New Opt-In Overdraft Rules Cost Arkansas Banks $39 Million Annually

by

Kyle Mills and Timothy J. Yeager

Recent changes to overdraft policy by the Federal Reserve have limited the banking industry’s ability to provide certain fee-generating overdraft protection services. Regulation E, the Electronic Fund Transfer Act, now requires that a consumer affirmatively consent or “opt-in” to the institution’s overdraft policy on one-time debit card transactions and automated teller machine (ATM) payments that overdraw an account. The opt-in date differed for new and existing accounts. Accounts created after the mandatory compliance date of July 1, 2010 were subject immediately to the new opt-in procedure. If an existing account holder did not opt-in to the overdraft protection service by August 15, 2010, then the institution was required to remove the consumer’s account from enrollment in the service. Previously, most banks automatically enrolled consumers in these overdraft services.

Our goal is to quantify the revenue decline from the regulatory changes, both for Arkansas and U.S. banks. Such an assessment is particularly relevant today because of the current stress on bank revenues from reductions in interchange fees, a weak economy, and ongoing weakness from the financial crisis. Lower fee revenue may further impair the ability of banks to lend, prolonging the economic weakness.

We find an opt-in rate of just 31 percent. In addition, our best estimate is that the regulatory change has reduced annual deposit service charge revenue of the median Arkansas

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bank by $154,000, and all Arkansas banks by $39 million. For the U.S. banking industry as a whole, the annual drop in revenue is $3.8 billion.

**Overdraft Survey of Arkansas Banks**

Our first approach to quantify the revenue effects from the overdraft changes was to survey Arkansas banks directly. A survey was sent via email in late June 2011 to nearly all of the 122 commercial banks in the state of Arkansas. This survey is attached as Appendix 1. Responses were due by August 15, 2011. Unfortunately, responses to the survey were light, with only 24 banks responding. Of the responding banks, most did not answer the more technical questions because of the heavy time and resource demands it would have placed on them.

The questions in the first part of the survey asked banks to report the percentage of new and existing accounts, and the balances in those accounts, that opted into the overdraft protection service. These responses are summarized in Table 1. Just 31.4 percent of account holders--30.4 percent of existing account holders and 38.8 percent of new account holders--opted into overdraft protection. Further, only 15.9 percent of deposit balances were held by account holders who had opted in. These results imply that the amended overdraft policies are having a significant effect on fee income.

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<thead>
<tr>
<th>Table 1. Opt-in Rates</th>
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<tr>
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<tr>
<td>Accounts to opt in (%)</td>
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<tr>
<td>Dollar Balance to opt in (%)</td>
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Because our sample size is small, we wish to validate the accuracy of the low opt-in rate. A recent study conducted by the Center for Responsible Lending surveyed a random sample of
916 adults in April 2011. It found that the opt-in rate for overdraft service was 33 percent. Another survey done by the American Bankers Association found the opt-in rate to be 46%. That survey, however, was done in August 2010, which was just after implementation of the regulation, and it included in the opt-in rate those respondents who indicated that they planned to opt-in. Given these results, the 31 percent opt-in rate in our survey seems reasonable.

Call Report Evidence

To supplement the limited survey data, we rely on the quarterly call report data from the fourth quarter of 2008 through the second quarter of 2011. The dataset contains 7,034 unique U.S. banks and 136 Arkansas banks. Most banks were in existence for the entire 11 sample quarters; consequently, the full dataset contains 72,774 observations, and the Arkansas dataset contains 1,393 observations.

The simplest way to assess the impact of the overdraft changes is to plot the average deposit service charges before and after the changes were implemented. We must remove any effects from deposit growth because service charges should naturally increase with deposit levels. Because fees are assessed most commonly on transaction deposits, we focus especially on changes to quarterly deposit service charges (QDC) relative to transaction deposits.

The solid line in Figure 1 plots the estimated QDC that a bank would have earned each quarter if it had constant transaction deposit balances of $34.8 million (the median value for Arkansas banks as of the second quarter of 2011). The estimate is obtained by multiplying the $34.8 million deposit balance by the industry average QDC to transaction deposit ratio each

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6 The QDC to deposit ratio may be especially unreliable because service charges are rarely assessed on time deposits.
quarter. The figure shows a sharp decline after the second quarter of 2010, when the opt-in regulations went into effect. Indeed, as represented by the dashed lines in the figure, before the regulatory change the average estimated QDC is $181,900; after the change it declines to $149,600, a drop of $32,300.

We use regression analysis to estimate more precisely the change in QDC following implementation of the opt-in regulations. We must control explicitly for two important factors that could affect the relationship between transaction deposits and deposit service charges. First, on October 3, 2008, Congress raised the deposit insurance ceiling from $100,000 to $250,000. We account for this effect by beginning our sample period in the fourth quarter of 2008, just as the new insurance limits were put in place.

