

The CFPB's Deeply Flawed Proposal on Credit Card Late Fees

Part 2: The Bureau's Analysis of Empirical Evidence on Deterrence | 5.5.2023



The Consumer Financial Protection Bureau's [Notice of Proposed Rulemaking on Credit Card Penalty Fees](#) released on Feb. 1 contains an assessment of empirical evidence on the deterrence and incentive effects of late fees. As set forth in the proposal, this evidence includes:

1. A published 2022 research paper analyzing the effect of the reduction of late fee amounts mandated by the CARD Act in 2010;
2. Other published "empirical investigations into the correlation of late fee amounts and late fee incidence".
3. A new analysis conducted by Bureau staff using regulatory Y-14 data that attempts to exploit the temporary increase in the safe harbor limit and late fees following an initial incidence.

Based in part on this assessment, the Bureau proposes a \$8 maximum for the regulatory safe harbor for card late fees, which is a reduction from the current safe harbor that permits a late fee of \$30 for a first violation and \$41 for a subsequent violation within the next six billing cycles. However, the Bureau acknowledges that there is a lack of "direct evidence on what consumers would do in response to a fee reduction similar to those contained in the proposal" – in other words, whether instances of late payments would increase as a result.

The Bureau finds that the available evidence from published studies regarding the deterrent or incentive effects of late fees lacks relevance to the exercise of determining the appropriate safe harbor late fee limit. The Bureau also contends that its new in-house analysis shows little marginal deterrence effect for late fees at the current safe harbor levels.

This note challenges this assessment. The published studies are more relevant and more robust than alleged in the Bureau's review, which is not only one-sided but also incomplete. Moreover, the new analysis the Bureau presents as a superior alternative to the existing literature exhibits multiple serious shortcomings.

In short, this note demonstrates that the Bureau falls short of its statutory obligation to consider all factors and important costs and benefits of the proposed regulation, by:

- Cherry-picking and downplaying evidence from published research studies;
- Not including all relevant, available studies in the discussion in the proposal; and
- Overstating the relevance of the Bureau's new analysis, which exhibits serious flaws.

The Bureau's One-Sided Assessment of Published Studies

Exhibit 1: The proposal commences its examination of available research studies with a discussion of a paper published in the *Journal of Financial Services Research* by Grodzicki et. al. (2022):¹

¹ See pages of the NPR, pages 54-55.

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In analyzing the available data, the Bureau notes a 2022 paper by Grodzicki et al., containing an empirical analysis that concluded that a decrease in the late fee amount stemming from the Board’s 2010 Final Rule [implementing the CARD Act] raised the likelihood of a cardholder paying late. While the Bureau recognizes that this paper suggests that consumers may engage in more late payments when they are less costly to consumers, for the reasons discussed below, the Bureau does not consider this robust evidence that the proposed \$8 safe harbor late fee amount would not have a deterrent effect.

Thus, on the one hand, the Bureau acknowledges that the Grodzicki et al. study provides evidence that late fees can have a deterrent effect on late payments and that lowering the late fee penalty can reduce that deterrent effect. On the other hand, the Bureau declares that this evidence is not sufficiently robust.

Grodzicki et al. (2022) examine a random sample of general-purpose card accounts from the CFPB’s Credit Card Database, which encompasses over 85 percent of U.S. credit card accounts.² The analysis sample comprises accounts that were continually present and not in serious delinquency (never more than 60 days past due) between September 2009 and September 2011.

The study tests the impact of a reduction in the late fee penalty amount on the incidence of late payments and on debt levels by tracking monthly account-level outcomes and comparing the frequency of late payment before and after implementation of the late fee cap mandated by the CARD Act and implemented in the Board’s final rules. Implementation of this cap in August 2010 was accompanied by substantial reductions in late fee penalty amounts. For first instances of a missed payment, according to the study, the cap lowered most accounts’ late fees from \$39 to \$25.

