

The True Impact of Interchange Regulation:

How Government Price Controls Increase Consumer Costs and Reduce Security



Table of Contents

Executive Summary	1
Durbin 1.0	3
History	3
How Debit Routing Mandates Work	3
The Impact of Routing Mandates on Revenue	5
The Impact of an Asset Threshold	6
Payment Network Differences	9
Payment Network Volume & Type	9
Possibility of Routing Mandates for Credit Cards	11
Financial Impacts	14
Financial Impacts - Durbin 1.0	14
Exempt Institutions Were Not Free from Impacts	14
The Impact to Bank Account Fees and Requirements	16
The Impact to Unbanked American Households	18
Lessons for the Future	19
Merchants & Debit Interchange Savings	20
A Deeper Dive into Merchant Behavior	21
Surcharging for Debit and Credit Card Payments	22
The Economics of Pass-Through Savings	22
Lessons for the Future	23

© Cornerstone Advisors. All rights reserved.



Where is the Fraud?	24
Fighting Fraud	25
Counting the Costs	26
Investment in Fraud Prevention/Mitigation	28
Data Breaches: The Supply Chain of Fraud	29
Impact on Banking Growth	30
Credit Card Programs	30
Impact to Credit from Future Regulation	33
Impact on Communities	34
About the Author	35
About Cornerstone Advisors	35
About Credit Union National Association	36
About American Association of Credit Union Leagues	36
Endnotes	37

 $\hbox{$\>@$ Cornerstone Advisors. All rights reserved.}\\$



Executive Summary

Credit Union National Association and American Association of Credit Union Leagues commissioned this report from Cornerstone Advisors in spring 2023 to examine the evidence of how debit card routing mandates and debit interchange price caps from Senate Amendment 3989 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Durbin Amendment" or "Durbin 1.0") have impacted credit unions and the larger banking system. Additionally, this study reviews the financial impact from existing and proposed regulations related to credit card payments. It also reviews how merchants have or have not passed savings to consumers from lower debit card fees and how they may respond to proposed regulation on credit cards. Finally, the study examines the impact to the banking industry and consumers from proposed regulation.

This study offers three critically important recommendations:

- Merchants and any network that processes card transactions must be held accountable to a standard for fraud protection and data security
- The asset threshold tied to debit card transactions should be raised significantly
- Future credit card regulations should NOT be enacted because they harm both consumers and the banking system—with small, local community financial institutions suffering disproportionately given their much more limited resources

These recommendations are based on key lessons learned from Durbin 1.0:

- All issuers of debit cards—including those under the \$10 billion asset threshold—had significant negative revenue impacts
- Most financial institutions addressed revenue shortfalls through higher monthly fees and increased minimum balance requirements
- The availability of free checking was greatly reduced to consumers, and an increased number of Americans became unbanked in the years following the rollout of the Durbin Amendment
- All payment networks are not equal. Significant differences exist between single-message and dual-message networks that impact operation and fraud costs for issuers
- Card not present (CNP) fraud is growing faster than payments, and the cost to fight fraud is larger than reported figures

These lessons provide a body of evidence to inform legislators of the likely harm from introducing new credit card regulations in the form of routing mandates. The American consumer will feel the pain of the proposed regulation, which will likely negatively impact merchants.



Indeed, this report finds that consumers' top concerns include:

- **Security:** With rare exceptions, merchants show little interest in stemming the tide of rampant data breaches that lead to fraud
- **Protection:** Less secure government mandated payment routing will lead to the loss of expansive liability protection from fraudulent transactions on their cards
- Value: Preserving the ability to use their credit and debit cards virtually anywhere, without facing additional charges



Durbin 1.0

History

In response to the financial crisis of 2008 and a desire by policymakers to establish additional consumer protections, this legislation created a price cap on interchange rates determined by the Federal Reserve Board and established a requirement that all debit card issuers provide a minimum of at least two networks over which a merchant can process an electronic debit transaction. The Dodd-Frank Wall Street Reform and Consumer Protection Act was passed on July 21, 2010. One of the amendments, Senate Amendment 3989, was submitted by Sen. Ricard Durbin (D-III.) and sought to regulate interchange fees of debit card transactions and debit card routing. This amendment, often referred to as the Durbin Amendment, added Section 920 to the Electronic Fund Transfer Act (EFTA). The legislation exempted debit card issuers with less than \$10 billion in assets from the price cap component. A financial institution that exceeds \$10 billion in assets and issues debit cards is referred to as a covered issuer while those under the threshold are exempt issuers. The intent of the \$10 billion threshold was to differentiate between community financial institutions and larger banks and limit the impact on institutions committed to the financial well-being of their communities. On Oct. 1, 2011, the final rule, known as Regulation II, implemented price caps to covered issuers:

- \$0.21 per transaction
- Plus 0.05% multiplied by the value of the transaction
- \$0.01 fraud-prevention adjustment for certain fraud protection procedures

The dual routing mandate for debit issuers (Section 920(b)(1)(A) of the EFTA) allows merchants to direct the routing of a card-present (CP) debit card transaction. On Oct. 3, 2022, the Federal Reserve updated this rule to mandate that card-not-present (CNP) transactions support at least two payment card networks. This routing mandate applies primarily for digital or ecommerce payments and is scheduled to go into effect on July 1, 2023.

How Debit Routing Mandates Work

The routing mandate on debit transactions instructs issuers (financial institutions that offer debit cards) to provide at least two unaffiliated payment networks. An issuer in the U.S. market will have a contract to issue either a Mastercard- or Visa-branded debit card. The Durbin Amendment requires the issuer to contract with at least one additional payment network. These networks include Pulse, NYCE and STAR, which provided network services for ATM transactions before the establishment of Regulation II but processed limited debit transactions. To the account holder, it is represented with either a Mastercard or Visa logo on the front of the card and possibly the logo of an alternative network on the back of the card.



These alternative networks are often referred to as single-message networks. A credit union or a bank typically meets the conditions of Regulation II with integration to a single PIN-based card network (a single-message network) not affiliated with Mastercard or Visa. Additionally, the credit union or bank has a contract with a signature-based card network (a dual-message network such as Mastercard or Visa).

Alternatively, an issuer could issue a debit card that operates on two unaffiliated signature-based card networks but is not enabled for PIN debit transactions, or vice versa.

With issuers supporting multiple payment networks, merchants can choose to route debit transactions to obtain a payment authorization. With the introduction of routing mandates, competitive pressure has reduced the fees for a merchant to route a debit transaction. As discussed further in this report, the routing mandates have reduced revenue from debit card transactions for all issuers regardless of asset size.

Single- and Dual-Message Networks

The routing mandates within Regulation II have created a two-lane highway for debit payments to be authorized by an issuer. However, these payment highways are not identical in capabilities. There are distinct differences between the two network formats.

Single-message networks:

- Conduct a payment authorization and completion of the transaction in a single message
- Are often referred to as PIN-based networks as the cardholder provides a PIN number with a CP transaction
- Can process PIN-less debit transactions, which include CNP transactions that are capabilities the single-message networks added after the onset of Regulation II

Dual-message networks:

- Conduct a payment authorization in two elements with the initial payment authorization followed by a settlement message typically sent later in the same day
- Are often referred to as signature-based networks as the signature by the cardholder confirms the final amount of the transaction
- Include pre-authorization scenarios like gas pump purchases or transactions with a gratuity such as at restaurants. Most CNP transactions are also transmitted on dual-message networks

For many businesses (merchants), the process is seamless to direct debit transactions among multiple networks. Merchants contract with a merchant acquirer (also referred to as a card processor or merchant bank) that handles all the details of routing for the merchant.

While merchants have the freedom to choose what networks to utilize, they often request the lowest-cost option without criteria for other concerns, such as fraud. The merchant acquirer will automate the decision on which network to move a debit transaction to an issuer to obtain the payment authorization. With the October 2011 implementation of Regulation II, each CP debit transaction goes through a decisioning process for which the payment network will facilitate the transaction back to the issuer.



The Federal Reserve mandated that effective July 1, 2023, debit CNP transactions must also have at least two unaffiliated networks offered to merchants.

Figure 1 illustrates how a debit CP transaction would be priced for two credit unions. This illustration assumes both credit unions are under \$10 billion in assets and interchange fees are based on the Federal Reserve's 2021 average interchange fee per transaction. The revenue can be quite different based on the networks the issuer has contracted with for transmitting the payment authorization to its card processing system. While payment volume will vary by issuer, in general all debit traffic (both CP and CNP) is split between single-message and dual-message networks.

