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Armstrong, Mark and Vickers, John

University of Oxford, Department of Economics

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Mark Armstrong John Vickers

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Abstract

Contingent charges for financial services, such as fees for unauthorized overdrafts, are often controversial. We study the economics of contingent charges in a stylized setting with naive and sophisticated consumers. We contrast situations where the naive benefit from the presence of sophisticated consumers with situations where competition works to subsidize the sophisticated at the expense of the naive, arguably unfairly. The case for regulatory intervention in these situations depends in good part, but not only, on the weight placed on distributional concerns. The economic and legal issues at stake are well illustrated by a case on bank charges recently decided by the UK Supreme Court.

1 Introduction

In November 2009 the UK Supreme Court gave judgment on the following question of law: can the fairness of bank charges levied on customers in respect of unauthorized overdrafts be challenged as excessive? Unauthorized overdraft fees are an important example of the widespread and often controversial practice of contingent charges – charges that are triggered only if particular contingencies arise and which often catch customers unawares, either because they did not know of the fee and/or that the triggering event would happen. Similar issues arise with respect to other kinds of contingent charge such as late payment fees for credit cards, minibar charges in a hotel room, international roaming charges for

*Authors at Department of Economics and All Souls College, University of Oxford. We thank Matthew Bennett, Andrew Burrows, Janet Currie, Marco Ottaviani, Kathy Spier, Victor Stango, Simon Whittaker and Jidong Zhou for helpful comments.

mobile phones, and "overage" charges when a subscriber makes more calls than are included as free in her chosen mobile phone contract. Of course, most charges are contingent on a consumer choice, but the key features of these examples are, first, that the supplier can usually take payment without further agreement from the consumer – in particular, a consumer could run up a large bill without being aware of doing so – and, second, there is a perception that many consumers choose supplier in these markets without taking adequate account of the level of that supplier's contingent charges.

What economic inefficiencies can unregulated contingent charges give rise to? When do they cause distributional effects that may be regarded as undesirable? Can regulation improve matters? If so, what form should it take? Apart from a regime of *caveat emptor*, where firms – banks, say – are more-or-less free to offer any contracts to their customers, including those with high contingent charges, the main policy options are:

(a) require that banks make their terms for unauthorized overdrafts more prominent in their marketing materials and contracts;

(b) require, where technically feasible, banks to warn consumers in advance when they request a transaction which will incur a contingent charge;

(c) allow consumer to opt out of a bank's automatic overdraft facility (or, as a policy variant, require consumers to opt <u>in</u> to a bank's automatic overdraft facility), and

(d) directly or indirectly place a cap on permitted contingent charges.

The paper is organized as follows. The next section outlines relevant features of retail banking in the UK, including evidence on the incidence of contingent charges and kinds of consumer inattentiveness. Section 3 then discusses economic literature related to contingent charges, in particular concerning high pricing in tied aftermarkets, and on markets with consumer heterogeneity with respect to information and sophistication. On that issue, a distinction is emphasized between situations where market outcomes for naive consumers are *linked* to those for sophisticated ones, and situations where the two types get *contrasting* deals. That distinction is central to section 4, the analytical core of the paper, where a simple model also shows how, in some circumstances, unchecked contingent charges can be detrimental to efficiency and competition. Against that economic background, section 5 explains and assesses the Court judgment in the UK bank charges case.

2 Retail banking in the UK

In 2008, the UK's Office of Fair Trading (OFT) published a market study of personal current accounts, drawing on data from the year 2006.[1] In the UK, the prevailing charging model for current accounts is the so-called "free if in credit" model, whereby consumers pay no fixed charges or charges on standard transactions while their balance is in credit. Consumers are paid little or no interest on their credit balances, which constitutes an implicit payment to the banks who can re-invest their customers' balances at market rates.[2] If a consumer borrows from their bank, however, they will need to pay charges. Different contractual terms apply to loans and overdrafts which are arranged in advance and to overdrafts which are unarranged. In broad terms, the market for arranged borrowing appears to perform relatively well. A consumer who needs a substantial loan (e.g., for a car or home improvement) will typically enter into a loan agreement of specified duration and repayment terms. Consumers may shop around for such a loan (which need not be supplied by their existing bank) and will usually be made aware of the principal contractual terms when they sign the loan contract.[3]

By contrast, the "market" for unarranged borrowing, which is necessarily a service tied to the consumer's existing bank, appears more problematic. When a customer requests a transaction which puts their balance below zero (or, more generally, below their agreed overdraft limit), a bank may process this transaction and charge a relatively high interest rate on the debt. The bank will also levy some form of insufficient funds charge. In 2006, the average "paid item" charge, for instance, was around £23 *per item*, so that a consumer on a shopping trip involving several transactions could, perhaps inadvertently, run up substantial charges. Moreover, the average level of these insufficient funds charges had risen in the years before 2006.[4] At that time no advance warning was typically given

[1] See OFT (2008), from where all the numbers in this section are taken. Part II of the Final Report of the UK's Independent Commission on Banking (2011), which one of us (JV) chaired, has some more recent competition analysis. In this paper, however, we confine attention to the OFT (2008) report in view of the richness of its data on overdraft usage.

