. These limitations include minimum regulatory capital requirements, federal and state banking law requirements concerning the payment of dividends out of net profits or surplus, and general federal and state regulatory oversight to prevent unsafe or unsound practices. In general, federal and applicable state banking laws prohibit, without first obtaining regulatory approval, insured depository institutions, such as our banking subsidiaries, from making dividend distributions if such distributions are not paid out of available earnings or would cause the institution to fail to meet applicable capital adequacy standards. For more information, see "- FDIA" below.

Additionally, we are required to submit an annual capital plan to the Federal Reserve that includes an assessment of our expected uses and sources of capital over the planning horizon. Our ability to make capital distributions, including our ability to pay dividends or repurchase shares of our common stock, is subject to the Federal Reserve's review and non-objection of our annual capital plan. In certain circumstances, we will not be able to make a capital distribution unless the Federal Reserve has approved such distribution. On March 13, 2012, we received non-objection from the Federal Reserve with respect to our proposed capital actions through March 31, 2013. We recently submitted our capital plan for the upcoming year and are awaiting response from the Federal Reserve.

For more information, including additional conditions and limits on our ability to pay dividends and repurchase our stock, see "Risk Factors - We may be limited in our ability to pay dividends on and repurchase our stock" and "- We are a holding company and depend on payments from our subsidiaries," "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources - Capital" and Note 18: Capital Adequacy to our consolidated financial statements.

## FDIA

The Federal Deposit Insurance Act (the "FDIA") imposes various requirements on insured depository institutions. For example, the FDIA requires, among other things, the federal banking agencies to take "prompt corrective action" in respect of depository institutions that do not meet minimum capital requirements. The FDIA sets forth the following five capital tiers: "well-capitalized," "adequately capitalized," "undercapitalized," "significantly undercapitalized" and "critically undercapitalized." A depository institution's capital tier will depend upon how its capital levels compare with various relevant capital measures and certain other factors that are established by regulation. At November 30, 2012, Discover Bank and Bank of New Castle met all applicable requirements to be deemed "well-capitalized." As noted above, recently-issued Federal Reserve rules and additional future rulemaking, including with respect to implementation of Basel III, could alter the capital adequacy framework for Discover.

The FDIA also prohibits any depository institution from making any capital distributions (including payment of a dividend) or paying any management fee to its parent holding company if the depository institution would thereafter be "undercapitalized." "Undercapitalized" institutions are subject to growth limitations and are required to submit a capital restoration plan. For a capital restoration plan to be acceptable, among other things, the depository institution's parent holding company must guarantee that the institution will comply with the capital restoration plan.

If a depository institution fails to submit an acceptable capital restoration plan, it is treated as if it is "significantly undercapitalized." "Significantly undercapitalized" depository institutions may be subject to a number of requirements and restrictions, including orders to sell sufficient voting stock to become "adequately capitalized," requirements to reduce total assets, and cessation of receipt of deposits from correspondent banks. "Critically undercapitalized" institutions are subject to the appointment of a receiver or conservator.

Each of our banking subsidiaries may also be held liable by the FDIC for any loss incurred, or reasonably expected to be incurred, due to the default of the other U.S. banking subsidiary and for any assistance provided by the FDIC to the other U.S. banking subsidiary that is in danger of default.

The FDIA prohibits insured banks from accepting brokered deposits or offering interest rates on any deposits significantly higher than the prevailing rate in the bank's normal market area or nationally (depending upon where the
deposits are solicited), unless it is "well-capitalized," or it is "adequately capitalized" and receives a waiver from the FDIC. A bank that is "adequately capitalized" and that accepts brokered deposits under a waiver from the FDIC may not pay an interest rate on any deposit in excess of 75 basis points over certain prevailing market rates. There are no such restrictions under the FDIA on a bank that is "well-capitalized." As of November 30, 2012, Discover Bank and Bank of New Castle each met the FDIC's definition of a "well-capitalized" institution for purposes of accepting brokered deposits. An inability to accept brokered deposits in the future could materially adversely impact our funding costs and liquidity. For more information, see "Risk Factors - An inability to accept or maintain deposits in the future could materially adversely affect our liquidity position and our ability to fund our business."

The FDIA also affords FDIC-insured depository institutions, such as Discover Bank and Bank of New Castle, the ability to "export" favorable interest rates permitted under the laws of the state where the bank is located. Discover Bank and Bank of New Castle are both located in Delaware and, therefore, charge interest on loans to out-of-state borrowers at rates permitted under Delaware law, regardless of the usury limitations imposed by the state laws of the borrower's residence. Delaware law does not limit the amount of interest that may be charged on loans of the type offered by Discover Bank or Bank of New Castle. This flexibility facilitates the current nationwide lending activities of Discover Bank and Bank of New Castle.

The FDIA subjects Discover Bank to deposit insurance assessments. Under the Reform Act, in order to bolster the reserves of the Deposit Insurance Fund, the minimum reserve ratio set by the FDIC was increased to $1.35 \%$. The FDIC set a reserve ratio of $2 \%, 65$ basis points above the statutory minimum. The FDIC also amended its deposit insurance regulations. The first implemented a provision of the Reform Act that changed the assessment base for deposit insurance premiums from one based on domestic deposits to one based on average consolidated total assets minus average tangible equity. The second revised the risk-based assessment system for all large insured depository institutions (generally, institutions with at least $\$ 10$ billion in total assets, including Discover Bank) to one based on a scorecard method. Further increases may occur in the future. The Reform Act removed the statutory cap for the reserve ratio, leaving the FDIC free to set a cap in the future.

## Acquisitions and Investments

Since we are a bank holding company, and Discover Bank and Bank of New Castle are insured depository institutions, we are subject to banking laws and regulations that limit the types of acquisitions and investments that we can make. In addition, certain permitted acquisitions and investments that we seek to make are subject to the prior review and approval of our banking regulators, including the Federal Reserve and FDIC. Our banking regulators have broad discretion on whether to approve proposed acquisitions and investments. In deciding whether to approve a proposed acquisition, federal bank regulators will consider, among other factors, the effect of the acquisition on competition, our financial condition, and our future prospects, including current and projected capital ratios and levels; the competence, experience, and integrity of our management and our record of compliance with laws and regulations; the convenience and needs of the communities to be served, including our record of compliance under the Community Reinvestment Act; and our effectiveness in combating money laundering.

In addition, certain acquisitions of our voting stock may be subject to regulatory approval or notice under U.S. federal or Delaware state law. Investors are responsible for ensuring that they do not, directly or indirectly, acquire shares of our stock in excess of the amount that can be acquired without regulatory approval under the Change in Bank Control Act, the Bank Holding Company Act and the Delaware Change in Bank Control provisions, which prohibit any person or company from acquiring control of us without, in most cases, the prior written approval of each of the FDIC, the Federal Reserve and the Delaware Commissioner.

## Consumer Financial Services

The relationship between us and our U.S. customers is regulated extensively under federal and state consumer protection laws. Federal laws include the Truth in Lending Act, the Equal Credit Opportunity Act, the Fair Credit Reporting Act, the Gramm-Leach-Bliley Act, the CARD Act and the Reform Act. These and other federal laws, among other things, require disclosures of the cost of credit, provide substantive consumer rights, prohibit discrimination in credit transactions, regulate the use of credit report information, provide financial privacy protections, require safe and sound banking operations, prohibit unfair, deceptive and abusive trade practices, restrict our ability to raise interest rates, and subject us to substantial regulatory oversight. State and, in some cases, local laws also may regulate in these areas, as well as in the areas of collection practices, and may provide other additional consumer protections. Moreover, our U.S. subsidiaries are
subject to the Servicemembers Civil Relief Act, which protects persons called to active military service and their dependents from undue hardship resulting from their military service. The Servicemembers Civil Relief Act applies to all debts incurred prior to the commencement of active duty (including credit card and other open-end debt) and limits the amount of interest, including service and renewal charges and any other fees or charges (other than bona fide insurance) that is related to the obligation or liability.

Violations of applicable consumer protection laws can result in significant potential liability in litigation by customers, including civil monetary penalties, actual damages, restitution and attorneys' fees. Federal banking regulators, as well as state attorneys general and other state and local consumer protection agencies, also may seek to enforce consumer protection requirements and obtain these and other remedies.

The CARD Act was enacted in 2009, but most of the requirements became effective in 2010. The CARD Act made numerous amendments to the Truth in Lending Act, requiring us to make fundamental changes to many of our business practices, including marketing, underwriting, pricing and billing. The CARD Act's restrictions on our ability to increase interest rates on existing balances to respond to market conditions and credit risk ultimately limits our ability to extend credit to new customers and provide additional credit to current customers. Other CARD Act restrictions have resulted and will continue to result in reduced interest income and loan fee income.

The Reform Act established the CFPB, which regulates consumer financial products and services and certain financial services providers, including Discover. The CFPB is authorized to prevent "unfair, deceptive or abusive acts or practices" and ensure consistent enforcement of laws so that all consumers have access to markets for consumer financial products and services that are fair, transparent and competitive. The CFPB has rulemaking and interpretive authority under the Reform Act and other federal consumer financial services laws, as well as broad supervisory, examination and enforcement authority over large providers of consumer financial products and services, such as Discover. In addition, the CFPB has an online complaint system that allows consumers to log complaints with respect to the products we offer. The system could inform future agency decisions with respect to regulatory, enforcement or examination focus. There continues to be uncertainty as to how the CFPB's strategies and priorities will impact our businesses and our results of operations going forward. The CFPB has recently focused on the marketing of protection products. Discover Bank entered into a consent order with the FDIC and CFPB in September 2012 with respect to the marketing of our protection products, which required us to provide refunds of approximately $\$ 200$ million to eligible customers, pay a $\$ 14$ million civil monetary penalty and enhance our business processes. For more information, see "Risk Factors - "The Consumer Financial Protection Bureau is a new agency and there continues to be uncertainty as to how the agency's actions will impact our business. The agency's actions have had and may continue to have an adverse impact on our business" and "Management's Discussion and Analysis of Financial Condition and Results of Operations - Regulatory Environment and Developments - Consumer Financial Services."

As a result of our recent mortgage business acquisition, we are subject to additional laws and regulations affecting mortgage lenders. We conduct our mortgage lending business through our Discover Home Loans subsidiary, which is a state-licensed mortgage lender. Federal, state and, in some instances, local laws regulate mortgage lending activities. These laws generally regulate the manner in which lending and lending-related activities are marketed or made available, including advertising and other consumer disclosures, payments for services and recordkeeping requirements. These laws include the Real Estate Settlement Procedures Act, the Fair Credit Reporting Act, the Truth in Lending Act, the Equal Credit Opportunity Act, the Fair Housing Act, the Home Mortgage Disclosure Act and various state laws. State laws often restrict the amount of interest and fees that may be charged by a mortgage lender, or otherwise regulate the manner in which mortgage lenders operate or advertise. The CFPB has indicated that the mortgage industry is an area of supervisory focus and that it will concentrate its examination and rulemaking efforts on the variety of mortgage-related topics required under the Reform Act, including the steering of consumers to less favorable products, discrimination, abusive or unfair lending practices, predatory lending, origination disclosures, minimum mortgage underwriting standards, mortgage loan origination compensation and servicing practices. The CFPB recently published several final rules impacting the mortgage industry. For more information, see "Management's Discussion and Analysis of Financial Condition and Results of Operations Regulatory Environment and Developments - Consumer Financial Services - Home Loans."

Most states require licenses for non-bank lenders, such as Discover Home Loans, to solicit or make loans, and require the licensure or registration of certain individual employees engaged in mortgage loan origination activities. In 2008,

Congress mandated that all states adopt certain minimum standards for the licensing of individuals involved in mortgage lending, and all state legislatures and state agencies have adopted and are implementing additional licensing, continuing education, and similar requirements on mortgage lenders and their employees. Compliance with existing and any new requirements may render it more difficult to operate or may raise our internal costs. As noted above, Discover Home Loans is subject to examination and supervision by state mortgage regulatory agencies, as well as the CFPB, the Federal Reserve and other federal agencies, and may incur substantial cost in preparing for and responding to regulatory examinations and investigations.

## Payment Networks

We operate the Discover and PULSE networks, which deliver switching and settlement services to financial institutions and other program participants for a variety of ATM, POS and other electronic banking transactions. These operations are regulated by certain federal and state banking, privacy and data security laws. Moreover, the Discover and PULSE networks are subject to examination under the oversight of the Federal Financial Institutions Examination Council, an interagency body composed of the federal bank regulators, and the National Credit Union Association. In addition, as our payments business has expanded globally through Diners Club, we are subject to government regulation in countries in which our networks operate or our cards are used, either directly or indirectly through regulation affecting Diners Club network licensees. Changes in existing federal, state or international regulation could increase the cost or risk of providing network services, change the competitive environment, or otherwise materially adversely affect our operations. The legal environment regarding privacy and data security is particularly dynamic, and any unpermitted disclosure of confidential customer information could have a material adverse impact on our business, including loss of consumer confidence.

The Reform Act contains several provisions that are relevant to the business practices, network transaction volume, revenue, and prospects for future growth of PULSE, our debit card business. The Reform Act requires that merchants control the routing of debit transactions, and that interchange fees received by certain payment card issuers on debit card transactions be "reasonable and proportional" to the issuer's cost in connection with such transactions, as determined by the Federal Reserve. The Reform Act also requires the Federal Reserve to restrict debit card networks and issuers from requiring debit card transactions to be processed solely on a single payment network or two or more affiliated networks, or from requiring that transactions be routed over certain networks. For information regarding implementation of these provisions and potential impacts on our debit card business, see "Risk Factors - Legislative and regulatory reforms related to the debit card market may have a significant impact on our PULSE network business. We currently expect competitor strategies following such reforms to result in fewer transactions being routed to PULSE and a decline in the rate of PULSE transaction volume growth" and "Management's Discussion and Analysis of Financial Condition and Results of Operations - Regulatory Environment and Developments - Payment Networks."

## Money Laundering \& Terrorist Financing Prevention Program

We maintain an enterprise-wide program designed to comply fully with all applicable anti-money laundering and antiterrorism laws and regulations, including the Bank Secrecy Act and the USA PATRIOT Act of 2001. This program includes policies, procedures, training and other internal controls designed to mitigate the risk of money laundering or terrorist financing posed by our products, services, customers and geographic locale. These controls include procedures and processes to detect and report suspicious transactions, perform customer due diligence, and meet all recordkeeping and reporting requirements related to particular transactions involving currency or monetary instruments. The program is coordinated by a compliance officer and undergoes an annual independent audit to assess its effectiveness.

## Sanctions Programs

We have a program designed to comply with applicable economic and trade sanctions programs, including those administered and enforced by the U.S. Department of the Treasury's Office of Foreign Assets Control. These sanctions are usually targeted against foreign countries, terrorists, international narcotics traffickers and those believed to be involved in the proliferation of weapons of mass destruction. These regulations generally require either the blocking of accounts or other property of specified entities or individuals, but they may also require the rejection of certain transactions involving specified entities or individuals. We maintain policies, procedures and other internal controls designed to comply with these sanctions programs.

Executive Officers of the Registrant
Set forth below is information concerning our executive officers, each of whom is a member of our Executive Committee.

| Name | Age | Position |
| :---: | :---: | :---: |
| David W. Nelms | 51 | Chairman and Chief Executive Officer |
| Roger C. Hochschild | 48 | President and Chief Operating Officer |
| R. Mark Graf. | 48 | Executive Vice President and Chief Financial Officer |
| Kathryn McNamara Corley. | 52 | Executive Vice President, General Counsel and Secretary |
| Carlos Minetti | 50 | Executive Vice President, President - Consumer Banking and Operations |
| Diane E. Offereins. | 55 | Executive Vice President, President - Payment Services |
| James V. Panzarino. | 60 | Executive Vice President, Chief Credit Risk Officer |
| Glenn P. Schneider. | 51 | Senior Vice President, Chief Information Officer |
| Harit Talwar................................... | 52 | Executive Vice President, President - U.S. Cards |

David W. Nelms has served as our Chairman since January 2009 and our Chief Executive Officer since 2004, and was also our Chairman from 2004 until our spin-off from Morgan Stanley in 2007. He was our President and Chief Operating Officer from 1998 to 2004. Prior to joining us, Mr. Nelms worked at MBNA America Bank from 1990 to 1998, most recently as Vice Chairman. Mr. Nelms holds a Bachelor's of Science degree in Mechanical Engineering from the University of Florida and an M.B.A. from Harvard Business School.

Roger C. Hochschild has served as President and Chief Operating Officer since 2004, and was Executive Vice President, Chief Marketing Officer from 1998 to 2001. From 2001 to 2004, Mr. Hochschild was Executive Vice President, Chief Administrative Officer and Chief Strategic Officer of our former parent Morgan Stanley. Mr. Hochschild holds a Bachelor's degree in Economics from Georgetown University and an M.B.A. from the Amos Tuck School at Dartmouth College.
R. Mark Graf has served as Executive Vice President and Chief Financial Officer since April 2011. He was also Chief Accounting Officer until December 2012. Prior to joining us, Mr. Graf was an investment advisor with Aquiline Capital Partners, a private equity firm specializing in investments in the financial services industry. From 2006 to 2008 , Mr. Graf was a partner at Barrett Ellman Stoddard Capital. Mr. Graf was Executive Vice President and Chief Financial Officer for Fifth Third Bank from 2004 to 2006, after having served as its Treasurer from 2001 to 2004. He holds a Bachelor's degree from the Wharton School of the University of Pennsylvania.

Kathryn McNamara Corley has served as Executive Vice President, General Counsel and Secretary since February 2008. Prior thereto, she served as Senior Vice President, General Counsel and Secretary since 1999. Prior to becoming General Counsel, Ms. Corley was Managing Director for our former parent Morgan Stanley's global government and regulatory relations. Ms. Corley holds a Bachelor's degree in Political Science from the University of Southern California and a J.D. from George Mason University School of Law.

Carlos Minetti has served as Executive Vice President, President - Consumer Banking and Operations since April 2010. Prior thereto, he served as Executive Vice President, Cardmember Services and Consumer Banking, and since September 2006, Executive Vice President, Cardmember Services and Risk Management. Prior to joining us as Executive Vice President, Cardmember Services in January 2001, Mr. Minetti worked in card operations and risk management for American Express from 1987 to 2000, most recently as Senior Vice President. Mr. Minetti holds a Bachelor's of Science degree in Industrial Engineering from Texas A \& M University and an M.B.A. from the University of Chicago.

Diane E. Offereins has served as Executive Vice President, President - Payment Services since April 2010. Prior thereto, she served as Executive Vice President, Payment Services since December 2008 and Executive Vice President and

Chief Technology Officer since 1998. In addition, she was appointed to oversee the PULSE network in 2006. From 1993 to 1998 , Ms. Offereins was at MBNA America Bank, most recently as Senior Executive Vice President. Ms. Offereins holds a Bachelor's of Business Administration degree in Accounting from Loyola University.

James V. Panzarino has served as Executive Vice President and Chief Credit Risk Officer since December 2009. Prior thereto, he served as Senior Vice President and Chief Credit Risk Officer from 2006 to 2009, and Senior Vice President, Cardmember Assistance, from 2003 to 2006. Prior to joining us, Mr. Panzarino was Vice President of External Collections and Recovery at American Express from 1998 to 2002. Mr. Panzarino holds a Bachelor's degree in Business Management and Communication from Adelphi University.

Glenn P. Schneider has served as Senior Vice President and Chief Information Officer since December 2008, and was appointed to our Executive Committee in December 2009. From 2003 to 2008, he was Senior Vice President, Application Development, and from 1998 to 2003, he served as Vice President, Marketing Applications. Mr. Schneider joined us in 1993. He holds a Bachelor's degree in Economics/Computer Science and a minor in Statistics from Northern Illinois University.

Harit Talwar has served as Executive Vice President, President - U.S. Cards since April 2010. Prior thereto, he served as Executive Vice President, Card Programs and Chief Marketing Officer since December 2008 and Executive Vice President, Discover Network since December 2003. From 2000 to 2003, Mr. Talwar was Managing Director for our international business. Mr. Talwar held a number of positions at Citigroup from 1985 to 2000, most recently as Country Head, Consumer Banking Division, Poland. Mr. Talwar holds a B.A. Hons degree in Economics from Delhi University in India and an M.B.A. from the Indian Institute of Management, Ahmedabad.

## Item 1A. Risk Factors

You should carefully consider each of the following risks described below and all of the other information in this annual report on Form 10-K in evaluating us. Our business, financial condition, cash flows and/or results of operations could be materially adversely affected by any of these risks. The trading price of our common stock could decline due to any of these risks. This annual report on Form 10-K also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere in this annual report on Form 10-K. See "Special Note Regarding Forward-Looking Statements," which immediately follows the risks below.

## Current Economic and Regulatory Environment

## Economic conditions have had and could have a material adverse effect on our business, results of operations, financial condition and stock price.

While certain economic conditions in the United States have shown signs of improvement, economic growth has been slow and uneven as consumers continue to be affected by high unemployment rates and depressed housing values. In addition, concerns and events such as economic uncertainty surrounding financial regulatory reform and its effect on the revenues of financial services companies and the economic and financial crises in Europe, may continue to impact economic recovery and the financial services industry. A prolonged period of slow economic growth or a significant deterioration in economic conditions would likely affect the ability and willingness of customers to pay amounts owed to us. A customer's ability to repay us also can be negatively impacted by increases in their payment obligations to other lenders under mortgage, credit card and other consumer loans. We believe that we are experiencing generally historical lows in our delinquency and charge-off rates and that they are likely to increase at some point. In addition, if economic conditions worsen, these rates may increase more than expected. The over 30 days delinquent rate was $1.75 \%$ at November 30, 2012, down from $2.29 \%$ at November 30, 2011 and $3.87 \%$ at November 30, 2010. The full-year net charge-off rate was $2.29 \%$ for 2012 , down from $3.97 \%$ for 2011 and $7.53 \%$ for 2010 . Growth in our loan porfflio led us to increase our allowance for loan losses in the fourth quarter of 2012. We expect further increases in our allowance for loan losses in 2013, which will negatively impact our net income compared to 2011 and 2012, when reserve releases significantly contributed to our net income.

Our business is always influenced by economic conditions. Poor economic conditions not only affect the ability and willingness of customers to pay amounts owed to us, increasing delinquencies, charge-offs and allowance for loan losses as described above, but can also reduce the usage of our cards and the average purchase amount of transactions on our cards, which reduces our interest income and transaction fees. We rely heavily on interest income from our credit card business to generate earnings. Our net interest income from credit card loans was $\$ 5.8$ billion for the 2012 fiscal year, which was $75 \%$ of revenues (defined as net interest income plus other income), compared to $\$ 5.7$ billion for the 2011 fiscal year, which was $80 \%$ of revenues. In the event of another market downturn, we may have to consider expensereduction initiatives in order to offset our inability to generate increased interest and fee income due to existing legal and regulatory limitations on increasing interest and fees.

Economic conditions may also cause our earnings to fluctuate and diverge from expectations of securities analysts and investors, who may have differing assumptions regarding their impact on our business and, therefore, may impact the trading price of our common stock.

## The regulatory environment for the financial services industry is being significantly impacted by financial regulatory reform initiatives, which may adversely impact our business, results of operations and financial condition.

The Reform Act contains a comprehensive set of provisions designed to govern the practices and oversight of financial institutions and other participants in the financial markets. The Reform Act addresses risks to the economy and the payments system posed by large systemically significant financial firms, including us, through a variety of measures, including increased capital and liquidity requirements, limits on leverage, and enhanced supervisory authority. The Reform Act also established a new financial industry regulator, the CFPB, and new requirements for debit card transactions, which impact our core businesses and are described in other risk factors below related to consumer financial services, payment services, and capital and liquidity. Additional legislative or regulatory action that may impact our business may result from the multiple studies mandated under the Reform Act.

The evolving regulatory environment causes uncertainty with respect to the manner in which we conduct our businesses and may potentially increase the risk that we may be subject to criticism or enforcement action by our banking regulators. Our banking regulators have introduced and continue to introduce new regulations, supervisory guidance and enforcement actions. We are unable to predict the nature, extent or impact of any additional changes to statutes or regulations, including the interpretation, implementation or enforcement thereof, which may occur in the future.

The impact that the regulatory environment ultimately has on our business and operations depends upon final implementing regulations, the actions of our competitors and the behavior of consumers and other marketplace participants. Regulatory actions could require us to limit or change our business practices, limit our ability to pursue business opportunities, limit our product offerings, require continued investments of management time and resources in compliance efforts, limit fees we can charge for services, require us to meet more stringent capital, liquidity and leverage ratio requirements (including those under Basel III), increase costs, restrict our ability to access the securitization markets for our funding, impact the value of our assets, or otherwise adversely affect our businesses.

To date, compliance requirements and expenditures have increased for financial services firms, including Discover, and we expect them to continue to increase. In September 2012, Discover Bank entered into a consent order with the FDIC and CFPB with respect to the marketing of our protection products, which required us to provide refunds of approximately $\$ 200$ million to eligible customers, pay a $\$ 14$ million civil monetary penalty and enhance our business processes. We may face additional compliance and regulatory risk to the extent that we enter into new lines of business or new business arrangements with third-party service providers, alternative payment providers or other industry participants, including providers or participants that may not be regulated financial institutions. The additional expense, time and resources needed to comply with ongoing regulatory requirements may adversely impact our business and results of operations.

As discussed above, the regulatory environment could have a material adverse effect on our business, results of operations, cash flows and financial condition.

## The Consumer Financial Protection Bureau is a new agency and there continues to be uncertainty as to how the agency's actions will impact our business. The agency's actions have had and may continue to have an adverse impact on our business.

The CFPB, which commenced operations in July 2011, has a large budget and staff, and broad authority with respect to the businesses in which we engage. It has authority to write regulations under federal consumer financial protection laws, and enforce those laws against and examine large financial institutions, including Discover, for compliance. The CFPB is authorized to prevent "unfair, deceptive or abusive acts or practices" through its supervisory enforcement and regulatory authority. It is authorized to collect fines and provide consumer restitution in the event of violations, engage in consumer financial education, request data and promote the availability of financial services to underserved consumers and communities. In addition, the CFPB maintains an online complaint system that allows consumers to log complaints with respect to the products we offer. The system could inform future agency decisions with respect to regulatory, enforcement or examination focus.

There continues to be uncertainty as to how the CFPB's strategies and priorities will impact our businesses and our results of operations going forward. The CFPB has recently focused on the marketing of protection products. In September 2012, Discover Bank entered into a consent order with the FDIC and CFPB with respect to the marketing of our protection products, as referenced above. Although Discover has committed significant resources to enhancing our compliance programs, changes in regulatory expectations, interpretations or practices could increase the risk of additional enforcement actions, fines and penalties. Actions by the CFPB could result in requirements to alter our products and services that would make our products less attractive to consumers and impair our ability to offer them profitably. Future actions by regulators that discourage the use of products we offer or steer consumers to other products or services could result in reputational harm and a loss of customers. Should the CFPB change regulations adopted in the past by other regulators, or modify past regulatory guidance, our compliance costs and litigation exposure could increase. Our litigation exposure could also increase if the CFPB exercises its authority to limit or ban pre-dispute arbitration clauses.

The Reform Act authorizes state officials to enforce regulations issued by the CFPB and to enforce the Act's general prohibition against unfair, deceptive or abusive practices, and makes it more difficult than in the past for federal financial
regulators to declare state laws that differ from federal standards to be preempted. To the extent that states enact requirements that differ from federal standards or state officials and courts adopt interpretations of federal consumer laws that differ from those adopted by the CFPB, we may be required to alter or cease offering products or services in some jurisdictions, which would increase compliance costs and reduce our ability to offer the same products and services to consumers nationwide, and we may be subject to a higher risk of state enforcement actions.

## Legislative and regulatory initiatives related to the student loan market may have a significant impact on our ability to profitably grow our student loan portfolio.

We have invested in the growth of our private student loan poriffolio, including through the acquisition of SLC in December 2010 and the acquisition of additional private student loans from Citi in September 2011. Our total student loans have grown from $\$ 1.0$ billion at November 30, 2010 to $\$ 7.3$ billion at November 30, 2011 and $\$ 7.7$ billion at November 30, 2012. There is significant legislative and regulatory focus on the student loan market, including by the CFPB, which has made it a priority area of focus. The Reform Act created a "Private Education Ombudsman" within the CFPB to receive and attempt to informally resolve complaints about private student loans, and the Ombudsman issued a report in October 2012 summarizing the complaints that have been received. In July 2012, the CFPB and Department of Education released a comprehensive report on private student loans, which recommended that Congress re-assess the current bankruptcy exemption for private student loans. In addition, the Administration made changes to the federal student loan program intended to make college more affordable and make it easier for students to repay their federal student loans. Congress or the Administration may take actions that impact the student loan market in the future, including as a result of these studies or otherwise. Any such actions could cause us to restructure our private student loan business in ways that we may not currently anticipate. The possible impact of heightened scrutiny of the student loan market and its participants, including any resulting legislative and regulatory initiatives, is uncertain and may adversely impact the profitability and growth of our private student loan portfolio.

## Legislative and regulatory reforms related to the debit card market may have a significant impact on our PULSE network business. We currently expect competitor strategies following such reforms to result in fewer transactions being routed to PULSE and a decline in the rate of PULSE transaction volume growth.

The Reform Act contains several provisions that may adversely affect our PULSE network's business practices, network transaction volume, revenue, and prospects for future growth. First, the Reform Act requires that interchange fees received by certain payment card issuers on debit card transactions be "reasonable and proportional" to the issuer's cost in connection with such transactions, as determined by the Federal Reserve. The Federal Reserve also has the power to regulate network fees to the extent necessary to prevent circumvention of interchange regulation under the Reform Act. In addition, the Reform Act requires the Federal Reserve to restrict debit card networks and issuers from requiring debit card transactions to be processed solely on a single payment network or two or more affiliated networks, or from requiring that transactions be routed over certain networks. The Federal Reserve issued final implementing regulations with respect to the interchange fee and routing provisions in June 2011, some of which became effective in October 2011. Regulations mandating that debit card issuers participate in two or more unaffiliated payment networks took effect April 1, 2012, and similar regulations with respect to certain prepaid card issuers take effect April 1, 2013.

The ultimate impact of these laws and regulations will depend upon the actions of our competitors and the behavior of other marketplace participants. Following the implementation of the Federal Reserve regulations related to debit routing and fees in October 2011 and April 2012, large competing networks began to implement new merchant and acquirer pricing and transaction routing strategies, which we currently expect to result in fewer debit transactions being routed to PULSE and a decline in the rate of PULSE transaction volume growth. We are closely monitoring the implementation of these strategies in order to assess their impact on our business and on competition in the marketplace. The U.S. Department of Justice is examining some of these competitor pricing strategies. In addition, the Reform Act's network participation requirements impact PULSE's ability to enter into exclusivity arrangements, which affect PULSE's current business practices and may materially adversely affect its network transaction volume and revenue. Our transaction processing revenue was $\$ 218$ million, $\$ 180$ million and $\$ 150$ million for the years ended November 30, 2012, 2011 and 2010, respectively. While we are still assessing all of our options for responding to these developments, we currently expect that they will adversely impact PULSE's ability to compete for issuer participation and merchant and acquirer routing, resulting in fewer debit transactions being routed to PULSE and a decline in the rate of PULSE transaction volume growth.

## Strategic Business Risk

We face competition from other consumer financial services providers, and we may not be able to compete effectively, which could result in fewer customers and lower account balances and could materially adversely affect our financial condition, cash flows and results of operations.

The consumer financial services business is highly competitive. We compete with other consumer financial services providers on the basis of a number of factors, including brand, reputation, customer service, product offerings, incentives, pricing and other terms. Competition in credit cards is also based on merchant acceptance and the value provided to the customer by rewards programs. Many credit card issuers have instituted rewards programs that are similar to ours, and, in some cases, are more attractive to customers than our programs. These competitive factors affect our ability to attract and retain customers, increase usage of our products, and maximize the revenue generated by our products. In addition, because most domestically issued credit cards, other than those issued by American Express, are issued on the Visa and MasterCard networks, most other card issuers benefit from the dominant position and marketing and pricing power of Visa and MasterCard. If we are unable to compete successfully, or if competing successfully requires us to take aggressive actions in response to competitors' actions, our financial condition, cash flows and results of operations could be materially adversely affected.

## We incur considerable expenses in competing with other consumer financial services providers, and many of our competitors have greater financial resources than we do, which may place us at a competitive disadvantage and negatively affect our financial results.

We incur considerable expenses in competing with other consumer financial services providers to attract and retain customers and increase usage of our products. A substantial portion of these expenses relates to marketing expenditures. We incurred expenses of $\$ 603$ million, $\$ 537$ million and $\$ 463$ million in the 2012, 2011 and 2010 fiscal years, respectively, for marketing and business development. Our consumer financial services products compete primarily on the basis of pricing, terms and service. Because of the highly competitive nature of the credit card issuing business, a primary method of competition among credit card issuers, including us, has been to offer rewards programs, low introductory interest rates, attractive standard purchase rates and balance transfer programs that offer a favorable annual percentage rate or other financial incentives for a specified length of time on account balances transferred from another credit card. This type of competition has adversely affected credit card yields, and customers may frequently switch credit cards or transfer their balances to another card. There can be no assurance that any of the expenses we incur or incentives we offer to attempt to acquire and maintain accounts and increase usage of our products will be effective.

Furthermore, many of our competitors are larger than we are, have greater financial resources than we do, have more breadth in consumer banking products, and/or have lower funding and operating costs than we have and expect to have, and have assets such as branch locations and co-brand relationships, that may help them compete more effectively. For example, larger credit card issuers, which have greater resources than we do, may be better positioned to fund appealing rewards and marketing programs. We may be at a competitive disadvantage as a result of the greater financial resources, diversification and scale of many of our competitors.

Our expenses directly affect our earnings results. Many factors can influence the amount of our expenses, as well as how quickly they may increase. Our ongoing investments in infrastructure, which may be necessary to maintain a competitive business, integrate newly-acquired businesses, and establish scalable operations, may increase our expenses. In addition, as our business develops, changes or expands, additional expenses can arise as a result of a reevaluation of business strategies, management of outsourced services, asset purchases, structural reorganization, compliance with new laws or regulations or the integration of newly-acquired businesses. If we are unable to successfully manage our expenses, our financial results will be negatively affected.

We face competition from other operators of payment networks and alternative payment providers, and we may not be able to compete effectively, which could result in reduced transaction volume, limited merchant acceptance of our cards, limited issuance of cards on our networks by third parties and materially reduced earnings.
We face substantial and increasingly intense competition in the payments industry. We compete with other payment networks to attract network partners to issue credit and debit cards and other card products on the Discover, PULSE and Diners Club networks. Competition with other operators of payment networks is generally based on issuer fees, fees paid
to networks (including switch fees), merchant acceptance, network functionality and other economic terms. Competition also is based on customer perception of service quality, brand image, reputation and market share.

Many of our competitors are well established, larger than we are and/or have greater financial resources than we do. These competitors have provided financial incentives to card issuers, such as large cash signing bonuses for new programs, funding for and sponsorship of marketing programs and other bonuses. Visa and MasterCard each have been in existence for more than 40 years and enjoy greater merchant acceptance and broader global brand recognition than we do. Although we have made progress in merchant acceptance, we have not achieved global market parity with Visa and MasterCard. In addition, Visa and MasterCard have entered into long-term arrangements with many financial institutions that may have the effect of discouraging those institutions from issuing credit cards on the Discover Network or issuing debit cards on the PULSE network. Some of these arrangements are exclusive, or nearly exclusive, which further limits our ability to conduct material amounts of business with these institutions. If we are unable to remain competitive on issuer fees and other incentives, we may be unable to offer adequate pricing to network partners while maintaining sufficient net revenues. At the same time, increasing the transaction fees charged to merchants or increasing acquirer fees could adversely affect our effort to increase merchant acceptance of credit cards issued on the Discover Network and may cause merchant acceptance to decrease. This, in turn, could adversely affect our ability to attract network partners and our ability to maintain or grow revenues from our proprietary network. The Reform Act, which gives merchants control of the routing of debit transactions, has influenced the competitive environment for the PULSE network, and we currently expect that PULSE's ability to compete for issuer participation and merchant and acquirer routing will be adversely impacted, resulting in fewer debit transactions being routed to PULSE and a decline in the rate of PULSE transaction volume growth. For more information, see the risk factor above addressing legislative and regulatory reforms related to the debit card market.

American Express is also a strong competitor, with international acceptance, high transaction fees and an upscale brand image. Internationally, American Express competes in the same market segments as Diners Club. We may face challenges in increasing international acceptance on our networks, particularly if third parties that we rely on to issue Diners Club cards, increase card acceptance, and market our brands do not perform to our expectations.

In addition, if we are unable to maintain sufficient network functionality to be competitive with other networks, or if our competitors develop better data security solutions or more innovative products and services than we do, our ability to attract network partners and maintain or increase the revenues generated by our proprietary card issuing business may be materially adversely affected. Further, we are facing increased competition from alternative payment providers, who may create innovative network arrangements with our primary competitors or other industry participants. In addition, to the extent that we enter into such arrangements with such providers, the arrangements may not be able to compete successfully. An inability to compete effectively with other payment networks could result in reduced transaction volume, limited merchant acceptance of our cards, limited issuance of cards on our network by third parties and materially reduced earnings.

Our business depends upon relationships with issuers, merchant acquirers and licensees, which are generally financial institutions. The economic and regulatory environment and increased consolidation in the financial services industry decrease our opportunities for new business and may result in the termination of existing business relationships if a business partner is acquired or goes out of business. In addition, as a result of this environment, financial institutions may have decreased interest in engaging in new card issuance opportunities or expanding existing card issuance relationships, which would inhibit our ability to grow our payment services business.

## If we are unsuccessful in maintaining the Diners Club network and achieving full card acceptance across our networks, we may be unable to sustain and grow our international network business.

In 2008, we acquired the Diners Club network, brand, trademarks, employees, and license agreements. We have made significant progress toward, but have not completed, achieving full card acceptance across the Diners Club network, the Discover Network and PULSE. This would allow Discover customers to use their cards at merchant and ATM locations that accept Diners Club cards around the world and would allow Diners Club customers to use their cards on the Discover Network in North America and on the PULSE network both domestically and internationally.

The success of our Diners Club business depends upon our ability to maintain the full operability of the Diners Club network for existing Diners Club cardholders, network licensees and merchants. Citigroup continues to own and operate network licensees generating a significant share of the Diners Club network sales volume. Citigroup has been reducing assets outside its core businesses, including certain Diners Club businesses, by selling its ownership interest. If Citigroup were to discontinue its support of a significant number of, or key, Diners Club network licensees, we may face difficulty maintaining and growing our international network. This could adversely affect the acceptance of Discover cards when they are used outside of North America.

The success of our Diners Club business depends upon the cooperation and support of the network licensees that issue Diners Club cards and that maintain a merchant acceptance network. As is the case for other card payment networks, Diners Club does not issue cards or determine the terms and conditions of cards issued by the network licensees. This is the responsibility of each licensee. Further, unlike the Discover Network, we have only a small number of direct merchant relationships in the Diners Club network. Instead, we rely on network licensees located outside the United States to help us sustain and grow our international business. As a result of a number of factors, including any difficulties in achieving full card acceptance across our networks, network licensees may choose not to renew the license agreements with us when their terms expire. In addition, the increasingly competitive marketplace for cross-border issuance and acceptance of credit cards may result in lower participation fees for the Diners Club network. In addition, many of the merchants in the acceptance network, primarily small and mid-size merchants, may not be contractually committed to the network licensees for any period of time and may cease to participate in the Diners Club network at any time on short notice. If we are unable to continue our relationships with network licensees or if the network licensees are unable to continue their relationships with merchants, our ability to maintain or increase revenues and to remain competitive would be adversely affected. Interruption of these relationships might also have an adverse effect on the acceptance of Discover cards when they are used on the Diners Club network outside of North America.

We also depend on the continuous operation of our licensees. If one or more licensees were to experience a significant impairment of their business or were to cease doing business for economic, regulatory or other reasons, we would face the adverse effects of business interruption in a particular market, including loss of volume, acceptance and revenue, and exposure to potential reputational risk. We continue to monitor the political and economic situation in Europe and work with our local Diners Club network licensees with regard to their ability to maintain financing sufficient to support business operations. The inability of certain licensees to maintain operating financing could adversely impact our payment services business. From time to time, we provide financial assistance to licensees when we deem it beneficial to our global payments strategy. For example, we have provided loans to certain licensees and we recently entered into an agreement to purchase one of our licensees. Such arrangements may cause us to incur financial losses.

We rely upon numerous other network partners for merchant acceptance for existing Diners Club customers. We completed rerouting merchant transactions for foreign Diners Club cards transacting in North America from the MasterCard acceptance network to the Discover Network in 2011. If we are unable to continue to offer acceptable North American merchant acceptance to Diners Club customers, we may experience decreased transaction volume, which would reduce our revenues. Also, as we have nonamortizable intangible assets that resulted from the purchase of Diners Club, if we are unable to maintain or increase revenues due to the reasons described above, we may be exposed to an impairment loss that, when recognized, could have a material adverse impact on our consolidated financial condition and results of operations. The long-term success of our acquisition of Diners Club depends upon achieving full card acceptance across our networks, which could include higher overall costs or longer timeframes than anticipated. If we are unable to successfully achieve full card acceptance across our networks, we may be unable to achieve the synergies we anticipate and to grow our business internationally.

## The success of our student loan strategy depends upon our ability to manage the risks of our student loan portfolio and successfully implement our brand strategy. If we fail to do so, we may be unable to sustain and grow our student loan porffolio.

In December 2010, we purchased SLC and, in September 2011, we purchased additional private student loans from Citibank. The acquisitions significantly increased the size of our private student loan portfolio, which has grown from $\$ 1.0$ billion at November 30, 2010 to $\$ 7.3$ billion at November 30, 2011 and $\$ 7.7$ billion at November 30, 2012. The long-term success of our student loan strategy depends upon our ability to manage the credit risk, pricing, funding,
operations and expenses of a larger student loan porifflio, as well as grow student loan originations. Throughout 2011 and 2012, we originated student loans under the Discover brand and acquired student loans from Citibank that were marketed under the CitiAssist brand. Our agreement with Citibank regarding the marketing of CitiAssist student loans expired at the end of 2012. The expiration of this agreement may adversely affect the rate of growth of our student loan portfolio in future periods. In the 2012 fiscal year, $49 \%$ of our newly disbursed private student loans were originated by Citibank under the CitiAssist brand, as compared to $57 \%$ in 2011 . We plan to continue to offer competitively priced products by managing our expenses through building economies of scale, which will reduce our origination and servicing costs.

## The success of our mortgage business acquisition depends upon our ability to maintain the operations, integrate and manage the risks of this business, and to successfully market, originate and sell mortgage loans. If we are unable to do so, the profitability of our mortgage business would be adversely affected.

On June 6, 2012, we purchased, through our subsidiary Discover Home Loans, substantially all of the operating and related assets of Home Loan Center, a subsidiary of Tree.com, adding a residential mortgage component to our direct banking business. We are now originating residential mortgages for sale in the secondary mortgage markets on a servicing-released basis. The initial success of this acquisition depends upon our ability to maintain the operations of, integrate and manage the risks of this business, as well as to procure certain state licenses. We currently have all of the licenses that we are required to obtain to operate in 48 states and the District of Columbia. As we integrate this new business, we could experience operational interruptions that could damage relationships with customers, vendors and secondary market investors, any or all of which could negatively impact our business and results of operations. Additionally, if we are unable to retain employees, especially those in key management positions, our business and results of operations could be negatively affected.

The long-term success of our mortgage business depends upon our ability to market, originate, fund and sell Discover mortgage loans. Our mortgage loan origination volume will be largely dependent on our ability to offer competitively priced, desirable loan products under the Discover brand and our ability to attract qualified prospective borrowers. Consumers may be hesitant to originate a mortgage with us due to our recent entry into the industry. Our origination volumes also may be affected by certain external factors outside our control, including adverse economic conditions, such as higher long-term interest rates, high unemployment and depressed housing values, which may result in some consumers delaying new home purchases or refinances. We expect refinance mortgage loan volume to comprise a substantial percentage of overall mortgage loan volume for our business in the near term. If long-term interest rates do not continue to decline, refinance volume would likely decline, which would increase our need to build our purchase mortgage loan volume.

We use third parties to assist us in attracting prospective mortgage borrowers, and our origination volumes may be affected by their ability to successfully attract such borrowers and provide leads to us. We purchase leads from Tree.com pursuant to an agreement related to the acquisition of the Home Loan Center business. If the volume of leads available for us to purchase from Tree.com were significantly reduced and we could not substitute with purchases from other market providers, our origination volume may be negatively impacted, which would adversely affect our results of operations.

Our success also will depend upon relationships with financial intermediaries, including secondary market purchasers, to which we expect to sell eligible mortgages on a servicing-released basis, and our warehouse lender, which provides funding from the time we fund a customer's mortgage until it is sold to a secondary market purchaser. The secondary mortgage markets, as well as the availability of mortgage financing, have been experiencing continued disruptions resulting from reduced investor demand for mortgage loans and mortgage-backed securities and increased investor yield requirements for those loans and securities. For example, Bank of America, one of Home Loan Center's three largest secondary market purchasers during 2011, announced in August 2011 its intent to sell its correspondent lending business and ceased purchasing loans from Home Loan Center in November 2011. In addition, our recent entry into the mortgage industry, as well as continued concern about the stability of the housing market and the strength of counterparties generally, could result in fewer opportunities to sell our loans in the secondary market on attractive terms. If we are unable to sell our loans in the secondary market, we could incur additional credit risk and losses. If we are unable to retain the warehouse facility we use to fund our mortgage originations or if the costs associated therewith become unattractive, funding costs and liquidity could be adversely impacted. Furthermore, when we sell the rights to service loans we originate, we expose ourselves to the risk that borrowers will be dissatisfied with their experience with the servicer and will altribute that dissatisfaction to us.

We employ various economic hedging strategies in an attempt to mitigate the interest rate risk and other risks inherent in a mortgage loan commitment. Our hedging activities include entering into derivative instruments. Poorly designed strategies or improperly executed transactions could fail to mitigate our risks and losses, or even increase our risks and losses beyond what they would have been had we not used such hedging strategies.

The mortgage industry is under scrutiny from regulatory agencies and our mortgage business is subject to examination and supervision by state mortgage regulatory agencies, as well as the CFPB, the Federal Reserve and other federal agencies. We may incur substantial cost in preparing for and responding to regulatory examinations and investigations. Failure to comply with applicable laws and regulatory requirements may result in, among other things, suspension or revocation of, or inability to renew, required licenses or registrations, loss of approval status, administrative enforcement actions and fines, refunds or restitution to borrowers, inability to enforce loans we make, loan repurchase or indemnification obligations, private lawsuits, class actions, cease and desist orders, civil and criminal liability, an inability to maintain or enter into new arrangements with secondary mortgage market purchasers or warehouse lenders and reputational risk.

The long-term success of our mortgage business depends upon our ability to manage our expenses and risks. If we are unable to build scale as planned, we may face difficulty maintaining profitability. We may also incur additional expenses and risks if we are unable to successfully address and manage the regulatory and counterparty risks described above or the potential effects of government involvement in the mortgage industry.

## We may experience unanticipated losses as a result of mortgage loan repurchase and indemnification obligations under agreements with secondary market purchasers.

We may be required to repurchase mortgage loans that have been sold to secondary market purchasers in the event there are breaches of certain representations and warranties contained within the sales agreements, such as improper underwriting, fraud, or other origination defects. We also may be required to indemnify certain purchasers and others against losses they incur in the event of breaches of representations and warranties and in various other circumstances, and the amount of such losses could exceed the repurchase amount of the related loans. In connection with the sale of loans to certain secondary market purchasers, we also expect to refund premiums paid by secondary market purchasers in instances where the borrower prepays the loan within a specified period of time. We would need to find alternative purchasers for, or service or arrange with a third party to service, any loans that we are unable to sell or are required to repurchase.

Consequently, we are exposed to credit risk, and potentially funding risk, associated with sold loans due to the risk we may be required to repurchase these loans. We establish reserves in our consolidated financial statements for potential losses related to the mortgage loans we have sold. The adequacy of the reserves and the ultimate amount of losses incurred will depend on, among other things, the actual future mortgage loan performance, the actual level of future repurchase and indemnification requests, the actual success rate of claimants, actual recoveries on the collateral and macroeconomic conditions. Adverse macroeconomic conditions, including high unemployment and depressed housing values, have resulted in missed mortgage payments and foreclosures, negatively impacting the credit performance of mortgages. We do not expect that the difficult conditions in the housing markets will improve materially in the near future. A worsening of these conditions would likely exacerbate the adverse effects of these difficult market conditions on the credit performance of mortgages in general. Due to uncertainties relating to these factors, there can be no assurance that the reserves we establish will be adequate or that the total amount of losses incurred will not have a material adverse effect on our financial condition or results of operations.

## Credit, Market and Liquidity Risk

## Our framework for managing risks may not be effective in mitigating our risk of loss.

Our risk management framework seeks to mitigate risk and appropriately balance risk and return. We have established processes and procedures intended to identify, measure, monitor and report the types of risk to which we are subject, including credit risk, market risk, liquidity risk, operational risk, legal and compliance risk, and strategic risk. We seek to monitor and control our risk exposure through a framework of policies, procedures, limits and reporting requirements. Management of our risks in some cases depends upon the use of analytical and/or forecasting models. If
the models that we use to mitigate these risks are inadequate, we may incur increased losses. In addition, there may be risks that exist, or that develop in the future, that we have not appropriately anticipated, identified or mitigated. If our risk management framework does not effectively identify or mitigate our risks, we could suffer unexpected losses and our financial condition and results of operations could be materially adversely affected.

## Our business depends on our ability to manage our credit risk, and failing to manage this risk successfully may result in high charge-off rates, which would materially adversely affect our business, profitability and financial condition.

Our success depends on our ability to manage our credit risk while attracting new customers with profitable usage patterns. We select our customers, manage their accounts and establish terms and credit limits using proprietary scoring models and other analytical techniques that are designed to set terms and credit limits to appropriately compensate us for the credit risk we accept, while encouraging customers to use their available credit. The models and approaches we use may not accurately predict future charge-offs due to, among other things, inaccurate assumptions. While we continually seek to improve our assumptions and models, we may make modifications that unintentionally cause them to be less predictive or we may incorrectly interpret the data produced by these models in setting our credit policies.

Our ability to manage credit risk and avoid high charge-off rates may be adversely affected by economic conditions that may be difficult to predict, such as the recent financial crisis. Although delinquencies and charge-offs continued to decline through 2012, we believe that we are experiencing historical lows in these rates and that they are likely to increase at some point. In addition, if economic conditions do not improve, these rates may increase more than expected. The full-year net charge-off rate was $2.29 \%$ in 2012, down from the full-year net charge-off rate of $3.97 \%$ in 2011 and $7.53 \%$ in 2010. At November 30, 2012, 2011 and 2010, $\$ 611$ million, or $1 \%$; $\$ 718$ million, or $1.25 \%$; and $\$ 1.2$ billion, or $2.36 \%$, respectively, of our loan receivables were non-performing (defined as loans over 90 days delinquent and accruing interest plus loans not accruing interest). We remain subject to conditions in the consumer credit environment. There can be no assurance that our underwriting and portfolio management strategies will permit us to avoid high charge-off levels, or that our allowance for loan losses will be sufficient to cover actual losses.

A customer's ability to repay us can be negatively impacted by increases in their payment obligations to other lenders under mortgage, credit card and other consumer loans. Such changes can result from increases in base lending rates or structured increases in payment obligations, and could reduce the ability of our customers to meet their payment obligations to other lenders and to us. In addition, a customer's ability to repay us can be negatively impacted by the restricted availability of credit to consumers generally, including reduced and closed lines of credit. Customers with insufficient cash flow to fund daily living expenses and lack of access to other sources of credit may be more likely to increase their card usage and ultimately default on their payment obligations to us, resulting in higher credit losses in our porifflio. Our collection operations may not compete effectively to secure more of customers' diminished cash flow than our competitors. In addition, we may not identify customers who are likely to default on their payment obligations to us quickly and reduce our exposure by closing credit lines and restricting authorizations, which could adversely impact our financial condition and results of operations.

Our ability to manage credit risk also may be adversely affected by legal or regulatory changes (such as bankruptcy laws, minimum payment regulations and re-age guidance), competitors' actions and consumer behavior, as well as inadequate collections staffing, techniques, models and performance of vendors such as collection agencies.

We continue to expand our marketing of our personal and private student loan products. Also, we significantly increased the size of our student loan porffolio through two acquisitions in the 2011 fiscal year. Our personal and private student loan portfolios grew to $\$ 3.3$ billion and $\$ 7.7$ billion, respectively, at November 30, 2012, compared to $\$ 2.6$ billion and $\$ 7.3$ billion, respectively, at November 30, 2011, and $\$ 1.9$ billion and $\$ 1.0$ billion, respectively, at November 30, 2010. We have less experience in these areas as compared to our traditional credit card lending business, and there can be no assurance that we will be able to grow these products in accordance with our strategies, manage our credit risk or generate sufficient revenue to cover our expenses in these markets. Our failure to manage our credit risks may materially adversely affect our profitability and our ability to grow these products, limiting our ability to further diversify our business.

## Adverse market conditions or an inability to effectively manage our liquidity risk could negatively impact our ability to meet our liquidity and funding needs, which could materially adversely impact our business operations and overall financial condition.

We must effectively manage the liquidity risk to which we are exposed. We require liquidity in order to meet cash requirements such as day-to-day operating expenses, extensions of credit on our consumer loans and required payments of principal and interest on our borrowings. Our primary sources of liquidity and funding are payments on our loan receivables, deposits, and proceeds from securitization transactions and securities offerings. We may maintain too much liquidity, which can be costly and limit financial flexibility, or we may be too illiquid, which could result in financial distress during a liquidity stress event. Our liquidity portfolio had a balance of approximately $\$ 9.6$ billion as of November 30, 2012, compared to $\$ 8.5$ billion as of November 30, 2011 and $\$ 10.1$ billion as of November 30, 2010. Our total contingent liquidity sources as of November 30, 2012 amounted to $\$ 26.6$ billion (consisting of $\$ 9.6$ billion in our liquidity portfolio, $\$ 10.2$ billion in incremental Federal Reserve discount window capacity, and $\$ 6.8$ billion of undrawn capacity in private securitizations), compared to $\$ 26.2$ billion at November 30, 2011 and $\$ 22.5$ billion at November 30, 2010.

In the event that our current sources of liquidity do not satisfy our needs, we would be required to seek additional financing. The availability of additional financing will depend on a variety of factors such as market conditions, the general availability of credit to the financial services industry, new regulatory restrictions and requirements, and our credit ratings. Disruptions, uncertainty or volatility in the capital, credit or deposit markets, such as the volatility experienced in the capital and credit markets during the financial crisis, may limit our ability to repay or replace maturing liabilities in a timely manner. As such, we may be forced to delay raising funding or be forced to issue or raise funding at undesirable terms and/or costs, which could decrease profitability and significantly reduce financial flexibility. Further, in disorderly financial markets or for other reasons, it may be difficult or impossible to liquidate some of our investments to meet our liquidity needs.

While market conditions have stabilized and, in many cases, improved, there can be no assurance that significant disruption and volatility in the financial markets will not occur in the future. For example, recent concerns regarding U.S. debt and budget matters have caused uncertainty in U.S. financial markets. A failure to raise the U.S. debt limit and/or a downgrade of U.S. debt ratings in the future could, in addition to causing economic and financial market disruptions, materially adversely affect the market value of the U.S. government securities that we hold. If we are unable to continue to fund our assets through deposits or access capital markets on favorable terms, or if we experience an increase in our borrowing costs or otherwise fail to manage our liquidity effectively, our liquidity, operating results, financial results and condition may be materially adversely affected.

## An inability to accept or maintain deposits in the future could materially adversely affect our liquidity position and our ability to fund our business.

We obtain deposits from consumers either directly or through affinity relationships and through third-party securities brokerage firms that offer our deposits to their customers. We had $\$ 27.9$ billion in deposits acquired directly or through affinity relationships and $\$ 14.1$ billion in deposits originated through securities brokerage firms as of November 30, 2012, compared to $\$ 26.2$ billion and $\$ 13.3$ billion, respectively, as of November 30, 2011. Competition from other financial services firms that use deposit funding and the rates we offer on our deposit products may affect deposit renewal rates, costs or availability. Changes we make to the rates offered on our deposit products may affect our profitability (through funding costs) and our liquidity (through volumes raised). In addition, our ability to maintain existing or obtain additional deposits may be impacted by factors beyond our control, including perceptions about our financial strength or online banking generally, which could reduce the number of consumers choosing to make deposits with us, third parties continuing or entering into affinity relationships with us, or third-party securities brokerage firms offering our deposit products.

Our ability to obtain deposit funding and offer competitive interest rates on deposits is also dependent on capital levels of our bank subsidiaries. The Federal Deposit Insurance Act (the "FDIA") prohibits insured banks, including our subsidiary Discover Bank, from accepting brokered deposits (as defined in the FDIA) or offering interest rates on any deposits significantly higher than the prevailing rate in its normal market area or nationally (depending upon where the deposits are solicited), unless (1) it is "well-capitalized" or (2) it is "adequately capitalized" and receives a waiver from the FDIC.

A bank that is "adequately capitalized" may not pay an interest rate on any deposit, including direct-to-consumer deposits, in excess of 75 basis points over the national rate published by the FDIC. There are no such restrictions on a bank that is "well-capitalized." As of November 30, 2012, we had brokered deposits (as defined in the FDIA) of $\$ 14.1$ billion. While Discover Bank met the FDIC's definition of "well-capitalized" as of November 30, 2012, there can be no assurance that it will continue to meet this definition. For a comparison of Discover Bank's capital ratios to the "well-capitalized" capital requirements, see Note 18: Capital Adequacy to our consolidated financial statements. Additionally, our regulators can adjust the requirements to be "well-capitalized" at any time and have authority to place limitations on our deposit businesses, including the interest rate we pay on deposits.

## If we are unable to securitize our receivables, it may have a material adverse effect on our liquidity, cost of funds and overall financial condition.

We use the securitization of credit card receivables, which involves the transfer of receivables to a trust and the issuance by the trust of beneficial interests to third-party investors, as a significant source of funding. Our average level of credit card securitized borrowings from third parties was $\$ 14.6$ billion for fiscal year 2012 and $\$ 13.5$ billion for fiscal year 2011. Although the securitization market for credit cards has been re-established since the financial crisis, there can be no assurance that there will not be future disruptions in the market. Our ability to raise funding through the securitization market also depends, in part, on the credit ratings of the securities we issue from our securitization trusts. If we are not able to satisfy rating agency requirements to maintain the ratings of asset-backed securities issued by our trusts, it could limit our ability to access the securitization markets. Additional factors affecting the extent to which we will securitize our credit card receivables in the future include the overall credit quality of our receivables, the costs of securitizing our receivables, and the legal, regulatory, accounting and tax requirements governing securitization transactions. A prolonged inability to securitize our receivables may have a material adverse effect on our liquidity, cost of funds and overall financial condition.

## The occurrence of events that result in the early amortization of our existing credit card securitization transactions or an inability to delay the accumulation of principal collections in our credit card securitization trusts would materially adversely affect our liquidity.

