

The Characteristics of Markets that Facilitate Consumer Exploitation

by Joel Stonedale*

I. INTRODUCTION

Behavioral economists have offered plentiful evidence that consumers sometimes deviate from rational economic decision-making in predictable ways due to cognitive biases.¹ The effect of the biases, however, varies greatly across markets.² Scholars have identified several markets as particularly exploitative, including the markets for subprime mortgages, credit cards, cell phone services, video rentals, and retail rebates.³ What separates these markets from the markets for thousands of other complex products, such as computers and cars, in which consumers appear able to understand their preferences and the product well enough to drive the market toward efficiency? This Article addresses the problem with consumer exploitation and describes some of the market characteristics that facilitate consumer exploitation.⁴ Specifically, Part III describes the following characteristics that facilitate consumer exploitation: multiple transactions within one contract, multidimensional pricing, individualized products, infrequency of purchase, large

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1. See generally OREN BAR-GILL, *SEDUCTION BY CONTRACT: LAW, ECONOMICS, AND PSYCHOLOGY IN CONSUMER MARKETS* (1st ed. 2012).

2. See *id.*

3. See *id.* at 2; see also Matthew A. Edwards, *The Law, Marketing and Behavioral Economics of Consumer Rebates*, 12 *STAN. J.L. BUS. & FIN.* 362 (2007).

4. I restrict the analysis to competitive markets because exploitation in non-competitive markets may be explained simply by the lack of competition.

proportion of consumers that are not middle-aged, and newness of the market.

Understanding the market characteristics that lead to exploitation may be useful in estimating the scope of consumer exploitation. Exploitative markets should be distinguished from markets generally. One could conclude from the growing list of competitive markets where exploitation appears common that exploitation is either a normal characteristic of consumer markets or that it is more common than it actually is. This Article intends to shed light on the scope of the problem by demonstrating that these markets share a few characteristics, explaining how those characteristics facilitate exploitation, and showing how these characteristics are limited to particular types of markets. This does not mean that these characteristics are necessary to the existence of exploitative markets or that all markets with these characteristics will be exploitative. Rather, it appears that these characteristics play a large part in facilitating exploitation. If a market has some of these characteristics, there is a greater chance that it will be exploitative.

II. DESCRIBING THE PROBLEM: HOW EXPLOITATION LEADS TO INEFFICIENCY

A transaction is usually wealth-increasing because it transfers an asset to the party that values the asset most. Therefore, the buyer must value the asset more than the seller. If this were not the case, the seller would not sell or the buyer would not buy. But when the buyer does not fully understand the product or the price, there is a risk that the transaction will occur even though the buyer does not actually value the product more than the price he pays. Such a transaction may transfer the asset to the party that values it less.

In addition to the above-described problem of transferring assets to buyers that value the assets less than the sellers, exploitation also causes buyers to substitute more expensive products for cheaper ones that are equally effective.⁵ It causes inefficient resource allocation by disrupting the price signals that incentivize consumers to use the resources that are cheapest to produce or least scarce. Most attempts at exploiting consumers involve causing consumers to behave as though demand were higher by making the price of the product appear lower

5. See, e.g., Antonio Rosato, *Selling Substitute Goods to Loss-Adverse Consumers: Limited Availability, Bargains and Rip-Offs* 19-20 (Sept. 17, 2012) (preliminary draft), available at http://www.web.stanford.edu/group/SITE/archive/SITE_2012/2012_segment_6_papers/rosato.pdf.

than the price the consumer will actually end up paying. Because the product appears cheaper, the consumer purchases more than is optimal and may consume a more costly product at the expense of a cheaper substitute. The inefficiency continues after the consumer enters into the contract. Once the consumer purchases the product, he may still face incentives that do not reflect the cost he is inflicting on the seller.

For example, a credit card company's desire to make the product seem cheaper may lead it to offer an introductory annual percentage rate (APR) of 0% for six months that then increases to 15% even though the cost of the capital to the lender is constant over the entire length of the contract.⁶ The consumer faces a cost that is below the cost of the capital in the introductory period and a cost that is above the cost of the capital in the post-introductory period.⁷ Thus, the consumer will have the incentive to consume too much capital for six months when another party values the capital more, followed by a period when he has the incentive to consume too little capital. The credit card company's marketing scheme prevents capital from flowing to the party that values it most.

