**ONLINE APPENDIX**

**Study 3A: Judicial Inclination to Invalidate Excessive Contract Terms: Laypersons**

Study 3A sought to examine the effect of the substitute arrangement on the subjects’ inclination to invalidate overreaching contractual terms. It was conducted on Amazon Mechanical-Turk (MTurk)—an internet platform that facilitates online surveys and randomized experiments, and is widely used for studies of judgement and decision making.[[1]](#endnote-2)

***Participants***

A total of 264 MTurk Master Workers—152 males and 112 females—took part in the study in return for $1.[[2]](#endnote-3) Sixty-four percent of the participants had attended college or had higher education. The mean age was 40.16 (SD=11.01). Thirty-three percent had an annual income of less than $30,000, 45 percent earned between $30,000 and $60,000 per annum, and 22 percent had a yearly income of over $60,000. The participants were asked to rate themselves on the Ideological Worldview and Religiosity scales of 0–100. The average ideological worldview was 39.84 (SD=29.73), where 0 was Liberal and 100 Conservative; and the average religiosity 25.03 (SD=34.27), where 0 was Not at all religious and 100 Strongly religious (evidently, the MTurk panel is not a representative sample of the US adult population in terms of ideological inclination).

***Design and Procedure***

The study consisted of two parts: questions about the substitute arrangement and demographic details.[[3]](#endnote-4) In the first part, participants were initially informed that in many jurisdictions, there are statutes that authorize the courts to declare “excessive and unconscionable” interest rates void. It was further explained that, in this context, courts “balance the view that abusive interest rates unfairly enrich lenders and adversely affect borrowers against freedom of contract and the recognition that invalidating high interest rates may prevent some borrowers form getting credit in the first place.” It was then added that the outcomes of invalidating excessive interest rates vary from one jurisdiction to another, such that the substitutionary arrangement may be “a penalty arrangement” (borrower pays only the principal), “a moderate arrangement” (borrower pays the principal plus the prevailing interest), or “a minimally tolerable arrangement” (borrower pays the principal plus interest at the highest rate that would still be considered tolerable).

 Two presentation orders of the three arrangements were counterbalanced between subjects: Penalty-Moderate-MTA or MTA-Moderate-Penalty. Following this description, the first question (Comprehension) asked participants to assume that “for a given type of loans in a certain jurisdiction, the prevailing annual interest rate is 15%” and that “the courts in that jurisdiction have long ruled that an annual interest exceeding 30% is excessive and unconscionable and therefore void and unenforceable.” Based on these assumptions, they were asked to indicate what the outcome of invalidating an interest rate of 45 percent would be under each of the three substitutes, on scales of 0 to 45 percent. Participants could not proceed with the questionnaire until they had answered all three questions correctly (the correct answers being Penalty: 0 percent; Moderate: 15 percent; MTA: 30 percent). The order of the three substitutionary arrangements was the same as in the initial description.

The Comprehension question served two purposes. First, we wanted to ensure that the participants understood the meaning of the three substitutes. Second, while all participants were told that the 45 percent interest rate was voided in a lawsuit filed by “Loans Ltd., a credit company,” half of them were told that the lawsuit was filed against “John, a borrower” and the other half against “John Construction Ltd., a borrower.” The difference between the two conditions had no bearing on the Comprehension question, but could affect the answers to the ensuing questions. Specifically, if people judge consumer and commercial loans differently, then—although the type of loan was not indicated in the following questions—the version used in Comprehension might serve as a sort of priming, thereby affecting those judgments.[[4]](#endnote-5)

In the next question (Legislator), participants were asked to imagine that they were members of a legislative body that is drafting a new statute authorizing courts to invalidate excessive interest rates. They were asked which of the three outcomes of such invalidation—Penalty, Moderate, or MTA—they would include in the statute (the three options were presented in the same order as in the Comprehension question).