Our liquidity would be materially adversely affected by the occurrence of events that could result in the early amortization of our existing credit card securitization transactions. Credit card securitizations are normally structured as "revolving transactions" that do not distribute to securitization investors their share of monthly principal payments on the receivables during the revolving period, and instead use those principal payments to fund the purchase of new receivables. The occurrence of "early amortization events" may result in termination of the revolving periods of our securitization transactions, which would require us to repay the affected outstanding securitized borrowings out of principal collections without regard to the original payment schedule. Our average level of credit card securitized borrowings was $\$ 14.6$ billion for fiscal year 2012 and $\$ 13.5$ billion for fiscal year 2011. Early amortization events include, for example, insufficient cash flows in the securitized pool of receivables to meet contractual requirements (i.e. excess spread less than zero), certain breaches of representations, warranties or covenants in the agreements relating to the securitization, and receivership or insolvency of Discover Bank. For more information on excess spread, see Note 6: Credit Card and Student Loan Securitization Activities to our consolidated financial statements. An early amortization event would negatively impact our liquidity, and require us to rely on alternative funding sources, which may or may not be available at the time.

Our credit card securitization structure includes a requirement that we accumulate principal collections into a restricted account in the amount of scheduled maturities on a pro rata basis over the 12 months prior to a security's maturity date. We have the option under our credit card securitization documents to shorten this accumulation period, subject to the satisfaction of certain conditions, including reaffirmation from each of the rating agencies of the security's required rating. Historically, we have exercised this option to shorten the accumulation period to one month prior to maturity. If we were to determine that the payment rate on the underlying receivables would not support a one-month accumulation period, or if one or more of the rating agencies were to require an accumulation period of longer than one month, we would need to begin accumulating principal cash flows earlier than we have historically. A lengthening of the accumulation period would negatively impact our liquidity, requiring management to implement mitigating measures. During periods of significant maturity levels, absent management actions, the lengthening of the accumulation period could materially adversely affect our financial condition.

## A downgrade in the credit ratings of our securities could materially adversely affect our business and financial condition.

We, along with Discover Bank, are regularly evaluated by the ratings agencies, and their ratings for our long-term debt and other securities, including asset-backed securities issued by our securitization trusts, are based on a number of factors, including our financial strength as well as factors that may not be within our control. The credit ratings of the securities issued by our securitization trusts are regularly evaluated by the rating agencies. The ratings of our assetbacked securities are based on a number of factors, including the quality of the underlying receivables and the credit enhancement structure of the trusts. Downgrades in our ratings or those of our trusts could materially adversely affect our cost of funds, access to capital and funding, and overall financial condition. There can be no assurance that we will be able to maintain our current credit ratings or that our credit ratings will not be lowered or withdrawn.

## We may not be successful in managing the investments in our liquidity investment porffolio and investment performance may deteriorate due to market fluctuations, which would adversely affect our business and financial condition.

We must effectively manage the risks of the investments in our liquidity investment portfolio, which is comprised of cash and cash equivalents and high quality, liquid investments. Our investments may be adversely affected by market fluctuations including changes in interest rates, prices, prepayment rates, credit risk premiums and overall market liquidity. Also, investments backed by collateral could be adversely impacted by changes in the value of the underlying collateral. In addition, continued poor economic conditions may cause certain of the obligors, counterparties and underlying collateral on our investments to incur losses of their own or default on their obligations to us due to bankruptcy, lack of liquidity, operational failure or other reasons, thereby increasing our credit risk exposure to these investments. These risks could result in a decrease in the value of our investments, which could negatively impact our financial condition. Further, we may choose new investments, which may result in greater fluctuations in market value. While we expect these investments to be readily convertible into cash and do not believe they present a material increase to our risk profile or will have a material impact on our risk-based capital ratios, they are subject to certain market fluctuations that may reduce the ability to fully convert them into cash.

## Changes in the level of interest rates could materially adversely affect our earnings.

Changes in interest rates cause our net interest income and our interest expense to increase or decrease, as certain of our assets and liabilities carry interest rates that fluctuate with market benchmarks. Some of our consumer loan receivables bear interest at a fixed rate or do not earn interest, and we may not be able to increase the rate on those loans to mitigate any higher cost of funds, which could materially reduce earnings. At the same time, our variable rate loan receivables, which are based on the prime market benchmark rate, may not change at the same rate as our floating rate borrowings or may be subject to a cap, subjecting us to basis risk. The majority of our floating rate borrowings are asset securitizations, which are generally based on the 1 -month LIBOR rate. If the 1 -month LIBOR rate were to increase without a corresponding increase in the prime rate, our earnings would be negatively impacted. In addition to asset securitizations, we also utilize deposits as a significant source of funds. In addition to asset securitizations, we also utilize deposits as a significant source of funds. Although we use derivative instruments to hedge the fixed rates associated with some of our existing certificates of deposit, the majority of our existing certificates of deposit bear interest at fixed rates that do not fluctuate with market benchmarks. However, new deposit issuances are subject to fluctations in interest rates.

Interest rates may also adversely impact our delinquency and charge-off rates. Many consumer lending products bear interest rates that fluctuate with certain base lending rates published in the market, such as the prime rate and LIBOR. As a result, higher interest rates often lead to higher payment requirements by consumers under obligations to us and other lenders, which may reduce their ability to remain current on their obligations to us and thereby lead to loan delinquencies and additions to our loan loss provision, which could materially adversely affect our earnings.

We regularly monitor interest rates and have entered into interest rate derivative agreements in an effort to manage our interest rate risk exposure. Changes in market assumptions regarding future interest rates could significantly impact the valuation of our derivative instruments and, accordingly, impact our financial position and results of operations. If our hedging activities are not appropriately monitored or executed, these activities may not effectively mitigate our interest rate sensitivity or have the desired impact on our results of operations or financial condition. For information related to interest rate risk sensitivities, see "Quantitative and Qualitative Disclosures About Market Risk."

## We may be limited in our ability to pay dividends on and repurchase our stock.

In the 2012 fiscal year, we increased our quarterly common stock dividend to $\$ .10$ per share and repurchased approximately $6 \%$ of our outstanding common stock under our share repurchase program. In December 2012, our board approved an increase in our quarterly common stock dividend to $\$ .14$ per share and we paid our first preferred stock dividend. The declaration and payment of future dividends, as well as the amount thereof, are subject to the discretion of our board of directors. The amount and size of any future dividends and share repurchases will depend upon our results of operations, financial condition, capital levels, cash requirements, future prospects and other factors. Holders of our shares of common stock are subject to the prior dividend rights of holders of our preferred stock or the depositary shares representing such preferred stock outstanding, and if full dividends have not been declared and paid on all outstanding shares of preferred stock in any dividend period, no dividend may be declared or paid or set aside for payment on our common stock. In addition, banking laws and regulations and our banking regulators may limit our ability to pay dividends and make share repurchases. For example, our ability to make capital distributions, including our ability to pay dividends or repurchase shares of our stock, is subject to the Federal Reserve's review and non-objection of our annual capital plan. In certain circumstances, we will not be able to make a capital distribution unless the Federal Reserve has approved such distribution. Further, current or future regulatory initiatives may require us to hold more capital in the future. There can be no assurance that we will declare and pay any dividends on our common stock or our preferred stock or repurchase any shares of our stock in the future.

## We are a holding company and depend on payments from our subsidiaries.

Discover Financial Services, our parent holding company, depends on dividends, distributions and other payments from its subsidiaries to fund dividend payments, share repurchases, payments on its obligations, including debt obligations, and to provide funding and capital as needed to its operating subsidiaries. Regulatory and other legal restrictions may limit our ability to transfer funds freely, either to or from our subsidiaries. In particular, some of our subsidiaries are subject to laws and regulations that authorize regulatory bodies to block or reduce the flow of funds to the parent holding company, or that prohibit such transfers altogether in certain circumstances. These laws, regulations and rules may hinder our ability to access funds that we may need to make payments on our obligations. Furthermore, as a bank holding company, we may become subject to a prohibition or to limitations on our ability to pay dividends or repurchase our stock as described above. The Federal Reserve and the FDIC have the authority to prohibit or to limit the payment of dividends by the banking organizations they supervise, including us and our bank subsidiaries. For more information, see "Business - Supervision and Regulation - Capital, Dividends and Share Repurchases."

## Operational and Other Risk

## If our security systems, or those of third parties, containing information about us, our customers or third parties with which we do business, are compromised, we may be subject to liability and damage to our reputation.

Our direct banking and network operations rely heavily on the secure processing, storage and transmission of confidential information about us, our customers and third parties with which we do business. Information security risks for financial institutions are increasing, in part because of the proliferation of new technologies, the use of the internet and telecommunications technologies to conduct financial transactions, and the increased sophistication and activities of organized crime, activists, hackers and other external parties. Our technologies, systems, networks and software, and those of other financial institutions, have been and are likely to continue to be the target of cyber attacks, malicious code, computer viruses and denial of service attacks that could result in unauthorized access, misuse, loss or destruction of data (including confidential customer information), account takeovers, unavailability of service or other events. These types of threats may derive from human error, fraud or malice on the part of external or internal parties, or may result from accidental technological failure. Despite our efforts to ensure the integrity of our systems through our information security and business continuity programs, we may not be able to anticipate or to implement effective preventive measures against all security breaches of these types, especially because the techniques used change frequently or are not recognized until launched, and because security attacks can originate from a wide variety of sources. As we rely on many third-party service providers and network participants, a security breach or cyber attack affecting one of these third parties could impact us through no fault of our own. Further, to access our products and services, our customers may use computers and mobile devices that are beyond our security control systems.

We are subject to increasingly more risk related to security systems as we increase acceptance of the Discover card internationally, expand our suite of online direct banking products, enhance our mobile payment technologies, acquire new or outsource some of our business operations, and expand our internal usage of web-based products and applications. If our security systems or those of third parties are penetrated or circumvented such that the confidentiality, integrity and availability of information about us, our customers, transactions processed on our networks or third parties with which we do business is compromised, we could be subject to significant liability that may not be covered by insurance, including significant legal and financial exposure, actions by our regulators, damage to our reputation, or a loss of confidence in the security of our systems, products and services that could adversely affect our business.

## We may be unable to increase or sustain Discover card usage, which could impair growth in, or lead to diminishing, average balances and total revenue.

A key element of our business strategy is to increase the usage of the Discover card by our customers, including making it their primary card, and thereby increase our revenue from transaction and service fees and interest income. However, our customers' use and payment patterns may change because of social, legal and economic factors, and customers may decide to use debit cards or other payment products instead of credit cards, not to increase card usage, or to pay the balances within the grace period to avoid finance charges. We face challenges from competing card products in our attempts to increase credit card usage by our existing customers. Our ability to increase card usage also is dependent on customer satisfaction, which may be adversely affected by factors outside of our control, including competitors' actions and legislative/regulatory changes. Existing legal and regulatory restrictions limit pricing changes that may impact an account throughout its lifecycle, which may reduce our capability to offer lower price promotions to drive account usage and customer engagement. As part of our strategy to increase usage, we have been increasing the number of merchants who accept cards issued on the Discover Network. If we are unable to continue increasing merchant acceptance or fail to improve awareness of existing merchant acceptance of our cards, our ability to grow usage of Discover cards may be hampered. As a result of these factors, we may be unable to increase or sustain credit card usage, which could impair growth in or lead to diminishing average balances and total revenue.

## Our transaction volume is concentrated among large merchants, and a reduction in the number of, or rates paid by, large merchants that accept cards on the Discover Network or PULSE network could materially adversely affect our business, financial condition, results of operations and cash flows.

Discover card transaction volume was concentrated among our top 100 merchants in 2012, with our largest merchant accounting for approximately $8 \%$ of that transaction volume. Transaction volume on the PULSE network was also concentrated among the top 100 merchants in 2012, with our largest merchant accounting for approximately $14 \%$ of PULSE transaction volume. These merchants could seek to negotiate better pricing or other financial incentives by continuing to participate in the Discover Network and/or PULSE network only on the condition that we change the terms of their economic participation. Loss of acceptance at our largest merchants would decrease transaction volume, negatively impact our brand, and could cause customer attrition. At the same time, we are subject to pricing pressure from network partners, who generally have a greater ability than merchants to negotiate higher interchange fees. In addition, some of our merchants, primarily our remaining small and mid-size merchants, are not contractually committed to us for any period of time and may cease to participate in the Discover Network at any time on short notice.

Actual and perceived limitations on acceptance of credit cards issued on the Discover Network or debit cards issued on the PULSE network could adversely affect the use of Discover cards by existing customers and the attractiveness of the Discover card to prospective new customers. Also, we may have difficulty attracting and retaining network partners if we are unable to add and retain acquirers or merchants who accept cards issued on the Discover or PULSE networks. As a result of these factors, a reduction in the number of, or rates paid by, our merchants could materially adversely affect our business, financial condition, results of operations and cash flows.

## Our business, financial condition and results of operations may be adversely affected by the increasing focus of merchants on the fees charged by credit card and debit card networks.

Merchant acceptance and fees are critical to the success of both our card issuing and payment processing businesses. Merchants are concerned with the fees charged by credit card and debit card networks. They seek to negotiate better pricing or other financial incentives as a condition to continued participation in the Discover Network and PULSE network.

During the past few years, merchants and their trade groups have filed numerous lawsuits against Visa, MasterCard, American Express and their card-issuing banks, claiming that their practices toward merchants, including issuer fees, violate federal antitrust laws. There can be no assurance that they will not in the future bring legal proceedings against other credit card and debit card issuers and networks, including us. Merchants also may promote forms of payment with lower fees, such as ACH-based payments, or seek to impose surcharges at the point of sale for use of credit or debit cards. Merchant groups have also promoted federal and state legislation that would restrict issuer practices or enhance the ability of merchants, individually or collectively, to negotiate more favorable fees. The heightened focus by merchants on the fees charged by credit card and debit card networks, together with the Reform Act and recent U.S. Department of Justice settlements with Visa and MasterCard, which would allow merchants to encourage customers to use other payment methods or cards and may increase merchant surcharging, could lead to reduced transactions on, or merchant acceptance of, Discover Network or PULSE network cards or reduced fees, either of which could adversely affect our business, financial condition and results of operations.

## Political, economic or other instability in a country or geographic region, or other unforeseen or catastrophic events, could adversely affect our international business activities and reduce our revenue.

Natural disasters or other catastrophic events, including terrorist attacks, may have a negative effect on our business and infrastructure, including our information technology systems. Our Diners Club network, concentrated on primarily serving the global travel industry, could be adversely affected by international conditions that may result in a decline in consumer or business travel activity. Armed conflict, public health emergencies, natural disasters or terrorism may have a significant negative effect on travel activity and related revenue. Although a regionalized event or condition may primarily affect one of our network participants, it may also affect our overall network activity and our resulting revenue. Overall network transaction activity may decline as a result of concerns about safety or disease or may be limited because of economic conditions that result in spending on travel to decline. The impact of such events and other catastrophes on the overall economy may also adversely affect our financial condition or results of operations.

## Fraudulent activity associated with our products or our networks could cause our brands to suffer reputational damage, the use of our products to decrease and our fraud losses to be materially adversely affected.

We are subject to the risk of fraudulent activity associated with merchants, customers and other third parties handling customer information. Our fraud losses have been increasing and we incurred losses of $\$ 93$ million, $\$ 72$ million and $\$ 44$ million for the years ended November 30, 2012, 2011 and 2010, respectively. Credit and debit card fraud, identity theft and related crimes are prevalent and perpetrators are growing ever more sophisticated. Our resources and fraud prevention tools may be insufficient to accurately predict and prevent fraud. The risk of fraud continues to increase for the financial services industry in general. Additionally, our risk of fraud continues to increase as acceptance of the Discover card grows internationally and we expand our direct banking business. Our financial condition, the level of our fraud charge-offs and other results of operations could be materially adversely affected if fraudulent activity were to significantly increase. High profile fraudulent activity could negatively impact our brand and reputation. In addition, significant increases in fraudulent activity could lead to regulatory intervention (such as mandatory card reissuance) and reputational and financial damage to our brands, which could negatively impact the use of our cards and networks and thereby have a material adverse effect on our business. Further, fraudulent activity may result in lower license fee revenue from our Diners Club licensees.

The financial services and payment services industries are rapidly evolving, and we may be unsuccessful in introducing new products or services on a large scale in response to this evolution.

The financial services and payment services industries experience constant and significant technological changes, such as continuing development of technologies in the areas of smart cards, radio frequency and proximity payment devices, electronic commerce and mobile commerce, among others. The effect of technological changes on our business is unpredictable. We depend, in part, on third parties for the development of and access to new technologies. We expect that new services and technologies relating to the payments business will continue to appear in the market, and these new services and technologies may be superior to, or render obsolete, the technologies that we currently use in our products and services. As a result, our future success may be dependent on our ability to identify and adapt to technological changes and evolving industry standards and to provide payment solutions for our customers, merchants and financial institution customers.

Difficulties or delays in the development, production, testing and marketing of new products or services may be caused by a number of factors including, among other things, operational, capital and regulatory constraints. The occurrence of such difficulties may affect the success of our products or services, and developing unsuccessful products and services could result in financial losses, as well as decreased capital availability. In addition, the new products and services offered may not be attractive to consumers and merchant and financial institution customers. Also, success of a new product or service may depend upon our ability to deliver it on a large scale, which may require a significant capital investment that we may not be in a position to make. If we are unable to successfully introduce and maintain new incomegenerating products and services, it may impact our ability to compete effectively and materially adversely affect our business and earnings.

## We rely on third parties to deliver services. If we face difficulties managing our relationships with third-party service providers, our revenue or results of operations could be materially adversely affected.

We depend on third-party service providers for many aspects of the operation of our business. For example, we depend on third parties for software and systems development, the timely transmission of information across our data transportation network, and for other telecommunications, processing, remittance and technology-related services in connection with our direct banking and payment services businesses. If a service provider fails to provide the services that we require or expect, or fails to meet contractual requirements, such as service levels or compliance with applicable laws, the failure could negatively impact our business by adversely affecting our ability to process customers' transactions in a timely and accurate manner, otherwise hampering our ability to serve our customers, or subjecting us to litigation and regulatory risk for poor vendor oversight. Such a failure could adversely affect the perception of the reliability of our networks and services, and the quality of our brands, and could materially adversely affect our revenues and/or our results of operations.

## We rely on technology to deliver services. If key technology platforms become obsolete, or if we experience disruptions, including difficulties in our ability to process transactions, our revenue or results of operations could be materially adversely affected.

Our ability to deliver services to our customers and run our business in compliance with applicable laws and regulations may be affected by the functionality of our technology systems. The implementation of technology changes and upgrades to maintain current and integrated systems may result in compliance issues and may, at least temporarily, cause disruptions to our business, including, but not limited to, systems interruptions, transaction processing errors and system conversion delays, all of which could have a negative impact on us. In addition, our transaction processing systems and other operational systems may encounter service interruptions at any time due to system or software failure, natural disaster or other reasons. Such services could be disrupted at any of our primary or back-up facilities or our other owned or leased facilities. Third parties to whom we outsource the maintenance and development of certain technological functionality may experience errors or disruptions that could adversely impact us and over which we may have limited control. In addition, there is no assurance that we will be able to sustain our investment in new technology to avoid obsolescence of critical systems and applications. A failure to maintain current technology, systems and facilities or to control third-party risk, could cause disruptions in the operation of our business, which could materially adversely affect our transaction volumes, our revenues and/or our results of operations.

## Merchant defaults may adversely affect our business, financial condition, cash flows and results of operations.

As an issuer and merchant acquirer in the United States on the Discover Network, and as a holder of certain merchant agreements internationally for the Diners Club network, we may be contingently liable for certain disputed credit card sales transactions that arise between customers and merchants. If a dispute is resolved in the customer's favor, we will cause a credit or refund of the amount to be issued to the customer and charge back the transaction to the merchant or merchant acquirer. If we are unable to collect this amount from the merchant or merchant acquirer, we will bear the loss for the amount credited or refunded to the customer. Where the purchased product or service is not provided until some later date following the purchase, such as an airline ticket, the likelihood of potential liability increases. For the years ended November 30, 2012 and 2011, we had $\$ 0$ million and $\$ 2$ million, respectively, of losses related to merchant chargebacks.

## Our success is dependent, in part, upon our executive officers and other key employees. If we are unable to recruit, retain and motivate key officers and employees to manage our business well, our business could be materially adversely affected.

Our success depends, in large part, on our ability to retain, recruit and motivate key officers and employees to manage our business. Our senior management team has significant industry experience and would be difficult to replace. We believe we are in a critical period of competition in the financial services and payments industry. The market for qualified individuals is highly competitive, and we may not be able to attract and retain qualified personnel or candidates to replace or succeed members of our senior management team or other key personnel. We may be subject to restrictions under future legislation or regulation limiting executive compensation. For example, the federal banking agencies issued guidance on incentive compensation policies at banking organizations and the Reform Act imposes additional disclosures and restrictions on compensation. These restrictions could negatively impact our ability to compete with other companies in recruiting and retaining key personnel and could impact our ability to offer incentives that motivate our key personnel to perform. If we are unable to recruit, retain and motivate key personnel to manage our business well, our business could be materially adversely affected.

## Damage to our reputation could damage our business.

Recently, financial services companies have been experiencing increased reputational risk as consumers protest and regulators scrutinize practices of such companies to maintain or increase business and revenues. Maintaining a positive reputation is critical to our attracting and retaining customers, investors and employees. Damage to our reputation can therefore cause significant harm to our business and prospects. Harm to our reputation can arise from numerous sources, including, among others, employee misconduct, litigation or regulatory outcomes, failing to deliver minimum standards of service and quality, compliance failures, and the activities of customers, business partners and counterparties. Negative publicity regarding us, whether or not true, may result in customer attrition and other harm to our business prospects.

## We may be unsuccessful in promoting and protecting our brands or protecting our other intellectual property, or third parties may allege that we are infringing their intellectual property rights.

The Discover, PULSE and Diners Club brands have substantial economic and goodwill value. Our success is dependent on our ability to promote and protect these brands and our other intellectual property. Our ability to attract and retain customers is highly dependent upon the external perception of our company and brands. Our brands are licensed for use to business partners and network participants, some of whom have contractual obligations to promote and develop our brands. For example, the Discover card brand is now being issued by certain Diners Club licensees in their local markets. If our business partners do not adhere to contractual standards, engage in improper business practices, or otherwise misappropriate, use or diminish the value of our brands or our other intellectual property, we may suffer reputational and financial damage. If we are not be able to adequately protect ourselves, our overall business success may be adversely affected. In addition, third parties may allege that our marketing, processes or systems may infringe their intellectual property rights. Given the potential risks and uncertainties of such claims, our business could be adversely affected by having to pay significant monetary damages or licensing fees, and we may have to alter our business practices.

## Acquisitions or strategic investments that we pursue may not be successful and could disrupt our business, harm our financial condition or reduce our earnings.

We may consider or undertake strategic acquisitions of, or material investments in, businesses, products, porffolios of loans or technologies, such as our recent mortgage business acquisition. We may not be able to identify suitable acquisition or investment candidates, or even if we do identify suitable candidates, they may be difficult to finance, expensive to fund and there is no guarantee that we can obtain any necessary regulatory approvals or complete the transactions on terms that are favorable to us. We generally must receive federal regulatory approvals before we can acquire a bank, bank holding company, deposits or certain assets or businesses. For additional information regarding bank regulatory limitations on acquisitions and investments, see "Business - Supervision and Regulation - Acquisitions and Investments." To the extent we pay the purchase price of any acquisition or investment in cash, it may have an adverse effect on our financial condition; similarly, if the purchase price is paid with our stock, it would be dilutive to our stockholders. In addition, we may assume liabilities associated with a business acquisition or investment, including unrecorded liabilities that are not discovered at the time of the transaction, and the repayment of those liabilities may have an adverse effect on our financial condition.

We may not be able to successfully integrate the personnel, operations, businesses, products, or technologies of an acquisition or investment. Integration may be particularly challenging if we enter into a line of business in which we have limited experience and the business operates in a difficult legal, regulatory or competitive environment. We may find that we do not have adequate operations or expertise to manage the new business. The integration of any acquisition or investment may divert management's time and resources from our core business, which could impair our relationships with our current employees, customers and strategic partners and disrupt our operations. Acquisitions and investments also may not perform to our expectations for various reasons, including the loss of key personnel, customers or vendors. If we fail to integrate acquisitions or investments or realize the expected benefits, we may lose the return on these acquisitions or investments or incur additional transaction costs, and our business and financial condition may be harmed as a result.

## Laws, regulations, and supervisory guidance and practices, or the application thereof, may adversely affect our business, financial condition and results of operations.

We must comply with an array of banking and consumer lending laws and regulations in all of the jurisdictions in which we operate. As a bank holding company, we are subject to oversight, regulation and examination by the Federal Reserve, including scrutiny of our risk management program; business strategy, earnings, capital and cash flow; antimoney laundering program; and examination of our non-bank businesses, including Discover Network, PULSE and Diners Club, and their relationships with our banking subsidiaries. Our banking subsidiaries are subject to regulation and regular examinations by the FDIC and the Delaware Commissioner. We are also now subject to regulation and regular examination by the CFPB. To the extent that states enact requirements that differ from federal standards or state officials and courts adopt interpretations of federal consumer laws that differ from those adopted by the CFPB, we may face increased inquiries and enforcement actions from state attorney general offices. In addition, we are subject to regulation by the Federal Trade Commission, state banking regulators and the U.S. Department of Justice, as well as the SEC and New York Stock Exchange in our capacity as a public company.

From time to time, these regulations and regulatory agencies have required us to alter certain of our operating practices, and may require us to do the same in the future. In September 2012, Discover Bank entered into a consent order with the FDIC and CFPB with respect to the marketing of our protection products, which required us to provide refunds of approximately $\$ 200$ million to eligible customers, pay a $\$ 14$ million civil monetary penalty and enhance our business processes. Our ability to execute our business strategies through acquisitions or the introduction of new products or pricing may be impaired or delayed as a result of regulatory review or failure to obtain required regulatory approvals. Various federal and state regulators have broad discretion to impose restrictions and requirements on our company, subsidiaries and operations, including restrictions on capital actions such as increasing dividends. U.S. federal laws, such as the CARD Act, and state consumer protection laws and rules, limit the manner and terms on which we may offer and extend credit. We have had class action lawsuits filed against us alleging that we have violated various federal and state laws, such as the Truth in Lending Act and the Telephone Consumer Protection Act. We are subject to capital, funding and liquidity requirements prescribed by statutes, regulations and orders, including initiatives under the Reform Act that will require us to hold higher levels of capital to support our businesses. We are also subject to the requirements of accounting standard setters and those who interpret the accounting standards (such as the FASB, the SEC, banking regulators and our independent registered public accounting firm), who may add new requirements or change their interpretations on how standards should be applied, potentially materially impacting how we record and report our financial condition and results of operations. Discover Bank is also subject to FDIC increases in deposit insurance assessments or additional special assessments, which could adversely affect our results of operations and financial condition. The Reform Act has removed the statutory cap for the reserve ratio, leaving the FDIC free to set a cap in the future.

In addition, regulation of the payments industry, including regulation applicable to us, merchant acquirers and our other business partners and customers, has expanded significantly in recent years and is the subject of increasing global regulatory focus, which may result in costly new compliance burdens being imposed on us and our customers and lead to increased costs and decreased payments volume and revenues. The Reform Act includes provisions governing debit and credit card network businesses. Various U.S. federal and state regulatory agencies and state legislatures have considered new legislation or regulations relating to restrictions regarding fees charged to merchants and acquirers, as well as additional charges for premium payment card transactions, and other restrictions related to identity theft, privacy, data security and marketing that could have a direct effect on us and our merchant and financial institution customers. Internationally, we are subject to government regulation in countries in which our networks operate or our cards are used,
either directly or indirectly through regulation affecting Diners Club network licensees. We, our Diners Club licensees and Diners Club customers are subject to laws and regulations that affect the payments industry in many countries in which our cards are used. We are subject to anti-corruption laws and regulations, including the U.S. Foreign Corrupt Practices Act and other laws, that prohibit the making or offering of improper payments.

Failure to comply with laws and regulations could lead to adverse consequences such as financial, structural, reputational and operational penalties, including receivership, litigation exposure and fines (as described further below). Failure to comply with anti-corruption and other laws can expose us and/or individual employees to potentially severe criminal and civil penalties. Legislative and regulatory changes could impact the profitability of our business activities, require us to limit or change our business practices or our product offerings, and expose us to additional costs (including increased compliance costs). Significant changes in laws and regulations may have a more adverse effect on our results of operations than on the results of our larger, more diversified competitors. For additional recent legislative and regulatory developments that may affect our business, see "Management's Discussion and Analysis of Financial Condition and Results of Operations - Regulatory Environment and Developments."

## Current and proposed regulation addressing consumer privacy and data use and security could inhibit the number of payment cards issued and increase our costs.

Regulatory pronouncements relating to consumer privacy, data use and security affect our business. In the United States, we are subject to a number of laws concerning consumer privacy and data use and security. We are subject to the Federal Trade Commission's and the banking regulators' information safeguard rules under the Gramm-Leach-Bliley Act. The rules require that financial institutions (including us) develop, implement and maintain a written, comprehensive information security program containing safeguards that are appropriate to the financial institution's size and complexity, the nature and scope of the financial institution's activities, and the sensitivity of any customer information at issue. The United States has experienced a heightened legislative and regulatory focus on privacy and data security, including requiring consumer notification in the event of a data breach. In addition, most states have enacted security breach legislation requiring varying levels of consumer notification in the event of certain types of security breaches, and several other states are considering similar legislation.

Regulation of privacy, data use and security may cause an increase in the costs to issue payment cards and/or may decrease the number of our cards that we or third parties issue. New regulations in these areas may also increase our costs to comply with such regulations, which could negatively impact our earnings. In addition, failure to comply with the privacy and data use and security laws and regulations to which we are subject, including by reason of inadvertent disclosure of confidential information, could result in fines, sanctions, penalties or other adverse consequences and loss of consumer confidence, which could materially adversely affect our results of operations, overall business and reputation.

## Litigation and regulatory actions could subject us to significant fines, penalties and/or requirements resulting in increased expenses.

Businesses in the credit card industry have historically been subject to significant legal actions, including class action lawsuits and commercial, shareholder and patent litigation. Many of these actions have included claims for substantial compensatory, statutory or punitive damages. While we have historically relied on our arbitration clause in agreements with customers to limit our exposure to consumer class action litigation, there can be no assurance that we will continue to be successful in enforcing our arbitration clause in the future. Legal challenges to the enforceability of these clauses have led most card issuers and may cause us to discontinue their use. There have been bills pending in Congress to directly or indirectly prohibit the use of pre-dispute arbitration clauses. Also, the Reform Act authorized the CFPB to conduct a study on pre-dispute arbitration clauses and, based on the study, potentially limit or ban arbitration clauses. Further, we are involved in pending legal actions challenging our arbitration clause. In addition, we have been and may again be involved in various actions or proceedings brought by governmental regulatory agencies, which could harm our reputation, require us to limit our business activities and product offerings, or subject us to significant fines, penalties or other requirements, resulting in increased expenses. In September 2012, Discover Bank entered into a consent order with the FDIC and CFPB with respect to the marketing of our protection products, which required us to provide refunds of approximately $\$ 200$ million to eligible customers, pay a $\$ 14$ million civil monetary penalty and enhance our business processes. We continue to have litigation and regulatory exposure with respect to the marketing of our protection products. We settled a consolidated class action in May 2012, but we have pending state attorney general actions and a
consolidated shareholder derivative action related to the marketing of our protection products. See Note 20: Litigation and Regulatory Matters for information regarding current and recently resolved matters.

## Special Note Regarding Forward-Looking Statements

This annual report on Form 10-K and materials we have filed or will file with the SEC (as well as information included in our other written or oral statements) contain or will contain certain statements that are forward-looking within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions that are difficult to predict. Actual outcomes and results may differ materially from those expressed in, or implied by, our forward-looking statements. Words such as "expects," "anticipates," "believes," "estimates" and other similar expressions or future or conditional verbs such as "will," "should," "would" and "could" are intended to identify such forward-looking statements. You should not rely solely on the forward-looking statements and should consider all uncertainties and risks throughout this annual report on Form 10-K, including those described under "Risk Factors." The statements are only as of the date they are made, and we undertake no obligation to update any forward-looking statement.

Possible events or factors that could cause results or performance to differ materially from those expressed in our forward-looking statements include the following:

- changes in economic variables, such as the availability of consumer credit, the housing market, energy costs, the number and size of personal bankruptcy filings, the rate of unemployment, the levels of consumer confidence and consumer debt, and investor sentiment;
- the impact of current, pending and future legislation, regulation, supervisory guidance, and regulatory and legal actions, including, but not limited to, those related to financial regulatory reform, consumer financial services practices, anti-corruption, and funding, capital and liquidity;
- the actions and initiatives of current and potential competitors;
- our ability to manage our expenses;
- our ability to successfully achieve full card acceptance across our networks and maintain relationships with network participants;
- our ability to sustain and grow our private student loan and mortgage loan products;
- 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;
- losses as a result of mortgage loan repurchase and indemnification obligations to secondary market purchasers;
- 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 porffolio;
- limits on our ability to pay dividends and repurchase our common stock;
- limits on our ability to receive payments from our subsidiaries;
- fraudulent activities or material security breaches of key systems;
- our ability to increase or sustain Discover card usage or attract new customers;
- our ability to maintain relationships with merchants;
- the effect of political, economic and market conditions, geopolitical events and unforeseen or catastrophic events;
- our ability to introduce new products or services;
- our ability to manage our relationships with third-party vendors;
- our ability to maintain current technology and integrate new and acquired systems;
- our ability to collect amounts for disputed transactions from merchants and merchant acquirers;
- our ability to attract and retain employees;
- our ability to protect our reputation and our intellectual property;
- difficulty obtaining regulatory approval for, financing, closing, transitioning, integrating or managing the expenses of acquisitions of or investments in new businesses, products or technologies; 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 porffolios or deposits, which may involve payment in cash or our debt or equity securities.

The foregoing review of important factors should not be construed as exclusive and should be read in conjunction with the other cautionary statements that are included in this annual report on Form 10-K. These factors expressly qualify all subsequent oral and written forward-looking statements attributable to us or persons acting on our behalf. Except for any ongoing obligations to disclose material information as required under U.S. federal securities laws, we do not have any intention or obligation to update forward-looking statements after we distribute this annual report on Form 10-K, whether as a result of new information, future developments or otherwise.

## Item 1B. Unresolved Staff Comments

None.

## Item 2. Properties

We have ten principal properties located in nine states in the United States. As of January 18, 2013, we owned four principal properties, which included our corporate headquarters, two call centers and a processing center, and we leased six principal properties, which included two call centers, our PULSE headquarters, two Discover Home Loans offices and a SLC office. The call centers, processing center and SLC offices largely support our Direct Banking segment; the PULSE headquarters is used by our Payment Services segment; the Discover Home Loans offices support our mortgage business; and our corporate headquarters is used by both our Direct Banking and Payment Services segments. Each of our call centers and our processing center are operating at and being utilized to a reasonable capacity. We believe our principal facilities are both suitable and adequate to meet our current and projected needs. We also have ten leased offices, seven of which are located outside the United States, that are used to support our Diners Club operations, and one leased office that supports our Direct Banking segment.

## Item 3. Legal Proceedings

For a description of legal proceedings, see Note 20: Litigation and Regulatory Matters to our consolidated financial statements.

## Item 4. Mine Safety Disclosures

None.

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

## Common Stock Market Prices and Dividends

Our common stock began trading "regular way" on the New York Stock Exchange ("NYSE") (ticker symbol DFS) on July 2, 2007. The approximate number of record holders of our common stock as of January 18, 2013 was 69,954.

The following table sets forth the quarterly high and low sales prices of a share of our common stock as reported by the NYSE and the cash dividends we declared per share of our common stock during the quarter indicated:

| Quarter Ended: | Stock Price |  | Cash Dividends Declared |
| :---: | :---: | :---: | :---: |
| 2011 | High | Low |  |
| February 28 | \$22.04 | \$17.86 | \$0.02 |
| May 31 | \$25.76 | \$20.96 | \$0.06 |
| August 31 | \$27.92 | \$20.51 | \$0.06 |
| November 30 | \$27.32 | \$21.44 | \$0.06 |
| 2012 |  |  |  |
| February 29 | \$30.69 | \$22.84 | \$0.10 |
| May 31 | \$34.75 | \$29.62 | \$0.10 |
| August 31. | \$39.23 | \$30.48 | \$0.10 |
| November 30 | \$41.87 | \$37.00 | \$0.10 |

In the first quarter of 2012, we increased our quarterly common stock dividend from $\$ .06$ per share to $\$ .10$ per share and maintained a $\$ .10$ per share dividend for each of the second, third and fourth quarters of 2012. In January 2013, we paid a common stock dividend of $\$ .14$ per share. Although we expect to continue our policy of paying regular cash dividends, we cannot assure that we will do so in the future. For more information, including conditions and limits on our ability to pay dividends, see "Business - Supervision and Regulation - Capital, Dividends and Share Repurchases," "Risk Factors - We may be limited in our ability to pay dividends on and repurchase our stock" and "- We are a holding company and depend on payments from our subsidiaries," "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources - Capital" and Note 18: Capital Adequacy to our consolidated financial statements.

## Issuer Purchases of Equity Securities

The table below sets forth information regarding purchases of our common stock related to our share repurchase program and employee transactions that were made by us or on our behalf during the three months ended November 30, 2012.

|  |  | Total Number <br> of Shares <br> Purchased as <br> Part of Publicly <br> Announced <br> Plan or | Maximum Dollar <br> Value of <br> Shares that <br> mat yet |
| :--- | :--- | :--- | :--- | :--- |
| purchased under the |  |  |  |
| Plans or Programs |  |  |  |

(1) On March 13, 2012, our board of directors approved a share repurchase program authorizing the repurchase of up to $\$ 2.0$ billion of our outstanding shares of common stock. This program expires on March 22, 2014 and may be terminated at any time.
(2) Reflects shares withheld (under the terms of grants under employee stock compensation plans) to offset tax withholding obligations that occur upon the delivery of outstanding shares underlying restricted stock units or upon the exercise of stock options.

## Stock Performance Graph

The following graph compares the cumulative total stockholder return (rounded to the nearest whole dollar) of our common stock, the S\&P 500 Stock Index and the S\&P 500 Financials Index for the period from November 30, 2007 through November 30, 2012. The graph assumes an initial investment of $\$ 100$ on November 30, 2007. The cumulative returns include stock price appreciation and assume full reinvestment of dividends. This graph does not forecast future performance of our common stock.


## Item 6. Selected Financial Data

The following table presents our selected financial data and operating statistics. The statement of income data for each of the years in the three-year period ended November 30, 2012 and the statement of financial condition data as of November 30, 2012 and 2011 have been derived from our audited consolidated financial statements included elsewhere in this annual report on Form 10-K. The statement of financial condition data as of November 30, 2010, 2009 and 2008, and the statement of income data for the years ended November 30, 2009 and 2008 have been derived from audited consolidated financial statements not included elsewhere in this annual report on Form 10-K.

The selected financial data shown below for the years ended November 30, 2012, 2011 and 2010 reflects a change in accounting principle as a result of the consolidation of the securitization trusts. Selected financial data shown below for historical periods prior to December 1, 2009 have not been retrospectively adjusted to reflect the change in accounting principle and therefore continue to reflect the accounting standards that were applicable during those historical periods.

## Discover Financial Services

## Selected Financial Data

|  | For the Years Ended November 30, |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2012^{(1)}$ |  | $2011^{(1)(2)}$ |  | 2010 ${ }^{(1)(2)}$ |  | 2009 |  | 2008 |  |
|  | (dollars in millions, except per share amounts) |  |  |  |  |  |  |  |  |  |
| Statement of Income Data: |  |  |  |  |  |  |  |  |  |  |
| Interest income. | \$ | 6,703 | \$ | 6,345 | \$ | 6,146 | \$ | 3,145 | \$ | 2,693 |
| Interest expense |  | 1,331 |  | 1,485 |  | 1,583 |  | 1,251 |  | 1,288 |
| Net interest income. |  | 5,372 |  | 4,860 |  | 4,563 |  | 1,894 |  | 1,405 |
| Other income ${ }^{(3)}$ |  | 2,281 |  | 2,205 |  | 2,095 |  | 4,840 |  | 4,264 |
| Revenue net of interest expense. |  | 7,653 |  | 7,065 |  | 6,658 |  | 6,734 |  | 5,669 |
| Provision for loan losses |  | 848 |  | 1,013 |  | 3,207 |  | 2,362 |  | 1,595 |
| Other expense |  | 3,052 |  | 2,541 |  | 2,182 |  | 2,251 |  | 2,416 |
| Income before income tax expense. |  | 3,753 |  | 3,511 |  | 1,269 |  | 2,121 |  | 1,658 |
| Income tax expense |  | 1,408 |  | 1,284 |  | 504 |  | 845 |  | 595 |
| Income from continuing operations. |  | 2,345 |  | 2,227 |  | 765 |  | 1,276 |  | 1,063 |
| Loss from discontinued operations, net of tax |  | - |  | - |  | - |  | - |  | (135) |
| Net income ${ }^{(3)}$ | \$ | 2,345 |  | 2,227 | \$ | 765 | \$ | 1,276 | \$ | 928 |
| Net income allocated to common stockholders | \$ | 2,318 | \$ | 2,202 | \$ | 668 | \$ | 1,207 | \$ | 911 |
| Statement of Financial Condition Data (as of): |  |  |  |  |  |  |  |  |  |  |
| Loan receivables ${ }^{(4)}$ |  | 61,017 |  | 57,670 |  | 49,181 | \$ | 23,625 | \$ | 25,217 |
| Total assets. | \$ | 75,283 | \$ | 69,117 |  | 61,130 | \$ | 46,021 | \$ | 39,892 |
| Total stockholders' equity. | \$ | 9,778 | \$ | 8,242 | \$ | 6,457 | \$ | 8,436 | \$ | 5,916 |
| Allowance for loan losses | \$ | 1,725 | \$ | 2,205 | \$ | 3,304 | \$ | 1,759 | \$ | 1,375 |
| Long-term borrowings | \$ | 19,729 | \$ | 18,287 | \$ | 17,706 | \$ | 2,428 | \$ | 1,735 |
| Per Share of Common Stock: |  |  |  |  |  |  |  |  |  |  |
| Basic EPS from continuing operations | \$ | 4.47 | \$ | 4.06 | \$ | 1.23 | \$ | 2.39 | \$ | 2.18 |
| Diluted EPS from continuing operations. | \$ | 4.46 | \$ | 4.06 | \$ | 1.22 | \$ | 2.38 | \$ | 2.18 |
| Weighted average shares outstanding (000's) |  | 518,428 |  | 41,813 |  | 44,058 |  | 04,540 |  | 79,335 |
| Weighted average shares outstanding (fully diluted) (000's). |  | 519,620 |  | 542,626 |  | 48,760 |  | 07,907 |  | 79,357 |
| Dividends declared per share of common stock | \$ | 0.40 | \$ | 0.20 | \$ | 0.08 | \$ | 0.12 | \$ | 0.24 |
| Common stock dividend payout ratio. |  | 8.95\% |  | 4.92\% |  | 6.52\% |  | 5.02\% |  | 11.01\% |
| Ratios: |  |  |  |  |  |  |  |  |  |  |
| Return on average total equity . |  | 26\% |  | 30\% |  | 12\% |  | 17\% |  | 16\% |
| Return on average assets. |  | 3\% |  | 3\% |  | 1\% |  | 3\% |  | 3\% |
| Average stockholders' equity to average total assets |  | 13\% |  | 12\% |  | 11\% |  | 18\% |  | 15\% |

(1) Amounts as of and for the years ended November 30,2012, 2011 and 2010 include securitized loans as a result of the consolidation of the securitization trusts related to a change in accounting principle on December 1, 2009. Amounts prior to December 1, 2009 do not include securitized loans.
(2) Amounts as of November 30, 2011 and November 30, 2010 for loan receivables, total assets, return on average assets and average stockholders' equity to average total assets have been modified to include credit card loans in process as of the balance sheet date. See Note 2: Summary of Significant Accounting Policies for further discussion.
(3) The years ended November 30, 2009 and 2008 include $\$ 1.9$ billion pretax ( $\$ 1.2$ billion after tax) and $\$ 0.9$ billion pretax ( $\$ 0.5$ billion after tax), respectively, of income related to the Visa and MasterCard antitrust litigation settlement, which is included in our Direct Banking segment.
(4) 2011 includes $\$ 3.1$ billion of student loan receivables acquired with the SLC acquisition in December 2010 and $\$ 2.4$ billion of student loan receivables acquired from Citibank, N.A. in September 2011.

The loan receivables information shown below is provided on both a GAAP basis and a "non-GAAP as-adjusted" basis. The non-GAAP as-adjusted basis assumes that the trusts used in our securitization activities were consolidated into our financial results. For an explanation as to why management believes that the non-GAAP as-adjusted numbers are useful to investors and for a reconciliation of these numbers, see "Management's Discussion and Analysis of Financial Condition and Results of Operations - Reconciliations of GAAP to Non-GAAP As-Adjusted Data."

|  | For the Years Ended November 30, |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2012{ }^{(1)}$ | $2011{ }^{(1)(2)}$ | $2010{ }^{(1)(2)}$ | 2009 | 2008 |
|  | (dollars in millions) |  |  |  |  |
| Selected Statistics: |  |  |  |  |  |
| Total Loan Receivables |  |  |  |  |  |
| GAAP information: |  |  |  |  |  |
| Loan receivables. | \$61,017 | \$57,670 | \$49,181 | \$23,625 | \$25,217 |
| Average loan receivables. | \$58,043 | \$53,260 | \$50,203 | \$26,553 | \$21,348 |
| Interest yield | 11.38\% | 11.78\% | 12.13\% | 11.31\% | 10.89\% |
| Net principal charge-off rate | 2.29\% | 3.97\% | 7.53\% | 7.45\% | 4.59\% |
| Delinquency rate (over 30 days). | 1.75\% | 2.29\% | 3.87\% | 4.92\% | 4.35\% |
| Delinquency rate (over 90 days). | 0.83\% | 1.14\% | 2.02\% | 2.58\% | 2.06\% |
| Non-GAAP as-adjusted information: |  |  |  |  |  |
| Loan receivables - Non-GAAP as-adjusted. | N/A | N/A | N/A | \$50,854 | \$51,095 |
| Average loan receivables - Non-GAAP as-adjusted. | N/A | N/A | N/A | \$51,130 | \$49,011 |
| Interest yield - Non-GAAP as adjusted. | N/A | N/A | N/A | 12.40\% | 12.59\% |
| Net principal charge-off rate - Non-GAAP as-adjusted | N/A | N/A | N/A | 7.77\% | 5.01\% |
| Delinquency rate (over 30 days) - Non-GAAP as-adjusted. | N/A | N/A | N/A | 5.31\% | 4.56\% |
| Delinquency rate (over 90 days) - Non-GAAP as-adjusted. | N/A | N/A | N/A | 2.78\% | 2.17\% |
| Total Credit Card Loan Receivables |  |  |  |  |  |
| GAAP information |  |  |  |  |  |
| Credit card loan receivables | \$49,642 | \$46,972 | \$45,502 | \$20,230 | \$23,814 |
| Average credit card loan receivables | \$47,301 | \$45,522 | \$45,911 | \$24,267 | \$20,567 |
| Interest yield | 12.16\% | 12.42\% | 12.71\% | 11.69\% | 10.92\% |
| Net principal charge-off rate | 2.62\% | 4.47\% | 8.02\% | 7.87\% | 4.73\% |
| Delinquency rate (over 30 days) | 1.86\% | 2.38\% | 4.02\% | 5.52\% | 4.55\% |
| Delinquency rate (over 90 days). | 0.91\% | 1.19\% | 2.11\% | 2.92\% | 2.16\% |
| Non-GAAP as-adjusted information: |  |  |  |  |  |
| Credit card loan receivables - Non-GAAP as-adjusted. | N/A | N/A | N/A | \$47,459 | \$49,693 |
| Average credit card loan receivables - Non-GAAP as-adjusted | N/A | N/A | N/A | \$48,844 | \$48,230 |
| Interest yield - Non-GAAP as-adjusted | N/A | N/A | N/A | 12.63\% | 12.63\% |
| Net principal charge-off rate - Non-GAAP as-adjusted | N/A | N/A | N/A | 8.00\% | 5.07\% |
| Delinquency rate (over 30 days) - Non-GAAP as-adjusted. | N/A | N/A | N/A | 5.60\% | 4.66\% |
| Delinquency rate (over 90 days) - Non-GAAP as-adjusted. | N/A | N/A | N/A | 2.94\% | 2.22\% |
| Personal loans |  |  |  |  |  |
| GAAP information |  |  |  |  |  |
| Personal loan receivables. | \$ 3,272 | \$ 2,648 | \$ 1,878 | \$ 1,394 | \$ 1,028 |
| Average personal loan receivables. | \$ 2,944 | \$ 2,228 | \$ 1,593 | \$ 1,224 | \$ 620 |
| Interest yield | 12.35\% | 11.94\% | 11.41\% | 11.38\% | 11.57\% |
| Net principal charge-off rate | 2.33\% | 3.02\% | 5.72\% | 5.53\% | 1.19\% |
| Delinquency rate (over 30 days). | 0.76\% | 0.87\% | 1.57\% | 2.17\% | 1.06\% |
| Delinquency rate (over 90 days). | 0.23\% | 0.28\% | 0.57\% | 0.71\% | 0.25\% |
| Private Student Loans (excluding PCI) |  |  |  |  |  |
| GAAP information |  |  |  |  |  |
| Private student loan receivables. | \$ 3,000 | \$ 2,069 | \$ 999 | \$ 580 | \$ 132 |
| Average private student loan receivables | \$ 2,557 | \$ 1,637 | \$ 827 | \$ 364 | \$ 43 |
| Interest yield | 7.20\% | 7.04\% | 5.75\% | 4.73\% | 5.85\% |
| Net principal charge-off rate | 0.73\% | 0.48\% | 0.33\% | 0.05\% | 0.01\% |
| Delinquency rate (over 30 days). | 1.07\% | 0.63\% | 0.50\% | 0.13\% | 0.09\% |
| Delinquency rate (over 90 days). | 0.27\% | 0.14\% | 0.14\% | 0.03\% | - \% |

[^4]
## Item 7. 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 audited consolidated financial statements and related notes included elsewhere in this annual report on Form 10-K. Some of the information contained in this discussion and analysis constitutes forward-looking statements that involve risks and uncertainties. Actual results could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to these differences include, but are not limited to, those discussed below and elsewhere in this annual report on Form 10-K particularly under "Risk Factors" and "Special Note Regarding Forward-Looking Statements," which immediately follows "Risk Factors." Unless otherwise specified, references to Notes to our consolidated financial statements are to the Notes to our audited consolidated financial statements as of November 30, 2012 and 2011 and for the three-year period ended November 30, 2012.

## Introduction and Overview

Discover Financial Services is a direct banking and payment services company. Through our Discover Bank subsidiary, we offer our customers credit card loans, private student loans, personal loans and deposit products. Through our Discover Home Loans, Inc. subsidiary, we offer our customers home loans. Through our DFS Services LLC subsidiary and its subsidiaries, we operate the Discover Network, the PULSE network ("PULSE") and Diners Club International ("Diners Club"). The Discover Network is a payment card transaction processing network for Discover card-branded and network partner credit, debit and prepaid cards. PULSE operates an electronic funds transfer network, providing financial institutions issuing debit cards on the PULSE network with access to ATMs domestically and internationally, as well as point of sale terminals at retail locations throughout the U.S. for debit card transactions. Diners Club is a global payments network of licensees, which are generally financial institutions, that issue Diners Club branded credit cards and/or provide card acceptance services.

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

## Change in Fiscal Year

On December 3, 2012, our board of directors approved a change in our fiscal year end from November 30 to December 31 of each year. The fiscal year change is effective beginning with our 2013 fiscal year, which began on January 1, 2013 and will end on December 31, 2013. As a result of the change, we will have a December 2012 fiscal month transition period, the results of which we will separately report in our quarterly report on Form 10-Q for the quarter ending March 31, 2013 and in our annual report on Form 10-K for the year ending December 31, 2013.

## Change in Accounting Principle Related to Off-Balance Sheet Securitizations

Beginning with the first quarter of 2010, we have included the trusts used in our securitization activities in our consolidated financial results in accordance with the Financial Accounting Standards Board ("FASB") Statement of Financial Accounting Standards No. 166, Accounting for Transfers of Financial Assets-an amendment of FASB Statement No. 140 ("Statement No. 166") (codified under the FASB Accounting Standards Codification ("ASC") Section 860, Transfers and Servicing) and Statement of Financial Accounting Standards No. 167, Amendments to FASB Interpretations No. $46(R)$ ("Statement No. 167") (codified under ASC Section 810, Consolidation), which were effective for us on December 1, 2009, the beginning of our 2010 fiscal year.

Under Statement No. 166, the trusts used in our securitization transactions are no longer exempt from consolidation. Statement No. 167 prescribes an ongoing assessment of our involvement in the activities of the trusts and our rights or obligations to receive benefits or absorb losses of the trusts that could be potentially significant in order to determine whether those entities will be required to be consolidated in our financial statements. Based on our assessment, we concluded that we are the primary beneficiary of the Discover Card Master Trust I ("DCMT") and the Discover Card Execution Note Trust ("DCENT") (the "trusts") and accordingly, we began consolidating the trusts on December 1, 2009. Using the carrying amounts of the trust assets and liabilities as prescribed by Statement No. 167, we recorded a $\$ 21.1$ billion increase in total assets, a $\$ 22.4$ billion increase in total liabilities and a $\$ 1.3$ billion decrease in stockholders' equity (comprised of a $\$ 1.4$ billion decrease in retained earnings offset by an increase of $\$ 0.1$ billion in
accumulated other comprehensive income). The significant adjustments to our statement of financial condition upon adoption of Statements No. 166 and 167 are outlined below:

- Consolidation of $\$ 22.3$ billion of securitized loan receivables and the related debt issued from the trusts to third-party investors;
- Reclassification of $\$ 4.6$ billion of certificated retained interests classified as investment securities to loan receivables;
- Recording of a $\$ 2.1$ billion allowance for loan losses, not previously required under GAAP, for the newly consolidated and reclassified credit card loan receivables;
- Derecognition of the remaining $\$ 0.1$ billion value of the interest-only strip receivable, net of tax, recorded in amounts due from asset securitization and reclassification of the remaining $\$ 1.6$ billion of amounts due from asset securitization to restricted cash, loan receivables and other assets; and
- Recording of net deferred tax assets of $\$ 0.8$ billion, largely related to establishing an allowance for loan losses on the newly consolidated and reclassified credit card loan receivables.

Beginning with the first quarter of 2010, our results of operations no longer reflect securitization income, but instead report interest income, net charge-offs and certain other income associated with all securitized loan receivables and interest expense associated with debt issued from the trusts to third-party investors in the same line items in our results of operations as non-securitized credit card loan receivables and corporate debt. Additionally, we no longer record initial gains on new securitization activity since securitized credit card loans no longer receive sale accounting treatment. Also, there are no gains or losses on the revaluation of the interest-only strip receivable as that asset is not recognizable in a transaction accounted for as a secured borrowing. Because our securitization transactions are being accounted for under the new accounting rules as secured borrowings rather than asset sales, the cash flows from these transactions are presented as cash flows from financing activities rather than as cash flows from operating or investing activities. Notwithstanding this accounting treatment, our securitizations are structured to legally isolate the receivables from Discover Bank, and we would not expect to be able to access the assets of our securitization trusts, even in insolvency, receivership or conservatorship proceedings. We do, however, continue to have the rights associated with our retained interests in the assets of these trusts.

## Reconciliations of GAAP to Non-GAAP As-Adjusted Data

To enable the reader to better understand our financial information by reflecting period-over-period data on a consistent basis, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in this report presents our financial information as of and for the years ended November 30, 2012, 2011 and 2010 and, where necessary, we have also provided certain information as of and for the years ended November 30, 2009 and 2008 on a non-GAAP as-adjusted basis. Management believes the non-GAAP as-adjusted financial information is useful to investors as it aligns with the financial information used in management's decision-making process and in evaluating the business.

The non-GAAP as-adjusted amounts related to Statement No. 167 show how our financial data would have been presented if the trusts used in our securitization activities were consolidated into our financial statements for historical periods prior to fiscal year 2010.

The following tables display a reconciliation between GAAP and non-GAAP as-adjusted amounts that reflect the full impact the consolidation of our trusts would have had if we had adopted Statement No. 167 retrospectively.

## Loan Receivables Data and Reconciliation

|  |  |
| :--- | :--- |
| Total Loan Receivables |  |
| Loan porfflio |  |
| GAAP ........................................................................................................................... | $\$$ |



|  | As of and for the Year Ended November 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2009 |  | 2008 |  |
| Total Credit Card Loans (continued) | (dollars in millions) |  |  |  |
| Delinquencies (over 30 Days) |  |  |  |  |
| GAAP | \$ | 1,117 | \$ | 1,083 |
| Adjustments for Statement No. 167. |  | 1,540 |  | 1,234 |
| Non-GAAP As-Adjusted. | \$ | 2,657 | \$ | 2,317 |
| Delinquencies (over 90 Days) |  |  |  |  |
| GAAP | \$ | 699 | \$ | 594 |
| Adjustments for Statement No. 167. |  | 694 |  | 509 |
| Non-GAAP As-Adjusted. | \$ | 1,393 | \$ | 1,103 |
| Delinquency Rate (over 30 days) |  |  |  |  |
| GAAP |  | 5.52\% |  | 4.55\% |
| Adjustments for Statement No. 167. |  | 0.08 |  | 0.11 |
| Non-GAAP As-Adjusted. |  | 5.60\% |  | 4.66\% |
| Delinquency Rate (over 90 days) |  |  |  |  |
| GAAP |  | 2.92\% |  | 2.16\% |
| Adjustments for Statement No. 167. |  | 0.02 |  | 0.06 |
| Non-GAAP As-Adjusted. |  | 2.94\% |  | 2.22\% |
| Restructured loans (A) |  |  |  |  |
| GAAP | \$ | 73 | \$ | - |
| Adjustments for Statement No. 167 |  | 145 |  | - |
| Non-GAAP As-Adjusted. | \$ | 218 | \$ | - |
| Delinquency Rate (Restructured Loans) (A) |  |  |  |  |
| GAAP |  | 0.31\% |  | -\% |
| Adjustments for Statement No. 167. |  | 0.15 |  | - |
| Non-GAAP As-Adjusted. |  | 0.46\% |  | -\% |

[^5]
## Average Balance Sheet Reconciliation

| For the Year Ended |  |
| :--- | :--- |
| November $30, ~$ | 2009 |

## 2012 Highlights

- Net income was $\$ 2.3$ billion compared to net income of $\$ 2.2$ billion in 2011.
- Total loans and credit card loans each grew 6\% while Discover card sales volume grew 5\% from the prior year.
- Credit card loan delinquencies decreased over the prior year with a delinquency rate for loans over 30 days past due of $1.86 \%$, compared to $2.38 \%$ at the end of fiscal 2011 . Credit card net charge-offs decreased to $2.62 \%$, compared to the prior year net charge-off rate of $4.47 \%$.
- We began offering residential mortgage loans through Discover Home Loans following our acquisition in June of substantially all of the operating and related assets of Home Loan Center, a subsidiary of Tree.com, Inc.
- Payment Services continued to produce strong results with pretax income of $\$ 181$ million, up $9 \%$ over the prior year. Transaction volume for the segment was $\$ 197$ billion, an increase of $12 \%$ over the prior year.
- We repurchased 34 million shares, or approximately $6 \%$, of our outstanding common stock for $\$ 1.2$ billion.
- Our capital market activities included issuances of approximately $\$ 5.4$ billion in public credit card asset-backed securitizations and a $\$ 560$ million preferred stock issuance. We also completed two private debt exchange offers involving an aggregate $\$ 822$ million of outstanding debt.


