Probable Cost to Consumers Resulting from the Consumer Finance Protection Bureau's Final Rule on Arbitration Agreements

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1. Introduction

The Consumer Financial Protection Bureau (CFPB) issued a final rule prohibiting mandatory arbitration agreements for credit cards and certain other financial products.[1] The rationale provided by the CFPB is that eliminating mandatory arbitration clauses in contracts for certain financial products introduces a financial liability for financial service providers in the form of a potential increase in class action lawsuits. That additional financial liability may lead to greater compliance by financial institutions and make consumers more likely to obtain relief in the event of a dispute. As part of its arbitration study the CFPB reported that it did not find any statistically significant evidence of increases in the cost of credit to consumers associated with banning mandatory arbitration in credit card markets. More precisely, their statistical analysis led the CFPB to not reject the null hypothesis that the increase in costs to consumers would be zero.

The CFPB report summarizes a working paper published on SSRN.com by Alexei Alexandrov "Making firms liable for consumers' mistaken beliefs: theoretical model and empirical applications to the U.S. mortgage and credit card markets."[2] He constructed a model to show circumstances in which introducing a financial liability on firms can improve social welfare and consumer surplus depending on the magnitude of three effects. One of the effects is cost to consumers through price increases or output decreases. Alexandrov conducted statistical analysis of credit card data to estimate price increases. While he found the results of his analysis were statistically insignificant and he could not reject the null hypothesis that there were no costs to consumers, Alexandrov was careful to point out that he could not rule out economically significant costs.

This paper intends to analyze and verify the Alexandrov results that were summarized by the CFPB in their arbitration study and discuss potential increased costs to consumers from eliminating mandatory arbitrage clauses. Given the substantial costs to financial firms estimated by the CFPB, one would expect some of these costs to be passed on to consumers or the availability of certain financial services products to decline where costs could not be recouped. This analysis by the OCC confirms Alexandrov's results using his assumptions and specification and elaborates on his comments about the economic significance of introducing additional financial liability in credit card markets. Consumers face significant risk of a substantial rise in the cost of credit. This analysis also identifies some shortcomings of the approach given the characteristics of the data.

[1] See "Arbitration Agreements: A Final Rule by the Consumer Financial Protection Bureau on 07/19/2017." *Federal Register*. Docket No. CFPB-2016-0020, Document Number: 2017-14225. July 19, 2017.

[2] See Alexandrov, Alexei, "Making Firms Liable for Consumers' Mistaken Beliefs: Theoretical Model and Empirical Applications to the U.S. Mortgage and Credit Card Markets" (June 27, 2017). Available at SSRN: https://ssrn.com/abstract=2599424 or http://dx.doi.org/10.2139/ssrn.2599424.

2. Methodology

Alexandrov conducted a study of the effect of banning mandatory arbitration agreements on the provision of credit card services based on data before and after the Ross settlement lawsuit in 2009. Data are divided into two groups, banks who settled the Ross lawsuit (settlers) and those who did not (control). The control group included banks that were part of the Ross lawsuit as well as others that were not.

Total Cost of Credit (TCC) is computed over the first 25 months of new accounts opened during the sample period and incorporates all fees and interest charges the consumer pays to the issuer. It excludes revenue generated though separate agreements between other businesses and the issuer, such as interchange fees paid by merchants and marketing fees or commissions paid by companies offering add-on products to an issuer's customer base. This TCC metric captures all of the costs that consumers pay to the credit card issuer for use and access to the credit card.

The empirical analysis uses a difference-in-difference regression approach to compare the difference in TCC on new credit card accounts of the settlers and the control group pre- and post-Ross settlement. To account for correlation among accounts in a given bank the standard errors are estimated using a robust clustered method, with clustering at the bank level.

Several control variables are included in the regression specification, including month, year, month-year interaction, issuer fixed effects, borrower's FICO score at origination, credit card origination channel, borrower income, issuer relationship dummies, and a dummy variable for an issuer never having a mandatory arbitration clause.

3. Data

This analysis uses the same dataset used by Alexandrov. The sample included new credit card accounts that were originated between November 2008 and November 2011 excluding the data from November 2009 through December 2009, a month before and the month of the settlement by some credit card issuers. These accounts were followed for a 25-month performance window. The dataset had 308,737 observations across the settler and control groups.

The data contains confidential supervisory information. Consistent with the OCC's confidentiality rules, findings presented in this paper do not directly or indirectly identify the institutions involved or the exact number of issuers in either group.

As more fully explained by the CFPB, the credit card account data do not allow identifying any individual person and do not link accounts. Not all of the control group were party to the Ross lawsuit. The data we analyze from the complete dataset might or might not include the data from all four settlers, and this analysis does not identify which or how many settlers are in the data analyzed.