The analysis indicates that consumers had a lower likelihood of paying late prior to imposition of the cap – i.e., that there were fewer instances of late payments when most late fees were \$39 as compared to when the fees fell to \$25. This finding holds across all risk segments; that is, all quintiles of the cardholder credit score distribution. According to the authors, this finding indicates “that cardholders incorporate the late fee into their optimal repayment choice—as opposed to paying late purely by accident.” In addition, the analysis indicates that except for subprime cardholders (the bottom two quintiles of the score distribution), purchases rise and balances increase when the late fee declines.³

The Bureau contends that the Grodzicki et al. analysis is not sufficiently robust because the observed response to the late fee changes “could be confounded by other market changes” coinciding with the rule going into effect. Specifically, the Bureau notes that when the rule was implemented in August 2010, “the U.S. economy was still dealing with the aftermath of the Great Recession,” making it “difficult to attribute consumer finance statistical trends to particular events.” Also, because the analysis compared consumer behavior in the year before and the year

² This database tracks monthly purchase volumes, revolving and total balance, delinquency status, interest rate, assessed fees, and the primary cardholder’s credit score for individual accounts.

³ For cardholders in the bottom score quintile, the decrease in the late fee is associated with a material decrease in balance and purchase volume. For those in the next lowest quintile, it is associated with an increase in purchase volume but shows no material relationship to balance. Grodzicki et al. assert that these responses of subprime borrowers can be explained by the “focusing model” of Kőszegi and Szeidl (2012), which demonstrates that a “cardholder prone to focusing does not choose optimally” but, rather, “over weights, or focuses on, those aspects of her problem that have the greatest impact on her current well-being. When using her card, she might focus on avoiding the late fee, which is acutely expensive today, while ignoring her rising debt, the cost of which is spread over time.” Thus, according to this explanation subprime customers’ face a tradeoff between making larger monthly payments (leaving less reserve for emergencies) against increased risk of having to miss a payment and incur a late fee. Lower fees turn subprime customers’ attention more toward the longer-run cost of their debt via the interest rate. But for all risk segments, including subprime, lower late fees lead to more frequent late payments, consistent with a reduction in the fee’s deterrence effect.

after the implementation date, “the causal attribution of an increase in late payments to a reduction of the late fee amount is hard to prove due to the general uncertainty around that time.”

While it is reasonable to point out these limitations of the study and to caveat the study’s findings, the proposal fails to mention several important measures taken by Grodzicki et al. to minimize the potential confounding factors it cites:

1. The analysis controls for changes in employment and earnings by county, which capture evolving economic conditions at the regional level.
2. Additionally, the analysis incorporates an aggregate time trend to capture broad macroeconomic influences.
3. Another potential confounding factor, changes in account balances, can affect the likelihood of incurring a late fee. The analysis controls for beginning-of-month balances and still found that the likelihood of incurring a late fee increased post-implementation, indicating that reduced deterrence was the primary factor.

These points should have been included in the Bureau’s assessment of this study.

Moreover, Grodzicki et al. acknowledge that despite these measures taken, there may still be some uncontrolled effects tied to the volatile and uncertain economic conditions that characterized the study period. To address this concern, a special robustness test was conducted, described in the study as follows:

To test for this, we construct a sample which excludes cardholders living in states highly exposed to the crisis as determined by the Economic Security Index (ESI) (Hacker et al. 2012; Hacker et al. 2014). We find that our demand estimates using this new sample are nearly unchanged and interpret this as further suggestive evidence that, though perhaps still not completely eliminated, any bias from the recession on our estimates may not be a first order concern.

In contrast to the Bureau’s assertions, the Grodzicki et al. study strongly suggests that lower late fees may erode deterrence and result in more frequent late payments. Thus, the study provides important evidence to consider in weighing the proposed \$8 safe harbor limit.