A. *How Sellers Exploit Consumers*

To exploit the consumer's cognitive biases, the seller must cause him to overestimate the value of the product or underestimate the price. Causing the consumer to underestimate the price is more sustainable by sellers. A seller would have a hard time marketing a product without representing it as fit for a given purpose.⁸ Products that are not fit for their stated purpose are easily identified, and this information travels quickly among consumers.⁹ However, sellers can often avoid stating the price the consumer will pay, either by breaking the price into components or basing part of the price upon contingencies. While misleading the consumer about the value of the product is possible, sellers have demonstrated their ability to mislead consumers about price for decades at a time. As Part III.A will explain, contracts involving multiple transactions with various fees are essential for long-term exploitation. These contracts allow the seller to lead the consumer to underestimate

6. See *0% APR Credit Cards: Apply Now*, CREDITCARDS.COM, <http://www.creditcards.com/0-apr-credit-cards.php> (last visited Sept. 8, 2013) (advertising a number of credit cards that offer a 0% introductory APR that increases to over 20% after a year).

7. See BAR-GILL, *supra* note 1, at 69-70.

8. See U.C.C. § 2-315 (2003); see also 15 U.S.C. § 2308 (2012).

9. In many cases this would also implicate the warranty provisions of the Uniform Commercial Code and the Magnuson-Moss Warranty Act. See 15 U.S.C. § 2308; U.C.C. § 2-315.

the price of the product by shifting costs to a price component the consumer pays less attention to.¹⁰

Other characteristics further facilitate exploitation by inhibiting consumers' defenses to sellers' trickery. Part III.B will discuss how individualization of products increases the cost of consumer education. Part III.C will discuss how infrequent purchases prevent consumers from learning from their own experience. Part III.D will discuss how new markets have lower levels of learning because consumers have not yet become familiar with the products' or the sellers' tricks. Finally, Part III.E will discuss how consumers that are not middle-aged or who are uneducated make up a large proportion of consumers that are easy to exploit. If more consumers are easily exploited, fewer will be lost to competitors when sellers use exploitative tactics. Thus, the presence of consumers that are especially young, old, or uneducated decreases the incentive not to exploit.

III. MARKET CHARACTERISTICS THAT FACILITATE EXPLOITATION

A. *Multitransactional Contracts with Multidimensional Prices*

Some contracts involve one transaction—\$1 for a hamburger—while other contracts involve more than one—a \$15 monthly payment for a membership to a “hamburger club” where the consumer can purchase hamburgers for ten cents. The second contract, which involves multiple transactions and multidimensional pricing, is far more likely to lead to exploitation.¹¹ This is partially because the second contract is inherently more complicated and at least requires the consumer to do some additional work to evaluate whether the product is worth the price, allowing an opportunity for error.¹² However, the requirement of arithmetic is only a partial explanation of why this type of contract facilitates exploitation. For example, when a mail-in rebate is offered, the prices before and after the rebate are often provided for the consumer, yet the use of rebates is frequently a vehicle for consumer exploitation.¹³ Part of the ease of exploitation comes from multidimensional pricing: the price is broken up into more than one piece rather than a lump sum.¹⁴ Multidimensional pricing facilitates exploitation because it allows sellers to hide the true cost of the product from

10. See, e.g., BAR-GILL, *supra* note 1, at 19-20.

11. See, e.g., *id.* at 18.

12. See, e.g., *id.* at 18-19.

13. See, e.g., Edwards, *supra* note 3, at 384-96.

14. See, e.g., Oren Bar-Gill, *The Behavioral Economics of Consumer Contracts*, 92 MINN. L. REV. 749, 769-76 (2008) [hereinafter Bar-Gill, *Behavioral Economics*].

consumers.¹⁵ The hamburger club salesperson can focus the consumer's attention on the ten-cent hamburger and hope that the consumer does not adequately consider the \$15 monthly charge.

However, merely breaking up the price into smaller components is not enough to prevent the consumer from appreciating the price.¹⁶ The consumer will certainly be cognizant of the \$15 monthly charge when he signs up for the plan. But, if the salesperson charges ten cents for the hamburger at the time of sale and \$15 at the end of the month, the consumer will be contractually bound by the time he fully appreciates the entire price. By combining multidimensional pricing with contracts involving multiple transactions, sellers can defer the consumer's appreciation of price until after the consumer is committed to the purchase.¹⁷ This combination of multidimensional pricing in multitransactional contracts will be referred to as "MPMCs," or multidimensionally priced, multitransactional contracts.