Second, on October 14, 2008, the FDIC implemented the Transaction Account Guarantee (TAG) Program, which provided unlimited deposit insurance coverage for non-interest bearing transaction accounts of participating banks. TAG was ultimately extended through 2010. Since then, unlimited coverage for these accounts is provided by the FDIC through a provision of the Dodd-Frank Act, which is set to expire at year-end 2012. Consequently, many depositors may have taken advantage of the increased deposit insurance on these transaction accounts by holding larger balances. Yet, the deposit service charge fees may not have increased at the same rate. We account for the effects of TAG by including in the regression each bank’s average amount of
noninterest-bearing transaction accounts of more than $250,000 per account.\textsuperscript{7} If a bank’s transaction deposits are rising due to large transaction deposits insured under TAG or the Dodd-Frank Act, there should be a negative relationship between QDC and the average transaction balance.

The dependent variables in our two regressions are QDC to transaction deposits and QDC to demand deposits. In addition to a TAG variable and an indicator variable to detect the regulatory changes, we control for the effects of bank size, deposit growth, and county unemployment rates on deposit service charges. It is possible that rapid deposit growth would lower the ratio of QDC to deposits if average deposit balances were rising quickly because it may take time for customers to begin to incur overdrafts on such funds. The unemployment rate could either increase or decrease deposit service charges, depending on whether customers overdraft more often to cover cash-flow shortfalls or are more careful monitors of account balances and overdraft less often. We ran the regressions separately for all U.S. banks and then for Arkansas banks to capture any patterns unique to Arkansas banks. The (unreported) regression results confirm the pattern in Figure 1; deposit service charges are lower after implementation of the opt-in regulations.

Table 2 summarizes the regression findings. For the median Arkansas bank, the estimated annual revenue loss is between $154,000 and $168,000. These declines equal 26 and 28 percent, respectively, of median deposit service charges. For U.S. banks with the same amount of deposits, the estimated annual revenue loss is between $105,000 and $120,000. Annual revenue reduction estimates for all Arkansas banks range between $39 million and $45.1

\textsuperscript{7} We compute this ratio for each bank and each quarter by dividing the dollar amount of noninterest-bearing transaction accounts of more than $250,000 by the number of such accounts. The call reports include these variables beginning in the fourth quarter of 2008.
million. The equivalent range for all U.S. banks is $3.8 billion to $5.3 billion, representing 12 percent and 16 percent, respectively, of annual industry deposit service charges.

<table>
<thead>
<tr>
<th>Arkansas Banks</th>
<th>Transaction Deposits</th>
<th>Demand Deposits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Arkansas Banka</td>
<td>-$154,303</td>
<td>-$167,512</td>
</tr>
<tr>
<td>Median US Banka</td>
<td>-$119,962</td>
<td>-$105,446</td>
</tr>
<tr>
<td>All Arkansas Banks</td>
<td>-$39,016,522</td>
<td>-$45,112,039</td>
</tr>
<tr>
<td>All US Banks</td>
<td>-$3,759,108,693</td>
<td>-$5,262,686,310</td>
</tr>
</tbody>
</table>

a The median bank had $34.8 million in transaction deposits and $16.7 million in demand deposits as of the second quarter of 2011.

Again, we wanted to compare these findings to other researchers’ estimates. Unfortunately, we could not find any other rigorous studies. One report by Market Rates Insight in June 2011 reported that changes to Regulation E had cost banks $1.6 billion during the first three quarters of implementation. Their report, however, does not account for the rapid 19.4 percent annualized increase in transaction deposits between June 2010 and March 2011; consequently, the report likely underestimates the revenue loss.

Summary

Changes to Regulation E adversely affected bank revenue both in the United States and in the state of Arkansas because a low opt-in rate decreased the number of depositor accounts from which overdraft fees were generated. Using the level of deposits in the second quarter of 2011 as a benchmark, we estimate that annual Arkansas bank deposit service charge revenue is lower than it otherwise would have been by somewhere between $39.0 million and $45.1 million. The similar estimate for U.S. banks is between $3.8 billion and $5.3 billion. Because the drop in

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revenue is quite sizeable, many banks are likely to take steps to reduce overhead expenses or raise fees elsewhere to offset the lower revenue.

Appendix 1: Survey

The Effect of the New Overdraft Regulations on Arkansas Banks

Background Questions

i. What is the FDIC cert number of your bank? (Answer is required in order to proceed.)

ii. Is your bank unaffected by the new overdraft rules because you have never allowed ATM or one-time debit card overdrafts, or you have never charged fees on ATM or one-time debit card overdrafts? If you answer yes, you may submit this survey without answering any further questions. (Answer is required in order to proceed.)
   Yes
   No

iii. (To answer this question, it will be helpful for you to preview the 17 quantitative survey questions so that you can determine what information you will need to complete the survey. Please refer to the document provided in the survey email or use the 'Next' and 'Back' buttons to view the survey questions.)

   The new overdraft regulation applies to all consumer accounts including checking, savings, and MMDA accounts. However, your reporting system may make it impossible or extremely costly to aggregate across multiple accounts to answer the survey questions. Please identify ALL of the consumer accounts that you are using to answer the survey questions below by checking as many boxes as appropriate. If one or more account types that you are using to fill in this survey are not specified, please list them.
   Checking (Demand and NOW accounts)
   Savings
   MMDA
   Other (please specify) ____________________

iv. (To answer this question, it will be helpful for you to preview the 17 quantitative survey questions so that you can determine what information you will need to complete the survey. Please refer to the document provided in the survey email or use the 'Next' and 'Back' buttons to view the survey questions.)