Moreover, the Bureau appears to be applying an unreasonably restrictive standard in determining what to consider. The Bureau appears willing to consider only evidence that would directly refute its contention that its proposed \$8 safe harbor late fee provides adequate deterrence – although the Bureau does not define, or attempt to quantify, what level of deterrence is “adequate.” This standard is far too limiting, especially as the Bureau itself has provided no evidence that an \$8 fee suffices for *any* level of deterrence.

Exhibit 2. The proposal continues its discussion of available research studies with discussion of a research paper from the National Bureau of Economic Research, Agarwal et al. (2013). The study demonstrates a learning and deterrence effect of late fees using a proprietary dataset from a large U.S. bank, which includes a sample of credit card accounts followed monthly from January 2002 through December 2004.⁴

The study finds that incidence of fee payments declines substantially as a new credit card account ages. In the first three years of account tenure, the monthly frequency of late fee payments drops from 36 percent to 8 percent. The analysis attributes at least part of this decline to consumers learning to pay on time after experiencing a late payment penalty. The analysis also indicates some backsliding as memory of the late payment event recedes. On net,

⁴ See pages 58-59 of the NPR. The dataset includes information on payment, spending, credit limit, balance, debt, purchase and cash advance annual percentage rate (APR), and fees paid from monthly billing statements.

however, “knowledge accumulation dominates knowledge depreciation” so that over time, fee payments decline dramatically.

The Bureau contends that this study “is of limited relevance as to whether the late fee amount impacts late payment incidence” because the analysis does not directly address the effect of reducing the late fee to \$8. As stated in the proposal:

First, the study considers the months following any late fee and compares them to months with no recent late payment...Second, even if the study had compared to months where a payment was missed but no late fee was charged, that comparison still would not be relevant to the proposal in that the proposal would reduce the safe harbor amount to \$8, not completely eliminate the late fee.

Here again, the standard for relevance is overly restrictive. In its dismissal of the Agarwal et al. study, the Bureau appears to be willing to consider only such evidence that would directly refute its contention that the proposed \$8 safe harbor late fee provides adequate deterrence. However, the Bureau should consider all relevant evidence to meet its statutory obligation.

An additional critique of the Agarwal et al. study noted in the proposal is that the study “did not separate the effects of the late fee itself from other possible consequences of a late payment. The latter can include “additional finance charges, a lost grace period, penalty rates, and reporting of the late payment to a credit bureau which could affect the consumer’s credit score.”

It is reasonable for the Bureau to point out this limitation of the study and to caveat the study’s findings accordingly, but this limitation does not negate the study’s finding of a learning effect from late penalties. The findings still support the general principle that monetary penalties, including late payment fees, have a learning and deterrence effect.

Moreover, late payment fees are likely to be more easily understood, more salient and less remote than a finance charge calculation. A late payment is a simple, fixed payment amount, whereas the other consequences require complex calculations (to transform into a monetary cost) and are variable (depend on the contemporaneous account balance). In fact, research has shown that complexity can generate behavioral biases resembling those associated with present bias and overoptimism⁵. Therefore, late payment fees may have the dominant deterrence effect. Also, late fees apply to any late payment, whereas these other consequences do not.⁶

Summing up, the Agarwal et al. study provides important evidence to consider in weighing the proposed \$8 safe harbor limit. The study’s findings strongly suggest that consumers learn from the experience of a late fee to be more careful with their debt obligations. In dismissing this study, the Bureau fails to meet its statutory obligation to consider all relevant factors.

⁵ For instance, Enke, Graeber, and Oprea (2023) present experimental evidence demonstrating that “intertemporal choice anomalies are highly correlated with indices of complexity responses including cognitive uncertainty and choice inconsistency”.

⁶ The loss of a grace period and becoming subject to finance charges applies only to consumers who generally have paid their balance full each month and happen to miss a payment due date, while penalty interest rates are applied only after an account becomes 60 days past due. Reporting to a credit bureau occurs after an account becomes 30 days past due and even then, an isolated instance of early delinquency might not be reported and has little effect on a credit score if reported.