In the third question (Judge), participants were asked to imagine that they were serving as a judge in a jurisdiction where courts were authorized to invalidate excessive interest rates. They were then asked under which of the three arrangements they would be most inclined to invalidate a high interest rate. In addition to Penalty, Moderate, and MTA, they had a fourth option—namely, that their inclination to invalidate the high interest rate would be unaffected by the outcome of such invalidation (Indifferent). Four variations of the order of the four answers were used: Penalty-Moderate-MTA-Indifferent; MTA-Moderate-Penalty-Indifferent; Indifferent-Penalty-Moderate-MTA; Indifferent-MTA-Moderate-Penalty (for each participant, the order of the three arrangements was the same as in the initial description).[[5]](#endnote-6)

***Results***

The order of presentation of the three substitutionary arrangements had no significant effect on any of the responses. In the Legislator question, participants expressed the greatest support for Moderate (114 out of 264; 43.2 percent), followed by Penalty (94; 35.6 percent), and MTA (56; 21.2 percent). The differences between MTA and Penalty, and between MTA and Moderate were statistically significant (χ2(1)=9.63, p=0.002; χ2(1)=19.79, p<0.001, respectively), whereas the difference between Moderate and Penalty was not (χ2(1)=1.92, p=0.17). The greatest support for Moderate in a legislative context replicated the greatest support for this option in Studies 1A and 1B.[[6]](#endnote-7) Whether participants read the commercial or consumer version of the Comprehension question had no statistically significant effect on their choice of preferred substitute arrangement (χ2(2)=3.21, p=0.2)—which may indicate either that such effect does not exist, or that the manipulated priming was too weak.

 In response to the Judge question, only 51 of the 264 (19.3 percent) participants indicated that their inclination to invalidate a high interest rate would not be affected by the substitutionary arrangement. Among the large majority of 213 participants (out of 264—i.e., 80.7 percent) who indicated that they would be affected by the substitute,83 (39 percent) were most inclined to invalidate a high interest rate under Moderate; 71 (33.3 percent) were most inclined to do so under Penalty; and 59 (27.7 percent) under MTA.[[7]](#endnote-8) The differences between the three substitutionary arrangements were not statistically significant (χ2(2)=4.06, p=0.13). These results do not support any of our four initial hypotheses. The reported inclination to invalidate an excessive interest rate was certainly not unaffected by the substitutionary arrangement, nor was it statistically significantly the strongest under any of the substitutes—Penalty, Moderate, or MTA.

However, there was a strong association between participants’ inclination to invalidate an excessive interest rate under each of the substitutes (in Judge), and their preferred substitute (in Legislator), as shown in Table A1. Excluding the 51 participants who indicated that their inclination to invalidate a high interest rate would not be affected by the substitute arrangement, 158 of the remaining 213 (74.2 percent) were most inclined to invalidate the high interest rate if the substitute arrangement was the one they would support as legislators. This association was highly statistically significant (χ2(4)=157.42, p<0.001).

Table A1: INSERT TABLE A1 AROUND HERE.

**REFERENCES**

Förster, Jens, and Nira Liberman. “Knowledge Activation.” in *Social Psychology: Handbook of Basic Principles,* edited by Arie W. Kruglansky and E. Tory Higgins, 201–31 (2d ed). New York: Guilford Press, 2007.

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**VIGNETTE AND QUESTIONS**

When borrowers take loans from commercial lenders, they usually repay the principal amount plus an agreed interest. In many jurisdictions, there are statutes that authorize the courts to declare that “excessive and unconscionable” interest rates are void and unenforceable. In implementing these statutes, the courts balance the view that abusive interest rates unfairly enrich lenders and adversely affect borrowers against freedom of contract and the recognition that invalidating high interest rates may prevent some borrowers form getting credit in the first place.

The outcomes of a judicial finding that a given interest rate is excessive and void vary from one jurisdiction to another. There are three possible arrangements, each of which is adopted in certain jurisdictions. Specifically, when the interest rate is found excessive and void, the outcome set by the statute is one of the following —

a. ***A penalty arrangement*:** the borrower has to pay only the principal amount.

b. ***A moderate arrangement***: the borrower has to pay the principal amount plus the prevailing interest rate in the relevant market.

c. ***A minimally tolerable arrangement***: the borrower has to pay the principal amount plus interest at the highest rate that would still be considered tolerable (rather than excessive and void).

[**Comprehension**] Assume that for a given type of loans in a certain jurisdiction, the prevailing annual interest rate is 15%. The courts in that jurisdiction have long ruled that an annual interest exceeding 30% is excessive and unconscionable and therefore void and unenforceable.

Imagine that in a lawsuit filed by Loans Ltd., a credit company, against [**commercial**: John Construction Ltd. / **consumer**: John], a borrower, the court held that the contract interest of 45% is excessive and void. What interest should [**commercial**: John Construction Ltd. / **consumer**: John] pay under each of the statutory arrangements described above, following the court’s decision?