4. Regression Analysis

The CFPB reported that results were not statistically significant with actual results reported by Alexandrov. This analysis replicates the results with estimated coefficients close to Alexandrov's estimates (see table 1).[3] The coefficient on the variable PostXSettler (a dummy variable which is 1 for an account opened after settlement with one of the settling banks and 0 otherwise) is 0.0343, which means the expected TCC for new credit card accounts with settler banks will be 3.43 percentage points higher compared to the control banks, with other factors held constant. However, given the standard error of that estimate, at the 95 percent confidence level we cannot reject the hypothesis that the cost to consumers, in the form of a higher TCC, is zero. Given the magnitude of standard errors of 2 or 3 percentage points, Alexandrov is careful in his conclusion: "…I cannot rule out an economically significant response."[4]

Table 1. Regression Results

VARIABLES	(1) Whole Sample	(2) Subprime	(3) Prime
PostXRoss	0.0343	-0.00748	0.0360
	(0.0296)	(0.0208)	(0.0306)
Ross	0.0689*	-0.290***	-0.00760
	(0.0322)	(0.0191)	(0.0306)
Post	-0.0551	-0.0236	-0.0557
	(0.0351)	(0.0186)	(0.0381)
NoArb	1.691***	0.677***	1.726***
	(0.0201)	(0.0272)	(0.0169)
FICO	-7.187***	-2.376*	7.164
	(1.647)	(1.299)	(7.541)
Income_ln	-0.0128**	-0.0196***	-0.0113**
	(0.00501)	(0.00469)	(0.00460)
MultipleBankingRelationshipFlag	-0.00271	0.00162	-0.00341
	(0.00410)	(0.00601)	(0.00439)
MultipleCardRelationshipFlag	-0.00454	-0.0291***	0.000152
	(0.00337)	(0.00467)	(0.00331)
Observations	308,737	73,089	235,648
R-squared	0.309	0.203	0.117

*p<0.05 **p<0.01 ***p<0.001

To elaborate on that conclusion: the data indicate substantial uncertainty about the impact with a high probability that TCC will increase as shown in table 2.

[3] The table 1 generates similar estimates to the Table 1 on page 19 of Alexei Alexandrov's paper.
[4] See Alexandrov, page 3.

Table 2. Probability Distribution of increase in TCC (in percentage points)

Increase in TCC is at least	with Probability
0	88%
1	79%
2	69%
3	56%
4	42%

The results are statistically insignificant at the 95 percent (and 90 percent) confidence level. However, an 88 percent chance of an increase of some amount and, for example, a 56 percent chance that the increase is at least 3 percentage points, is economically significant because the average consumer faces the risk of a substantial rise in the cost of their credit cards.

5. Issues, Weakness, and Challenges

There are several issues with the data that could affect the model estimation including the definition of TCC, interchange fees and rewards, temporary promotional interest rates for new accounts, and the window for measuring TCC.

The dependent variable (annualized average all-in credit costs for the consumer) is defined as TCC = 12 * (Average Monthly Fees/Average Monthly Daily Balance) over a 25-month performance window for new credit card accounts, where average monthly fees include virtually all fees that a consumer might pay, such as interest rate charges, late fees, annual fees, etc. An alternative definition of TCC could have been used, however, where the actual monthly ratio of fees to average daily balance is averaged over the 25-month performance window.

The use of a 25-month performance window in calculating TCC means that the credit card accounts created near the break point between the pre- and post-settlement periods will have data that span both periods. This would create measurement error in the dependent variable for these accounts that could contaminate the results. New accounts may be offered temporary promotional rates. An alternative to the robustness tests in the paper (i.e., using 13, 19, and 37 months), would have been to use the 13^{th} to 18^{th} month, 25^{th} to 36^{th} month, and 37^{th} to 48^{th} month to deal with promotional periods.

6. Conclusions

The data, analysis, and results reported by Alexandrov, and used by the CFPB, confirmed independently by the OCC, indicate a strong probability of a significant increase in the cost of credit cards as a result of eliminating mandatory arbitration clauses. The magnitude of the likely effect on pricing is uncertain, but there is a high probability that TCC will increase. The data analyzed showed an expected increase of 3.43 percentage points for customers of institutions that

settled the Ross case. This is the same data and analysis that the CFPB relied on to represent the effect of its arbitration rule.

This analysis does not explore the potential effect on consumer payments, their ability to pay the higher cost and the potential for an increase in delinquencies, or changes in the availability of certain financial products intended to meet the financial needs of consumers. To analyze these effects and their impact on consumers, credit markets, and banks additional research would be required.

7. References

Alexei Alexandrov, 2017, "Making firms liable for consumers' mistaken beliefs: theoretical model and empirical applications to the U.S. mortgage and credit card markets", SSRN working paper

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