The Bureau’s Flawed Empirical Analysis Using Y-14 Data

As noted, the proposal provides a new empirical analysis developed by Bureau staff.⁷ This so-called “Y-14 seventh month” analysis uses a random subsample of monthly account-level data from the credit card Y-14 reports from 2019. These data include amounts of any late fees paid each month, other balance and payment information, and various account and borrower characteristics such as origination credit score.⁸

The analysis exploits the fact that the current rule sets a higher late fee safe harbor amount for any late payment event occurring within six billing cycles of the account’s previous late payment event.⁹ It tests whether the lower late fee amount in month seven leads to a distinct rise in late payments among borrowers whose most recent late payment was seven months prior. Specifically, as described in the proposal:

The Bureau estimated whether there are discontinuous jumps in late payments in the seventh month after the last late payment. This analysis focused on these potential jumps to isolate the potential impact that the lower late fee that would apply in month seven might have on late payment rates, given that month seven is generally comparable to month six other than the lower late fee amount.

The underlying, tested hypothesis is that a sizeable cohort of consumers is deterred by the elevated late fee from another late payment for the first six months, and the reduced late fee in month seven weakens this deterrence and begets a discrete jump in their likelihood of paying late. In other words, the analysis tests for a comparatively rapid (within the course of a month) effect of a marginally reduced late fee, although the proposal doesn’t describe it as such. The proposal simply asserts that the analysis provides a test for “deterrence,” without any further elaboration.

The analysis rejects, “at conventional confidence levels”, the hypothesis that likelihood of late payment increases in month seven. The Bureau interprets this as absence of a deterrence effect tied to the difference in late fees between month seven and the preceding six months.

A serious flaw in the Bureau’s analysis is that, because the sample is composed of individuals who experienced a late event within the preceding seven months, it is subject to severe sample selection bias. The selected population would not be representative of the typical cardholder.

For instance, the sample is likely to include a relatively large share of consumers who manage their debt obligations appropriately (perhaps due to deterrence effects of late fees) but who experienced a late payment event due to external factors beyond their control. The decrease in the late fee in month seven would be of little relevance to these consumers. The sample also is likely to include a substantial share of consumers who experienced multiple late fees prior to recovering from the late payment event, resulting in a relatively large deterrence effect. For these reasons, the effect of a lower late fee may be comparatively weak and difficult to detect in this population.

Beyond that, the result merely demonstrates absence of a *rapid* deterrence effect, detectable in month seven. The result does not rule out the realistic possibility that the consequences of reduced deterrence gradually unfold.¹⁰

⁷ See pages 55-57 of the NPR.

⁸ The NPR touts the Y-14 seventh-month analysis as a superior approach because “it avoids confounding factors that often are found in other studies of late fees, including the 2022 paper by Grodzicki et al., discussed above.” Because the analysis relies on Y-14 data from 2019, when economic conditions were relatively stable, concerns around potential confounding effects of economic variables are mitigated.

⁹ Consistent with the safe harbor provisions, the empirical data show that one or more late payments within the six months after an initial late payment are associated with higher late fee amounts, according to the NPR.

¹⁰ Moreover, the CFPB proposes a more dramatic reduction in the late fee safe harbor than that analyzed here – from either \$30 or \$41 to \$8.

Compounding these shortcomings is the proposal's inadequate description of the analysis. Despite the major emphasis the Bureau seems to place on the analysis, the Bureau provides no information about parameter estimates, standard errors and statistical significance levels (other than the reference to "conventional confidence levels"). Nor does the discussion indicate what (if any) factors have been controlled for or other details about the statistical approach, rendering its validity impossible to assess.

The proposal also omits key information on the sample construction, other than that it consists of data from 2019 and accounts that incurred a late payment event followed by six months of on-time payments, with observation of payment behavior in the seventh month. For instance, are accounts included for which the late episode ended in December 2019? If so, then the results might be influenced by banks' implementation of forbearance policies, which included frequent waiving of late fees, at the onset of the pandemic.¹¹

The Bureau has an obligation to explain details of the data set, modeling procedure and estimation results to the public fully and transparently, subject to usual standards respecting confidentiality of the underlying data.