The seller may use MPMC's to prevent the consumer from appreciating the price of the product in two ways. The seller may downplay components of the price, or the seller may take advantage of the consumer's inability to accurately estimate the probability of certain contingencies on which price depends.¹⁸ These two methods are not mutually exclusive, and sellers frequently use both methods simultaneously.¹⁹

1. Downplaying Price Components. MPMC's allow the seller to advertise an appealingly low portion of its price without necessarily lowering the total price of the product.²⁰ A credit card can prominently advertise a low introductory APR while downplaying the higher long-term APR, and a cellular-service provider can advertise a cheaper monthly fee while charging a higher price to send a text message.²¹ The seller shifts total cost of the product away from the price that is salient to the consumer and towards the price that the consumer either does not notice or pays less attention to.²²

15. See BAR-GILL, *supra* note 1, at 18; see generally Bar-Gill, *Behavioral Economics*, *supra* note 14, at 769-76.

16. See BAR-GILL, *supra* note 1, at 18.

17. See, e.g., Bar-Gill, *Behavioral Economics*, *supra* note 14, at 769-76.

18. See, e.g., *id.*

19. See, e.g., *id.*

20. See, e.g., *id.* at 770 (discussing rebates and seller exploitation).

21. See, e.g., *id.* at 771-72; *0% APR Credit Cards: Apply Now*, *supra* note 6; see also BAR-GILL, *supra* note 1, at 19-20.

22. See, e.g., Bar-Gill, *Behavioral Economics*, *supra* note 14, at 772 (discussing credit cards and price shifting).

Because people are myopic, shifting the price to the less salient costs often involves shifting the cost to a later point in time—for example, “No payments for one year!”²³ Escalating payments are common across the consumer finance industries, especially with credit card plans,²⁴ subprime loans,²⁵ and financing of retail purchases. This strategy is effective.²⁶ In fact, consumers are three times as sensitive to changes in the introductory rates of credit cards as they are to changes in post-introductory rates, even though most borrowing happens in the post-introductory period.²⁷ Cost shifting to less salient components may also involve listing fees separately without listing their total cost, so that each fee looks insignificant.²⁸ In the subprime mortgage industry, sellers list mandatory fees separately, even though they could easily be incorporated into one fee because mandatory fees never vary.²⁹ In all of these cases, cost shifting to less salient components and downplaying costs cause the consumer to underestimate the total cost of the contract, and the seller sells more of the product than he would at the same total price than if the components were priced at their marginal cost.

2. Taking Advantage of Consumers’ Inaccurate Estimates of Probabilities. Sellers frequently charge a fee for some contingencies, such as extra services or penalties,³⁰ and will sometimes offer a reward for other contingencies, such as on-time payments.³¹ Consumers are optimistic on average, and sellers can take advantage of this optimism, causing consumers to underestimate the price.³² As long as sellers charge for the contingencies the consumer does not want to happen and reward the contingencies the consumer does want to happen, consumers’ optimism will lead them to underestimate price.³³ They will tend to overestimate the reward contingencies and underestimate the fee

23. See, e.g., *id.*

24. See Oren Bar-Gill, *Seduction by Plastic*, 98 NW. U. L. REV. 1373, 1392 (2004).

25. See Oren Bar-Gill, *The Law, Economics, and Psychology of Subprime Mortgage Contracts*, 94 CORNELL L. REV. 1073, 1108 (2009) [hereinafter Bar-Gill, *Subprime Mortgage Contracts*].

26. See, e.g., Bar-Gill, *Seduction by Plastic*, *supra* note 24, at 1392.

27. *Id.*

28. See, e.g., Bar-Gill, *Subprime Mortgage Contracts*, *supra* note 25, at 1116.

29. *Id.*

30. Bar-Gill, *Seduction by Plastic*, *supra* note 24, at 1393.

31. E.g., Jeremy M. Simon, *New Discover Motiva credit card rewards on-time payment*, CREDITCARDS.COM (May 1, 2007), <http://www.creditcards.com/credit-card-news/discover-card-rewards-motiva-1273.php>.

32. See Bar-Gill, *Seduction by Plastic*, *supra* note 24, at 1375-76.

33. See *id.* at 1376.

contingencies.³⁴ When consumers underestimate price, they purchase more of the product.³⁵

Because consumers will underestimate the price of contingencies, sellers shift more of the price of the product to contingent fees.³⁶ This technique likely explains why penalty fees are often far above the cost of the late payment to the seller, as they are in the credit card³⁷ and subprime-mortgage markets.³⁸ Research has shown that the fees in those industries are not entirely justified by the increased risk of lending to someone who does not pay on time, nor are they justified by the lost time-value of money.³⁹ Likewise, late fees at video rental stores are typically much higher than the per-day cost of the initial rental, even though the cost of lending out the video is the same.⁴⁰ The cost of transmitting the 501st minute on a 500 minute cell phone plan is no higher than transmitting the 500th minute, yet the cost to the consumer is often many times higher.⁴¹ The same technique is used in mail-in rebates.⁴² Consumers overestimate the likelihood of sending in the rebate, and therefore underestimate the cost of the product.⁴³ Thus, MPMCs allow the sellers to make more of the price dependent on contingencies.