Low-cost routing Single Message Networks Card Present (CP) AFFN ATH Culiance Interlink Maestro NYCE PULSE SHA7AM Merchant Credit Union B STAR A \$0.19 PULSE A \$0.66 Dual Message Networks → Mastercard B \$0.66

Figure 1: Routing and Pricing for Debit Card Present Transactions

Cornerstone Advisors

The Impact of Routing Mandates on Revenue

The implementation of Regulation II altered the marketplace for all debit transactions regardless of whether the issuer was under the \$10 billion threshold (exempt transactions) or over the \$10 billion threshold (covered transactions). In the years following the start of Regulation II, the debit marketplace saw revenue decrease for all issuers (Figure 2).²



\$0.70 \$0.60 \$0.50 \$0.40 \$0.30 \$0.20 \$0.10 \$0.00 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 Dual-message, covered transactions Single-message, covered transactions ----- Single-message, exempt transactions ---- Dual-message, exempt transactions Note: Data for years prior to 2013 reflect a split between covered/exempt issuers, rather than covered/exempt transactions.

FIGURE 2: Average Debit Card Interchange Fees 2011-2022

Source: Federal Reserve Board

Routing mandates have resulted in an increased burden on credit unions and smaller community banks that have seen revenue cut by almost a third for single-message transactions, which represent the majority of debit transactions for an issuer.

- By 2018, revenue from single-message CP transactions declined to a level that was nearly identical for both exempt and covered transactions
- Exempt debit transaction revenue declined by 29% on single-message networks

In 2021 the distribution of debit traffic is different based on the characteristics of the issuer's portfolio of customers. Among the top 50 debit card issuers, all of which are covered institutions, the following patterns exist for how consumers' payment volume exists:³

- 68% of debit purchases are signature-based transactions (dual-message networks)
- 32% of debit purchases are PIN-based transactions (single-message networks)
- Based on Cornerstone Advisors' observations with exempt issuers, the purchase volume is closer to a 60%/40% split between dual- and single-message networks, respectively

The Impact of an Asset Threshold

In 2011 the financial services landscape in retail banking looked very different than it does today. On the eve of the implementation of Regulation II there were roughly 7,300 credit unions. At the end of 2022, that number had decreased by 34% to just over 4,800 credit unions.



What has grown by 7x is the number of credit unions over the \$10 billion asset threshold. Since 2011 there has been sizable growth in both commercial banks and credit unions that had to face the revenue shortfall that accompanies crossing the \$10 billion threshold.

The challenge with an asset threshold and, in particular, a threshold set at \$10 billion is the wide variance in assets between credit unions and commercial banks. A bank and credit union may have similar debit payment volume, but the bank often has access to much larger assets. Table A, which compares two large credit unions to a bank with similar debit card volume, displays the imbalance of assets.

Table A: Credit Unions vs. Commercial Banks

	Credit Union A	Credit Union B	Commercial Bank
Assets	\$17.4 billion	\$13.1 billion	\$750 billion
Members/Customers	1.2 million	1 million	1.8 million
Debit card volume	\$8.3 billion	\$7.8 billon	\$10.4 billion
Credit card volume	\$1.7 billion	\$1.5 billion	\$4.2 billion

Source: Cornerstone Advisors

The bigger, diversified banks often have larger commercial clients and a more varied asset base from which to generate revenue than a credit union. Credit unions are not-for-profit financial institutions with a mission to serve the community and member base they support. Often, credit unions have a high representation of retail clients and thus the assets are tied to the lives of these members such as in home loans versus the commercial and industrial lending assets found within larger community, regional and national banks.

This asset imbalance exists below the \$10 billion asset threshold. Utilizing data from Cornerstone Advisors' Performance Vault during 2021 to 2022 community banks have approximately 2.7 times more assets compared to credit unions with similar debit card volume. While the asset disparity is not as large with bigger banks, credit unions are more asset constrained than similar banks.

The asset level can prohibit credit unions and community banks from some aspects of organic and strategic growth. In an examination of credit unions that are nearing the \$10 billion threshold, it is often seen that they adjust their growth strategies to account for a significant loss in revenue once the price cap goes into effect. Cornerstone research identified credit unions within this peer group that reduced their asset growth by nearly half compared to other credit unions. Many credit unions that surpass the \$10 billion threshold will look to accelerate asset growth, which may include merging with another credit union.



CASE STUDY

The following case study illustrates how the \$10 billion asset threshold impacts a credit union's revenue.

Assumptions		
Assets	\$9.8 billion	
Members	500,000	
Active Debit Card Accounts	277,500	
Average Transactions per Month	26.6	
Average Transaction Value Size	\$39.99	
Networks in Use	Visa & STAR	
Average Interchange Fee (DMN-Visa) ⁴	\$0.66 (exempt) \$0.22 (covered)	
Average Interchange Fee (SMN-STAR) ⁵	\$0.19 (exempt) \$0.22 (covered)	
Financial Results: Debit Interchange Revenue		
Current asset state (under \$10 billion) Grows to just over \$10 billion in assets	\$41.8 million in annual interchange revenue \$20.2 million in annual interchange revenue	

Using the assumptions in the above case study, this credit union will experience more than a **50% drop in revenue** if its asset size grows by greater than 2%. In 2019, most of the credit unions similar to this use case grew assets in excess of 10%. Yet many credit unions just below the \$10 billion threshold have asset growth much lower than their peers above the threshold. A hypothesis is they are guarding their growth to avoid the impact of crossing the asset threshold.

If a credit union does cross the \$10 billion asset threshold, it would likely require a doubling of credit union members to recoup the lost revenue. For this use case, that would require a half million more members. While credit unions are not for profit, the revenue is utilized to reinvest into their members and provide additional services.



Payment Network Differences

The intent of past and proposed legislation tied to routing mandates is to foster competition. This has increased growth among the single-message networks with NYCE (subsidiary of FIS), PULSE (subsidiary of Discover) and STAR (subsidiary of Fiserv) as some of the largest providers in this category. The Federal Reserve measures transaction activity for debit purchases, and the distribution of transactions between covered and exempt issuers varies. Table B illustrates the distribution of debit transactions and average interchange fees for 2021 between exempt transactions (issuers under \$10 billion) and covered transactions (issuers over \$10 billion) among the single-message networks.

Table B: Single-Message Networks 2021

	Exempt Transactions	Covered Transactions	Exempt Average Interchange Fee	Covered Average Interchange Fee
ACCEL	83%	17%	\$0.24	\$0.24
AFFN	89%	11%	\$0.25	\$0.13
ATH	22%	78%	\$0.23	\$0.20
CULIANCE	100%	0%	\$0.25	NA
Interlink	18%	82%	\$0.38	\$0.24
Jeanie	99%	1%	\$0.24	\$0.15
Maestro	26%	74%	\$0.22	\$0.24
NYCE	78%	22%	\$0.32	\$0.23
PULSE	65%	35%	\$0.31	\$0.24
SHAZAM	93%	7%	\$0.25	\$0.22
STAR	42%	58%	\$0.19	\$0.24

Source: Federal Reserve Average Debit Card Interchange Fee by Payment Card Network

Today's marketplace is a competitive landscape where the card brands of Visa and Mastercard are competing with these single-message networks to win a merchant's debit payment volume. Yet, many of the largest merchants have negotiated contracts with payment networks to secure contractual interchange rates and priority routing to the payment network not available to smaller merchants. In 2022, Amazon and Visa reached an agreement with Visa to continue accepting U.K.-issued credit cards. Amazon cited fees as a challenge and the resolution was a "global agreement" between Amazon and Visa.

Payment Network Volume & Type

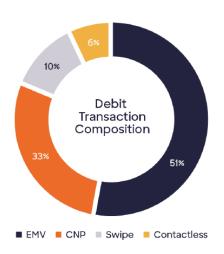
Purchase volume among the top 50 U.S. debit issuer networks grew to \$2.492 trillion in 2021.⁷ The PULSE payment network analysis of debit transactions illustrates the distribution of debit transactions by the method customers use their cards (Figure 3).⁸



- 33% of debit transactions were CNP in 2022
- 84% of the fraud within debit transactions is associated with CNP transactions

In the most recent data from the Federal Reserve, CNP debit transaction volume was 22.8% of total debit card volume and grew four times the rate of CP volume. Online and mobile debit transactions continue to grow with a more than 10% increase in volume in the 2022 Pulse survey compared to the Federal Reserve analysis.

