REPORT TO CONGRESS

# Profitability of Credit Card Operations of Depository Institutions

July 2023

## Overview

The Federal Reserve reports on the profitability of credit card operations of depository institutions, as directed by section 8 of the Fair Credit and Charge Card Disclosure Act of 1988.[1] This is the 33rd report. This report analyzes the profitability over time of credit card operations by examining the performance of institutions that specialize in such activities. This report also reviews trends in credit card pricing, including changes in interest rates. The analysis in this report is based to a great extent on information from the Consolidated Reports of Condition and Income (Call Reports) and the Quarterly Report of Credit Card Plans.[2]

This report contains the following topics:

- the identification of credit card banks;
- an overview of credit card bank profitability in 2022;
- additional background information on the credit card market, including market structure; and
- an analysis of trends in credit card pricing.

## Identification of Credit Card Banks

Every insured bank files a Call Report each quarter with its federal supervisory agency.[3] While the Call Report provides a comprehensive balance sheet and income statement for each bank, it does not allocate all expenses or attribute all revenues to specific product lines, such as credit card accounts. Thus, the data may be best used to assess the profitability of credit card activities by analyzing the earnings of only those banks established primarily to issue and service credit card accounts. These specialized, or monoline, banks are referred to here as "credit card banks."

1 See Fair Credit and Charge Card Disclosure Act, Pub. L. No. 100-583, 102 Stat. 2960 (1988). The 2000 report covering 1999 data was not prepared as a consequence of the Federal Reports Elimination and Sunset Act. The report was subsequently reinstated by law.

2 The data used in this report are as of December 31, 2022, and do not reflect economic and financial conditions since then. The Federal Reserve collects the data from the Quarterly Report of Credit Card Plans (form FR 2835a).

3 The sample of banks used for this report includes commercial banks, state savings banks, and thrifts.

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For purposes of this report, credit card banks are defined by two criteria: (1) More than 50 percent of their assets are loans to individuals (consumer lending), and (2) 90 percent or more of their consumer lending involves credit cards or related plans.[4] Given this definition, it can reasonably be assumed that the profitability of these banks primarily reflects returns from their credit card operations.[5]

As of December 31, 2022, eight banks met the definition of a credit card bank, and, at the time, these banks accounted for 28 percent of outstanding credit card balances on all banks' balance sheets.

Both the number of credit card banks and the share of total credit card balances held by credit card banks have declined in recent years. In 1996, 42 credit card banks constituted 77 percent of outstanding credit card balances. By 2010, 15 credit card banks accounted for 76 percent of outstanding credit card balances, and by 2019, 10 credit card banks accounted for less than 40 percent of credit card balances.[6] Despite these declines in the number and aggregate size of credit card banks, the profitability of the small set of credit card banks appears to be representative of the profitability of the credit card operations of the banking industry. For the 2014–19 period, the profitability of credit card banks was very similar, in both levels and trends, to the profitability of the credit card industry overall, as measured by a different data set of the credit card portfolios of the largest banks.[7]

## Credit Card Bank Profitability

Tracking credit card profitability over time is complicated. The sample of credit card banks can change somewhat from one year to the next because of changing bank loan portfolios and reorganizations. Thus, overall changes in profit rates can reflect both changes in activity and changes in the sample composition. That said, changes in the sample from 2021 to 2022 had only a very slight effect on the measures of profitability reported in tables 1 and 2.

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[4] The first credit card banks were chartered in the early 1980s; few were in operation before the mid-1980s. To provide a reliable picture of the year-to-year changes in the profitability of the credit card operations of card issuers, previous reports limited their focus to credit card banks with at least $200 million in assets. Since 2015, all credit card banks that satisfied the two stated criteria had more than $200 million in assets.

[5] One bank (Discover Bank) included in the sample did not exactly meet these criteria. This bank is a major issuer on the Discover network, and its balance sheet is largely consistent with the credit-card-focused business model.

[6] The decline in the share of credit card balances held by credit card banks has been driven in large part by reorganizations. Many of the largest banks had standalone subsidiaries for their credit card operations, separate from their main banking operations. In recent years, some of these banks have combined all their operations into a single subsidiary that files a single Call Report each quarter and, often, does not meet the criteria for a credit card bank.

[7] The profitability of credit card banks was slightly lower than that of the credit card portfolios of the largest banks in 2020 and 2021. For a discussion of the comparison of the two data sets, see Robert Adams, Vitaly M. Bord, and Bradley Katcher (2022), "Credit Card Profitability," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, September 9), https://doi.org/10.17016/2380-7172.3100.

