Drivers and Outcomes of Perceived Fairness in Consumer Financial Decisions

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Abstract

In financial decision making, perceived fairness can have substantial influence on individuals' choices. In this paper, we investigate process and outcome dimensions that moderate perceived fairness for a variety of financial products. Our hypotheses draw from the existing fairness literatures in marketing, economics, and organizational behavior, and relate the fairness concepts from those existing research streams to the particular issues in fairness for financial decisions. Through a series of seven studies, we find that perceived fairness for consumers and firms operate independently and are not always consistent with market assumptions. Fairness judgments are highly sensitive to non-price dimensions such as control, safety, and information, consistent with organizational justice findings.

"Even kids know it's wrong to treat new friends better than old friends. At Ally Bank, we treat all our customers fairly." - *Ally Financial ad campaign, 2011*

Market regulators are very interested in the principle of "transparency" - the extent to which buying and selling prices, fees, and other transaction information is available to consumers in that market. They argue that transparency increases the efficiency of the market and improves investor confidence. One of the key concepts in their definition of transparency is the idea of fairness. While economists have investigated how transparency (information availability) affects market prices and efficiency, little research has been done to see how perceptions of fairness affect market participation by consumers. Given our interest in increasing consumer participation in markets for various financial products (e.g., annuities, reverse mortgages), the issue of how perceived fairness (or lack thereof) reduces participation is an important one.

Perceived fairness can be affected by underlying costs (Kahneman, Knetsch, Thaler 1986; Baron, Maxwell 1996), bundled versus separate prices (Sheng, Bao, Pan 2007), and whether the underlying costs are variable or fixed (Nunes, Hsee, Weber 2004). Markets can be constrained when the actions within them are perceived as unfair (Roth 2007; Statman 2005), as participants appear to attempt to punish the unfair players. Perceived fairness also affects payouts in settings like the ultimatum game, where individuals will sacrifice their own payouts to punish unfair other players.

Additional work has investigated whether firms and individuals are held to the same standards of fairness, and finds that firms are thought to be more unfair due to their larger wealth and power (Seligman, Schwartz 1997). This distinction between firm and individual issues of fairness has become even more salient as firms and individuals decide whether to walk away

from their financial obligations in the midst of the current housing crisis (Thaler NYT 1/23/10); the government has encouraged homeowners to keep up payments since walking away is "not honoring his obligation", while banks are free to do whatever is in their economic best interest. These different expectations of appropriate, or fair, behavior represent a norm asymmetry (White 2009) between firms and individuals.

Finally, work on procedural fairness has demonstrated that individuals take the process by which outcomes are determined into account in their fairness judgments (Bies, Tripp, Neale 1993). This suggests that transparency may be not only about prices and outcomes, as the SEC has assumed, but also about the actual process under which the market operates. As an example, if consumers were to realize that their annuity dollars fund not only their own payments, but may also cover the payments of others who outlive expectations, would they see the annuity market as more fair and thus be more willing to participate?

Separating outcomes and process

In pricing, perceptions of fairness are heavily influences by outcome measures, such as dual entitlement (KKT 1986). Consumers appear to be sensitive to how the final price of a product relates to its underlying costs. The (perceived) marketplace cost structure of the product is therefore very important - the consumer subtracts perceived costs (such as materials and labor) from price to estimate a seller profit margin, and then compares that margin against their own consumer surplus at the listed price. In the end, comparison of seller margin to buyer benefits is used to estimate how fair the deal is.

This comparison of seller profits to buyer benefits is less clear for many financial products, for several reasons. The first and most important reason is that the cost structure is very

unclear to most individuals. For many financial products, the drivers of seller cost come from market uncertainties (e.g., market interest rates) and risks (e.g., risk of default). Compared to physical material costs, such costs are not easily quantified in the mind of the consumer. The second reason is that the costs vary according to both time and individual. Risk of default is based on the borrower's credit score, and market interest rates are highly time sensitive, so consumers have become trained that the offer they receive today could be very different from an offer made to another individual tomorrow. As a result, comparisons of one's own outcomes to another consumer's outcomes are nearly impossible. Sensitivity to market changes also means that the consumer cannot easily attribute an "unfair" offer to the firm rather than to the marketplace as a whole. Finally, many financial products involve a long term relationship with many outcomes (for example, a mortgage repayment scheme), which is very different than a one-time purchase of a product. So any perceived costs and benefits have to be integrated over the entire life of the product rather than being fully considered at the time of purchase.

Given that outcome distributions are thus less important for these products, process issues become much more important as a driver for perceived fairness. Process attitudes are driven not just by the description of the process but also by social norms and metaknowledge about such products. Issues of transparency (clear description of the process) and trust are also important. With these concerns in mind, we developed the following set of research questions:

<u>Evaluating outcomes</u>

- What reference points are available and/or salient for consumers to use when evaluating outcomes?
- How do fee structures (e.g., fixed versus variable) affect fairness perceptions?
- How do consumers understanding of concepts like interest rate, APR, and NPV

affect their perceptions of fairness?

Evaluating process

- How do we measure perceptions of process fairness? Will organizational justice measures work?
- How can process descriptions affect fairness perceptions?
- Which financial products and processes are judged more fair than others?
- If fairness judgments are based on process rather than outcome, can the same product be fair for both the firm and the consumer?

This paper attempts to address these research questions regarding consumer fairness perceptions for financial products. First, we test the assumptions and information that consumers hold about fairness norms for financial products, and investigate how those norms relate to perceived fairness. Second, we test whether changes in how outcomes are calculated can affect fairness perceptions. Third, we ask what dimensions of process explanations can reliably moderate such fairness judgments – in other words, can differences in how an underlying business process is described actually affect both fairness and a consumer's willingness to do business with a firm. We also test the relationship between measures of perceived fairness and measures of organizational justice, which are designed to capture procedural fairness. Finally, we ask whether a product that is fair to the firm can also be fair for the consumer, or whether those concepts are opposites of the same scale. These questions are addressed through a series of studies that manipulate descriptions of both products and processes, measure perceived fairness, and then connect these fairness measures with both product choice and resource allocation decisions.

Overview of Studies

Studies 1 through 3 are designed to address the research questions regarding how consumers evaluate outcomes for financial decisions. Specifically, since cost structures for financial products are generated by financial concepts such as pricing for risk and time-value of money, we expect that consumers will have a difficult time evaluating such attributes and thus assessing fairness of specific offers. Study 1 tests how consumers interpret interest rates on loans and whether a loan with a higher rate is perceived as more or less fair for the consumer. Study 2 investigates fixed and variable fee structures for debit card overdrafts, to see whether consumers evaluate a fixed fee as more fair than a variable fee. Finally, in Study 3, we directly assess our study participants' knowledge of financial product costs, such as interest rates, to see whether they are able to generate their own set of relevant reference points when evaluating financial products.

Studies 4 through 7 turn to the important question of how differences in process descriptions can affect perceived fairness for financial products. Given that consumers have a difficult time understanding cost structures and thus evaluating whether outcomes are fair, we suggest that they judge fairness more on procedural dimensions. An initial test of how changes in process affect perceived fairness in provided in Study 4, in which we return to the topic of debit card overdraft fees and show that descriptions of underlying costs can affect fairness measures. Study 5 begins our tests of how changing process descriptions can affect fairness through a series of paired scenarios for a variety of financial products including mortgages, retirement savings, and annuities. The most thorough research on procedural fairness comes from the organizational behavior literature and we use their four subscales of organizational justice to see whether our different process descriptions yield significant effects on both the justice measures and on overall

fairness perceptions in Study 6. Finally, in Study 7, we test whether explicit reference points have an effect on perceived fairness with a series of loan choices.