Figure 3: 2022 Distribution of Debit Transactions

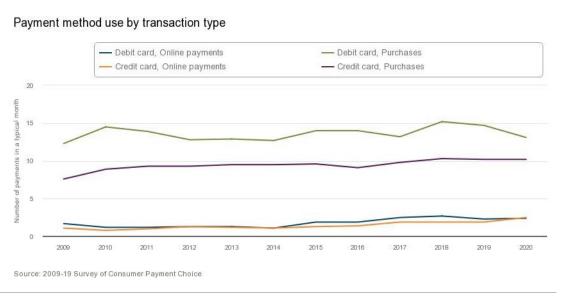


Source: 2022 PULSE Debit Issuer Study

Routing mandates specified in Regulation II for CNP that go into effect on July 1, 2023, are likely to produce a significant increase in volume of CNP transactions. Debit transaction volume will move from dual-message to single-message networks. Based on the most recent Federal Reserve interchange fee publication, exempt issuers could experience a **50% reduction** in the average debit interchange fee for CNP transactions that are shifted from dual-message to single-message networks.

The trend in CNP transactions reflects the growth of digitally based transactions. Merchants, including those with primarily a "brick and mortar" presence, have expanded the channels to provide more convenient service offerings. A range of transactions that historically were CP are experiencing a shift to a CNP format. Consider the rapid growth of food delivery services, where all transactions are CNP. In 2011, food pickup was the norm and customers paid for the food in person. CNP purchases (online payments) have increased, and CP debit purchases have started to decline (Figure 4).¹⁰

Figure 4: Frequency of Payment Method



Sources: Federal Reserve Bank of Atlanta, 2020 Survey of Consumer Payment Choice

The growth in CNP transactions is spurring on the fraud associated with CNP transactions. Fraud within card payments is growing faster than consumer spending. The dual-message networks (Visa and Mastercard) have invested substantially to protect issuers from fraudulent transactions. Additional detail regarding fraud is covered later in this report, but the CNP volume has dominantly resided on the dual-message networks where significant fraud investments have been made.

Several issuers with whom Cornerstone Advisors spoke for this report expressed concern over whether sufficient fraud protection technology is available on single-message networks. With debit CNP transactions likely to grow in the coming months for single-message networks, issuers will be on the front lines of any spike in fraud rates.

Possibility of Routing Mandates for Credit Cards

The routing mandates found with the Durbin Amendment (Durbin 1.0) are limited to only debit transactions. In summer 2022, a bill called The Credit Card Competition Act of 2022 (aka Durbin 2.0) was introduced. The bill's stated intent is to promote competition because as of today, credit cards are tied to a specific payment network. The legislation proposed that credit card issuers over \$100 billion in assets cannot restrict the number of networks to process a credit card transaction. The legislation would require at least two unaffiliated payment networks, with one network outside the two largest networks. Past routing mandates on debit transactions provide lessons for how any future routing mandates tied to credit cards will impact the American economy.

The stakes are high given the role card payments play in driving revenue for merchants of all sizes in the United States. In 2021, merchants experienced the following:¹¹



- 50% of spending at merchants was generated from credit cards, up from 49% in 2020
- More than \$9 trillion in merchant purchases were conducted on credit, debit and prepaid consumer and commercial general purpose card products
- Credit card purchase volume was \$4.6 trillion, an increase of 26% over 2020

The Concerns of Future Mandates

Consumers enjoy the many benefits of their credit cards, and the use of credit cards has been increasing. With over 441 million credit cards issued today in America, it is the pervasive form of payment for consumers. The top reason consumers select a credit card over other forms of payment is security. Credit cards issued by Visa and MasterCard offer zero liability when a transaction on their branded card is processed on their network. Recent studies show what matters to credit card customers: 12

- 79% choose credit cards based on data security
- 25% cite access to rewards
- 50% of active credit holders revolve a balance
- 21% of active accounts are transactors (payoff each month)

Security is important, but consumers are also concerned about fraud. The advantages offered when all credit cards come down one pipe is a single view of the transactional fraud landscape. A change to this format would provide a fragmented fraud landscape. The guarantee of zero liability will be questionable because customers will never know if their card brand processed the transaction or it was sent through an alternate network.

Financial Considerations

For many consumers, a credit card is a tool to manage cash flow when they do not have sufficient funds for a purchase but want the flexibility to pay the bill at the end of the month or choose to finance a portion of the balance. While credit cards provide security and borrowing capabilities, consumers are choosing to use their credit cards more frequently over other forms of payment in recent years. The primary beneficiary of these attributes are the merchants, which would likely see lower sales without the various benefits found in credit cards today.

Merchants also have concerns regarding the impact of credit card mandates. Likely and unintended consequences of credit card mandates include reduction or removal of rewards programs, less credit availability, and lower credit limits due to revenue impacts. Research conducted by Cornerstone Advisors found that nearly half of small businesses are concerned that future credit card regulation could lead to lower credit limits and thus a negative impact on their businesses (Figure 5).



Figure 5: Small Business Concerns Regarding Future Credit Card Regulation





Source: Cornerstone Advisors survey of 1,009 small to medium size business owners and executives, March 2023

A decade of historical evidence has shown what will happen if proposed legislation requiring routing mandates for credit cards like what is currently in place for debit transactions is approved. The asset threshold will provide smaller institutions with little to no protection from the unintended consequences that will occur. The financial impact will also be felt on consumers who may see credit availability reduced or removed at all financial institutions, not just those over \$100 billion in assets. Finally, financial institutions over the \$100 billion threshold would need to reissue cards to every accountholder to enable new routing mandates. With the cost to reissue cards in some cases over \$7, the bill for the larger issuers would exceed \$3 trillion.



Financial Impacts

Financial Impacts - Durbin 1.0

Following the financial crisis of 2008, many policymakers attempted to establish additional consumer protections and provide benefits to small businesses that accept debit card payments. Sen. Durbin stated in 2011 that Regulation II would result in lower debit interchange fees and merchants would pass the savings to customers. Multiple reports, however, have shown that the goal of passing lower prices and discounts to consumers was not achieved. In fact, a set of different outcomes has resulted in a negative impact to consumers and financial institutions.

In the years since the passage of the Durbin Amendment, various scholars and economists have studied the impact of the amendment on the banking industry, consumers and merchants. The Durbin Amendment aimed to reduce the costs of accepting debit cards for merchants by placing price caps on debit interchange fees and spurring competition among payment networks by requiring at least two unaffiliated networks for debit transactions. Policymakers believed consumers would benefit from these price caps assuming merchants would pass through lower prices for goods and services. One of the most recent studies, published in 2019 by Vladimir Mukharlyamov (Georgetown University) and Natasha Sarin (University of Pennsylvania) concluded that consumers received no financial benefit from this regulation, ¹³ and there is further evidence found in multiple research studies that both banks and consumers experienced negative financial impact.

In hindsight, the proponents of what is now Regulation II failed to examine the financial linkage of the revenue sourced from debit card interchange to connected services including checking accounts and the cost to serve banking customers. Any economic analysis of the Durbin Amendment must consider that consumers are both customers of merchants and financial institutions. While the intent of the Durbin Amendment was to lower prices, which largely did not occur, it did trigger a shift in costs of providing banking services to the same customers that were supposed to receive cost savings at merchants.

The Durbin Amendment resulted in merchants saving an estimated \$7.3 billion in 2012. Researchers estimate that consumers lost more on the bank side of this equation than from the pass-through of merchant savings. A 2013 study estimates that implementation of the Durbin Amendment cost consumers between \$22 billion and \$25 billion, based on the present discounted value of their losses over time. ¹⁴

Exempt Institutions Were Not Free from Impacts

The impact to financial institutions has been studied extensively in the past decade since the implementation of the Durbin Amendment. The General Accounting Office reports the Durbin Amendment resulted in a 25% reduction of annual interchange revenue for covered issuers. ¹⁵

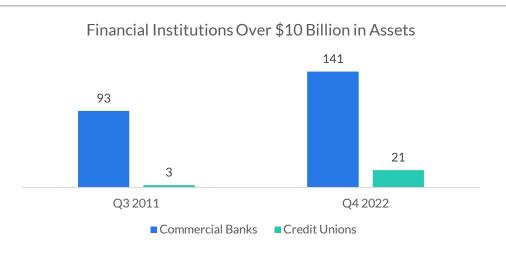


While exempt institutions were not subject to price caps, the financial impact from routing mandates decreased the revenue used to support the cost to deliver and service checking accounts. For many banks and credit unions, a need to consolidate to increase their customer base—debit card account holders—was a likely financial consideration given the impact to revenue from the implementation of Regulation II. In Q3 2011, there were 14,204 banks and credit unions under \$10 billion in assets. By the end of 2022, this number decreased to a combined 9,043 institutions.