3. Use of MPMCs to Shift Costs Causes Inefficient Resource Allocation. Cost shifting reduces social welfare. It distorts the market by causing overconsumption of the product as a whole and underconsumption of the portion of the product that the cost is shifted to. For example, if the cost of a cell phone plan is shifted away from the monthly fee (which consumers are made aware of) to a higher price for individual text messages (which consumers do not adequately consider), then consumers will buy more cell phone plans than is efficient and send fewer text messages. The consumer underestimates the total cost of the phone plan, so marginal consumers may pay more for the product than their subjective values of it. If the cost to the seller of transmitting a text message is one cent, but cost shifting causes the cost to the

34. *See id.*

35. *See id.*

36. *See id.* at 1400.

37. *See id.* at 1394.

38. *See* Bar-Gill, *Subprime Mortgage Contracts*, *supra* note 25, at 1117.

39. *See id.*; Bar-Gill, *Seduction by Plastic*, *supra* note 24, at 1394.

40. *See infra* Part III.E (describing how the problem has begun to subside as traditional video rental services have faced competition from Netflix and Redbox).

41. Bar-Gill, *Seduction by Plastic*, *supra* note 24, at 1429-30.

42. *See* Edwards, *supra* note 3, at 390-92.

43. *Id.*

consumer to be five cents, then text messages that the consumer values at three cents will not be sent even though they would increase social welfare. Instead of the price components reflecting the cost to the seller of different components of the product, the cost shifts to the price components that lead the consumer to underestimate the total price. As a result, the consumer's cost does not reflect marginal cost as accurately as it would in a competitive market where the consumer fully understood the cost.

However, many uses of MPMCs are not exploitative. Cell phone plans, loans, and many services would likely use MPMCs even if they could not be used to exploit consumers. Sellers use MPMCs for socially beneficial purposes, such as aligning the consumer's marginal cost of use with the seller's marginal expense of providing the product.⁴⁴ The exploitation and welfare loss come from misleading cost shifting, which is not a necessary aspect of multidimensional pricing or multitransactional contracts. But some sellers introduce MPMCs for products where this type of contract is unusual, such as retail purchases. In these cases, it seems that cost shifting to exploit consumers is often a primary motivation for the use of MPMCs.

4. Introduction of MPMCs for Exploitative Purposes and Its Limitations. Mail-in rebates and bundling are two methods of introducing MPMCs to ordinary retail purchases. These techniques are sometimes used for exploitative cost shifting. Rebates break the contract into two transactions: an up-front price and a partial return of money.⁴⁵ Bundling can be used to shift costs to a later point in time.⁴⁶ For example, a seller that makes printers and ink cartridges can charge less for the printer and more for the ink.⁴⁷ Consequently, the purchase appears cheaper to the consumer when he enters into the deal.⁴⁸ Both of these techniques are potentially applicable to a great deal of retail

44. For example, a customer who rents a video for two days causes roughly twice the opportunity cost to the rental company, and he should therefore be charged about twice as much in order to align his incentives with the cost to the company. Redbox charges customers a uniform fee for each day of video rental, so it is effectively indifferent between two users renting a video for one day or one user renting it for two days, while its customers have the proper incentive to return the video early if convenient. See *Rental Terms and Conditions*, REDBOX, <http://www.redbox.com/rentalterms> (last visited Sept. 7, 2013).

45. See Edwards, *supra* note 3, at 367.

46. See Oren Bar-Gill, *Bundling and Consumer Misperception*, 73 U. CHI. L. REV. 33, 35 (2006).

47. See *id.* at 34.

48. See *id.* at 34-35.

purchases, but only a minority of products make use of them. A variety of constraints prevent these techniques from being profitable with most products.

Bundling. Bundling is the most limited method of introducing MPMCs. The seller can use bundling to shift price to a later point in time by charging less for a durable good and more for the consumable that the durable good uses.⁴⁹ For example, a company might decrease the amount it charges for printers (the durable good) but increase the amount that it charges for ink (the consumable good).⁵⁰ For this to work, a company must ensure exclusivity between the durable good it wants to shift cost away from and the consumable good it wants to shift costs to.⁵¹ The printer company must ensure that other companies cannot capture much of the market for the ink the printers use.⁵² If another firm makes a compatible consumable component, then it can undercut the price of the firm that intends to shift costs from the durable good to the consumable good. In that case, the bundling firm will lose money on the durable good without recouping the loss on sales of the consumable. This type of bundling is thankfully limited because it reduces welfare by causing overconsumption of the durable good and underconsumption of the consumable goods once consumers have purchased the durable good.⁵³