Consumer Norms for Evaluating Outcomes

Unlike physical products, whose costs are often easily imagined as being from materials and labor, the underlying cost structure for financial products is often a mystery to the end consumer. The costs for these products are primarily generated from issues of time (i.e., net present value of future payment streams) and uncertainty (e.g., default risks, risks from changes in market rates). Substantial research shows that individual decision makers are not intuitively good at understanding either probabilistic concepts like risk and uncertainty or financial constructs like NPV and compound interest. For these reasons, changes in financial product pricing that result from market changes in interest rates are more likely to be perceived as nearly random and therefore unfair to the consumer.

Furthermore, since financial product cost structures are not intuitively clear to most consumers, they are more likely to generate alternative explanations of how such products generate profits to the firm that provides them. These generated explanations then become the social norms that operate as reference points for evaluating the terms of the products. The fact that the same basic product attribute can vary so widely between financial products – for example, current APRs for savings accounts are less than 1%, for mortgages are around 4%, and for credit cards are around 18% to 25% - leads to even greater customer confusion about what the "correct" reference point should be for that particular attribute. Based on these issues around financial product cost structures, we generate the following hypotheses:

> H1: Money collected through interest rates on loans is likely to be perceived as a fee rather than as the time value of money; as a result, a loan with a higher rate

can be perceived as more fair to the consumer when the repayment time is shorter and overall payment amount is lower.

H2: The wide range of values in the marketplace for financial product attributes like interest rate (APR) will affect consumers' ability to generate relevant reference points for new financial products.

Besides interest rates, another crucial attribute of many financial products is the fee structure. When implementing a fee structure to go with a product offering, retailers have the option of using a percentage fee (based on the amount of the total price) or a flat fee (a set amount regardless of actual price). Assuming that the customer's expected cost of the fee is that same under both structures, consumers should be indifferent to how the fee is implemented. However, even with the same expected cost, consumers may have a clear preference for one type of fee based on other, non-monetary reasons. More precisely, consumers may think that one type of fee is more unfair, and thus be less likely to purchase items priced using that fee structure.

Theories of fairness (Kahneman, Knetch, Thaler) state that consumers expect to be able to match prices with costs. For example, the theory predicts that consumers will be more accepting of increases in prices when there has been a corresponding increase in cost to the retailer. Recent research on consumers' willingness to pay to cover retailers' fixed costs versus variable costs (Nunes & Hsee) extends this fairness idea, and shows that consumers are more willing to pay to cover variable costs which can be directly attributed to their own consumption than they are to cover a share of fixed costs required to provide the service.

We can apply these rules of fairness to the question of whether consumers will prefer a flat fee or percentage fee on their purchase. Willingness to accept the percentage fee will be dependent on whether the fee covers a cost which varies according to the size of the purchase. As an example, consider the handling fee charged on most concert or theater tickets. If the cost to the retailer of handling tickets is independent of the face value of the ticket, then consumers will

consider a percentage fee unfair, and be less willing to pay such a fee. On the other hand, if the handling costs are proportional to the size of the order (e.g., a delivery fee for a large vs. small order), then a percentage fee will be more acceptable. However, even though the percentage fee is acceptable, consumers will not have a strong preference for the percentage fee over the flat fee. Thus, our additional predictions are:

> H3: When additional costs are independent of the overall size (dollar amount) of the purchase, then a percentage fee will be considered unfair, and consumers will strongly prefer a flat fee over a percentage fee.
>
> H4: When additional costs are proportional to the overall size (dollar amount) of the purchase, then a percentage fee will be considered fair, and consumers will have no preference between a flat fee and a percentage fee.

Overview of Studies and Results

The results of Study 1 provide insight into how individuals are interpreting the information they see in loan choices. Specifically, participants believe that the loans with shorter length, lower total payment amount, but higher interest rates are more fair and more financially attractive to them as consumers. The higher perceived fairness of these loans may be partly due to their perception that the difference between the total payment amount and the principal represents profit for the bank, so a loan with a higher total payment amount (regardless of length) must be benefiting the bank at the expense of the consumer. This supports H1.

Study 2 shows that participants consider fixed fees to be more fair than variable fees on overdraft charges for debit cards, even when the actual dollar amount is larger for the fixed fee. This provides partial support to H3.

In Study 3, participants were asked to indicate what annual percentage rate or dollar amount they thought was "realistically fair" for loan companies to charge for educational loans and initial loan applications, respectively. For government bonuses to loan lenders for student

graduation, they were asked to indicate a "realistically fair" way to divide the bonus between the company and the student (e.g. Company keeps 40% & gives 60% of the bonus to the student). Participants were also asked to estimate what they thought was the "average" APR or dollar amount for a private loan lender to charge, for educational loans and initial loan applications respectively. The results lend support to H2 that consumers lack easily salient reference points for many financial transactions.

Study 1: Evaluating Loans With and Without Rate Information

The goal of this study was to probe into how individuals interpret the information they receive as part of a routine financial transaction: a loan. For example, when individuals are presented with information on interest rates, do they perceive the rates to represent a time value of money, or do they perceive them as more of a "fee" collected by the bank? When choosing between two loans with different rates, how do they assess which loan is financially more appealing and/or more fair? Study 1 investigates these questions by presenting individuals with pairs of loans and then specifically asking for reactions along these dimensions.

Method.

Participants in this study were 281 undergraduate students at a Western university. Students completed the study as part of a packet of unrelated studies on consumer behavior and were compensated for their time. The study included four conditions, which varied on size and length of loan (either a longer furniture loan of $5000 or a shorter book loan of $600) and on whether APR was explicitly provided, resulting in a 2x2 between subjects design.

In all four conditions, participants are asked to imagine that they are considering a major purchase and that a bank has provided them with a choice of financing plans. For the large loan, the options were 84 monthly payments of $75 each versus 60 monthly payments of $101 each.

For the small loan, the options were 12 weekly payments of $51 each versus 8 weekly payments of $76 each. All information on length, number of payments, size of each payment, and total payment amount was provided in all four conditions, while APR was provided in two of the conditions and left out in the other two. Our prediction was that the presence of APR information would increase attention to that information when evaluating the loans but would not affect either overall perceptions of how interest rates relate to bank profits or perceptions of loan fairness.

Once the two loans per condition were described, participants responded to a series of questions about the loans. The first four questions focused on financial advantage and fairness. Questions 1 and 2 asked participants to judge which loan was financially better for the consumer and which loan was financially better for the bank; respondents could identify a single loan or mark "both same". Questions 3 and 4 asked participants to judge which loan was more fair for the consumer and which was more fair for the bank; again, they could select a single loan for each answer or mark both. The next five questions asked participants to agree or disagree (measured on a 7-point Likert scale) with several statements about how the bank would profit on the loan under various circumstances, such as a change in interest rates.

Results and Discussion.