Another difficulty that arises in assessing the profitability of credit card activities over time is due to changes in accounting rules. For example, accounting rule changes implemented in 2010 required banking institutions to consolidate on their Call Reports some previously off-balance-sheet items (such as credit-card-backed securities). To the extent that previously off-balance-sheet assets have a different rate of return than on-balance-sheet assets, profitability measures based on Call Report data in 2010 and after are not necessarily comparable with those before 2010.

Similarly, large credit card banks that file with the Securities and Exchange Commission began using the current expected credit losses (CECL) methodology to estimate provisions for loan losses on January 1, 2020. CECL replaced the previously used incurred loss methodology and incorporates some forward-looking information in estimating expected credit losses.[8] Because of this change in methodology, starting in 2020, loan loss provisions are not necessarily comparable with those before 2020.

In 2022, credit card banks reported net earnings, before taxes and extraordinary items, of 4.71 percent of average quarterly assets, down from 6.93 percent in 2021 (table 1).

**Table 1. Annualized return on assets, large U.S. credit card banks, 2001–22**
**Percent**

| Year | Return |
|---|---|
| 2001 | 4.83 |
| 2002 | 6.06 |
| 2003 | 6.73 |
| 2004 | 6.30 |
| 2005 | 4.40 |
| 2006 | 7.65 |
| 2007 | 5.08 |
| 2008 | 2.60 |
| 2009 | –5.33 |
| 2010 | 2.41 |
| 2011 | 5.37 |
| 2012 | 4.80 |
| 2013 | 5.20 |
| 2014 | 4.94 |
| 2015 | 4.36 |
| 2016 | 4.04 |
| 2017 | 3.37 |
| 2018 | 3.79 |
| 2019 | 4.14 |
| 2020 | 2.40 |
| 2021 | 6.93 |
| 2022 | 4.71 |

Note: Credit card banks are banks with a minimum 50 percent of assets in consumer lending and 90 percent of consumer lending in the form of revolving credit. Profitability of credit card banks is measured as net pretax income as a percentage of average quarterly assets.
Source: Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Reports), https://www.ffiec.gov.

The large decline in profitability in 2022 mainly reflected an increase in provisioning for loan losses (table 2). As discussed in the 2021 report, banks shrank their provisioning to a historically low rate in 2021, as losses expected during the COVID-19 pandemic did not materialize. Subsequently, banks increased their provisioning meaningfully to 2.32 percent of average quarterly

[8] For more information on CECL, see https://www.federalreserve.gov/supervisionreg/topics/faq-new-accounting-standards-on-financial-instruments-credit-losses.htm.

**Table 2. Income and expenses for U.S. banks in 2021 and 2022**
**Percent of average quarterly assets**

| | Credit card banks in 2022 | Credit card banks in 2021 | All banks in 2022 |
|---|---|---|---|
| Total interest income | 11.10 | 10.36 | 3.21 |
| Total interest expenses | 1.44 | .93 | .50 |
| Net interest income | 9.66 | 9.43 | 2.71 |
| | | | |
| Total noninterest income | 6.78 | 5.62 | 1.24 |
| Total noninterest expenses | 9.41 | 8.22 | 2.31 |
| Net noninterest income | –2.63 | –2.60 | –1.07 |
| | | | |
| Provisions for loan losses | 2.32 | –.08 | .21 |
| | | | |
| Return | 4.71 | 6.93 | 1.41 |

Note: Credit card banks are banks with a minimum 50 percent of assets in consumer lending and 90 percent of consumer lending in the form of revolving credit.
Source: Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Reports), https://www.ffiec.gov.

assets in 2022, though provisioning remained below its historical average yearly rate for the 2001–19 period of 4.12 percent of assets.

Other changes in individual income and expense items did not contribute meaningfully to the change in profitability.[9] Net interest income at credit card banks inched up in 2022, as interest income expanded slightly faster than interest expenses amid rising interest rates. Net noninterest income stayed approximately flat, as an increase in noninterest income was offset by a similar increase in noninterest expenses. The increases in both noninterest income and noninterest expenses are consistent with continued growth in credit card purchase volumes in 2022. The dollar volume of purchase transactions on credit cards rose approximately 20 percent in 2022, likely resulting in higher interchange income and higher rewards expenses at credit card banks.[10]

Credit card earnings have almost always been higher than returns on all bank activities, and earnings patterns for 2022 were consistent with historical experience.[11] The average return on all

[9] Changes in the sample of credit card banks from 2021 to 2022 slightly accentuated the decline in profitability. The eight banks identified as credit card banks in 2022 had net earnings of 6.35 percent of assets in 2021, slightly lower than the net earnings of the nine banks that met the criteria for credit card banks in 2021.