Rebates. The more flexible method of introducing MPMCs is the use of rebates. Rebates allow the seller to make part of the price contingent on the consumer not redeeming the rebate.⁵⁴ Consumers overestimate their likelihood of redemption and thus underestimate the price.⁵⁵ While rebates can be used in more products than bundling, they are also limited by market characteristics. Rebates can be costly to the issuer if it underestimates the rate at which consumers will redeem them and if the after-rebate price is below the cost of making the product.⁵⁶ Seller surplus is limited in competitive markets, so the after-rebate price will likely be below the cost of producing the product if the rebate is for any substantial value. Because of the risk of losing money on the rebate, the seller must be sure that consumers will not redeem at a high rate or the

49. See, e.g., *id.* at 38-39, 38 n.14.

50. See *id.* at 38-39.

51. See *id.* at 53.

52. See *id.*

53. See *id.* at 35.

54. See Bar-Gill, *Behavioral Economics*, *supra* note 14, at 769-70.

55. See *id.* at 770.

56. See *id.*

seller must have an additional reason for use of the rebate beyond exploiting consumer optimism.⁵⁷

Sellers can be more certain that consumers will overestimate the likelihood of redemption by targeting the most naïve consumers. Thus, rebates may be expected more often with goods purchased by the young,⁵⁸ uneducated, or poor.

In addition, the price of the product must be in the appropriate range to ensure underestimation. No consumer will intend to send in a ten-cent rebate; the rebate must at least be high enough to overcome the added transaction cost of redeeming it. Yet, virtually all consumers will send in a \$5,000 rebate. The value must be high enough for the consumer to want to redeem it, but low enough for the consumer to procrastinate and eventually forget to redeem it. By limiting the value of the rebate, these restraints limit the price range of the products on which rebates will be offered. The rebate has to make up a sufficient portion of the price of the product to be salient to the consumer. A consumer may disregard a \$100 rebate on a \$20,000 car, and he would rather not deal with a \$50 rebate for a \$51 hamburger.

These restraints limit the use of rebates to mislead consumers about price, but non-exploitative rebates may be present in many industries for other uses. Apart from exploitation, rebates are used to price discriminate, to lower prices temporarily without affecting consumers' perception of the "regular" price, and to gather information about customers.⁵⁹ Thus, the presence of rebates in a given market does not necessarily indicate consumer exploitation. In fact, recent developments indicate that exploitative uses may be decreasing as retailers are working to make the redemption process easier for consumers, while others are abandoning rebates altogether.⁶⁰

B. Individualization of Products Inhibits Learning from Others

A consumer who uses boxes to ship clothes will have different preferences about his box's characteristics than a consumer who ships bricks. As a result, the clothes shipper cannot as easily rely on the brick shipper's opinions about the best box. The box is somewhat individualized with respect to these two consumers. A product is "individualized" to the extent that, when fully informed, consumers would have different preferences as to the optimal characteristics of the product.⁶¹

57. *See id.*

58. *See infra* Part III.D.

59. *See Edwards, supra* note 3, at 372.

60. *See id.* at 419-20.

61. *See Bar-Gill, Behavioral Economics, supra* note 14, at 756-57.

Individualization increases the ease of consumer exploitation because it raises the cost of learning from other persons. It limits the ability for consumers to be educated by a simple recommendation of the best product. Empirical evidence demonstrates that interpersonal learning is slower with individualized products.⁶² For a consumer to choose his optimal product, he must understand the characteristics of the product and how they relate to his own purposes and preferences.⁶³ This process is more complex and costly than simply accepting a recommendation, and the chance of error is therefore higher. This inhibition of learning prevents full competition over the characteristics that fully informed consumers would prefer and leads instead to competition over characteristics of the product that appear important to consumers.⁶⁴

At least two characteristics can cause a product to be individualized: (1) the product is not available to all consumers due to restraints (such as credit); and (2) the product is used for multiple purposes, so consumer preferences about the product features would differ even if consumers were fully informed.

Credit cards are individualized for both reasons. First, consumers are heterogeneous with respect to risk, so a deal offered to one consumer may not be available to another with worse credit.⁶⁵ Thus, a consumer-education effort cannot simply offer a recommended product because the best deal will not be available to many consumers. The effort must partially educate the consumer about the advantages and disadvantages of different credit card plans so that he can pick the best deal that will be given to him. This means the consumer has to expend considerably more effort to find the best deal, and because that effort now requires understanding the complexities of credit card plans, it is subject to more error by the consumer and exploitation of cognitive limitations by the credit card provider.

In addition to the problem of some deals not being available to all consumers, consumers use credit cards for varying purposes. Some use them interchangeably with debit cards to facilitate transactions without carrying large amounts of cash. Others use credit cards as a means of personal finance. These two purposes mean that even fully informed consumers with the same credit history would have different preferences. The transaction facilitators would prefer increased reward programs, such as airline mileage, at the expense of higher APRs, whereas the borrowers would prefer the reverse. These different preferences are a

62. *See id.* at 756.