Looking first at responses regarding which loan is financially better and more fair, the availability of APR information did affect consumers' perceptions of the loans. For the large loan conditions, a majority of participants felt that the shorter loan with the higher interest rate was both financially better (82%) and more or equally fair (89%) for the consumer, but this effect was attenuated (but not eliminated) when interest rates were clearly visible (better: 70%,

		$5000 loan, APR given	$5000 loan, no APR given	$600 loan, APR given	$600 loan, no APR given
	Number of subjects	46	89	54	92
Q1	Which loan do you think is financially better for the consumer?	28%**	9%**	39%	39%
Q2	Which loan do you think is financially better for the bank?	61%	72%**	67%**	60%
Q3	Which loan do you think is more fair for the consumer?	28%**	11%**	43%	28%**
Q4	Which loan do you think is more fair for the bank?	35%	25%**	39%	30%**
Q5	Which loan do you think has a lower interest rate (APR)?		37%**		27%**
Q6	The difference between the principal and the total amount of payments represents the bank's profit on the loan	5.15	5.25	5.26	5.13
Q7	When comparing between two loans, the loan with the higher total payment amount will always have a higher APR	3.13	4.43	2.66	4.11
Q8	The bank will make a profit on these loans regardless of what happens to overall interest rates	4.76	4.80	5.08	4.45
Q9	If interest rates rise, the bank will increase the APR for new loans and be able to make higher profits per loan	4.83	4.66	4.91	4.91
Q10	The difference between each loan's APR and overall market interest rates represents the bank's profit on the loan	4.44	4.48	4.48	5.43

Table: Summary of study data and results per question for Study 1

fair: 72%). Similarly, they felt that the longer loan with the lower interest rate was financially best for the bank (61%), and even more so when interest rates were not given (72%). For the shorter textbook loans, they again felt that the shorter loan with the higher rate was financially better (52%) and more or equally fair (72%) for the consumer, and the longer loan with the lower rate was financially better for the bank (60%), but for this loan these effects were not significantly changed even when interest rates were available (better: 56%, fair: 57%, better for

bank: 67%). For all four conditions, participants generally believed that the two loans were equally fair for the bank. This overall pattern of responses suggests that consumers appear to value loan length and total payment amount over interest rate level when evaluating financial advantage and fairness for the consumer and financial advantage for the bank, but also assume that any loan offered is one that is fair for the bank. Note that these perceptions directly contradict how interest rates are interpreted in financial markets, in which a higher rate loan is judged as worse for the consumer and more profitable for the lender.

The responses to the statements about sources of profit for the bank are also insightful. With the exception of the question about whether the loan with the higher total payment amount will always have the higher APR, responses were consistent across the four conditions and will thus be reported together. (All results are provided in Table) The statement that received the strongest agreement (mean = 5.2) was that the difference between the principal of the loan and the total amount of payments represents the bank's profit on the loan. While this may be loosely correct as a measure of profit, it does not take into account the bank's opportunity costs for the money lent to the borrower. To see this more clearly, consider the statement "the difference between each loan's APR and overall market interest rates represents the bank's profit on the loan," which is normatively more accurate yet received significantly weaker agreement (4.5 vs 5.2, $t(280)=5.35$, $p<.001$). Participants also expressed strong support for the statement "the bank will make a profit on these loans regardless of what happens to overall interest rates" (4.7). Taken together, these responses provide additional insight into the financial advantage and fairness questions by demonstrating that the difference between nominal total payment amount and principal, which respondents perceive as profit, is the primary determinant of how they define an attractive loan for the bank (and conversely, a less attractive loan for the consumer).

As noted, the only question that received a significant difference between conditions was the statement, "when comparing between two loans, the loan with the higher total payment amount will always have a higher APR." Participants in conditions where APR was explicitly stated were less likely to agree with this statement than those in conditions where APR was not given (mean response for APR conditions was 4.26 vs 2.88 for non APR conditions, $t(278)=6.37$, $p<.001$). This is not surprising since participants in the APR conditions could directly see from the loan options given that the option with the higher total payment amount actually had the lower APR. What is surprising, however, is that participants in these conditions where APR was given did not disagree with the statement even more strongly.

The results of Study 1 provide insight into how individuals are interpreting the information they see in loan choices. Specifically, participants believe that the presented loans with shorter length, lower total payment amount, but higher interest rates are more fair and more financially attractive to them as consumers. The higher perceived fairness of these loans may be partly due to their perception that the difference between the total payment amount and the principal represents profit for the bank, so a loan with a higher total payment amount (regardless of length) must be benefiting the bank at the expense of the consumer.

Study 2: Fixed versus Variable Fee Structures

The goal of Study 2 was to examine how different types of financial service fee structures may affect perceived fairness. Specifically, we investigate the role of percentage versus fixed fees, as well as fees versus underlying costs, within the domain of debit card overdraft fees.

Method.

Participants in this study were 200 online study participants recruited through Amazon's

Mechanical Turk (MTurk) online survey system. The survey included several conditions in which participants were asked to evaluate fairness for variety of scenarios describing debit card overdraft fees. After reading each scenario, we collected measures of perceived fairness, willingness to purchase, and justice subscales. Descriptions designed to test role of percentage versus fixed fees, as well as fees versus underlying costs. A sample scenario is an explanation of the process by which overdraft fees are triggered, as follows:

> "If you use a debit card to purchase an item where the price of the item is higher than the net balance of your checking account, it causes an "overdraft". When an overdraft happens, the bank will transfer money from your savings account to your checking account to fulfill the payment. The bank charges a fee of $10 to make this transfer. However, when there is not enough money in the savings account to cover the purchase, the bank will lend you money to complete the purchase."

We then provided two different fee structures to assess which fee structure consumers found the most fair. For the first fee structure, we explained that "Bank A" charges a fixed fee of $34 for any amount of overdraft up to $300. For the second fee structure, we stated that "Bank B" charges a variable fee calculated as $10 plus 18% of the overdraft amount (in this scenario, $134). We expected that since most consumers see fees as a fixed penalty for borrowing money rather that as a variable cost associated with the time-value of money (as seen in Study 1), they would find the fixed fee more fair even though the overall amount of money was roughly identical in the two cases.

Results and Discussion.

We find that fairness judgments are driven by the relationship of the fee size to its underlying cost structure. Also, as expected from the Study 1 results, fixed fees were seen as more fair than percentage fee (3.91 vs 3.36, p=.08); perhaps because fixed fees are easier for consumers to understand and evaluate. As a result of this effect, overdrafts with higher APRs but

lower ratio of fee to borrowed amount were seen as more fair for consumer and less attractive to the financial institution.

Study 3: Survey of Salient Financial Reference Points

In Study 3, participants were asked to indicate what annual percentage rate or dollar amount they thought was "realistically fair" for loan companies to charge for educational loans and initial loan applications, respectively. For government bonuses to loan lenders for student graduation, they were asked to indicate a "realistically fair" way to divide the bonus between the company and the student (e.g. Company keeps 40% & gives 60% of the bonus to the student). Participants were also asked to estimate what they thought was the "average" APR or dollar amount for a private loan lender to charge, for educational loans and initial loan applications respectively. {*Data collection and analysis complete; results need to be written up.*}

Consumer Reaction to Process Explanations

The results of studies 1 through 3 suggest that financial consumers do not have either a good understanding of the typical costs that make up financial products or a clear set of reference points against which to compare offerings. Without clear outcome comparisons, it becomes difficult to assess the fairness of any given product – as evidenced by consumers in Study 1 believing that a loan with a higher interest rate was more fair for the consumer than one with a lower interest rate. Building on principles of both dual entitlement in product pricing and greater process transparency in organizational justice, we expected that providing consumers with more clear explanations of underlying costs and processes would result in otherwise identical financial products being perceived as more fair. The next set of studies attempt to explore this prediction.