* Under **a penalty arrangement** [**commercial**: John Construction Ltd. / **consumer**: John] should pay: (0% … 45%).
* Under **amoderatearrangement** [**commercial**: John Construction Ltd. / **consumer**: John] should pay: (0% … 45%).
* Under **aminimally tolerable arrangement** [**commercial**: John Construction Ltd. / **consumer**: John] should pay: (0 … 45%).[[8]](#endnote-9)

[**Legislator**] Imagine that you are a member of a legislative body that enacts a new statute that would authorize the courts to invalidate “excessive and unconscionable” interest rates. What outcome of such invalidation would you include in the statute? Please mark one option:

a. ***A penalty arrangement*:** the borrower has to pay only the principal amount.

b. ***A moderate arrangement***: the borrower has to pay the principal amount plus the prevailing interest rate in the relevant market.

c. ***A minimally tolerable arrangement***: the borrower has to pay the principal amount plus interest at the highest rate that would still be considered tolerable (rather than excessive and void).

[**Judge**] Imagine that you are serving as a judge in a jurisdiction where courts are authorized to invalidate excessive and unconscionable interest rates. How would your inclination to invalidate a high interest rate be affected, if at all, by the outcome of such invalidation? Please mark one option:

\_\_ I would be **most inclined** to invalidate the high interest rate under **the penalty arrangement**.

\_\_ I would be **most inclined** to invalidate the high interest rate under **the moderate arrangement**.[[9]](#endnote-10)

\_\_ I would be **most inclined** to invalidate the high interest rate under **the minimally tolerable arrangement.**

\_\_ My inclination to invalidate the high interest rate **would not be affected** by the outcome of such invalidation.[[10]](#endnote-11)

4. In general, do you support or oppose the invalidation of excessive and unconscionable interest rates in loans? Please mark your answer on a scale of 1 to 7, where 1 means that you strongly support such invalidation, and 7 that you strongly oppose it (1 … 7).

1. It has been shown that MTurk workers are attentive to study materials, and importantly, that they produce similar results in treatment effects as subjects in other representative and unrepresentative platforms (Mullinix et al. 2015; Irvine, Hoffman, and Wilkinson-Ryan 2018). [↑](#endnote-ref-2)
2. Master Workers are subjects who regularly participate in studies on MTurk and have demonstrated consistent success in performing a wide range of assignments (Peer, Vosgerau, and Acquisti 2014). [↑](#endnote-ref-3)
3. After completing the two parts, the participants were presented with additional questions that were part of a separate study and which are therefore not reported here. [↑](#endnote-ref-4)
4. Priming is a process in which exposure to one stimulus—be it sensory information (such as a visual image) or a concept—unconsciously influences the subsequent response to the same stimulus, and related ones (Förster and Liberman 2007). [↑](#endnote-ref-5)
5. Participants who opted for Moderate were asked a follow-up question—namely, under which of the remaining two arrangements, Penalty or MTA, would they be least inclined to invalidate the high interest rate. After answering all of these questions, the participants were also asked to what extent they support or oppose the invalidation of excessive and unconscionable interest rates in loans. [↑](#endnote-ref-6)
6. The difference between Penalty and Moderate in Studies 1A and 1B was in the same direction as in the present study—but was larger and statistically significant. [↑](#endnote-ref-7)
7. Of the 83 respondents who were most inclined to invalidate a high interest rate under Moderate, 48 were the least inclined to invalidate under the MTA in the follow-up question (see supra note 5), and 35 under Penalty. Arguably, we could classify the respondents into five, rather than four, categories (by splitting Moderate into the two sub-categories). However, since the question about the weakest inclination was a follow-up question, and no such follow-up question was presented to those who had chosen Penalty or MTA, it appears more appropriate to focus on the four options initially presented. [↑](#endnote-ref-8)
8. The above three questions were presented in two different sequences (1, 2, 3, or 3, 2, 1) in this and in the following questions—with each subject seeing the same order throughout. Respondents could only proceed to the next question after answering all parts of the Comprehension question correctly. [↑](#endnote-ref-9)
9. Respondents who chose this answer were asked a follow-up question:

I would be least inclined to invalidate the high interest rate if the outcome of such invalidation is
–– the penalty arrangement.

\_\_ the minimally tolerable arrangement. [Order of options randomized]. [↑](#endnote-ref-10)
10. Four orders—1, 2, 3, 4 / 3, 2, 1, 4 / 4, 1, 2, 3 / 4, 3, 2, 1—were used. The order of options 1 to 3 was the same as in *Comprehension*. [↑](#endnote-ref-11)