63. *See id.* at 757.

64. *See id.*

65. *See id.* at 766.

further barrier to consumer education because they prevent the use of a simple recommendation that would be applicable to all or most consumers. Furthermore, because most consumers fall somewhere on the spectrum between borrowers and transaction facilitators, a consumer educator cannot make one recommendation for each type of consumer. This leads to the more costly necessity of having the consumer understand the plan rather than merely accept a simple recommendation.

The increased cost of educating each consumer can greatly facilitate exploitation. While educating consumers might be cost justified from a social perspective, it may not be in the interest of any one entity. One mechanism that often protects consumers is that other sellers have the incentive to point out the flaws in their competitors' products.⁶⁶ But this mechanism is limited by a free-riding problem. When the seller alerts consumers to the exploitation, some of the sales that result will be captured by other sellers that do not exploit consumers.⁶⁷ In markets for complex, individualized products, the cost of educating each consumer is higher, but the benefit of each sale is not. Consequently, the cost of educating the consumer will more often be greater than the profit from increased sales. Thus, individualization decreases the incentives for sellers to protect consumers from competing sellers.

C. *Infrequency of Purchase Prevents Learning from Experience*

Even in complex financial transactions, consumers do learn from their mistakes. One need not understand amortization or compound interest to notice when a transaction turns out differently than expected, just as one need not understand how a computer works to know that it is broken. Research shows that consumers are more than 40% less likely to receive a penalty on their credit card in the month following a penalty, but this learning is eventually forgotten.⁶⁸ However, decision-making about which product to choose appears to improve substantially over the length of consumers' lives in a variety of markets.⁶⁹ For

66. See Richard A. Epstein, *Behavioral Economics: Human Errors and Market Corrections*, 73 U. CHI. L. REV. 111, 119–20 (2006).

67. See Howard Beales et al., *The Efficient Regulation of Consumer Information*, 24 J.L. & ECON. 491, 527 (1981).

68. Sumit Agarwal et al., *Learning in the Credit Card Market* 3 (Nat'l Bureau of Econ. Research, Working Paper No. W13822, 2008), available at <http://www.nber.org/papers/w13822>.

69. See generally Sumit Agarwal et al., *The Age of Reason: Financial Decisions over the Life-Cycle with Implications for Regulation* (Brookings Papers on Econ. Activity, Working Paper No. 973790, 2009), available at <http://ssrn.com/abstract=973790>.

example, the frequency of rate-changing mistakes in borrowing drops from 70% for twenty-year olds to 10% in fifty-year olds.⁷⁰

This ability to learn from experience is particularly important when sellers are able to conceal aspects of the price in hidden fees and other clauses that are not salient to the consumer upon purchase.⁷¹ Mistakes are an especially important source of information here. Whatever may be hidden from or seem insignificant to the consumer at the time of purchase will more likely be recognized upon payment. Especially with complex financial products, the cost of the mistake will turn an abstract mathematical idea into a concrete payment that is more likely to be felt and acted upon.

Even if consumers frequently purchase a product, the market may show these effects if many of the consumers are young because young consumers have not yet had time to learn from experience. The markets for credit cards, rebates, cell-phone plans, and payday loans are all frequently accused of exploitation even though consumers regularly enter these contracts. Perhaps it demonstrates the importance of experience, because each of these markets is aimed largely at younger purchasers. The infrequency of contracting offers a stronger explanation for exploitation in markets where middle-aged consumers are frequently exploited, such as the market for subprime mortgages. Perhaps the degree of exploitation in that market would be lower if consumers bought houses more frequently.

When consumers purchase a product infrequently, it is harder for them to rely on the sellers' reputations. Part III.E will discuss the decreased reputational effects in the context of new markets.

D. Consumers Who Are Not Middle-Aged Are the Easiest to Exploit

Twenty-year olds suffer from naïvety and lack of discipline, but have the best cognitive ability.⁷² Consumers grow wiser with age, but their cognitive function declines.⁷³ One study uses empirical data from across ten credit markets to estimate that the competing factors of increased wisdom and decreased cognitive ability leads to the fewest consumer borrowing errors at age 53.⁷⁴ When higher proportions of the consumer population are more susceptible to exploitation, sellers will have a greater incentive to design their products in a manner that exploits.

70. *Id.* at 16.

71. See BAR-GILL, *supra* note 1, at 26-27.

72. See Agarwal et al., *The Age of Reason*, *supra* note 69, at 2.

73. See *id.*

74. *Id.* at 3.