   Although the new overdraft regulation applies only to consumer accounts and excludes business accounts, your bank may be unable to break out balances and fees associated with just these accounts because your reporting systems aggregate the data for these accounts. Please identify the account type that you are using to answer the survey questions below.
   My bank can identify consumer accounts separately for purposes of this survey so all responses pertain only to consumer accounts.
   My bank cannot identify consumer accounts separately for purposes of this survey, so all responses pertain to consumer AND business accounts.

v. Because your bank's responses include information from business accounts as well as personal accounts, please provide the percentage of the total number of accounts used to answer these survey questions that are business accounts as of June 30, 2011.

   ______ Percentage of accounts that are business accounts

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Survey Questions

1. As of June 30, 2011, how many consumer accounts affected by the new overdraft policy also existed on June 30, 2010? In other words, how many accounts are at least 1 year old?

2. As of June 30, 2011, what number of consumer accounts that existed as of June 30, 2010 have opted into the overdraft protection service? (Answers to questions 1 and 2 allow us to compute the percentage of accounts at least 1 year old that have opted in.)

3. What is the dollar balance (in $000s) as of June 30, 2011 in the current consumer accounts that existed as of June 30, 2010?

4. What is the dollar balance (in $000s) as of June 30, 2011 in the current consumer accounts that existed as of June 30, 2010 that opted into the overdraft protection service? (Answers to questions 3 and 4 allow us to compute the dollar percentage of account balances more than 1 year old that have opted in.)

5. How many consumer accounts as of June 30, 2011 were established after June 30, 2010?

6. As of June 30, 2011, what number of current consumer accounts that were established after June 30, 2010 have opted into the overdraft protection service? (Answers to questions 5 and 6 allow us to compute the percentage of new accounts less than 1 year old that have opted in.)

7. What is the dollar balance (in $000s) as of June 30, 2011 in the current consumer accounts that were established after June 30, 2010?

8. What is the dollar balance (in $000s) as of June 30, 2011 in the current consumer accounts that were established after June 30, 2010 that opted into the overdraft protection service? (Answers to questions 7 and 8 allow us to compute the dollar percentage of account balances less than 1 year old that have opted in.)

9. What was the total dollar amount ($000s) of noninterest income generated by one-time debit card and ATM overdraft fees on consumer accounts between July 1, 2009 and June 30, 2010? (If your bank cannot separate fees by these categories please state so.)

10. What was the total dollar amount ($000s) of noninterest income generated by ALL fees on consumer accounts (including the one-time debit card fees, ATM overdraft fees, recurring payment fees, insufficient funds fees, etc.) between July 1, 2009 and June 30, 2010? (Answers to questions 9 and 10 allow us to compute the percentage of fees that came from one-time fees and ATM overdraft fees in the year prior to the change in the regulation.)

11. What was the average (daily, weekly, or monthly) balance of consumer accounts ($000s) between July 1, 2009 and June 30, 2010? (This information allows us to compute the debit card fees in questions 9 and 10 as a percentage of the account balances.)

12. What was the total dollar amount ($000s) of noninterest income generated by one-time debit card and ATM overdraft fees on consumer accounts between July 1, 2010 and June 30, 2011? (If your bank cannot separate fees by these categories please state so.)

13. What was the total dollar amount ($000s) of noninterest income generated by ALL fees on consumer accounts (including the one-time debit card fees, ATM overdraft fees, recurring payment fees, insufficient funds fees, etc.) between July 1, 2010 and June 30, 2011? (If your bank cannot separate fees by these categories please state so.)
funds fees, etc.) between July 1, 2010 and June 30, 2011? (Answers to questions 12 and 13 allow us to compute the percentage of fees that came from one-time fees and ATM overdraft fees in the year after the change in the regulation.)

14. What was the average (daily, weekly, or monthly) balance of consumer accounts ($000s) between July 1, 2010 and June 30, 2011? (This information allows us to compute the debit card fees in questions 12 and 13 as a percentage of the account balances.)

15. As of June 30, 2010, how many consumer accounts had in place any other type of overdraft service besides a fee charged for overdrafting accounts? Examples of other overdraft service would include services such as overdraft lines of credit or ties to savings accounts.

16. As of June 30, 2011, how many consumer accounts had in place any other type of overdraft service besides a fee charged for overdrafting accounts? Examples of other overdraft service would include services such as overdraft lines of credit or ties to savings accounts. (Answers to questions 15 and 16 allow us to compute the number of accounts that established alternative overdraft services after the new regulations were put in place.)

17. Excluding any actual changes to noninterest income, what was the estimated total cost ($000s) to your bank to implement the new overdraft regulations? Charges include changes to software programs, billing statements, added personnel and overhead to comply with the policies, etc.)

18. If desired, please provide any comments here regarding your bank's experience regarding the new overdraft regulations including specific actions taken to offset revenue lost as a result of the regulations (for example, eliminating free checking, increasing monthly service charges or NSF fees, etc.).