[10] As discussed in the next section, this figure is from the *Nilson Report.* See HSN Consultants, Inc. (2023), *Nilson Report,* no. 1235 (Carpinteria, Calif.: The Nilson Report, February).

[11] This report focuses on the profitability of large credit card banks, although many other banks engage in credit card lending without specializing in this activity. The cost structures, pricing behavior, cardholder profiles, and, consequently, profitability of these diversified institutions may differ from that of the large, specialized card issuers considered in this report. That said, the profitability of credit card banks was representative of the profitability of the credit card portfolios of the large, diversified banks during the 2014–19 period. See Adams, Bord, and Katcher, “Credit Card Profitability,” in note 7.

assets, before taxes and extraordinary items, was 1.41 percent for all banks, compared with 4.71 percent for the sample of credit card banks (as shown in table 2). Delinquency rates for credit card loans across all banks rose somewhat in 2022, but charge-off rates continued to decline a bit. Both delinquency and charge-off rates remained below their historical average rates at the end of 2022.[12]

## Market Structure and Additional Background

Bank cards are widely held and extensively used by consumers. According to the Federal Reserve's Survey of Consumer Finances (SCF), almost 75 percent of families had at least one credit card in 2019, the most recent year for which survey results are available.[13]

Consumers use credit cards for a source of credit and as a convenient payment device. As a source of credit, credit card users can borrow up to the credit limit on their account and revolve the balance by paying less than the full amount due.[14] As a payment device, approximately a quarter of the outstanding balances reflects primarily "convenience use"—that is, balances consumers intend to repay by their statement due date, within the standard interest-free grace period offered by card issuers. In fact, consumer surveys, such as the SCF, typically find that more than half of cardholders report they nearly always repay their outstanding balance in full before incurring interest each month.[15] That said, the 20 percent of credit card accounts that revolved a balance on their credit cards in each of the previous 12 months account for about two-thirds of all credit card borrowing.[16]

The general-purpose bank credit card market in the U.S. is dominated by cards issued on the Visa and Mastercard networks, which, combined, accounted for nearly 690 million cards, or about 84 percent of general-purpose credit cards, in 2022.[17] In addition, the American Express and Discover networks accounted for another 136 million general-purpose cards in 2022. The combined total number of charges and cash advances using credit cards rose 15 percent to almost 56 billion transactions in 2022. The dollar volume of these transactions rose almost 20 percent to more than $5.5 trillion, after rising 25 percent in 2021.

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[12] See Board of Governors of the Federal Reserve System (2023), Statistical Release, "Charge-Off and Delinquency Rates on Loans and Leases at Commercial Banks" (February 21), https://www.federalreserve.gov/releases/chargeoff.

[13] This statistic reflects access to general-purpose credit cards and does not include retail cards or charge cards.

[14] Credit card borrowers must pay at least the minimum amount due each month to remain in good standing.

[15] See Neil Bhutta, Jesse Bricker, Andrew C. Chang, Lisa J. Dettling, Sarena Goodman, Joanne W. Hsu, Kevin B. Moore, Sarah Reber, Alice Henriques Volz, and Richard A. Windle (2020), "Changes in U.S. Family Finances from 2016 to 2019: Evidence from the Survey of Consumer Finances," *Federal Reserve Bulletin,* vol. 106 (September), pp. 1–42, https://www.federalreserve.gov/publications/files/scf20.pdf.

[16] See Adams, Bord, and Katcher, "Credit Card Profitability," in note 7.

[17] Figures cited in this paragraph are from the *Nilson Report.* See HSN Consultants, *Nilson Report,* in note 10.

A relatively small group of card issuers holds most of the outstanding credit card balances, with the top 10 holding 84 percent.[18] Several thousand other financial institutions offer credit cards to consumers but hold a small share of outstanding credit card balances. In the aggregate, the Federal Reserve Statistical Release G.19, "Consumer Credit," indicates that consumers carried $1.2 trillion in outstanding balances on their revolving accounts as of the end of 2022, about $161 billion (15 percent) higher than the level at the end of 2021.