## 2011 and 2010 Highlights

- In December 2010, we acquired SLC, which added approximately $\$ 3.1$ billion of private student loans to our portfolio, and in September 2011, we acquired approximately $\$ 2.4$ billion of private student loans from Citi.
- Our revenues were unfavorably impacted in 2011 and 2010 by the implementation of certain provisions of the CARD Act, which included limitations on our ability to reprice accounts, the elimination of overlimit fees and a reduction in the amount of standard late fees.
- We settled our antitrust litigation with Visa and MasterCard for $\$ 2.75$ billion in 2008 . For the years ended November 30, 2009 and 2008, we received a total of $\$ 1.9$ billion ( $\$ 1.2$ billion after tax) and $\$ 0.9$ billion ( $\$ 0.5$ billion after tax), respectively, from Visa for its portion of the settlement. At the time of our spin-off, we entered into an agreement with Morgan Stanley to determine how proceeds from the litigation would be shared, among other things. In 2010, we paid Morgan Stanley a dividend of $\$ 775$ million under an amendment to that agreement.


## Recent Developments

- On December 3, 2012, we changed our fiscal year end from November 30 to December 31. See "—Change in Fiscal Year" above for more information.
- On December 3, 2012, we paid a quarterly cash dividend on our outstanding 575,000 shares of $6.50 \%$ Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series B, in the amount of $\$ 8.13$ per share. The dividend equaled $\$ 0.20325$ per depositary share, representing a $1 / 40$ th interest in a share of the preferred stock. The dividend covered the period from the issuance of the stock on October 16, 2012 through November 30, 2012.
- On January 17, 2013, we paid a cash dividend of $\$ 0.14$ per share of our common stock, which was an increase from the $\$ 0.10$ per share dividend that we paid in the previous quarter.
- On January 23, 2013, we announced the declaration of the first full quarterly cash dividend on our preferred stock referenced above in the amount of $\$ 16.25$ per share, equal to $\$ .40625$ per depositary share, to be paid on March 1, 2013 to holders of record on February 14, 2013.


## Outlook

Credit performance continued to improve through 2012 as we reached historical lows in net charge-off rates. Reserve releases contributed to our overall profitability, but we do not expect to receive a similar benefit of reserve releases in 2013. We believe investments in marketing contributed to our receivables growth and, heading into 2013, we are focused on continuing this trend through new account acquisitions and wallet share gains. We are also targeting solid growth and strong returns in our private student and personal loan portfolios. The expansion of our direct banking product offerings remains a priority and we look forward to launching online checking in early 2013.

We anticipate further total yield compression in 2013 due to the continuing effects of the CARD Act, an increase in promotional offers and expected growth in private student loans, which tend to carry lower interest rates and have lower principal charge-offs than our card receivables. We expect this yield compression to be somewhat offset by continued funding cost improvements. Funding costs are expected to continue to decline over the next year as we benefit from the interest rate environment and replace higher-priced time deposits with lower cost borrowings. Net interest margin is expected to remain above our long-term target. As in 2012, we intend to continue to maintain a strong capital level while targeting investments for future growth and returning capital to shareholders through our share repurchase program and quarterly dividends.

In our payments business, we continue to explore opportunities to leverage our network infrastructure. In August 2012, we entered into a service arrangement with PayPal to utilize our network relationships to obtain access to the point-of-sale at millions of retail locations of participating merchants, which is targeted for launch in the second quarter of 2013. We also continue to invest in global brand awareness and acceptance through support of our Diners Club network and arrangements with other banks, networks and merchant acquirers. We expect to see a decline in the rate of PULSE transaction volume growth in 2013 as a result of actions by competitors with regard to merchant and acquirer pricing and transaction routing strategies.

We continue to monitor the political and economic situation in Europe and work with our local Diners Club licensees with regard to their ability to maintain financing sufficient to support business operations. The inability of certain licensees to maintain operating financing could adversely impact our payment services business. From time to time, we provide financial assistance to licensees when we deem it beneficial to our global payments strategy. For example, we have provided loans to certain licensees and we recently entered into an agreement to purchase one of our licensees. Such arrangements may cause us to incur financial losses.

## Regulatory Environment and Developments

The Reform Act contains a comprehensive set of provisions designed to govern the practices and oversight of financial institutions and other participants in the financial markets. The Reform Act addresses risks to the economy and the payments system posed by large systemically significant financial firms, including us, through a variety of measures, including increased capital and liquidity requirements, limits on leverage, and enhanced supervisory authority. The Reform Act also established a new financial industry regulator, the CFPB, and new requirements for debit card transactions, which impact our core businesses. Additional legislative or regulatory action that may impact our business may result from the multiple studies mandated under the Reform Act.

The evolving regulatory environment causes uncertainty with respect to the manner in which we conduct our businesses and may potentially increase the risk that we may be subject to criticism by our banking regulators. Our banking regulators have introduced and continue to introduce new regulations, supervisory guidance and enforcement actions. We are unable to predict the nature, extent or impact of any additional changes to statutes or regulations, including the interpretation, implementation or enforcement thereof, which may occur in the future.

The impact that the regulatory environment ultimately has on our business and operations depends upon final implementing regulations, the actions of our competitors and the behavior of consumers and other marketplace participants. Regulatory actions could require us to limit or change our business practices, limit our ability to pursue business opportunities, limit our product offerings, require continued investment of management time and resources in compliance efforts, limit fees we can charge for services, require us to meet more stringent capital, liquidity and leverage ratio requirements (including those under Basel III), increase costs, restrict our ability to access the securitization markets for our funding, impact the value of our assets, or otherwise adversely affect our businesses.

To date, compliance requirements and expenditures have increased for financial services firms, including Discover, and we expect them to continue to increase. In September 2012, Discover Bank entered into a consent order with the FDIC and CFPB with respect to the marketing of our protection products, which required us to provide refunds of approximately $\$ 200$ million to eligible customers, pay a $\$ 14$ million civil monetary penalty and enhance our business processes. We may face additional compliance and regulatory risk to the extent that we enter into new lines of business or new business arrangements with third-party service providers, alternative payment providers or other industry participants, including providers or participants that may not be regulated financial institutions. The additional expense, time and resources needed to comply with ongoing regulatory requirements may adversely impact our business and results of operations.

## Consumer Financial Services

The Reform Act established the CFPB, which regulates consumer financial products and services and certain financial services providers, including Discover. The CFPB is authorized to prevent "unfair, deceptive or abusive acts or practices" and ensure consistent enforcement of laws so that all consumers have access to markets for consumer financial products and services that are fair, transparent and competitive. The CFPB has rulemaking and interpretive authority under the Reform Act and other federal consumer financial services laws, as well as broad supervisory, examination and enforcement authority over large providers of consumer financial products and services, such as Discover. In addition, the CFPB has an online complaint system that allows consumers to log complaints with respect to the products we offer. The system could inform future agency decisions with respect to regulatory, enforcement or examination focus. Although the CFPB has begun to implement its regulatory, supervisory, examination and enforcement authority, there continues to be significant uncertainty as to how the agency's strategies and priorities will impact our businesses. The CFPB has recently focused on the marketing of protection products. In September 2012, Discover Bank entered into a consent order with the FDIC and CFPB with respect to the marketing of our protection products, as referenced above.

Student Loans. There is significant legislative and regulatory focus on the student loan market, including by the CFPB, which has made it a priority area of focus. The Reform Act created a "Private Education Ombudsman" within the CFPB to receive and attempt to informally resolve complaints about private student loans, and the Ombudsman issued a report in October 2012 summarizing the complaints that have been received. The October report recommended that congressional committees identify opportunities to spur the availability of loan modification and refinance options for student loan borrowers. In addition, the report recommends that the CFPB and other regulatory agencies assess whether efforts to correct problems in mortgage servicing could be applied to improve the quality of student loan servicing.

In July 2012, the CFPB and the U.S. Department of Education released a comprehensive report on private student lending, which recommended that Congress re-assess the current bankruptcy exemption for private student loans. The July report also recommends that Congress consider requiring private student lenders to obtain school certification that the amount of a student loan does not exceed student need; that more and better information about post-graduate outcomes be made available to students, lenders, and regulators in order to inform students' choice of school and lenders' underwriting capabilities; that schools should determine whether students have exhausted federal aid and certify the need for a private student loan; and that private lenders should disclose the availability of federal aid. Additionally, as directed by the Reform Act, the CFPB reviewed the use of schools' cohort default rates in private loan underwriting. The "cohort default rate" for each school is the average rate of default on federal loans by all student borrowers attending that school, measured for each school year and published by the Department of Education. The July report concluded that the general reliance of many private student lenders on cohort default rates for eligibility cutoffs for students at specific schools may raise a threshold fair lending concern, meriting further analysis by private student lenders to provide evidence of business need. Like other private student lenders, we utilize cohort default rates in the determination of eligibility, and we have reviewed our business needs supporting their use.

Congress or the Administration may take actions as a result of these studies, or otherwise, that impact the student loan market in the future. Legislation has been proposed in past Congresses that would make it easier to discharge private student loan debt in bankruptcy, by repealing the current requirement that this relief is available only to those for whom repaying such loans would be an "undue hardship." It is uncertain whether this legislation will be proposed again in 2013 and whether it will pass. Even if such legislation passed Congress, we believe our underwriting practices and the high percentage of our loans that have cosigners reduce potential risk to our business. Any such actions, however, could cause us to restructure our private student loan product in ways that we may not currently anticipate.

Home Loans. The CFPB has indicated that the mortgage industry is an area of supervisory focus and that it will concentrate its examinations and rulemaking efforts on the variety of mortgage-related topics required under the Reform Act including steering consumers to less favorable products, discrimination, abusive or unfair lending practices, predatory lending, origination disclosures, minimum mortgage underwriting standards, mortgage loan origination compensation and servicing practices. The CFPB recently published several final rules impacting the mortgage industry, including rules related to ability-to-repay, mortgage servicing and mortgage loan originator compensation. The ability-to-repay rule makes lenders liable if they fail to assess ability to repay under a prescribed test but also creates a safe harbor for socalled "qualified mortgages." The "qualified mortgages" standards include a tiered cap structure that places limits on the total amount of certain fees that can be charged on a loan, a $43 \%$ cap on debt-to-income (i.e., total monthly payments on
debt to monthly gross income), exclusion of interest-only products and other requirements. The $43 \%$ debt-to-income cap does not apply for the first seven years the rule is in effect for loans that are eligible for sale to Fannie Mae or Freddie Mac or eligible for government guarantee through the FHA or the Veterans Administration. Failure to comply with the ability-to-repay rule may result in possible CFPB enforcement action and special statutory damages plus actual, class action and attorney fee damages, all of which a borrower may claim in defense of a foreclosure action at any time. We are currently assessing the impact of these requirements on our mortgage business. It is uncertain what the impact of these requirements will be on the secondary market into which we sell mortgages we originate.

In addition, the Federal Reserve and other federal agencies have issued a proposed rule under the Reform Act that would exempt "qualified residential mortgages" from the Reform Act requirement that the securitizer of assets retain an economic interest in a portion of the assets. The final definition of what constitutes a "qualified residential mortgage" may impact the pricing and depth of the secondary mortgage market. At this time, we cannot predict the final content of proposed rules issued by the regulatory agencies or the impacts they might have on our business practices or financial results.

Future regulatory initiatives that could significantly affect the mortgage industry include proposals to reform the housing finance market in the United States. These proposals, among other things, consider winding down the governmentsponsored enterprises, Fannie Mae and Freddie Mac (collectively, the "GSEs"). In addition, the FHA may take action to further restrict the availability of FHA loan products in order to shrink the FHA's presence in the mortgage market. The extent and timing of any regulatory reform or the adoption of any legislation regarding the GSEs, changes to the FHA mortgage product, and/or the home mortgage market, as well as any effect on our business and financial results, are uncertain at this time.

## Payment Networks

Following the implementation of the Federal Reserve regulations related to debit routing and fees in October 2011 and April 2012, large competing networks began to implement new merchant and acquirer pricing and transaction routing strategies. We are closely monitoring the implementation of these strategies in order to assess their impact on our business and on competition in the marketplace. The U.S. Department of Justice is examining some of these competitor pricing strategies. While we are still assessing all of our options for responding to these developments, we currently expect that they will adversely impact PULSE's ability to compete for issuer participation and merchant and acquirer routing, resulting in fewer debit transactions being routed to PULSE and a decline in the rate of PULSE transaction volume growth.

## Capital

In June 2012, the Federal Reserve approved proposed rules that would substantially amend the regulatory risk-based capital rules applicable to us and Discover Bank. The FDIC and the OCC subsequently approved these proposed rules. The proposed rules implement Basel III regulatory capital reforms and changes required by the Reform Act. "Basel III" refers to two consultative documents released by the Basel Committee on Banking Supervision in December 2009, the rules text released in December 2010 and loss absorbency rules issued in Janvary 2011, which include significant changes to bank capital, leverage and liquidity requirements. The proposed rules received extensive comments. In a joint press release issued in November 2012, the agencies stated that they do not expect any of the proposed rules to become effective on the original target date of January 1, 2013. Industry participants are expecting further guidance in early 2013.

In October 2012, the Federal Reserve issued final rules implementing the stress test requirements under the Reform Act for bank holding companies with $\$ 50$ billion or more in total consolidated assets, including Discover. Under the final rule, the Federal Reserve will conduct annual supervisory stress tests for the 19 bank holding companies that participated in the 2009 Supervisory Capital Assessment Program and subsequent Comprehensive Capital Analysis and Reviews ("CCAR BHCs") and will publish the results of such stress tests in March each year, beginning in 2013. In addition, the CCAR BHCs will be required to conduct their own stress tests twice per year and publish the results of these company-run stress tests in March and September each year, beginning in 2013. However, the Federal Reserve delayed implementation of these requirements for bank holding companies like Discover that have $\$ 50$ billion or more in total consolidated assets, but are not CCAR BHCs, for one year.

In October 2012, the FDIC also issued final rules implementing the stress test requirements under the Reform Act for state nonmember banks with $\$ 50$ billion or more in total consolidated assets, like our subsidiary, Discover Bank. The FDIC's stress test rule is similar to the Federal Reserve's stress test rule, except that in general it requires large banks like Discover Bank to comply with stress test requirements under the same timeline as required for the CCAR BHCs. However, the FDIC reserved authority in the final rule to permit subsidiary banks of non-CCAR BHCs, such as Discover Bank, to delay the application of the requirements of the final rule on a case-by-case basis. We sought and obtained FDIC approval to delay the application of certain stress test requirements to Discover Bank to align with the Federal Reserve stress test requirements that apply to us. In this regard, Discover Bank will not be required to comply with the requirements for the publication of stress test results until 2014.

## Results of Operations

The discussion below provides a summary of our results of operations for the year ended November 30, 2012 compared to our results of operations for the years ended November 30, 2011 and 2010. The discussion also provides information about our loan receivables as of November 30, 2012 compared to November 30, 2011 and 2010. In certain tables, quantitative information about our loan receivables as of November 30, 2009 and 2008 are also shown on a non-GAAP as-adjusted basis. For a reconciliation of GAAP to non-GAAP as-adjusted financial data, see "Reconciliations of GAAP to Non-GAAP As-Adjusted Data." All information and comparisons are based solely on continuing operations.

## Segments

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

Direct Banking. Our Direct Banking segment includes Discover card-branded credit cards issued to individuals and small businesses and other consumer products and services, including private student loans, personal loans, home loans, prepaid cards and other consumer lending and deposit products. The majority of our Direct Banking revenues relate to interest income earned on each of our loan products. Additionally, our credit card products generate substantially all of our revenues related to discount and interchange, protection products and loan fee income.

Payment Services. Our Payment Services segment includes PULSE, an automated teller machine, debit and electronic funds transfer network; Diners Club, a global payments network; and our network partner business, which includes credit, debit and prepaid cards issued on the Discover Network by third parties. The majority of our Payment Services revenues relate to transaction processing revenue from PULSE and royalty and licensee revenue (included in other income) from Diners Club.

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

|  | For the Years Ended November 30, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |  | 2010 |  |
| Direct Banking |  |  |  |  |  |  |
| Interest income |  |  |  |  |  |  |
| Credit card. | \$ | 5,751 | \$ | 5,654 | \$ | 5,836 |
| Private student loans |  | 184 |  | 115 |  | 48 |
| PCl student loans |  | 303 |  | 225 |  | - |
| Personal loans |  | 363 |  | 266 |  | 182 |
| Other |  | 102 |  | 85 |  | 80 |
| Total interest income |  | 6,703 |  | 6,345 |  | 6,146 |
| Interest expense |  | 1,331 |  | 1,485 |  | 1,583 |
| Net interest income |  | 5,372 |  | 4,860 |  | 4,563 |
| Provision for loan losses. |  | 848 |  | 1,013 |  | 3,207 |
| Other income. |  | 1,939 |  | 1,907 |  | 1,828 |
| Other expense. |  | 2,891 |  | 2,409 |  | 2,056 |
| Income before income tax expense |  | 3,572 |  | 3,345 |  | 1,128 |
| Payment Services |  |  |  |  |  |  |
| Other income. |  | 342 |  | 298 |  | 267 |
| Other expense.. |  | 161 |  | 132 |  | 126 |
| Income before income tax expense |  | 181 |  | 166 |  | 141 |
| Total income before income tax expense. | \$ | 3,753 | \$ | 3,511 | \$ | 1,269 |

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

|  | For the Years Ended November 30, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |  | 2010 |  |
| Network Transaction Volume |  |  |  |  |  |  |
| PULSE Network | \$ | 159,944 | \$ | 140,119 | \$ | 118,179 |
| Network Partners ${ }^{11)}$ |  | 8,754 |  | 7,533 |  | 6,802 |
| Diners Club ${ }^{(2)}$ |  | 28,644 |  | 29,275 |  | 27,133 |
| Total Payment Services |  | 197,342 |  | 176,927 |  | 152,114 |
| Discover Network - Proprietary ${ }^{(3)}$ |  | 109,014 |  | 103,527 |  | 95,760 |
| Total Volume |  | 306,356 | \$ | 280,454 | \$ | 247,874 |
| Transactions Processed on Networks |  |  |  |  |  |  |
| Discover Network |  | 1,844 |  | 1,722 |  | 1,605 |
| PULSE Network |  | 4,321 |  | 3,824 |  | 3,309 |
| Total |  | 6,165 |  | 5,546 |  | 4,914 |
| Credit Card Volume |  |  |  |  |  |  |
| Discover Card Volume ${ }^{(4)}$ | \$ | 114,213 | \$ | 108,087 | \$ | 98,699 |
| Discover Card Sales Volume ${ }^{(5)}$ | \$ | 105,454 | \$ | 100,138 | \$ | 92,471 |

[^6]
## Direct Banking

For the Year Ended November 30, 2012 compared to the Year Ended November 30, 2011
Our Direct Banking segment reported pretax income of $\$ 3.6$ billion for the year ended November 30, 2012, as compared to pretax income of $\$ 3.3$ billion for the year ended November 30, 2011.

Loan receivables totaled $\$ 61.0$ billion at November 30, 2012, which was up from $\$ 57.7$ billion at November 30, 2011, due to growth in the credit card loans and other loans portfolios. The growth within the other loans porifolio was primarily attributable to personal loans and private student loans. Discover card sales volume was $\$ 105.5$ billion for the year ended November 30, 2012, an increase of $5 \%$ as compared to the same period in 2011. This growth was driven primarily by an increase in the number of existing customers using their Discover card.

Net interest margin increased for the year ended November 30, 2012 as compared to the same period in 2011. This was driven by improved funding rates on our deposit products, partially offset by lower yields on credit cards and growth in private student loans, which generate a lower yield as compared to our other products. There was an increase in interest income relating to credit card loan receivables largely driven by a higher average level of loans which was partially offset by lower yield. Lower yields were driven by growth in loans offered at a promotional rate as well as the receivable repricing restrictions imposed by the CARD Act. There was also an increase in interest income related to student and personal loans during the year ended November 30, 2012 as compared to the same period in 2011. The increase in interest income on purchased credit-impaired ("PCI") loans was due to the acquisition of additional loans on September 30, 2011 (see Note 5: Loan Receivables to our consolidated financial statements), while the increases in interest income on personal and private student loans were attributable to organic growth in these porffolios. Interest expense declined in the year ended November 30, 2012, as compared to the same period in 2011, as maturities of deposits bearing higher interest rates were replaced by funding from deposits that bear a lower interest rate.

At November 30, 2012, our delinquency rate for credit card loans over 30 days past due was $1.86 \%$ as compared to $2.38 \%$ at November 30,2011, reflective of continuing trends of strong credit performance. For the year ended November 30, 2012, our net charge-off rate on credit cards declined to $2.62 \%$, as compared to $4.47 \%$ for the same period in 2011. A decline in the level of net charge-offs and lower reserve requirements led to a decrease in the provision for loan losses for the year ended November 30, 2012, as compared to the same period in 2011 . For a more detailed discussion on provision for loan losses, see "- Loan Quality-Provision and Allowance for Loan Losses."

Total other income increased for the year ended November 30, 2012 as compared to the same period in 2011 primarily due to revenue related to the acquisition and integration of the assets of Home Loan Center in the third quarter of 2012 (see Note 3: Business Combinations to our consolidated financial statements). This included a net gain on the origination and sale of loans as well as a net gain on the related interest rate lock commitments and forward delivery contracts. Furthermore, there was a $\$ 26$ million gain on investment due to the liquidation of a minority interest in an equity investment. These increases in other income were partially offset by higher Cashback Bonus rewards earned by our customers compared to the prior year, which resulted in a decrease to net discount and interchange revenue. Additionally, revenues from protection products and loan fees decreased from the prior year. Protection product revenue was lower than the prior year, reflecting the impact of changes in our offer strategies, which reduced selling over the last few years and ceased at the end of 2012. The decrease in revenue from loan fees was primarily attributable to lower levels of late fee income due to improved credit quality. In addition, revenue from the SLC transition services agreement decreased from the prior year. Finally, the inclusion of the impact of the bargain purchase gain related to the acquisition of SLC in the first quarter of 2011 (see Note 3: Business Combinations to our consolidated financial statements) resulted in a $\$ 7$ million gain. There was not a similar gain in the current year.

Total other expense increased for the year ended November 30, 2012 as compared to the same period in 2011 primarily due to legal expenses associated with the FDIC and CFPB matter (see Note 20: Litigation and Regulatory Matters to our consolidated financial statements for further information). Reserves for legal and regulatory matters increased by $\$ 196$ million for the year ended November 30, 2012 as compared to the year ended November 30, 2011. Higher compensation costs also contributed to the increase in total other expense due to increased headcount to support our business growth, including the acquisition of the assets of Home Loan Center. In addition, marketing and business development expenses increased due to growth initiatives. Finally, the increase in other expense was driven by higher incentive payments related to merchant global acceptance.

For the Year Ended November 30, 2011 compared to the Year Ended November 30, 2010
Our Direct Banking segment reported pretax income of $\$ 3.3$ billion for the year ended November 30, 2011, as compared to pretax income of \$1.1 billion for the year ended November 30, 2010.

Loan receivables totaled $\$ 57.7$ billion at November 30, 2011, which was up from $\$ 49.2$ billion at November 30, 2010. This was primarily driven by the increase in private student loans due to the acquisition of $\$ 3.1$ billion of loans from SLC in the first quarter of 2011 (see Note 3: Business Combinations to our consolidated financial statements), and an additional $\$ 2.4$ billion of student loans acquired in the fourth quarter of 2011 (see Note 5: Loan Receivables to our consolidated financial statements). Credit card loan receivables were $\$ 47.0$ billion at November 30, 2011, which was up from $\$ 45.5$ billion at November 30, 2010. Personal loan receivables were $\$ 2.6$ billion at November 30, 2011, which was up from $\$ 1.9$ billion at November 30, 2010. Discover card sales volume was $\$ 100.1$ billion for the year ended November 30, 2011, an increase of $8 \%$ as compared to the same period in 2010. This growth was driven primarily by an increase in spending by both new and existing customers partially due to increased marketing.

Net interest margin rose slightly for the year ended November 30, 2011 as compared to the same period in 2010. This was driven by an increase in yield on our liquidity portfolio and a decrease in interest expense as a percentage of total loans, partially offset by a decline in yield related to loans. The increase in yield on our liquidity portfolio was driven by a shift to higher yielding investment securities. The decrease in interest expense was related to maturities of deposits bearing higher interest rates, partially offset by increased interest expense on securitized borrowings. The yield on loans declined reflecting an increase in lower yielding student loans. For a more detailed discussion on net interest income, see "- Net Interest Income."

At November 30, 2011, our delinquency rate for credit card loans over 30 days past due was $2.38 \%$ as compared to $4.02 \%$ at November 30, 2010, reflective of improvement throughout 2011 in the underlying credit quality of our porffolio. For the year ended November 30, 2011, our net charge-off rate on credit cards declined to $4.47 \%$, as compared to $8.02 \%$ for the same period in 2010. A reduction in the loan loss reserve rate and a decline in the level of net charge-offs led to a decline in the provision for loan losses for the year ended November 30, 2011 as compared to the same period in 2010. For a more detailed discussion on provision for loan losses, see "-Loan Quality-Provision and Allowance for Loan Losses."

Total other income increased for the year ended November 30, 2011 as compared to the same period in 2010, primarily due to the inclusion of income from the transition services agreement related to the acquisition of SLC in first quarter 2011 (see Note 3: Business Combinations to our consolidated financial statements). Furthermore, discount and interchange revenue and revenue from protection products increased during the year ended November 30, 2011 as compared to the same period in 2010. These increases were partially offset by a decline in loan fee income as well as a modest loss on investments. The increase in discount and interchange revenue was driven by higher sales volume, partially offset by higher Cashback Bonus rewards. Higher levels of revenue from protection products were driven by lower charge-offs relating to these products during the year ended November 30,2011 as compared to the same period in 2010. Gain on investments declined for the year ended November 30, 2011 as compared to the same period in 2010 due to the inclusion of a gain of $\$ 20$ million related to the liquidation of the collateral supporting the asset-backed commercial paper notes of Golden Key U.S. LLC ("Golden Key") during 2010. There was not a similar benefit recognized in 2011. Furthermore, other income in 2010 also included a $\$ 23$ million charge related to the decision we made in 2010 to sell our remaining federal student loans. There was no such charge to other income during 2011.

Total other expense increased for the year ended November 30, 2011 as compared to the same period in 2010 primarily due to higher compensation expenses from increased headcount and higher bonuses. Furthermore, there were higher marketing and business development costs related to new account acquisitions. Professional fees also increased due to higher costs related to key technology initiatives, costs relating to the SLC acquisition, as well as an increase in costs related to efforts to recover charged-off accounts. Furthermore, other expense also rose due to an increase in fraud related costs, an increase in legal reserves related to pending litigation and higher investments in various growth initiatives. For the year ended November 30, 2010, other expense benefited from a $\$ 29$ million expense reversal related to the payment to Morgan Stanley under an amendment to the special dividend agreement that occurred in the first quarter of 2010. There was not a similar benefit recognized in 2011.

## Payment Services

For the Year Ended November 30, 2012 compared to the Year Ended November 30, 2011
Our Payment Services segment reported pretax income of $\$ 181$ million for the year ended November 30, 2012, up $\$ 15$ million as compared to the same period during 2011, primarily as the result of a greater number of point-of-sale transactions on the PULSE network. Total other expense increased primarily due to higher incentive payments related to merchant global acceptance. Increased employee compensation expense driven by headcount also contributed to the increase in total other expense, as well as higher information processing costs primarily related to increased software maintenance and depreciation expense.

Transaction dollar volume increased $\$ 20$ billion for the year ended November 30, 2012 as compared to the year ended November 30, 2011, primarily driven by increased PULSE point-of-sale volume. The number of transactions on the PULSE network increased by $13 \%$ for the year ended November 30, 2012, as compared to the same period in 2011.

For the Year Ended November 30, 2011 compared to the Year Ended November 30, 2010
Our Payment Services segment reported pretax income of $\$ 166$ million for the year ended November 30, 2011, up $\$ 25$ million as compared to the same period during 2010 as a result of higher volumes and margins from transactions on the PULSE network. Expenses increased due to higher employee compensation driven by higher headcount and investments related to enhancing our processing capacity.

Transaction dollar volume increased $\$ 25$ billion for the year ended November 30, 2011 as compared to the year ended November 30, 2010, primarily driven by increased PULSE volume. The number of transactions on the PULSE network increased by $16 \%$ for the year ended November 30, 2011, as compared to the same period in 2010.

## Critical Accounting Estimates

In preparing our consolidated financial statements in conformity with 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 loan losses, the accrual of credit card customer rewards cost, the evaluation of goodwill and other nonamortizable intangible assets for potential impairment, the accrual of income taxes, estimates of future cash flows associated with purchased credit-impaired loans, and the fair value estimates of loan commitments and mortgages held for sale as critical accounting estimates.

## Allowance for Loan Losses

We base our allowance for loan loss on several analyses that help us estimate incurred losses as of the balance sheet date. While our estimation process includes historical data and analysis, there is a significant amount of judgment applied in selecting inputs and analyzing the results produced to determine the allowance. We use a migration analysis to estimate the likelihood that a loan will progress through the various stages of delinquency. The migration analysis considers uncollectible principal, interest and fees reflected in the loan receivables. Management also estimates loss emergence by using other analyses to estimate losses incurred from non-delinquent accounts. The considerations in these analyses include past performance, risk management techniques applied to various accounts, historical behavior of different account vintages, current economic conditions, recent trends in delinquencies, bankruptcy filings, account collection management, policy changes, account seasoning, loan volume and amounts, payment rates, and forecasting uncertainties. Given the same information, others may reach different reasonable estimates.

If management used different assumptions in estimating incurred net loan losses, the impact to the allowance for loan losses could have a material effect on our consolidated financial condition and results of operations. For example, a $10 \%$ change in management's estimate of incurred net loan losses could have resulted in a change of approximately $\$ 173$ million in the allowance for loan losses at November 30, 2012, with a corresponding change in the provision for
loan losses. See "-Loan Quality" and Note 2: Summary of Significant Accounting Policies to our consolidated financial statements for further details about our allowance for loan losses.

## Customer Rewards Cost

We offer our customers various reward programs, including the Cashback Bonus reward program pursuant to which we offer certain customers a reward equal to a percentage of their purchase amounts based on the type and volume of the customer's purchases. The liability for customer rewards is included in accrued expenses and other liabilities in our consolidated statements of financial condition. We compute our rewards liability on an individual customer basis and it is accumulated as qualified customers make progress toward earning a reward through their ongoing purchase activity or other defined actions. The liability is adjusted for expected forfeitures of accumulated rewards. In determining the forfeiture estimate, we consider historical rewards redemption and forfeiture behavior, the level of recent customer purchase activity and the terms of the current rewards programs. We generally recognize reward costs as a reduction of discount and interchange revenue in the consolidated statements of income.

If management used a different estimate of forfeitures, our consolidated statement of financial condition and results of operations could have differed. For example, a 100 basis point decrease in the estimated forfeiture rate as of November 30, 2012 could have resulted in an increase in accrued expenses and other liabilities of approximately $\$ 13$ million. The corresponding increase in rewards cost would have been reflected as a decrease in discount and interchange revenue. See "- Other Income" and Note 2: Summary of Significant Accounting Policies to our consolidated financial statements for further details about customer rewards cost.

## Goodwill and Other Nonamortizable Intangible Assets

We recognize goodwill when the purchase price of an acquired business exceeds the total of the fair values of the acquired net assets. In addition, we have recognized certain other nonamortizable intangible assets in our acquisition of the Diners Club business. As required by GAAP, we test goodwill and other nonamortizable intangible assets for impairment annually, or more often if indicators of impairment exist. In evaluating goodwill for impairment, management must estimate the fair value of the business unit(s) to which the goodwill relates. Because market data concerning acquisitions of comparable businesses typically are not readily obtainable, other valuation techniques such as earnings multiples and cash flow models are used in estimating the fair values of these businesses. Similarly, in evaluating the other nonamortizable intangible assets for potential impairment, management estimates their fair values using discounted cash flow models. In applying these techniques, management considers historical results, business forecasts, market and industry conditions and other factors. We may also consult independent valuation experts where needed in applying these valuation techniques. The valuation methodologies we use involve assumptions about business performance, revenue and expense growth, discount rates and other assumptions that are judgmental in nature.

If economic conditions deteriorate or other events adversely impact the assumptions used by management in these valuations, we may be exposed to an impairment loss that, when recognized, could have a material impact on our consolidated financial condition and results of operations. At November 30, 2012, based on the annual impairment testing performed, there was no impairment recorded on any reporting unit or intangible asset.

## Income Taxes

We are subject to the income tax laws of the jurisdictions where we have business operations, primarily the United States, its states and municipalities. We must make judgments and interpretations about the application of these inherently complex tax laws when determining the provision for income taxes and must also make estimates about when in the future certain items will affect taxable income in the various taxing jurisdictions. Disputes over interpretations of the tax laws may be settled with the taxing authority upon examination or audit. We regularly evaluate the likelihood of assessments in each of the taxing jurisdictions resulting from current and subsequent years' examinations, and tax reserves are established as appropriate.

Changes in the estimate of income taxes can occur due to tax rate changes, interpretations of tax laws, the status and resolution of examinations by the taxing authorities, and newly enacted laws and regulations that impact the relative merits of tax positions taken. When such changes occur, the effect on our consolidated financial condition and results of operations can be significant. See Note 16: Income Taxes to our consolidated financial statements for additional information about income taxes.

## Purchased Credit-Impaired Loans

The estimate of expected future cash flows on purchased credit-impaired ("PCI") loans determines the amount of yield we can recognize in future periods and impacts whether a loan loss reserve must be established for these loans. We reevaluate the amount and timing of expected cash flows quarterly using updated loan porifflio characteristics as well as assumptions regarding expected borrower default and prepayment behavior. Because estimates of expected future cash flows on PCI loans involve assumptions and significant judgment, it is reasonably possible that others could derive different estimates than ours for the same periods. In addition, changes in estimates from one period to the next can have a significant impact on our consolidated financial condition and results of operations. A decrease in expected cash flows involving an increase in estimated credit losses would result in an immediate charge to earnings for the recognition of a loan loss provision. Increases or decreases in expected cash flows related solely to changes in estimated prepayments or to changes in variable interest rate indices would result in prospective yield adjustments over the remaining life of the loans. An increase in expected cash flows due to a reduction in expected credit losses would result first in the reversal of any previously established loan loss reserve on PCI loans through an immediate credit to earnings and then, if needed, a prospective adjustment to yield over the remaining life of the loans.

If management used a different estimate of expected borrower defaults, our consolidated statement of financial condition and results of operations could have differed. For example, a $10 \%$ increase in the expected borrower default rate of each PCI loan pool as of November 30, 2012 could have resulted in an impairment of up to $\$ 41$ million. This impairment would have been reflected as an increase in provision for loan losses and a decrease in the carrying value of the PCl loans. The accounting and estimates used in our calculations are discussed further in Note 5: Loan Receivables to our consolidated financial statements.

## Loan Commitments and Mortgages Held for Sale

Following our acquisition of the Home Loan Center mortgage business in the third quarter of 2012, we determined the fair value estimates related to our accounting for loan commitments and mortgage loans held for sale to be critical accounting estimates. We enter into commitments with consumers to originate mortgage loans at a specified interest rate, known as interest rate lock commitments ("IRLCs"). We carry IRLCs and mortgage loans held for sale on our consolidated statements of financial condition at their estimated fair values. Fair values for each of these instruments are estimated using quantitative risk models.

Valuations of IRLCs for loans to be sold to investors on a mandatory or assignment of trade delivery method are based on valuations for similar underlying loans by reference to the to-be-announced mortgage-backed securities ("TBA MBS") market, which is actively quoted and easily validated through external sources. The data inputs used in these valuations include, but are not limited to, loan type, underlying loan amount, note rate, loan program, and expected sale date of the loan. IRLCs for loans to be sold to investors on a best-efforts basis derive their base value from the value of the underlying loans using investor pricing tables stratified by product, note rate and term, adjusted for current market conditions. These valuations are adjusted at the loan level to consider the servicing release premium and loan pricing adjustments specific to each loan. For all IRLCs, the base value is then adjusted for the anticipated loan funding probability, or pull through rate. The anticipated loan funding probability is an unobservable input that is based on historical experience. A $10 \%$ decrease in the pull-through rate assumption would result in a $\$ 3$ million decrease in the value of IRLCs whereas a 10\% increase in the pull-through rate assumption would result in a $\$ 2$ million increase in the value of the IRLCs as of November 30, 2012.

Valuations of mortgage loans held for sale are based on the loan amount, note rate, loan program, expected sale date of the loan and, most significantly, investor pricing tables stratified by product, note rate and term, adjusted for current market conditions. In periods of normal market activity, sufficient market data is available to value these loans. However, in illiquid markets, greater variability in pricing data could occur. In such instances, meaningfully different valuations could be derived for the same pool of loans. A decrease in the estimated fair value of mortgage loans held for sale would result in an immediate charge to earnings for the fair value adjustment.

## Earnings Summary

The following table outlines changes in our consolidated statements of income for the periods presented (dollars in millions):

|  | For the Years Ended November 30, |  |  | $\begin{gathered} 2012 \text { vs. } 2011 \\ \text { increase (decrease) } \\ \hline \end{gathered}$ |  | 2011 vs. 2010 increase (decrease) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 | \$ | \% | \$ | \% |
| Interest income | \$ 6,703 | \$ 6,345 | \$ 6,146 | \$ 358 | 6\% | \$ 199 | 3\% |
| Interest expense.. | 1,331 | 1,485 | 1,583 | (154) | (10\%) | (98) | (6\%) |
| Net interest income | 5,372 | 4,860 | 4,563 | 512 | 11\% | 297 | 7\% |
| Provision for loan losses............................................................ | 848 | 1,013 | 3,207 | (165) | (16\%) | $(2,194)$ | (68\%) |
| Net interest income after provision for loan losses ............................ | 4,524 | 3,847 | 1,356 | 677 | 18\% | 2,491 | NM |
| Other income.. | 2,281 | 2,205 | 2,095 | 76 | 3\% | 110 | 5\% |
| Other expense ................................................................ | 3,052 | 2,541 | 2,182 | 511 | 20\% | 359 | 16\% |
| Income before income tax expense ............................................... | 3,753 | 3,511 | 1,269 | 242 | 7\% | 2,242 | NM |
| Income tax expense .............................................................. | 1,408 | 1,284 | 504 | 124 | 10\% | 780 | NM |
| Net income..................................................................... | \$ 2,345 | \$ 2,227 | \$ 765 | \$ 118 | 5\% | \$ 1,462 | NM |

## 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-bearing assets (net interest income as a percentage of average total interest-earning assets). We also separately consider the impact of the level of loan receivables and the related interest yield and the impact of the cost of funds related to each of our funding sources, along with the income generated by our liquidity portfolio, on net interest income.

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

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

For the Year Ended November 30, 2012 compared to the Year Ended November 30, 2011
Net interest margin increased for the year ended November 30, 2012 as compared to the same period in 2011. This increase was primarily due to improved funding rates on our deposit products, partially offset by lower yields on credit cards and growth in private student loans, which have lower yields as compared to other products.

Interest income increased during the year ended November 30, 2012, as compared to the same period in 2011, primarily due to higher interest income across all of our loan products. The increase in interest income on credit card loans was driven by higher average levels of loans and lower interest charge-offs, offset in part by a decline in yield. The decrease in yield was due to the combination of higher levels of loans being offered at a promotional rate, as well as the receivable repricing restrictions under the CARD Act. The increase in interest income on private student loans was due to organic growth in our student loan receivables. Interest income on our PCI student loans increased due to the acquisition of additional PCI private student loans on September 30, 2011 (see Note 5: Loan Receivables to our consolidated financial statements), partially offset by a decrease in yield due to the lower yield on the acquired PCl student loans. Interest income on personal loans also increased due to growth in the porffolio, combined with an increase in the yield.

Interest income on other interest-earning assets, which largely relates to investment income on our liquidity porffolio, increased during the year ended November 30, 2012, primarily due a continued shift in the mix of our liquidity portfolio to higher yielding investments, and higher average levels of liquidity. Interest expense declined in the year ended November 30, 2012, as compared to 2011 , primarily due to deposits bearing higher interest rates maturing and being replaced by deposits bearing lower interest rates.

For the Year Ended November 30, 2011 compared to the Year Ended November 30, 2010
Net interest margin rose slightly for the year ended November 30, 2011 as compared to the same period in 2010. This was driven by an increase in yield on our liquidity porffolio, as well as a decrease in interest expense as a percentage of total loans, partially offset by a decline in yield related to loans.

Interest income on loan receivables increased during the year ended November 30, 2011 as compared to the year ended November 30, 2010, as an increase in interest income from other loans was partially offset by a decline in interest income from credit card loans. The increase in interest income from other loans for the year ended November 30, 2011 as compared to the same period in 2010 is primarily attributable to the acquisition of SLC during the first quarter of 2011, as well as growth in personal loans. For the year ended November 30, 2011, the decline in interest income from credit card loans was mostly driven by a decline in yield caused by an increase in promotional rate balances and a decrease in customers who carry a balance on their cards, partially offset by lower interest charge-offs. Furthermore, the decline in yield was also impacted by the CARD Act that was implemented in 2010, which led to restrictions on imposing default interest rates on existing balances.

Interest income on other interest-earning assets, which largely relates to investment income on our liquidity investment porffolio, increased primarily due to a shift in the mix of our liquidity investment portfolio in the fourth quarter of 2010 from cash and cash equivalents to investments in securities of the U.S Treasury and U.S. government agencies, which typically have a higher yield than cash and cash equivalents.

Interest expense declined in the year ended November 30, 2011 as compared to the same period in 2010. This was primarily due to a decline in interest expense related to maturities of deposits bearing higher interest rates. This was partially offset by an increase in interest expense on securitized borrowings, primarily due to the acquisition of three SLC securitization trusts in the first quarter of 2011, which have higher funding costs than our credit card securitizations.

## Average Balance Sheet Analysis

(dollars in millions)

|  | 2012 |  |  | 2011 |  |  | 2010 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Balance | Rate | Interest | Average <br> Balance ${ }^{(1)}$ | Rate ${ }^{(1)}$ | Interest | Average <br> Balance ${ }^{(1)}$ | Rate ${ }^{1)}$ | Interest |
| Assets |  |  |  |  |  |  |  |  |  |
| Interest-earning assets: |  |  |  |  |  |  |  |  |  |
| Cash and cash equivalents | \$ 5,074 | 0.27\% | \$ 14 | \$ 3,920 | 0.24\% | \$ 10 | \$ 9,629 | 0.25\% | \$ 25 |
| Restricted cash | 924 | 0.15\% | 2 | 1,180 | 0.14\% | 2 | 2,124 | 0.16\% | 3 |
| Other short-term investments. | - | - \% | - | 153 | 1.07\% | 1 | 236 | 1.03\% | 2 |
| Investment securities | 6,437 | 1.24\% | 80 | 5,660 | 1.05\% | 59 | 1,688 | 1.55\% | 26 |
| Loan receivables ${ }^{(2)}$ : |  |  |  |  |  |  |  |  |  |
| Credit card ${ }^{(3) / 4)}$ | 47,301 | 12.16\% | 5,751 | 45,522 | 12.42\% | 5,654 | 45,911 | 12.71\% | 5,836 |
| Personal loans | 2,944 | 12.35\% | 363 | 2,228 | 11.94\% | 266 | 1,593 | 11.41\% | 182 |
| Federal student loans ${ }^{(5)}$ | 121 | 1.64\% | 2 | 754 | 1.58\% | 12 | 1,818 | 1.23\% | 22 |
| Private student loans | 2,557 | 7.20\% | 184 | 1,637 | 7.04\% | 115 | 827 | 5.75\% | 48 |
| PCI student loans. | 4,998 | 6.06\% | 303 | 3,105 | 7.25\% | 225 | - | - \% | - |
| Mortgage loans held for sale | 96 | 1.10\% | 1 | - | - \% | - | - | - \% | - |
| Other . | 26 | 11.98\% | 3 | 14 | 2.95\% | 1 | 54 | 4.02\% | 2 |
| Total loan receivables | 58,043 | 11.38\% | 6,607 | 53,260 | 11.78\% | 6,273 | 50,203 | 12.13\% | 6,090 |
| Total interest-earning assets. Allowance for loan losses | $\begin{gathered} 70,478 \\ (1,948) \end{gathered}$ | 9.51\% | 6,703 | $\begin{gathered} \hline 64,173 \\ (2,710) \end{gathered}$ | 9.89\% | 6,345 | $\begin{aligned} & \hline 63,880 \\ & (3,871) \end{aligned}$ | 9.62\% | 6,146 |
| Other assets ....... | 4,032 |  |  | 3,791 |  |  | 3,979 |  |  |
| Total assets | \$72,562 |  |  | \$65,254 |  |  | \$63,988 |  |  |
| Liabilities and Stockholders' Equity Interest-bearing liabilities: Interest-bearing deposits: |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Time deposits ${ }^{(6)}$............... | \$27,033 | 2.61\% | 706 | \$25,478 | 3.34\% | 850 | \$27,274 | 3.82\% | 1,043 |
| Money market deposits | 5,413 | 0.92\% | 50 | 4,656 | 1.23\% | 57 | 4,304 | 1.36\% | 59 |
| Other interest-bearing savings deposits. | 8,638 | 1.03\% | 89 | 5,996 | 1.33\% | 80 | 2,980 | 1.65\% | 49 |
| Total interest-bearing deposits ${ }^{(7)}$ | 41,084 | 2.06\% | 845 | 36,130 | 2.73\% | 987 | 34,558 | 3.33\% | 1,151 |
| Borrowings: |  |  |  |  |  |  |  |  |  |
| Short-term borrowings. | 89 | 1.32\% | 1 | 128 | 0.10\% | - | 1 | 0.24\% | - |
| Securitized borrowings. | 16,979 | 1.95\% | 331 | 15,968 | 2.10\% | 335 | 17,247 | 1.58\% | 272 |
| Other long-term borrowings ${ }^{(6)}$................................... | 2,017 | 7.62\% | 154 | 2,468 | 6.58\% | 163 | 2,736 | 5.85\% | 160 |
| Total borrowings ......................................... | 19,085 | 2.55\% | 486 | 18,564 | 2.68\% | 498 | 19,984 | 2.16\% | 432 |
| Total interest-bearing liabilities | 60,169 | 2.21\% | 1,331 | 54,694 | 2.71\% | 1,485 | 54,542 | 2.90\% | 1,583 |
| Other liabilities and stockholders' equity .............................. | 12,393 |  |  | 10,560 |  |  | 9,446 |  |  |
| Total liabilities and stockholders' equity .............. | \$72,562 |  |  | \$65,254 |  |  | \$63,988 |  |  |
| Net interest income. |  |  | \$5,372 |  |  | \$4,860 |  |  | \$4,563 |
| Net interest margin ${ }^{(8)}$ |  | 9.25\% |  |  | 9.13\% |  |  | 9.09\% |  |
| Net yield on interest-bearing assets ${ }^{(9)}$................................. |  | 7.62\% |  |  | 7.57\% |  |  | 7.14\% |  |
|  |  | 7.30\% |  |  | 7.18\% |  |  | 6.72\% |  |

[^7]
## Rate/Volume Variance Analysis ${ }^{(1)}$

|  | 2012 vs. $2011^{(2)}$ |  |  | 2011 vs. 2010 ${ }^{(2)}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Volume | Rate | Total | Volume | Rate | Total |
| Increase/(decrease) in net interest income due to changes in: |  |  |  |  |  |  |
| Interest-earning assets: |  |  |  |  |  |  |
| Cash and cash equivalents. | \$ 3 | \$ 1 | \$ 4 | \$ (14) | \$ (1) | \$ (15) |
| Restricted cash. | - | - | - | (1) | - | (1) |
| Other short-term investments | (1) | - | (1) | (1) | - | (1) |
| Investment securities. | 9 | 12 | 21 | 44 | (11) | 33 |
| Loan receivables: |  |  |  |  |  |  |
| Credit card | 218 | (121) | 97 | (49) | (133) | (182) |
| Personal loans | 88 | 9 | 97 | 75 | 9 | 84 |
| Federal student loans | (10) | - | (10) | (15) | 5 | (10) |
| Private student loans. | 66 | 3 | 69 | 55 | 12 | 67 |
| PCl student loans. | 120 | (42) | 78 | 225 | - | 225 |
| Mortgage loans held for sale | 1 | - | 1 | - | - | - |
| Other | - | 2 | 2 | (1) | - | (1) |
| Total loan receivables | 483 | (149) | 334 | 290 | (107) | 183 |
| Total interest income. | 494 | (136) | 358 | 318 | (119) | 199 |
| Interest-bearing liabilities: |  |  |  |  |  |  |
| Interest-bearing deposits: |  |  |  |  |  |  |
| Time deposits | 49 | (193) | (144) | (66) | (127) | (193) |
| Money market deposits. | 9 | (16) | (7) | 4 | (6) | (2) |
| Other interest-bearing savings deposits. | 30 | (21) | 9 | 42 | (11) | 31 |
| Total interest-bearing deposits. | 88 | (230) | (142) | (20) | (144) | (164) |
| Borrowings: |  |  |  |  |  |  |
| Short-term borrowings | - | 1 | 1 | - | - | - |
| Securitized borrowings | 20 | (24) | (4) | (21) | 84 | 63 |
| Other long-term borrowings | (32) | 23 | (9) | (16) | 19 | 3 |
| Total borrowings. | (12) | - | (12) | (37) | 103 | 66 |
| Total interest expense | 76 | (230) | (154) | (57) | (41) | (98) |
| Net interest income | \$418 | \$ 94 | \$ 512 | \$375 | \$ (78) | \$ 297 |

(1) The rate/volume variance for each category has been allocated on a consistent basis between rate and volume variances between November 30, 2012, November 30, 2011 and November 30, 2010 based on the percentage of the rate or volume variance to the sum of the two absolute variances.
(2) Rate/volume variances for credit card loan receivables, total loan receivables and total interest income have been modified to include credit card loans in process as of the balance sheet date. See Note 2: Summary of Significant Accounting Policies for further discussion.

## Loan Quality

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

|  | For the Years Ended November 30, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | $2011{ }^{(1)}$ | 2010 ${ }^{(1)}$ | $\begin{gathered} 2009 \\ \text { (Non-GAAP } \\ \text { As-Adjusted²) } \end{gathered}$ |  | $\begin{gathered} 2008 \\ \text { (Non-GAAP } \\ \text { As-Adjusted }^{2} \text { ) } \end{gathered}$ |  |
| Mortgage loans held for sale | \$ 322 | \$ - | \$ | \$ | - | \$ | - |
| Student Loans held for sale | - | 714 | 788 |  | - |  | - |
| Loan porifolio: |  |  |  |  |  |  |  |
| Credit card loans: |  |  |  |  |  |  |  |
| Discover card. | 49,436 | 46,748 | 45,244 |  | 47,055 |  | 49,227 |
| Discover business card | 206 | 224 | 258 |  | 404 |  | 466 |
| Total credit card loans | 49,642 | 46,972 | 45,502 |  | 47,459 |  | 49,693 |
| Other loans: |  |  |  |  |  |  |  |
| Personal loans.. | 3,272 | 2,648 | 1,878 |  | 1,394 |  | 1,028 |
| Federal student loans | - | - | - |  | 1,353 |  | 168 |
| Private student loans | 3,000 | 2,069 | 999 |  | 580 |  | 132 |
| Other | 37 | 17 | 14 |  | 68 |  | 74 |
| Total other loans | 6,309 | 4,734 | 2,891 |  | 3,395 |  | 1,402 |
| PCI student loans ${ }^{(3)}$. | 4,744 | 5,250 | - |  | - |  | - |
| Total loan portfolio | 60,695 | 56,956 | 48,393 |  | 50,854 |  | 51,095 |
| Total loan receivables. | 61,017 | 57,670 | 49,181 |  | 50,854 |  | 51,095 |
| Allowance for loan losses. | $(1,725)$ | $(2,205)$ | $(3,304)$ |  | $(3,902)$ |  | $(2,754)$ |
| Net loan receivables | \$59,292 | \$55,465 | \$45,877 | \$ | 46,952 | \$ | 48,341 |

(1) Discover card and Discover business card loans at November 30, 2011 and November 30, 2010 have been modified to include credit card loans in process as of the balance sheet date. See Note 2: Summary of Significant Accounting Policies for further discussion.
(2) Discover card loan balances and the allowance for loan losses are presented on a non-GAAP as-adjusted basis. No adjustments have been made to loans held for sale, Discover business card, personal loans, federal or private student loans or other loans. See reconciliation in "- Reconciliations of GAAP to Non-GAAP As-Adjusted Data."
(3) Represents purchased credit-impaired private student loans which do not have a related allowance for loan losses or charge-offs (see Note 5: Loan Receivables to our consolidated financial statements).

## Provision and Allowance for Loan Losses

Provision for loan losses is the expense related to maintaining the allowance for loan losses at an appropriate level to absorb the estimated probable losses in the loan portfolio at each period end date. Factors that influence the provision for loan losses include:

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

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

The allowance for loan loss was $\$ 1.7$ billion at November 30,2012, which reflects a $\$ 480$ million reserve release over the amount of the allowance for loan loss at November 30, 2011. The reserve release, which primarily related to credit card loan receivables, was driven by favorability in credit performance of the portfolio and a continuation of a declining trend in net charge-offs. At November 30, 2011, the allowance for loan loss was $\$ 2.2$ billion, which reflects a $\$ 1.1$ billion reserve release over the amount of the allowance for loan loss at November 30, 2010. The reserve release was driven by improved credit performance and a sharp decrease in net charge-offs.

The provision for loan loss is the amount of expense realized after considering the level of net charge-offs in the period and the required amount of allowance for loan loss at the balance sheet date. For the year ended November 30, 2012, the reduction in reserve requirements as described above led to a decrease in the provision for loan losses of $\$ 165$ million, or $16 \%$, as compared to the year ended November 30, 2011. For the year ended November 30, 2011, the provision decreased $\$ 2.2$ billion, or $68 \%$. For the year ended November 30, 2010, the provision decreased $\$ 1.9$ billion.

At November 30, 2012, the level of the allowance related to personal loans increased by $\$ 15$ million as compared to November 30, 2011, primarily driven by growth in receivables as the reserve for these loans is relatively consistent as a percent of the related outstanding loan balance. The increase in the allowance attributable to student loans for the same period was driven both by the seasoning of the portfolio and by new loan originations. "Seasoning" refers to both the maturing of a loan portfolio as, in general, loans do not begin to show signs of credit deterioration or default until they have been in repayment for some period of time, as well as loan movement through the deferment period as students near graduation. For student loans, payments are not required while the borrower is still in school; therefore, this loan porffolio matures at a slower pace. At November 30, 2011, the allowance related to personal loans increased by $\$ 6$ million as compared to November 30, 2010. At November 30, 2011, the allowance related to student loans increased by $\$ 35$ million as compared to November 30, 2010, primarily due to the increase in private student loan receivables as well as the seasoning of the loan porffolio.

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

|  | For the Year Ended November 30, 2012 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Credit Card |  | Personal Loans |  | Student Loans |  | Other |  | Total |  |
| Balance at beginning of period | \$ | 2,070 | \$ | 82 | \$ | 53 | \$ | - | \$ | 2,205 |
| Additions: |  |  |  |  |  |  |  |  |  |  |
| Provision for loan losses |  | 724 |  | 84 |  | 39 |  | 1 |  | 848 |
| Deductions: |  |  |  |  |  |  |  |  |  |  |
| Charge-offs. |  | $(1,817)$ |  | (73) |  | (19) |  | - |  | $(1,909)$ |
| Recoveries. |  | 577 |  | 4 |  | - |  | - |  | 581 |
| Net charge-offs |  | $(1,240)$ |  | (69) |  | (19) |  | - |  | $(1,328)$ |
| Balance at end of period. | \$ | 1,554 | \$ | 97 | \$ | 73 | \$ | 1 | \$ | 1,725 |


|  | For the Year Ended November 30, 2011 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Credit Card |  | Personal Loans |  | Student Loans |  | Other |  | Total |  |
| Balance at beginning of period. | \$ | 3,209 | \$ | 76 | \$ | 18 | \$ | 1 | \$ | 3,304 |
| Additions: |  |  |  |  |  |  |  |  |  |  |
| Provision for loan losses |  | 897 |  | 73 |  | 42 |  | 1 |  | 1,013 |
| Deductions: |  |  |  |  |  |  |  |  |  |  |
| Charge-offs. |  | $(2,615)$ |  | (69) |  | (7) |  | (2) |  | $(2,693)$ |
| Recoveries. |  | 579 |  | 2 |  | - |  | - |  | 581 |
| Net charge-offs. |  | $(2,036)$ |  | (67) |  | (7) |  | (2) |  | $(2,112)$ |
| Balance at end of period................................................ | \$ | 2,070 | \$ | 82 | \$ | 53 | \$ | - | \$ | 2,205 |

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

|  | For the Year Ended November 30, 2010 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Credit Card |  | Personal Loans |  | Student Loans |  | Other |  | Total |  |
| Balance at beginning of period. | \$ | 1,648 | \$ | 95 | \$ | 14 | \$ | 1 | \$ | 1,758 |
| Additions: |  |  |  |  |  |  |  |  |  |  |
| Addition to allowance related to securitized receivables ${ }^{(1)}$..... |  | 2,144 |  | - |  | - |  | - |  | 2,144 |
| Provision for loan losses ............................................ |  | 3,126 |  | 72 |  | 8 |  | 1 |  | 3,207 |
| Deductions: |  |  |  |  |  |  |  |  |  |  |
| Charge-offs related to loans sold |  | (25) |  | - |  | - |  | - |  | (25) |
| Charge-offs. |  | $(4,154)$ |  | (92) |  | (4) |  | (1) |  | $(4,251)$ |
| Recoveries.. |  | 470 |  | 1 |  | - |  | - |  | 471 |
| Net charge-offs. |  | $(3,684)$ |  | (91) |  | (4) |  | (1) |  | $(3,780)$ |
| Balance at end of period. | \$ | 3,209 | \$ | 76 | \$ | 18 | \$ | 1 | \$ | 3,304 |


|  | For the Year Ended November 30, 2009(2) (Non-GAAP As-Adjusted) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Credit Card |  | Personal Loans |  | Student Loans |  | Other |  | Total |  |
| Balance at beginning of period. | \$ | 2,697 | \$ | 52 | \$ | 4 | \$ | 1 | \$ | 2,754 |
| Additions: |  |  |  |  |  |  |  |  |  |  |
| Provision for loan losses. |  | 5,001 |  | 111 |  | 11 |  | - |  | 5,123 |
| Deductions: |  |  |  |  |  |  |  |  |  |  |
| Charge-offs ................................................... |  | $(4,304)$ |  | (69) |  | (1) |  | - |  | $(4,374)$ |
| Recoveries........................................................ |  | 398 |  | 1 |  | - |  | - |  | 399 |
| Net charge-offs. |  | $(3,906)$ |  | (68) |  | (1) |  | - |  | $(3,975)$ |
| Balance at end of period.............................................. | \$ | 3,792 | \$ | 95 | \$ | 14 | \$ | 1 | \$ | 3,902 |


|  | For the Year Ended November 30, 2008 ${ }^{(2)}$ (Non-GAAP As-Adjusted) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Credit Card |  | Personal Loans |  | Student Loans |  | Other |  | Total |  |
| Balance at beginning of period. | \$ | 1,722 | \$ | 8 | \$ | - | \$ | 1 | \$ | 1,731 |
| Additions: |  |  |  |  |  |  |  |  |  |  |
| Provision for loan losses ............................................ |  | 3,422 |  | 51 |  | 4 |  | - |  | 3,477 |
| Deductions: |  |  |  |  |  |  |  |  |  |  |
| Charge-offs. |  | $(2,853)$ |  | (8) |  | - |  | - |  | $(2,861)$ |
| Recoveries... |  | 406 |  | 1 |  | - |  | - |  | 407 |
| Net charge-offs ....................................................... |  | $(2,447)$ |  | (7) |  | - |  | - |  | $(2,454)$ |
| Balance at end of period............................................... | \$ | 2,697 | \$ | 52 | \$ | 4 | \$ | 1 | \$ | 2,754 |

(1) On December 1, 2009, upon adoption of the Financial Accounting Standards Board ("FASB") Statements No. 166 and 167, we recorded $\$ 2.1$ billion allowance for loan losses related to newly consolidated and reclassified credit card loan receivables.
(2) Information related to credit card and total loans is presented on an adjusted basis. No adjustments have been made for personal loans, federal and private student loans or other loans. See reconciliation in "-Reconciliations of GAAP to Non-GAAP As-Adjusted Data."