There are several aspects of process descriptions that can improve the perceived fairness of financial products. Costs that are ambiguous when described in percentage terms can be made more explicit by describing them in dollar terms instead. Providing salient reference points rather than waiting for consumers to generate their own may also help. Other variations in process descriptions may have even stronger effects, by recasting the same product in ways that the consumer finds more equitable. For example, when the interest earned by banks on savings accounts is recast as principal for loans to other consumers rather than simply described as profit for the bank, this may make the operations of the larger financial marketplace more salient and increase perceived fairness. Other potential manipulations of process fairness could include modifications in how profits are shared among survivors for annuities, how banks adapt lending practices after market failures, and the salience of control and safety features for investments. We expect that adapting product descriptions in these particular ways will change fairness perceptions.

Is it possible to directly measure process fairness for financial products, beyond the basic fairness measure? Doing so would allow cleaner predictions about what aspects of the process should be changed in product descriptions. . The most thorough research on procedural fairness comes from the organizational behavior literature, within which the process subscales of informational, procedural, and interpersonal justice have been defined. One question generated from this organizational research is whether manipulations geared toward these subscales can have a direct impact on perceived fairness. If so, then collecting data for each of the organizational justice subscales should let us know whether the different process descriptions are working as intended. Significant effects on both the justice measures and on overall fairness perceptions can then be compared to determine whether the justice measures mediate fairness

judgments.

One final prediction that comes from the emphasis on process over outcomes for financial products is that an offering may be judged equally fair for both the firm and the customer when the process is seen as fair. Note that this type of win-win outcome is difficult to accomplish in an environment where players' outcomes are directly evaluated against each other unless proceeds are evenly split. Taken together, we generate the following hypotheses:

> H5: Changing product descriptions to highlight fair processes rather than fair outcomes will have a significant effect on judged fairness for financial products.
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> H6: Organizational justice process subscales for informational, procedural, and interpersonal justice will mediate the relationship between product descriptions and fairness measures for financial products.
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> H7: Because fairness judgments for financial products are more strongly based on process rather than distributive outcomes, a single product with a "fair" process can be perceived as fair for both the firm and the consumer.

Overview of studies and results

The product description manipulations in Study 4 increase the transparency of cost information in an effort to improve perceived fairness for overdraft fees for debit cards (relative to providing no information about underlying costs). Study 5 goes even father in manipulating process and outcome descriptions, using a wide range of financial products such as annuities, mortgages, and retirement accounts. We are able to demonstrate that fairness for the consumer and the firm are not always inverse of each other, with specific scenarios creating positive perceptions of fairness for both consumer and firms, ultimately increasing the positive affect toward the product. We also find that scenarios that emphasize control and safety can increase perceptions of fairness, positive affect, and willingness to do business. These results are in support of the prediction in H5.

Study 6, like Study 5, manipulates process descriptions for annuity products in an effort

to affect perceived fairness. However, these manipulations are designed to more directly relate to the organizational justice scales of distributive, informational, procedural, and interpersonal justice. Consistent with our prediction that process matters more than outcome, we find that the scenarios that cause the most significant differences in consumer fairness and justice emphasize guaranteed income/profits in the future without mentioning cost. We examine whether the justice subscales can mediate fairness judgments, as proposed in H6. We also find that several scenarios here and in Study 5 score highly on fairness for both the consumer and the firm, supporting H7.

Finally, Study 7 tests the importance of salient reference points for changing perceptions of fair financial products. If process matters more than outcome for such products, then providing reference points may have only a small effect on fairness. We use loan scenarios which include information about what other lenders charge, and find that fairness judgments are relatively unchanged whether the reference point makes the current offer appear unfair, fair, or even hyperfair.

Study 4: Information about Cost Structures

The goal of Study 4 was to see whether increased transparency regarding the underlying cost structure for financial services fees would affect perceived fairness for those fees. Similar to Study 2, we use questions about debit card overdraft fees to test these issues.

Method

Participants in this study were 63 online study participants recruited through Amazon's Mechanical Turk (MTurk) online survey system. Each participant saw a single question about an overdraft charge that occurs because an individual purchased an item when the price of the item was higher that the net balance of his or her checking account. Participants were told that the

bank charges to transfer money from the individual's savings account to cover the overdraft. There were three separate conditions, which were tested between-subject. In the first condition, participants receive no information about the bank's costs for covering the overdraft; they are simply told that the bank charges $10 to make the transfer. In the other two conditions, they are told that it costs the bank either $6 (low cost) or $10 (high cost) to make the transfer. We expected that any information about underlying costs, whether low or high, would result in a higher level of perceived fairness regarding the charge, relative to no information about costs. Perceived fairness was measured on a 1 to 7 scale with 1 as the least fair and 7 as the most fair.

Results and Discussion

We find overall that transparency in cost information does increase perceived fairness relative to not providing information about underlying costs. Specifically, we see that the mean of perceived fairness is significantly lower for the condition where no underlying costs are mentioned relative to the other two conditions, where either high or low costs are explicitly given (3.5 vs 6.3, $p<.001$, and 3.5 vs 4.8, $p=.025$). In addition, the explicit high underlying cost ($10) is is seen as significantly more fair than the low underlying cost ($6), consistent with prior research on price fairness and outcome justice (4.8 vs 6.3, $p=.007$).

Study 5: Process Descriptions and Perceptions of Fairness for Consumer vs Institution

Study 5 was designed to more clearly isolate the various factors in financial product descriptions that may lead to higher or lower levels of perceived fairness for those products. A wide variety of financial product domains were used in this study so that the findings could be as broad as possible.

Method

Participants in this study were 400 undergraduates at a Western university who completed the survey as part of a larger packet of unrelated studies. Participants were exposed to a series of scenarios describing financial products in various ways that were predicted to affect perceived fairness. The domains tested in the scenarios included traditional home mortgages, underwater mortgages, reverse mortgages, annuities, and retirement plans (including both defined benefit and defined contribution plans). Each scenario dealt with only one kind of product. For each product scenario, two versions were tested, in which the basic description of the product changed. Participants saw only one scenario per product, so all description results are tested between subject.

To vary the descriptions for the product scenarios, we focused on process and outcome variations that could be expected to affect perceived fairness. Specifically, we varied descriptions about what happened to any excess profits from the products (did they go to the bank or get shared with other customers), amount of responsibility taken for negative outcomes (i.e., bailouts), and levels of security and control implied within the product. As an example, the defined benefit plan scenario focused on control in one condition by noting the retiree's planning ability, as follows:

> "Many company retirement plans are set up as defined benefit plans. Under a defined benefit plan, once an employee retires, he or she receives a guaranteed amount of monthly income for the rest of his or her life. This allows the retiree to plan consumption throughout retirement without having to worry about running out of money if he or she lives longer than expected."