In the period from after Regulation II to 2019, covered institutions experienced a per-transaction revenue decrease from \$0.31 to \$0.25, according to Federal Reserve reports on debit interchange. The Federal Reserve goes on to demonstrate that between 2011 and 2019, credit unions and community banks below the \$10 billion threshold (exempt institutions) lost 19.3% in revenue on debit card interchange transactions processed on single-message networks. ¹⁶

Policymakers in 2010 when considering the \$10 billion asset threshold in the Durbin Amendment were examining a banking landscape that is far different from what it is today. Figure 6 illustrates the increase in the number of banks and credit unions subject to the Regulation II requirements. Only three credit unions were subject to the \$10 billion asset threshold in late 2011. While policymakers do not have the luxury of a time machine to see the future, the banking landscape and how consumers interact with their financial institutions is not like 2010 today.

Figure 6: Commercial Banks and Credit Unions Over \$10 Billion in Assets



Source: S&P

- 21 credit unions serving over 33 million members in 2022 are subject to the price caps tied to debit interchange
- A 7x growth in the number of impacted credit unions since Q3 2011
- An additional 16 credit unions serving nearly 7 million members are within \$2 billion of crossing the
 \$10 billion asset threshold



The consolidation for financial institutions under the \$10 billion threshold has been significant. Over 5,100 institutions, including 2,516 credit unions, have closed or merged in the span of 11 years. Nearly a third fewer credit unions exist today than in 2011 to serve their members and communities. There are various contributing factors for these closures, but most institutions were merged into larger organizations as credit unions and banks sought to improve operations and expand their footprint to adjust for the reduced revenue tied to the Durbin Amendment.

The Impact to Bank Account Fees and Requirements

The economics of providing checking and debit card services were negatively impacted through the introduction of the Durbin Amendment. A key metric to study is the availability of free checking accounts at covered institutions with no minimum balance and no monthly maintenance fee. At covered institutions, this dropped from 60% to 20% in the initial few years after the Durbin Amendment.

- Average checking fees increased from \$4.34 to \$7.44 per month
- Monthly minimums increased on 25% of noninterest-bearing checking accounts
- Monthly maintenance fees increased 13% on interest-bearing checking accounts

Many banks and credit unions were responding to the downward revenue pressure as a result of lower debit interchange revenues and changing market conditions caused, in part, by the substantial number of account holders now subject to higher balance limits in covered institutions. The effect of the Durbin Amendment is akin to regulatory "whack-a-mole," where a reduction in revenue in one category forces multiple feegenerating categories to rise (Figure 7). Credit unions felt many of the same pressures. While not responsible to stockholders, credit unions were forced to reduce services to members as revenue declined. For-profit banks were left with few options but to generate revenue from other sources to meet stockholder expectations.

Debit Monthly Maintenance Fee (Gone) Minimum Balance for Free Checking (Gone) Underbanked On Communities

Figure 7: A Regulatory "Whack-a-Mole"

Source: Cornerstone Advisors



By 2013, a 40% decrease in free checking availability occurred within covered institutions. The largest providers of checking accounts in the United States are represented by these covered institutions (Figure 8). At a macro level, the impact to consumers was significant given the size and scale of these institutions. Most credit unions sought to limit the increases in monthly maintenance fees and higher balance minimums. The largest providers of checking accounts began to reduce the availability of free checking sooner than the October 2011 rule implementation as indicated by the steep decline in early 2011. Exempt institutions began to adjust to market conditions with a moderate decline in free checking after the implementation of Regulation II.

Free Checking Offered (%), Durbin vs. Non-Durbin Banks

Above Durbin cutoff

Below Durbin cutoff

Durbin passage

2008q1 2009q1 2010q1 2011q1 2012q1 2013q1

Figure 8: Availability of Free Checking Pre- & Post-Implementation of Regulation II

Source: V. Mukharlyamov & N. Sarin (2019)

In parallel to the decline in free checking, covered institutions introduced steep increases in minimum balance requirements. At many covered institutions, these monthly minimums rose 50% to 100%. When these balance minimums are not met, it triggers a monthly maintenance fee to be paid by the account holder (Figure 9).



Monthly Minimum to Avoid Fee (\$), Durbin vs. Non-Durbin Banks

Above Durbin cutoff
Below Durbin cutoff

2008q1 2009q1 2010q1 2011q1 2012q1 2013q1

Figure 9: Minimum Balance Requirements Pre- and Post-Implementation of Regulation II

Source: V. Mukharlyamov & N. Sarin (2019)

The rise in fees and minimum balances occurred in a highly competitive marketplace for banking services. Yet, why did a rise in fees and related account minimums not trigger intense competition to keep fees and account minimums at lower levels during this period of steep changes to balance minimums and maintenance fees? The reality is that the cost to move a bank account is historically quite high. Consumers have been reticent to switch banks or credit unions due to the effort required. Additionally, checking accounts are not perfect substitutes between institutions. The features and benefits vary, and that combined with the market power some banks have contributes to the ability for banks to pass on higher fees and account minimums.

The Impact to Unbanked American Households

A household that does not have a checking or savings account is classified as "unbanked." As illustrated earlier in this report, by 2013 consumers were confronted with higher monthly maintenance fees and minimum balance requirements for checking accounts. In a 2013 FDIC survey, 58% of unbanked households did not feel they had enough money to keep in an account or meet minimum balance requirements, and 36% cited this as the primary reason for not having an account (Figure 10).¹⁷



Do not have enough money

33.6

Don't like dealing with or don't trust banks

14.9

Account fees are too high or unpredictable

1D, credit, or banking history problems

6.8

Privacy

3.7

Inconvenient hours or locations

2.6

Banks do not offer needed products or services

1.2

Other

7.4

Cited as a reason
Main reason

Figure 10: Reasons Households Were Unbanked in 2013

Source: 2013 FDIC National Survey of Unbanked and Underbanked Households

To measure the impact to unbanked Americans we need to examine the two years following Durbin Amendment implementation to see how higher monthly fees and account minimums negatively impacted many Americans. In a 2011 FDIC report, 32% of the unbanked population cited high minimum balance as reason for not having a checking account. The most financially vulnerable consumers are the most sensitive to checking account minimum balance requirements. The unintended consequences of debit interchange regulation contributed to the struggles of unbanked Americans.

Lessons for the Future

With more than a decade of data and observation on how the Durbin Amendment has impacted the economics and delivery of banking services, any future policy considerations must take heed of the evidence. If credit card payments are to have the option to be routed on multiple networks, the financial impact will mirror behavior seen with debit card routing. Another whack-a-mole scenario will arise with reduced or eliminated rewards, increased monthly fees, and possibly limited credit availability as revenue is squeezed from issuers.



Merchants & Debit Interchange Savings

Policymakers stated that as the result of the Durbin Amendment, merchants would pass the savings from reduced interchange fees to their customers. In the years that followed, studies were conducted to verify whether they did.

A study conducted by the Richmond Federal Reserve in conjunction with Javelin Strategy and Research concluded the regulation has had limited and unequal impacts on merchants. ¹⁹ According to the study's authors:

- A sizable portion of merchants raised prices
- Many merchants implemented debit restrictions (such as a minimum purchase or surcharge) as their costs of accepting debit cards increased
- 77% of merchants did not change prices following the implementation of debit card price caps
- 22% chose to increase prices
- 1% passed on savings to customers

This behavior is in contrast to a study by Robert J. Shapiro, often cited by advocates of the Durbin Amendment, that assumed most merchants (69%) would pass on the savings from interchange price caps to consumers. ²⁰ An analysis of the Shapiro study calls the claim "dubious." ²¹

Examining the period from 2012 to 2022, issuers have lost nearly \$106 billion in interchange revenue.²² These losses represent merchant savings that were to be passed on to consumers but in reality resulted in higher costs for banking services or reduced services from financial institutions. A consumer is customer to the merchant and banking provider. As revenue is displaced, the consumer is caught in the middle (Figure 11).