Despite this strong growth in balances in 2022, the amount of available credit under outstanding credit card lines far exceeds the aggregate of balances owed on such accounts. Data from consumers' credit records indicate that as of the end of 2022, individuals were still using only a fraction of the total dollar amount available on their lines under credit card plans.[19] Apart from a one-year decline in 2020, the total dollar amount available has risen each year since 2010 and approached $4.5 trillion at the end of 2022.

In soliciting new accounts and managing existing account relationships, issuers segment their cardholder bases along several dimensions. For example, issuers offer more attractive rates to customers who have good payment records while charging relatively high interest rates and fees on higher-risk or late-paying cardholders. Card issuers also closely monitor payment behavior, charge volume, and account profitability, and they adjust credit limits accordingly both to allow increased borrowing capacity as warranted and to manage credit risk.

Various channels are used for new account acquisition and account retention.[20] The most important channel in recent years is generally referred to as the digital channel, which includes email solicitations, website advertisements, and social media advertisements. These solicitations could stem directly from the bank or from third-party firms. At the end of 2022, more than half of applied-for offers were received digitally. Branches, kiosks, and automated teller machines, or ATMs, are other significant channels for account acquisition as banks take advantage of cross-selling opportunities. Finally, direct mailings continue to be an important channel, with about 3.6 billion offers mailed in 2022, accounting for about 17 percent of applied-for offers.

In recent years, several new trends related to credit card usage have emerged. First, some borrowers have turned to personal loans for debt consolidation, including the refinancing of credit card debt. Such loans are offered by both traditional banks and financial technology lenders, often in partnership with banks. Second, the buy-now-pay-later (BNPL) market has grown significantly over the past several years as an alternative payment method for consumers at point of sale, par-

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[18] Four of the top 10 card issuers are in the sample of credit card banks used in this report. The other six issuers do not meet the requirements for inclusion in the sample.

[19] See Federal Reserve Bank of New York (2023), *Quarterly Report on Household Debt and Credit: 2022:Q4* (New York: FRBNY, February), https://www.newyorkfed.org/medialibrary/interactives/householdcredit/data/pdf/hhdc_2022q4.pdf.

[20] Information and acquisition channels data in this paragraph are based on proprietary data from Mintel Comperemedia.

ticularly for online purchases. BNPL providers, many of which are financial technology providers, allow consumers to pay for a purchase through an installment plan, often with very low or zero interest. Additionally, several credit card lenders have recently introduced services that allow their credit card borrowers to convert eligible credit card transactions into installment plans post-transaction.

## Recent Trends in Credit Card Pricing

The topic of credit card pricing and how it has changed in recent years has been a focus of public attention and is, consequently, reviewed in this report. The analysis of the trends in credit card pricing here focuses on credit card interest rates because they are the most important component of the pricing of credit card services. Credit card pricing, however, involves other elements, including annual fees, fees for cash advances and balance transfers, rebates, minimum finance charges, over-the-limit fees, and late payment charges.[21] In addition, the length of the interest-free grace period, if any, can have an important influence on the amount of interest consumers pay on revolving credit card balances. It is also important to note that interest rates charged vary considerably across credit card plans and borrowers, reflecting the various features of the plans and the risk profile of the cardholders served.

Over time, pricing practices in the credit card market have changed. Today, card issuers offer a broad range of plans with differing fees and rates depending on credit risk, consumer usage patterns, and specific benefit packages. Following the economic downturn in 2009, new credit card rules spurred changes in interest rate pricing in 2009 and 2010.[22] In most plans, an issuer establishes a rate of interest for customers of a given risk profile; if the consumer borrows and pays within the terms of the plan, that rate applies. If the borrower fails to meet the plan requirements—for example, the borrower pays late or goes over their credit limit—the issuer may reprice the account to reflect the higher credit risk revealed by the new behavior. Regulations that became effective in February 2010 limit the ability of card issuers to reprice outstanding balances for cardholders who have not fallen more than 60 days behind on the payments on their accounts. Issuers may, however, reprice outstanding balances if they were extended under a variable-rate

[21] The vast majority of credit card profitability arises from interest rates and late fees. Moreover, credit card account holders who revolved a balance on their accounts either consistently or sporadically over the previous 12 months account for almost all interest charges and the majority of all fees paid on credit card accounts. See Adams, Bord, and Katcher, "Credit Card Profitability," in note 7.