The aforementioned study offers evidence of the strength of this factor in the ten credit markets it analyzed,⁷⁵ and rebate practices may offer evidence of the importance of young consumers in allowing exploitation in retail markets. As discussed above, mail-in rebates provide the opportunity to introduce multidimensional pricing into any store-bought product.⁷⁶ Since multidimensional pricing appears to facilitate consumer exploitation and thus increase profits, why are rebates not offered on every retail product in the appropriate price range?⁷⁷ This lack of rebates may be because rebates work especially well on naïve, younger consumers who are more likely to overestimate their likelihood of sending in the rebate. If consumers are too good at estimating their likelihood of sending in the rebate, then the rebate will decrease profits by creating adverse selection for consumers who send in rebates.⁷⁸ The importance of having a large proportion of young consumers may explain the unusual prevalence of rebates in the consumer-electronics industry.⁷⁹ One study demonstrated that 50% of personal-computer offers contain rebates.⁸⁰ Another study showed that almost 75% of ads placed for phones, computers, and software contained rebate offers in 2002.⁸¹ There does not appear to be data on the prevalence of rebates across all retail markets, but common experience would indicate that it is well below 50% or 75%.

75. *Id.*

76. *See supra* Part III.A.4.

77. *See id.* (describing the appropriate price range).

78. *See* Richard A. Epstein, *The Neoclassical Economics of Consumer Contracts*, 92 MINN. L. REV. 803, 828 (2008).

79. A skeptic might claim that another potential explanation for the higher prevalence of rebates in consumer electronics is that the market is characterized by high fixed costs and low variable costs. The low variable cost may cause the price discriminatory function of rebates to function more efficiently. A seller can recover the variable cost of producing an additional unit as well as a fraction of the fixed costs from the highly price-sensitive consumers. From the less price-sensitive customers, the seller can recover the variable cost of the units sold to them, the remaining fixed costs, and the profit. This recovery would allow the producer to sell more units, and therefore lower the cost per unit. The profit would come from the sales to the less price-sensitive customers, but the sales to the more price-sensitive customers would allow more units to be produced, lowering the average cost per unit. This is only a partial explanation. All manufactured goods have high fixed costs and low variable costs, yet rebates are offered far more often with consumer electronics than other manufactured goods. Absent a reason to believe the difference between fixed costs and variable costs is higher with consumer electronics than with other manufactured goods, this explanation appears incomplete.

80. Edwards, *supra* note 3, at 363.

81. Patrick Burns, "We want our money back"; *Rebate offers are on the rise, but so are complaints about the popular incentives*, INTELLIGENCE J. LANCASTER, PA (Dec. 8, 2003), <http://www.highbeam.com/doc/1P2-9197567.html/print>.

The youth of credit card borrowers may partially explain the high levels of exploitation in that market as well. Young people make up an especially high proportion of credit card holders, are heavily targeted by credit card issuers,⁸² and are the most profitable age group (especially following college graduation).⁸³ These market characteristics facilitate exploitation, and therefore create an incentive for the industry to orient its contracts towards exploitation. Because exploitative contracts make up a high proportion of the market, consumers who do not educate themselves or shop around are likely to be exploited. The high proportion of young people prevents the educated consumers from protecting the naïve consumers. It decreases the proportion of consumers that sellers will lose by using exploitative tactics, thus decreasing an incentive not to exploit.

Markets made up disproportionately of much older consumers should demonstrate the same effect, but it will not be as strong as the effect on markets with high proportions of young consumers. The data in one study demonstrates that cognitive skills degenerate slowly enough that eighty-year olds scored better than twenty-year olds in eight out of ten measures of consumer competence.⁸⁴ Because there are fewer eighty-year olds than twenty-year olds, eighty-year olds consume less than twenty-year olds, and they are more competent consumers, the effects of a large proportion of old consumers should be much weaker than the effects of large proportions of young consumers.

E. Consumers in New Markets Lack Learning from Experience and Learning from Others

Learning is a primary defense against exploitation.⁸⁵ This defense is almost always the result of the experience of being exploited because an exploitative technique that most consumers will figure out the first time they encounter it will not spread among sellers.⁸⁶ Consumers will not begin the learning process until sellers implement a misleading practice, so the situation in which sellers have implemented exploitive practices, but consumers have not learned about it, will occur more often soon after a market arises. This lag in learning can be expected to affect learning from experience, as well as learning from others. Consumers

82. See Creola Johnson, *Maxed Out College Students: A Call to Limit Credit Card Solicitations on College Campuses*, 8 N.Y.U. J. LEGIS. & PUB. POL'Y 191, 191-92 (2004).