The American **Spending Power Decreases Debit Interchange Revenue Decreases** consumer feels the · Free checking availability decreases Operational costs continue (ATMs, pain branches, digital branches) · Increased monthly fees for accounts · Increased minimum balances Decreased revenue Impact: The price of banking services **Durbin Amendment** to consumers **Debit Interchange Fees Decrease** · Merchants don't pass on the savings to consumers · Impact: Almost no benefit to consumers

Figure 11: The Consumer Impact of Debit Interchange Price Caps

Source: Cornerstone Advisors



Most retailers retained the savings from reduced debit interchange fees and many financial institutions were forced to raise the cost of banking services to mitigate the revenue losses from debit interchange price caps.

Returning to the analogy of a regulatory whack-a-mole, downward economic pressure in one category will put upward pressure on revenue in another. Card payments is a two-sided market, and actions such as a price cap do not operate in a vacuum. There is an economic tug-of-war, and the customer is not on the end of the rope but along for the ride. Merchants hold one end of this economic rope, and when they experience a cost reduction they could lower costs, but they rarely do.

Cornerstone Advisors conducted a survey of small business merchants in March 2023 to validate if merchants recall how they reacted to the introduction of Regulation II and the impact to interchange regulation on credit cards. Three-quarters of these small business merchants stated they passed little to no savings to their customers from interchange fee reductions. Looking into the future, if credit card interchange fees were to be reduced, 67% of small businesses stated they would not consider passing on the savings to their customers.

A Deeper Dive into Merchant Behavior

The Vladimir and Sarin study examined gas station merchants to validate whether they passed the savings through to their customers. Gasoline serves as an effective retail category to study as it is very sensitive to price changes and is a competitive good where one provider is considered an equal substitute for another. Additionally, gas retailers represent 15% of the debit interchange savings from post-Durbin price caps placed on debit transactions.

This study examined daily price data from April 2011 to March 2012 (six months before and after the implementation of the Durbin Amendment) for 65,000 gas stations in the 10 largest states in the United States (CA, TX, FL, NY, PA, IL, OH, GA, NC and MI). The research found only isolated cases where savings were passed on to consumers. The researchers concluded: "We find no evidence that other gas retailers pass-through interchange savings in the six months following Durbin's enactment. ²³ Convenience stores and gas stations are among the more vocal proponents of interchange price controls. In a competitive marketplace dominated by price, this study provides evidence that most gasoline merchants choose to not pass through savings to customers.

Without the use of electronic payments, the operating costs for retailers would be higher and less efficient. Merchants derive a great deal of value through the improved efficiency and cashflow with card payments. Retail merchants are abandoning or limiting cash as a payment method and reducing employees to facilitate customer self-checkout. Many of these self-service checkout lanes are limited to accept only debit or credit card payments. A 2022 survey found that 38% of grocery checkout lanes are now self-service. Additionally, the cost of handling cash exceeds the cost of debit or credit card interchange. While cash was once considered a cost of doing business, it is now an expense merchants want to eliminate. One study pegs the cost of taking cash for transactions at 9.1% of expenses for the segments studied, which include major retail categories.



Surcharging for Debit and Credit Card Payments

While the cost of debit card transactions has declined for merchants, many merchants choose to impose a surcharge for both debit and credit card payments. While the practice is legal in all but a few states, as of April 15, 2023, merchants accepting Visa-branded cards cannot charge more than a 3% surcharge on a transaction. Figure 12 illustrates how small businesses treat their customers regarding card payments and demonstrates that surcharge behavior is quite common.

Merchant Surcharge Requirements

Provide a discount for other payment methods

Require a minimum purchase

Add a surcharge to debit & credit

41%

Figure 12: Merchant Behavior Related to Debit and Credit Card Surcharges

Source: Cornerstone Advisors survey of 1,009 small to medium size business owners and executives, March 2023

In 2022, CUNA surveyed American consumers and asked if they had been charged an extra fee by a merchant for using a credit card in the past year. Sixty-six percent said they had. When asked whether they would take their business elsewhere if faced with a surcharge for using a credit card, 46% said they would.

The Economics of Pass-Through Savings

Price controls create an imbalance in a market in contrast to when prices are set through market forces. This imbalance leads to unintended consequences including the increased cost of everyday banking products. The intent of the interchange price controls for debit transactions was to deliver savings to customers at the merchants from which they purchase goods or services. There is a lesson policymakers should have considered nearly a decade before the implementation of Regulation II. In 2003, the Reserve Bank of Australia implemented price caps for credit interchange fees with the intent that the merchant savings would be passed on in the form of lower prices for consumers. An examination of the impact of the Australian price caps by the Federal Reserve in 2005 concluded no change in prices to the consumer occurred.²⁶



Economics has shown that a light touch of cost savings yields little change in pricing. When a big change hits like a rock, prices are transferred to customers. Firms tend to pass on cost increases far more quickly than cost reductions. This behavior is referred to as "rocks and feathers," which has been observed in many consumer-facing markets.²⁷

There is quite a range in possible impacts to pass-through rates. The following statement by researchers at the International Center for Law and Economics puts this behavior into context:

"Consistent with the literature on pass-through of cost increases versus cost reductions, it would appear that whereas about two-thirds of those merchants facing cost increases passed at least some of the increase on to consumers in the form of higher prices, only about one-third of those experiencing savings passed some of those savings on to consumers in the form of lower prices." ²⁸

Lessons for the Future

If policymakers were to enact credit routing mandates, it is unlikely that merchants would pass on measurable savings to consumers, as is evidenced by the Federal Reserve and Reserve Bank of Australia studies. The Federal Reserve reported that under 2% of merchants passed on the savings from debit cards, and evidence from other markets, including Australia, shows that merchants rarely pass interchange savings to consumers. Given current merchant behavior today, there is even a possibility that merchants will continue to surcharge customers.



Where is the Fraud?

Merchant payments in 2021 in the United States totaled more than \$9 trillion in purchase volume and grew by 24% from 2020.²⁹ It is a vital and growing component of how Americans pay for products and services. Unfortunately, when electronic payments are involved, the threat of fraud persists. The tenacity and creativity of fraudsters grow with the advancement of technology. Fraud is growing at a faster pace than consumer spending. The volume of fraud and the investment required to defend against it are quite large. The following statistics put fraud into an economic context:³⁰

- In 2021, fraud losses of nearly \$12 billion in the United States were associated with total card volume of more than \$11 trillion
- Total fraud volume in 2021 increased 18% from 2020
- By 2031, total card volume is projected to hit \$19 trillion, and fraud losses are expected to be \$19 billion. This equates to almost 10 cents for every \$100 in purchase volume

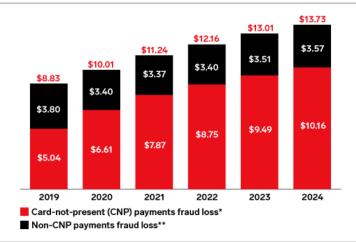
As more merchants have increased adoption of chip-enabled card terminals, the rate of CP fraud has dropped significantly. According to Visa, by March 2019, CP fraud where counterfeit cards are physically utilized was reduced by 87% from September 2015. ³¹That was good news for merchants, issuers and consumers. However, fraudsters have shifted their focus to CNP transactions such as mobile and web-based payments. CNP has historically been mail order and phone-based transactions, but those channels are being replaced by digital commerce. This fraud activity is fueled, in part, by stolen card numbers but also by a growing level of friendly fraud, where account holders authorize purchases but then fraudulently claim they did not authorize the transactions.

CNP sales surged in 2020 to 19% of all payments as Covid-19 lockdowns and restrictions led to growth in online sales. In 2021, ecommerce sales grew to more than 16% of all retail sales. 32 A more recent indicator for the increased growth of online transactions comes from Visa, which saw CNP volume on its network, excluding travel, grow more than 30% in the second quarter of 2021, a 55% increase over 2019. 33

The ability for merchants to expand their sales channels and offer convenience is driving much of this substantial growth. The double-edge sword is that merchants are now utilizing digital commerce for continued growth, but the incidence of fraud where a card is not present is growing faster than any other fraud category (Figure 13).³⁴



Figure 13: Forecast of CNP Fraud Losses



Source: Insider Intelligence

Fighting Fraud

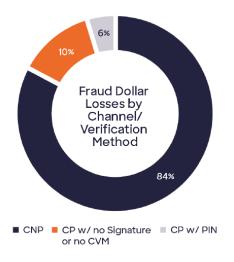
To combat fraud, all stakeholders in the payment processing lifecycle have a role.