[2] Those rates have fallen since the financial crisis of 2008.

[3] Nevertheless, there may also be concerns about contingent charges for these loan contracts, for instance to do with fees for late payment. The 2001 *First National Bank* case, discussed briefly in section 5, involved this issue.

[4] If a bank decided not to process a requested transaction due to insufficient funds, they levied a different charge, an "unpaid item" charge, which in 2006 averaged about £30. Indeed, it is possible that a requested

when a customer requested a transaction that would generate an insufficient funds charge. These insufficient funds charges made a very substantial contribution to the total revenues generated by current accounts, and in 2006 they accounted for more than 30% of current account revenue.[5]

The incidence of these insufficient funds charges is highly concentrated within the population of bank customers. More than three-quarters of current accounts incurred no insufficient funds charge in 2006. Of the 23% of current accounts which did incur at least one such charge, about 40% incurred at least six. About one-third of those consumers who incurred a charge paid more than £200 in insufficient funds charges in the year, and about 1.4 million consumers paid more than £500 in such charges in 2006.[6] Thus, while the "typical" or "average" consumer did not encounter these charges, it is not true that such charges were rare. Since it is plausible that those consumers who paid these charges were on average less well off than those who did not pay charges,[7] this method of funding current accounts — whereby financially constrained consumers pay contingent fees which help fund the free service offered to those in credit — might appear to some as a kind of "reverse Robin Hood exercise".[8]

Consumer inattentiveness or naivety of various forms is probably quite widespread in the consumer population. In 2006, only 5% of consumers said that insufficient funds charges were an important factor in their choice of bank.[9] Two-thirds of consumers in the survey said they did not know their bank's charges for unarranged overdrafts.[10] While

transaction might incur both charges: if the transaction was declined, the bank would levy an unpaid item charge, which in turn allows the bank to levy a paid item charge on the first charge. See OFT (2008, chart 3.16) and surrounding discussion for more details on the various charges associated with insufficient funds.

[5] See chart 2.3. The banks obtained about 50% of their current account revenue from the interest they obtain on their customers' credit balances. In most European countries, fee revenue from excess borrowing was no more than 10% of current account revenue, although they generally do not operate the "free if in credit" funding model, but levy monthly fixed fees and transaction fees (see box 3.17).

[6] See chart 4.9.

[7] There is some limited discussion of this point at paragraph 4.64.

[8] This phrase appeared, with a disclaimer, in the Supreme Court decision we discuss in section 5 (see paragraph 2 of the judgment).

[9] See paragraph 4.76. Of course, this is also consistent with the possibility that consumers did care about these charges, but found no significant differences between banks on this dimension. OFT (2008) does not provide information about price dispersion across banks in the level of these charges.

[10] See paragraph 4.75. This is not necessarily surprising given that more than three-quarters of consumers do not actually pay these charges.

these charges were not "hidden" — they could easily be found after a few clicks on a bank's website, for instance — neither were they prominent in the banks' marketing materials, in contrast to other aspects of the total service (e.g., interest rates paid on balances, ATM charges, or branch coverage). About a quarter of those who incurred an insufficient funds charge in 2006 claimed they did not know beforehand that these charges existed.[11] Moreover, some consumers may have been aware of the existence of such charges, but did not anticipate that they would have to pay them.[12] Consistent with these observations, internal bank documents suggest that banks did not believe that increases in insufficient funds charges significantly affected demand for their accounts.[13] It is relevant that perceived switching costs are quite high in this market, and switching between banks is infrequent in the UK. This means that a poor initial choice of bank – for instance, one with high contingent charges – may have long-run implications.[14]

Another form of inattentiveness relates to a consumer's imperfect tracking of her bank balance. (The difficulty is worse if more than one person uses the account.) When those consumers who incurred an insufficient funds charge in 2006 were asked why they had most recently exceeded their agreed limit, only 24% agreed with the statements "insufficient funds/overspend" or "knew it would happen but had to make a payment", while the remainder indicated some form of inadvertence (e.g., "uncertainties about the timing of transactions", "did not check account", "forgot about a payment"). For many such consumers, one imagines that an advance warning that a charge would be levied if they proceed would induce the consumer to use another form of payment (or to abandon the purchase altogether). Consistent with this observation, it appears that many consumers would prefer to have a hard budget constraint, rather than being offered an automatic overdraft facility. For instance, more than half of consumers in the survey claimed they would wish to agree up front with their bank that no debit card transactions that would lead them into unarranged overdraft would be processed.[15] Assuming this proportion reflects

[11] See paragraph 4.74.