## Net Charge-offs

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

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

|  | For the Years Ended November 30, |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | $2011{ }^{(1)}$ |  | 2010(1) |  | $\begin{gathered} 2009 \\ \text { (Non-GAAP } \\ \text { As-Adjusted} 2 \text { 2) } \end{gathered}$ |  |  |  |
|  | \$ | \% | \$ | \% | \$ | \% | \$ | \% | \$ | \% |
| Credit card loans. | \$1,240 | 2.62\% | \$2,036 | 4.47\% | \$3,684 | 8.02\% | \$3,906 | 8.00\% | \$2,447 | 5.07\% |
| Personal loans. | \$ 69 | 2.33\% | \$ 67 | 3.02\% | \$ 91 | 5.72\% | \$ 68 | 5.53\% | \$ 7 | 1.19\% |
| Private student loans (excluding $\mathrm{PC\|\mid 31)}$. | \$ 19 | 0.73\% | \$ 7 | 0.48\% | \$ 4 | 0.33\% | \$ 1 | 0.05\% | \$ | 0.01\% |

(1) Credit card loan charge-off rates for the years ended November 30, 2011 and November 30, 2010 have been modified to include credit card loans in process as of the balance sheet date. See Note 2: Summary of Significant Accounting Policies for further discussion.
(2) Information related to credit card loan receivables for years prior to 2010 is presented on a non-GAAP as-adjusted basis. No adjustments have been made for personal loan or private student loan receivables. See reconciliation in "—Reconciliations of GAAP to Non-GAAP As-Adjusted Data."
(3) Charge-offs for PCI loans did not result in a charge to earnings during any of the years presented and are therefore excluded from the calculation. See Note 5: Loan Receivables to our consolidated financial statements for more information regarding the accounting for charge-offs on PCI loans.

The net charge-off rate on our credit card loan receivables decreased 185 basis points for the year ended November 30, 2012 as compared to the year ended November 30, 2011. The decrease in net charge-offs was atributable to an overall improvement in credit quality. Net charge-offs for private student loans increased slightly from prior year due to the seasoning of the portfolio as well as more loans entering repayment.

The net charge-off rate on our credit card loan receivables decreased 355 basis points for the year ended November 30, 2011 as compared to the year ended November 30, 2010. The decrease in net charge-offs was attributable to improvement in both contractual and bankruptcy related charge-offs subsequent to a peak in the level of charge-offs in the first quarter of 2010. Furthermore, during the year ended November 30, 2011, there were higher levels of recoveries as compared to the same periods in 2010. As relatively few newly originated student loans had entered repayment in 2011, the net charge-off rate on student loans remained low in 2011 similar to the prior year.

## Delinquencies

Delinquencies are an indicator of credit quality at a point in time. Loan balances are considered delinquent when contractual payments on the loan become 30 days past due. Information related to loans 90 days or more delinquent and accruing interest is provided in Note 5: Loan Receivables to our consolidated financial statements.

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

|  | For the Years Ended November 30, |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  |  | $2011^{(1)}$ |  |  | 2010(1) |  |  | $\begin{gathered} 2009 \\ \text { (Non-GAAP } \\ \text { As-Adjusted }{ }^{2} \text { ) } \\ \hline \end{gathered}$ |  | $\begin{gathered} 2008 \\ \text { (Non-GAAP } \\ \text { As-Adjusted }^{2} \text { ) } \\ \hline \end{gathered}$ |  |  |
|  |  | \$ | \% |  | \$ | \% |  | \$ | \% | \$ | \% |  | \$ | \% |
| Loans 30 days delinquent or more: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Credit card loans.. | \$ | 925 | 1.86\% |  | ,117 | 2.38\% |  | , 831 | 4.02\% | \$2,657 | 5.60\% |  | 317 | 4.66\% |
| Personal loans.. | \$ | 25 | 0.76\% | \$ | 22 | 0.87\% | \$ | 29 | 1.57\% | \$ 30 | 2.17\% | \$ | 11 | 1.06\% |
| Private student loans (excluding PCI loans ${ }^{(3)}$ ). | \$ | 32 | 1.07\% | \$ | 13 | 0.63\% | \$ | 5 | 0.50\% | \$ - | 0.13\% | \$ | - | 0.09\% |
| Loans 90 days delinquent or more: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Credit card loans. | \$ | 451 | 0.91\% | \$ | 560 | 1.19\% | \$ | 958 | 2.11\% | \$1,393 | 2.94\% |  | 103 | 2.22\% |
| Personal loans... | \$ | 8 | 0.23\% | \$ | 7 | 0.28\% | \$ | 11 | 0.57\% | \$ 10 | 0.71\% | + | 3 | 0.25\% |
| Private student loans (excluding PCI loans ${ }^{(3)}$ ). | \$ | 8 | 0.27\% | \$ | 3 | 0.14\% | \$ | 1 | 0.14\% | \$ - | 0.03\% | \$ | - | - \% |
| Loans not accruing interest... | \$ | 198 | 0.35\% | \$ | 207 | 0.40\% | \$ | 326 | 0.67\% | \$ 438 | 0.86\% | \$ | 367 | 0.72\% |
| Restructured loans: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Credit card loans ${ }^{(4 / 5)}$ |  | ,332 | 2.68\% |  | ,217 | 2.59\% | \$ | 305 | 0.67\% | \$ 218 | 0.46\% | \$ | - | - \% |
| Personal loans ${ }^{(6)}$.. | \$ | 21 | 0.64\% | \$ | 8 | 0.29\% | \$ | - | - \% | \$ - | - \% | \$ | - |  |
| Private student loans (excluding PCI loans ${ }^{(3))^{(7)}}$ | \$ | 15 | 0.50\% | \$ | 5 | 0.26\% | \$ | - | - \% | \$ - |  | \$ |  | - \% |

(1) Credit card loan delinquency rates, both 30 day and 90 day, and credit card loans not accruing interest at November 30, 2011 and November 30, 2010 have been modified to include credit card loans in process as of the balance sheet date. See Note 2: Summary of Significant Accounting Policies for further discussion.
(2) Information related to credit card loan receivables for years prior to 2010 is presented on a non-GAAP as-adjusted basis. No adjustments have been made for personal loan or private student loan receivables. See reconciliation in "- Reconciliations of GAAP to Non-GAAP As-Adjusted Data."
(3) Excludes PCl loans which are accounted for on a pooled basis. Since a pool is accounted for as a single asset with a single composite interest rate and aggregate expectation of cash flows, the past-due status of a pool, or that of the individual loans within a pool, is not meaningful. Because we are recognizing interest income on a pool of loans, it is all considered to be performing.
(4) Restructured loans include $\$ 56$ million, $\$ 38$ million and $\$ 35$ million for the years ended November 30, 2012, 2011 and 2010, respectively, that are also included in loans over 90 days delinquent or more.
(5) Data not available for the year ended November 30, 2008.
(6) Restructured loans include $\$ 1$ million for the year ended November 30, 2012 that are also included in loans over 90 days delinquent or more.
(7) Restructured loans include $\$ 2$ million for the year ended November 30, 2012 that are also included in loans over 90 days delinquent or more.

Both credit card and personal loan receivables delinquency rates at November 30, 2012 decreased as compared to November 30, 2011 due to improvements in customer credit quality, which has resulted in improvements in both over 30 -day and over 90 -day delinquency balances. Conversely, the delinquency rates for private student loan balances at November 30, 2012 increased as compared to November 30, 2011 due to the seasoning of our loan portfolio and as more loans have entered repayment. This seasoning supports the increase in both over 30 -day and over 90 -day delinquency rates. Loan receivables not accruing interest at November 30, 2012 decreased compared to the prior year primarily as a result of a decrease in the number of bankruptcies. Restructured credit card loans at November 30, 2012 increased to $\$ 1.3$ billion from $\$ 1.2$ billion at November 30, 2011 because we began including the modified credit card loans that reverted to pre-modification payment terms in the restructured loan amount during 2012.

Both credit card and personal loan receivables delinquency rates at November 30,2011 generally declined as compared to November 30, 2010 due to continued improvement in customer financial performance, which resulted in improvements in both over 30-day and over 90-day delinquency balances. The decline is also attributable to proactive customer account management. The rate for over 30 -day delinquency balances increased for private student loan balances due to the seasoning of our loan portfolio for the year ended November 30, 2011 as compared to the same period in 2010. The rate for over 90-day delinquency balances for private student loan balances was flat for the year ended November 30, 2011 as compared to 2010. Loan receivables not accruing interest at November 30, 2011 decreased compared to the prior year primarily as a result of a decrease in the number of bankruptcies. Restructured credit card loans at November 30, 2011 increased to $\$ 1.2$ billion from $\$ 305$ million at November 30, 2010 because we began accounting for credit card loans modified through temporary hardship and external programs as troubled debt restructurings during 2011.

## Maturities and Sensitivities of Loan Receivables to Changes in Interest Rates

Our loan porffolio had the following maturity distribution(1) at November 30, 2012 (dollars in millions):

|  | Due One <br> Year or Less | Due After One Year Through Five Years | Due After Five Years | Total |
| :---: | :---: | :---: | :---: | :---: |
| Credit card loans | \$15,260 | \$26,469 | \$ 7,913 | \$49,642 |
| Personal loans. | 814 | 2,313 | 145 | 3,272 |
| Private student loans (excluding PCI) | 40 | 390 | 2,570 | 3,000 |
| PCI private student loans. | 237 | 1,657 | 2,850 | 4,744 |
| Other loans | 12 | 15 | 10 | 37 |
| Total loan portfolio | \$16,363 | \$30,844 | \$13,488 | \$60,695 |

(1) Because of the uncertainty regarding loan repayment patterns, the above amounts have been calculated using contractually required minimum payments. Historically, actual loan repayments have been higher than such minimum payments and, therefore, the above amounts may not necessarily be indicative of our actual loan repayments.

At November 30, 2012, approximately $\$ 30.3$ billion of our loan poriffolio due after one year had interest rates tied to an index and approximately $\$ 14.0$ billion were fixed rate loans.

## Modified and Restructured Loans

We have loan modification programs that provide for temporary or permanent hardship relief for our credit card loans to borrowers experiencing financial difficulties. The temporary hardship program primarily consists of a reduced minimum payment and an interest rate reduction, both lasting for a period no longer than 12 months. The permanent workout program involves changing the structure of the loan to a fixed payment loan with a maturity no longer than 60 months and reducing the interest rate on the loan. The permanent programs do not normally provide for the forgiveness of unpaid principal, but may allow for the reversal of certain unpaid interest or fee assessments. We also make loan modifications for customers who request financial assistance through external sources, such as a consumer credit counseling agency program. These loans continue to be subject to the original minimum payment terms and do not normally include waiver of unpaid principal, interest or fees. For additional information regarding the accounting treatment for these loans as well as amounts recorded in the financial statements related to these loans, see Note 5: Loan Receivables to our consolidated financial statements.

For student loan borrowers, in certain situations we offer payment forbearance to borrowers who are experiencing temporary financial difficulties and are willing to resume making payments. When a delinquent borrower is granted a second forbearance period, we classify these loans as troubled debt restructurings.

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

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

Other Income
The following table presents the components of other income for the periods presented (dollars in millions):

|  | For the Years Ended November 30, |  |  |  |  |  | 2012 vs. 2011 <br> increase (decrease) |  |  | $\begin{gathered} 2011 \text { vs. } 2010 \\ \text { increase (decrease) } \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |  | 2010 |  | \$ |  | \% | \$ |  | \% |
| Discount and interchange revenue ${ }^{(1)}$......................... | \$ | 1,035 | \$ | 1,084 | \$ | 1,055 | \$ | (49) | (5\%) | \$ | 29 | 3\% |
| Protection products. |  | 409 |  | 428 |  | 413 |  | (19) | (4\%) |  | 15 | 4\% |
| Loan fee income.. |  | 325 |  | 338 |  | 340 |  | (13) | (4\%) |  | (2) | (1\%) |
| Transaction processing revenue. |  | 218 |  | 180 |  | 150 |  | 38 | 21\% |  | 30 | 20\% |
| Gain (loss) on investments |  | 26 |  | (4) |  | 19 |  | 30 | NM |  | (23) | (121\%) |
| Gain on origination and sale of mortgage loans ........... |  | 105 |  | - |  | - |  | 105 | NM |  | - | NM |
| Other income ................................................... |  | 163 |  | 179 |  | 118 |  | (16) | (9\%) |  | 61 | 52\% |
| Total other income | \$ | 2,281 | \$ | 2,205 | \$ | 2,095 | \$ | 76 | 3\% | \$ | 110 | 5\% |

(1) Net of rewards, including Cashback Bonus rewards, of $\$ 1.0$ billion, $\$ 879$ million and $\$ 738$ million for the years ended November 30, 2012,2011 and 2010 respectively.

## Discount and Interchange Revenue

Discount and interchange revenue includes discount revenue and acquirer interchange net of interchange paid to network partners. We earn discount revenue from fees charged to merchants with whom we have entered into card acceptance agreements for processing credit card purchase transactions. We earn acquirer interchange revenue from merchant acquirers on all Discover Network card transactions and certain Diners Club transactions made by credit card customers at merchants with whom merchant acquirers have entered into card acceptance agreements for processing credit card purchase transactions. We incur an interchange cost to card issuing entities that have entered into contractual arrangements to issue cards on the Discover Network and on certain transactions on the Diners Club network. This cost is contractually established and is based on the card issuing organization's transaction volume and is reported as a reduction to discount and interchange revenue. We offer our customers various reward programs, including the Cashback Bonus reward program, pursuant to which we pay certain customers a percentage of their purchase amounts based on the type and volume of the customer's purchases. Reward costs are recorded as a reduction to discount and interchange revenue.

Discount and interchange revenue decreased for the year ended November 30, 2012 as compared to the year ended November 30, 2011, driven primarily by an increase in promotional Cashback Bonus rewards earned by our customers. This increase in rewards exceeded the increase in gross discount and interchange revenue, which was attributable to higher sales volume. Sales volume also increased for the year ended November 30, 2011 as compared to the year ended November 30, 2010, driving an increase in discount and interchange revenue that was partially offset by a higher level of rewards. In total, our gross discount and interchange revenue increased for the year ended November 30, 2011 as compared to the year ended November 30, 2010, which was partially offset by an increase in Cashback Bonus rewards earned by our customers.

## Protection Products

We earn revenue related to fees received for providing ancillary products and services, including payment protection and identity theff protection services, to customers. The amount of revenue recorded is generally based on either a percentage of a customer's outstanding balance or a flat fee and is recognized as earned. Protection product revenue decreased for the year ended November 30, 2012 as compared to the year ended November 30, 2011, primarily due to lower sales volume related to these products, which is expected to continue to decline, especially until we resume offering new enrollments in these products. Protection products income increased for the year ended November 30, 2011 as compared to the year ended November 30, 2010 primarily due to lower charge-offs related to these products.

## Loan Fee Income

Loan fee income consists primarily of fees on credit card loans and includes late, overlimit, cash advance, pay-byphone and other miscellaneous fees. However, as a result of legislative changes that became effective in 2010, we no longer charge overlimit or pay-by-phone fees on consumer credit card loans and additional legislative changes also resulted in modifications to our late fee policy beginning August 2010.

Loan fee income decreased slightly for the year ended November 30, 2012 as compared to the year ended November 30, 2011. Lower levels of delinquencies resulted in a lower volume of loan fees being generated during the current year. This decrease was partially offset by fewer late fee charge-offs as overall net charge-offs declined due to a decrease in our credit card delinquency rates. Loan fee income was flat for the year ended November 30, 2011 as compared to the year ended November 30, 2010. Although late fees decreased in 2011 due to the modifications discussed above, this was offset by higher overlimit fees in 2011 as there was a heightened amount of overlimit fee charge-offs in 2010. Although there was no material income relating to overlimit fees during 2011, there was a significant amount of overlimit fees that were delinquent in February 2010 and were subsequently charged off.

## Transaction Processing Revenue

Transaction processing revenue represents switch fees charged to financial institutions and merchants for processing ATM, debit and point-of-sale transactions over the PULSE network, as well as various participation and membership fees. Switch fees are charged on a per transaction basis. Transaction processing revenue increased for the year ended November 30, 2012 as compared to the year ended November 30, 2011, as well as for the year ended November 30, 2011, as compared to the year ended November 30, 2010, primarily due to continued higher PULSE transaction volumes partially offset by increased business development costs and customer incentive payments.

## Gain on Sale of Mortgage Loans

The gain on sale of mortgage loans is related to the acquisition and integration of the assets of Home Loan Center in the third quarter of 2012. The gain consists of a net gain on the origination and sale of loans as well as a net gain on the related interest rate lock commitments and the net gain or loss on forward delivery contracts.

## Gain (Loss) on Investments

Gain (loss) on investment securities includes realized gains and losses on the sale of investments as well as any writedowns of investment securities to fair value when the decline in fair value is considered other than temporary. Gain (loss) on investment securities in 2012 was comprised almost entirely of a gain of $\$ 26$ million related to the liquidation of a minority interest in an equity investment. There was no similar benefit recognized in 2011. Gain (loss) on investment securities in 2010 included a gain of $\$ 20$ million which related to the liquidation of collateral supporting the asset-backed commercial paper notes of Golden Key.

## Other Income

Other income includes royalty revenues earned by Diners Club, merchant fees, revenue from the transition services agreement related to the acquisition of SLC, revenue from merchants related to reward programs, revenues from network partners and other miscellaneous revenue items.

Other income decreased for the year ended November 30, 2012 as revenue from the SLC transition services agreement decreased from the prior year. Additionally, the inclusion of the impact of the bargain purchase gain related to the acquisition of SLC in the first quarter of 2011 resulted in a $\$ 7$ million gain that was not recognized in the current year. These decreases were offset by increases in revenues from merchant rewards programs.

Other income increased for the year ended November 30, 2011 as compared to the year ended November 30, 2010 due to the acquisition of SLC, which resulted in the inclusion of the aforementioned transition services agreement revenue totaling $\$ 27$ million as well as a bargain purchase gain of $\$ 7$ million. For the year ended November 30, 2011, other income included a $\$ 5$ million gain relating to fair value adjustments on our loans held for sale as compared to a $\$ 23$ million loss related to the initial write down of those same loans during the year ended November 30, 2010.

## Other Expense

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

|  | For the Years Ended November 30, |  |  |  |  |  | $2012 \text { vs. } 2011$ <br> increase (decrease) |  |  | $\begin{gathered} 2011 \text { vs. } 2010 \\ \text { increase (decrease) } \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |  | 2010 |  | \$ |  | \% | \$ |  | \% |
| Employee compensation and benefits .............. | \$ | 1,048 | \$ | 914 | \$ | 803 | \$ | 134 | 15\% | \$ | 111 | 14\% |
| Marketing and business development ......... |  | 603 |  | 537 |  | 463 |  | 66 | 12\% |  | 74 | 16\% |
| Information processing and communications....... |  | 289 |  | 264 |  | 258 |  | 25 | 9\% |  | 6 | 2\% |
| Professional fees ...................................... |  | 432 |  | 415 |  | 343 |  | 17 | 4\% |  | 72 | 21\% |
| Premises and equipment.............................. |  | 76 |  | 71 |  | 70 |  | 5 | 7\% |  | 1 | 1\% |
| Other expense .......................................... |  | 604 |  | 340 |  | 245 |  | 264 | 78\% |  | 95 | 39\% |
| Total other expense .................................. | \$ | 3,052 | \$ | 2,541 | \$ | 2,182 | \$ | 511 | 20\% | \$ | 359 | 16\% |

Total other expense increased $\$ 511$ million in 2012 as compared to 2011 primarily due to legal expenses associated with the FDIC and CFPB matter (see Note 20: Litigation and Regulatory Matters to our consolidated financial statements for further information). Litigation-related expenses, included in other expenses, were $\$ 218$ million for the year ended November 30, 2012 as compared to $\$ 22$ million for the year ended November 30, 2011. The increase in total other expense was also driven by higher employee compensation costs from increased headcount, which was partially related to the acquisition of the assets of Home Loan Center. In addition, marketing and business development expenses increased due to growth initiatives. Higher incentive payments related to merchant global acceptance also contributed to the increase in total other expense.

Total other expense increased $\$ 359$ million in 2011 as compared to 2010 . This increase was primarily driven by the acquisition of SLC, growth and infrastructure investments made to expand the loan portfolio, network acceptance and deposits, and the associated impacts on headcount and compensation. Increased marketing and business development costs were primarily driven by higher investments in new credit card account acquisitions and new originations in student and personal loans enabled by the strong credit performance experienced in 2011. Professional fees increased due to higher costs related to key technology and growth initiatives, along with costs related to the SLC acquisition and higher costs related to recovering charged-off accounts. Other expense increased compared to the prior year due to higher fraud-related costs and an increase in legal reserves related to pending litigation. In addition, other expense in 2010 included a $\$ 29$ million non-recurring benefit related to the reversal of expense that had been recorded related to the payment to Morgan Stanley under an amendment to the special dividend agreement. There was not a similar benefit in 2011.

Income Tax Expense
The following table reconciles our effective tax rate to the U.S. federal statutory income tax rate:

|  | For the Ye | Ended N | nber 30, |
| :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 |
| U.S. federal statutory income tax rate. | 35.0\% | 35.0\% | 35.0\% |
| U.S. state and local income taxes and other income taxes, net of U.S. federal income tax benefits | 2.9 | 2.4 | 4.1 |
| Valuation allowance - capital loss. | - | (0.6) | - |
| Other. | (0.4) | (0.2) | 0.6 |
| Effective income tax rate. | 37.5\% | 36.6\% | 39.7\% |

Income tax expense increased $\$ 124$ million, or $9.7 \%$, for the year ended November 30, 2012 as compared to the year ended November 30,2011, reflecting an increase in pretax income. The effective tax rate increased $0.9 \%$ for the year ended November 30, 2012 from $36.6 \%$ for the year ended November 30, 2011. The higher rate in 2012 reflects the release of a valuation allowance that was previously established on the capital loss generated from the sale of the

Goldfish business unit, a decrease in uncertain state tax positions and the settlement of certain state examinations that were recorded in 2011. There were no similar benefits in 2012.

Income tax expense increased $\$ 780$ million, or $155 \%$, for the year ended November 30, 2011 as compared to the year ended November 30, 2010, reflecting an increase in pretax income. The effective tax rate decreased $3.1 \%$ for the year ended November 30, 2011 from 39.7\% for the year ended November 30, 2010. The decrease in 2011 reflects a decrease in uncertain state tax positions, the settlement of certain state examination issues and the release of the valuation allowance as discussed above.

## Liquidity and Capital Resources

## Funding and Liquidity

We seek to maintain diversified funding sources and a strong liquidity profile in order to fund our business and repay or refinance our maturing obligations. In addition, we seek to achieve an appropriate maturity profile and utilize a costeffective mix of funding sources. Our primary funding sources include deposits, sourced directly from consumers or through brokers, term asset-backed securitizations, private asset-backed securitizations and short- and long-term borrowings.

## Funding Sources

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

At November 30, 2012, we had $\$ 27.9$ billion of direct-to-consumer deposits and $\$ 14.1$ billion of brokered deposits. Maturities of our certificates of deposit range from one month to ten years, with a weighted average maturity of 21 months. The following table summarizes deposits by contractual maturity as of November 30, 2012 (dollars in millions):

|  | Total | Three Months or Less |  | Over Three Months Through Six Months |  | Over Six <br> Months <br> Through <br> Twelve <br> Months |  | Over Twelve Months |  | Indeterminate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cerrificates of deposit in amounts less than \$100,000(1) | \$21,039 | \$ | 1,815 | \$ | 2,757 | \$ | 5,249 | \$ | 11,218 | \$ | - |
| Certificates of deposit in amounts of \$100,000 to less than $\$ 250,000^{(1)}$. | 5,460 |  | 660 |  | 491 |  | 1,579 |  | 2,730 |  |  |
| Cerrificates of deposit in amounts of \$250,000(1) or greater. | 1,276 |  | 188 |  | 100 |  | 317 |  | 671 |  | - |
| Savings deposits, including money market deposit accounts ${ }^{(2)}$ | 14,259 |  | - |  | - |  | - |  | - |  | 14,259 |
| Total interest-bearing deposits | \$42,034 | \$ | 2,663 | \$ | 3,348 | \$ | 7,145 |  | 14,619 | \$ | 14,259 |

(1) $\$ 100,000$ represents the basic insurance amount previously covered by the FDIC. Effective July 21,2010 , the basic insurance per depositor was permanently increased to $\$ 250,000$.
(2) Represents deposits with no contractual maturity.

Credit Card Securitization Financing. We use the securitization of credit card receivables as an additional source of funding. We access the asset-backed securitization market using the Discover Card Master Trust I ("DCMT") and the Discover Card Execution Note Trust ("DCENT"), through which we issue asset-backed securities both publicly and through private transactions. We retain significant exposure to the performance of trust assets through holdings of the seller's interest and subordinated security classes of DCMT and DCENT.

The securitization structures include certain features designed to protect investors. The primary feature relates to the availability and adequacy of cash flows in the securitized pool of receivables to meet contractual requirements, the insufficiency of which triggers early repayment of the securities. We refer to this as "economic early amortization," which is based on excess spread levels. Excess spread is the amount by which income received by a trust during a collection period, including interest collections, fees and interchange, exceeds the fees and expenses of the trust during such
collection period, including interest expense, servicing fees and charged-off receivables. Our excess spread previously included the amount of certain principal collections available to be reallocated from Series 2009-SD, which enhanced securities of both DCMT and DCENT. Series 2009-SD matured on January 17, 2012, and as prescribed in amendments to the governing documents which became effective in January 2010, the size of the Class D (2009-1) note was increased. In the event of an economic early amortization, which would occur if the excess spread fell below $0 \%$ on a three-month rolling average basis, we would be required to repay the affected outstanding securitized borrowings using available collections received by the trust (the period of ultimate repayment would be determined by the amount and timing of collections received). An early amortization event would negatively impact our liquidity, and require us to utilize our available non-securitization related contingent liquidity or rely on alternative funding sources, which may or may not be available at the time. As of November 30, 2012, the three-month rolling average excess spread was $13.46 \%$.

Another feature of our securitization structure, which is applicable only to the notes issued from DCENT, is a reserve account funding requirement in which, in limited circumstances, excess cash flows generated by the transferred loan receivables are held at the trust. This funding requirement is triggered when DCENT's three-month average excess spread rate decreases to below $4.50 \%$, with increasing funding requirements as excess spread levels decline below preset levels to 0\%. See Note 6: Credit Card and Student Loan Securitization Activities to our consolidated financial statements for additional information regarding the structures of DCMT and DCENT and for tables providing information concerning investors' interests and related excess spreads at November 30, 2012.

At November 30, 2012, we had $\$ 15.1$ billion of outstanding public asset-backed securities (including $\$ 250$ million of subordinated Class B notes issued in the fourth quarter of 2012), $\$ 750$ million of outstanding private asset-backed securitizations and $\$ 5.2$ billion of outstanding asset-backed securities that had been issued to our wholly-owned subsidiaries. The following table summarizes expected contractual maturities of the investors' interests in credit card securitizations excluding those that have been issued to our wholly-owned subsidiaries at November 30, 2012 (dollars in millions):

|  | Total | Less Than One Year | One Year Through Three Years | Four Years Through Five Years | After Five Years |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Scheduled maturities of long-term borrowings - owed to credit card securitization investors. | \$15,824 | \$5,179 | \$7,596 | \$2,049 | \$1,000 |

At November 30, 2012, we had capacity to issue up to $\$ 5.0$ billion in triple-A rated asset-backed securities from DCENT without the issuance of additional Class $B$ or Class $C$ notes as subordination. The triple-A rating of DCENT Class $A$ Notes issued to date has been based, in part, on an FDIC rule which created a safe harbor that provides that the FDIC, as conservator or receiver, will not, using its power to disaffirm or repudiate contracts, seek to reclaim or recover assets transferred in connection with a securitization, or recharacterize them as assets of the insured depository institution, provided such transfer satisfies the conditions for sale accounting treatment under previous GAAP. Although the implementation of Statement No. 166 on December 1, 2009, no longer qualified certain transfers of assets for sale accounting treatment, the FDIC approved a final rule that preserved the safe-harbor treatment applicable to revolving trusts and master trusts, including DCMT, so long as those trusts would have satisfied the original FDIC safe harbor if evaluated under GAAP pertaining to transfers of financial assets in effect prior to December 1, 2009. Other legislative and regulatory developments may, however, impact our ability and/or desire to issue asset-backed securities in the future.

Corporate and Bank Debt. At November 30, 2012, we had $\$ 1.3$ billion in principal amount of senior unsecured notes outstanding and Discover Bank had $\$ 700$ million in principal amount of subordinated notes outstanding. During the second quarter of 2012, we completed a private exchange offer, resulting in the exchange of $\$ 322$ million outstanding aggregate principal amount of $10.25 \%$ Senior Notes due 2019 for the same aggregate principal amount of new $5.20 \%$ Senior Notes due 2022 and a cash premium. Approximately $\$ 318$ million of these notes were subsequently exchanged for substantially identical notes that were registered under the Securities Act of 1933. We also completed a private exchange offer in the fourth quarter of 2012, resulting in the exchange of $\$ 500$ million outstanding aggregate principal amount of $8.70 \%$ Subordinated Notes of Discover Bank due 2019 for the same aggregate principal amount of new $3.85 \%$ Senior Notes of DFS due 2022 and a cash premium. We entered into a registration rights agreement with respect to the new notes.

At November 30, 2012, our senior unsecured notes are comprised of a $\$ 400$ million issuance due in June 2017, a $\$ 78$ million issuance due in July 2019, a $\$ 322$ million issuance due in April 2022 and a $\$ 500$ million issuance due in November 2022. The senior unsecured notes require us to offer to repurchase the notes at a price equal to $101 \%$ of their aggregate principal amount plus accrued and unpaid interest in the event of a change of control involving us and a corresponding ratings downgrade to below investment grade. Discover Bank's subordinated notes are comprised of a $\$ 200$ million issuance due in November 2019 and a $\$ 500$ million issuance due in April 2020. For more information, see Note 10: Borrowings to our consolidated financial statements.

Other Long-Term Borrowings - Student Loans. At November 30, 2012, we had $\$ 2.2$ billion of remaining principal balance outstanding on securitized debt assumed as part of the SLC acquisition. Principal and interest payments on the underlying student loans will reduce the balance of these secured borrowings over time. During the first quarter of 2012, we sold our remaining federal student loans that had been classified as held for sale as of November 30, 2011. As part of the sale, the liabilities associated with the funding of the loans were assumed by the buyer.

Short-Term Borrowings. We primarily access short-term borrowings through the Federal Funds market or through repurchase agreements. At November 30, 2012, there were no outstanding Federal Funds or repurchase agreements. Beginning in June 2012, we also began utilizing a $\$ 300$ million warehouse line of credit as another form of short-term borrowings, which was subsequently increased to $\$ 400$ million. This line of credit was established for the sole purpose of funding consumer residential loans as part of the addition of residential mortgage lending to our direct banking business. The warehouse line of credit had an outstanding balance of $\$ 284$ million as of November 30, 2012. At November 30, 2011 , the short-term borrowing balance was $\$ 50$ million.

The maximum daily balances for the years ended November 30, 2012 and November 30, 2011 are shown in the table below (dollars in millions):

|  | For the Years Ended November 30, |  |
| :---: | :---: | :---: |
|  | 2012 | 2011 |
| Overnight Federal Funds purchased | \$135 | \$265 |
| Overnight repurchase agreements. | \$ 50 | \$ 50 |
| Warehouse line of credit | \$297 | \$ - |

The weighted-average interest rate on short-term borrowings was $1.07 \%$ for the year ended November 30, 2012. The weighted-average interest rate on short-term borrowings was $0.08 \%$ for the year ended November 30, 2011.

## Additional Funding Sources

Private Asset-Backed Securitizations. We have access to committed undrawn capacity through privately placed assetbacked securitizations to support the funding of our credit card loan receivables. Under these arrangements, we had used $\$ 750$ million of capacity and had undrawn capacity of $\$ 6.8$ billion at November 30, 2012.

Federal Reserve. Discover Bank has access to the Federal Reserve Bank of Philadelphia's discount window. As of November 30, 2012, Discover Bank had \$10.4 billion of available capacity through the discount window based on the amount and type of assets pledged. We have no borrowings outstanding under the discount window.

## Credit Ratings

Our borrowing costs and capacity in certain funding markets, including securitizations and senior and subordinated debt, may be affected by the credit ratings of DFS, Discover Bank and the securitization trusts. Downgrades in these credit ratings could result in higher interest expense on our unsecured debt and asset securitizations, as well as potentially higher fees related to borrowings under our lines of credit. In addition to increased funding costs, deterioration in credit ratings could reduce our borrowing capacity in the unsecured debt and asset securitization capital markets.

We also have agreements with certain of our derivative counterparties that contain provisions that require DFS and Discover Bank's debt to maintain an investment grade credit rating from specified major credit rating agencies. Because the credit rating of DFS did not meet the specified thresholds, we had posted $\$ 4$ million of collateral with our counterparties at November 30, 2012. Discover Bank's credit rating met specified thresholds set by its counterparties. However, if Discover Bank's credit rating is reduced by one ratings notch, it would be required to post additional collateral, which, as of November 30, 2012, would have been $\$ 110$ million.

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

|  | Moody's <br> Investors Service | Standard \& Poor's | Fitch Ratings |
| :---: | :---: | :---: | :---: |
| Senior Unsecured Debt |  |  |  |
| Discover Financial Services. | Bal | BBB- | BBB |
| Discover Bank | Baa3 | BBB | BBB |
| Outlook for Senior Unsecured Debt | Stable | Stable | Stable |
| Subordinated Debt |  |  |  |
| Discover Bank | Bal | BBB- | BBB- |
| Discover Card Master Trust I |  |  |  |
| Class $\mathrm{A}^{(1)}$. | Aaa(sf) | AAA(sf) | AAAsf |
| Class B ${ }^{(1)}$ | Al (sf) | $A A+(s f)$ | AAsf |
| Discover Card Execution Note Trust |  |  |  |
| Class $\mathrm{A}^{(1)}$. | Aaa(sf) | AAA(sf) | AAAsf |
| Class B ${ }^{(1)}$ | Al(sf) | AA+(sf) | AA-sf |
| Class C | $\mathrm{N} / \mathrm{A}^{(2)}$ | $N / A^{(2)}$ | $\mathrm{N} / \mathrm{A}^{(2)}$ |

(1) An "sf" in the rating denotes rating agency identification for structured finance product ratings.
(2) All Class C notes are currently held by subsidiaries of Discover Bank and, therefore, are not publicly rated.

## Liquidity

We seek to ensure that we have adequate liquidity to sustain business operations, fund asset growth and satisfy debt obligations under normal and stress conditions both at the parent company and on a consolidated basis. In addition to the funding sources discussed above, we also maintain highly liquid unencumbered assets in our investment portfolio.

We employ a variety of metrics to monitor and manage liquidity. Regular liquidity stress testing and contingency funding planning is performed as part of our liquidity management process. We evaluate a range of stress scenarios including company specific and systemic events that could impact funding sources and our ability to meet liquidity needs. These scenarios measure the liquidity position over a two-year horizon by analyzing the stress on liquidity versus the ability to generate contingent liquidity. We maintain contingent funding sources, including our liquidity portfolio, private securitizations with unused capacity and Federal Reserve discount window capacity, which we could utilize to satisfy liquidity needs during such stress events. We expect to be able to satisfy all maturing obligations and fund business operations during the next 12 months by utilizing the funding sources that are currently available to us.

We maintain policies outlining the overall framework and general principles for managing liquidity risk across our business, which is the responsibility of our Asset and Liability Management Committee (the "ALCO"). We seek to balance the trade-offs between maintaining too much liquidity, which may limit financial flexibility and be costly, with having too little liquidity that could cause financial distress. Liquidity risk is centrally managed by the ALCO, which is chaired by our Treasurer and has cross-functional membership. The ALCO monitors positions and determines any actions that may need to be taken.

At November 30, 2012, our liquidity porffolio was comprised of cash and cash equivalents and high quality, liquid investment securities. Cash and cash equivalents were primarily in the form of deposits with the Federal Reserve.

Investment securities primarily included debt obligations of the U.S. Treasury and U.S. government agencies and residential mortgage-backed securities issued by U.S. government agencies. These investments are considered highly liquid, and we have the ability to raise cash by utilizing repurchase agreements, pledging certain of these investments to access the secured funding markets or selling them. The level of our liquidity portfolio may fluctuate based upon the level of expected maturities of our funding sources as well as operational requirements and market conditions.
At November 30, 2012, our liquidity porffolio and undrawn credit facilities were $\$ 26.6$ billion, which was $\$ 465$ million higher than the balance at November 30, 2011, as an increase in cash and cash equivalents to ensure adequate coverage for forward-looking maturities and greater discount window capacity were partially offset by our unilateral decision to cancel our $\$ 2.4$ billion credit facility in December 2011. During the year ended November 30, 2012 , the average balance of our liquidity portfolio was $\$ 11.8$ billion.

|  | November 30, |  |
| :---: | :---: | :---: |
|  | 2012 | 2011 |
|  | (dollars in millions) |  |
| Liquidity portfolio |  |  |
| Cash and cash equivalents ${ }^{(1)}$. | \$ 3,492 | \$ 2,440 |
| Investment securities | 6,133 | 6,108 |
| Total liquidity portfolio. | 9,625 | 8,548 |
| Undrawn credit facilities ${ }^{(2)}$ |  |  |
| Private asset-backed securitizations.. | 6,750 | 6,750 |
| Federal Reserve discount window ${ }^{(3)}$. | 10,240 | 8,407 |
| Unsecured committed credit facility . | - | 2,445 |
| Total undrawn credit facilities | 16,990 | 17,602 |
| Total liquidity portfolio and undrawn credit facilities | \$26,615 | \$26,150 |

(1) Cash-in-process is excluded from cash and cash equivalents for liquidity purposes.
(2) See " - Funding Sources - Additional Funding Sources" for additional information.
(3) Excludes $\$ 154$ million and $\$ 276$ million of investments accounted for in the liquidity portfolio that were pledged to the Federal Reserve as of November 30, 2012 and November 30, 2011, respectively.

## Capital

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

On October 16, 2012, we issued 575,000 shares of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series B, par value $\$ 0.01$ per share (the "preferred stock"). Net proceeds received from the preferred stock issuance totaled approximately $\$ 560$ million. We can redeem the preferred stock at our option, subject to regulatory approval, either (1) in whole or in part on any dividend payment date on or after December 1, 2017 or (2) in whole but not in part, at any time within 90 days following a regulatory capital event (as defined in the certificate of designations for the preferred stock), in each case at a redemption price equal to $\$ 1,000$ per share of preferred stock plus declared and unpaid dividends. Any dividends declared on the preferred stock will be payable quarterly in arrears at a rate of $6.50 \%$ per annum.

Under regulatory capital requirements adopted by the FDIC, the Federal Reserve and other bank regulatory agencies, we, along with Discover Bank, must maintain minimum levels of capital. Failure to meet minimum capital requirements can result in the initiation of certain mandatory and possibly additional discretionary actions by regulators that, if undertaken, could limit our business activities and have a direct material effect on our financial position and results. We
must meet specific capital guidelines that involve quantitative measures of assets and liabilities as calculated under regulatory accounting practices. Capital amounts and classification are also subject to qualitative judgments by the regulators about components, risk weightings and other factors.

Our capital adequacy assessment also includes tax and accounting considerations in accordance with regulatory guidance. We maintain a substantial deferred tax asset on our balance sheet, and we include this asset when calculating our regulatory capital levels. However, for regulatory capital purposes, deferred tax assets that are dependent on future taxable income are currently limited to the lesser of: (i) the amount of deferred tax assets we expect to realize within one year of the calendar quarter-end date, based on our projected future taxable income for that year; or (ii) $10 \%$ of the amount of our Tier 1 capital. At November 30, 2012, no portion of our deferred tax asset was disallowed for regulatory capital purposes.

At November 30, 2012, Discover Financial Services and Discover Bank met the requirements for "well-capitalized" status, exceeding the regulatory minimums to which they were subject under Basel I.

Current or future regulatory initiatives may require us to hold more capital in the future. In June 2012, the Federal Reserve, FDIC and the OCC proposed rules to implement the provisions of the Basel III regulatory capital reforms that would be applicable to us and Discover Bank. The proposed rules include new minimum and "well-capitalized" riskbased capital and leverage ratios, which would be phased in from 2013 to 2019, and refine the definition of what constitutes "capital" for purposes of calculating those ratios. The proposed rules received extensive comments. In a joint press release issued in November 2012, the agencies stated that they do not expect any of the proposed rules to become effective on the original target date of January 1, 2013. Industry participants are expecting further guidance in early 2013. In October 2012, the Federal Reserve and the FDIC issued final rules implementing the stress test requirements under the Reform Act. For additional information, see "Management's Discussion and Analysis of Financial Condition and Results of Operations - Regulatory Environment and Developments - Capital."

Additionally, we are required to submit an annual capital plan to the Federal Reserve that includes an assessment of our expected uses and sources of capital over the planning horizon. Our ability to make capital distributions, including our ability to pay dividends or repurchase shares of our common stock, is subject to the Federal Reserve's review and non-objection of our annual capital plan. In certain circumstances, we will not be able to make a capital distribution unless the Federal Reserve has approved such distribution. On March 13, 2012, we received non-objection from the Federal Reserve with respect to our proposed capital actions through March 31, 2013. We recently submitted our capital plan for the upcoming year and are awaiting response from the Federal Reserve.

In the first quarter of 2012, we increased our quarterly common stock dividend from $\$ .06$ per share to $\$ .10$ per share and maintained a $\$ .10$ per share dividend for each of the second, third and fourth quarters of 2012. In January 2013, we paid a common stock dividend of $\$ .14$ per share. In December 2012, we paid our first preferred stock dividend. See " - Recent Developments" for more information. In addition, on March 13, 2012, our board of directors approved a share repurchase program authorizing the repurchase of up to $\$ 2.0$ billion of our outstanding shares of common stock. The program expires on March 22, 2014, and may be terminated at any time. During the year ended November 30, 2012 , we repurchased approximately 34 million shares, or $6 \%$, of our outstanding common stock for $\$ 1.2$ billion. We expect to continue to make share repurchases under our repurchase program from time to time based on market conditions and other factors, subject to legal and regulatory requirements and restrictions. Share repurchases under the program may be made through a variety of methods, including open market purchases, privately negotiated transactions or other purchases, including block trades, accelerated share repurchase transactions, or any combination of such methods.

The declaration and payment of future dividends, as well as the amount thereof, are subject to the discretion of our board of directors. The amount and size of any future dividends and share repurchases will depend upon our results of operations, financial condition, capital levels, cash requirements, future prospects and other factors. Holders of our shares of common stock are subject to the prior dividend rights of holders of our preferred stock or the depositary shares representing such preferred stock outstanding, and if full dividends have not been declared and paid on all outstanding shares of preferred stock in any dividend period, no dividend may be declared or paid or set aside for payment on our
common stock. In addition, as noted above, banking laws and regulations and our banking regulators may limit our ability to pay dividends and make share repurchases, including limitations on the extent to which our banking subsidiaries can provide funds to us through dividends, loans or otherwise. Further, also noted above, current or future regulatory initiatives may require us to hold more capital in the future. There can be no assurance that we will declare and pay any dividends or repurchase any shares of our common stock in the future. For more information, including conditions and limits on our ability to pay dividends and repurchase our stock, see "Business - Supervision and Regulation - Capital, Dividends and Share Repurchases," "Risk Factors - We may be limited in our ability to pay dividends on and repurchase our stock" and "We are a holding company and depend on payments from our subsidiaries" and Note 18: Capital Adequacy to our consolidated financial statements.

## Certain Off-Balance Sheet Arrangements

## Guarantees

Guarantees are contracts or indemnification agreements that contingently require us to make payments to a guaranteed party based on changes in an underlying asset, liability, or equity security of a guaranteed party, rate or index. Also included in guarantees are contracts that contingently require the guarantor to make payments to a guaranteed party based on another entity's failure to perform under an agreement. Our guarantees relate to transactions processed on the Discover Network and certain transactions processed by PULSE and Diners Club. See Note 19: Commitments, Contingencies and Guarantees to our consolidated financial statements for further discussion regarding our guarantees.

## Contractual Obligations and Contingent Liabilities and Commitments

In the normal course of business, we enter into various contractual obligations that may require future cash payments. Contractual obligations at November 30, 2012 included deposits, long-term borrowings, operating and capital lease obligations, interest payments on fixed rate debt, purchase obligations and other liabilities. Our future cash payments associated with our contractual obligations as of November 30, 2012 are summarized below (dollars in millions):

|  | Total | Payments Due By Period |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Less Than One Year | One Year Through Three Years | Four Years Through Five Years | More Than Five Years |
| Deposits ${ }^{(1)}$. | \$42,155 | \$ 27,536 | \$ 9,766 | \$ 3,704 | \$ 1,149 |
| Borrowings ${ }^{(2)}$. | 19,727 | 5,178 | 7,597 | 2,472 | 4,480 |
| Capital lease obligations. | 2 |  | 1 | - | - |
| Operating leases... | 67 | 16 | 23 | 17 | 11 |
| Interest payments on fixed rate debt. | 1,366 | 235 | 411 | 381 | 339 |
| Purchase obligations ${ }^{(3)}$ | 632 | 335 | 225 | 50 | 22 |
| Other liabilities ${ }^{(4)}$.. | 355 | 178 | 51 | 32 | 94 |
| Total contractual obligations. | \$64,304 | \$ 33,479 | \$ 18,074 | \$ 6,656 | \$ 6,095 |

(1) Deposits do not include interest payments because payment amounts and timing cannot be reasonably estimated as certain deposit accounts have early withdrawal rights and the option to roll interest payments into the balance.
(2) See Note 10: Borrowings to the consolidated financial statements for further discussion. Total future payment of interest charges for the floating rate notes is estimated to be $\$ 1.3$ billion as of November 30, 2012, utilizing the current interest rates as of that date.
(3) Purchase obligations for goods and services include payments under, among other things, consulting, outsourcing, data, advertising, sponsorship, soffware license, telecommunications agreements and global acceptance contracts. Purchase obligations also include payments under rewards program agreements with merchants. Purchase obligations at November 30, 2012 reflect the minimum purchase obligation under legally binding contracts with contract terms that are both fixed and determinable. These amounts exclude obligations for goods and services that already have been incurred and are reflected on our consolidated statement of financial condition.
(4) Other liabilities include our expected future contributions to our pension and postretirement benefit plans, Discover Bank's agreement with Citi to purchase private student loans and the contingent liability associated with our equity method securities.

As of November 30, 2012 our consolidated statement of financial condition reflects a liability for unrecognized tax benefits of $\$ 573$ million, and approximately $\$ 99$ million of accrued interest and penalties. Since the ultimate amount and timing of any future cash settlements cannot be predicted with reasonable certainty, the estimated income tax obligations about which there is uncertainty, as addressed in ASC Topic 740, Income Taxes (guidance formerly provided by FASB Interpretation No. 48), have been excluded from the contractual obligations table. See Note 16: Income Taxes to our consolidated financial statements for further information concerning our tax obligations.

We extend credit for consumer and commercial loans, primarily arising from agreements with customers for unused lines of credit on certain credit cards, provided there is no violation of conditions established in the related agreement. At November 30, 2012, our unused commitments were $\$ 161.9$ billion. These commitments, substantially all of which we can terminate at any time and which do not necessarily represent future cash requirements, are periodically reviewed based on account usage and customer creditworthiness. In addition, in the ordinary course of business, we guarantee payment on behalf of subsidiaries relating to contractual obligations with external parties. The activities of the subsidiaries covered by any such guarantees are included in our consolidated financial statements.

Prior to its acquisition by Discover Bank on December 31, 2010, SLC had an agreement with Citi providing for the origination and servicing of private student loans. Citi would originate and fund such loans and, after final disbursement, SLC would purchase the loans from Citi. This agreement between SLC and Citi was terminated on December 31, 2010, at which time Discover Bank entered into an agreement with Citi to purchase (i) eligible private student loans originated by Citi prior to December 31, 2010 and (ii) any private student loans originated by Citi on or after December 31, 2010 under a new loan origination agreement entered into between Citi and SLC on December 31, 2010. Discover Bank has agreed to purchase the loans at the funded amount (plus accrued interest and less any capitalized fees for any loans first funded prior to December 31, 2010) and, for any loans first funded by Citi on December 31, 2010 or later, pay a premium equal to $0.125 \%$. Discover Bank completed the first purchase of loan participations under this agreement on January 3, 2011. The agreement was extended to and expired on December 31, 2012. Although this agreement has expired and Citi will no longer be originating private student loans under this agreement, disbursements for existing loans will continue into 2013. The agreement does not set forth a minimum or maximum amount of loans to be purchased as Discover Bank must purchase all eligible loans previously originated by Citi, which the Company estimates to be $\$ 134$ million to $\$ 200$ million over the life of the agreement, as amended. As of November 30, 2012, Discover Bank had an outstanding commitment to purchase $\$ 134$ million of loans under this agreement.

## Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Market risk refers to the risk that a change in the level of one or more market prices, rates, indices, correlations or other market factors will result in losses for a position or portfolio. We are exposed to market risk primarily from changes in interest rates.

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

Our interest rate risk management policies are designed to measure and manage the potential volatility of earnings that may arise from changes in interest rates by having a financing portfolio that reflects the mix of variable and fixed rate assets. To the extent that asset and related financing repricing characteristics of a particular portfolio are not matched effectively, we may utilize interest rate derivative contracts, such as swap agreements, to achieve our objectives. Interest rate swap agreements effectively convert the underlying asset or liability from fixed to floating rate or from floating to fixed rate. See Note 22: Derivatives and Hedging Activities to our consolidated financial statements for information on our derivatives activity.

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

Our interest rate sensitive assets include our variable rate loan receivables and the assets that make up our liquidity porffolio. We have restrictions on our ability to mitigate interest rate risk by adjusting rates on existing balances. At November 30, 2012, the majority of our credit card and student loans were at variable rates. Assets with rates that are fixed at period end but which will mature, or otherwise contractually reset to a market-based indexed rate or other fixed rate prior to the end of the 12 -month period, are considered to be rate sensitive. The latter category includes certain 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 marketbased pricing structure. For purposes of measuring rate sensitivity for such loans, only the effect of the hypothetical 100 basis point change in the underlying market-based indexed rate or other fixed rate has been considered rather than the full change in the rate to which the loan would contractually reprice. For assets that have a fixed interest rate at the fiscal period end but which contractually will, or are assumed to, reset to a market-based indexed rate or other fixed rate during the next 12 months, earnings sensitivity is measured from the expected repricing date. In addition, for all interest rate sensitive assets, earnings sensitivity is calculated net of expected loan losses.

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

Assuming an immediate 100 basis point increase in the interest rates affecting all interest rate sensitive assets and liabilities at November 30, 2012, we estimate that net interest income over the following 12-month period would increase by approximately $\$ 42$ million, or $1 \%$. Assuming an immediate 100 basis point increase in the interest rates affecting all interest rate sensitive assets and liabilities at November 30, 2011, we estimated that net interest income over the following 12-month period would increase by approximately $\$ 49$ million, or $1 \%$. We have not provided an estimate of any impact on net interest income of a decrease in interest rates as many of our interest rate sensitive assets and liabilities are tied to interest rates that are already at or near their minimum levels (i.e., Prime and LIBOR) and, therefore, could not materially decrease further.

## Item 8. Financial Statements

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Discover Financial Services
Riverwoods, IL
We have audited the internal control over financial reporting of Discover Financial Services (the "Company") as of November 30, 2012 based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of November 30, 2012, based on the criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated statement of financial condition, and related consolidated statements of income, comprehensive income, changes in stockholders' equity, and cash flows as of and for the year ended November 30, 2012 of the Company and our report dated January 24, 2013 expressed an unqualified opinion on those financial statements.
Seloitte Touche LLP
Chicago, Illinois
January 24, 2013

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Discover Financial Services
Riverwoods, IL
We have audited the accompanying consolidated statements of financial condition of Discover Financial Services (the "Company") as of November 30, 2012 and 2011, and the related consolidated statements of income, comprehensive income, changes in stockholders' equity, and cash flows for each of the three years in the period ended November 30, 2012. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Discover Financial Services at November 30, 2012 and 2011, and the results of their operations and their cash flows for each of the three years in the period ended November 30, 2012, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of November 30,2012, based on the criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated January 24, 2013 expressed an unqualified opinion on the Company's internal control over financial reporting.

## Deloitte : Douche ULP

Chicago, Illinois
January 24, 2013

## DISCOVER FINANCIAL SERVICES

## Consolidated Statements of Financial Condition



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 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.

|  | Nover | er 30, |
| :---: | :---: | :---: |
|  | 2012 | 2011 |
|  | (dollars | millions) |
| Assets |  |  |
| Restricted cash.. | \$ 2,337 | \$ 1,274 |
| Credit card loan receivables | 33,764 | 33,816 |
| Purchased credit-impaired loans...........i. ${ }^{\text {allowa }}$ A | (1,563) | (1,540 |
| Other assets .................................................... | 30 | 34 |
| Liabilities |  |  |
| Long-term borrowings ${ }_{\text {alile }}$ | \$17,995 13 | \$15,843 |

## DISCOVER FINANCIAL SERVICES

## Consolidated Statements of Income

|  | For the Years Ended November 30, |
| :--- | :--- |
|  | 2012 |

See Notes to the Consolidated Financial Statements.

## DISCOVER FINANCIAL SERVICES

## Consolidated Statements of Comprehensive Income

|  | For the Years Ended November 30, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |  | 2010 |  |
|  | (dollars in millions) |  |  |  |  |  |
| Net income.. | \$ | 2,345 | \$ | 2,227 | \$ | 765 |
| Other comprehensive (loss) income, net of taxes |  |  |  |  |  |  |
| Unrealized gain (loss) on securities available for sale, net of tax.. |  | 19 |  | 47 |  | (4) |
| Unrealized gain reversed upon the liquidation of an investment security, net of tax |  | - |  | - |  | (5) |
| Unrealized (loss) gain on cash flow hedges, net of tax ... |  | (4) |  | 5 |  | 2 |
| Unrealized pension and post-retirement plan loss, net of tax............................................................. |  | (38) |  | (21) |  | - |
| Other comprehensive (loss) income............................................................................................. |  | (23) |  | 31 |  | (7) |
| Comprehensive income. | \$ | 2,322 | \$ | 2,258 | \$ | 758 |

## DISCOVER FINANCIAL SERVICES

Consolidated Statements of Changes in Stockholders' Equity

|  | Preferred Stock |  |  | Common Stock |  |  | Accumulated |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Additional | Retained | Other |  | Treasury |  | Total |  |
|  | Shares |  | Amount |  |  |  | Shares |  |  |  | pital | Earnings |  | (Loss) |  | ock |  | uity |
|  | (dollars in millions, shares in thousands) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Balance at November 30, 2009 | 1,225 |  | 1,158 | 544,799 | \$ | 5 | \$ | 3,573 | \$ 3,873 | \$ | (155) | \$ | (18) | \$ | 8,436 |
| Adoption of ASC 810 (FASB Statement |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No. 167), net of tax.. | - |  | - | - |  | - |  | - | $(1,411)$ |  | 79 |  | - |  | $(1,332)$ |
| Net income. | - |  | - | - |  | - |  | - | 765 |  | - |  | - |  | 765 |
| Other comprehensive loss | - |  | - | - |  | - |  | - | - |  | (7) |  | - |  | (7) |
| Purchases of treasury stock. | - |  | - | - |  | - |  | - | - |  | - |  | (8) |  | (8) |
| Common stock issued under employee benefit plans. | - |  | - | 82 |  | - |  | 1 | - |  | - |  | - |  | 1 |
| Common stock issued and stock-based compensation expense | - |  | - | 2,247 |  | - |  | 36 | - |  | - |  | - |  | 36 |
| Income tax deficiency on stock-based compensation plans. | - |  | - | - |  | - |  | (3) | - |  | - |  | - |  | (3) |
| Dividends paid - common stock | - |  | - | - |  | - |  | - | (44) |  | - |  | - |  | (44) |
| Accretion of Series A preferred stock discount..... | - |  | 67 | - |  | - |  | - | (67) |  | - |  | - |  | - |
| Dividends - Series A preferred stock................. | - |  | - | - |  | - |  | - | (24) |  | - |  | - |  | (24) |
| Redemption of Series A preferred stock ............. | $(1,225)$ |  | $(1,225)$ | - |  | - |  | - | - |  | - |  | - |  | $(1,225)$ |
| Repurchase of stock warrant. | - |  | - | - |  | - |  | (172) | - |  | - |  | - |  | (172) |
| Special dividend - Morgan Stanley .................. | - |  | - | - |  | - |  | - | 34 |  | - |  | - |  | 34 |
| Balance at November 30, 2010 | - | \$ | - | 547,128 | \$ | 5 | \$ | 3,435 | \$ 3,126 | \$ | (83) | \$ | (26) | \$ | 6,457 |
| Net income. | - |  | - | - |  | - |  | - | 2,227 |  | - |  | - |  | 2,227 |
| Other comprehensive income. | - |  | - | - |  | - |  | - | - |  | 31 |  | - |  | 31 |
| Purchases of treasury stock..... | - |  | - | - |  | - |  | - | - |  | - |  | (436) |  | (436) |
| Common stock issued under employee benefit plans. | - |  | - | 54 |  | - |  | 1 | - |  | - |  | - |  | 1 |
| Common stock issued and stock-based compensation expense | - |  | - | 2,567 |  | - |  | 72 | - |  | - |  | - |  | 72 |
| Dividends paid - common stock | - |  | - | - |  | - |  | - | (110) |  | - |  | - |  | (110) |
| Balance at November 30, 2011 | - | \$ | - | 549,749 | \$ | 5 | \$ | 3,508 | \$ 5,243 | \$ | (52) | \$ | (462) | \$ | 8,242 |
| Net income. | - |  | - | - |  | - |  | - | 2,345 |  | - |  | - |  | 2,345 |
| Other comprehensive loss. | - |  | - | - |  | - |  | - | - |  | (23) |  | - |  | (23) |
| Purchases of treasury stock | - |  | - | - |  | - |  | - | - |  | - |  | (1,216) |  | $(1,216)$ |
| Common stock issued under employee benefit plans. | - |  | - | 54 |  | - |  | 2 | - |  | - |  | - |  | 2 |
| Common stock issued and stock-based compensation expense | - |  | - | 3,246 |  | - |  | 83 | - |  | - |  | - |  | 83 |
| Dividends declared - common and Series B preferred stock | - |  | - | - |  | - |  | - | (215) |  | - |  | - |  | (215) |
| Issuance of Series B preferred stock, net of issuance costs. | 575 |  | 560 | - |  | - |  |  | - |  | - |  | - |  | 560 |
| Balance at November 30, 2012 ..................... | 575 | \$ | 560 | 553,049 | \$ | 5 | \$ | 3,593 | \$ 7,373 | \$ | (75) |  | (,678) | \$ | 9,778 |

See Notes to the Consolidated Financial Statements.