- Merchants: Secured point-of-sale systems, updated payment terminals and secure digital storefronts
- Merchant Processors: Merchant underwriting and transaction analysis (payment holds)
- Payment Networks: Data collection and fraud trends collected and applied to the transactions they process
- Issuers: Account holder verification, transaction fraud verification (additional to payment network)

Combatting fraud requires a sustained and meaningful investment by all of these stakeholders. There are economies of scale regarding fraud when data can be pooled to identify fraud trends, and technologies can be developed and deployed at a greater speed. CNP fraud represents the lion's share of fraud losses in debit (Figure 14). At 84% CNP, there are concerns what the future holds post July 1, 2023, when Regulation II requires alternative networks for debit CNP transactions. With a likely increase in debit CNP transactions, will the payment networks that traditionally handle PIN transactions effectively combat a rise in PIN-less transactions? Many issuers contacted for this report expressed concerns that they will see elevated levels of fraud on debit transactions.



Figure 14: Debit Card Fraud



Source: 2022 PULSE Debit Issuer Study

If fraud continues to grow, issuers will need to implement more restrictive payment policies to ensure fraud losses are not out of control. This, in turn, will lead to a higher rate of declined payments but ultimately reduce the volume of commerce that merchants receive. Interchange fees help to offset fraud costs borne by issuers. Yet, fraud protection is shared by all parties in the payments value chain. Issuers carry the burden to identify fraud, and merchants can focus on selling their products and services. Weaken any one of the links in the chain, such as fraud identification, and fraud will quickly erode interchange revenue.

Consumers have come to expect a zero liability policy from their credit and debit card providers. Both Visa and Mastercard have similar policies that state to receive this protection the transaction must be processed by Visa (or Mastercard).

Visa's Zero Liability Policy requires issuers to replace funds taken from a consumer's account as the result of an unauthorized credit or debit transaction within five business days of notification. This policy does not apply to certain commercial card and anonymous prepaid card transactions or transactions not processed by Visa.³⁵

Mastercard provides similar protections for unauthorized transactions. As a Mastercard cardholder, Zero Liability applies to purchases made in a store, over the telephone, online, via a mobile device, or for transactions made at an ATM. 36

Counting the Costs

A CUNA research study conducted between 2020 and 2021 found that among surveyed credit unions, fraud and program expenses increased while interchange revenue declined.³⁷ The sizable impact of fraud on credit card programs offered by credit unions is illustrated below:



- Total program costs, including fraud, grew 14%
- Non-interchange revenue decreased nearly 7%
- Margin decreased nearly 11%

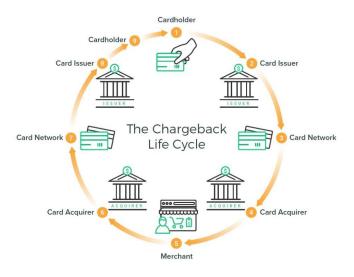
As of June 2022, there were 3,183 credit unions providing credit card services to nearly 24 million members. In contrast, the 10 largest issuers of credit cards in the United States represent 82% of purchase volume.³⁸

The Cost of Dispute Management

The true cost of fraud is larger than the sum of payments incurred by fraudulent transactions. The labor and management costs associated with disputes are substantial. Issuers must make choices to write off or manage disputes, which favors the small transactions. One credit union interviewed shared that its fully loaded employee costs equate to 63% of the charge-off budget (this is 63% additional cost for the management of debit disputes).

Fraud statistics published by the Federal Reserve and industry reports focus only on the dollar value of fraud. They do not account for all the costs associated with managing a card dispute (Figure 15). These costs can be substantial and include arbitration costs with a payment network and managerial complexity that comes with working with multiple card networks.

Figure 15: The Many Steps & Costs to Manage Card Disputes



Source: "What is Chargeback and How to Avoid It," Payneteasy



Investment in Fraud Prevention/Mitigation

There are multiple layers of defense to protect against fraudulent transactions. This investment is mission critical. Visa, as the largest payment network, demonstrates the scale required to fight fraud:³⁹

- Prevented \$27 billion in fraud in 2022 through risk capabilities and tools, including AI
- 600 full-time cybersecurity specialists with expertise in forensic investigations, data analytics and technology
- Invested more than \$10 billion in technology and infrastructure in the last five years
- Invested \$500 million in AI and data infrastructure in last five years
- Visa has kept fraud at historic lows—seven cents for every \$100 transacted on its network, while maintaining "always-on" network reliability

Does size matter in the war against fraud? In today's fraud prevention environment, most debit and credit card issuers are reliant on payment networks to identify transactional fraud with a key focus on CNP transactions. A consumer's transaction history is foundational to determining spending patterns. The scale of the system and payment network makes fraud detection smarter and stronger especially with CNP transactions. If more payment networks were processing credit and debit card transactions it raises the question: Will fraud detection improve and keep ahead of the "bad guys?" The investment required for fraud protection includes intense computing, operating neural networks, and self-improving algorithms, which can be made more efficient with economies of scale.

Merchants are not immune to the growth in fraud. Chargebacks to merchants include a form of fraud referred to as "friendly fraud," which includes situations in which a customer improperly disputes a charge on their credit card bill, including when they: 40

- Forgot about a purchase or don't recognize the name of the merchant on their bill
- Didn't realize that a friend or family member used their card to buy something
- Spent money with the intent of disputing the charge after the fact

Merchants can combat fraud with services provided by merchant processors and the card networks to detect and mitigate fraud via online and mobile channels. According to the National Retail Federation, of the approximately \$212 billion of returned online purchases, \$22.8 billion (10.7 %) is expected to be fraudulent. Merchants have a role to play in combating CNP fraud, including taking these steps:

- Verify that consumers are who they say they are
- Maintain the security of point-of-sale and payment systems from data breaches
- Verify a good payment or account is being utilized

One method to decrease fraud and improve approval rates for CNP transactions is for merchants and issuers to verify the consumer by sharing data. Visa developed EMV 3-D Secure (3DS) to help merchants and issuers authenticate CNP transactions. 3DS is only available on the Visa and Mastercard networks. This standard allows merchants and issuers to share more than 135 data points to improve decisioning and fraud detection.



When both the merchant and issuer can be confident that the consumer is the actual account holder, the more confident they can be that the transaction is reliable and should be approved.⁴²

Data Breaches: The Supply Chain of Fraud

Merchants are a favorite target of fraudsters who seek to harvest data to inflict financial harm on consumers and businesses. Merchants are not held to the same data security and privacy standards as card issuers and processors. This vulnerability is one reason merchants continue to be targets for fraudsters. According to research from IBM, 83% of organizations had more than one data breach and 60% of organizations had to increase prices on services or products because of data breaches. Data breaches average \$4.35 million in costs per breach in 2022.⁴³

The rate of compromised payment data is exploding, and missing from many discussions on interchange is the responsibility of merchants to help reduce fraud and the costs associated when key systems are compromised. Recent CUNA research studies identified the following trends and metrics:

- 36% of adults received a new card due to fraud in the past two years
- The average cost of card replacement is \$7.26
- The cost of replacement exceeded the total margin for 10% of credit union credit card programs in 2020

Fraud and the expenses that stem from it threaten to eliminate or weaken the availability of credit and debit card programs at all financial institutions. The headwaters of the river of fraud stem in part from a blend of merchants, consumers and other organizations that have exposed personal information to fraudsters. Public policy needs to consider the identification of gaps to better protect personal information and accountability standards at the front lines of the payment acceptance process.



Impact on Banking Growth

The conclusion from researchers is the reduction in revenue from the Durbin Amendment had a significant and multifaceted impact on the operations of both banks and credit unions. Missing from policymaker's original proposals when the Durbin Amendment was crafted is a thoughtful analysis of the unintended consequences of the regulation requirements. Debit cards are a component of checking products and a gateway to the banking system for all Americans. The cost to service customers and provide a growing list of features, such as online and mobile banking, fraud and security protection, money transfer services, branches, call centers and compliance, is quite costly and is bundled into the modern checking account, often at no additional cost to bank customers and credit union members.

The impact to revenue because of interchange price caps was felt at institutions below the asset limit thresholds. As demonstrated in this report, having less than \$10 billion in assets did not protect thousands of community banks and credit unions from revenue shortfalls. A question that policymakers should consider is the economic harm from the \$10 billion threshold. Table A (page 6) provides profiles of three financial institutions with debit card volumes that are similar to one another. A noticeable gap exists (43x+ for Credit Union A) between the credit unions compared to the commercial bank. The commercial bank has access to significantly more assets that generate revenue while credit unions operate very differently. Although many credit unions would like to see the asset threshold removed, a change to \$100 billion would be meaningful to their finances.