While the paired condition focused on lack of control by emphasizing the lack of choice in investment options:

> "Many company retirement plans are set up as defined benefit plans. Under a defined benefit plan, the company invests some of the employee's money and some of the company's money into an account. The employee does not get to choose the structure of the investment. Once the employee retires, he or she

receives a guaranteed amount of monthly income for the rest of his or her life." (Additional sample scenarios are given in Appendix.) After reading each scenario, participants were asked about how fair the product was for the firm, how fair it was for the customer, their positive affect toward the product, and their willingness to do business with the firm offering the product.

Results and Discussion

The effect of process description changes varied per scenario pair, as each product was described in different ways. For mortgages, both keeping the interest as bank profit or paying it out as interest on savings accounts is judged as equally fair for the consumers (94% vs 94%) and for the firm (76% vs 70%). For underwater mortgages, banks that respond to high default rates by cutting back on loans to new customers are judged more fair for consumers (31% vs 24%) but less fair for the bank (38% vs 42%) relative to banks who are bailed out by the government. For both annuities and reverse mortgages, when profits are described as being shared among survivors rather than kept by the bank, this is seen as more fair for consumers (91% vs 85%, 91% vs 68%) and for the bank (82% vs 74%, 67% vs 42%). Finally, for the retirement plan scenarios (including both defined benefit and defined contribution plans), descriptions that focus on safety and control of funds are seen as significantly more fair for the consumer (88% vs 66%) and for the firm (91% vs 69%).

Overall, changes in the description of processes and outcomes in annuities, mortgages, underwater homes, and reverse mortgages can increase positive affect toward product and perceived fairness for both customers and firms. The measure of perceived fairness for consumer was significantly correlated with willingness to do business for all scenarios. Retirement plan descriptions (DB and DC) show significant differences in positive affect, perceived fairness, and

willingness to do business dependent on the framing of control and safety included in their descriptions. This study shows that manipulating processes and outcomes affects perceptions of consumer fairness and positive affect towards product. It also shows the link between perceptions of fairness for consumer and behavior towards firm, as measured by willingness to do business with that company. These results also demonstrate that fairness for the consumer and for the bank are not always inverse of each other, with specific scenarios creating perceptions of fairness for both consumer and banks and overall positive affect towards the products. Finally, scenarios that emphasize control and safety may increase perceptions of fairness, positive affect, and willingness to do business. Our minor changes in the way in which the process for determining profit allocation is described had the effect of making certain mortgages, reverse mortgages, and annuities seem more fair for both the consumer and the bank, a seemingly "win-win" outcome.

Study 6: Organizational Justice Measures and Fairness Perceptions

The goal of Study 6 was to test how justice subscales developed in the organizational behavior literature might be applied to consumer financial products. Specifically, we hypothesized that if process fairness was more relevant to financial products than outcome fairness, then the process subscales of informational justice, procedural justice, and interpersonal justice may be useful measures for predicting which scenarios would be judged more or less fair. We therefore manipulate our product descriptions, all of which were for annuities to allow more direct comparison between scenarios, to reflect differences in information (transparency), process (consistency), and interpersonal (respect) dimensions. We then directly measure these subscales along with our traditional fairness measure to determine what, if any, relationship

exists between these different approaches to fairness.

Methods

Participants were 274 paid task completers ("workers") on Amazon's Mechanical Turk (Buhrmester, Kwang, and Gosling, 2011). Workers chose to participate in this online study from a list of available "tasks" and were paid upon successful completion. Participants ranged in age from 18 to 82 years old (mean = 37.74) with 40.9% male (71 respondents did not answer demographic questions).

The study included nine descriptions of annuities that participants were told were "from financial institution websites" (see Appendix for full descriptions). The annuity descriptions were organized into four different subsets that corresponded with the four subscales of organizational justice: informational justice (Conditions 1 & 2), procedural justice (Conditions 3 & 4), interpersonal justice (Conditions 5,6, & 7), and distributive justice (Conditions 8 & 9) (Colquitt, 2001). Then, each subset had one annuity description that had low levels of justice (e.g. Condition 1, low informational justice) and one annuity description that had high levels of justice (e.g. Condition 2, high informational justice). In a between subjects design, each participant read four annuity descriptions, evaluating only one annuity description from each of the four subsets (e.g. Conditions 1, 4, 6, 9). The hypothesis was that the "high justice" annuity descriptions would increase levels of perceived fairness for the customer relative to "low justice" annuity descriptions, thereby affecting their willingness to buy and recommend this product.

Therefore, participants were asked to evaluate how fair each annuity description was for the customer and for the financial institution on scale from very unfair (*1*) to very fair (*7*). In addition, participants rated how likely they would be to (a) buy the annuity, (b) refer the annuity to a friend, and (c) be willing to pay higher fees to purchase the annuity relative to others, using a

scale from very unlikely (*1*) to very likely (*7*). Finally, participants rated each product on informational, procedural, interpersonal, and distributive justice using a 12-item modified organizational justice measure (measured on a 5-point Likert scale) (see Appendix B).

Results and Discussion

The effect of annuity descriptions on annuity choices. The main goal of this study was to examine how different annuity descriptions would affect consumers' willingness to buy an annuity, refer the annuity to a friend, and to pay higher fees for the annuity. First, these three consumer outcomes (buy/refer/pay fees) were combined into a "consumer willingness to endorse the product" composite measure (CWC) due to their strong intercorrelations (= .93). Then, we used linear regression analyses to determine if each of the four paired annuity descriptions (e.g. dummy coded to compared Condition 1 to Condition 2) would predict CWC. When comparing Condition 1 to Condition 2, the annuity description significantly predicted CWC (=.36, $p<.001$). When comparing Condition 3 to Condition 4, the relationship between the annuity description and CWC was nonsignificant (=.07, *ns*). When comparing Condition 5 to Condition 6, the annuity description significantly predicted CWC (=-.29, $p<.001$). When comparing Condition 6 to Condition 7, the annuity description significantly predicted CWC (=.20, $p<.05$). When comparing Condition 5 to Condition 7, the relationship between the annuity description and CWC was nonsignificant (=-.08, *ns*). For Conditions 8 & 9, the annuity description significantly predicted CWC (=-.34, $p<.001$).

The effect of annuity descriptions on perceived consumer fairness. After establishing that our paired annuity descriptions were effectively changing consumer annuity choices, we then wanted to examine what might motivate consumers to make these annuity choices. In designing