## DISCOVER FINANCIAL SERVICES

## Consolidated Statements of Cash Flows

|  | For the Years Ended November 30, |
| :--- | :--- | ---: | ---: | ---: | ---: |
|  |  |

## Notes to the Consolidated Financial Statements

## 1. Background and Basis of Presentation

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

The Company's business segments are Direct Banking and Payment Services. The Direct Banking segment includes consumer banking and lending products which includes Discover card-branded credit cards issued to individuals and small businesses on the Discover Network and other consumer products and services, including private student loans, personal loans, home loans, prepaid cards and other consumer lending and deposit products. The majority of Direct Banking revenues relate to interest income earned on each of its loan products. The Payment Services segment includes PULSE, Diners Club and the Company's network partners business, which includes credit, debit and prepaid cards issued on the Discover Network by third parties. The majority of Payment Services revenues relate to transaction processing revenue from PULSE and royalty and licensee revenue from Diners Club.

Basis of Presentation. The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The preparation of financial statements in conformity with GAAP requires the Company to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and related disclosures. These estimates are based on information available as of the date of the consolidated financial statements. The Company believes that the estimates used in the preparation of the consolidated financial statements are reasonable. Actual results could differ from these estimates. Beginning with the 2012 Form 10-K, the Company began reporting all dollar amounts in millions. In certain circumstances, this change in rounding resulted in prior year disclosures being removed.

Principles of Consolidation. The consolidated financial statements include the accounts of the Company and its whollyowned subsidiaries. The Company's policy is to consolidate all entities in which it owns more than $50 \%$ of the outstanding voting stock unless it does not control the entity. However, the Company did not have a controlling voting interest in any entity other than its wholly-owned subsidiaries in the periods presented in the accompanying consolidated financial statements.

It is also the Company's policy to consolidate any variable interest entity for which the Company is the primary beneficiary, as defined by GAAP. Pursuant to amendments to GAAP that became effective for the Company on December 1, 2009, the Company concluded that it is the primary beneficiary of the Discover Card Master Trust I and the Discover Card Execution Note Trust (the "trusts"), and accordingly, began consolidating the trusts. The Company is deemed to be the primary beneficiary of each of these trusts since it is, for each, the trust servicer and the holder of both the residual interest and the majority of the most subordinated interests. Because of those involvements, the Company has, for each trust, i) the power to direct the activities that most significantly impact the economic performance of the trust, and ii) the obligation (or right) to absorb losses (or receive benefits) of the trust that could potentially be significant. In conjunction with the acquisition of The Student Loan Corporation on December 31, 2010, the Company determined that it is the primary beneficiary of the student loan trusts included among the acquired assets. The Company has determined that it was not the primary beneficiary of any other variable interest entity during the years ended November 30, 2012, 2011, and 2010.

For investments in any entities in which the Company owns $50 \%$ or less of the outstanding voting stock but in which the Company has significant influence over operating and financial decisions, the Company applies the equity method of accounting. In cases where the Company's equity investment is less than $20 \%$ and significant influence does not exist, such investments are carried at cost.

Recently Issued Accounting Pronouncements. In July 2012, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2012-02, Intangibles-Goodwill and Other (Topic 350): Testing IndefiniteLived Intangible Assets for Impairment. ASU 2012-02 applies to long-lived intangible assets, other than goodwill, that are not subject to amortization on the basis that they have indefinite useful lives. This standard is intended to simplify impairment testing by adding a qualitative review step to assess whether the required quantitative impairment analysis that exists today is necessary. Under the new standard, a company will not be required to calculate the fair value of the intangible asset unless it concludes, based on the qualitative assessment, that it is more likely than not that the fair value of that asset is less than its book value. If such a decline in fair value is deemed more likely than not to have occurred, then the quantitative impairment test that exists under current GAAP must be completed; otherwise, the asset is deemed to be not impaired and no further testing is required until the next annual test date (or sooner if conditions or events before that date raise concerns of potential impairment of the asset). The amended impairment guidance does not affect the manner in which fair value is determined. The new guidance is effective for annual and interim impairment tests performed for fiscal years beginning after September 15, 2012, with early adoption permitted. The Company's nonamortizable intangibles consist of $\$ 155$ million in acquired trade names and other assets associated with Diners Club. Because this standard impacts the impairment analysis only, it will have no effect on the Company's financial condition, results of operations or cash flows.

In December 2011, the FASB issued ASU No. 2011-11, Balance Sheet (Topic 210): Disclosures about Offsetting Assets and Liabilities. ASU 2011-11 adds certain additional disclosure requirements about financial instruments and derivatives instruments that are subject to netting arrangements. The Company has master netting arrangements pertaining to collateral posting requirements with its interest rate swap counterparties, as more fully discussed in Note 22: Derivatives and Hedging Activities. Additional details about these positions and how they are reported will be disclosed. The new disclosures are required for annual reporting periods beginning on or after January 1, 2013, and interim periods within those periods. Because this amendment impacts disclosures only, it will have no effect on the Company's financial condition, results of operations or cash flows.

In September 2011, the FASB issued ASU No. 2011-08, Intangibles-Goodwill and Other (Topic 350): Testing Goodwill for Impairment. ASU 2011-08 is intended to simplify goodwill impairment testing by adding a qualitative review step to assess whether the required quantitative impairment analysis that exists today is necessary. Under the amended rule, a company will not be required to calculate the fair value of a business that contains recorded goodwill unless it concludes, based on the qualitative assessment, that it is more likely than not that the fair value of that business is less than its book value. If such a decline in fair value is deemed more likely than not to have occurred, then the quantitative goodwill impairment test that exists under current GAAP must be completed; otherwise, goodwill is deemed to be not impaired and no further testing is required until the next annual test date (or sooner if conditions or events before that date raise concerns of potential impairment in the business). The amended goodwill impairment guidance does not affect the manner in which a company estimates fair value. The new standard is effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011, with early adoption permitted. The Company has $\$ 286$ million in goodwill, which is associated with its PULSE network and Discover Home Loans, Inc. Because this standard impacts the impairment analysis only, it will have no effect on the Company's financial condition, results of operations or cash flows.

In June 2011, the FASB issued ASU No. 2011 -05, Comprehensive Income (Topic 220): Presentation of Comprehensive Income. This ASU required companies to present the components of net income and other comprehensive income either as one continuous statement or as two consecutive statements. It eliminated the option to present components of other comprehensive income as part of the statement of changes in stockholders' equity. The standard did not change the items which must be reported in other comprehensive income, how such items were measured or when they must be reclassified to net income. The FASB subsequently deferred the effective date of certain provisions of this standard pertaining to the reclassification of items out of accumulated other comprehensive income, pending the issuance of further guidance on that matter. Because this ASU impacted presentation only, it had no effect on the Company's financial condition, results of operations or cash flows.

## 2. Summary of Significant Accounting Policies

Cash and Cash Equivalents. Cash and cash equivalents is defined by the Company as cash on deposit with banks, including time deposits and other highly liquid investments, with maturities of 90 days or less when purchased. Cash and cash equivalents included $\$ 780$ million and $\$ 626$ million of cash and due from banks and $\$ 3.1$ billion and $\$ 2.2$ billion of interest-earning deposits in other banks at November 30, 2012 and 2011, respectively.

Restricted Cash. Restricted cash includes cash for which the Company's ability to withdraw funds at any time is contractually limited. Restricted cash is generally designated for specific purposes arising out of certain contractual or other obligations.

Short-term Investments. Short-term investments include certificates of deposit with maturities greater than 90 days but less than one year when purchased.

Investment Securities. At November 30, 2012, investment securities consisted of credit card asset-backed securities issued by other institutions, U.S. Treasury and U.S. government agency obligations, corporate debt securities, mortgagebacked securities issued by government agencies and state agency bonds. Investment securities which the Company has the positive intent and ability to hold to maturity are classified as held-to-maturity and are reported at amortized cost. All other investment securities are classified as available-for-sale, as the Company does not hold investment securities for trading purposes. Available-for-sale investment securities are reported at fair value with unrealized gains and losses, net of tax, reported as a component of accumulated other comprehensive income included in stockholders' equity. The Company estimates the fair value of available-for-sale investment securities pursuant to the guidance in ASC Topic 820, Fair Value Measurements and Disclosures ("ASC 820"). The amortized cost for each held-to-maturity and available-forsale investment security is adjusted for amortization of premiums or accretion of discounts, as appropriate. Such amortization or accretion is included in interest income. The Company evaluates its unrealized loss positions for other-than-temporary impairment in accordance with GAAP applicable for investments in debt and equity securities and in accordance with SEC Staff Accounting Bulletin Topic 5M. Realized gains and losses and other-than-temporary impairments related to investment securities are determined at the individual security level and are reported in other income.

To-be-announced Investment Securities. The Company's to-be-announced investment securities are forward contracts for regular-way purchases of government agency mortgage-backed securities. They are accounted for as investment securities rather than as derivative instruments. Accordingly, they are designated as held-to-maturity or available-for-sale consistent with the expected designation of the security to be purchased. These contracts are for the purchase of mortgage-backed securities with a stated coupon and original term to maturity but for which the specific underlying mortgage loans are not known at the time of the transaction or at the end of the reporting period. The related liability associated with these contracts is recorded in other liabilities within the consolidated statement of financial condition.

Mortgage Loans Held for Sale. Mortgage loans held for sale consist of residential first mortgage loans that are secured by residential real estate throughout the United States. The Company originates all of its residential real estate loans with the intent to sell them in the secondary market on a servicing-released basis and classifies them as held for sale at the time of origination. The Company includes mortgage loans held for sale in total loan receivables and carries these assets at fair value pursuant to a fair value option election. Changes in fair value are recorded through revenue prior to the sale of the loans to investors. The gain or loss on the sale of loans is recognized on the date the loans are sold and is based on the difference between the sale proceeds received and the carrying value of the loans, adjusted for the impact of the related hedges (see Financial Instruments Used for Asset and Liability Management discussed below as well as Note 22: Derivatives and Hedging Activities for further discussion of mortgage-related hedging activities). The fair value of mortgage loans held for sale are based on the loan amount, note rate, loan program, expected sale date of the loan and, most significantly, investor pricing tables stratified by product, note rate and term, adjusted for current market conditions. The Company recognizes interest income on these loans separately from changes in their fair value.

Student Loans Held for Sale. When management makes a decision to sell non-mortgage loan receivables, such loans are reclassified as held for sale. The Company includes its other loans held for sale in loan receivables and carries these assets at the lower of aggregate cost or fair value. In determining fair value of these loans, management considers the expected sale price, which is based on market analysis. An allowance for loan losses is not maintained for loans held for sale.

Loan Receivables. Loan receivables consist of credit card receivables and other loans and include purchased creditimpaired ("PCl") loans as well as loans held for sale. Loan receivables also include unamortized net deferred loan origination fees and costs (also see "- Loan Interest and Fee Income"). Credit card loan receivables include consumer credit card loan receivables and business credit card loan receivables. Credit card loan receivables are reported at their principal amounts outstanding and include uncollected billed interest and fees and are reduced for unearned revenue related to balance transfer fees (also see "- Loan Interest and Fee Income"). Other loans consist of student loans, personal loans and other loans and are reported at their principal amounts outstanding.

PCI loans are loans acquired at prices which reflected a discount related to deterioration in individual loan credit quality since origination. The Company's PCI loans are comprised entirely of private student loans acquired during fiscal year 2011. These loans are accounted for pursuant to ASC Subtopic 310-30, Loans and Debt Securities Acquired with Deteriorated Credit Quality.

The PCl student loans were aggregated into pools based on common risk characteristics at the time of their acquisition. Loans were grouped primarily on the basis of origination date as loans originated in a particular year generally reflect the application of common origination strategies and/or underwriting criteria. Each pool is accounted for as a single asset and each has a single composite interest rate, total contractual cash flows and total expected cash flows.

Interest income on PCl loans is recognized on the basis of expected cash flows rather than contractual cash flows. The total amount of interest income recognizable on a pool of PCl loans (i.e., its accretable yield) is the difference between the carrying amount of the loan pool and the future cash flows expected to be collected without regard to whether the expected cash flows represent principal or interest collections. Interest is recognized on an effective yield basis over the life of the loan pool.

The initial estimates of the fair value of the PCl student loans included the impact of expected credit losses, and therefore, no allowance for loan loss was recorded as of the purchase dates. The difference between contractually required cash flows and cash flows expected to be collected, as measured at the acquisition dates, is not permitted to be accreted. Charge-offs are absorbed by this non-accretable difference and do not result in a charge to earnings.

The estimate of cash flows expected to be collected is updated each reporting period to reflect management's latest expectations of future credit losses and borrower prepayments, and interest rates in effect in the current period. To the extent expected credit losses increase after the acquisition dates, the Company will record an allowance for loan losses through the provision for loan losses, which will reduce net income. Changes in expected cash flows related to changes in prepayments or interest rate indices for variable rate loans generally are recorded prospectively as adjustments to interest income.

To the extent that a significant increase in cash flows due to lower expected losses is deemed probable, the Company will first reverse any previously established allowance for loan losses and then increase the amount of remaining accretable yield. The increase to yield would be recognized prospectively over the remaining life of the loan pool. An increase in the accretable yield would reduce the remaining non-accretable difference available to absorb subsequent charge-offs. Disposals of loans, which may include sales of loans or receipt of payments in full from the borrower or charge-offs, result in removal of the loans from their respective pools.

With the exception of mortgages, the Company's loan receivables are deemed to be held for investment at origination or acquisition because management has the intent and ability to hold them for the foreseeable future. In determining the amount of loans that can continue to be held for investment, management considers capital levels and scheduled maturities of funding instruments used.

Cash flows associated with loans that are originated or acquired with the intent to sell are included in cash flows from operating activities. Cash flows associated with loans originated or acquired for investment are classified as cash flows from investing activities, regardless of a subsequent change in intent.

Loans in Process. The Company receives executed credit card transaction activity from merchants and acquirers and applies the activity to the individual cardholder accounts on the next business day. Loans in process are credit card loan receivables resulting from these confirmed credit card transactions that have not yet been applied to individual cardholder accounts. During the fourth quarter of 2012, the Company determined that it had not previously recognized credit card loan receivables and accrued expenses and other liabilities relating to loans in process and related liability to merchants and acquirers. Accordingly, credit card loan receivables and accrued expenses and other liabilities were increased by $\$ 333$ million as of November 30,2011. In addition, corresponding corrections were made on the statements of cash flows to increase the change in accrued expenses and other liabilities and net principal disbursed on loans originated for investment for the years ended November 2011 and 2010. These corrections had no impact on stockholders' equity or net income for the years ended November 30, 2011 or 2010. The Company has evaluated the effect of the incorrect presentation, both qualitatively and quantitatively, and concluded that it did not have a material impact on, nor require amendment of, any previously filed, annual or quarterly consolidated financial statements.

Delinquent Loans. The entire balance of an account is contractually past due if the minimum payment is not received by the specified date on the customer's billing statement. Delinquency is reported on loans that are 30 or more days past due.

Credit card loans are charged off at the end of the month during which an account becomes 180 days past due. Closed-end consumer loan receivables are charged off at the end of the month during which an account becomes 120 days contractually past due. Customer bankruptcies and probate accounts are charged off at the end of the month 60 days following the receipt of notification of the bankruptcy or death, but not later than the 180-day or 120-day time frame described above. Receivables associated with alleged or potential fraudulent transactions are adjusted to their net realizable value upon receipt of notification of such fraud through a charge to other expense and are subsequently written off at the end of the month 90 days following notification, but not later than the contractual 180-day or 120-day time frame described above. The Company's charge-off policies are designed to comply with guidelines established by the Federal Financial Institutions Examination Council ("FFIEC").

The practice of re-aging an account also may affect loan delinquencies and charge-offs. A re-age is intended to assist delinquent customers who have experienced financial difficulties but who demonstrate both an ability and willingness to repay. Accounts meeting specific criteria are re-aged when the Company and the customer agree on a temporary repayment schedule that may include concessionary terms. With re-aging, the outstanding balance of a delinquent account is returned to a current status. Customers may also qualify for a workout re-age when either a longer term or permanent hardship exists. The Company's re-age practices are designed to comply with FFIEC guidelines.

Allowance for Loan Losses. The Company maintains an allowance for loan losses at a level that is appropriate to absorb probable losses inherent in the loan portfolio. The allowance is evaluated monthly for appropriateness and is maintained through an adjustment to the provision for loan losses. Charge-offs of principal amounts of loans outstanding are deducted from the allowance and subsequent recoveries of such amounts increase the allowance.

The Company calculates its allowance for loan losses by estimating probable losses separately for classes of the loan porffolio with similar loan characteristics, which generally results in segmenting the portfolio by loan product type.

For its credit card loan receivables, the Company bases its allowance for loan loss on several analyses that help estimate incurred losses as of the balance sheet date. While the Company's estimation process includes historical data and analysis, there is a significant amount of judgment applied in selecting inputs and analyzing the results produced by the models to determine the allowance. The Company uses a migration analysis to estimate the likelihood that a loan will progress through the various stages of delinquency. The migration analysis considers uncollectible principal, interest and fees reflected in the loan receivables. The Company uses other analyses to estimate losses incurred on non-delinquent accounts. The considerations in these analyses include past performance, risk management techniques applied to various accounts, historical behavior of different account vintages, current economic conditions, recent trends in delinquencies, bankruptcy filings, account collection management, policy changes, account seasoning, loan volume and amounts, payment rates, and forecasting uncertainties. The Company does not evaluate credit card loans for impairment on an individual basis, but instead estimates its allowance for credit card loan losses on a pooled basis, which includes loans that are delinquent and/or no longer accruing interest.

For its other loans, the Company considers historical and forecasted estimates of incurred losses in estimating the related allowance for loan losses. The Company also considers other factors, such as current economic conditions, recent trends in delinquencies and bankruptcy filings, account collection management, policy changes, account seasoning, loan volume and amounts, payment rates and forecasting uncertainties. Similar to credit card loans, the Company does not evaluate other loans for impairment on an individual basis, but instead estimates its allowance for personal and student loan losses on a pooled basis, which includes loans that are delinquent and/or no longer accruing interest.

As part of certain collection strategies, the Company may modify the terms of loans to customers experiencing financial hardship. Temporary and permanent modifications on credit card loans, certain grants of student loan forbearance and certain short and long-term modifications to personal loans are considered troubled debt restructurings and are accounted for in accordance with ASC 310-40, Troubled Debt Restructuring by Creditors. When a delinquent borrower is granted a second forbearance period on a student loan, the Company classifies these loans as troubled debt restructurings. The Company does not anticipate significant shorffalls in the contractual amount due for borrowers using a first forbearance period as the historical performance of these borrowers is not significantly different from the overall porffolio. However, when a delinquent borrower is granted a second forbearance period, the forbearance is considered a troubled debt restructuring.

Loan receivables, other than PCI loans, that have been modified under a troubled debt restructuring are evaluated separately from the pools of receivables that are subject to the collective analyses described above. Loan receivables modified in a troubled debt restructuring are recorded at their present values with impairment measured as the difference between the loan balance and the discounted present value of cash flows expected to be collected. Changes in the present value are recorded in the provision for loan losses. All of the Company's troubled debt restructurings, which are evaluated collectively on an aggregated (by loan type) basis, have a related allowance for loan losses.

Premises and Equipment, net. Premises and equipment, net, are stated at cost less accumulated depreciation and amortization, which is computed using the straight-line method over the estimated useful lives of the assets. Buildings are depreciated over a period of 39 years. The costs of leasehold improvements are capitalized and depreciated over the lesser of the remaining term of the lease or the asset's estimated useful life, typically ten years. Furniture and fixtures are depreciated over a period of five to ten years. Equipment is depreciated over three to ten years. Capitalized leases, consisting of computers and processing equipment, are depreciated over three and six years, respectively. Maintenance and repairs are immediately expensed, while the costs of improvements are capitalized.

Purchased software and capitalized costs related to internally developed soffware are amortized over their useful lives of three to five years. Costs incurred during the application development stage related to internally developed software are capitalized in accordance with ASC Subtopic 350-40, Intangibles-Goodwill and Other: Internal Use Software. Pursuant to that guidance, costs are expensed as incurred during the preliminary project stage and post implementation stage. Once the capitalization criteria as defined in GAAP have been met, external direct costs incurred for materials and services used in developing or obtaining internal-use computer software, payroll and payroll-related costs for employees who are directly associated with the internal-use computer software project (to the extent those employees devoted time directly to the project), and interest costs incurred when developing computer software for internal use are capitalized. Amortization of capitalized costs begins when the software is ready for its intended use. Capitalized software is included in premises and equipment, net in the Company's consolidated statements of financial condition. See Note 7: Premises and Equipment for further information about the Company's premises and equipment.

Goodwill. Goodwill is recorded as part of the Company's acquisitions of businesses when the purchase price exceeds the fair value of the net tangible and separately identifiable intangible assets acquired. The Company's goodwill is not amortized, but rather is subject to an impairment test at the reporting unit level each year, or more often if conditions indicate impairment may have occurred, pursuant to ASC Topic 350, Intangibles-Goodwill and Other. The Company's reported goodwill relates to PULSE and to the mortgage origination business acquired in 2012. The goodwill impairment analysis is a two-step test. In the first step, the fair value of the reporting unit is compared to its carrying value. If the fair value of the reporting unit exceeds its carrying value including goodwill, goodwill is considered to be not impaired. If the carrying value including goodwill exceeds its fair value, goodwill is potentially impaired and the second step of the test becomes necessary. In the second step, the implied fair value of goodwill is derived and compared to the carrying amount of goodwill. The implied fair value of goodwill is the excess of the fair value of the reporting unit over the sum of
the fair values of all identifiable assets less the liabilities associated with the reporting unit. If the carrying value of goodwill allocated to the reporting unit exceeds its implied fair value, an impairment charge is recorded for the excess.

Intangible Assets. The Company's intangible assets consist of both amortizable and non-amortizable intangible assets. The Company's amortizable intangible assets consist primarily of acquired customer relationships and certain trade name intangibles. All of the Company's amortizable intangible assets are carried at net book value and are amortized over their estimated useful lives. The amortization periods approximate the periods over which the Company expects to generate future net cash inflows from the use of these assets. The Company's policy is to amortize intangibles in a manner that reflects the pattern in which the projected net cash inflows to the Company are expected to occur, where such pattern can be reasonably determined, as opposed to the straight-line basis. This method of amortization typically results in a greater portion of the intangible asset being amortized in the earlier years of its useful life.

All of the Company's amortizable intangible assets, as well as other amortizable or depreciable long-lived assets such as premises and equipment, are subject to impairment testing when events or conditions indicate that the carrying value of an asset may not be fully recoverable from future cash flows. A test for recoverability is done by comparing the asset's carrying value to the sum of the undiscounted future net cash inflows expected to be generated from the use of the asset over its remaining useful life. Impairment exists if the sum of the undiscounted expected future net cash inflows is less than the carrying amount of the asset. Impairment would result in a write-down of the asset to its estimated fair value. The estimated fair values of these assets are based on the discounted present value of the stream of future net cash inflows expected to be derived over the remaining useful lives of the assets. If an impairment write-down is recorded, the remaining useful life of the asset will be evaluated to determine whether revision of the remaining amortization or depreciation period is appropriate.

The Company's nonamortizable intangible assets consist of the international transaction processing rights and brandrelated intangibles included in the acquisition of Diners Club as well as the trade names acquired in The Student Loan Corporation acquisition. These assets are deemed to have indefinite useful lives and are therefore not subject to amortization. All of the Company's nonamortizable intangible assets are subject to a test for impairment annually, or more frequently if events or changes in circumstances indicate that the asset might be impaired. As required by GAAP, if the carrying value of a nonamortizable intangible asset is in excess of its fair value, the asset must be written down to its fair value through the recognition of an impairment charge to earnings. In contrast to amortizable intangibles, there is no test for recoverability associated with the impairment test for nonamortizable intangible assets.

Stock-based Compensation. Pursuant to ASC Topic 718, Compensation - Stock Compensation, the Company measures the cost of employee services received in exchange for an award of stock-based compensation based on the grant-date fair value of the award. The cost is recognized over the requisite service period, except for awards granted to retirementeligible employees, which are fully expensed by the grant date. No compensation cost is recognized for awards that are subsequently forfeited.

Advertising Costs. The Company expenses advertising costs as incurred. Television advertising costs are expensed in the period in which the advertising is first aired. Advertising costs are recorded in marketing and business development and were $\$ 172$ million, $\$ 150$ million and $\$ 144$ million for the years ended November 30, 2012, 2011 and 2010, respectively.

Income Taxes. Income tax expense is provided for using the asset and liability method, under which deferred tax assets and liabilities are determined based on the temporary differences between the financial statement and income tax bases of assets and liabilities using currently enacted tax rates. See Note 16: Income Taxes for more information about the Company's income taxes.

Financial Instruments Used for Asset and Liability Management. The Company enters into interest rate swaps to manage interest rate risk arising from certain interest-rate sensitive assets and liabilities, and it accounts for such transactions in accordance ASC Topic 815, Derivatives and Hedging. Derivative contracts having positive net fair values, inclusive of net accrued interest receipts or payments, are recorded in other assets. Derivative contracts with negative net fair values, inclusive of net accrued interest payments or receipts, are recorded in accrued expenses and other liabilities.

With regard to derivatives hedging interest-bearing deposits or long-term debt, changes in both the fair value of the derivatives and the gains or losses on the hedged interest-bearing deposits or long-term debt relating to the risk being hedged are recorded in interest expense and provide offset to one another. Ineffectiveness related to these fair value hedges, if any, is recorded in interest expense. With regard to derivatives hedging future cash flows resulting from credit card loan receivables attributable to changes in benchmark interest rates, changes in the fair value of the derivatives are recorded in other comprehensive income and are subsequently reclassified into interest income in the period that the hedged forecasted transaction affects earnings. Ineffectiveness related to these cash flow hedges, if any, is recorded in other income.

The Company is exposed to interest rate risk on mortgage loans it originates until those loans are sold in the secondary market. The fair value of interest rate lock commitments ("IRLCs") and loans held for sale are subject to change primarily due to changes in market interest rates. The Company economically hedges the changes in fair value of these assets by using forward delivery contracts.

The Company enters into IRLCs with consumers to originate mortgage loans at a specified interest rate. The Company reports IRLCs within other assets at fair value with changes in fair value being recorded in other income and other expense. IRLCs and mortgage loans held for sale under certain loan programs are hedged in aggregate using to-beannounced mortgage-backed securities ("TBA MBS"). IRLCs and mortgage loans held for sale under loan programs that generally have lower volume are hedged on an individual loan level using best-efforts forward delivery contracts. Fair values for each of these instruments are determined using quantitative risk models, as more fully described in Note 21: Fair Value Disclosures.

Accumulated Other Comprehensive Income. In accordance with the requirements of ASC Topic 220, Comprehensive Income, the Company records unrealized gains and losses on available-for-sale securities, certain pension adjustments and changes in the fair value of cash flow hedges in accumulated other comprehensive income on an after tax basis where applicable. The Company presents accumulated other comprehensive income, net of tax, in its consolidated statements of changes in stockholders' equity.

## Significant Revenue Recognition Accounting Policies

Loan Interest and Fee Income. Interest on loans is comprised largely of interest on credit card loans and is recognized based upon the amount of loans outstanding and their contractual interest rate. Interest on credit card loans is included in loan receivables when billed to the customer. The Company accrues unbilled interest revenue each month from a customer's billing cycle date to the end of the month. The Company applies an estimate of the percentage of loans that will revolve in the next cycle in the estimation of the accrued unbilled portion of interest revenue that is included in accrued interest receivable on the consolidated statements of financial condition. Interest on other loan receivables is accrued monthly in accordance with their contractual terms and recorded in accrued interest receivable, which is included in other assets, in the consolidated statements of financial condition. Interest related to purchased credit-impaired loans is discussed in Note 5: Loan Receivables.

The Company recognizes fees (except annual fees, balance transfer fees and certain product fees) on loan receivables in interest income or loan fee income as the fees are assessed. Annual fees, balance transfer fees and certain product fees are recognized in interest income or loan fee income ratably over the periods to which they relate. Balance transfer fees are accreted to interest income over the life of the related balance. As of November 30, 2012 and 2011, deferred revenues related to balance transfer fees, recorded as a reduction of loan receivables, were $\$ 35$ million and $\$ 41$ million, respectively. Loan fee income consists of fees on credit card loans and includes annual, late, returned check, cash advance and other miscellaneous fees and is reflected net of waivers and charge-offs. Subsequent to February 2010, the Company ceased charging overlimit fees on Discover credit cards.

Pursuant to ASC Subtopic 310-20, Receivables - Nonrefundable Fees and Other Costs, direct loan origination costs on credit card loans are deferred and amortized on a straight-line basis over a one-year period and recorded in interest income from credit card loans. Direct loan origination costs on other loan receivables are deferred and amortized over the life of the loan and recorded in interest income from other loans. As of November 30, 2012 and 2011, the remaining unamortized deferred costs related to loan origination were $\$ 30$ million and $\$ 23$ million, respectively, and were recorded in loan receivables.

The Company accrues interest and fees on loan receivables until the loans are paid or charged off, except in instances of customer bankruptcy, death or fraud, where no further interest and fee accruals occur following notification. Payments received on nonaccrual loans are allocated according to the same payment hierarchy methodology applied to loans that are accruing interest. When loan receivables are charged off, unpaid accrued interest and fees are reversed against the income line items in which they were originally recorded in the consolidated statements of income. Charge-offs and recoveries of amounts which relate to capitalized interest on student loans are treated as principal charge-offs and recoveries, affecting the allowance for loan losses rather than interest income. The Company considers uncollectible interest and fee revenues in assessing the adequacy of the allowance for loan losses.

Discount and Interchange Revenue. The Company earns discount revenue from fees charged to merchants with whom the Company has entered into card acceptance agreements for processing credit card purchase transactions. Discover card transaction volume was concentrated among the Company's top 100 merchants in 2012, with its largest merchant accounting for approximately $8 \%$ of that transaction volume. We earn acquirer interchange revenue from merchant acquirers on all Discover Network card transactions and certain Diners Club transactions made by credit card customers at merchants with whom merchant acquirers have entered into card acceptance agreements for processing credit card purchase transactions. The Company pays issuer interchange to network partners who have entered into contractual arrangements to issue cards on the Company's networks as compensation for risk and other operating costs. The discount revenue or acquirer interchange is recognized as revenue, net of any associated issuer interchange cost, at the time the transaction is captured.

Customer Rewards. The Company offers its customers various reward programs, including the Cashback Bonus reward program, pursuant to which the Company pays certain customers a reward equal to a percentage of their credit card purchase amounts based on the type and volume of the customer's purchases. The liability for customer rewards, which is included in accrued expenses and other liabilities on the consolidated statements of financial condition, is estimated on an individual customer basis and is accumulated as qualified customers make progress toward earning the reward through their ongoing credit card purchase activity or other defined actions. In determining the appropriate liability for customer rewards, the Company estimates forfeitures of rewards accumulated but not redeemed based on historical account closure and charge-off experience, actual customer credit card purchase activity and the terms of the rewards program. In accordance with ASC Subtopic 605-50, Revenue Recognition: Customer Payments and Incentives ("ASC 605-50"), the Company recognizes customer rewards cost as a reduction of the related revenue. For the years ended November 30, 2012, 2011 and 2010, rewards costs, adjusted for estimated forfeitures, amounted to $\$ 1.0$ billion, $\$ 879$ million, and $\$ 738$ million, respectively. At November 30, 2012 and 2011, the liability for customer rewards, adjusted for estimated forfeitures, was $\$ 1.1$ billion and $\$ 1.0$ billion, respectively, which is included in accrued expenses and other liabilities on the consolidated statement of financial condition.

Protection Products. The Company earns revenue related to fees received for marketing products or services that are ancillary to the Company's credit card and personal loans, including payment protection products and identity theft protection services, to the Company's customers. The amount of revenue recorded is based on the terms of the agreements and contracts with the third parties that provide these services. The Company recognizes this income over the customer agreement or contract period as earned.

Transaction Processing Revenue. Transaction processing revenue represents fees charged to financial institutions and merchants for processing ATM, debit and point-of-sale transactions over the PULSE network and is recognized at the time the transactions are processed. Transaction processing revenue also includes network participant revenue earned by PULSE related to fees charged for maintenance, support, information processing and other services provided to financial institutions, processors and other participants in the PULSE network. These revenues are recognized in the period that the related transactions occur or services are rendered.

Royalty and Licensee Revenue. The Company earns revenue from licensing fees for granting the right to use the Diners Club brand and processing fees for providing various services to Diners Club licensees, which we refer to together as royalty and licensee revenue. Royalty revenue is recognized in the period that the cardholder volume used to calculate the royalty fee is generated. Processing fees are recognized in the month that the services are provided. Royalty and licensee revenue is included in other income on the consolidated statements of income.

Incentive Payments. The Company makes certain incentive payments under contractual arrangements with financial institutions, Diners Club licensees, merchants and certain other customers. In accordance with ASC 605-50, payments to customers are generally classified as contra-revenue unless a specifically identifiable benefit is received by the Company in consideration for the payment and the fair value of such benefit is reasonably estimable and measurable. If no such benefit is identified, then the entire payment is classified as contra-revenue, and included in other income in the consolidated statements of income in the line item where the related revenues are recorded. If the payment gives rise to an asset because it is expected to directly or indirectly contribute to future net cash inflows, it is deferred and recognized over the expected benefit period. The unamortized portion of the deferred incentive payments included in other assets on the consolidated statements of financial condition was $\$ 38$ million and $\$ 41$ million at November 30, 2012 and 2011, respectively.

## 3. Business Combinations

Acquisition of the net assets of Home Loan Center, Inc. On June 6, 2012, through its Discover Home Loans, Inc. subsidiary, the Company acquired substantially all of the operating and related assets and certain liabilities of Home Loan Center, Inc. ("Home Loan Center"), a subsidiary of Tree.com, Inc., adding a residential mortgage lending component to the Company's direct banking business. In exchange for the net assets acquired, the Company paid an aggregate of $\$ 49$ million, including payments made prior to the closing that were applied to the closing price. A portion of such amount is being held in escrow pending Home Loan Center's ability to discharge certain contingent liabilities related to loans previously sold to secondary market investors. These contingent liabilities were not assumed by the Company. An additional $\$ 10$ million of purchase price will be due from the Company on the first anniversary of the closing, subject to certain conditions being satisfied. The acquisition did not have a significant impact for the year ended November 30, 2012 on the Company's consolidated financial condition, results of operations or cash flows or on the Direct Banking reportable segment in which it is included.

Acquisition of The Student Loan Corporation. On December 31, 2010, the Company acquired The Student Loan Corporation ("SLC"), which is now a wholly-owned subsidiary of Discover Bank and included in the Company's Direct Banking segment. The Company acquired SLC's ongoing private student loan business, which includes certain private student loans held in three securitization trusts and other assets, and assumed SLC's asset-backed securitization debt incurred by those trusts and other liabilities. The acquired loans are considered to be purchased credit-impaired ("PCI") loans for accounting purposes, the details of which are discussed further in Note 5: Loan Receivables. The acquisition significantly increased the size of the Company's private student loan portfolio. In addition, the acquisition has provided the Company with a developed student loan business platform, additional school relationships and SLC's website. Since the acquisition date, the results of operations and cash flows of SLC have been included in the Company's consolidated results of operations and cash flows. Pro forma data is not provided as the impact of the SLC acquisition was not significant to the Company's consolidated results of operations or cash flows.

Net cash consideration paid. The following table provides a calculation of the amount paid by the Company for SLC based on the net assets of the SLC securitization trusts acquired after applying an $8.5 \%$ discount to the trust assets (the "Trust Certificate Purchase Price") (dollars in millions):

| Gross trust assets | \$ 3,977 |
| :---: | :---: |
| Less: 8.5\% discount | (338) |
| Net trust assets. | 3,639 |
| Less: Principal amount of and accrued interest on trust debt | $(3,193)$ |
| Trust Certificate Purchase Price | \$ 446 |

Although the Company paid SLC shareholders $\$ 600$ million for the acquisition of SLC ("Aggregate Merger Consideration"), the Company received a purchase price adjustment from Citibank, N.A. ("Citibank") equivalent to the amount by which the Aggregate Merger Consideration exceeded the value of the Trust Certificate Purchase Price. In addition, Citibank agreed to adjust the cash consideration paid by the Company to compensate it for (i) agreeing to commute certain insurance policies covering certain of the loans acquired and (ii) for the value of non-trust related liabilities assumed by the Company. The following table provides a summary of total consideration paid by Discover at
the closing of the acquisition on December 31, 2010 and a summary of the consideration revised for post-closing adjustments (dollars in millions):

| Aggregate Merger Consideration. | \$ 600 |
| :---: | :---: |
| Less: Purchase price adjustment | (154) |
| Trust Cerrificate Purchase Price | 446 |
| Less: Further adjustments provided for by Citibank |  |
| Cash received for consent to insurance commutation. | (16) |
| Cash received related to reimbursable liabilities | (29) |
| Net cash consideration paid | \$ 401 |

Net assets acquired. The Company acquired net assets (including $\$ 155$ million of cash) with an aggregate fair value of $\$ 563$ million in exchange for cash consideration of $\$ 556$ million, resulting in the recognition of a bargain purchase gain of approximately $\$ 7$ million. The bargain purchase gain primarily resulted from Citibank's adjustment of the cash consideration to be paid by the Company in exchange for the Company's consent to permit SLC to commute, immediately prior to the acquisition, certain student loan insurance policies covering loans in one of the three trusts. The bargain purchase gain is recorded in other income on the Company's consolidated statement of income. During the fourth quarter of 2011, the Company finalized its purchase accounting, which resulted in a decrease of $\$ 27$ million in the indemnification asset and a $\$ 19$ million increase in student loan receivables. In addition, there were immaterial changes made to the other assets purchased and liabilities assumed. These adjustments reflect the Company's finalized cash flow projections related to the student loans acquired. The offset to these adjustments resulted in a $\$ 9$ million reduction in the originally estimated bargain purchase gain of $\$ 16$ million.

The following table summarizes the fair values of the assets acquired and liabilities assumed at the date of the SLC acquisition (dollars in millions):
At December 31,
2010

The Company acquired $\$ 6$ million in identifiable intangible assets. These intangible assets consist of student relationships and trade name intangibles. Acquired student relationships consist of those relationships in existence between SLC and the numerous students that carry student loan balances. This intangible asset is deemed to have a finite useful life of five years and will be amortized over this period. Trade name intangibles relate to trademarks, trade names and internet domains and content. This intangible asset is deemed to have an indefinite useful life and therefore is not subject to amortization.

The Company also recorded a $\$ 75$ million indemnification asset. This asset reflects the discounted present value of payments expected to be received under Citibank's indemnification of student loan credit losses that would have been
recoverable under certain student loan insurance policies which, as noted above, were commuted pursuant to an agreement entered into by SLC with the Company's consent immediately prior to the acquisition. The indemnification pertains only to loans in one of the three SLC securitization trusts that the Company acquired, namely the SLC Private Student Loan Trust 2010-A ("SLC 2010-A"). The SLC 2010-A trust included loans with an aggregate outstanding principal balance of $\$ 1.2$ billion at the time of acquisition; outstanding loans in that trust totaled $\$ 1.0$ billion as of November 30, 2012. The initial value of the indemnification asset was based on the amount of projected credit losses expected to be reimbursed by Citibank. Under the terms of the indemnification agreement with Citibank, indemnification payments related to student loan credit losses are subject to an overall cap of $\$ 167$ million, consistent with the terms of the insurance policies which the indemnification serves to replace.

The subsequent accounting for the indemnification asset generally reflects the manner in which the indemnified loans are subsequently measured. The value of the indemnification asset will increase or decrease as expected credit losses on the PCI student loans increase or decrease, respectively. An increase in expected losses on PCl student loans that results in the immediate recognition of an allowance for loan losses results in an immediate increase in the indemnification asset. A decrease in expected losses that results in an immediate reversal of a previously recognized loan loss allowance results in the immediate reduction of the indemnification asset. Recognition of an allowance for loan losses on PCl student loans is discussed in more detail within Note 5: Loan Receivables under "Purchased Credit-Impaired Loans." To the extent that a decrease in expected losses results in a prospective increase in the accretable yield on PCI student loans rather than an immediate reduction of the loan loss allowance, the value of the indemnification asset will be adjusted prospectively through a reduction in the rate of amortization. Amortization and valuation adjustments to the indemnification asset are recorded through other income on the consolidated statement of income.

## 4. Investments

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

|  | November 30, |  |  |
| :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 |
| U.S. Treasury securities | \$2,463 | \$2,564 | \$1,575 |
| U.S. government agency securities | 2,237 | 2,795 | 1,888 |
| States and political subdivisions of states. | 34 | 41 | 52 |
| Other securities: |  |  |  |
| Credit card asset-backed securities of other issuers. | 159 | 300 | 1,031 |
| Corporate debt securities ${ }^{11}$. | 75 | 450 | 508 |
| To-be-announced investment securities | - | 50 | - |
| Residential mortgage-backed securities - Agency ${ }^{(2)}$. | 1,253 | 6 | 10 |
| Other debt and equity securities ${ }^{(3)}$. | - | - | 11 |
| Total other securities. | 1,487 | 806 | 1,560 |
| Total investment securities | \$6,221 | \$6,206 | \$5,075 |

[^8]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):
$\left.\begin{array}{llllllllll} & & & \begin{array}{c}\text { Gross } \\ \text { Unrealized } \\ \text { Gains }\end{array} & \begin{array}{c}\text { Gross } \\ \text { Unrealized } \\ \text { Losses }\end{array} & \text { Fair Value } \\ \text { Cost }\end{array}\right]$
(1) Available-for-sale investment securities are reported at fair value.
(2) Held-to-maturity investment securities are reported at amortized cost.
(3) Amount represents securities pledged as collateral to a government-related merchant for which transaction settlement occurs beyond the normal 24 - hour period.
(4) Amounts represent residential mortgage-backed securities that were classified as held-to-maturity as they were entered into as a part of the Company's community reinvestment initiatives.

The following table provides information about investment securities with aggregate gross unrealized losses and the length of time that individual investment securities have been in a continuous unrealized loss position as of November 30, 2011. Aggregate gross unrealized losses on investment securities were not material as of November 30, 2012 (dollars in millions):

|  | Number of Securities in a Loss Position | Less than 12 months |  | More than 12 months |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fair Value | Unrealized Losses | Fair <br> Value | Unrealized Losses |
| November 30, 2011 |  |  |  |  |  |
| Available-for-Sale Investment Securities |  |  |  |  |  |
| U.S. government agency securities | 2 | \$243 | \$ 1 | \$- | \$- |
| Held-to-Maturity Investment Securities |  |  |  |  |  |
| State and political subdivisions of states. | 6 | \$ 3 | \$- | \$28 | \$ 3 |

During the years ended November 30, 2012, 2011 and 2010, the Company received $\$ 1.8$ billion, $\$ 1.3$ billion, and $\$ 745$ million, respectively, of proceeds related to maturities, redemptions, or liquidation of investment securities. For the year ended November 30, 2012, these proceeds primarily resulted from $\$ 757$ million maturities of U.S. government agency securities, $\$ 388$ million maturities of U.S. Treasury securities and $\$ 370$ million maturities of corporate debt securities. For the years ended November 30, 2011 and 2010, $\$ 843$ million and $\$ 650$ million of these proceeds related to maturities of credit card asset-backed securities of other issuers.

The Company records gains and losses on investment securities in other income when investments are sold or liquidated, when the Company believes an investment is other than temporarily impaired prior to the disposal of the investment, or in certain other circumstances. There were no gains or losses related to either other than temporary impairments or sales of investment securities during the year ended November 30, 2012. During the year ended November 30, 2011, the Company recorded $\$ 2$ million of other than temporary impairment ("OTTI") on held to maturity securities, which was recorded entirely in earnings. During the year ended November 30, 2010, the Company recorded a $\$ 20$ million pretax gain related to the liquidation of collateral supporting the asset-backed commercial paper notes of Golden Key U.S. LLC ("Golden Key"), which had invested in mortgage-backed securities.

The Company records unrealized gains and losses on its available-for-sale investment securities in other comprehensive income. For the years ended November 30, 2012 and 2011, the Company recorded net unrealized gains of $\$ 30$ million and $\$ 75$ million ( $\$ 19$ million and $\$ 47$ million after tax), respectively, in other comprehensive income. For the year ended November 30, 2010, the Company recorded net unrealized losses of $\$ 7$ million ( $\$ 4$ million after tax) in other comprehensive income. For the year ended November 30, 2010, the Company reversed an unrealized gain of $\$ 8$ million ( $\$ 5$ million after tax) from other comprehensive income upon liquidation of the collateral supporting the Golden Key investment. Additionally, the Company eliminated a net unrealized loss of $\$ 125$ million ( $\$ 79$ million after tax) upon consolidation of its securitization trusts in connection with the adoption of Statements No. 166 and 167 on December 1, 2009.

Maturities and weighted average yields of available-for-sale debt securities and held-to-maturity debt securities at November 30, 2012 are provided in the tables below (dollars in millions):

|  | One Year or Less |  | After One Year Through Five Years |  | After Five Years Through Ten Years |  | After Ten Years |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Available-for-sale - Amortized Cost ${ }^{(1)}$ |  |  |  |  |  |  |  |  |  |  |
| U.S. Treasury securities.. |  | 175 | \$ | 2,239 | \$ | - | \$ | - | \$ | 2,414 |
| U.S. government agency securities |  | 642 |  | 1,547 |  | - |  | - |  | 2,189 |
| Credit card asset-backed securities of other issuers |  | 152 |  | 5 |  | - |  | - |  | 157 |
| Corporate debt securities. |  | 75 |  | - |  | - |  | - |  | 75 |
| Residential mortgage-backed securities - Agency . |  | - |  | - |  | 302 |  | 878 |  | 1,180 |
| Total available-for-sale investment securities |  | 1,044 | \$ | 3,791 | \$ | 302 | \$ | 878 | \$ | 6,015 |
| Held-to-maturity - Amortized Cost ${ }^{(2)}$ |  |  |  |  |  |  |  |  |  |  |
| U.S. Treasury securities.. | \$ | 1 | \$ | - | \$ | - | \$ | - | \$ | 1 |
| State and political subdivisions of states |  | 1 |  | 3 |  | - |  | 30 |  | 34 |
| Residential mortgage-backed securities - Agency ${ }^{(3)}$. |  | - |  | - |  | - |  | 53 |  | 53 |
| Total held-to-maturity investment securities |  | 2 | \$ | 3 | \$ | - | \$ | 83 | \$ | 88 |
| Available-for-sale - Fair Values ${ }^{(1)}$ |  |  |  |  |  |  |  |  |  |  |
| U.S. Treasury securities... |  | 175 | \$ | 2,287 | \$ | - | \$ | - | \$ | 2,462 |
| U.S. government agency securities |  | 645 |  | 1,592 |  | - |  | - |  | 2,237 |
| Credit card asset-backed securities of other issuers |  | 153 |  | 6 |  | - |  | - |  | 159 |
| Corporate debt securities ... |  | 75 |  | - |  | - |  | - |  | 75 |
| Residential mortgage-backed securities - Agency |  | - |  | - |  | 305 |  | 895 |  | 1,200 |
| Total available-for-sale investment securities |  | 1,048 | \$ | 3,885 | \$ | 305 | \$ | 895 | \$ | 6,133 |
| Held-to-maturity - Fair Values ${ }^{(2)}$ |  |  |  |  |  |  |  |  |  |  |
| U.S. Treasury securities... | \$ | 1 | \$ | - | \$ | - | \$ | - | \$ | 1 |
| State and political subdivisions of states .......... |  | 1 |  | 3 |  | - |  | 30 |  | 34 |
| Residential mortgage-backed securities - Agency ${ }^{(3)}$........................... |  | - |  | - |  | - |  | 55 |  | 55 |
| Total held-to-maturity investment securities .................................. |  | 2 | \$ | 3 | \$ | - | \$ | 85 | \$ | 90 |

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

|  | One Year or Less | After One Year Through Five Years | After Five Years Through Ten Years | After Ten Years | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Available-for-sale investment securities ${ }^{(1)}$ |  |  |  |  |  |
| U.S Treasury securities | 0.61\% | 1.11\% | - \% | - \% | 1.08\% |
| U.S government agency securities | 0.83\% | 1.46\% | - \% | - \% | 1.27\% |
| Credit card asset-backed securities of other issuers ........................... | 2.35\% | 12.84\% | - \% | - \% | 2.70\% |
| Corporate debt securities | 0.71\% | - \% | - \% | - \% | 0.71\% |
| Residential mortgage-backed securities - Agency | - \% | - \% | 1.45\% | 1.92\% | 1.80\% |
| Total available-for-sale investment securities ................................ | 1.01\% | 1.27\% | 1.45\% | 1.92\% | 1.33\% |
| Held-to-maturity investment securities |  |  |  |  |  |
| U.S. Treasury securities............................................................ | 0.13\% | - \% | - \% | - \% | 0.13\% |
| State and political subdivisions of states .................................... | 0.53\% | 5.00\% | - \% | 4.70\% | 4.56\% |
| Residential mortgage-backed securities ....................................... | - \% | - \% | - \% | 3.25\% | 3.25\% |
| Total held-to-maturity investment securities .................................. | 0.42\% | 5.00\% | - \% | 3.78\% | 3.75\% |

(1) The weighted average yield for available-for-sale investment securities is calculated based on the amortized cost.

The following table presents interest on investment securities (dollars in millions):

|  | For the Years Ended November 30, |  |  |
| :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 |
| Taxable interest.... | \$78 | \$57 | \$24 |
| Tax exempt interest.. | 2 | 2 | 2 |
| Total income from investment securities, | \$80 | \$59 | \$26 |

Other Investments. As a part of the Company's community reinvestment initiatives, the Company has made equity investments in certain limited partnerships and limited liability companies that finance the construction and rehabilitation of affordable rental housing, as well as stimulate economic development in low to moderate income communities. These investments are accounted for using the equity method of accounting, and are recorded within other assets, and the related commitment for future investments is recorded in other liabilities within the statement of financial condition. The portion of each investment's operating results allocable to the Company is recorded in other expense within the consolidated statement of income. The Company earns a return primarily through the receipt of tax credits allocated to the affordable housing projects and the community revitalization projects. These investments are not consolidated as the Company does not have a controlling financial interest in the entities. As of November 30, 2012 and 2011, the Company had outstanding investments of $\$ 235$ million and $\$ 138$ million, respectively, in these entities, and the related contingent liability was $\$ 59$ million and $\$ 6$ million, respectively.

## 5. Loan Receivables

The Company has three portfolio segments: credit card loans, other loans and PCI student loans acquired in the SLC transaction and in a separate portfolio acquisition from Citibank (See Note 3: Business Combinations). Within these porffolio segments, the Company has classes of receivables which are depicted in the table below (dollars in millions):

|  | November 30, |  |
| :---: | :---: | :---: |
|  | 2012 | $2011{ }^{1(1)}$ |
| Mortgage loans held for sale(2) | \$ 322 | \$ |
| Student loans held for sale ${ }^{(3)}$. | - | 714 |
| Loan porifolio: |  |  |
| Credit card loans: |  |  |
| Discover card(4) | 49,436 | 46,748 |
| Discover business card. | 206 | 224 |
| Total credit card loans. | 49,642 | 46,972 |
| Other loans: |  |  |
| Personal loans. | 3,272 | 2,648 |
| Private student loans. | 3,000 | 2,069 |
| Other. | 37 | 17 |
| Total other loans. | 6,309 | 4,734 |
| PCI student loans ${ }^{(5)}$ | 4,744 | 5,250 |
| Total loan portfolio. | 60,695 | 56,956 |
| Total loan receivables. | 61,017 | 57,670 |
| Allowance for loan losses . | $(1,725)$ | $(2,205)$ |
| Net loan receivables | \$59,292 | \$55,465 |

(1) Discover card and Discover business card loans at November 30, 2011 have been modified to include credit card loans in process as of the balance sheet date. See Note 2: Summary of Significant Accounting Policies for further discussion.
(2) All mortgage loans held for sale are pledged as collateral against the warehouse line of credit used to fund consumer residential loans. See Note 10: Borrowings.
(3) Amount represents federal student loans. At November 30, 2011, $\$ 447$ million of federal student loan receivables were pledged as collateral against a long-term borrowing. During first quarter 2012, Discover Bank sold these loans and recorded a loss of approximately $\$ 1$ million. As a part of this transaction, the related borrowings were assumed by the purchaser.
(4) Amounts include $\$ 21.0$ billion and $\$ 18.5$ billion underlying investors' interest in trust debt at November 30, 2012 and November 30, 2011, respectively, and $\$ 12.7$ billion and $\$ 15.4$ billion in seller's interest at November 30, 2012 and November 30, 2011, respectively. See Note 6: Credit Card and Student Loan Securitization Activities for further information.
(5) Amounts include $\$ 2.6$ billion and $\$ 2.8$ billion of loans pledged as collateral against the notes issued from the SLC securitization trusts at November 30, 2012 and November 30, 2011, respectively. See Note 6: Credit Card and Student Loan Securitization Activities. Of the remaining $\$ 2.1$ billion and $\$ 2.5$ billion at November 30, 2012 and November 30, 2011, respectively, that were not pledged as collateral, approximately $\$ 16$ million and $\$ 13$ million represent loans eligible for reimbursement through an indemnification claim. Discover Bank must purchase such loans from the trust before a claim may be filed.

Credit Quality Indicators. The Company regularly reviews its collection experience (including delinquencies and net charge-offs) in determining its allowance for loan losses. Credit card and closed-end consumer loan receivables are placed on nonaccrual status upon receipt of notification of the bankruptcy or death of a customer or suspected fraudulent activity on an account. Upon completion of the fraud investigation, loan receivables may resume accruing interest.

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

Delinquent and Non-Accruing Loans:


| At November 30, 2012 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Credit card loans: |  |  |  |  |  |  |  |  |  |  |
| Discover card ${ }^{(2) \text { ). }}$ | \$ | 472 | \$ | 449 | \$ | 921 | \$ | 398 | \$ | 189 |
| Discover business card. |  | 2 | 2 |  | 4 |  | 2 |  |  | 1 |
| Total credit card loans |  | 474 |  | 451 |  | 925 |  | 400 |  | 190 |
| Other loans: |  |  |  |  |  |  |  |  |  |  |
| Personal loans ${ }^{(3)}$. |  | 17 |  | 8 |  | 25 |  | 7 |  | 4 |
| Private student loans (excluding PCI$)^{(4)}$. |  | 24 |  | 8 |  | 32 |  | 6 |  | 2 |
| Other. |  | - |  | 1 |  | 1 |  | - |  | 2 |
| Total other loans (excluding PCI) |  | 41 |  | 17 |  | 58 |  | 13 |  | 8 |
| Total loan receivables (excluding PCI) | \$ | 515 | \$ | 468 | \$ | 983 | \$ | 413 | \$ | 198 |
| At November 30, 2011 |  |  |  |  |  |  |  |  |  |  |
| Credit card loans: |  |  |  |  |  |  |  |  |  |  |
| Discover card ${ }^{(2) \text { ). }}$ | \$ | 554 | \$ | 556 | \$ | 1,110 | \$ | 498 | \$ | 200 |
| Discover business card. |  | 3 |  | 4 |  | 7 |  | 3 |  | 1 |
| Total credit card loans |  | 557 |  | 560 |  | 1,117 |  | 501 |  | 201 |
| Other loans: |  |  |  |  |  |  |  |  |  |  |
| Personal loans. |  | 15 |  | 7 |  | 22 |  | 7 |  | 4 |
| Private student loans (excluding PCI) |  | 10 |  | 3 |  | 13 |  | 3 |  | - |
| Other.. |  | 1 |  | 2 |  | 3 |  | - |  | 2 |
| Total other loans (excluding PCI) |  | 26 |  | 12 |  | 38 |  | 10 |  | 6 |
| Total loan receivables (excluding PCI) | \$ | 583 | \$ | 572 | \$ | 1,155 | \$ | 511 | \$ | 207 |

(1) The Company estimates that the gross interest income that would have been recorded in accordance with the original terms of these credit card loans was $\$ 32$ million and $\$ 45$ million for the years ended November 30, 2012 and 2011, respectively. The Company does not separately track the amount of gross interest income that would have been recorded in accordance with the original terms of loans. This amount was estimated based on customers' current balances and most recent rates.
(2) Consumer credit card loans that are 90 or more days delinquent and accruing interest include $\$ 55$ million and $\$ 38$ million of loans accounted for as troubled debt restructurings at November 30, 2012 and November 30, 2011, respectively.
(3) Personal loans that are 90 or more days delinquent and accruing interest include $\$ 1$ million of loans accounted for as troubled debt restructurings at November 30, 2012.
(4) Private student loans that are 90 or more days delinquent and accruing interest include $\$ 2$ million of loans accounted for as troubled debt restructurings at November 30, 2012.