Additional assessments of the rates and fees charged by credit card issuers are provided in U.S. Government Accountability Office (2006), *Credit Cards: Increased Complexity in Rates and Fees Heightens Need for More Effective Disclosures to Consumers,* report to the ranking minority member, Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, U.S.Senate, GAO-06-929 (Washington: GAO, September), https://www.gao.gov/new.items/d06929.pdf; and Bureau of Consumer Financial Protection (2021), *The Consumer Credit Card Market* (Washington: BCFP, September), https://files.consumerfinance.gov/f/documents/cfpb_consumer-credit-card-market-report_2021.pdf.

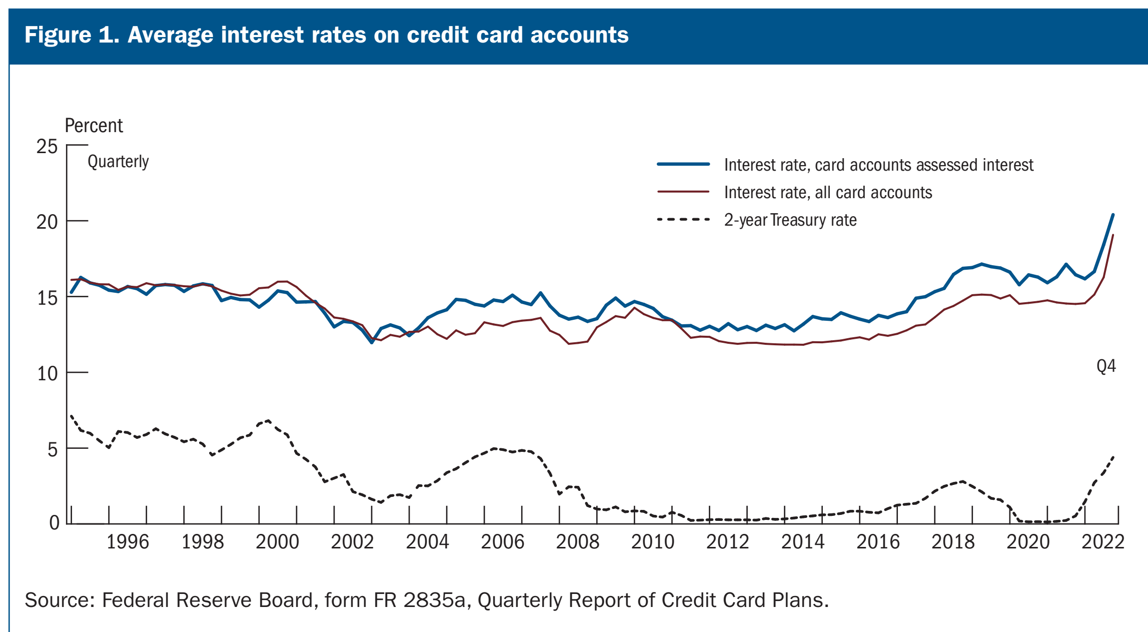
[22] New rules include the Credit Card Accountability Responsibility and Disclosure (CARD) Act of 2009 and amendments to Regulations Z and AA passed in 2010.

plan and the underlying index used to establish the rate of interest (such as the prime rate) changes.[23] These rules do not explicitly restrict initial pricing of new accounts.

The credit card pricing information used in this report is obtained from the Quarterly Report of Credit Card Plans (form FR 2835a). This survey collects quarterly information from a sample of credit card issuers on (1) the average nominal interest rate and (2) the average computed interest rate. The former is the simple average interest rate posted across all accounts; the latter is the average interest rate paid by only those accounts that incur finance charges. These two measures can differ because some cardholders are convenience users who pay off their balances during the interest-free grace period and therefore do not incur finance charges. Together, these two interest rate series provide a measure of credit card pricing. The data are made available to the public each quarter in the Federal Reserve Statistical Release G.19, "Consumer Credit."

Data from form FR 2835a indicate that the average credit card interest rate across all accounts increased from 14.5 percent at the end of 2021 to 19 percent by the end of 2022. At the same time, the yield on two-year nominal Treasury securities—a measure of the benchmark, or "risk free," rate—rose to approximately 4.4 percent, from 0.5 percent at the end of 2021 (figure 1). The average interest rate on accounts that incurred interest was reported to be higher, increasing to 20.4 percent at the end of 2022.

**Figure 1. Average interest rates on credit card accounts**




Source: Federal Reserve Board, form FR 2835a, Quarterly Report of Credit Card Plans.

[23] According to the Mintel Comperemedia data, more than 95 percent of credit card mail offerings in 2022 were for variable-rate cards. Other data sources on credit card accounts confirm this observation.