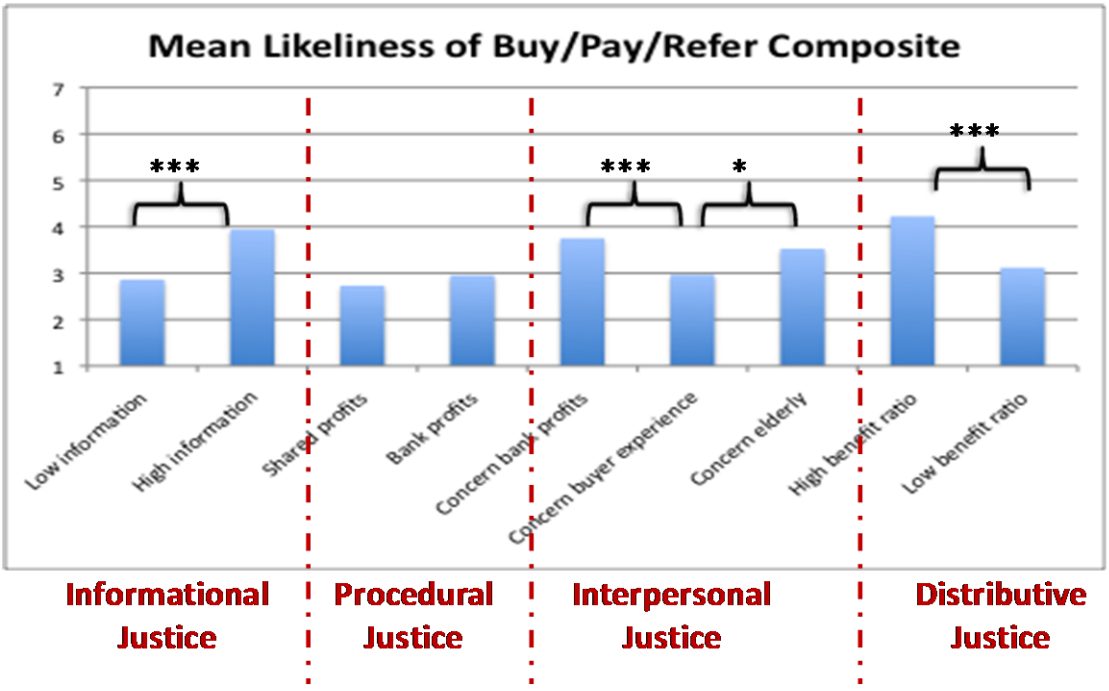


Figure: Consumer Willingness Composite Measures, Study 6

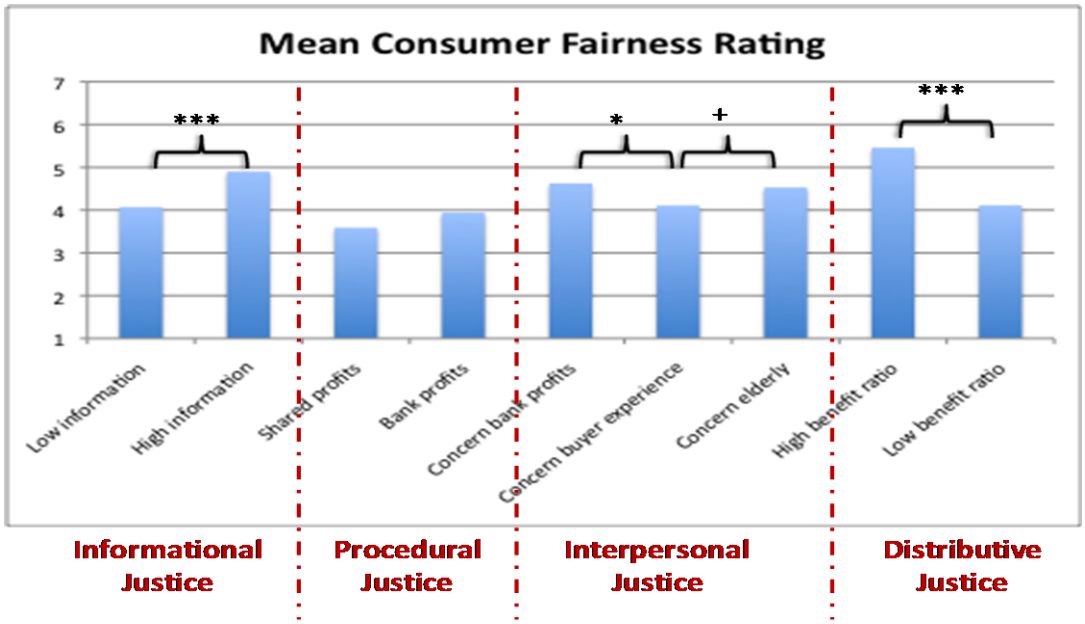
the study, we hypothesized that perceptions of fairness and justice may underlie and explain the link between annuity descriptions and consumer annuity choices (see Figure). Therefore, the first step to testing this hypothesis is to determine if each paired annuity description effectively changes perceptions of consumer fairness. Again, we used a series of linear regression analyses to determine if each of the four paired annuity descriptions would predict perceptions of consumer fairness (CF). When comparing Condition 1 to Condition 2, the annuity description significantly predicted CF (=.30, $p<.001$). When comparing Condition 3 to Condition 4, the relationship between the annuity descriptions and CF was nonsignificant (=.11, *ns*). When comparing Condition 5 to Condition 6, the annuity descriptions significantly predicted CF (=-.19, $p<.05$). When comparing Condition 6 to Condition 7, the relationship between the annuity descriptions and CF was marginally significant (=.16, $p<.1$).When comparing Condition 5 to Condition 7, the relationship between the annuity descriptions and CF was nonsignificant

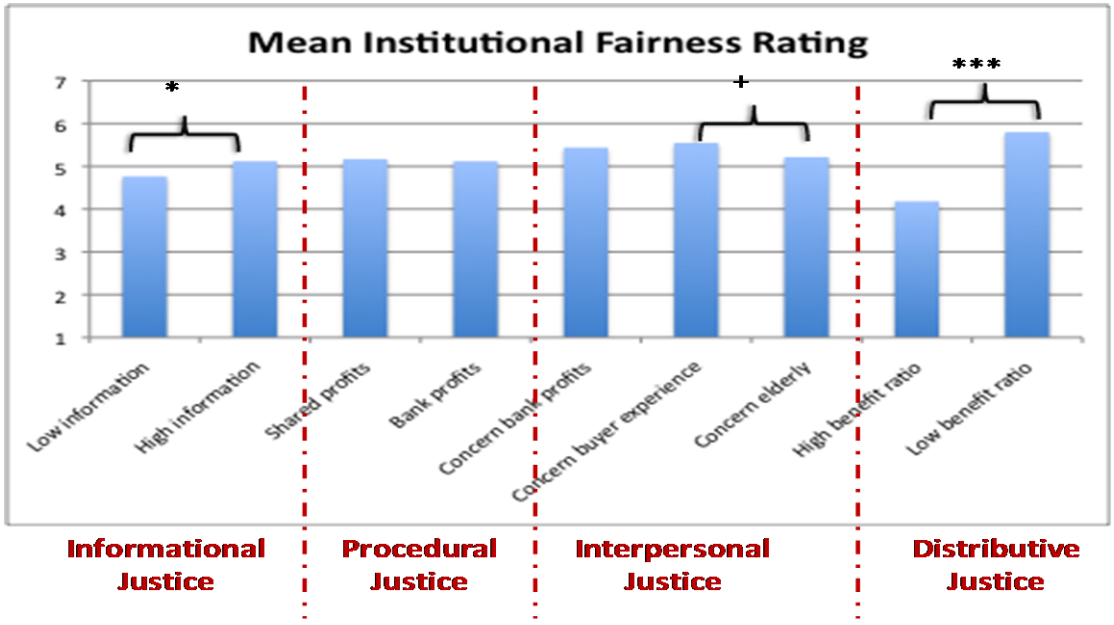
(=-.04, *ns*). For Conditions 8 & 9, the annuity descriptions significantly predicted CF (=-.43, $p<.001$).