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

## Net Charge-Offs:

|  | For the Year Ended November 30, 2012 |  | For the Year Ended November 30, $2011^{1(1)}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Net Charge-offs | Net Charge-off Rate | Net Charge-offs | Net Charge-of Rate |
| Credit card loans: |  |  |  |  |
| Discover card. | \$1,233 | 2.62\% | \$2,018 | 4.46\% |
| Discover business card. | 7 | 3.36\% | 18 | 7.27\% |
| Total credit card loans | 1,240 | 2.62\% | 2,036 | 4.47\% |
| Other loans: |  |  |  |  |
| Personal loans. | 69 | 2.33\% | 67 | 3.02\% |
| Private student loans (excluding PCI) ............................................................ | 19 | 0.73\% | 7 | 0.48\% |
| Other ............................................................................................... | - | 0.10\% | 2 | 9.27\% |
| Total other loans (excluding PCI) ................................................................ | 88 | 1.52\% | 76 | 1.65\% |
| Net charge-offs as a percentage of total loans (excluding PCI) ........................... | \$1,328 | 2.50\% | \$2,112 | 4.21\% |
| Net charge-offs as a percentage of total loans (including PCI) .......................... | \$1,328 | 2.29\% | \$2,112 | 3.97\% |

(1) Discover card, Discover business card, net charge-offs as a percentage of total loans excluding PCl and net charge-offs as a percentage of total loans including PCl charge-off rates for the year ended November 30, 2011 have been modified to include credit card loans in process as of the balance sheet date. See Note 2: Summary of Significant Accounting Policies for further discussion.

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

The following table provides the most recent FICO scores available for the Company's customers as of November 30, 2012 and 2011, as a percentage of each class of loan receivables:

|  | Credit Risk Profile by FICO <br> Score |
| :--- | :--- |

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

For private student loans, additional credit risk management activities include monitoring the amount of loans in forbearance. Forbearance allows borrowers experiencing temporary financial difficulties and willing to make payments the ability to temporarily suspend payments. Eligible borrowers have a lifetime cap on forbearance of 12 months. At November 30, 2012 and November 30, 2011, there were $\$ 142$ million and $\$ 76$ million of loans in forbearance, respectively. In addition, at November 30, 2012 and November 30, 2011, there were $2.6 \%$ and $1.5 \%$ of private student loans in forbearance as a percentage of student loans in repayment and forbearance.

Allowance for Loan Losses. The Company maintains an allowance for loan losses at an appropriate level to absorb probable losses inherent in the loan porffolio. The Company considers the collectibility of all amounts contractually due on its loan receivables, including those components representing interest and fees. Accordingly, the allowance for loan losses represents the estimated uncollectible principal, interest and fee components of loan receivables. The allowance is evaluated monthly and is maintained through an adjustment to the provision for loan losses. Charge-offs of principal amounts of loans outstanding are deducted from the allowance and subsequent recoveries of such amounts increase the allowance. Charge-offs of loan balances representing unpaid interest and fees result in a reversal of interest and fee income, respectively, which is effectively a reclassification of provision for loan losses.

The Company bases its allowance for loan losses on several analyses that help estimate incurred losses as of the balance sheet date. While the Company's estimation process includes historical data and analysis, there is a significant amount of judgment applied in selecting inputs and analyzing the results produced by the models to determine the allowance. The Company uses a migration analysis to estimate the likelihood that a loan will progress through the various stages of delinquency. The loan balances used in the migration analysis represent all amounts contractually due and, as a result, the migration analysis captures principal, interest and fee components in estimating uncollectible accounts. The Company uses other analyses to estimate losses incurred on non-delinquent accounts. The considerations in these analyses include past performance, risk management techniques applied to various accounts, historical behavior of different account vintages, current economic conditions, recent trends in delinquencies, bankruptcy filings, account collection management, policy changes, account seasoning, loan volume and amounts, payment rates, and forecasting uncertainties. The Company does not evaluate loans for impairment on an individual basis, but instead estimates its allowance for loan losses on a pooled basis, which includes loans that are delinquent and/or no longer accruing interest and/or certain loans that have defaulted from a loan modification program, as discussed below under the section entitled "- Impaired Loans and Troubled Debt Restructurings."

The following tables provide changes in the Company's allowance for loan losses for the years ended November 30, 2012, 2011 and 2010 (dollars in millions):

|  | For the Year Ended November 30, 2012 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Credit Card | Personal Loans | Student Loans | Other | Total |
| Balance at beginning of period | \$ 2,070 | \$ 82 | \$ 53 | \$- | \$ 2,205 |
| Additions: |  |  |  |  |  |
| Provision for loan losses | 724 | 84 | 39 | 1 | 848 |
| Deductions: |  |  |  |  |  |
| Charge-offs. | $(1,817)$ | (73) | (19) | - | $(1,909)$ |
| Recoveries | 577 | 4 | - | - | 581 |
| Net charge-offs | $(1,240)$ | (69) | (19) | - | $\underline{(1,328)}$ |
| Balance at end of period | \$ 1,554 | \$ 97 | \$ 73 |  | \$ 1,725 |


|  | For the Year Ended November 30, 2011 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Credit Card | Personal Loans | Student <br> Loans | Other | Total |
| Balance at beginning of period | \$ 3,209 | \$ 76 | \$ 18 | \$ | \$ 3,304 |
| Additions: |  |  |  |  |  |
| Provision for loan losses. | 897 | 73 | 42 | 1 | 1,013 |
| Deductions: |  |  |  |  |  |
| Charge-offs. | $(2,615)$ | (69) | (7) | (2) | $(2,693)$ |
| Recoveries | 579 | 2 | - | - | 581 |
| Net charge-offs | $(2,036)$ | (67) | (7) | (2) | $(2,112)$ |
| Balance at end of period | \$ 2,070 | \$ 82 | \$ 53 | \$- | \$ 2,205 |


|  | For the Year Ended November 30, 2010 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Credit Card | Personal Loans | Student Loans | Other | Total |
| Balance at beginning of period | \$ 1,648 | \$ 95 | \$ 14 | \$ 1 | \$ 1,758 |
| Additions: |  |  |  |  |  |
| Addition to allowance related to securitized receivables (1)... | 2,144 | - | - | - | 2,144 |
| Provision for loan losses. | 3,126 | 72 | 8 | 1 | 3,207 |
| Deductions: |  |  |  |  |  |
| Charge-offs related to loans sold | (25) | - | - | - | (25) |
| Charge-offs. | $(4,154)$ | (92) | (4) | (1) | $(4,251)$ |
| Recoveries | 470 | 1 | - | - | 471 |
| Net charge-offs | $(3,684)$ | (91) | (4) | (1) | $(3,780)$ |
| Balance at end of period | \$ 3,209 | \$ 76 | \$ 18 | \$ 1 | \$ 3,304 |

[^9]Net charge-offs of principal are recorded against the allowance for loan losses, as shown in the table above. Information regarding net charge-offs of interest and fee revenues on credit card and other loans is as follows (dollars in millions):

(1) Beginning in 2011, net charge-offs of interest and fees include amounts related to other loans. Prior to 2011 such amounts were not included.

The following table provides additional detail of the Company's allowance for loan losses and recorded investment in its loan portfolio (which excludes loans held for sale) by impairment methodology (dollars in millions):

|  | Credit Card | Personal Loans | Student Loans | Other Loans | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| At November 30, 2012 |  |  |  |  |  |
| Allowance for loans evaluated for impairment as: |  |  |  |  |  |
| Collectively evaluated for impairment in accordance with ASC 450-20 | \$ 1,373 | \$ 93 | \$ 69 | \$ 1 | \$ 1,536 |
| Evaluated for impairment in accordance with ASC 310-10-35 (1). | 181 | 4 | 4 | - | 189 |
| Acquired with deteriorated credit quality, evaluated in accordance with ASC 310-30 ................ | - | - | - | - | - |
| Total allowance for loan losses | \$ 1,554 | \$ 97 | \$ 73 | \$ 1 | \$ 1,725 |
| Recorded investment in loans evaluated for impairment as: |  |  |  |  |  |
| Collectively evaluated for impairment in accordance with ASC 450-20 | \$48,310 | \$3,251 | \$2,985 | \$ 37 | \$54,583 |
| Evaluated for impairment in accordance with ASC 310-10-35 (1). | 1,332 | 21 | 15 | - | 1,368 |
| Acquired with deteriorated credit quality, evaluated in accordance with ASC 310-30 ................. | - | - | 4,744 | - | 4,744 |
| Total recorded investment | \$49,642 | \$3,272 | \$7,744 | \$ 37 | \$60,695 |
| At November 30, 2011 |  |  |  |  |  |
| Allowance for loans evaluated for impairment as: |  |  |  |  |  |
| Collectively evaluated for impairment in accordance with ASC 450-20 | \$ 1,866 | \$ 82 | \$ 53 | \$- | \$ 2,001 |
| Evaluated for impairment in accordance with ASC 310-10-35 (1).......................................... | 204 | - | - | - | 204 |
| Acquired with deteriorated credit quality, evaluated in accordance with ASC 310-30 ................ | - | - | - | - | - |
| Total allowance for loan losses | \$ 2,070 | \$ 82 | \$ 53 | \$- | \$ 2,205 |
| Recorded investment in loans evaluated for impairment as: |  |  |  |  |  |
| Collectively evaluated for impairment in accordance with ASC 450-20(2). | \$45,755 | \$2,640 | \$2,064 | \$ 17 | \$50,476 |
| Evaluated for impairment in accordance with ASC 310-10-35 (1) ........................................ | 1,217 | 8 | 5 | - | 1,230 |
| Acquired with deteriorated credit quality, evaluated in accordance with ASC 310-30 ................ | - | - | 5,250 | - | 5,250 |
| Total recorded investment................................................................................ | \$46,972 | $\underline{\underline{\$ 2,648}}$ | \$7,319 | \$17 | \$56,956 |

(1) Represents loans collectively evaluated for impairment in accordance with ASC 310-40, Receivables, which consists of modified loans accounted for as troubled debt restructurings. The unpaid principal balance of credit card loans was $\$ 1.1$ billion and $\$ 1.0$ billion at November 30, 2012 and November 30, 2011 respectively. The unpaid principal balance of personal loans was $\$ 21$ million and $\$ 8$ million at November 30,2012 and November 30, 2011, respectively. The unpaid principal balance of student loans was $\$ 14$ million and $\$ 5$ million at November 30, 2012 and November 30, 2011, respectively. All loans accounted for as troubled debt restructurings have a related allowance for loan losses.
(2) Recorded investment in credit card loans collectively evaluated for impairment in accordance with ASC 450-20 at November 30, 2011 have been modified to include credit card loans in process as of the balance sheet date. See Note 2: Summary of Significant Accounting Policies for further discussion.

Impaired Loans and Troubled Debt Restructurings. Permanent and certain temporary modification programs for credit card loans as well as loans that defaulted or graduated from modification programs, certain grants of student loan forbearance and certain modifications to personal loans as well as those that defaulted or graduated from modification programs are considered troubled debt restructurings and are accounted for in accordance with ASC 310-40, Troubled Debt Restructurings by Creditors. Generally loans included in a loan modification program are considered to be individually impaired and are accounted for as troubled debt restructurings. The Company has both internal and external loan modification programs that provide relief to credit card and personal loan borrowers who are experiencing financial hardship. The internal loan modification programs include both temporary and permanent programs.

For our credit card customers, the temporary hardship program primarily consists of a reduced minimum payment and an interest rate reduction, both lasting for a period no longer than 12 months. The permanent workout program involves changing the structure of the loan to a fixed payment loan with a maturity no longer than 60 months and reducing the interest rate on the loan. The permanent program does not normally provide for the forgiveness of unpaid principal, but may allow for the reversal of certain unpaid interest or fee assessments. The Company also makes loan modifications for customers who request financial assistance through external sources, such as a consumer credit counseling agency program (referred to here as external programs). These loans typically receive a reduced interest rate but continue to be subject to the original minimum payment terms and do not normally include waiver of unpaid principal, interest or fees.

To assist student loan borrowers who are experiencing temporary financial difficulties and are willing to resume making payments, the Company may offer forbearance periods of up to 12 months over the life of the loan. The Company does not anticipate significant shortfalls in the contractual amount due for borrowers using a first forbearance period as the historical performance of these borrowers is not significantly different from the overall portfolio. However, when a delinquent borrower is granted a second forbearance period, the forbearance is considered a troubled debt restructuring.

For our personal loan customers, we offer two temporary programs which normally consist of a reduction of the minimum payment for a period of no longer than 12 months with a final balloon payment required at the end of the loan term. In addition, the temporary APR reduction program also provides an interest rate reduction for up to 12 months. The permanent programs involves changing the terms of the loan in order to pay off the outstanding balance over the new term for a period no longer than 4 years. The total term, including both the original and renegotiated terms, generally does not exceed 9 years. We offer another permanent program which modifies the interest rate along with the term of the loan. The Company also allows loan modifications for personal loan customers who request financial assistance through external sources, similar to our credit card customers discussed above. Payments are modified based on the new terms agreed upon with the credit counseling agency. Personal loans modified through temporary and permanent internal programs are accounted for as troubled debt restructurings.

Loans classified as troubled debt restructurings are recorded at their present value with impairment measured as the difference between the loan balance and the discounted present value of cash flows expected to be collected. Consistent with the Company's measurement of impairment of modified loans on a pooled basis, the discount rate used for credit card loans in internal programs is the average current annual percentage rate it applies to non-impaired credit card loans, which approximates what would have applied to the pool of modified loans prior to impairment. The discount rate used for credit card loans in external programs reflects a rate that is consistent with rates offered to lower risk cardmembers. For student and personal loans, the discount rate used is the average contractual rate prior to modification.

Interest income from loans accounted for as troubled debt restructurings is accounted for in the same manner as other accruing loans. Cash collections on these loans are allocated according to the same payment hierarchy methodology applied to loans that are not in such programs. Additional information about modified loans classified as troubled debt restructurings is shown below (dollars in millions):

|  | Average recorded investment in loans |  | Interest income recognized during period loans were impaired ${ }^{(1)}$ |  | Gross interest income that would have been recorded with original terms ${ }^{(2)}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For the year ended November 30, 2012: |  |  |  |  |  |  |
| Credit card loans |  |  |  |  |  |  |
| Modified credit card loans(3) | \$ | 255 | \$ | 48 |  | N/A |
| Internal programs.. | \$ | 557 | \$ | 17 | \$ | 73 |
| External programs. | \$ | 603 | \$ | 51 | \$ | 9 |
| Personal loans ${ }^{(4)}$. | \$ | 16 | \$ | 2 |  | N/A |
| Student loans (4). | \$ | 10 | \$ | 1 |  | N/A |
| For the year ended November 30, 2011 : |  |  |  |  |  |  |
| Credit card loans |  |  |  |  |  |  |
| Modified credit card loans ${ }^{(3)}$ | \$ | 276 | \$ | 48 |  | N/A |
| Internal programs. | \$ | 537 | \$ | 21 | \$ | 65 |
| External programs. | \$ | 715 | \$ | 62 | \$ | 10 |
| Personal loans(4). | \$ | 7 | \$ | 1 |  | N/A |
| Student loans ${ }^{(4)}$. | \$ | 5 | \$ | - |  | N/A |
| For the year ended November 30, 2010 : |  |  |  |  |  |  |
| Credit card loans: permanent programs ... | \$ | 260 | \$ | 3 | \$ | 40 |

(1) The Company does not separately track interest income on loans in modification programs. Amounts shown are estimated by applying an average interest rate to the average loans in the various modification programs.
(2) The Company does not separately track the amount of gross interest income that would have been recorded if the loans in modification programs had not been restructured and interest had instead been recorded in accordance with the original terms. Amounts shown are estimated by applying the difference between the average interest rate earned on non-impaired credit card loans and the average interest rate earned on loans in the modification programs to the average loans in the modification programs.
(3) This balance is considered impaired, but is excluded from the internal and external program amounts reflected in this table. Represents credit card loans that were modified in troubled debt restructurings but that have either defaulted or graduated from the modification program.
(4) For personal loan customers in modification programs, gross interest income that would have been recorded with original terms is not significant for accounts in which there was an APR reduction. Student loan customers who have been granted a forbearance are not given interest rate reductions.

In order to evaluate the primary financial effects which resulted from loans entering into a loan modification program during the years ended November 30, 2012 and 2011, the Company quantified the amount by which interest and fees were reduced during the period. During the year ended November 30, 2012, the Company forgave approximately $\$ 44$ million of interest and fees as a result of accounts entering into a loan modification program. During the year ended November 30, 2011, the Company forgave approximately $\$ 64$ million of interest and fees as a result of accounts entering into a loan modification program.

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

|  | For the Years Ended November 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |  |
|  | Number of Accounts | Balances | Number of Accounts | Balances |
| Accounts that entered a loan modification program during the period: |  |  |  |  |
| Credit card: |  |  |  |  |
| Internal programs | 50,946 | \$ 345 | 68,738 | \$ 480 |
| External programs | 40,530 | \$ 227 | 52,705 | \$ 310 |
| Personal loans.. | 1,555 | \$ 20 | 410 | \$ 5 |
| Student loans | 470 | \$ 11 | 262 | \$ 5 |

The following table presents the carrying value of loans that experienced a payment default during the twelve months ended November 30, 2012 and 2011 that had been modified in a troubled debt restructuring during the 15 months preceding the end of each period (dollars in millions):

|  |  | For the Year En | Novemb |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 012 |  | 011 |
|  | Number of Accounts | Aggregated Outstanding Balances Upon Default | Number of Accounts | Aggregated Outstanding Balances Upon Default |
| Troubled debt restructurings that subsequently defaulted: |  |  |  |  |
| Credit card ${ }^{(1)(2)(3):}$ |  |  |  |  |
| Internal programs | 15,703 | \$106 | 18,354 | \$131 |
| External programs .................................................................................. | 8,543 | \$ 40 | 11,974 | \$ 62 |
| Personal loans ${ }^{(2)}$ | 343 | \$ 4 | 17 | \$ - |
| Student loans ${ }^{(4)}$. | 172 | \$ 4 | 19 | \$ 1 |

(1) The outstanding balance upon default is the loan balance at the end of the month prior to default.
(2) A customer defaults from a modification program after two consecutive missed payments.
(3) Terms revert back to the pre-modification terms for customers who default from a temporary program and charging privileges remain revoked.
(4) Default has been defined as 60 or more days delinquent.

Of the account balances that defaulted as shown above for the year ended November 30, 2012, approximately 46\% of the total balances charged off at the end of the month in which they defaulted. Of the account balances that defaulted as shown above for the year ended November 30, 2011, approximately $40 \%$ of the total balances charged off at the end of the month in which they defaulted. For accounts that have defaulted from a loan modification program and that have not subsequently charged off, the balances are included in the allowance for loan loss analysis discussed above under "Allowance for Loan Losses."

Purchased Credit-Impaired Loans. Purchased loans with evidence of credit deterioration since origination for which it is probable that not all contractually required payments will be collected are considered impaired at acquisition and are reported as PCI loans. The private student loans acquired in the SLC transaction as well as the additional private student loan porffolio acquired from Citibank comprise the Company's only PCI loans at November 30, 2012 and November 30, 2011. Total PCI student loans had an outstanding balance of $\$ 5.2$ billion and $\$ 5.7$ billion, including accrued interest, and a related carrying amount of $\$ 4.7$ billion and $\$ 5.3$ billion, as of November 30, 2012 and November 30, 2011, respectively.

Management concluded it is probable that the Company will be unable to collect all contractually required payments due but the Company is unable to specifically identify which loans the Company will be unable to collect. Therefore, the Company has elected to apply ASC 310-30, Receivables-Loans and Debt Securities Acquired with Deteriorated Credit Quality by analogy to the entire pool of acquired loans.

As of the acquisition date of December 31,2010, the PCI student loans acquired in the SLC transaction had an aggregate outstanding balance of approximately $\$ 3.8$ billion, including accrued interest, and a fair value (initial carrying value) of approximately $\$ 3.1$ billion. Of the $\$ 3.8$ billion aggregate outstanding balance of loans acquired, loans with an aggregate outstanding balance of approximately $\$ 31$ million were non-accruing as of the acquisition date.

As of the acquisition date of September 30, 2011, the private student loans acquired from Citibank had an aggregate outstanding balance and an estimated fair value of approximately $\$ 2.4$ billion. These loans were acquired at a discount which reflects a decline in the credit quality of the loans after their origination. The discount is partially offset by a premium which reflects the value in certain loans that carry interest rates above prevailing market rates at the acquisition date. Of the $\$ 2.4$ billion aggregate outstanding balance of loans acquired, loans with an outstanding balance of approximately $\$ 16$ million were non-performing as of the acquisition date. There has not been any significant incremental credit deterioration on either porffolio since the respective acquisition dates and, therefore, no allowance has been established for the PCI student loans at November 30, 2012.

Certain PCI student loans in one of the three SLC securitization trusts are covered by an indemnification agreement with Citibank for credit losses. The indemnified loans are presented along with all other PCl student loans and the related indemnification asset is recognized as a separate asset on the Company's consolidated statement of financial condition. See Note 3: Business Combinations for a description of the indemnification asset.

The following table shows contractually required payments receivable, cash flows expected to be collected and fair value of loans acquired as of the acquisition date (dollars in millions):

|  | At December 31, 2010 |
| :---: | :---: |
| Contractually required payments receivable ${ }^{(1)}$ | \$ 5,673 |
| Less: Non-accretable difference ${ }^{(2)}$ | (683) |
| Cash flows expected to be collected | 4,990 |
| Less: Accretable yield ${ }^{(3)}$ | $(1,920)$ |
| Fair value of loans acquired. | \$ 3,070 |

(1) Amount represents principal and interest payments, both currently due and due in the future, adjusted for the effect of estimated prepayments.
(2) Charge-offs on acquired loans will be written off against non-accretable difference.
(3) Amount accreted into interest income over the estimated lives of the acquired loans.

The following table shows contractually required payments receivable, cash flows expected to be collected and fair value of the additional private student loans acquired from Citibank for the loans acquired as of September 30, 2011 (dollars in millions):

|  | At September 30, 2011 |
| :---: | :---: |
| Contractually required payments receivable ${ }^{(1)}$. | \$3,861 |
| Less: Non-accretable difference ${ }^{(2)}$ | (573) |
| Cash flows expected to be collected. | 3,288 |
| Less: Accretable yield ${ }^{(3)}$. | (855) |
| Fair value of loans acquired. | \$2,433 |

[^10]The following table provides changes in accretable yield for the acquired loans for the years ended November 30, 2012 and 2011 (dollars in millions):
For the Years Ended
November 30,

During the year ended November 30, 2012, the Company adjusted accretable yield by $\$ 181$ million because of a decrease in expected cash flows. These decreases related primarily to changes in borrower prepayments, and were not a result of credit deterioration. During the year ended November 30, 2011, the Company adjusted accretable yield by $\$ 30$ million because of an increase in expected cash flows based on a change in prepayment assumptions. These amounts will be recognized prospectively as an adjustment to yield over the remaining life of the pools.

At November 30, 2012, the 30 or more days delinquency and 90 or more days delinquency rates on PCl student loans (which includes loans not yet in repayment) were $2.86 \%$ and $0.86 \%$, respectively. At November 30, 2011, the 30 or more days delinquency and 90 or more days delinquency rates on PCI student loans (which includes loans not yet in repayment) were $2.14 \%$ and $0.73 \%$, respectively. These rates include private student loans that are greater than 120 days delinquent that are covered by an indemnification agreement or insurance arrangements through which the Company expects to recover a substantial portion of the loan. The net charge-off rate on PCl student loans for the year ended November 30, 2012 was $1.41 \%$. The net charge-off rate on PCl student loans for the year ended November 30, 2011 was 1.34\%.

Mortgage loans held for sale. The Company originates all of its residential real estate loans with the intent to sell them in the secondary market. Loans held for sale consist primarily of residential first mortgage loans that are secured by residential real estate throughout the United States. Mortgage loans are funded through a warehouse line of credit and are recorded at fair value. Changes in the fair value of mortgage loans are recorded through revenue prior to the sale of the loans to investors. The gain or loss on the sale of loans is recognized on the date the loans are sold and is based on the difference between the sale proceeds received and the carrying value of the loans, adjusted for the impact of the related hedges (see Note 22: Derivatives and Hedging Activities for further discussion of the mortgage loan related hedging activities). The Company sells its loans on a servicing released basis in which the Company gives up the right to service the loans.

The following table provides a summary of the initial unpaid principal balance of mortgage loans sold by type of loan for the year ended November 30, 2012 (dollars in millions):

|  | For the Year Ended November 30, 2012 |  |  |
| :---: | :---: | :---: | :---: |
|  | Amount |  | \% |
| Conforming ${ }^{(1)}$. | \$ | 1,213 | 70.28\% |
| FHA ${ }^{(2)}$. |  | 513 | 29.72\% |
| Total | \$ | 1,726 | 100.00\% |

(1) Conforming loans are loans that conform to Government Sponsored Enterprises guidelines.
(2) FHA loans are loans that are insured by the Federal Housing Administration typically for borrowers with low down payments and loan amounts meeting certain limits.

The following table represents the loans held for sale by type of loan as of November 30, 2012 (dollars in millions):

|  | At November 30, 2012 |  |  |
| :---: | :---: | :---: | :---: |
|  | Amount |  | \% |
| Conforming ${ }^{(1)}$ | \$ | 178 | 55.28\% |
| FHA ${ }^{(2)}$. |  | 144 | 44.72\% |
| Total | \$ | 322 | 100.00\% |

(1) Conforming loans are loans that conform to Government Sponsored Enterprises guidelines.
(2) FHA loans are loans that are insured by the Federal Housing Administration typically for borrowers with low down payments and loan amounts meeting certain limits.

## Geographical Distribution of Credit Card Loans

The Company originates credit card loans throughout the United States. The geographic distribution of the Company's credit card loan receivables was as follows (dollars in millions):

|  | Novembe | 0,2012 | November | $2011{ }^{(1)}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \% | \$ | \% |
| California | \$ 4,325 | 8.7\% | \$ 4,117 | 8.8\% |
| Texas | 3,968 | 8.0 | 3,720 | 7.9 |
| New York | 3,360 | 6.8 | 3,106 | 6.6 |
| Florida | 2,867 | 5.8 | 2,713 | 5.8 |
| Illinois | 2,810 | 5.7 | 2,642 | 5.6 |
| Pennsy/vania | 2,606 | 5.2 | 2,419 | 5.1 |
| Ohio. | 2,157 | 4.3 | 2,036 | 4.3 |
| New Jersey . | 1,883 | 3.8 | 1,750 | 3.7 |
| Michigan. | 1,495 | 3.0 | 1,434 | 3.1 |
| Georgia . | 1,460 | 2.9 | 1,385 | 2.9 |
| Other States . | 22,711 | 45.8 | 21,650 | 46.2 |
| Total Credit Card Loans | \$49,642 | 100.0\% | \$46,972 | 100.0\% |

(1) Credit card loans at November 30, 2011 have been modified to include credit card loans in process as of the balance sheet date. See Note 2: Summary of Significant Accounting Policies for further discussion.

## Geographical Distribution of Other Loans

The Company originates personal loans, student loans and other loans throughout the United States. The Company has also acquired student loans accounted for as PCI loans that were originated throughout the United States. The table below does not include mortgage loans held for sale. The geographic distribution of personal, student, other and PCI loan receivables was as follows (dollars in millions):

|  | November 30, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  |  | 2011 |  |  |
|  |  | \$ | \% |  | \$ | \% |
| New York | \$ | 1,617 | 14.6\% | \$ | 1,621 | 15.2\% |
| California |  | 1,030 | 9.3 |  | 1,010 | 9.4 |
| Pennsylvania |  | 876 | 7.9 |  | 859 | 8.0 |
| Illinois .................................................................................................................. |  | 607 | 5.5 |  | 589 | 5.5 |
| New Jersey .. |  | 570 | 5.2 |  | 537 | 5.0 |
| Texas. |  | 539 | 4.9 |  | 522 | 4.9 |
| Massachusetts . |  | 461 | 4.2 |  | 431 | 4.0 |
| Michigan ................................................................................................................ |  | 428 | 3.9 |  | 410 | 3.8 |
| Florida .................................................................................................................. |  | 417 | 3.8 |  | 406 | 3.8 |
| Ohio .................................................................................................................... |  | 412 | 3.7 |  | 393 | 3.7 |
|  |  | 4,096 | 37.0 |  | 3,920 | 36.7 |
| Total Other Loans (including PCI loans).......................................................................... | \$ | 11,053 | 100.0\% | \$ | 10,698 | 100.0\% |

## 6. Credit Card and Student Loan Securitization Activities

## Credit Card Securitization Activities

The Company accesses the term asset securitization market through the Discover Card Master Trust I ("DCMT") and the Discover Card Execution Note Trust ("DCENT"), which are trusts into which credit card loan receivables are transferred (or, in the case of DCENT, into which beneficial interests in DCMT are transferred) and from which beneficial interests are issued to investors.

The DCMT structure consists of Class A, triple-A rated certificates and Class B, single-A rated certificates held by third parties. Credit enhancement is provided by the subordinated Class B certificates, cash collateral accounts, and more subordinated Series 2009-CE certificates that are held by a wholly-owned subsidiary of Discover Bank. The DCENT debt structure consists of four classes of securities (DiscoverSeries Class A, B, C and D notes), with the most senior class generally receiving a triple-A rating. In this structure, in order to issue senior, higher rated classes of notes, it is necessary to obtain the appropriate amount of credit enhancement, generally through the issuance of junior, lower rated or more highly subordinated classes of notes. The majority of these more highly subordinated classes of notes are held by subsidiaries of Discover Bank. In addition, during the year ended November 30, 2012, there was another outstanding series of certificates (Series 2009-SD), issued by DCMT, that provided increased excess spread levels to all other outstanding securities of the trusts. The Series 2009-SD certificates were held by a wholly-owned subsidiary of Discover Bank. The Series 2009-SD balance of $\$ 346$ million matured on January 17, 2012, automatically triggering a higher required level of the Class D (2009-1) note. Accordingly, the size of the Class D (2009-1) note was increased by $\$ 242$ million. The credit-related risk of loss associated with trust assets as of the balance sheet date to which the Company is exposed through the retention of these subordinated interests is fully captured in the allowance for loan losses recorded by the Company.

The Company's credit card securitizations are accounted for as secured borrowings and the trusts are treated as consolidated subsidiaries of the Company. The Company's retained interests in the assets of the trusts, principally consisting of investments in DCMT certificates and DCENT notes held by subsidiaries of Discover Bank, constitute intercompany positions which are eliminated in the preparation of the Company's consolidated statement of financial condition.

Upon transfer of credit card loan receivables to the trust, the receivables and certain cash flows derived from them become restricted for use in meeting obligations to the trusts' creditors. The trusts have ownership of cash balances that also have restrictions, the amounts of which are reported in restricted cash. Investment of trust cash balances is limited to investments that are permitted under the governing documents of the trusts and which have maturities no later than the related date on which funds must be made available for distribution to trust investors. With the exception of the seller's interest in trust receivables, the Company's interests in trust assets are generally subordinate to the interests of third-party investors and, as such, may not be realized by the Company if needed to absorb deficiencies in cash flows that are allocated to the investors in the trusts' debt. The carrying values of these restricted assets, which are presented on the Company's consolidated statement of financial condition as relating to securitization activities, are shown in the table below (dollars in millions):

|  | November 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |  |
| Cash collateral accounts. | \$ | 148 | \$ | 187 |
| Collections and interest funding accounts |  | 2,111 |  | 977 |
| Restricted cash |  | 2,259 |  | 1,164 |
| Investors' interests held by third-party investors |  | 15,818 |  | 13,295 |
| Investors' interests held by wholly owned subsidiaries of Discover Bank |  | 5,209 |  | 5,158 |
| Seller's interest |  | 12,737 |  | 15,363 |
| Loan receivables ${ }^{(1)}$ |  | 33,764 |  | 33,816 |
| Allowance for loan losses allocated to securitized loan receivables ${ }^{(1)}$ |  | $(1,069)$ |  | $(1,511)$ |
| Net loan receivables. |  | 32,695 |  | 32,305 |
| Other. |  | 30 |  | 27 |
| Carrying value of assets of consolidated variable interest entities | \$ | 34,984 | \$ | 33,496 |

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

The debt securities issued by the consolidated VIEs are subject to credit, payment and interest rate risks on the transferred credit card loan receivables. To protect investors, the securitization structures include certain features that could result in earlier-than-expected repayment of the securities. The primary investor protection feature relates to the availability and adequacy of cash flows in the securitized pool of receivables to meet contractual requirements. Insufficient cash flows would trigger the early repayment of the securities. This is referred to as the "economic early amortization" feature.

Investors are allocated cash flows derived from activities related to the accounts comprising the securitized pool of receivables, the amounts of which reflect finance charges billed, certain fee assessments, allocations of merchant discount and interchange, and recoveries on charged-off accounts. From these cash flows, investors are reimbursed for charge-offs occurring within the securitized pool of receivables and receive a contractual rate of return and Discover Bank is paid a servicing fee as servicer. Any cash flows remaining in excess of these requirements are reported to investors as excess spread. An excess spread rate of less than $0 \%$ for a contractually specified period, generally a three-month average, would trigger an economic early amortization event. In such an event, the Company would be required to seek immediate sources of replacement funding. Apart from the restricted assets related to securitization activities, the investors and the securitization trusts have no recourse to the Company's other assets or the Company's general credit for a shortage in cash flows.

The Company is required to maintain a contractual minimum level of receivables in the trust in excess of the face value of outstanding investors' interests. This excess is referred to as the minimum seller's interest requirement. The required minimum seller's interest in the pool of trust receivables, which is included in credit card loan receivables restricted for securitization investors, is set at approximately $7 \%$ in excess of the total investors' interests (which includes interests held by third parties as well as those certificated interests held by the Company). If the level of receivables in the trust was to fall below the required minimum, the Company would be required to add receivables from the unrestricted pool of
receivables, which would increase the amount of credit card loan receivables restricted for securitization investors. A decline in the amount of the excess seller's interest could occur if balance repayments and charge-offs exceeded new lending on the securitized accounts or as a result of changes in total outstanding investors' interests. If the Company could not add enough receivables to satisfy the requirement, an early amortization (or repayment) of investors' interests would be triggered. We retain significant exposure to the performance of trust assets through holdings of the seller's interest and subordinated security classes of DCMT and DCENT.

Another feature of the Company's credit card securitization structure that is designed to protect investors' interests from loss, which is applicable only to the notes issued from DCENT, is a reserve account funding requirement in which excess cash flows generated by the transferred loan receivables are held at the trust. This funding requirement is triggered when DCENT's three-month average excess spread rate decreases to below $4.5 \%$, with increasing funding requirements as excess spread levels decline below preset levels to $0 \%$.

In addition to performance measures associated with the transferred credit card loan receivables or the inability to add receivables to satisfy the seller's interest requirement, there are other events or conditions which could trigger an early amortization event, such as non-payment of principal at expected maturity. As of November 30, 2012, no economic or other early amortization events have occurred.

The tables below provide information concerning investors' interests and related excess spreads at November 30, 2012 (dollars in millions):

|  | Investors' <br> Interests ${ }^{(1)}$ |  | \# of Series Outstanding |
| :---: | :---: | :---: | :---: |
| Discover Card Master Trust I |  | 2,288 | 4 |
| Discover Card Execution Note Trust (DiscoverSeries notes) |  | 18,739 | 39 |
| Total investors' interests. |  | 21,027 | 43 |

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

(1) DCMT certificates refer to the higher of the Group excess spread or their applicable series excess spread (not shown) and DiscoverSeries notes refer to the higher of the Group or DiscoverSeries excess spread in assessing whether an economic early amortization has been triggered.

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

## Student Loan Securitization Activities

The Company's student loan securitizations are accounted for as secured borrowings and the trusts are treated as consolidated subsidiaries of the Company. Trust receivables underlying third-party investors' interests are recorded in purchased credit-impaired loans, and the related debt issued by the trusts is reported in long-term borrowings. The assets of the Company's consolidated VIEs are restricted from being sold or pledged as collateral for other borrowings and the cash flows from these restricted assets may be used only to pay obligations of the trust.

Currently there are three trusts from which securities were issued to investors. Principal payments on the long-term secured borrowings are made as cash is collected on the underlying loans that are used as collateral on the secured
borrowings. The Company does not have access to cash collected by the securitization trusts until cash is released in accordance with the trust indenture agreements and, for certain securitizations, no cash will be released to the Company until all outstanding trust borrowings have been repaid. Similar to the credit card securitizations, the Company continues to own and service the accounts that generate the student loan receivables held by the trusts and receives servicing fees from the trusts based on either a percentage of the principal balance outstanding or a flat fee per borrower. Although the servicing fee income offsets the fee expense related to the trusts, 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.

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

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

|  | November 30, |  |
| :---: | :---: | :---: |
|  | 2012 | 2011 |
| Restricted cash. | \$ 78 | \$ 110 |
| Student loan receivables | 2,563 | 2,840 |
| Other assets. | - | 7 |
| Carrying value of asse | \$2,641 | \$2,957 |

## 7. Premises and Equipment <br> A summary of premises and equipment, net is as follows (dollars in millions):

|  | November 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |  |
| Land |  | \$ 42 |  | 42 |
| Buildings and improvements |  | 516 |  | 502 |
| Capitalized equipment leases. |  | 2 |  | 6 |
| Furniture, fixtures and equipment. |  | 636 |  | 571 |
| Software. |  | 407 |  | 346 |
| Premises and equipment |  | 1,603 |  | 1,467 |
| Less: Accumulated depreciation. |  | (759) |  | (707) |
| Less: Accumulated amortization of software |  | (310) |  | (277) |
| Premises and equipment, net ... |  | \$ 534 |  | 483 |

On November 12, 2009, the Company announced plans to close one of its processing centers. As such, this property was classified as held for sale, and the Company recorded a loss in 2009 of $\$ 6$ million, which is included in other expense in the consolidated statement of income. The property was sold during 2011 and the Company recorded an additional loss of $\$ 3$ million, which is also included in other expense in the consolidated statement of income.

Depreciation expense, including amortization of assets recorded under capital leases, was $\$ 63$ million, $\$ 60$ million and $\$ 64$ million for the years ended November 30, 2012, 2011 and 2010, respectively. Amortization expense on capitalized software was $\$ 32$ million, $\$ 30$ million and $\$ 25$ million for the years ended November 30, 2012, 2011 and 2010, respectively.

## 8. Goodwill and Intangible Assets

## Goodwill

As of November 30, 2012, the Company had goodwill of $\$ 286$ million. In the third quarter of 2012, $\$ 31$ million of goodwill was recorded in connection with its acquisition of substantially all of the operating and related assets and certain liabilities of Home Loan Center (see Note 3: Business Combinations to our consolidated financial statements), which was allocated to the Direct Banking segment. Additionally, the Company had goodwill of $\$ 255$ million recorded in connection with its acquisition of PULSE in January 2005, which was allocated to the Payment Services segment. As of November 30, 2011, goodwill was comprised entirely of the $\$ 255$ million recorded in connection with its acquisition of PULSE.

No adjustments have been made to the Company's goodwill balance subsequent to the two aforementioned acquisition dates. The Company conducted its annual goodwill impairment testing on June 1, 2012 and 2011, at which times management concluded that there was no impairment to goodwill.

## Intangible Assets

The Company's amortizable intangible assets resulted from various acquisitions. The June 2012 acquisition of Home Loan Center, which is part of our Direct Banking segment, resulted in the recognition of amortizable intangible assets related to proprietary software, non-compete agreements and marketing agreements. The December 2010 acquisition of SLC, which is part of our Direct Banking segment, resulted in the recognition of an amortizable intangible asset relating to acquired customer relationships. The 2005 acquisition of PULSE, which is part of our Payment Services segment, resulted in the recognition of amortizable intangible assets relating to acquired customer relationships and trade name intangibles. Acquired customer relationships for SLC consist of those relationships in existence between SLC and the numerous students that carry student loan balances, while for PULSE they consist of those relationships in existence between PULSE and the numerous financial institutions that participate in its network, as valued at the date of the respective acquisitions.

Non-amortizable intangible assets consist of trade name intangibles recognized in the acquisition of SLC, along with international transaction processing rights and trade name intangibles recognized in the acquisition of Diners Club in June 2008. For more information on the Company's acquisition of SLC, see Note 3: Business Combinations.

The following table summarizes the Company's intangible assets (dollars in millions):

|  | Weighted <br> Average Amortization Period | November 30, 2012 |  |  | November 30, 2011 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Gross Carrying Amount | Accumulated Amortization | Net <br> Book Value | Gross <br> Carrying Amount | Accumulated Amortization | Net <br> Book <br> Value |
| Amortizable intangible assets: |  |  |  |  |  |  |  |
| Customer relationships. | 14.6 years | \$ 72 | \$ 52 | \$ 20 | \$ 72 | \$ 45 | \$ 27 |
| Trade name and other. | 25 years | 8 | 2 | 6 | 8 | 2 | 6 |
| Proprietary software | 7 years | 6 | - | 6 | - | - | - |
| Non-compete agreements | 3 years | 2 | - | 2 | - | - | - |
| Marketing agreements and other | 9 months | 4 | 3 | 1 | - | - | - |
| Total amortizable intangible assets. |  | 92 | 57 | 35 | 80 | 47 | 33 |
| Non-amortizable intangible assets |  |  |  |  |  |  |  |
| Trade names ........................................................... | N/A | 132 | - | 132 | 132 | - | 132 |
| International transaction processing rights ............................ | N/A | 23 | - | 23 | 23 | - | 23 |
| Total non-amortizable intangible assets ............................. |  | 155 | - | 155 | 155 | - | 155 |
| Total intangible assets.............................................. |  | \$247 | \$ 57 | \$190 | \$235 | \$ 47 | \$188 |

Amortization expense related to the Company's intangible assets was $\$ 11$ million, $\$ 8$ million and $\$ 7$ million for the years ended November 30, 2012, 2011 and 2010, respectively.

The following table presents expected intangible asset amortization expense for the next five years based on intangible assets at November 30, 2012 (dollars in millions):

| Year | Amount |
| :---: | :---: |
| 2013 | \$8 |
| 2014 | \$6 |
| 2015 | \$5 |
| 2016 | \$4 |
| 2017 | \$3 |

## 9. Deposits

The Company offers its deposit products to customers through two channels: (i) through direct marketing, internet origination and affinity relationships ("direct-to-consumer deposits"); and (ii) indirectly through contractual arrangements with securities brokerage firms ("brokered deposits"). Direct-to-consumer deposits include certificates of deposit, money market accounts, online savings accounts and Individual Retirement Account ("IRA") certificates of deposit, while brokered deposits include certificates of deposit and sweep accounts.
As of November 30, 2012 and November 30, 2011, the Company had approximately $\$ 27.9$ billion and $\$ 26.2$ billion, respectively, of direct-to-consumer deposits and approximately $\$ 14.1$ billion and $\$ 13.3$ billion, respectively, of brokered deposits.

A summary of interest-bearing deposit accounts is as follows (dollars in millions):

|  | November 30, |  |
| :---: | :---: | :---: |
|  | 2012 | 2011 |
| Certificates of deposit in amounts less than \$100,000(1) | \$21,039 | \$20,114 |
| Certificates of deposit from amounts of \$100,000 ${ }^{(1)}$ to less than $\$ 250,000{ }^{(1)}$. | 5,460 | 5,290 |
| Certificates of deposit in amounts of \$250,000 ${ }^{(1)}$ or greater. | 1,276 | 1,190 |
| Savings deposits, including money market deposit accounts. | 14,259 | 12,870 |
| Total interest-bearing deposits. | \$42,034 | \$39,464 |
| Average annual interest rate.. | 1.94\% | 2.57\% |

(1) $\$ 100,000$ represents the basic insurance amount previously covered by the FDIC. Effective July 21,2010 , the basic insurance per depositor was permanently increased to $\$ 250,000$.

At November 30, 2012, certificates of deposit maturing over the next five years, and thereafter were as follows (dollars in millions):

| Year | Amount |
| :---: | :---: |
| 2013. | \$13,156 |
| 2014. | \$ 6,154 |
| 2015. | \$ 3,612 |
| 2016 | \$ 1,926 |
| 2017. | \$ 1,778 |
| Thereafter. | \$ 1,149 |

## 10. Borrowings

Long-term borrowings consist of borrowings and capital leases 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 balances outstanding at period end (dollars in millions):


[^11]Maturities. Long-term borrowings had the following maturities at November 30, 2012 (dollars in millions):


On November 21, 2012, the Company completed a private exchange offer, resulting in the exchange of $\$ 500$ million outstanding aggregate principal amount of $8.70 \%$ Subordinated Notes due 2019 issued by Discover Bank for the same aggregate principal amount of new $3.85 \%$ Senior Notes due 2022 issued by Discover Financial Services and a cash premium paid of $\$ 176$ million. The exchange was accounted for as a debt modification and not as an extinguishment. The Company entered into a registration rights agreement with respect to the new notes.

During the second quarter, the Company completed a private exchange offer, resulting in the exchange of $\$ 322$ million outstanding aggregate principal amount of $10.25 \%$ Senior Notes due 2019 for the same aggregate principal amount of new $5.20 \%$ Senior Notes due 2022 and a cash premium paid of $\$ 115$ million. On April 27, 2012, the Company issued $\$ 308$ million aggregate principal amount and, on May 8, 2012, the Company issued $\$ 14$ million aggregate principal amount, respectively, of the $5.20 \%$ Senior Notes due 2022. The exchange was accounted for as a debt modification and not as an extinguishment. Approximately $\$ 318$ million of these notes were subsequently exchanged for substantially identical notes that were registered under the Securities Act of 1933. During the year ended November 30,2012, $\$ 4$ million of the premium paid was amortized and included in interest expense on the consolidated statement of income.

The Company has access to committed undrawn capacity through private securitizations to support the funding of its credit card loan receivables. As of November 30, 2012, the total commitment of secured credit facilities through private providers was $\$ 7.5$ billion, of which $\$ 750$ million had been used and was included in long-term borrowings at November 30, 2012. Access to the unused portions of the secured credit facilities is dependent upon the agreement with each of the providers which have various expirations in fiscal years 2013, 2014 and 2015. Borrowings outstanding under each facility bear interest at a margin above LIBOR or the asset-backed commercial paper costs of each individual conduit provider. The terms of each agreement provide for a commitment fee to be paid on the unused capacity, and include various affirmative and negative covenants, including performance metrics and legal requirements similar to those required to issue any term securitization transaction.

Short-Term Borrowings. Short-term borrowings typically consist of overnight Federal Funds or repurchase agreements with original maturities less than one year and a warehouse line of credit. There were no outstanding Federal Funds or repurchase agreements at November 30, 2012. In conjunction with business activities relating to the acquisition of the assets of Home Loan Center, the Company has a $\$ 400$ million warehouse line of credit used to fund residential loans that are held for sale and will be secured by such loans. The term of the warehouse line of credit agreement is through May 24, 2013. The terms of the agreement includes various affirmative and negative covenants. The total outstanding borrowings on the warehouse line of credit at November 30, 2012 were $\$ 284$ million. The weighted-average interest rate on short-term borrowings was $1.07 \%$ for the year ended November 30, 2012. At November 30, 2011, the shortterm borrowing balance outstanding was $\$ 50$ million. The weighted-average interest rate on short-term borrowings was $0.08 \%$ for the year ended November 30, 2011.

## 11. Stock-Based Compensation Plans

The Company has two stock-based compensation plans: the Discover Financial Services Omnibus Incentive Plan and the Discover Financial Services Directors' Compensation Plan.

Omnibus Incentive Plan. The Discover Financial Services Omnibus Incentive Plan ("Omnibus Plan"), which is stockholder-approved, provides for the award of stock options, stock appreciation rights, restricted stock, restricted stock units ("RSUs"), performance stock units ("PSUs") and other stock-based and/or cash awards (collectively, "Awards"). Currently, the Company does not have any stock appreciation rights or restricted stock outstanding. The total number of shares that may be granted is 45 million shares, subject to adjustments for certain transactions as described in the Omnibus Plan document. Shares granted under the Omnibus Plan may be the following: (i) authorized but unissued shares, and (ii) treasury shares that the Company acquires in the open market, in private transactions or otherwise.

Directors' Compensation Plan. The Discover Financial Services Directors' Compensation Plan (the "Directors' Compensation Plan"), which is stockholder-approved, permits the grant of RSUs to non-employee directors. The total number of units available for grant under the Directors' Compensation Plan equals the excess, if any, of (i) 1,000,000 shares over (ii) the sum of (a) the number of shares subject to outstanding awards granted under the Directors' Compensation Plan and (b) the number of shares previously issued pursuant to the Directors' Compensation Plan. Shares of stock that are issuable pursuant to the awards granted under the Directors' Compensation Plan may be authorized but unissued shares, treasury shares or shares that the Company acquires in the open market. Annual awards for eligible directors are calculated by dividing $\$ 125,000$ by the fair market value of a share of stock on the date of grant and are subject to a restriction period whereby $100 \%$ of such units shall vest on the first anniversary of the date of grant.

Stock-Based Compensation. The following table details the compensation cost, net of forfeitures (dollars in millions):

|  | For the Years Ended November 30, |  |  |
| :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 |
| Restricted stock units | \$ 29 | \$ 34 | \$ 30 |
| Performance stock units | 18 | 10 | - |
| Salary paid in shares | - | - | 7 |
| Total stock-based compensation expense . | \$ 47 | \$ 44 | \$ 37 |
| Income tax benefit ................... | \$ 18 | \$ 17 | \$ 14 |

On July 2, 2007, the Company issued "Founder's Grants" of RSUs to certain directors, executive officers and employees of the Company in the aggregate amount of $\$ 134$ million, which were subject to various vesting terms of up to four years. All of the Founder's Grants RSUs were vested as of November 30, 2011. In connection with these awards, the Company recognized expense of $\$ 3$ million and $\$ 9$ million, net of estimated forfeitures, for the years ended November 30, 2011 and 2010, respectively. There was no expense related to these awards for the year ended November 30, 2012.

Restricted Stock Unit Activity. The following table sets forth the activity related to vested and unvested RSUs during the year ended November 30, 2012.

|  | Number of Shares | Weighted-Average Grant-Date Fair Value | Aggregate Intrinsic Value (in millions) |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Restricted stock units at November 30, 2011 | 5,798,640 | \$18.32 |  |
| Granted | 1,078,948 | \$25.64 |  |
| Conversions to common stock | $(1,917,343)$ | \$15.56 |  |
| Forfeited. | $(188,499)$ | \$20.19 |  |
| Restricted stock units at November 30, 2012. | 4,771,746 | \$21.01 | \$199 |

The following table sets forth the activity related to unvested RSUs during the year ended November 30, 2012:

|  | Number of Shares | Weighted-Average Grant-Date Fair Value |
| :---: | :---: | :---: |
| Unvested restricted stock units at November 30, $2011{ }^{(1)}$ | 3,722,549 | \$16.79 |
| Granted. | 1,078,948 | \$25.64 |
| Vested | $(1,648,291)$ | \$17.10 |
| Forfeited | $(188,499)$ | \$20.19 |
| Unvested restricted stock units at November 30, $2012{ }^{(1)}$ | 2,964,707 | \$19.62 |

(1) Unvested restricted stock units represent awards where recipients have yet to satisfy either explicit vesting terms or retirement-eligibility requirements.

Compensation cost associated with restricted stock units is determined based on the number of units granted and the fair value on the date of grant. The fair value is amortized on a straight-line basis, net of estimated forfeitures over the requisite service period for each separately vesting tranche of the award. The requisite service period is generally the vesting period.

The following table summarizes the total intrinsic value of the RSUs converted to common stock and the total grant date fair value of RSUs vested (dollars in millions, except weighted average grant date fair value amounts):


As of November 30, 2012, there was $\$ 21$ million of total unrecognized compensation cost related to non-vested RSUs. The cost is expected to be recognized over a total period of 3.1 years and a weighted average period of 1.8 years.

Performance Stock Unit Activity. The following table sets forth the activity related to vested and unvested PSU's during the year ended November 30, 2012:

|  |  | Weighted Average | Aggregate |
| :---: | :---: | :---: | :---: |
|  | Number of Shares | Grant-Date Fair Value | Intrinsic Value (in millions) |
| Performance stock units at November 30, 2011. | 762,916 | \$19.15 |  |
| Granted | 647,767 | \$24.74 |  |
| Conversions to common stock | - | - |  |
| Forfeited. | $(78,387)$ | \$21.31 |  |
| Performance stock units at November 30, 2012. | 1,332,296 | \$21.74 | \$55,437 |

The following table sets forth the activity related to unvested PSUs during the year ended November 30, 2012:

|  | Number of Shares | Weighted-Average Grant-Date Fair Value |
| :---: | :---: | :---: |
| Unvested performance stock units at November 30, $2011^{(1)}$ | 762,916 | \$19.15 |
| Granted | 647,767 | \$24.74 |
| Vested. | $(144,990)$ | \$19.15 |
| Forfeited | $(78,387)$ | \$21.31 |
| Unvested performance stock units at November 30, 2012(1) | 1,187,306 | \$22.06 |

(1) Unvested performance stock units represent awards where recipients have yet to satisfy either explicit vesting terms or retirement-eligibility requirements.

Compensation cost associated with performance stock units is determined based on the number of instruments granted, the fair value on the date of grant, and the performance factor. The fair value is amortized on a straight-line basis, net of estimated forfeitures over the requisite service period. Each PSU is a restricted stock instrument that is subject to additional conditions and constitutes a contingent and unsecured promise by the Company to pay up to two shares of the Company's common stock on the conversion date for the PSU contingent on the number of PSU shares to be issued. PSUs have a performance period of two years and a vesting period of three years. The requisite service period of an award, having both performance and service conditions, is the longest of the explicit, implicit and derived service periods.

As of November 30, 2012, there was $\$ 26$ million of total unrecognized compensation cost related to non-vested PSUs. The cost is expected to be recognized over a total period of 2.1 years for non-retirement eligible employees and 1.0 year for retirement eligible employees, with a weighted-average period of 1.3 years.

Option awards are granted with an exercise price equal to the fair market value of one share of the Company's common stock at the date of grant; these types of awards expire ten years from the grant date and may be subject to restrictions on transfer, vesting requirements, which are set at the discretion of the Compensation and Leadership Development Committee of the Company's board of directors, or cancellation under specified circumstances. Stock awards also may be subject to similar restrictions determined at the time of grant under this plan. Certain option and stock awards provide for accelerated vesting if there is a change in control or upon certain terminations (as defined in the Omnibus Plan or the award certificate).

Stock Option Activity. The following table sets forth the activity concerning stock option activity during the year ended November 30, 2012 :

|  | Number of Shares | Weighted Average Exercise Price | Weighted- <br> Average <br> Remaining <br> Contractual <br> Term (in years) | Aggregate Intrinsic Value (in millions) |
| :---: | :---: | :---: | :---: | :---: |
| Options outstanding at November 30, 2011 | 2,167,462 | \$18.95 | 2.14 years |  |
| Granted (1) | - |  |  |  |
| Exercised | (1,324,771) | \$18.21 |  |  |
| Expired. | $(2,545)$ | \$19.41 |  |  |
| Options outstanding at November 30, 2012 | 840,146 | \$20.11 | 1.75 years | \$18,062 |
| Vested and exercisable at November 30, 2012 | 840,146 | \$20.11 | 1.75 years | \$18,062 |

[^12]Cash received from the exercise of stock options was $\$ 24$ million and the income tax benefit realized from the exercise of stock options was \$6 million for the year ended November 30, 2012.

The following table summarizes the total intrinsic value of options exercised and total fair value of options vested (dollars in millions):

|  | For the Years Ended November 30, |  |  |
| :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 |
| Intrinsic value of options exercised... | \$ 22 | \$ | \$ |
| Grant date fair value of options vested | \$ | \$ - | \$ |

As of November 30, 2012, 2011 , and 2010 there was no unrecognized compensation cost related to non-vested stock options granted under the Company's Omnibus Plan, as all these options have vested.

The Company utilized the Black-Scholes pricing model to estimate the fair value of each option at its date of grant. The fair value was amortized on a straight-line basis, net of estimated forfeitures, over the requisite service periods of the awards, which is generally the vesting period. Use of a valuation model requires management to make certain assumptions with respect to selected model inputs. Since all options were granted prior to the Company's spin-off from Morgan Stanley, the expected option life of stock options and the expected dividend yield of stock were determined based upon Morgan Stanley's historical experience. The expected stock price volatility was determined based upon Morgan Stanley's historical stock price data over a time period similar to the expected option life. The risk-free interest rate was based on U.S. Treasury Strips with a remaining term equal to the expected life assumed at the date of grant.

## 12. Employee Benefit Plans

The Company sponsors the Discover Financial Services Pension Plan (the "Discover Pension Plan"), which is a noncontributory defined benefit plan that is qualified under Section 401 (a) of the Internal Revenue Code, for eligible employees in the U.S. Effective December 31, 2008, the Discover Pension Plan was amended to discontinue the accrual of future benefits. The Company also sponsors the Discover Financial Services 401 (k) Plan (the "Discover 401 (k) Plan") for its eligible U.S. employees.

Defined Benefit Pension and Other Postretirement Plans. The Discover Pension Plan generally provides retirement benefits that are based on each participant's years of credited service prior to 2009 and on compensation specified in the Discover Pension Plan. The Company's policy is to fund at least the amounts sufficient to meet minimum funding requirements under the Employee Retirement Income Security Act of 1974 ("ERISA"). The Company also participates in a self-funded postretirement benefit plan that provides medical and life insurance for eligible U.S. retirees and their dependents.

Net Periodic Benefit Cost. Net periodic benefit cost expensed by the Company included the following components (dollars in millions):

|  | Pension |  |  |  |  |  | Postretirement |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | For the Years Ended November 30, |  |  |  |  |  | For the Years Ended November 30, |  |  |  |  |  |
|  | 2012 |  | 2011 |  | 2010 |  | 2012 |  | 2011 |  | 2010 |  |
| Service cost, benefits earned during the period..................................... | \$ | - | \$ | - | \$ | - | \$ | 1 | \$ | 1 | \$ |  |
| Interest cost on projected benefit obligation.......................................... |  | 21 |  | 21 |  | 21 |  | 2 |  | 1 |  | 1 |
| Expected return on plan assets. |  | (23) |  | (23) |  | (23) |  | - |  | - |  | - |
| Net amortization... |  | 3 |  | 1 |  | 2 |  | - |  | - |  | - |
| Net periodic benefit cost (income) .................................................. | \$ | 1 | \$ | (1) | \$ | - | \$ | 3 | \$ | 2 | \$ |  |

Accumulated Other Comprehensive Income. As of November 30, 2012, pretax amounts recognized in accumulated other comprehensive income that have not yet been recognized as components of net periodic benefit cost consist of (dollars in millions):

|  | Pension | Postretirement |  |
| :---: | :---: | :---: | :---: |
| Prior service credit (cost). | \$ 9 | \$ | (1) |
| Net (loss) gain. | (273) |  | 18 |
| Total. | \$ (264) | \$ | 17 |

Benefit Obligations and Funded Status. The following table provides a reconciliation of the changes in the benefit obligation and fair value of plan assets as well as a summary of the Company's funded status (dollars in millions):

|  | Pension |  |  | Postretirement |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | For the Years Ended November 30, |  |  | For the Years Ended November 30, |  |  |  |
|  | 2012 |  | 2011 |  | 2012 |  | 011 |
| Reconciliation of benefit obligation: |  |  |  |  |  |  |  |
| Benefit obligation at beginning of year. | \$ 422 |  | 376 |  | 26 | \$ | 22 |
| Service cost... | - |  | - |  | 1 |  | 1 |
| Interest cost. | 21 |  | 21 |  | 2 |  | 1 |
| Actuarial (gain) loss | 106 |  | 41 |  | (15) |  | 2 |
| Plan amendments ${ }^{(1)}$. | - |  | - |  | - |  | 1 |
| Benefits paid. | (14) |  | (16) |  | (1) |  | (1) |
| Benefit obligation at end of year. | \$ 535 |  | 422 |  | 13 | \$ |  |
| Reconciliation of fair value of plan assets: |  |  |  |  |  |  |  |
| Fair value of plan assets at beginning of year.. | \$ 333 |  |  | \$ | - | \$ | - |
| Actual return on plan assets. | 49 |  | 28 |  | - |  | - |
| Employer contributions | - |  | - |  | 1 |  | 1 |
| Benefits paid. | (14) |  | (16) |  | (1) |  | (1) |
| Fair value of plan assets at end of year | \$ 368 |  | 333 | \$ | - | \$ | - |
| Funded status (recorded in accrued expenses a | \$ (167) |  | (89) |  | (13) |  | (26) |

(1) In 2011, SLC was added as a participating company under the Postretirement Plan and its employees were granted credit for past service for purposes of retiree medical eligibility.