Appended to the discussion of the Y-14 seventh-month analysis is the following, rather cryptic observation:

In addition, as a separate observation, the Bureau observed that for consumers that incurred a higher fee for a late payment during the six months after the initial late payment, the payment of that higher late fee did not lead to a discernibly lower chance of late payment for a third time in the future than for those consumers whose second late fee was lower because they paid late seven or more months after their first late payment.

Since the sample for the seventh-month analysis consists of accounts that have had no late payment for six consecutive months following the most recent late payment, this observation clearly derives from a different sample. However, no information is provided about the underlying sample construction or any other aspect of the separate analysis that yielded this observation.¹²

Studies Omitted from the Bureau's Assessment

Not only does the proposal dismiss as irrelevant the two published studies discussed above, but it entirely omits review of two other studies that demonstrate learning and deterrence effects of late fees. Gathergood et al. (2019) present evidence consistent with Agarwal et al., finding that incidence of late payment fees declines sharply over time for new accounts, supporting the learning effect of late fees. Schwartz (2021) finds that payment reminders sent to cardholders are more effective when they include a warning about late fees.

Gathergood et al. (2019) analyze monthly account-level data from multiple card issuers in the U.K, comprising a sample of credit card accounts opened during 2013 through 2014. The data include date open and credit limit, monthly purchases and repayments, average daily balances, revolving balances, interest and fee charges. The data also indicate whether cardholders pay their card manually each month or utilize automated payments.

¹¹ Also, does the sample includes only accounts with a full seven months of observed behavior in 2019? If so, then the sample consists of accounts that had late payment events during the first five months of 2019, and the results might at least partly reflect seasonal factors.

¹² By including this comment, the Bureau appears to be suggesting that a higher late fee incurred during a delinquency spell involving at least two late payments within six months (thus triggering the higher late fee amount) has no greater deterrence impact (over an unspecified, future time horizon) than two, more isolated, late payment events not triggering the higher late fee amount. However, if this is so, it may simply reflect that consumers with the more concentrated spell of two or more late payments are more problematic payers in general (they may have lower credit scores)—if not for the deterrence effect of higher late fees their likelihood of a repeat spell might be even greater.

The analysis tracks the monthly performance of these accounts and finds that the incidence of late payment fees declines sharply over time. Moreover, this effect appears tied to some consumers adopting automatic payments as a preventive measure after experiencing a late payment event.¹³

Schwartz (2021) compares the effectiveness of reminder notices with and without mention of a penalty fee for missed payment. The study finds that the reminders that referred to the penalty were far more effective—further corroborating the important deterrent effect of sufficiently large late fees.

Ancillary Arguments

In support of the notion that an \$8 late fee is the appropriate safe harbor limit, the proposal presents two minor, additional arguments, loosely based on empirical studies or historical experience and unpersuasive. Because these are given only brief mention in the proposal, they are discussed in an Appendix to this note.

Conclusion

The Bureau acknowledges that “late fees are a cost to consumers of paying late, and a lower late fee amount for the first or subsequent late payments might cause more consumers to pay late” and that the Bureau “does not have direct evidence on what consumers would do in response to a fee reduction similar to those contained in the proposal”. Despite these acknowledgments, the NPR proposes an \$8 maximum safe harbor penalty for the first and subsequent late payments.

In support of this proposal, the NPR dismisses evidence available from published research studies and presents some new empirical findings based on an analysis of Y-14 data conducted by Bureau staff. This note critiques the adequacy of the Bureau’s assessment of the previous studies and finds serious flaws in the Bureau’s new analysis. Relatedly, the note also demonstrates that the Bureau falls short of obligations to explain its findings to the public as fully and transparently as possible and to consider meaningfully the statutory factors and the important costs and benefits of the proposed regulation.