The effect of annuity descriptions on perceived justice. After seeing that annuity descriptions strongly predicted perceptions of consumer fairness for many of the paired descriptions, we also wanted to explore whether annuity descriptions were also affecting perceptions of justice. Due to the high intercorrelations between the 12 items in the modified organizational justice measure (= .93), we created a justice composite (JC). Again, we used a series of linear regression analyses to determine if each of the four paired annuity descriptions would predict perceptions of consumer fairness (JC). When comparing Condition 1 to Condition 2, the annuity description significantly predicted JC (=.43, $p<.001$). When comparing Condition 3 to Condition 4, the relationship between the annuity descriptions and JC was nonsignificant (=.06, *ns*). When comparing Condition 5 to Condition 6, the annuity descriptions significantly predicted JC (=-.18, $p<.05$). When comparing Condition 6 to Condition 7, the relationship between the annuity descriptions and JC was nonsignificant (=.13, *ns*).When comparing Condition 5 to Condition 7, the relationship between the annuity descriptions and JC was nonsignificant (=-.05, *ns*). For Conditions 8 & 9, the relationship between the annuity descriptions and JC was nonsignificant (=-.10, *ns*).

The effect of perceived fairness and justice on annuity choices. This study was also designed to determine if perceptions of fairness and justice would predict consumer annuity choices. In order to test this hypothesis, we used a linear regression to examine whether the perceived fairness for the consumer related to CWC. Consumer fairness significantly predicted CWC (=.68, $p<.001$), confirming our hypothesis that perceptions of fairness shape consumer annuity choices. In addition, we performed a linear regression analysis to determine if

perceived justice would predict consumer annuity choices. Perceptions of justice (JC) significantly predicted CWC (=.51, p<.001), showing that justice also strongly influences consumer annuity choice.





Figures: Consumer and Firm Fairness Judgments, Study 6

The role of fairness and justice in consumer annuity choices. The final set of analyses explores whether fairness and justice are the underlying drivers behind consumer annuity choices, testing whether consumer fairness and justice mediate the relationship between annuity descriptions and consumer annuity choice. Referring back to our previous analyses, we have already conducted the first two steps of the four-step approach to mediation analyses outlined by Baron and Kenny (1986) for several of the paired annuity descriptions. For example, annuity descriptions for Conditions 8 & 9 were significantly related to CWC for and annuity descriptions were for Conditions 8 & 9 significantly related to perceptions of consumer fairness (Step 2). For step three, we then examined whether consumer fairness (CF) significantly related to consumer annuity choices (CWC), after controlling for annuity descriptions for Conditions 8 and 9. Consumer fairness (CF) was positively associated with consumer willingness to endorse annuities (CWC) after controlling for annuity descriptions (=.58, $p<.001$), and the resulting relationship between annuity descriptions and CWC became nonsignificant (=-.09, *ns*) after controlling for CF (Sobel Test=5.52, $p<.05$). Therefore, perceptions of consumer fairness mediate the relationship between annuity descriptions for Conditions 8 & 9 and annuity choices.

Several other mediation analyses tested whether consumer fairness perceptions mediated the relationship between various pairs of annuity descriptions (Conditions 1 vs 2 & Conditions 5 vs 6) and annuity choices. However, consumer fairness was never a significant mediator for the remaining paired annuity descriptions because both annuity descriptions and CF remained as significant predictors in Step 3. In addition, mediation analyses tested whether justice perceptions mediated the relationship between various pairs of annuity descriptions (Conditions 1 vs 2 & Conditions 5 vs 6) and annuity choices. However, justice perceptions never significantly mediated this relationship because both annuity descriptions and justice perceptions

remained as significant predictors in Step 3.

Overall, our results suggest that perceived consumer fairness strongly mediates purchase measures in some conditions and is a significant predictor in others. Our manipulations of justice according to the subscales were only moderately successful in affecting the scales themselves. Procedural, informational, and interpersonal justice were not significantly different for the majority of paired scenarios; distributive justice is justice subscale that is most highly correlated with other questions, contrary to our expectations. As with Study 5, some scenarios were seen as more fair for both the consumer and the firm (e.g., informational scenarios) while some sets show opposite results for the consumer versus the firm (e.g., distributive scenarios).

Study 7: Loans With and Without Reference Points

Study 7 was designed to test whether providing explicit reference points would affect consumers' fairness perceptions. There are two possible outcomes to providing reference points. First, by having a clearly available reference point, consumers may realize that a particular financial offer is better or worse that other offers for the same product class, which should affect fairness via a focus on outcomes (distributive justice). On the other hand, if consumers are sufficiently confused about which reference points are salient for financial offers (as seen in Studies 1 through 3), then it may be that they will focus primarily on process fairness issues and will not be affected by reference point information.

Method

Participants in this study were 325 undergraduate students at a Western university. Students completed the study as part of a packet of unrelated studies on consumer behavior and were compensated for their time. The study included nine loan scenarios, which varied on topic

(educational loans, online loan applications, or government bonus to loan lenders) and on fairness to the consumer (unfair, fair, or hyperfair), resulting in a 3x3 between subjects design (see Appendix [insert #] for full loan scenarios). Each participant read a total of three loan scenarios – one scenario from each of the three topics. The fairness of the loan scenarios was randomized across subjects. Importantly, the loan scenarios stated what private loan lenders typically charge for educational loans and loan applications, thereby providing a "reference point" for the participant to use for determining the fairness of the financial product. After reading each loan scenario, participants rated how likely they were to apply for a loan with the company, on a scale from very unlikely (*1*) to very likely (*7*). They also rated how fair they thought the offer was for the customer, on a scale from very unfair (*1*) to very fair (*7*).

Results and Discussion

By manipulating information about what private loan lenders typically charge for loans, we examined how a clear reference point affected (1) consumers' decisions to apply for a loan and (2) consumers' perceptions of a lender's fairness. In addition, we examined if altering the reference point would have a consistent effect on consumers' perceptions and behaviors across a variety of typical scenarios with private loan lenders.

Consumer loan decisions. For each loan scenario (educational loans, online loan applications, or government bonus to loan lenders, we began by conducting a one-way between-subjects ANOVA (unfair, fair, hyperfair company) on the participants' likelihood of applying for a loan. For educational loans, we found a main effect of fairness on likelihood of loan application, $F(2, 322)=28.60$, $p<.001$. In follow-up independent samples t-tests, participants were less likely to apply for loans from unfair ($M=3.31$, $SD=1.57$) compared to fair companies ($M=4.70$, $SD=1.53$), $t(237)=6.84$, $p<.001$, and hyperfair companies ($M=4.47$, $SD=1.53$),

t(218)=5.53, *p*<.001. However, the likelihood of applying for a loan did not differ significantly for fair versus hyperfair companies.