Credit unions compete for the opportunity to serve their members alongside regional banks, national banks and fintechs. America's top financial regulators cite the importance of credit unions and community banks.

Rohit Chopra stated in April 2022 in remarks to credit unions and community banks the importance they play in Americans' financial lives:

"Community banks and credit unions know the rhythms of the daily lives of their clients and communities—making them integral to the financial marketplace. Small financial institutions play a pivotal role in many markets, but especially small business lending. According to one survey, small business satisfaction with loans given by community banks is 18 percentage points higher than for loans received from larger institutions. And people in rural communities say they prefer local financial institutions and report greater dissatisfaction with the transparency of the costs of products and services offered by online lenders."

The benefits to our communities from credit unions and community banks that Chopra praises are threatened if future changes to credit card interchange are implemented.

Credit Card Programs

In 2022, senators Durbin and Roger Marshall (R-Kan.) introduced a bill named the Credit Card Competition Act of 2022, aka Durbin 2.0. The goal of this act was to require two nonaffiliated card networks to route a credit card transaction. This rule would apply to issuers with more than \$100 billion in assets.



The proposed legislation would require the entire payments ecosystem to upgrade systems. Today, credit cards are issued to support one network and thus every issuer would need to modify their authorization systems to support more than one network. As stated earlier in this report, all issuers would need to reissue credit cards with an expected cost of more than \$3.2 trillion for card reissuance alone. Lessons learned from Durbin 1.0 have taught the banking industry that an asset threshold does not provide a safe harbor. It is likely that all issuers, regardless of asset size, will be impacted with lower interchange revenue.

Profitability of Credit Card Programs

The financial aspects of a credit card programs offered by any financial institution can be examined in two functions: first, the transactional elements, which include the payment and the related interchange fees for the transaction; second, the credit function, where cardholders/borrowers carry balances on their accounts. A 2022 study by the Federal Reserve provides a comprehensive examination of credit card profitability. The authors maintain that the primary source of revenue to support the transactional elements of credit cards is interchange (Figure 16).⁴⁵

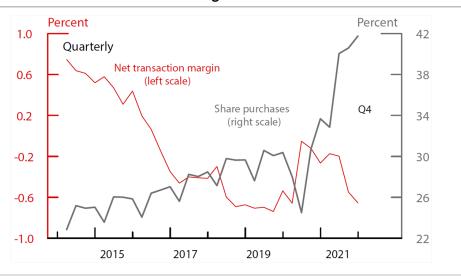


Figure 16: Credit Card Net Transaction Margin

Source: Federal Reserve (2022)

Net transaction margin has remained negative since 2016 and is driven, in part, by increased expenses in benefits provided to cardholders. The transactional element of a card program runs at a loss, leaving fee generation and revolving interest fees as sources of revenue for issuers. The Federal Reserve reports how consumers pay their credit cards:⁴⁶

- 20% of active credit holders are heavy revolvers (every month of the year)
- 25% of active credit holders are light revolvers (1 to 11 months of the year)
- 21% of active accounts are transactors (pay off each month)



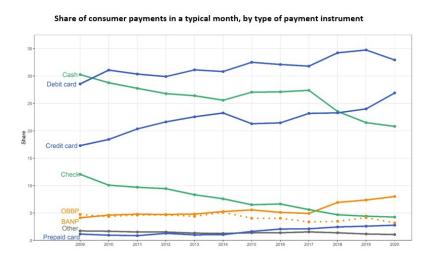
Further reductions in revenue to interchange fees would continue to put pressure on card programs such that rewards programs could be eliminated due to cost, fees such as an annual fee may be higher and more frequent, and interest rates for borrowers could increase.

According to a 2021 study by PYMNTS, consumers choose credit cards for a variety of reasons, including: 47

- Data security (79%)
- Rewards (25%)
- Interest rates (69%)
- Flexible payment options (28%)

But how Americans pay for purchases is shifting. The 2020 Survey of Consumer Payments indicates that cash is rapidly declining and debit cards are now consumers' preferred payment method. According to the survey, the gap between debit and credit cards is closing, as among an average of 68 payments per month, consumers made 23 payments with debit cards, 18 with credit cards and 14 with cash. (Figure 17).

Figure 17: Frequency of Payment Method



Source: Federal Reserve Bank of Atlanta, 2020 Survey of Consumer Payment Choice

The narrative from outside of the banking community regarding credit card programs too often paints a picture of financial institutions as obtaining large profits from operating a credit card program. Todd J. Zywicki has conducted multiple analyses relating to credit card programs. Given his nearly two decades of research in this area, the following comments should provide caution to policymakers considering severe impacts to the revenue that could occur with proposed changes to credit card programs: ⁴⁸

"To the extent that credit card issuers compete in a competitive market, regulation will upset competitive equilibrium, resulting in dead-weight efficiency losses that harm issuers and consumers alike. Thus, this is the cornerstone of the attack on credit card issuers. On investigation, however, the accusation that credit card issuers are reaping large profits also turns out to be false."



Impact to Credit from Future Regulation

If future legislation like that proposed in Durbin 2.0 were to occur, the regulatory whack-a-mole will likely be felt by consumers and merchants. As discussed earlier, interchange is the revenue source for the transaction component of a credit card program. A contraction in revenue will impact merchants, consumers, issuers and corporations.

- Merchants could be impacted by consumers that adjust spending when rewards are no longer an option
- Merchants may favor card issuers that are regulated and surcharge customers from exempt issuers
- Consumers may have to pay an annual fee as issuers look to reduce revenue shortfalls from lower interchange revenue
- Issuers will need to find revenue replacement and will increase fees and possibly tighten underwriting and credit standards
- Corporations that run card-based loyalty programs will experience a revenue reduction, and those that receive benefits from card-based corporate payments will likely see those benefits disappear

Fraud rates could increase as an unequal level of fraud detection may exist between card payment networks. With CNP transactions representing the bulk of fraudulent transactions, the sophistication of fraudsters will only increase. A more fragmented fraud landscape will have significant ramifications, including:

- Increased fraud operating costs for payment networks and issuers
- Utilizing multiple payment networks may force the detection of fraud to the endpoints of the payment process (merchant acquirers and the issuing bank), adding risk and cost
- A higher rate of declined authorizations due to increased fraud rates will impact merchant revenue and frustrate cardholders

A reduction of fee revenue for issuers will result in unintended consequences, many of which we may not realize at this time. Debit card issuers responded with various actions, and it is highly likely credit card issuers will respond with an impact to consumers.

- Many issuers could choose to close their card programs as they are no longer profitable
- With fewer banks and credit unions offering credit cards, many communities could experience a reduction in credit availability
- As margins recede, financial institutions offering credit programs may need to tighten credit, thus reducing the availability of credit to even more Americans
- Higher fees could push more Americans outside of the financial system and into higher-cost alternatives such as payday lending

Card routing mandates will likely bring competition similar to that which was witnessed with debit card routing mandates, where debit card revenue was reduced for all issuers. In a spirit of simplicity, Visa and Mastercard may reduce interchange rates across the board regardless of issuer, thus imposing the worst case of whack-a-mole where regardless of asset size the reduction of interchange is felt at every issuer.



Impact on Communities

Another unintended consequence of the Durbin Amendment is a consolidation of banks and credit unions seeking to improve operational efficiencies. Mergers and branch closures occur for multiple reasons, but persistent revenue pressure caused, in part, by the Durbin Amendment is part of the overall calculation to seek savings and improve efficiencies. If credit card routing mandates were to occur, additional revenue pressure could trigger more institutions to merge and consolidate operations.

As financial institutions evaluate long-term viability, many of the branches in rural areas that serve lower-income communities are being shuttered. It is an economic reality that these residents provide fewer customers, which results in many financial institutions closing branches in these communities. Dwindling service options and the increased cost of everyday banking services that are much costlier to use after the implementation of Regulation II have impacted rural communities. Low-income consumers are more affected by the rise in bank account fees stemming from changes in bank strategies after the implementation of the Durbin Amendment since these banking fees and minimum requirements impact a larger and increasing share of these individuals' incomes.