Assumptions. The following table presents the assumptions used to determine benefit obligations:

|  | Pension |  | Postretirement |  |
| :---: | :---: | :---: | :---: | :---: |
|  | For the Years Ended November 30, |  | For the Years Ended November 30, |  |
|  | 2012 | 2011 | 2012 | 2011 |
| Discount rate . | 3.96\% | 5.07\% | 3.96\% | 5.07\% |

The following table presents the assumptions used to determine net periodic benefit cost:

|  | Pension |  |  | Postretirement |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | For the Years Ended November 30, |  |  | For the Years Ended November 30, |  |  |
|  | 2012 | 2011 | 2010 | 2012 | 2011 | 2010 |
| Discount rate. | 5.07\% | 5.64\% | 5.92\% | 5.07\% | 5.64\% | 5.92\% |
| Expected long-term rate of return on plan assets. | 6.75\% | 6.75\% | 6.75\% | N/A | N/A | N/A |

For the Discover Pension Plan, the expected long-term rate of return on plan assets was estimated by computing a weighted average return of the underlying long-term expected returns on the different asset classes, based on the target asset allocations. Asset class return assumptions are created by integrating information on past capital market performance, current levels of key economic indicators, and the market insights of investment professionals. Individual asset classes are analyzed as part of a larger system, acknowledging both the interaction between asset classes and the influence of larger macroeconomic variables such as inflation and economic growth on the entire structure of capital markets. Medium and long-term economic outlooks for the U.S. and other major industrial economies are forecast in order to understand the range of possible economic scenarios and evaluate their likelihood. Historical relationships between key economic variables and asset class performance patterns are analyzed using empirical models. Finally, comprehensive asset class performance projections are created by blending descriptive asset class characteristics with capital market insight and the initial economic analyses. The expected long-term return on plan assets is a long-term assumption that generally is expected to remain the same from one year to the next but is adjusted if there is a material change in the target asset allocation and/or significant changes in fees and expenses paid by the Discover Pension Plan.

The following table presents assumed health care cost trend rates used to determine the postretirement benefit obligations:

|  | For the Years Ended November 30, |  |
| :---: | :---: | :---: |
|  | 2012 | 2011 |
| Health care cost trend rate assumed for next year: |  |  |
| Medical.. | 6.90\%-7.40\% | 6.90\%-7.60\% |
| Prescription. | 8.40\% | 8.80\% |
| Rate to which the cost trend rate is assumed to decline (ultimate trend rate) | 5.00\% | 5.00\% |
| Year that the rate reaches the ultimate trend rate.. | 2027 | 2027 |

Qualified Plan Assets. The targeted asset allocation for 2013 by asset class is $45 \%$ and $55 \%$ for equity securities and fixed income securities, respectively. The actual asset allocation for the Qualified Plan at November 30, 2011 was $31 \%$ for equity securities, $68 \%$ for fixed income securities and $1 \%$ for other investments.

The Discover Financial Services Retirement Plan Investment Committee (the "Investment Committee") determined the asset allocation targets for the Qualified Plan based on its assessment of business and financial conditions, demographic and actuarial data, funding characteristics and related risk factors. Other relevant factors, including industry practices and long-term historical and prospective capital market returns were considered as well.

The Discover Pension Plan return objectives provide long-term measures for monitoring the investment performance against growth in the pension obligations. The overall allocation is expected to help protect the Discover Pension Plan's funded status while generating sufficiently stable real returns (net of inflation) to help cover current and future benefit payments and to improve the Discover Pension Plan's funded status. Total Discover Pension Plan portfolio performance is assessed by comparing actual returns with relevant benchmarks, such as the Standard \& Poor's ("S\&P") 500 Index, the S\&P 500 Total Return Index, the Russell 2000 Index and the MSCI All Country World Index.

Both the equity and fixed income portions of the asset allocation use a combination of active and passive investment strategies and different investment styles. The fixed income asset allocation consists of longer duration fixed income securities in order to help reduce plan exposure to interest rate variation and to better correlate assets with obligations.

The longer duration fixed income allocation is expected to help stabilize the funding status ratio over the long term.
The asset mix of the Discover Pension Plan is reviewed by the Investment Committee on a regular basis. When asset class exposure reaches a minimum or maximum level, an asset allocation review process is initiated and the porffolio is rebalanced back to target allocation levels, if the Investment Committee deems such action appropriate.

As a fundamental operating principle, any restrictions on the underlying assets apply to a respective derivative product. This includes percentage allocations and credit quality. The purpose of the use of derivatives is to enhance investment in the underlying assets, not to circumvent portfolio restrictions.

Fair Value Measurements. The Discover Pension Plan's assets are stated at fair value. Quoted market prices in active markets are the best evidence of fair value and are used as the basis for the measurement, if available. If a quoted market price is not available, the estimate of the fair value is based on the best information available in the circumstances. The table below presents information about the Discover Pension Plan assets and indicates the level within the fair value hierarchy, as defined by ASC 820, with which each item is associated. For a description of the fair value hierarchy, see Note 21: Fair Value Disclosures. (dollars in millions):

|  | November 30, 2012 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Level 1 | Level 2 | Level 3 | Total | Net Asset Allocation |
| Assets |  |  |  |  |  |
| Cash and cash equivalents. | \$ 5 | \$ |  | \$ 5 | 1\% |
| Fixed income securities - U.S. treasuries | 46 | - | - | 46 | 13\% |
| Fixed income securities - corporate debt.. | - | 154 | - | 154 | 42\% |
| Registered Investment Company - International equity fund. | 24 | - | - | 24 | 6\% |
| Common Collective Trusts: |  |  |  |  |  |
| International equity fund.. | - | 61 | - | 61 | 17\% |
| Domestic large cap equity fund | - | 67 | - | 67 | 18\% |
| Domestic small cap equity fund | - | 11 | - | 11 | 3\% |
| Total assets | 75 | 293 | - | 368 | 100\% |


|  | November 30, 2011 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Level 1 | Level 2 | Level 3 | Total | Net Asset Allocation |
| Assets |  |  |  |  |  |
| Cash and cash equivalents.. | \$ 5 | \$ | \$ |  | 1\% |
| Fixed income securities - U.S. treasuries | 65 | - | - | 65 | 20\% |
| Fixed income securities - corporate debt. | - | 159 | - | 159 | 48\% |
| Registered Investment Company-International equity fund. | 19 | - | - | 19 | 6\% |
| Common Collective Trusts: |  |  |  |  |  |
| International equity fund. | - | 18 | - | 18 | 5\% |
| Domestic large cap equity fund | - | 57 | - | 57 | 17\% |
| Domestic small cap equity fund | - | 10 | - | 10 | 3\% |
| Total assets. | 89 | 244 | - | 333 | 100\% |

The investments that are categorized as Level 2 assets primarily consist of fixed income securities, common collective trusts and a group annuity contract consisting of a domestic equity fund and a stable value product. The common collective trusts and the domestic equity fund are public investment vehicles valued using the Net Asset Value ("NAV") provided by the administrator of the fund. The NAV is quoted on a private market that is not active; however, the unit price is based on underlying investments that are traded on an active market. The fair value of the stable value product is calculated as the present value of future cash flows.

There were no transfers between Levels 1 and 2 within the fair value hierarchy for the years ended November 30, 2012 and 2011.

Cash Flows. The Company does not expect to make any contributions to its postretirement benefit plans for 2013.
Expected benefit payments associated with the Company's pension and postretirement benefit plans for the next five years and in aggregate for the years thereafter are as follows (dollars in millions):

|  | Pension | Postretirement |
| :---: | :---: | :---: |
| 2013 | \$11 | \$1 |
| 2014 | \$12 | \$1 |
| 2015 | \$13 | \$1 |
| 2016 | \$13 | \$1 |
| 2017 | \$14 | \$1 |
| Following five years thereafter. | \$89 | \$5 |

Discover 401 (k) Awards. Under the Discover 401 (k) Plan, eligible U.S. employees of the Company receive 401 (k) matching contributions. Effective January 1, 2009, eligible employees also receive fixed employer contributions and, if eligible, employer transition credit contributions. The pretax expense associated with the $401(\mathrm{k})$ match for the years ended November 30, 2012, 2011 and 2010 was $\$ 42$ million, $\$ 38$ million, and $\$ 32$ million, respectively.

## 13. Common and Preferred Stock

## Preferred Stock Issuance

On October 16, 2012, the Company issued 575,000 shares of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series B, par value $\$ 0.01$ per share (the "preferred stock"). Each share of preferred stock has a liquidation preference of $\$ 1,000$ per share and is represented by 40 depositary shares. Net proceeds received from the preferred stock issuance totaled approximately $\$ 560$ million. The preferred stock is redeemable at the Company's option, subject to regulatory approval, either (1) in whole or in part on any dividend payment date on or affer December 1, 2017 or (2) in whole but not in part, at any time within 90 days following a regulatory capital event (as defined in the certificate of designations for the preferred stock), in each case at a redemption price equal to $\$ 1,000$ per share of preferred stock plus declared and unpaid dividends. Any dividends declared on the preferred stock will be payable quarterly in arrears at a rate of $6.50 \%$ per annum.

## Stock Repurchase Program

On March 13, 2012, our board of directors approved a share repurchase program authorizing the repurchase of up to $\$ 2$ billion of our outstanding shares of common stock. This share repurchase program expires on March 22, 2014 and may be terminated at any time. For the year ended November 30, 2012, the Company repurchased $33,578,664$ shares for $\$ 1.2$ billion.

## Senior Preferred Stock and Warrant

On March 13, 2009, the Company issued and sold to the United States Department of the Treasury (the "U.S. Treasury") under the Capital Purchase Program (i) $1,224,558$ shares of the Company's Fixed Rate Cumulative Perpetual Preferred Stock, Series A (the "senior preferred stock") and (ii) a ten-year warrant to purchase 20,500,413 shares of the Company's common stock, par value $\$ 0.01$ per share, (the "warrant") for an aggregate purchase price of $\$ 1.225$ billion. Of the aggregate amount of $\$ 1.225$ billion received, approximately $\$ 1.15$ billion was attributable to the senior preferred stock and approximately $\$ 75$ million was attributable to the warrant, based on the relative fair values of these instruments on the date of issuance. The value of the warrant was initially scheduled to accrete over a period of five years through a reduction to retained earnings on an effective yield basis.

On April 21, 2010, the Company completed the repurchase of all the outstanding shares of the senior preferred stock for $\$ 1.2$ billion, at which time the Company also accelerated the accretion of the remaining discount on the senior preferred stock of $\$ 61$ million. On July 7, 2010, the Company repurchased the warrant from the U.S Treasury for \$172 million.

## 14. Accumulated Other Comprehensive Income

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

|  | Net <br> Unrealized <br> Gains <br> (Losses) <br> on <br> Securities |  | Adjustments Related to Pension and Other Post Retirement Benefits |  | Derivatives |  | Accumulated Other Comprehensive Income (Loss) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at November 30, 2009 | \$ | (62) | \$ | (93) | \$ | - | \$ | (155) |
| Adoption of ASC 810 (FASB Statement No. 167), net of tax expense of \$46 |  | 79 |  | - |  | - |  | 79 |
| Net unrealized losses on investment securities, net of tax benefit of \$3 ${ }^{(1)}$. |  | (4) |  | - |  | - |  | (4) |
| Net unrealized gain reversed upon the liquidation of an investment security, net of tax benefit of \$3(1) |  | (5) |  | - |  | - |  | (5) |
| Unrealized gains on cash flow hedges, net of tax expense of \$1 $1^{(2)}$. |  | - |  | - |  | 2 |  | 2 |
| Balance at November 30, 2010 |  | 8 |  | (93) |  | 2 |  | (83) |
| Net unrealized gains on investment securities, net of tax expense of \$28(1).. |  | 47 |  | - |  | - |  | 47 |
| Unrealized gains on cash flow hedges, net of tax expense of \$3 ${ }^{(2)}$. |  | - |  | - |  | 5 |  | 5 |
| Unrealized pension and postretirement plan loss, net of tax benefit of \$12 ${ }^{(3)}$ |  | - |  | (21) |  | - |  | (21) |
| Balance at November 30, 2011 |  | 55 |  | (114) |  | 7 |  | (52) |
| Net unrealized gains on investment securities, net of tax expense of \$11 $1^{(1)}$. |  | 19 |  | - |  | - |  | 19 |
| Unrealized loss on cash flow hedges, net of tax benefit of \$2 $2^{(2)}$. |  | - |  | - |  | (4) |  | (4) |
| Unrealized pension and postretirement plan loss, net of tax benefit of \$253) ..................... |  | - |  | (38) |  | - |  | (38) |
| Balance at November 30, 2012 | \$ | 74 | \$ | (152) | \$ | 3 | \$ | (75) |

(1) Represents the difference between the fair value and amortized cost of available-for-sale investment securities.
(2) Represents unrealized gains (losses) related to effective portion of cash flow hedges.
(3) Reflects adjustments to the funded status of pension and postretirement plans, which is the difference between the fair value of the plan assets and the projected benefit obligation.

## 15. Other Income and Other Expense

Total other income includes the following components (dollars in millions):

|  | For the Years Ended November 30, |  |  |
| :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 |
| Royalty and licensee revenue. | \$ 72 | \$ 72 | \$ 71 |
| Merchant fees. | 17 | 16 | 28 |
| Transition service agreement revenue | 12 | 27 | - |
| Gain from sales of merchant contracts | 3 | 11 | 14 |
| Adjustments related to non-mortgage loans sold and held for sale. | (1) | 5 | (23) |
| Other income . | 60 | 48 | 28 |
| Total other income. | \$163 | \$179 | \$118 |

Total other expense includes the following components (dollars in millions):

|  | For the Years Ended November 30, |  |  |
| :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 |
| Postage | \$ 85 | \$ 82 | \$ 83 |
| Fraud losses | 93 | 72 | 44 |
| Supplies. | 22 | 23 | 20 |
| Credit related inquiry fees.. | 20 | 17 | 14 |
| Litigation expense.. | 218 | 22 | 4 |
| Incentive expense. | 59 | 23 | 17 |
| Other expense | 107 | 101 | 63 |
| Total other expense. | \$604 | \$340 | \$245 |

16. Income Taxes

Income tax expense consisted of the following (dollars in millions):

|  | the Years Ended November 30, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |  | 2010 |  |
| Current: |  |  |  |  |  |  |
| U.S. federal. | \$ | 1,109 | \$ | 931 | \$ | 321 |
| U.S. state and local . |  | 149 |  | 118 |  | 68 |
| International. |  | 4 |  | 3 |  | 2 |
| Total |  | 1,262 |  | 1,052 |  | 391 |
| Deferred: |  |  |  |  |  |  |
| U.S. federal.. |  | 136 |  | 228 |  | 108 |
| U.S. state and local . |  | 10 |  | 4 |  | 5 |
| Total |  | 146 |  | 232 |  | 113 |
| Income tax expens | \$ | 1,408 | \$ | 1,284 | \$ | 504 |

The following table reconciles the Company's effective tax rate to the U.S. federal statutory income tax rate:

|  | For the Years Ended November 30, |  |  |
| :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 |
| U.S. federal statutory income tax rate . | 35.0\% | 35.0\% | 35.0\% |
| U.S. state, local and other income taxes, net of U.S. federal income tax benefits | 2.9 | 2.4 | 4.1 |
| Valuation allowance - capital loss. | - | (0.6) | - |
| Other | (0.4) | (0.2) | 0.6 |
| Effective income tax rate. | 37.5\% | 36.6\% | 39.7\% |

Deferred income taxes reflect the net tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when such differences are expected to reverse. Valuation allowances are provided to reduce deferred tax assets to an amount that is more likely than not to be realized. The Company evaluates the likelihood of realizing its deferred tax assets by estimating sources of future taxable income and the impact of tax planning strategies. Significant components of the Company's net deferred income taxes, which are included in other assets in the consolidated statements of financial condition, were as follows (dollars in millions):

|  | For the Years Ended November 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |  |
| Deferred tax assets: |  |  |  |  |
| Allowance for loan losses | \$ | 650 | \$ | 829 |
| Compensation and benefits. |  | 122 |  | 90 |
| Customer fees and rewards. |  | 372 |  | 324 |
| State income taxes.. |  | 70 |  | 62 |
| Other |  | 131 |  | 82 |
| Total deferred tax assets. |  | 1,345 |  | 1,387 |
| Deferred tax liabilities: |  |  |  |  |
| Depreciation and software amortization. |  | (63) |  | (61) |
| Unearned income. |  | (38) |  | (40) |
| Debt exchange premium. |  | (108) |  | - |
| Other |  | (71) |  | (68) |
| Total deferred tax liabilities. |  | (280) |  | (169) |
| Net deferred tax assets . | \$ | 1,065 | \$ | 1,218 |

A reconciliation of beginning and ending unrecognized tax benefits is as follows (dollars in millions):

|  | For the Years Ended November 30, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |  | 2010 |  |
| Balance at beginning of period | \$ | 507 | \$ | 373 | \$ | 306 |
| Additions: |  |  |  |  |  |  |
| Current year tax positions. |  | 74 |  | 74 |  | 10 |
| Prior year tax positions |  | 1 |  | 154 |  | 134 |
| Reductions: |  |  |  |  |  |  |
| Prior year tax positions |  | (5) |  | (83) |  | (69) |
| Settlements with taxing authorities. |  | (2) |  | (9) |  | (7) |
| Expired statute of limitations. |  | (2) |  | (2) |  | (1) |
| Balance at end of period (1). | \$ | 573 | \$ | 507 | \$ | 373 |

[^13]The Company recognizes accrued interest and penalties related to unrecognized tax benefits as a component of income tax expense, consistent with its policy prior to the adoption of FASB Interpretation No. 48, codified as ASC 740-$10-25$. Interest and penalties related to unrecognized tax benefits increased by $\$ 20$ million to $\$ 99$ million for the year ended November 30, 2012 and increased by $\$ 11$ million to $\$ 79$ million for the year ended November 30, 2011. The changes primarily relate to the revaluation of existing federal and state tax issues.

The Company is subject to examination by the IRS and the tax authorities in various states. The tax years under examination vary by jurisdiction. The Company is pursuing an administrative appeal of the IRS's proposed assessment for the years 1999 through 2005, when Discover was a subsidiary of Morgan Stanley. With respect to the issues still pending on appeal for the years 1999 through 2005, the ultimate outcome remains uncertain. It is reasonably possible
that a settlement related to these timing issues may be made within twelve months of the reporting date. At this time, the Company believes it is reasonably possible that a reduction in the amount of unrecognized tax benefits of $\$ 91$ million could be recognized as a result of such settlement.

The IRS is currently examining 2006 through June 20, 2007. This period is also part of a Morgan Stanley audit. A separate post-spin examination covers the years 2008 through 2010. The Company regularly assesses the likelihood of additional assessments or settlements in each of the taxing jurisdictions resulting from these and subsequent years' examinations. The Company believes that its reserves are sufficient to cover any tax, penalties and interest that could result from such examinations.

## 17. Earnings Per Share

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

|  | For the Years Ended November 30, |  |  |
| :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 |
| Numerator: |  |  |  |
| Net income. | \$2,345 | \$2,227 | \$ 765 |
| Preferred stock dividends. | (5) | - | (24) |
| Preferred stock discount accretion. | - | - | (66) |
| Net income available to common stockholders | 2,340 | 2,227 | 675 |
| Income allocated to participating securities. | (22) | (25) | (7) |
| Net income allocated to common stockholders. | \$2,318 | \$2,202 | \$ 668 |
| Denominator: |  |  |  |
| Weighted average shares of common stock outstanding . | 519 | 542 | 544 |
| Effect of dilutive common stock equivalents. | 1 | 1 | 5 |
| Weighted average shares of common stock outstanding and common stock equivalents | 520 | 543 | 549 |
| Basic earnings per share | \$ 4.47 | \$ 4.06 | \$1.23 |
| Diluted earnings per share.... | \$ 4.46 | \$ 4.06 | \$1.22 |

The following securities were considered anti-dilutive and therefore were excluded from the denominator in the computation of diluted EPS (shares in millions):


## 18. Capital Adequacy

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

Quantitative measures established by regulation to ensure capital adequacy require the Company and the Bank to maintain minimum amounts and ratios (as defined in the regulations) of total risk-based capital and Tier 1 capital to riskweighted assets, and of Tier 1 capital to average assets. As of November 30, 2012, the Company and the Bank met all capital adequacy requirements to which they were subject.

Under regulatory capital requirements, the Company and the Bank must maintain minimum levels of capital that are dependent upon the risk-weighted amount or average level of the financial institution's assets, specifically (a) $8 \%$ to $10 \%$ of total risk-based capital to risk-weighted assets ("total risk-based capital ratio"), (b) $4 \%$ to $6 \%$ of Tier 1 capital to riskweighted assets ("Tier 1 risk-based capital ratio") and (c) $4 \%$ to $5 \%$ of Tier 1 capital to average assets ("Tier 1 leverage ratio"). To be categorized as "well-capitalized," the Company and the Bank must maintain minimum total risk-based, Tier 1 risk-based, and Tier 1 leverage ratios as set forth in the table below. As of November 30, 2012, the Company and the Bank met the requirements for well-capitalized status and there have been no conditions or events that management believes have changed the Company's or the Bank's category.

The following table shows the actual capital amounts and ratios of the Company and the Bank as of November 30, 2012 and November 30, 2011 and comparisons of each to the regulatory minimum and "well-capitalized" requirements (dollars in millions):


The amount of dividends that a bank may pay in any year is subject to certain regulatory restrictions. Under the current banking regulations, a bank may not pay dividends if such a payment would leave the bank inadequately capitalized. In the years ended November 30, 2012, 2011 and 2010, Discover Bank paid dividends of $\$ 1.5$ billion, $\$ 1.4$ billion and $\$ 125$ million, respectively, to the Company.

## 19. Commitments, Contingencies and Guarantees

Lease commitments. The Company leases various office space and equipment under capital and non-cancelable operating leases which expire at various dates through 2022. At November 30, 2012, future minimum payments on leases with original terms in excess of one year consist of the following (dollars in millions):

|  | Capitalized Leases |  | Operating Leases |  |
| :---: | :---: | :---: | :---: | :---: |
| 2013 | \$ | 1 | \$ | 16 |
| 2014 |  | 1 |  | 14 |
| 2015 |  | - |  | 9 |
| 2016 |  | - |  | 9 |
| 2017 |  | - |  | 8 |
| Thereafter. |  | - |  | 11 |
| Total minimum lease payments. | \$ | 2 | \$ | 67 |
| Less: Amount representing interest... |  | - |  |  |
| Present value of net minimum lease payments | \$ | 2 |  |  |

Occupancy lease agreements, in addition to base rentals, generally provide for rent and operating expense escalations resulting from increased assessments for real estate taxes and other charges. Total rent expense under operating lease agreements, which considers contractual escalations, was $\$ 18$ million, $\$ 16$ million and $\$ 14$ million for the years ended November 30, 2012, 2011 and 2010, respectively.

Unused commitments to extend credit. At November 30, 2012, the Company had unused commitments to extend credit for loans of approximately $\$ 161.9$ billion. Such commitments arise primarily from agreements with customers for unused lines of credit on certain credit cards and certain other loan products, provided there is no violation of conditions in the related agreement. These commitments, substantially all of which the Company can terminate at any time and which do not necessarily represent future cash requirements, are periodically reviewed based on account usage, customer creditworthiness and loan qualification.

Commitments to purchase private student loans. On December 31, 2010, Discover Bank entered into an agreement with Citibank to purchase any private student loans originated subsequent to the contract date including a premium equal to $0.125 \%$. Discover Bank completed the first purchase of loan participations under this agreement on January 3, 2011. The agreement was extended to and expired on December 31, 2012, effective upon the closing of Discover Bank's purchase of private student loans from Citibank on September 30, 2011. Although the agreement does not set forth a minimum or maximum amount of loans to be purchased, Discover Bank must purchase all eligible loans originated by Citibank, which the Company estimates to be $\$ 134$ million to $\$ 200$ million over the remaining life of the agreement, as amended. As of November 30, 2012, Discover Bank had an outstanding commitment to purchase $\$ 134$ million of loans under this agreement. For the loans purchased under the agreement, the Company has limited involvement with respect to the underwriting and setting credit terms. The underwriting standards for these loans are based on Citibank's credit policy, and those standards are not substantially different than the Company's own underwriting criteria. Based on this and by virtue of the fact that the loans are newly originated at the time that the Company acquires them, the loans are not considered purchased credit-impaired.

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

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

Mortgage Loans Representations and Warranties. The Company sells loans it originates to investors on a servicing released basis and the risk of loss or default by the borrower and warranties is generally transferred to the investor. However, the Company is required by these investors to make certain representations relating to credit information, loan documentation and collateral. These representations and warranties may extend through the contractual life of the mortgage loan. Subsequent to the sale, if underwriting deficiencies, borrower fraud or documentation defects are discovered in individual mortgage loans, the Company may be obligated to repurchase the respective mortgage loan or indemnify the investors for any losses from borrower defaults if such deficiency or defect cannot be cured within the specified period following discovery. The Company has established a repurchase reserve based on expected losses. At November 30, 2012, this amount was not material and was included in other income on the consolidated statements of income and in accrued expenses and other liabilities on the consolidated statements of financial condition.

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

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

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

The maximum potential amount of future payments related to such contingent obligations is dependent upon the transaction volume processed between the time a counterparty defaults on its settlement and the time at which the Company disables the settlement of any further transactions for the defaulting party, which could be up to one month depending on the type of guarantee/counterparty. However, there is no limitation on the maximum amount the Company may be liable to pay. The actual amount of the potential exposure cannot be quantified as the Company cannot determine whether particular counterparties will fail to meet their settlement obligations. While the Company has some contractual remedies to offset these counterparty settlement exposures (such as letters of credit or pledged deposits), in the event that all licensees and/or issuers were to become unable to settle their transactions, the Company estimates its maximum potential counterparty exposures to these settlement guarantees, based on historical transaction volume of up to one month, would be as follows:

|  | November 30, 2012 |  |
| :---: | :---: | :---: |
| Diners Club: |  |  |
| Merchant guarantee (in millions) | \$ | 262 |
| PULSE: |  |  |
| ATM guarantee (in millions). | \$ | 1 |

With regard to the counterparty settlement guarantees discussed above, the Company believes that the estimated amounts of maximum potential future payments are not representative of the Company's actual potential loss exposure given Diners Club's and PULSE's insignificant historical losses from these counterparty exposures. As of November 30, 2012, the Company had not recorded any contingent liability in the consolidated financial statements for these counterparty exposures, and management believes that the probability of any payments under these arrangements is low.

The Company also retains counterparty exposure for the obligations of Diners Club licensees that participate in the Citishare network, an electronic funds processing network. Through the Citishare network, Diners Club customers are able to access certain ATMs directly connected to the Citishare network. The Company's maximum potential future payment under this counterparty exposure is limited to $\$ 15$ million, subject to annual adjustment based on actual transaction experience. However, as of November 30,2012, the Company had not recorded any contingent liability in the consolidated financial statements related to this counterparty exposure, and management believes that the probability of any payments under this arrangement is low.

Merchant Chargeback Guarantees. The Company issues and permits third parties to issue payment cards and owns and operates the Discover Network. 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.

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

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

|  | For the Years Ended November 30, |  |  |
| :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 |
| Losses related to merchant chargebacks | \$ - | 2 | \$ 2 |
| Aggregate sales transaction volume ${ }^{(1)}$ | \$114,847 | \$108,225 | \$99,838 |

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

The Company has not recorded any contingent liability in the consolidated financial statements for merchant chargeback guarantees on November 30, 2012 and November 30, 2011. The Company mitigates the risk of potential loss exposure by withholding settlement from merchants, obtaining third-party guarantees, or obtaining escrow deposits or letters of credit from certain merchant acquirers or merchants that are considered higher risk due to various factors such as time delays in the delivery of products or services. The table below provides information regarding settlement withholdings and escrow deposits, which are recorded in interest-bearing deposit accounts, and accrued expenses and other liabilities on the Company's consolidated statements of financial condition (dollars in millions):


## 20. 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 Company contests liability and/or the amount of damages as appropriate in each pending matter.

The Company has historically relied on the arbitration clause in its cardmember agreements, which has in some instances limited the costs of, and the Company's exposure to, litigation, but there can be no assurance that the Company will continue to be successful in enforcing its arbitration clause in the future. Legal challenges to the enforceability of these clauses have led most card issuers and may cause the Company to discontinue their use. In addition, bills are periodically introduced in Congress to directly or indirectly prohibit the use of pre-dispute arbitration clauses, and the 2010 DoddFrank Wall Street Reform and Consumer Protection Act authorized the Consumer Financial Protection Bureau (the "CFPB") to conduct a study on pre-dispute arbitration clauses and, based on the study, potentially limit or ban arbitration clauses. Further, the Company is involved in pending legal actions challenging its arbitration clause.

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, accounting, tax and operational matters, some of which may result in significant adverse judgments, settlements, fines, penalties, injunctions, decreases in regulatory ratings or other relief, which could materially impact the Company's financial statements, increase its cost of operations, or limit its ability to execute its business strategies and engage in certain business activities. Such matters related to the IRS are discussed in Note 16: Income Taxes.

In accordance with applicable accounting guidance, the Company establishes an accrued liability for legal and regulatory matters when those matters present loss contingencies which are both probable and estimable. Litigationrelated expense of $\$ 218$ million was recognized for the year ended November 30, 2012, compared to $\$ 22$ million for the same period in 2011.

There may be an exposure to loss in excess of any amounts accrued. The Company believes the estimate of the aggregate range of reasonably possible losses (meaning those losses the likelihood of which is more than remote but less than likely) in excess of the amounts that the Company has accrued for legal and regulatory proceedings is up to $\$ 100$ million. This estimated range of reasonably possible losses is based upon currently available information for those proceedings in which the Company is involved, takes into account the Company's best estimate of such losses for those matters for which an estimate can be made, and does not represent the Company's maximum potential loss exposure. Various aspects of the legal proceedings underlying the estimated range will change from time to time and actual results may vary significantly from the estimate.

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

On August 16, 2011, the Attorney General of West Virginia filed a lawsuit against the Company in the Circuit Court of Mason County, West Virginia (West Virginia v. Discover Financial Services, Inc., Discover Bank, DFS Services LLC et al.). The lawsuit asserts various claims related to the Company's marketing and administration of various protection products under West Virginia law. The relief sought in the lawsuit includes an injunction prohibiting the Company from engaging in the alleged violations, restitution and disgorgement of monies received from the complained of practices, civil penalties and costs. The Company will seek to vigorously defend all claims asserted against it in this matter.

On August 26, 2011, the Attorney General of Missouri issued a request for information to the Company in connection with an investigation to determine whether the Company has engaged in conduct that violates Missouri law in the marketing of its payment protection product to its credit card customers. The Company is cooperating with the Attorney General in the investigation.

On November 30, 2011, a class action lawsuit was filed against the Company by a cardmember in the U.S. District Court for the Northern District of California (Walter Bradley, et al. v. Discover Financial Services). The plaintiff alleges that the Company contacted him, and members of the class he seeks to represent, on their cellular telephones without their express consent in violation of the Telephone Consumer Protection Act ("TCPA"). Plaintiff seeks statutory damages for alleged negligent and willful violations of the TCPA, attorneys' fees, costs and injunctive relief. The TCPA provides for statutory damages of $\$ 500$ for each violation ( $\$ 1,500$ for willful violations).

On March 6, 2012, a class action lawsuit was filed against the Company by a cardmember in the U.S. District Court for the Northern District of California (Andrew Steinfeld, et al. v. Discover Financial Services, et al.). The plaintiff alleges that the Company contacted him, and members of the class he seeks to represent, on their cellular telephones without their express consent in violation of the TCPA. Plaintiff seeks statutory damages for alleged negligent and willful violations of the TCPA, attorneys' fees, costs and injunctive relief. The TCPA provides for statutory damages of $\$ 500$ for each violation ( $\$ 1,500$ for willful violations).

On April 12, 2012, the Attorney General of Hawaii filed a lawsuit against the Company in the Circuit Court of the First Circuit, Hawaii (Hawaii v. Discover Financial Services, Inc., Discover Bank, DFS Services LLC et al.). The lawsuit asserts various claims related to the Company's marketing and administration of various protection products under Hawaii law. The relief sought in the lawsuit includes an injunction prohibiting named parties from engaging in the alleged violations, restitution and disgorgement of monies received from the complained of practices, civil penalties and costs. The Company will seek to vigorously defend against all claims asserted against it.

On June 28, 2012, the Attorney General of Mississippi filed a lawsuit against the Company in the Chancery Court of the First Judicial District of Hinds County, Mississippi (Mississippi v. Discover Financial Services, Inc., Discover Bank, DFS Services LLC et al.). The lawsuit asserts various claims related to the Company's marketing and administration of various protection products under Mississippi law. The relief sought in the lawsuit includes an injunction prohibiting the Company from engaging in the alleged violations, restitution and disgorgement of monies received from the complained-of practices, civil penalties and costs. The Company will seek to vigorously defend all claims asserted against it.

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

On August 14, 2012, a purported shareholder, James Groen, filed a shareholder derivative action in the U.S. District Court for the Northern District of Illinois (Groen v. Nelms et al.) against the Company's board of directors, certain current and former officers and directors, and the Company as nominal defendant. On August 27, 2012, a second purported shareholder, the Charter Township of Clinton Police and Fire Retirement System, filed a substantially identical shareholder derivative action in the same court against the same parties (Charter Township of Clinton Police and Fire Retirement System v. Nelms et al.). On September 25, 2012, the actions were consolidated, and on November 8, 2012, the plaintiffs filed a consolidated complaint. The consolidated complaint asserts claims against the board of directors and certain current and former officers and directors for alleged breach of fiduciary duty, corporate waste, and unjust enrichment arising out of the Company's alleged violations of the law in connection with the marketing and sale of its protection products. The relief sought in the consolidated complaint includes changes to the Company's corporate governance procedures; unspecified damages, injunctive relief, restitution, and disgorgement from the individual defendants; and attorneys' fees. On December 21, 2012, the defendants filed a motion to dismiss the complaint.

On September 24, 2012, Discover Bank entered into a consent order with the FDIC and the CFPB for resolution of the agencies' joint investigation with respect to the marketing of Discover Bank's protection products. The order requires Discover Bank to provide refunds of approximately $\$ 200$ million to eligible customers who purchased certain protection products between December 1, 2007 and August 31, 2011. In addition, Discover Bank agreed to pay a $\$ 14$ million civil monetary penalty to the agencies. Adequate provision has been made to cover these costs in the financial statements as of August 31, 2012. Discover Bank also agreed to make further enhancements to its quality control and other processes related to the marketing, sale and administration of its protection products. Discover Bank agreed to enter into the consent order for the purpose of resolving this matter and, in doing so, did not admit or deny the findings of fact, conclusions of law, or any violations of law or regulation, set forth in the order.

## 21. Fair Value Disclosures

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

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

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

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

During the year ended November 30, 2012, there were no changes to the Company valuation techniques that had, or are expected to have, a material impact on its consolidated financial position or results of operations.

## Assets and Liabilities Measured at Fair Value on a Recurring Basis.

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

|  | Quoted Prices in <br> Active Markets for Identical <br> Assets (Level 1) |  | Significant Other Observable Inputs (Level 2) |  | Significant Unobservable Inputs (Level 3) |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at November 30, 2012 |  |  |  |  |  |  |  |  |
| Assets |  |  |  |  |  |  |  |  |
| U.S Treasury securities | \$ | 2,462 | \$ | - | \$ | - | \$ | 2,462 |
| U.S government agency securities |  | 2,237 |  | - |  | - |  | 2,237 |
| Credit card asset-backed securities of other issuers |  | - |  | 159 |  | - |  | 159 |
| Corporate debt securities |  | - |  | 75 |  | - |  | 75 |
| Residential mortgage-backed securities - Agency |  | - |  | 1,200 |  | - |  | 1,200 |
| Available-for-sale investment securities | \$ | 4,699 |  | 1,434 | \$ | - | \$ | 6,133 |
| Mortgage loans held for sale. | \$ | - | \$ | 322 | \$ | - | \$ | 322 |
| Interest rate lock commitments | \$ | - | \$ | - | \$ | 15 | \$ | 15 |
| Forward delivery contracts. |  | - |  | 1 |  | - |  | 1 |
| Other derivative financial instruments |  | - |  | 116 |  | - |  | 116 |
| Derivative financial instruments | \$ | - | \$ | 117 | \$ | 15 | \$ | 132 |
| Liabilities |  |  |  |  |  |  |  |  |
| Forward delivery contracts. | \$ | - | \$ | 4 | \$ | - | \$ | 4 |
| Other derivative financial instruments |  | - |  | 1 |  | - |  | 1 |
| Derivative financial instruments | \$ | - | \$ | 5 | \$ | - | \$ | 5 |
| Balance at November 30, 2011 |  |  |  |  |  |  |  |  |
| Assets |  |  |  |  |  |  |  |  |
| U.S Treasury securities | \$ | 2,563 | \$ | - | \$ | - | \$ | 2,563 |
| U.S government agency securities |  | 2,795 |  | - |  | - |  | 2,795 |
| Credit card asset-backed securities of other issuers |  | - |  | 300 |  | - |  | 300 |
| Corporate debt securities ....................................................................... |  | - |  | 450 |  | - |  | 450 |
| Available-for-sale investment securities | \$ | 5,358 | \$ | 750 | \$ | - | \$ | 6,108 |
| Derivative financial instruments........................................................... | \$ | - | \$ | 63 | \$ | - | \$ | 63 |

There were no transfers between Levels 1 and 2 within the fair value hierarchy for the years ended November 30, 2012 and November 30, 2011.

Available-for-sale investment securities. Investment securities classified as available-for-sale consist of U.S. Treasury and government agency securities, residential mortgage-backed securities, corporate debt and credit card asset-back securities issued by other financial institutions. The fair value estimates of investment securities classified as Level 1 , consisting of U.S. Treasury and government agency securities, are determined based on quoted market prices for the same or similar securities. The Company classifies all other available-for-sale investment securities as Level 2 , the fair value estimates of which are primarily obtained from pricing services, where fair values are estimated using pricing models based on observable market inputs or recent trades of similar securities. The fair value estimates of mortgagebacked and credit card asset-backed securities are based on the best information available. This data may consist of observed market prices, broker quotes or discounted cash flow models that incorporate assumptions such as benchmark yields, issuer spreads, prepayment speeds, credit ratings and losses, the priority of which may vary based on availability
of information. The fair value estimates for corporate debt obligations issued under the Temporary Liquidity Guarantee Program ("TLGP") are derived utilizing a spread relative to an underlying benchmark curve which reflects the terms and conditions of specific instruments being valued.

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

At November 30, 2012, amounts reported in credit card asset-backed securities issued by other institutions reflected senior-rated Class $A$ securities having a par value of $\$ 139$ million and more junior-rated Class $B$ and Class $C$ securities with par values of $\$ 17$ million and $\$ 4$ million, respectively. The Class $A$ securities had a weighted-average coupon of $0.42 \%$ and a weighted-average remaining maturity of 5 months; the Class B, $0.42 \%$ and 7 months, respectively; and the Class $\mathrm{C}, 0.61 \%$ and 4 months, respectively. The assets underlying these securities are predominantly prime generalpurpose credit card loan receivables. Amounts reported in corporate debt securities reflect government-rated corporate debt obligations issued under TLGP that are guaranteed by the FDIC with a par value of $\$ 75$ million, a weighted-average coupon of $2.22 \%$ and a weighted-average remaining maturity of 1 month. Amounts reported in residential mortgagebacked securities reflect government-rated obligations issued by the Federal National Mortgage Association with a par value of $\$ 1.1$ billion, a weighted-average coupon of $2.84 \%$ and a weighted-average remaining maturity of 3 years, 5 months.

Mortgage loans held for sale and related derivative instruments. The Company enters into commitments with consumers to originate mortgage loans at a specified interest rate, known as interest rate lock commitments ("IRLCs"). The Company reports IRLCs as derivative instruments at fair value with changes in fair value being recorded in other income. IRLCs and mortgage loans held for sale under certain loan programs are hedged in aggregate using "to be announced mortgagebacked securities" ("TBA MBS"). IRLCs and mortgage loans held for sale under loan programs that generally have lower volume are hedged on an individual loan level using best-efforts forward delivery contracts.

Fair values for each of these instruments are determined using quantitative risk models. The Company has various monitoring processes in place to validate these valuations, including valuations of Level 3 assets. Valuation results are reviewed in comparison to expected results, recent activity, and historical trends. Any significant or unusual fluctuations in value are analyzed.

- Mortgage loans held for sale. Valuations of mortgage loans held for sale are based on the loan amount, note rate, loan program, expected sale date of the loan and, most significantly, investor pricing tables stratified by product, note rate and term, adjusted for current market conditions. Mortgage loans held for sale are classified as Level 2 as the investor pricing tables used to value them are an observable input. The Company recognizes interest income separately from changes in fair value.
- Interest rate lock commitments. IRLCs for loans to be sold to investors using a mandatory or assignment of trade method derive their base value from an underlying loan type with similar characteristics using the TBA MBS market, which is actively quoted and easily validated through external sources. The data inputs used in this valuation include, but are not limited to, loan type, underlying loan amount, note rate, loan program, and expected sale date of the loan. IRLCs for loans to be sold to investors on a best-efforts basis derive their base value from the value of the underlying loans using investor pricing tables stratified by product, note rate and term, adjusted for current market conditions. These valuations are adjusted at the loan level to consider the servicing release premium and loan pricing adjustments specific to each loan. For all IRLCs, this base value is then adjusted for the anticipated loan funding probability, or pull through rate. The anticipated loan funding probability is an unobservable input based on historical experience, which results in classification of IRLCs as Level 3.
- Forward delivery contracts. Under the Company's risk management policy, the Company economically hedges the changes in fair value of IRLCs and mortgage loans held for sale caused by changes in interest rates by using TBA MBS and entering into best-efforts forward delivery contracts. These hedging instruments are recorded at fair value
with changes in fair value recorded in other income. TBA MBS used to hedge both IRLCs and loans held for sale are valued based primarily on observable inputs related to characteristics of the underlying MBS stratified by product, coupon and settlement date. Therefore, these derivatives are classified as Level 2. Best-efforts forward delivery contracts are valued based on investor pricing tables, which are observable inputs, stratified by product, note rate, and term, adjusted for current market conditions. An anticipated loan funding probability is applied to value bestefforts contracts hedging IRLCs, which results in the classification of these contracts as Level 3. The current base loan price and, for best-efforts contracts hedging IRLCs, the anticipated loan funding probability, are the most significant assumptions affecting the value of the best-efforts contracts. The best-efforts forward delivery contracts hedging loans held for sale are classified as Level 2 , so such contracts are transferred from Level 3 to Level 2 at the time the underlying loan is originated. For the purposes of the tables below, we refer to TBA MBS and best-efforts forward delivery contracts as "Forward delivery contracts".

Other derivative financial instruments. The Company's other derivative financial instruments consist of interest rate swaps and foreign currency forward contracts. The fair value of these instruments is estimated by a third-party valuation service that uses proprietary pricing models, where certain inputs to those models are readily observable market-based inputs, including interest rate curves and option volatility. 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 uses observable marketbased 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 observable market interest rate curves. The Company considers collateral and legally enforceable master netting agreements that mitigate credit exposure to counterparties in determining the counterparty credit risk valuation adjustment.

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

Assets and liabilities under the fair value option. Beginning in June 2012, the Company elected to account for mortgage loans held for sale at fair value. Electing the fair value option allows a better offset of the changes in fair values of the loans and the forward delivery contracts used to economically hedge them without the burden of complying with the requirements for hedge accounting. At November 30, 2012, the aggregate unpaid principal balance of loans held for sale for which the fair value option had been elected was $\$ 305$ million. The same loans had a fair value of $\$ 322$ million at November 30, 2012.

## Level 3 Financial Instruments Only

The following tables provide changes in the Company's Level 3 assets and liabilities measured at fair value on a recurring basis. There were no Level 3 assets or liabilities measured at fair value on a recurring basis at any point during the year ended November 30, 2011.

## Changes in Level 3 Assets and Liabilities Measured at Fair Value on a Recurring Basis <br> (dollars in millions)

| For the Year Ended November 30, 2012 | Balance at November 30, 2011 | Transfers into Level 3 | Transfers out of Level 3 | Total net gains (losses) included in earnings | Purchases | Sales | Settlements | Transfers of IRLCs to closed loans | Balance at November 30, 2012 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interest rate lock commitments. | \$ - | \$ - | \$ - | \$ 110 | \$ 5 | \$ - | \$ 2 | \$ (102) | \$ 15 |
| Forward delivery contracts.... | \$ - | \$ - | \$ (1) | \$ 1 | \$ - | \$ - | \$ - | \$ - | \$ - |

Unobservable inputs and sensitivities
The following table presents information about significant unobservable inputs related to the Company's Level 3 financial assets and liabilities measured at fair value on a recurring and non-recurring basis as of November 30, 2012 (dollars in millions):

|  |  |  |  |  | Ranges | Inputs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Value | Valuation <br> Technique | Significant Unobservable Input | Low | High |
| Interest rate lock commitments . | \$ | 15 | Quantitative risk models | Loan funding probability | 20\% | 95\% |
| Forward delivery contracts . | \$ | - | Quantitative risk models | Loan funding probability | 20\% | 95\% |

The anticipated loan funding probability represents the Company's expectation regarding the percentage of IRLCs that will ultimately be funded. Generally, an increase in the anticipated loan funding probability would result in an increase in the magnitude of fair value measurements.

Assets and Liabilities Measured at Fair Value on a Non-Recurring Basis. The Company also has assets that under certain conditions are subject to measurement at fair value on a non-recurring basis. These assets include those associated with acquired businesses, including goodwill and other intangible assets. For these assets, measurement at fair value in periods subsequent to their initial recognition is applicable if one or more is determined to be impaired. During the years ended November 30, 2012 and November 30, 2011, the Company had no impairments related to these assets. Fair value adjustments for student loans held for sale were periodically recorded in other income in the consolidated statements of income. During the year ended November 30, 2012, the Company recorded a loss of $\$ 1$ million related to the sale of student loans held for sale. During the year ended November 30, 2011, the Company recorded gains of $\$ 5$ million related to student loans held for sale.

## 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, as of November 30, 2012 and 2011 (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 November 30, 2012 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Assets |  |  |  |  |  |  |  |  |  |  |  |  |  |
| U.S Treasury securities |  | \$ | 1 | \$ |  | - | \$ | \$ | - | \$ | 1 | \$ |  |
| States and political subdivisions of states... |  |  | - |  |  | 34 |  |  | - |  | 34 |  | 34 |
| Residential mortgage-backed securities - Agency |  |  | - |  |  | 55 |  |  | - |  | 55 |  | 53 |
| Held-to-maturity investment securities |  | \$ | 1 | \$ |  | 89 | \$ | \$ | - | \$ | 90 | \$ | 88 |
| Cash and cash equivalents.. |  | \$ | 3,926 | \$ |  | - | \$ | \$ | - | \$ | 3,926 | \$ | 3,926 |
| Restricted cash. |  | \$ | 2,344 | \$ |  | - | \$ | \$ | - | \$ | 2,344 | \$ | 2,344 |
| Net loan receivables ${ }^{11}$. |  | \$ | - | \$ |  | - | \$ | \$ | 61,378 | \$ | 61,378 | \$ | 58,970 |
| Accrued interest receivables.. |  | \$ | - | \$ |  | 466 | \$ | \$ | - | \$ | 466 | \$ | 466 |
| Liabilities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Deposits. |  | \$ | - | \$ |  | 42,630 | \$ | \$ | - | \$ | 42,630 | \$ | 42,155 |
| Short-term borrowings |  | \$ | - | \$ |  | 284 | \$ | \$ | - | \$ | 284 | \$ | 284 |
| Long-term borrowings - owed to securitization investors. |  | \$ | - | \$ |  | 16,108 | \$ | \$ | 2,353 | \$ | 18,461 | \$ | 17,995 |
| Other long-term borrowings.. |  | \$ | - | \$ |  | 2,337 | \$ | \$ | 2 | \$ | 2,339 | \$ | 1,734 |
| Accrued interest payables..................................... |  | \$ | - | \$ |  | 128 |  | \$ | - | \$ | 128 | \$ | 128 |

(1) Net loan receivables at November 30, 2012 excludes mortgage loans held for sale that are measured at fair value on a recurring basis.

|  | 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 November 30, 2011 |  |  |  |  |  |  |  |  |  |  |
| Assets |  |  |  |  |  |  |  |  |  |  |
| U.S Treasury securities ................................................. | \$ | 1 | \$ | - | \$ | - | \$ | 1 | \$ | 1 |
| States and political subdivisions of states ............................ |  | - |  | 38 |  | - |  | 38 |  | 41 |
| Residential mortgage-backed securities - Agency ................ |  | - |  | 7 |  | - |  | 7 |  | 6 |
| To-be-announced investment securities.. |  | - |  | 50 |  | - |  | 50 |  | 50 |
| Held-to-maturity investment securities | \$ | 1 | \$ | 95 | \$ | - | \$ | 96 | \$ | 98 |
| Cash and cash equivalents. | \$ | 2,850 | \$ | - | \$ | - | \$ | 2,850 | \$ | 2,850 |
| Restricted cash. | \$ | 1,286 | \$ | - | \$ | - | \$ | 1,286 | \$ | 1,286 |
| Net loan receivables ${ }^{(1)}$. | \$ | - | \$ | - | \$ | 54,752 | \$ | 54,752 | \$ | 54,751 |
| Accrued interest receivables | \$ | - | \$ | 409 | \$ | - | \$ | 409 | \$ | 409 |
| Liabilities |  |  |  |  |  |  |  |  |  |  |
| Deposits................................................................... | \$ | - | \$ | 40,329 | \$ | - | \$ | 40,329 | \$ | 39,578 |
| Short-term borrowings | \$ | - | \$ | 50 | \$ | - | \$ | 50 | \$ | 50 |
| Long-term borrowings - owed to securitization investors.......... | \$ | - | \$ | 13,620 | \$ | 2,609 | \$ | 16,229 | \$ | 15,843 |
| Other long-term borrowings............................................ | \$ | - | \$ | 2,641 | \$ | 2 | \$ | 2,643 | \$ | 2,444 |
| Accrued interest payables............................................ | \$ | - | \$ | 170 | \$ | - | \$ | 170 | \$ | 170 |

[^14]The fair values of these financial assets and liabilities, which are not carried at fair value on the consolidated statements of financial condition, were determined by applying the fair value provisions discussed herein. The use of different assumptions or estimation techniques may have a material effect on these estimated fair value amounts. The following describes the valuation techniques of these financial instruments measured at other than fair value.

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

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

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

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

Accrued interest receivable. For the Company's accrued interest receivable, which is included in other assets on the statement of financial condition, the carrying value approximates fair value as it is short-term in nature and is due in less than one year.

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

Short-term borrowings. The carrying values of short-term borrowings approximate fair value as they are short term in nature and have maturities of less than one year.

Long-term borrowings-owed to securitization investors. Fair values of long-term borrowings owed to credit card securitization investors are determined utilizing quoted market prices of the same transactions, and as such are classified as Level 2. Fair values of long-term borrowings owed to student loan securitization investors are calculated by discounting cash flows using estimated assumptions including, among other things, maturity and market discount rates. Significant inputs to these fair value measurements are unobservable, and as such, are classified as Level 3.

Other long-term borrowings. Fair values of other long-term borrowings, consisting of subordinated debt and unsecured debt, are determined utilizing current observable market prices for those transactions, and as such are classified as Level 2. A portion of the difference between the carrying value and the fair value of the subordinated debt relates to the cash premiums paid in connection with the second and fourth quarter debt exchanges as discussed in further detail in Note 10: Borrowings. Fair values of other long-term borrowing for which there are no observable market transactions, namely capitalized leases, are determined by discounting cash flows of future interest accruals at market rates currently offered for borrowings with similar credit risks, remaining maturities and repricing terms. As the significant inputs to these fair value measurements are unobservable, they are classified as Level 3.

Accrued interest payable. The Company's accrued interest payable, which is included in other liabilities on the statement of financial condition, carrying value approximates fair value as it is short term in nature and is payable in less than one year.

## 22. Derivatives and Hedging Activities

The Company uses derivatives to manage its exposure to various financial risks. The Company does not enter into derivatives for trading or speculative purposes. Certain derivatives used to manage the Company's exposure to interest rate movements and other identified risks are not designated as hedges and do not qualify for hedge accounting. 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.

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

## Derivatives Designated as Hedges

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

Cash Flow Hedges. The Company uses interest rate swaps to manage its exposure to changes in interest rates related to future cash flows resulting from credit card loan receivables. The Company's current cash flow hedges are for a maximum period of three years. The derivatives are designated as a hedge of the risk of overall changes in cash flows on the Company's porffolios of prime-based interest receipts and qualify for hedge accounting in accordance with ASC Topic 815, Derivatives and Hedging ("ASC 815").

The effective portion of the change in the fair value of derivatives designated as cash flow hedges is recorded in other comprehensive income and is subsequently reclassified into earnings in the period that the hedged forecasted cash flows affect earnings. The ineffective portion of the change in fair value of the derivative, if any, is recognized directly in earnings. Amounts reported in accumulated other comprehensive income related to derivatives at November 30, 2012 will be reclassified to interest income as interest payments are received on certain of the Company's floating rate credit card loan receivables. During the next 12 months, the Company estimates it will reclassify to earnings $\$ 5$ million of pretax gains related to its derivatives designated as cash flow hedges.

Fair Value Hedges. The Company is exposed to changes in fair value of certain of its fixed rate debt obligations due to changes in interest rates. During the year ended November 30, 2012, the Company used interest rate swaps to manage its exposure to changes in fair value of certain fixed rate senior notes, securitized debt and interest-bearing brokered deposits attributable to changes in LIBOR, a benchmark interest rate as defined by ASC 815. The interest rate swaps involve the receipt of fixed rate amounts from the respective counterparties in exchange for the Company making payments of variable rate amounts over the life of the agreements without exchange of the underlying notional amounts. These interest rate swaps qualify as fair value hedges in accordance with ASC 815. Changes in both (i) the fair values of the derivatives and (ii) the hedged fixed rate senior notes, securitized debt and interest-bearing brokered deposits relating to the risk being hedged were recorded in interest expense. The changes provided substantial offset to one another. Ineffectiveness related to these fair value hedges was recorded in interest expense. Any basis differences between the fair value and the carrying amount of the hedged fixed rate senior notes, securitized debt and interest-bearing brokered deposits at the inception of the hedging relationship is amortized and recorded in interest expense.

## Derivatives Not Designated as Hedges

Interest rate lock commitments. The Company enters into commitments with consumers to originate loans at a specified interest rate. The Company reports IRLCs as derivative instruments at fair value with changes in fair value recorded in other income.

Forward delivery contracts. The Company economically hedges the changes in fair value of IRLCs and mortgage loans held for sale caused by changes in interest rates by using TBA MBS and entering into best efforts forward delivery commitments. These hedging instruments are recorded at fair value with changes in fair value recorded in other income.

Interest rate swaps. The Company also may have from time to time interest rate swap agreements that are not designated as hedges. As part of its acquisition of SLC, the Company also acquired an interest rate swap related to the securitized debt assumed in the SLC transaction. Such agreements are not speculative and are also used to manage interest rate risk but are not designated for hedge accounting. Changes in the fair value of these contracts are recorded in other income.

Foreign exchange forward contracts. The Company has foreign exchange forward contracts that are economic hedges and are not designated as hedges for accounting purposes. The Company enters into foreign exchange forward contracts to manage foreign currency risk. Foreign exchange forward contracts involve the purchase or sale of a designated currency at an agreed upon rate for settlement on a specified date. Changes in the fair value of these contracts are recorded in other income.

The following table summarizes the fair value (including accrued interest) and related outstanding notional amounts of derivative instruments and indicates where within the statement of financial condition each is reported as of November 30, 2012 and November 30, 2011. See Note 21: Fair Value Disclosures for a description of the valuation methodologies of derivatives (dollars in millions):

|  | November 30, 2012 |  |  |  | November 30, 2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Balance Sheet Location |  |  | Balance Sheet Location |  |  |
|  | Notional Amount | Number of Transactions | Other <br> Assets <br> (At Fair <br> Value) | Accrued Expenses and Other Liabilities (At Fair Value) | Notional Amount | Other <br> Assets <br> (At Fair <br> Value) |  | Accrued Expenses and Other iabilities (At Fair Value) |
| Derivatives designated as hedges: |  |  |  |  |  |  |  |  |
| Interest rate swaps - cash flow hedge | \$ 1,750 | 7 | \$ 6 | \$ | \$ 2,000 | \$ 12 | \$ | - |
| Interest rate swaps - fair value hedge | \$ 7,859 | 283 | \$ 110 | \$ | \$ 2,338 | \$ 44 | \$ | - |
| Derivatives not designated as hedges: |  |  |  |  |  |  |  |  |
| Foreign exchange forward contracts ${ }^{(1)}$. | \$ 37 | 7 | \$ - | \$ - | \$ 21 | \$ - | \$ | - |
| Interest rate swap | \$ 1,027 | 1 | \$ | \$ 1 | \$ 1,295 | \$ 7 | \$ | - |
| Forward delivery contracts ............. | \$ 557 | 722 | \$ 1 | \$ 4 | \$ - | \$ - |  | - |
| Interest rate lock commitments.. | \$ 483 | 2,303 | \$ 15 | \$ - | \$ - | \$ - | \$ | - |

[^15]The following table summarizes the impact of the derivative instruments on income, and indicates where within the consolidated statements of income such impact is reported for the years ended November 30, 2012, 2011, and 2010 (dollars in millions):

|  | Location | For the Years Ended November 30, |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 2012 | 2011 | 2010 |
| Derivatives designated as hedges: <br> Interest rate swaps - cash flow hedges: |  |  |  |  |
|  |  |  |  |  |  |
| Total (losses) gains recognized in other comprehensive income after amounts reclassified into earnings, pre-tax | Other Comprehensive Income | \$ (6) | \$ 7 | \$ 4 |
| Total (losses) gains recognized in other comprehensive income ....................................... |  | \$ (6) | \$ 7 | \$ 4 |
| Amount reclassified from other comprehensive income into income. | Interest Income | \$ 7 | \$ 8 | \$ 2 |
| Interest rate swaps - fair value hedges: |  |  |  |  |
| Interest expense - ineffectiveness.. |  | 58 | 37 | (9) |
| Interest expense - other ........................................................................................... |  | 30 | 13 | 1 |
| Gain on interest rate swaps | Interest Expense | 88 | 50 | (8) |
| Interest expense - ineffectiveness |  | (52) | (30) | 9 |
| Interest expense - other |  | (6) | (7) | (1) |
| Loss on hedged item | Interest Expense | (58) | (37) | 8 |
| Total gains recognized in income ......................................................................... |  | \$ 37 | \$ 21 | \$ 2 |
| Derivatives not designated as hedges: |  |  |  |  |
| Gain (loss) on forward contracts | Other Income | \$ 1 | \$- | \$- |
| Gain (loss) on interest rate swaps | Other Income | (7) | (5) | - |
| Loss on forward delivery contracts.. | Other Income | (1) | - | - |
| Gain on interest rate lock commitments | Other Income | 110 | - | - |
| Total gains (losses) on derivatives not designated as hedges recognized in income................. |  | \$103 | \$ (5) | \$- |

Collateral Requirements and Credit-Risk Related Contingency Features. For its interest rate swaps, the Company has master netting arrangements and minimum collateral posting thresholds with its counterparties. Collateral is required by either the Company or the counterparty depending on the net fair value position of all interest rate swaps held with that counterparty. The Company may also be required to post collateral with a counterparty depending on the credit rating it or Discover Bank receives from specified major credit rating agencies. Collateral amounts recorded in the consolidated statement of financial condition are based on the net collateral receivable or payable position for each counterparty. Collateral receivable or payable amounts are not offset against the fair value of the interest rate swap, but are recorded separately in other assets or deposits.