83. See *id.* at 201 n.52.

84. See Agarwal et al., *Learning in the Credit Card Market*, *supra* note 68, at 2-17.

85. BAR-GILL, *supra* note 1, at 26.

86. See *id.* at 27.

need time to discover the practice, and consumer educators need time to disseminate the information after discovering the exploitation.

Many exploitative practices have been mitigated over time by competition and learning. Consumers become dissatisfied with the exploitive practice, a market niche opens up, and competitors that do not engage in the practice attract those dissatisfied consumers. For example, Blockbuster used to charge a per-day late fee that was as high as the initial rental fee.⁸⁷ This pricing was a way of shifting the price to less salient components and taking advantage of consumers' systematic optimism.⁸⁸ The late-fee model survived for two decades, until Netflix began offering a monthly subscription service without late fees.⁸⁹ The two largest video rental companies, Hollywood Video and Blockbuster, eventually began offering the monthly subscription service as well.⁹⁰ Redbox later entered the market and set up a fee structure in which the customer pays a uniform daily fee up to the cost of the video, at which point the customer owns the video.⁹¹ Over time, the price customers paid for video rentals became aligned with the companies' marginal costs.

This same trend appears to be occurring with the use of rebates.⁹² The exploitative use of rebates is decreasing, with many retailers working to make the redemption process easier for consumers, while others are abandoning rebates altogether.⁹³ Some retailers are even offering instant rebates at checkout, eliminating the potential for exploitation. Retailers claim they are responding to consumer dissatisfaction,⁹⁴ indicating that consumers' naivety may be decreasing as they gain experience with rebates.

In addition to having more naïve consumers, sellers in new markets are less likely to have established reputations. Consumers can use seller reputation as a substitute for understanding complex products.⁹⁵ The

87. EZRA FRIEDMAN, COMPETITION AND UNCONSCIONABILITY, AM. LAW & ECON. ASS'N 2 n.6 (2009), available at www.law.uchicago.edu/files/files/Friedman%20paper.pdf.

88. See *supra* Part III.A.

89. Rick Newman, *How Netflix (and Blockbuster) Killed Blockbuster: Bankruptcy at the video-rental chain shows the risk of sticking with an outdated strategy*, U.S. NEWS (Sept. 23, 2010), <http://money.usnews.com/money/blogs/flowchart/2010/09/23/how-netflix-and-blockbuster-killed-blockbuster>.

90. Jon Bell, *Why Hollywood Video Failed*, OR. BUS. (Apr. 16, 2010), <http://www.oregon-business.com/articles/84-may-2010/3354-the-final-cut>.

91. See *Rental Terms and Conditions*, *supra* note 44.

92. See *supra* Part III.D.2.

93. See Edwards, *supra* note 3, at 419-20.

94. See *id.*

95. See BAR-GILL, *supra* note 1, at 28.

use of reputation can facilitate learning from others, counteracting some of the ease of exploitation that comes from individualized products.

The lack of reputation among the new firms that entered the subprime-mortgage market has been cited as a contributor to the exploitation that took place. With the advent of securitization, smaller firms had more access to capital, and many new firms entered the market.⁹⁶ When combined with other exploitation-friendly characteristics of subprime lending, such as individualized product, infrequent contracting, multidimensional pricing, multitransactional contracts, and customers that are uneducated and not middle-aged, a great amount of inefficient transactions occurred.

IV. CONCLUSION

It appears that the most important facilitator of consumer exploitation is the use of MPMCs. The other characteristics listed inhibit mechanisms—such as learning from experience or learning from others—that would otherwise protect consumers from sellers' use of MPMCs to cost shift. This description provides some information about the scope of the problem, as MPMCs are common yet limited in potential usage.⁹⁷ Because so much of the evidence of consumer exploitation comes from markets dominated by MPMCs, one should not overgeneralize that evidence to conclude that exploitation is as common outside those markets.

The mechanisms described in this paper may also shed light on potential regulatory solutions. The price components of MPMCs are tricky to regulate directly because multidimensional pricing and multiple transactions within each contract have many efficient uses.⁹⁸ While a recommendation for a solution would require a cost-benefit analysis outside the scope of this paper, regulators should take note of the characteristics of these markets and the mechanisms that facilitate exploitation. In particular, regulators should focus on the importance of price components deviating from the marginal cost of added services in facilitating consumer exploitation.

In addition to using the characteristics described above to identify exploitative markets and craft regulatory solutions, regulators could focus on these characteristics when evaluating the success or failure of a regulatory strategy that has been tried across markets. For example, evidence of effectiveness in one market could better predict the results

96. *See id.*

97. *See supra* Part III.A.4.

98. *See supra* Part III.A.3.

of another if both markets have the same exploitation-facilitating characteristics.