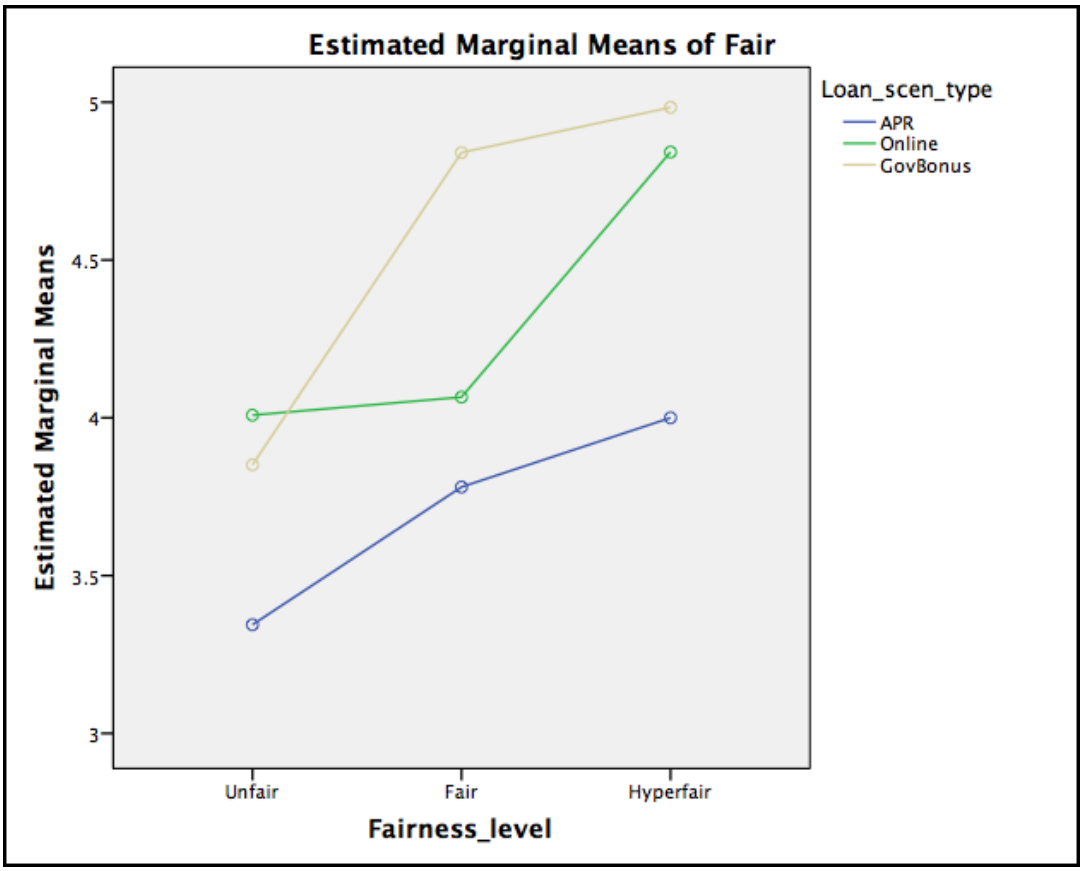


Figure: Fairness measures for loan scenarios with reference points, Study 7

For online loan applications, we found a main effect of fairness on likelihood of loan application, *F*(2, 322)=44.42, *p*<.001. In follow-up independent samples t-tests, participants were less likely to apply for loans from unfair (*M*=3.23, *SD*=1.64) compared to fair companies (*M*=4.69, *SD*=1.67), *t*(237)=6.76, *p*<.001, and hyperfair companies (*M*=5.41, *SD*=1.64), *t*(189)=9.14, *p*<.001. In addition, participants were less likely to apply for loans from fair compared to hyperfair companies, *t*(218)=3.14, *p*<.005.

For the government bonus scenario, we found a main effect of fairness on likelihood of

loan application, $F(2, 322)=9.88$, $p<.001$. In follow-up independent samples t-tests, participants were less likely to apply for loans from unfair ($M=4.29$, $SD=1.47$) compared to fair companies ($M=4.75$, $SD=1.41$), $t(189)=2.21$, $p<.05$, and hyperfair companies ($M=5.14$, $SD=1.32$), $t(218)=4.47$, $p<.001$. In addition, participants were less likely to apply for loans from fair compared to hyperfair companies, $t(237)=2.20$, $p<.05$.

Consumer perceptions of company fairness. Next, we conducted a one-way between-subjects ANOVA (unfair, fair, hyperfair company) on the participants' perceptions of each company's fairness. For educational loans, we found a main effect of fairness on perceptions of company fairness, $F(2, 322)=27.49$, $p< .001$. In follow-up independent samples t-tests, participants thought "unfair" companies were less fair ($M=3.52$, $SD=1.33$) than "fair" companies ($M=4.70$, $SD=1.29$), $t(237)=6.86$, $p<.001$, and "hyperfair" companies ($M=4.37$, $SD=1.13$), $t(218)=4.913$, $p<.001$. However, the perceptions of company fairness did not differ significantly for "fair" versus "hyperfair" companies.

For online loan applications, we found a main effect of fairness on perceptions of company fairness, $F(2, 322)=55.50$, $p< .001$. In follow-up independent samples t-tests, participants thought "unfair" companies were less fair ($M=3.31$, $SD=1.43$) than "fair" companies ($M=4.71$, $SD=1.46$), $t(237)= 7.40$, $p< .001$, and "hyperfair" companies ($M=5.49$, $SD=1.50$), $t(218)= 3.83$, $p<.001$. In addition, participants were less likely to apply for loans from fair compared to hyperfair companies, $t(189)=10.20$, $p<.001$.

For the government bonus scenario, we found a main effect of fairness on perceptions of company fairness, $F(2, 322)=25.01$, $p< .001$. In follow-up independent samples t-tests, participants thought "unfair" companies were less fair ($M=3.72$, $SD=1.41$) than "fair" companies ($M=4.71$, $SD=1.24$), $t(189)=5.18$, $p< .001$, and "hyperfair" companies ($M=5.00$, $SD=1.35$),

$t(218)=6.72$, $p< .001$. However, the perceptions of company fairness did not differ significantly for "fair" versus "hyperfair" companies.

To summarize, in almost all loan scenarios, unfair firms (as defined by comparison to the salient reference point) are perceived as less fair than other firms, and consumers show a lower willingness to do business with such firms. The effect of a salient reference point is muted, however, when the comparison is between a fair firm and a hyperfair firm. In most scenarios, hyperfair companies did not experience higher fairness ratings or increased willingness from consumers to do business with them relative to the fair firms. These results suggest that providing reference points may be of only limited assistance in affecting perceived fairness, consistent with a lack of emphasis on outcomes rather than processes in such decisions. It also suggests that negative consumer response to perceived unfairness may be stronger in magnitude than the corresponding positive response to hyperfair offers, which speaks to the importance of understanding issues of consumer revenge within financial decision making.

Conclusions

Across seven different studies with nearly 1600 participants, we explore how cost structures, reference points, outcome descriptions, and process descriptions affect consumers' judgments of fairness for financial products. We find that perceived fairness is positively affected by the dollar amount of interest or fees paid (but not the APR), by process descriptions that tell how profits are used by firms, by a greater focus on control for retirement products, and by generally providing greater information about the products themselves. However, perceived fairness is not affected by interest rates (APR) or organizational justice measures other than distributive justice.

The lack of statistical relationship between the organizational justice subscales and our basic fairness measure speaks to some of the difficulties in testing fairness. Across a wide domain of products, consumers are able to judge fairness but unable to specify what makes a product or price fair versus unfair; the response is more along the lines of "I'll know it when I see it." In this way, designing product descriptions that successfully tap into a consumers' definition of fairness can be a trial and error process. Only by continuing to test various approaches will we be able to find success in this field.

The final important insight from these studies is that judgments of firm fairness and of consumer fairness were jointly high for many of the scenarios we tested, suggesting a type of win-win perspective toward these product offerings. The ability to find a jointly fair product may reflect that consumers are sensitive to processes rather than to the exact distribution of outcomes between the parties. This finding provides hope to the financial services firms themselves, since it suggests that careful design of product descriptions can lead to offerings that all parties are happy with. It should also encourage policymakers and regulators who often feel trapped between helping firms and helping consumers.

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