The proposal presents a cherry-picked assessment of the evidence available from published research studies and downplays the relevance of this evidence. Although findings from these studies strongly suggest that lower late fees may erode deterrence and result in more frequent late payments, the Bureau excludes this evidence by applying an unreasonably restrictive standard on evidence it is willing to consider. In addition, not all relevant, available studies are covered by the discussion in the proposal. The new, “Y-14 seventh month” analysis exhibits multiple serious shortcomings, not acknowledged by the Bureau, such that the relevance of the findings from this analysis are greatly overstated in the proposal.

¹³ In the U.K., late payment fees are modest and capped by regulation at a maximum £12 per month, with no limit on the number of successive months in which a consumer can incur the fee. A late payment also may immediately trigger a penalty interest rate and credit limit reduction, unlike in the U.S. where such consequences occur only after a sequence of missed payments. Thus, in the U.K. the late payment fee is not necessarily the sole factor for deterrence. Nonetheless, as was pointed out previously, such a limitation does not negate the study’s finding of a learning effect from late penalties. The findings still support the general principle that monetary penalties, including late payment fees, have a learning and deterrence effect.

Appendix: Ancillary Arguments

In support of the notion that an \$8 late fee is the appropriate safe harbor limit the NPR presents two additional, minor and reportedly empirically based arguments. These arguments are flawed.

The first of these notes that some studies of consumer financial behavior suggest that often, “small and relatively costless changes in behavior” can lead to substantial improvement in repayment performance, including avoidance of late payments.¹⁴ The Bureau reasons that because such behavioral changes are not costly in a monetary sense, they can be incentivized by small penalties:

Empirical investigations into the correlates of late fee amounts and late fee incidence noted that late fee payment can often be avoided by small and relatively costless changes in behavior. This suggests that the lower proposed \$8 late fee safe harbor amount would still be higher than the costs of making a timely payment.

No further explanation or any specific examples accompany the above statements in the NPR. This simplistic reasoning fails to consider that the “cost” of behavior change goes beyond explicit, monetary costs of implementing the change. The cost must factor in the individual’s attitude, inclination and motivation to change, personal utility function, and how they value the time it would take to implement the change versus doing something else with that time.¹⁵

For example, consumers who tend to overspend might be able to attend, at little or no cost, financial counseling sessions that enable them to correct their behavioral bias. However, they must recognize and be willing to address their behavioral bias, and then must sign up for and attend such counseling sessions.

The second, illogical argument focuses on the historical experience in the United Kingdom, which in 2006 (through the U.K. Office of Fair Trading) instituted a limit of 12 British pounds on credit card late payment penalties. The Bureau declares in the NPR that:¹⁶

The Bureau is not aware of evidence suggesting that the £12 limit the OFT imposed on default charges (including late fees) in 2006 meaningfully increased late payments in the United Kingdom (U.K.). As fees were routinely as high as £25 (\$43.75 on the day of the rule) until that spring, this episode is the closest to what the Bureau would foresee as the outcome to its proposal: a salient reduction in late fees impacting the entire marketplace at once, letting both issuers and cardholders learn and adapt to the lower later fees.

The Bureau seems to be suggesting that the lack of known studies documenting an increase in late payments following the imposition of this rule in the U.K. in 2006 is evidence that deterrence was not weakened. Also, the Bureau seems to be suggesting that, based on this (non-)evidence, a conclusion can be drawn that the Bureau’s proposed reduction would not weaken deterrence. This reasoning is a logical fallacy. It should also be noted that the CFPB proposes a much larger reduction in the late fee safe harbor than was imposed in the U.K.

¹⁴ See page 57-58 of the NPR.

¹⁵ The Bureau apparently assumes that the “cost” to the consumer of a change in behavior can be simply converted to a monetary value and compared to a fee penalty – when the behavior change “costs” less than the fee in this sense, the consumer will choose the “lower cost” option and change the behavior.

¹⁶ See page 60 of the NPR.

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