- The Federal Reserve made the case in 2022 that banks in low- to moderate-income (LMI) communities and particularly banks in majority-minority communities require higher account balances to avoid a monthly maintenance fee and higher fees to maintain accounts⁴⁹
- The Fed cited that the inability to generate other forms of income and higher operating costs led to these outcomes as financial institutions sought to recoup the costs of operating in these communities.
- The impact of reduced revenue from debit interchange regulation only exacerbates the problem of unbanked and underbanked households in these communities

Looking back on the impact of the Durbin Amendment many years after the implementation of Regulation II, many researchers have come to the following conclusion:⁵⁰

"A rough back-of-the envelope calculation suggests that banks make up approximately all Durbin losses. These higher fees are disproportionately borne by low-income consumers whose account balances do not meet the monthly minimum required for these fees to be waived."



About the Author

Glenn Grossman | Director of Research

Glenn Grossman produces analytical studies aimed at delivering insights for innovation, growth and sustainable competitive advantage for financial institutions and fintech firms. Backed by more than 30 years of leadership experience in data analytics, product management and product development in the banking and growth strategies and bank regulation. Before joining Cornerstone, Grossman was a principal consultant and senior thought leader with FICO and the product leader for a start-up fintech payments firm. He started his career in the financial services industry managing product innovation and payment strategy at Bank of America. He also served as an economist with the U.S. Department of Labor-Bureau of Labor Statistics.







704.774.0016

ggrossman@crnrstone.com

/glenn-grossman-5a86762

About Cornerstone Advisors

After 20 years in this business, Cornerstone Advisors knows the financial services industry inside and out. We know that when banks and credit unions improve their strategies, technologies and operations, improved financial performance naturally follows. We live by the philosophy that you can't improve what you don't measure, and we help financial institutions use laser-focused measurement to develop more meaningful business strategies, make smarter technology decisions, and strategically reengineer critical processes.











480.423.2030

info@crnrstone.com

crnrstone.com

/cornerstoneadvisors

@CstoneAdvisors



About Credit Union National Association

Credit Union National Association is the most credible financial services trade association and the only national association that advocates on behalf of all of America's credit unions. CUNA works tirelessly to protect credit unions' best interests in Washington and all 50 states. We fuel credit unions' professional growth at every level, stand committed to the financial well-being of every member, and champion the credit union story at every turn.











800.356.9655

hello@cuna.coop

cuna.org

/credit-union-national-association

@CUNA

About American Association of Credit Union Leagues

AACUL is the national association for the state and regional credit union leagues/associations throughout the United States. AACUL's mission is to cultivate the success of individual leagues as well as the collective League System by supporting league efforts to advocate, communicate, collaborate and influence policy on behalf of credit unions nationwide. We partner with the Credit Union National Association (CUNA) to foster the CUNA-League System relationship and the prosperity of the credit union movement.



800.356.9655



aacul.com



/aacul



@AACUL



Endnotes

- ¹ https://www.federalreserve.gov/paymentsystems/regii-average-interchange-fee.htm
- ² https://www.federalreserve.gov/paymentsystems/regii-average-interchange-fee.htm#c1ret
- ³ Nilson Report, Issue 1218, April 2022
- ⁴ https://www.federalreserve.gov/paymentsystems/regii-average-interchange-fee.htm
- ⁵ https://www.federalreserve.gov/paymentsystems/regii-average-interchange-fee.htm
- ⁶ https://www.federalreserve.gov/paymentsystems/regii-average-interchange-fee.htm
- ⁷ Nilson Report, Issue 1226, September 2022
- 8 2022 PULSE Debit Issuer Study
- ⁹ https://www.federalreserve.gov/paymentsystems/files/debitfees_costs_2019.pdf
- ¹⁰ https://www.atlantafed.org/banking-and-payments/consumer-payments/survey-of-consumer-payment-choice/2020-survey.aspx
- ¹¹ Nilson Report, Issue 1222, June 2022
- ¹² 2021 PAYMTS & 2022 Federal Reserve Board
- ¹³ Mukharlyamov, V., & Sarin, N. (2019). The impact of the Durbin Amendment on banks, merchants, and consumers. *U of Penn, Inst for Law & Econ Research Paper*, (19-06)
- ¹⁴ Evans, D. S., Chang, H. H., & Joyce, S. (2013). The Impact of the US debit card interchange fee caps on consumer welfare: An event study analysis. *University of Chicago Coase-Sandor Institute for Law & Economics Research Paper* (658).
- ¹⁵ https://www.gao.gov/assets/gao-22-104468.pdf
- ¹⁶ https://www.federalreserve.gov/paymentsystems/files/debitfees_costs_2019.pdf
- ¹⁷ https://www.fdic.gov/analysis/household-survey/2013/2013report.pdf
- ¹⁸ https://www.fdic.gov/analysis/household-survey/2011/2011-unbankedreport.pdf
- ¹⁹ Wang, Z., Schwartz, S., & Mitchell, N. (2014). The impact of the Durbin Amendment on merchants: a survey study. *Economic Quarterly*, (3Q), 183-208
- ²⁰ Shapiro, R. J. (2013). The Costs and Benefits of Half a Loaf: The Economic Effects of Recent Regulation of Debit Card Interchange Fees. Available at SSRN 2541728.
- ²¹ https://laweconcenter.org/images/articles/icle-durbin_update_2017_final.pdf
- ²² https://electronicpaymentscoalition.org/resources/the-cost-of-the-durbin-amendment/
- ²³ https://scholarship.law.upenn.edu/faculty_scholarship/2046/
- ²⁴ https://www.grocerydive.com/news/self-checkout-grocers-shoppers-catalina/636087/
- ²⁵ https://www.ihlservices.com/product/costofcash/
- $^{26} https://www.newyorkfed.org/medialibrary/media/research/conference/2005/antitrust/presentations/chang_evans_presentation.pdf$
- ²⁷ Peltzman, S. (2000). Prices rise faster than they fall. Journal of political economy, 108(3), 466-502
- ²⁸ https://laweconcenter.org/images/articles/icle-durbin_update_2017_final.pdf



 $HBUodlKQ4QDaEbJSRpQz5eR82XY6LaRaz2TbnlF1DMhdGT-ezeJVB9_6SX5uUlYYKaHYFie0x_nvdtMkcnmd-HOAg1kJ6-UrZlwh3AUDni_4rtJ48e67rkNq.pdf$

- ³³ https://navigate.visa.com/na/spending-insights/the-card-not-present-balancing-act/
- ³⁴ https://www.insiderintelligence.com/content/spotlight-us-card-payment-fraud-losses-forecast-2022
- ³⁵ https://usa.visa.com/pay-with-visa/visa-chip-technology-consumers/zero-liability-policy.html
- ³⁶ https://www.mastercard.us/en-us/personal/get-support/zero-liability-terms-conditions.html
- ³⁷ CUNA Research 2022
- ³⁸ Nilson Report, February 2023, Issue 1236
- ³⁹ https://usa.visa.com/visa-everywhere/blog/bdp/2022/04/18/post-pandemic-economies-demand-1650310496845.html
- ⁴⁰ https://www.axios.com/2022/12/09/credit-card-fraud-chargebacks-visa
- ⁴¹ https://chainstoreage.com/nrf-consumer-returns-will-exceed-800-billion-2022
- ⁴² https://navigate.visa.com/na/spending-insights/the-card-not-present-balancing-act/
- 43 https://www.ibm.com/downloads/cas/3R8N1DZJ
- ⁴⁴ https://www.consumerfinance.gov/about-us/newsroom/director-chopras-opening-remarks-to-the-community-bank-and-credit-union-advisory-councils/
- ⁴⁵ https://www.federalreserve.gov/econres/notes/feds-notes/credit-card-profitability-20220909.html
- ⁴⁶ https://www.federalreserve.gov/econres/notes/feds-notes/credit-card-profitability-20220909.html
- 47 https://www.atlantafed.org/banking-and-payments/consumer-payments/survey-of-consumer-payment-choice/2020-survey.aspx
- ⁴⁸ https://www.chapman.edu/law/_files/publications/CLR-3-todd-zywicki.pdf
- ⁴⁹ https://www.federalreserve.gov/econres/feds/files/2022040pap.pdf
- 50 https://scholarship.law.upenn.edu/faculty_scholarship/2046/



²⁹ Nilson Report, June 2022, Issue 1222

³⁰ Nilson Report, December 2022, Issue 1232

³¹ https://usa.visa.com/visa-everywhere/blog/bdp/2019/09/03/visa-emv-chip-1567530138363.html

³² https://remnote-user-data.s3.amazonaws.com/0tlbMZD-

Have questions regarding this report?

Glenn Grossman

Director of Research, Cornerstone Advisors

ggrossman@crnrstone.com | 480.424.5846