As of November 30, 2012, DFS had a right to reclaim $\$ 4$ million of cash collateral that had been posted (net of amounts required to be posted by the counterparty) because the credit rating of DFS did not meet specified thresholds. At November 30, 2012, Discover Bank's credit rating met specified thresholds set by its counterparties. However, if Discover Bank's credit rating is reduced by one ratings notch, Discover Bank would be required to post additional collateral, which would have been $\$ 110$ million as of November 30, 2012. The Company had an obligation to return $\$ 111$ million cash collateral deposited with the Company (net of $\$ 4$ million referenced above) as of November 30, 2012.

As of November 30, 2012, the Company had interest rate swaps in a net asset position with all of its counterparties, inclusive of accrued interest. If the Company had breached any provisions of the derivative agreements, there would have been no obligation to settle termination values since none of the derivative agreements were in net liability positions as of November 30, 2012.

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

## 23. Segment Disclosures

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

- Direct Banking. The Direct Banking segment includes Discover card-branded credit cards issued to individuals and small businesses and other consumer products and services, including home loans, personal loans, student loans, prepaid cards and other consumer lending and deposit products. The majority of the Direct Banking revenues relate to interest income earned on each of its loan products. Additionally, the Company's credit card products generate substantially all of the Company's revenues related to discount and interchange, protection products (previously referred to as "fee 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 includes credit, debit and prepaid cards issued on the Discover Network by third parties. The majority of the Payment Services revenues relate to transaction processing revenue from PULSE and royalty and licensee revenue (included in other income) 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:

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

The following table presents segment data for the years ended November 30, 2012, 2011 and 2010 (dollars in millions):

| For the Year Ended | Direct Banking | Payment Services | Total |
| :---: | :---: | :---: | :---: |
| November 30, 2012 |  |  |  |
| Interest income |  |  |  |
| Credit card. | \$5,751 | \$- | \$5,751 |
| Private student loans | 184 | - | 184 |
| PCI student loans. | 303 | - | 303 |
| Personal loans | 363 | - | 363 |
| Other | 102 | - | 102 |
| Total interest income | 6,703 | - | 6,703 |
| Interest expense. | 1,331 | - | 1,331 |
| Net interest income.. | 5,372 | - | 5,372 |
| Provision for loan losses.. | 848 | - | 848 |
| Other income.. | 1,939 | 342 | 2,281 |
| Other expense. | 2,891 | 161 | 3,052 |
| Income before income tax expense.. | \$3,572 | \$181 | \$3,753 |
| November 30, 2011 |  |  |  |
| Interest income ... |  |  |  |
| Credit card. | \$5,654 | \$- | \$5,654 |
| Private student loans | 115 | - | 115 |
| PCI student loans. | 225 | - | 225 |
| Personal loans | 266 | - | 266 |
| Other . | 85 | - | 85 |
| Total interest income. | 6,345 | - | 6,345 |
| Interest expense. | 1,485 | - | 1,485 |
| Net interest income. | 4,860 | - | 4,860 |
| Provision for loan losses.. | 1,013 | - | 1,013 |
| Other income.. | 1,907 | 298 | 2,205 |
| Other expense. | 2,409 | 132 | 2,541 |
| Income before income tax expense.. | \$3,345 | \$166 | \$3,511 |
| November 30, 2010 |  |  |  |
| Interest income. |  |  |  |
| Credit card. | \$5,836 | \$- | \$5,836 |
| Private student loans. | 48 | - | 48 |
| PCI student loans. | - | - | - |
| Personal loans | 182 | - | 182 |
| Other. | 80 | - | 80 |
| Total interest income. | 6,146 | - | 6,146 |
| Interest expense. | 1,583 | - | 1,583 |
| Net interest income. | 4,563 | - | 4,563 |
| Provision for loan losses. | 3,207 | - | 3,207 |
| Other income.. | 1,828 | 267 | 2,095 |
| Other expense. | 2,056 | 126 | 2,182 |
| Income before income tax expense.. | \$1,128 | \$141 | \$1,269 |

## 24. Related Party Transactions

In the ordinary course of business, the Company offers consumer loan products to its directors, executive officers and certain members of their families. These products are offered on substantially the same terms as those prevailing at the time for comparable transactions with unrelated parties, and these receivables are included in the loan receivables in the Company's consolidated statements of financial condition. They were not material to the Company's financial position or results of operations.

## 25. Parent Company Condensed Financial Information

The following Parent Company financial statements are provided in accordance with SEC rules, which require such disclosure when the restricted net assets of consolidated subsidiaries exceed 25 percent of consolidated net assets.

## Discover Financial Services (Parent Company Only)

## Condensed Statements of Financial Condition

|  | November 30, |  |  |
| :---: | :---: | :---: | :---: |
|  | 2012 |  | 2011 |
|  | (dollars in millions) |  |  |
| Assets: |  |  |  |
| Cash and cash equivalents. | \$ 1 |  | \$ 1 |
| Notes receivable from subsidiaries ${ }^{(1)}$. | 2,282 |  | 1,765 |
| Investments in subsidiaries.. | 8,776 |  | 7,307 |
| Other assets. | 161 |  | 226 |
| Total assets. | \$ 11,220 |  | \$ 9,299 |
| Liabilities and Stockholders' Equity: |  |  |  |
| Non-interest bearing deposit accounts. | 3 |  | 3 |
| Interest bearing deposit accounts. | 29 |  | 17 |
| Total deposits.. | 32 |  | 20 |
| Short-term borrowings from subsidiaries. | 1 |  | - |
| Notes payable to subsidiaries | 93 |  | - |
| Other long-term borrowings ${ }^{(2)}$. | 1,035 |  | 809 |
| Accrued expenses and other liabilities. | 281 |  | 228 |
| Total liabilities. | 1,442 |  | 1,057 |
| Stockholders' equity .. | 9,778 |  | 8,242 |
| Total liabilities and stockholders' equity | \$ 11,220 |  | \$ 9,299 |

(1) The Parent Company advanced $\$ 1.9$ billion to Discover Bank as of November 30, 2012, which is included in notes receivables from subsidiaries. The $\$ 1.9$ billion is available to the parent for liquidity purposes.
(2) During 2012, the Company completed a private exchange offer, resulting in the exchange of $\$ 500$ million outstanding aggregate principal amount of subordinated debt issued by a subsidiary for the same aggregate principal amount of new senior notes issued by the Parent. A cash premium of $\$ 176$ million which was paid by the subsidiary but is associated with the borrowings on the Parent financial statements.

## Discover Financial Services <br> (Parent Company Only) <br> Condensed Statements of Income

|  | For the Years Ended November 30, |  |  |
| :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 |
|  | (dollars in millions) |  |  |
| Interest income. | \$ 22 | \$ 23 | \$ 29 |
| Interest expense. | 52 | 61 | 70 |
| Net interest income. | (30) | (38) | (41) |
| Dividends from subsidiaries. | 1,500 | 1,375 | 133 |
| Other income.. | - | 3 | 28 |
| Total income.. | 1,470 | 1,340 | 120 |
| Other expense |  |  |  |
| Employee compensation and benefits.. | - | 2 | 24 |
| Information processing and communications. | - | - | 1 |
| Professional fees. | 1 | - | 9 |
| Premises and equipment.. | - | - | 3 |
| Other ${ }^{(1)}$. | (171) | 2 | (37) |
| Total other (benefit) expense | (170) | 4 | - |
| Income before income tax (expense) benefit and equity in undistributed net income of subsidiaries. | 1,640 | 1,336 | 120 |
| Income tax (expense) benefit . | (54) | 16 | 9 |
| Equity in undistributed net income of subsidiaries | 759 | 875 | 636 |
| Net income | \$2,345 | \$2,227 | \$765 |

(1) During 2012, the Company completed a private exchange offer, resulting in the exchange of $\$ 500$ million outstanding aggregate principal amount of subordinated debt issued by a subsidiary for the same aggregate principal amount of new senior notes issued by the Parent. A cash premium of $\$ 176$ million which was paid by the subsidiary but is associated with the borrowings on the Parent financial statements.

## Discover Financial Services (Parent Company Only) Condensed Statements of Cash Flows

|  | For the Years Ended November 30, |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2011 |  | 2010 |  |
|  | (dollars in million) |  |  |  |  |
| Cash flows from operating activities |  |  |  |  |  |
| Net income. | \$ 2,345 | \$ | 2,227 | \$ | 765 |
| Adjustments to reconcile net income to net cash provided by operating activities: |  |  |  |  |  |
| Non-cash charges included in net income: |  |  |  |  |  |
| Equity in undistributed net income of subsidiaries. | (759) |  | (875) |  | (636) |
| Stock-based compensation expense | 47 |  | 44 |  | 37 |
| Deferred income taxes. | 109 |  | 18 |  | 12 |
| Premium on debt issuance ${ }^{(1)}$.. | (176) |  | - |  | - |
| Depreciation and amortization | 4 |  | - |  | - |
| Changes in assets and liabilities: |  |  |  |  |  |
| Increase in other assets. | (16) |  | (8) |  | (7) |
| Increase (decrease) in other liabilities and accrued expenses. | 10 |  | (16) |  | (7) |
| Net cash provided by operating activities | 1,564 |  | 1,390 |  | 164 |
| Cash flows from investing activities |  |  |  |  |  |
| Increase in investment in subsidiaries. | (196) |  | (8) |  | (275) |
| (Increase) decrease in loans to subsidiaries. | (520) |  | (877) |  | 1,081 |
| Decrease in restricted cash - special dividend escrow | - |  | - |  | 643 |
| Net cash (used for) provided by investing activities. | (716) |  | (885) |  | 1,449 |
| Cash flows from financing activities |  |  |  |  |  |
| Net increase in short-term borrowings from subsidiaries. | 1 |  | - |  | - |
| Maturity of long-term borrowings.. | - |  | - |  | (400) |
| Redemption of preferred stock. | - |  | - |  | $(1,225)$ |
| Repurchase of stock warrant. | - |  | - |  | (172) |
| Proceeds from issuance of common stock | 26 |  | 23 |  | 1 |
| Proceeds from issuance of preferred stock. | 560 |  | - |  | - |
| Proceeds from advances from subsidiaries. | 93 |  | - |  | - |
| Purchases of treasury stock | $(1,216)$ |  | (436) |  | (8) |
| Net increase in deposits. | 12 |  | 18 |  | 1 |
| Premium paid on debt exchange.. | (115) |  | - |  | - |
| Dividend paid to Morgan Stanley . | - |  | - |  | (775) |
| Dividends paid on common and preferred stock. | (209) |  | (110) |  | (70) |
| Net cash used for financing activities | (848) |  | (505) |  | $(2,648)$ |
| Decrease in cash and cash equivalents. | - |  | - |  | $(1,035)$ |
| Cash and cash equivalents, at beginning of period. | 1 |  | 1 |  | 1,036 |
| Cash and cash equivalents, at end of period | \$ | \$ | 1 | \$ | 1 |
| Supplemental Disclosures: |  |  |  |  |  |
| Cash paid during the year for: |  |  |  |  |  |
| Interest expense | \$ 66 | \$ | 77 | \$ | 70 |
| Income taxes, net of income tax refunds. | \$ (65) | \$ | 11 | \$ | (64) |
| Significant non-cash investing and financing transactions |  |  |  |  |  |
| Special dividend - Morgan Stanley .. | \$ | \$ | - | \$ | 34 |
| Capital contribution to subsidiary ${ }^{(1)}$............................................................................................. | 499 |  | - |  | - |
| Debt issuance, net of discount ${ }^{11}$................................................................................................... | (499) |  | - |  | - |

(1) During 2012, the Company completed a private exchange offer, resulting in the exchange of $\$ 500$ million outstanding aggregate principal amount of subordinated debt issued by a subsidiary for the same aggregate principal amount of new senior notes issued by the Parent. A cash premium of $\$ 176$ million which was paid by the subsidiary but is associated with the borrowings on the Parent financial statements.

## 26. Subsequent Events

Fiscal Year Change. On December 3, 2012, the Company's board of directors approved a change in the Company's fiscal year end from November 30 to December 31 of each year. The fiscal year change is effective beginning with the Company's 2013 fiscal year, which began on January 1, 2013 and will end on December 31, 2013. As a result of the change, the Company will have a December 2012 fiscal month transition period, the results of which the Company will separately report in its quarterly report on Form 10-Q for the quarter ending March 31, 2013 and in its annual report on Form 10-K for the year ending December 31, 2013.

Preferred Stock Dividends. Also on December 3, 2012, the Company paid a quarterly cash dividend on its outstanding 575,000 shares of $6.5 \%$ Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series B, in the amount of $\$ 8.13$ per share. The dividend equaled $\$ 0.20325$ per depositary share, representing a $1 / 40$ th interest in a share of the preferred stock. The dividend covered the period from the issuance of the stock on October 16, 2012 through November 30, 2012. On January 23, 2013, the Company announced the declaration of the first full quarterly cash dividend on the preferred stock in the amount of $\$ 16.25$ per share, equal to $\$ 0.40625$ per depositary share, to be paid on March 1, 2013 to holders of record on February 14, 2013.

Common Stock Dividend. On January 17, 2013, the Company paid a cash dividend of $\$ 0.14$ per share of its common stock, which was an increase from the $\$ 0.10$ per share dividend that the Company paid in the previous quarter.
27. Quarterly Results (unaudited) (dollars in millions, except per share data):

|  | November 30, $2012$ | $\begin{gathered} \text { August } 31, \\ 2012 \end{gathered}$ | $\begin{gathered} \text { May } 31, \\ 2012 \end{gathered}$ | February 29, $2012$ | November 30, 2011 | August 31, 2011 | May 31, <br> 2011 | February 28, 2011 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interest income. | \$1,706 | \$1,695 | \$1,656 | \$1,646 | \$1,620 | \$1,599 | \$1,573 | \$1,553 |
| Interest expense | 312 | 325 | 341 | 353 | 360 | 362 | 380 | 383 |
| Net interest income. | 1,394 | 1,370 | 1,315 | 1,293 | 1,260 | 1,237 | 1,193 | 1,170 |
| Provision for loan losses. | 338 | 126 | 232 | 152 | 319 | 100 | 176 | 418 |
| Gain (loss) on investments | 26 | - | - | - | - | (4) | - | - |
| Other income. | 578 | 594 | 533 | 550 | 546 | 556 | 544 | 563 |
| Other expense. | 800 | 826 | 749 | 677 | 669 | 642 | 635 | 595 |
| Income before income tax expense.. | 860 | 1,012 | 867 | 1,014 | 818 | 1,047 | 926 | 720 |
| Income tax expense. | 309 | 385 | 330 | 384 | 305 | 398 | 326 | 255 |
| Net income | \$ 551 | \$ 627 | \$ 537 | \$ 630 | \$ 513 | \$ 649 | \$ 600 | \$ 465 |
| Net income allocated to common stockholders ${ }^{(1)}$ $\qquad$ | \$ 541 | \$ 621 | \$ 532 | \$ 624 | \$ 508 | \$ 642 | \$ 593 | \$ 459 |
| Basic earnings per share(1)... | \$ 1.08 | \$ 1.21 | \$ 1.01 | \$ 1.18 | \$ 0.95 | \$ 1.18 | \$ 1.09 | \$ 0.84 |
| Diluted earnings per share ${ }^{(1)}$. | \$ 1.07 | \$ 1.21 | \$ 1.00 | \$ 1.18 | \$ 0.95 | \$ 1.18 | \$ 1.09 | \$ 0.84 |

(1) Because the inputs to net income allocated to common stockholders and earnings per share are calculated using weighted averages for the quarter, the sum of all four quarters may differ from the year to date amounts in the consolidated statements of income.

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

None.

## Item 9A. 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.

## Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as such term is defined in Exchange Act Rule 13a-15(f) and 15d-15(f)) for the Company. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with generally accepted accounting principles. There are inherent limitations to the effectiveness of any system of internal control over financial reporting. These limitations include the possibility of human error, the circumvention or overriding of the system and reasonable resource constraints. Because of its inherent limitations, our internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with policies or procedures may deteriorate.

Management assessed the effectiveness of our internal control over financial reporting as of November 30, 2012. In making this assessment, management used the criteria set forth in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on management's assessments and those criteria, management has concluded that our internal control over financial reporting was effective as of November 30, 2012.

The effectiveness of our internal control over financial reporting as of November 30, 2012 has been audited by Deloitte \& Touche LLP, an independent registered public accounting firm, and the firm's report on this matter is included in Item 8 of this annual report on Form 10-K.

## Discover Financial Services

Riverwoods, IL
January 24, 2013

## Changes in Internal Control over Financial Reporting

As previously disclosed, on June 6, 2012, through our Discover Home Loans, Inc. subsidiary, we acquired substantially all of the operating and related assets of Home Loan Center, Inc., a subsidiary of Tree.com, Inc. During the third quarter, we extended our oversight and monitoring processes that support our internal control over financial reporting to include the assets we acquired.

There have been no other changes in our internal control over financial reporting (as such term is defined in Exchange Act Rule 13a-15(f) and $15 d-15(f)$ ) that occurred during the quarter ended November 30, 2012 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## Item 9B. Other Information

None.

## Part III. | Item 10. Directors, Executive Officers and Corporate Governance

Information regarding our executive officers is included under the heading "Executive Officers of the Registrant" in Item 1 of this annual report on Form 10-K. Information regarding our directors and corporate governance under the following captions in our proxy statement for our annual meeting of stockholders to be held on April 17, 2013 ("Proxy Statement ${ }^{\prime \prime}$ ) is incorporated by reference herein.

```
"Election of Directors - Information Concerning Nominees for Election as Directors"
"Other Matters - Section 16(a) Beneficial Ownership Reporting Compliance"
"Corporate Governance - Shareholder Recommendations for Director Candidates"
"Corporate Governance - Board Meetings and Commitees"
```

Our Code of Ethics and Business Conduct applies to all directors, officers and employees, including our Chief Executive Officer and our Chief Financial Officer. You can find our Code of Ethics and Business Conduct on our internet site, www. discover.com. We will post any amendments to the Code of Ethics and Business Conduct, and any waivers that are required to be disclosed by the rules of either the SEC or the New York Stock Exchange, on our internet site.

## Item 11. Executive Compensation

Information regarding executive compensation under the following captions in our Proxy Statement is incorporated by reference herein.
"Executive and Director Compensation"
"Compensation Discussion and Analysis"
"2012 Executive Compensation"
"Compensation Committee Report"

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

Information relating to compensation plans under which our equity securities are authorized for issuance as of November 30, 2012, is set forth in the table below.

| Plan Category | Number of Securities to be issued upon exercise of outstanding options, warrants and rights(1) | Weighted-average exercise price of outstanding options, warrants and rights | Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) |
| :---: | :---: | :---: | :---: |
|  | (a) | (b) | (c) |
| Equity compensation plans approved by security holders.. | 6,944,188 | \$20.11 | 28,378,899 |
| Equity compensation plans not approved by security holders | N/A | N/A | N/A |
| Total | 6,944,188 | \$20.11 | 28,378,899 |

(1) Includes 4,771,746 vested and unvested restricted stock units and 1,332,296 unvested performance stock units that can be converted to up to 2 shares per unit dependent on the performance factor.

Information related to the beneficial ownership of our common stock is presented under the caption "Beneficial Ownership of Company Common Stock" in our Proxy Statement and is incorporated by reference herein.

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

Information regarding certain relationships and related transactions, and director independence under the following captions in our Proxy Statement is incorporated by reference herein.
"Other Matters - Certain Transactions"
"Corporate Governance - Director Independence"

## Item 14. Principal Accounting Fees and Services

Information regarding principal accounting fees and services under the caption "Ratification of Appointment of Independent Registered Public Accounting Firm" in our Proxy Statement is incorporated by reference herein.

## Part IV. | Item 15. Exhibits, Financial Statement Schedules

(a) Documents filed as part of this Form 10-K:

## 1. Consolidated Financial Statements

The consolidated financial statements required to be filed in this annual report on Form 10-K are listed below and appear on pages 85 through 161 herein.

## INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Reports of Independent Registered Public Accounting Firm .................................................................................. 90
Consolidated Statements of Financial Condition as of November 30, 2012 and 2011 .............................................. 92
Consolidated Statements of Income for the years ended November 30, 2012, 2011 and 2010................................. 93
Consolidated Statements of Comprehensive Income for the years ended November 30, 2012, 2011 and 2010 ........... 94
Consolidated Statements of Changes in Stockholders' Equity for the years ended November 30, 2012, 2011 and 201095
Consolidated Statements of Cash Flows for the years ended November 30, 2012, 2011 and 2010 ..... 96
Notes to the Consolidated Financial Statements ..... 97

## 2. Financial Statement Schedules

Separate financial statement schedules have been omitted either because they are not applicable or because the required information is included in the consolidated financial statements.

## 3. Exhibits

See the Exhibit Index following the signature pages for a list of the exhibits being filed or furnished with or incorporated by reference into this annual report on Form 10-K.

## 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: $\frac{/ \mathrm{s} / \mathrm{R.} \text { Mark Graf }}{\text { R. Mark Graf }}$ Executive Vice President and Chief Financial Officer

Date: January 24, 2013

## Power of Attorney

We, the undersigned, hereby severally constitute Kathryn McNamara Corley, D. Christopher Greene and Simon B. Halfin, and each of them singly, our true and lawful attorneys with full power to them and each of them to sign for us, and in our names in the capacities indicated below, any and all amendments to the annual report on Form 10-K filed with the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys to any and all amendments to said Annual Report on Form 10-K.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities indicated on January 24, 2013.

| Signature | Title |
| :---: | :---: |
| /s/ David W. Nelms | Chairman and Chief Executive Officer |
| David W. Nelms |  |
| /s/ R. Mark Graf | Executive Vice President and Chief Financial Officer (Principal Financial Officer) |
| R. Mark Graf |  |
| /s/ Edward W. Mcgrogan | Vice President, Controller and and Chief Accounting Officer (Principal Accounting Officer) |
| Edward W. McGrogan |  |
| /S/ Lawrence A. Weinbach | Lead Director |
| Lawrence A. Weinbach |  |
| /S/ Jeffrey S. Aronin | Director |
| Jeffrey S. Aronin |  |
| /S/ Mary K. Bush | Director |
| Mary K. Bush |  |
| /s/ Gregory C. Case | Director |
| Gregory C. Case |  |
| /s/ Robert M. Deviln | Director |
| Robert M. Devlin |  |
| /s/ Cynthia A. Glassman | Director |
| Cynthia A. Glassman |  |
| /s/ Richard H. Lenny | Director |
| Richard H. Lenny |  |
| /s/ Thomas G. Maheras | Director |
| Thomas G. Maheras |  |
| /s/ Michael H. Moskow | Director |
| Michael H. Moskow |  |
| /s/ E. Foluin Smith | Director |
| E. Follin Smith |  |

## Exhibit Index

| $2.1{ }^{*}$ | Separation and Distribution Agreement, dated as of June 29, 2007, between Morgan Stanley and Discover Financial Services (filed as Exhibit 2.1 to Discover Financial Services' Current Report on Form 8-K filed on July 5, 2007 and incorporated herein by reference thereto), as amended by the First Amendment to the Separation and Distribution Agreement dated as of June 29, 2007 between Discover Financial Services and Morgan Stanley, dated February 11, 2010 (filed as Exhibit 10.2 to Discover Financial Services' Current Report on Form 8-K filed on February 12, 2010 and incorporated herein by reference thereto). |
| :---: | :---: |
| 2.2* | Agreement for the Sale and Purchase of the Goldfish Credit Card Business, dated February 7, 2008, among Discover Financial Services, Goldfish Bank Limited, Discover Bank, SCFC Receivables Corporation, and Barclays Bank Plc (filed as Exhibit 2.1 to Discover Financial Services' Current Report on Form 8-K filed on February 7, 2008 and incorporated herein by reference thereto), as amended and restated by Amended and Restated Agreement for the Sale and Purchase of the Goldfish Credit Card Business, dated March 31, 2008, among Discover Financial Services, Goldfish Bank Limited, Discover Bank, SCFC Receivables Corporation, Barclays Bank PLC, and Barclays Group US Inc. (filed as Exhibit 2.1 to Discover Financial Services' Quarterly Report on Form 10-Q filed on April 14, 2008 and incorporated herein by reference thereto). |
| 2.3 | Agreement and Plan of Merger by and among Discover Bank, Academy Acquisition Corp. and The Student Loan Corporation dated as of September 17, 2010 (filed as Exhibit 2.3 to Discover Financial Services' Annual Report on Form 10-K for the fiscal year ended November 30, 2010 filed on January 26, 2011 and incorporated by reference thereto). |
| 3.1 | Amended and Restated Certificate of Incorporation of Discover Financial Services (filed as Exhibit 3.1 to Discover Financial Services' Quarterly Report on Form 10-Q filed on July 1, 2009 and incorporated herein by reference thereto). |
| 3.2 | Amended and Restated By-Laws of Discover Financial Services (filed as Exhibit 3.1 to Discover Financial Services' Current Report on Form 8-K filed on January 23, 2009 and incorporated herein by reference thereto). |
| 3.3 | Certificate of Elimination of the Fixed Rate Cumulative Perpetual Preferred Stock, Series A, of Discover Financial Services (filed as Exhibit 3.1 to Discover Financial Services' Quarterly Report on Form 10-Q filed on June 26, 2012 and incorporated herein by reference thereto). |
| 3.4 | Certificate of Designations of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series B (filed as Exhibit 3.1 to Discover Financial Services' Current Report on Form 8-K filed on October 16, 2012 and incorporated herein by reference thereto). |

4.1 Senior Indenture, dated as of June 12, 2007, by and between Discover Financial Services and U.S. Bank, National Association, as trustee (filed as Exhibit 4.1 to Discover Financial Services' Current Report on Form 8-K filed on June 12, 2007 and incorporated herein by reference thereto).
4.2 Form of Subordinated Indenture (filed as Exhibit 4.2 to Discover Financial Services' Registration Statement on Form S-3 filed on July 6, 2009 and incorporated herein by reference thereto).
4.3 Form of $10.250 \%$ Senior Note due 2019 (filed as Exhibit 4.1 to Discover Financial Services' Current Report on Form 8-K filed on July 15, 2009 and incorporated herein by reference thereto).
4.4 Fiscal and Paying Agency Agreement, dated November 16, 2009, between Discover Bank, as issuer, and U.S. Bank National Association, as fiscal and paying agent (filed as Exhibit 4.1 to Discover Financial Services' Current Report on Form 8-K filed on November 16, 2009 and incorporated herein by reference thereto).
4.5 Fiscal and Paying Agency Agreement, dated April 15, 2010, between Discover Bank, as issuer, and U.S. Bank National Association, as fiscal and paying agent (filed as Exhibit 4.1 to Discover Financial Services' Current Report on Form 8-K filed on April 16, 2010 and incorporated herein by reference thereto).
4.6 Registration Rights Agreement, dated April 27, 2012 (filed as Exhibit 4.3 to Discover Financial Services' Current Report on Form 8-K filed on May 3, 2012 and incorporated herein by reference thereto).
4.7 Deposit Agreement, dated October 16, 2012 (filed as Exhibit 4.1 to Discover Financial Services' Current Report on Form 8-K filed on October 16, 2012 and incorporated herein by reference thereto).
$4.8 \quad$ Form of Certificate Representing the Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series B (filed as Exhibit 4.2 to Discover Financial Services' Current Report on Form 8-K filed on October 16, 2012 and incorporated herein by reference thereto).
4.9 Registration Rights Agreement, dated November 21, 2012 (filed as Exhibit 4.3 to Discover Financial Services' Current Report on Form 8-K filed on November 21, 2012 and incorporated herein by reference thereto).
Other instruments defining the rights of holders of long-term debt securities of Discover Financial Services and its subsidiaries are omitted pursuant to Section (b)(4)(iii)(A) of Item 601 of Regulation S-K. Discover Financial Services agrees to furnish copies of these instruments to the SEC upon request.
10.1 Tax Sharing Agreement, dated as of June 30, 2007, between Morgan Stanley and Discover Financial Services (filed as Exhibit 10.1 to Discover Financial Services' Current Report on Form 8-K filed on July 5, 2007 and incorporated herein by reference thereto).
10.2 U.S. Employee Matters Agreement, dated as of June 30, 2007, between Morgan Stanley and Discover Financial Services (filed as Exhibit 10.2 to Discover Financial Services' Current Report on Form 8-K filed on July 5, 2007 and incorporated herein by reference thereto).
10.3 Transition Services Agreement, dated as of June 30, 2007, between Morgan Stanley and Discover Financial Services (filed as Exhibit 10.3 to Discover Financial Services' Current Report on Form 8-K filed on July 5, 2007 and incorporated herein by reference thereto).
10.4 Transitional Trade Mark License Agreement, dated as of June 30, 2007, between Morgan Stanley \& Co. PLC and Goldfish Bank Limited (filed as Exhibit 10.4 to Discover Financial Services' Current Report on Form 8-K filed on July 5, 2007 and incorporated herein by reference thereto).
10.5 Trust Agreement, dated as of July 2, 2007, between Discover Bank, as Beneficiary, and Wilmington Trust Company, as Owner Trustee (filed as Exhibit 4.1 to Discover Bank's Current Report on Form 8-K filed on July 2, 2007 and incorporated herein by reference thereto), as amended by the First Amendment to Trust Agreement, between Discover Bank, as Beneficiary and Wilmington Trust Company, as Owner Trustee, dated as of June 4, 2010 (filed as Exhibit 4.3 to Discover Bank's Current Report on Form 8-K filed on June 4, 2010 and incorporated herein by reference thereto).
10.6 Second Amended and Restated Pooling and Servicing Agreement, between Discover Bank, as Master Servicer, Servicer and Seller and U.S. Bank National Association, as Trustee, dated as of June 4, 2010 (filed as Exhibit 4.1 to Discover Bank's Current Report on Form 8-K filed on June 4, 2010 and incorporated herein by reference thereto), as amended by the First Amendment to Second Amended and Restated Pooling and Servicing Agreement, betweeen Discover Bank, as Master Servicer, Servicer and Seller and U.S. Bank National Association, as Trustee, dated as of October 18, 2011 (filed as Exhibit 4.1 to Discover Bank's Current Report on Form 8-K filed on October 19, 2011 and incorporated herein by reference thereto).
10.7 Series Supplement for Series 2007-CC, dated as of July 26, 2007, between Discover Bank, as Master Servicer, Servicer and Seller and U.S. Bank National Association, as Trustee (filed as Exhibit 4.3 to Discover Bank's Current Report on Form 8-K filed on July 27, 2007 and incorporated herein by reference thereto), as amended by the Amendment to Specified Series Supplements, between Discover Bank, as Master Servicer, Servicer and Seller and U.S. Bank National Association, as Trustee, dated as of June 4, 2010 (filed as Exhibit 4.2 to Discover Bank's Current Report on Form 8-K filed on June 4, 2010 and incorporated herein by reference thereto).
$10.8 \dagger$ Discover Financial Services Omnibus Incentive Plan (filed as an attachment to Discover Financial Services' Proxy Statement on Schedule 14A filed on February 27, 2009 and incorporated herein by reference thereto).

| Exhibit Number | Description |
| :---: | :---: |
| $10.9 \dagger$ | Amended Form of Restricted Stock Unit Award Under Discover Financial Services Omnibus Incentive Plan (filed as Exhibit 10.6 to Discover Financial Services' Quarterly Report on Form 10-Q filed on July 12, 2007 and incorporated herein by reference thereto). |
| $10.10 \dagger$ | Directors' Compensation Plan of Discover Financial Services (filed as Exhibit 10.3 to Discover Financial Services' Current Report on Form 8-K filed on June 19, 2007 and incorporated herein by reference thereto), as amended and restated as of January 20, 2011 (filed as Exhibit A to the Discover Financial Services' definitive proxy statement filed on February 18, 2011 and incorporated by reference thereto), as further amended by Amendment No. 2, effective as of December 1, 2011. |
| $10.11 \dagger$ | Amended Form of Restricted Stock Unit Award Under Discover Financial Services Directors' Compensation Plan (filed as Exhibit 10.7 to Discover Financial Services' Quarterly Report on Form 10-Q filed on July 12, 2007 and incorporated herein by reference thereto). |
| $10.12 \dagger$ | Discover Financial Services Employee Stock Purchase Plan (filed as Exhibit 10.2 to Discover Financial Services' Current Report on Form 8-K filed on June 19, 2007 and incorporated herein by reference thereto) as amended by Amendment No. 1 to Discover Financial Services Employee Stock Purchase Plan effective as of May 1, 2008 (filed as Exhibit 10.12 to Discover Financial Services' Annual Report on Form 10-K filed on January 28, 2009 and incorporated herein by reference thereto); Amendment No. 2 to Discover Financial Services Employee Stock Purchase Plan, effective as of December 1, 2009 (filed as Exhibit 10.2 to Discover Financial Services' Quarterly Report on Form 10-Q filed on April 9, 2010 and incorporated herein by reference thereto); and Amendment No. 3 to Discover Financial Services Employee Stock Purchase Plan (filed as Exhibit 10.3 to Discover Financial Services' Quarterly Report on Form 10-Q filed on September 28, 2011 and incorporated herein by reference thereto). |
| $10.13 \dagger$ | Offer of Employment, dated as of January 8, 1999 (filed as Exhibit 10.2 to Discover Financial Services' Current Report on Form 8-K filed on June 12, 2007 and incorporated herein by reference thereto). |
| $10.14 \dagger$ | Waiver of Change of Control Benefits, dated September 24, 2007 (filed as Exhibit 10.15 to Discover Financial Services' Registration Statement on Form S-4 filed on November 27, 2007 and incorporated herein by reference thereto). |
| 10.15 | Collateral Certificate Transfer Agreement, dated as of July 26, 2007 between Discover Bank, as Depositor and Discover Card Execution Note Trust (filed as Exhibit 4.4 to Discover Bank's Current Report on Form 8-K filed on July 27, 2007 and incorporated herein by reference thereto). |
| 10.16 | Indenture, dated as of July 26, 2007, between Discover Card Execution Note Trust, as Issuer, and U.S. Bank National Association, as Indenture Trustee (filed as Exhibit 4.5 to Discover Bank's Current Report on Form 8-K filed on July 27, 2007 and incorporated herein by reference thereto), as amended by the First Amendment to Indenture, between Discover Card Execution Note Trust, as Issuer, and U.S. Bank National Association, as Indenture Trustee, dated as of June 4, 2010 (filed as Exhibit 4.4 to Discover Bank's Current Report on Form 8-K filed on June 4, 2010 and incorporated herein by reference thereto). |
| 10.17 | Amended and Restated Indenture Supplement for the DiscoverSeries Notes, between Discover Card Execution Note Trust, as Issuer, and U.S. Bank National Association, as Indenture Trustee, dated as of June 4, 2010 (filed as Exhibit 4.5 to Discover Bank's Current Report on Form 8-K filed on June 4, 2010 and incorporated herein by reference thereto). |
| 10.18 | Omnibus Amendment to Indenture Supplement and Terms Documents, dated as of July 2, 2009, between Discover Card Execution Note Trust, as Issuer, and U.S. Bank National Association, as Indenture Trustee (filed as Exhibit 4.1 to Discover Bank's Current Report on Form 8-K filed on July 6, 2009 and incorporated herein by reference thereto). |
| $10.19 \dagger$ | Discover Financial Services Change-in-Control Severance Policy (filed as Exhibit 10.6 to Discover Financial Services' Quarterly Report on Form 10-Q filed on October 12, 2007 and incorporated herein by reference thereto, as amended by First Amendment, dated as of June 24, 2008 (filed as Exhibit 10.1 to Discover Financial Services' Quarterly Report on Form 10-Q filed on October 9, 2008), Second Amendment, effective as of March 1, 2011 (filed as Exhibit 10.2 to Discover Financial Services' Quarterly Report on Form 10-Q filed on July 1, 2011) and Third Amendment, effective as of August 1, 2011 (filed on July 1, 2011 ) |


| Exhibit Number | Description |
| :---: | :---: |
| 10.20 | Release and Settlement Agreement, executed as of October 27, 2008, by and among Discover Financial Services, DFS Services, LLC, Discover Bank, and their Subsidiaries and Affiliates; MasterCard Incorporated and MasterCard International Incorporated and their Affiliates; and Visa Inc. and its Affiliates and Predecessors including Visa U.S.A. Inc. and Visa International Service Association (filed as Exhibit 99.1 to Discover Financial Services' Current Report on Form 8-K filed on October 28, 2008). |
| $10.21 \dagger$ | 2008 Year End Form of Restricted Stock Unit Award Under Discover Financial Services Omnibus Incentive Plan (filed as Exhibit 10.21 to Discover Financial Services' Annual Report on Form 10-K filed on January 28, 2009 and incorporated herein by reference thereto). |
| $10.22 \dagger$ | 2008 Special Grant Form of Restricted Stock Unit Award Under Discover Financial Services Omnibus Incentive Plan (filed as Exhibit 10.22 to Discover Financial Services' Annual Report on Form 10-K filed on January 28, 2009 and incorporated herein by reference thereto). |
| 10.23 | Form of Waiver, executed by each of Discover Financial Services' senior executive officers and certain other employees (filed as Exhibit 10.3 to Discover Financial Services' Current Report on Form 8-K filed on March 13, 2009 and incorporated herein by reference thereto). |
| 10.24 | Form of Executive Compensation Agreement, dated March 13, 2009, executed by each of Discover Financial Services' senior executive officers and certain other employees (filed as Exhibit 10.4 to Discover Financial Services' Quarterly Report on Form 10-Q filed on April 8, 2009 and incorporated herein by reference thereto). |
| $10.25 \dagger$ | Form of Share Award Agreement Under Discover Financial Services Amended and Restated 2007 Omnibus Incentive Plan (filed as Exhibit 10(a) to Discover Financial Services' Current Report on Form 8-K filed on December 11, 2009 and incorporated herein by reference thereto). |
| $10.26 \dagger$ | Amendment to 2009 Year End Award Certificate for Restricted Stock Units Under Discover Financial Services Amended and Restated 2007 Omnibus Incentive Plan, effective December 1, 2009 (filed as Exhibit 10.1 to Discover Financial Services' Quarterly Report on Form 10-Q filed on April 9, 2010 and incorporated herein by reference thereto). |
| 10.27 | Settlement Agreement and Mutual Release between Discover Financial Services and Morgan Stanley, dated February 11, 2010 (filed as Exhibit 10.1 to Discover Financial Services' Current Report on Form 8-K filed on February 12, 2010 and incorporated herein by reference thereto). |
| 10.28 | Purchase Price Adjustment Agreement by and among Citibank, N.A., The Student Loan Corporation and Discover Bank, dated September 17, 2010 (filed as Exhibit 10.32 to Discover Financial Services' Annual Report on Form 10-K filed on January 26, 2011 and incorporated by reference thereto). |
| 10.29 | Amendment to Purchase Price Adjustment Agreement by and among Citibank, N.A., The Student Loan Corporation and Discover Bank, dated December 30, 2010 (filed as Exhibit 10.33 to Discover Financial Services' Annual Report on Form 10-K filed on January 26, 2011 and incorporated by reference thereto). |
| 10.30 | Indemnification Agreement by and between Citibank, N.A. and Discover Bank, dated September 17, 2010 (filed as Exhibit 10.34 to Discover Financial Services' Annual Report on Form 10-K filed on January 26, 2011 and incorporated by reference thereto). |
| 10.31 | First Amendment to Indemnification Agreement by and between Citibank, N.A. and Discover Bank, dated December 30, 2010 (filed as Exhibit 10.35 to Discover Financial Services' Annual Report on Form 10-K filed on January 26, 2011 and incorporated by reference thereto). |
| 10.32 | Form Award Certificate for Restricted Stock Units Under Discover Financial Services Amended and Restated 2007 Omnibus Incentive Plan (filed as Exhibit 10.4 to Discover Financial Services' Quarterly Report on Form 10- Q filed on April 8, 2011 and incorporated by reference thereto). |
| 10.33 | Form Award Certificate for Performance Stock Units Under Discover Financial Services Amended and Restated 2007 Omnibus Incentive Plan (filed as Exhibit 10.5 to Discover Financial Services' Quarterly Report on Form 10- Q filed on April 8, 2011 and incorporated by reference thereto). |

10.34 Asset Purchase Agreement between Discover Bank and Citibank, N.A. dated August 31, 2011 (filed as Exhibit 10.2 to Discover Financial Services' Quarterly Report on Form 10-Q filed on September 28, 2011 and incorporated by reference thereto).
10.35 Form 2012 Award Certificate for Restricted Stock Units Under Discover Financial Services Amended and Restated 2007 Omnibus Incentive Plan (filed as Exhibit 10.1 to Discover Financial Services' Quarterly Report on Form 10-Q filed on April 3, 2012 and incorporated by reference thereto).
10.36 Form 2012 Award Certificate for Performance Stock Units Under Discover Financial Services Amended and Restated 2007 Omnibus Incentive Plan (filed as Exhibit 10.2 to Discover Financial Services' Quarterly Report on Form 10-Q filed on April 3, 2012 and incorporated by reference thereto).
11 Statement Re: Computation of Per Share Earnings (the calculation of per share earnings is in Part II, Item 8, Note 17: Earnings Per Share to the consolidated financial statements and is omitted in accordance with Section (b)(11) of Item 601 of Regulation S-K).
12.1 Statement Re: Computation of Ratio of Earnings to Fixed Charges and Computation of Ratio of Earnings to Fixed Charges and Preferred Stock Dividends.

21 Subsidiaries of the Registrant.
23 Consent of Independent Registered Public Accounting Firm.
24 Powers of Attorney (included on signature page).
31.1 Certification of Chief Executive Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934.
31.2 Certification of Chief Financial Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934.
32.1 Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code.
101.INS XBRL Instance Document.
101.SCH XBRL Taxonomy Extension Schema Document.
101.CAL XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF XBRL Taxonomy Extension Definition Linkbase Document.
101. LAB XBRL Taxonomy Extension Label Linkbase Document.
101.PRE XBRL Taxonomy Extension Presentation Linkbase Document.

[^16]
## DISCOVER FINANCIAL SERVICES

## COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES AND COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES AND PREFERRED STOCK DIVIDENDS <br> (dollars in millions)

|  | For the Years Ended November 30, |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 | 2009 | 2008 |
| Earnings: |  |  |  |  |  |
| Income from continuing operations before income tax expense. | 3,753 | 3,511 | 1,269 | 2,121 | 1,658 |
| Losses from unconsolidated investees. | 12 | 5 | 4 | 3 | 3 |
| Total earnings. | 3,765 | 3,516 | 1,273 | 2,124 | 1,661 |
| Fixed charges:(1) |  |  |  |  |  |
| Total interest expense. | 1,331 | 1,485 | 1,583 | 1,251 | 1,288 |
| Interest factor in rents. | 6 | 5 | 5 | 5 | 5 |
| Total fixed charges | 1,337 | 1,490 | 1,588 | 1,256 | 1,293 |
| Combined fixed charges and preferred stock requirements:(1) |  |  |  |  |  |
| Total interest expense. | 1,331 | 1,485 | 1,583 | 1,251 | 1,288 |
| Interest factor in rents. | 6 | 5 | 5 | 5 | 5 |
| Preferred stock requirements | - | - | 39 | 73 | - |
| Total combined fixed charges and preferred stock requirements. | 1,337 | 1,490 | 1,627 | 1,329 | 1,293 |
| Earnings from continuing operations before income tax expense and fixed charges | $\underline{\text { 5,102 }}$ | $\underline{\underline{5,006}}$ | $\underline{\underline{2,861}}$ | $\underline{\underline{3,380}}$ | $\underline{\underline{2,954}}$ |
| Earnings from continuing operations before income tax expense and combined fixed charges and preference dividends. | 5,102 | 5,006 | 2,900 | 3,453 | 2,954 |
| Ratio of earnings to fixed charges. | 3.8 | 3.4 | 1.8 | 2.7 | 2.3 |
| Ratio of earnings to combined fixed charges and preference dividends .................................................................. | 3.8 | 3.4 | 1.8 | 2.6 | 2.3 |

[^17]
## DISCOVER FINANCIAL SERVICES

## SUBSIDIARIES

| Subsidiary | Jurisdiction of Incorporation or Formation |
| :---: | :---: |
| Bank of New Castle | Delaware |
| DB Servicing Corporation. | Delaware |
| Diners Club International Ltd. | New York |
| Diners Club Services Private Limited | India |
| Discover Bank. | Delaware |
| Discover Community Development Corporation. | Delaware |
| Discover Financial Services (Canada), Inc. | Canada |
| Discover Financial Services (Cayman) Limited | Cayman Islands |
| Discover Financial Services (Hong Kong) Limited | Hong Kong |
| Discover Financial Services (UK) Limited. | England/Wales |
| Discover Financial Services Insurance Agency, Inc. | Delaware |
| Discover Global Employment Company Private Limited. | Singapore |
| Discover Home Loans, Inc. | Delaware |
| Discover Information Technology (Shanghai) Limited | Shanghai |
| Discover Products Inc. | Utah |
| Discover Properties LLC | Delaware |
| Discover Receivables Financing Corporation | Delaware |
| Discover Services Corporation | Delaware |
| DFS Corporate Services LLC | Delaware |
| DFS Escrow, Inc. | Delaware |
| DFS International Inc. | Delaware |
| DFS Services LLC | Delaware |
| DRFC Funding LLC | Delaware |
| GTC Insurance Agency, Inc. | Delaware |
| HLC Settlement Services, Inc. | California |
| PULSE Network LLC | Delaware |
| SCFC Receivables Corp. | Delaware |
| The Student Loan Corporation | Delaware |

## CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-173360, 333-150228, 333144184, 333-144188, and 333-144189 on Form S-8 and No. 333-182440 on Form S-3 of our reports dated January 24,2013 , relating to the consolidated financial statements of Discover Financial Services, and the effectiveness of the Company's internal control over financial reporting, appearing in this Annual Report on Form 10-K of Discover Financial Services for the year ended November 30, 2012.

## Seloitte : Touche «LP

Chicago, Illinois
January 24, 2013

## CERTIFICATION

I, David W. Nelms, certify that:

1. I have reviewed this Annual Report on Form 10-K 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: January 24, 2013

## /s/ David W. Nelms

David W. Nelms
Chairman of the Board and
Chief Executive Officer

## CERTIFICATION

## I, R. Mark Graf, certify that:

1. I have reviewed this Annual Report on Form 10-K 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: January 24, 2013

## /s/ R. Mark Graf

## R. Mark Graf

Executive Vice President and 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 Annual Report of Discover Financial Services (the "Company") on Form 10-K for the period ended November 30, 2012, as filed with the Securities and Exchange Commission (the "Report"), each of David W. Nelms, Chairman of the Board and Chief Executive Officer of the Company, and R. Mark Graf, 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: January 24, 2013
/s/ David W. Nelms
David W. Nelms
Chairman of the Board and
Chief Executive Officer
Date: January 24, 2013
/s/ R. Mark Graf
R. Mark Graf

Executive Vice President and
Chief Financial Officer
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| BOARD OF DIRECTORS | EXECUTIVE OFFICERS | PRIMARY INVESTOR CONTACT |
| :---: | :---: | :---: |
| Jeffrey S. Aronin | David W. Nelms | Investor Relations |
| Chairman and CEO | Chairman and Chief Executive Officer | Phone: 1-224-405-4555 |
| Paragon Pharmaceuticals | Roger C. Hochschild | investorrelations@discover.com |
| Mary K. Bush | President and Chief Operating Officer |  |
| President, Bush International | R. Mark Graf |  |
| Gregory C. Case <br> President and CEO, Aon Corporation | Executive Vice President and Chief Financial Officer | TRANSFER AGENT |
| Robert M. Devlin | Kathryn McNamara Corley | Computershare |
| Chairman, Curragh Capital Partners | Executive Vice President General Counsel and Secretary | 480 Washington Boulevard Jersey City, NJ 07310-1900 |
| Cynthia A. Glassman |  | Phone: 1-866-258•6590 |
| Former Under Secretary for Economic | Carlos Minetti | Corporate Web site: |
| Affairs, U.S. Department of Commerce | Executive Vice President <br> President-Consumer Banking | www.cpushareownerservices.com |
| Richard H. Lenny | and Operations |  |
| Operating Partner |  |  |
| Friedman Fleischer \& Lowe LLC | Diane E. Offereins <br> Executive Vice President | ANNUAL SHAREHOLDERS ${ }^{\prime}$ |
| Thomas G. Maheras Founding Partner | President-Payment Services | meeting |
| Tegean Capital Management, LLC | James V. Panzarino Executive Vice President | The 2013 Annual Meeting |
| Michael H. Moskow | Chief Credit Risk Officer | of Shareholders |
| Retired President and CEO Federal Reserve Bank of Chicago |  | of Discover Financial Services |
| Federal Reserve Bank of Chicago | Glenn Schneider Senior Vice President | will be held on Wednesday, April 17, 2013, at 9:00 AM CST |
| David W. Nelms | Chief Information Officer | at the company's headquarters |
| Chairman and CEO <br> Discover Financial Services | Harit Talwar | at 2500 Lake Cook Road, |
|  | Executive Vice President | Riverwoods, IL 60015. |
| E. Follin Smith | President-U.S. Cards |  |
| Retired Executive Vice President CFO and CAO |  |  |
| Constellation Energy Group, Inc. |  |  |
| Lawrence A. Weinbach |  |  |
| Lead Director, Discover Financial Services Chairman |  |  |
| Great Western Products Holdings LLC |  |  |
| Managing Director <br> Yankee Hill Capital Management LLC |  |  |

[^18]
## DISCOVER

2500 Lake Cook Road • Riverwoods, Illinois 60015 • discoverfinancial.com

## OUR VISION

To be the most rewarding relationship
consumers and businesses have with a financial services company.

## OUR MISSION

To help people
spend smarter,
manage debt better
and save more so
they achieve a
brighter financial future.

## OUR VALUES

Doing the right thing
Innovation
Simplicity
Collaboration
Openness
Volunteerism
Enthusiasm
Respect


[^0]:    Note: Balances are as of November 30, 2012. Volumes are for the fiscal year ended November 30, 2012.

[^1]:    - Represents amount related to the

    Visa* and MasterCard" antitrust

[^2]:    Represents amount related to the
    Visa and MasterCard ${ }^{\circ}$ antitrust
    litigation settlement.

[^3]:    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 ${ }^{\circledR}$, PULSE ${ }^{\circledR}$, Cashback Bonus ${ }^{\circledR}$, Discover ${ }^{\circledR}$ More ${ }^{\circledR}$ Card, Discover it 5 , , Discover ${ }^{\circledR}$ MotivaSM Card, Discover ${ }^{\circledR}$ Open Road ${ }^{\circledR}$ Card, Discover® ${ }^{\circledR}$ Network and Diners Club International®. All other trademarks, trade names and service marks included in this annual report on Form $10-\mathrm{K}$ are the property of their respective owners.

[^4]:    (1) Amounts as of and for the years ended November 30, 2012, 2011 and 2010 include securitized loans as a result of the consolidation of the securitization trusts related to a change in accounting principle on December 1, 2009. Amounts under "GAAP information" prior to December 1, 2009 do not include securitized loans.
    (2) Amounts as of November 30, 2011 and November 30, 2010 for loan receivables, average loan receivables, interest yield, principal net charge-off rate, delinquency rate over 30 days and delinquency rate over 90 days have been modified to include credit card loans in process as of the balance sheet date. See Note 2: Summary of Significant Accounting Policies for further discussion.

[^5]:    (A) Data not available for the year ended November 30, 2008.

[^6]:    (1) Network Partners was formerly referred to as Third-Party Issuers. The reference has been changed to better reflect the nature of the volume included. The composition, however, has not changed.
    (2) 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.
    (3) Represents gross proprietary sales volume on the Discover Network.
    (4) Represents Discover card activity related to net sales, balance transfers, cash advances and other activity.
    (5) Represents Discover card activity related to net sales.

[^7]:    (1) Average balances and rates for credit card loan receivables, total loan receivables, total interest-earning assets, total assets, other liabilities and stockholders' equity, total liabilities and stockholders' equity, net interest margin, net yield on interest-bearing assets and interest rate spread for the years ended November 30, 2011 and November 30, 2010 have been modified to include credit card loans in process and the related liability. See Note 2: Summary of Significant Accounting Policies for further discussion.
    (2) Average balances of loan receivables include non-accruing loans, which are included in the yield calculations. If the non-accruing loan balances were excluded, there would not be a material impact on the amounts reported above.
    (3) Interest income on credit card loans includes $\$ 179$ million, $\$ 225$ million and $\$ 173$ million of amortization of balance transfer fees for the years ended November 30, 2012, 2011 and 2010 respectively.
    (4) Includes the impact of interest rate swap agreements used to change a portion of certain floating-rate credit card loan receivables to fixed-rate.
    (5) Includes federal student loans held for sale.
    (6) Includes the impact of interest rate swap agreements used to change a portion of fixed-rate funding to floating-rate funding.
    (7) Includes the impact of FDIC insurance premiums and special assessments, and all periods reflect management's product allocation methodology as of fourth quarter 2011.
    (8) Net interest margin represents net interest income as a percentage of average total loan receivables.
    (9) Net yield on interest-bearing assets represents net interest income as a percentage of average total interest-earning assets.
    (10) Interest rate spread represents the difference between the rate on total interest-earning assets and the rate on total interest-bearing liabilities.

[^8]:    (1) Amount represents corporate debt obligations issued under the Temporary Liquidity Guarantee Program (TLGP) that are guaranteed by the Federal Deposit Insurance Corporation (FDIC).
    (2) Consists of residential mortgage-backed securities issued by Fannie Mae, Freddie Mac and Ginnie Mae.
    (3) During the year ended November 30, 2011, commercial advances and other Community Reinvestment Act related loan funds were reclassified to be included in Other Loans within the statement of financial condition.

[^9]:    (1) On December 1, 2009, upon adoption of FASB Statements No. 166 and 167 , the Company recorded an additional $\$ 2.1$ billion allowance for loan losses related to newly consolidated and reclassified credit card loan receivables.

[^10]:    (1) Amount represents principal and interest payments, both currently due and due in the future, adjusted for the effect of estimated prepayments.
    (2) Charge-offs on acquired loans will be written off against non-accretable difference.
    (3) Amount to be accreted into interest income over the estimated lives of the acquired loans.

[^11]:    (1) The Company uses interest rate swaps to hedge portions of these long-term borrowings against changes in fair value attributable to changes in LIBOR. See Note 22: Derivatives and Hedging Activities.
    (2) London Interbank Offered Rate ("LIBOR").
    (3) Repayment of this debt is dependent upon the timing of principal and interest payments on the underlying student loans. The dates shown represent final maturity dates.
    (4) During second quarter 2012, the Company exchanged $\$ 322$ million outstanding aggregate principal amount of $10.25 \%$ Senior Notes due 2019 for the same aggregate principal amount of new $5.20 \%$ Senior Notes due 2022 and a cash premium. The new $5.20 \%$ Senior Notes due 2022 are carried at a discount as a result of the cash premium paid.
    (5) During fourth quarter 2012, the Company exchanged $\$ 500$ million outstanding aggregate principal amount of $8.70 \%$ Subordinated Notes due 2019 issued by Discover Bank for the same aggregate principal amount of new 3.85\% Senior Notes due 2022 issued by Discover Financial Services and a cash premium. The new $3.85 \%$ Senior Notes due 2022 are carried at a discount as a result of the cash premium paid.
    (6) Under a program established by the U.S. Department of Education, this loan facility was entered into to fund certain federal student loans, which were held for sale at November 30, 2011. Upon sale of the loans during the first quarter 2012, this loan facility was assumed by the buyer.

[^12]:    (1) No stock options have been granted by the Company since its spin-off from Morgan Stanley.

[^13]:    (1) At November 30, 2012, 2011 and 2010, amounts included $\$ 108$ million, $\$ 97$ million and $\$ 100$ million, respectively, of unrecognized tax benefits, which, if recognized, would favorably affect the effective tax rate.

[^14]:    (1) Net loan receivables at November 30, 2011 excludes student loans held for sale that are measured at fair value on a non-recurring basis and have been modified to include credit card loans in process as of the balance sheet date. See Note 2: Summary of Significant Accounting Policies for further discussion.

[^15]:    (1) The foreign exchange forward contracts have notional amounts of EUR 18 million, GBP 8 million and SGD 2 million as of November 30, 2012 and EUR 14 million and GBP 2 million as of November 30, 2011.

[^16]:    * We agree to furnish supplementally to the Commission a copy of any omitted schedule or exhibit to such agreement upon the request of the Commission in accordance with Item 601 (b)(2) of Regulation S-K.
    $\dagger$ Management contract or compensatory plan or arrangement required to be filed as an exhibit to Form 10-K pursuant to Item 15(b) of this report.

[^17]:    (1) Fixed charges are the sum of interest expensed, amortized premiums, discounts and capitalized expenses related to indebtedness, an estimate of interest within rental expense. Combined fixed charges and preferred stock requirements are the sum of interest expense, amortized premiums, discounts and capitalized expenses related to indebtedness and preference security dividend requirements.

[^18]:    This Annual Report contains forward-looking statements. You are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date on which they are made, which reflect management's estimates, projections, expectations or beliefs at that time, and which are subject to risks and uncertainties that may cause actual results to differ materially. For a discussion of certain risks and uncertainties that may affect our future results, please see "Risk Factors," "Special Note Regarding Forward-Looking Statements," "Business-Competition," "Business-Supervision and Regulation" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the accompanying Annual Report on Form 10-K for the year ended November 30, 2012.

    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,
     International. All other trademarks, trade names and service marks included in this Annual Report are the property of their respective owners.