[12] See paragraph 4.69. It is plausible, though not quantified in the survey, that some consumers were aware of these charges, but were over-optimistic about their *level*. For instance, in para. 4.100 one consumer stated that "I thought I'd be charged maybe £15 or £20 in total, but they walloped me with something like £70".

[13] See paragraph 3.74. For instance, one document stated that "increasing [these] charges will have less impact on our marketing position [than] credit interest changes due to its lower visibility."

[14] See chart 3.8, which shows that only 13% of consumers changed bank in the previous five years.

[15] See paragraph 4.97.

preferences in the consumer population, this raises the question why banks did not (in 2006) offer their consumers the ability to opt out of these automatic overdraft facilities.[16] As we discuss in section 4, possible reasons for this include consumer over-optimism at the time they choose their contract about the likelihood of going overdrawn, and the possibility that banks obtain substantial profits from allowing naive consumers to go overdrawn.[17]

3 Literature related to contingent charges

Unarranged overdrafts are a classic instance of a tied "aftermarket", in that a consumer must obtain the overdraft service from her existing bank. Such markets, where customers demand ongoing services complementary to an initial purchase, were discussed by Shapiro (1995) in the context of the 1992 *Kodak* case decided by the US Supreme Court.[18] As well as bank accounts/overdrafts, familiar examples include printers/cartridges, razors/blades, cars/servicing, and a variety of hardware/software combinations in the computer industry. Aftermarket prices often appear to be high, and resistant to competitive challenge because of customer lock-in. In the *Kodak* case the issue was whether Kodak should be assumed not to have market power in aftermarkets for parts and servicing of its equipment when

[16] Paragraph 4.98 suggests that at the time no bank did offer this opt-out service. In 1999 government encouraged banks to offer a so-called "basic bank account" offering only limited services, where overdrafts were allowed only in restricted circumstances. However, there has been only limited take-up of this type of account, and there have been allegations that banks were not effectively marketing these accounts (which presumably were often loss-making). See paragraphs 2.12, 2.45, 3.105–3.110 and chart 2.1 for details.

[17] Stango and Zinman (2009, 2011) document with US data the proportion of bank customers who pay overdraft fees, and how many of these fees could be avoided if customers paid greater attention to their finances. Stango and Zinman (2009, Table 1) find in their sample taken in 2006/7 that about two-thirds of bank customers pay no overdraft fee, and that the 90th percentile of those who pay at least one overdraft fee pays $43 dollars in such fees each month. The same table also shows that the median customer (among those who pay at least one fee) could avoid 62% of their fees by using another payment method. Stango and Zinman (2011) suggest that annual overdraft fees in the US are roughly £30-40 billion, which is about $150 per account. The same paper documents survey data which indicate that many consumers are inattentive about the state of their account balances. Thus, 60% of people who went overdrawn claimed that "they thought there was enough money in my account", while most of the remainder claimed "the money I deposited was not yet available". Overall, these papers paint a picture which is broadly similar to the situation in the UK described here.

[18] *Eastman Kodak Co. v Independent Technical Services Inc.*, et al, 504 US 451. In contrast to *Kodak*, antitrust defendants have won almost all antitrust cases before the US Supreme Court in the twenty years since.

market power is absent from the equipment market. The Supreme Court said that such an assumption could not be made.

Shapiro critically discusses a number of theories of aftermarket power. On the limited commitment theory, the equipment seller can't or won't pre-commit aftermarket pricing, with the result of inefficient low-then-high pricing. On the costly information theory, myopic or naive consumers buy the initial item before realizing that aftermarket prices are high. On the price discrimination theory, the low-then-high pricing pattern is a way for the supplier to charge more to high users than low users. Shapiro discusses why the aggregate consumer harm which could be expected to result from these theories is relatively small when the initial market is competitive, and how antitrust law would seem to be a heavy-handed way to address the problem. For instance, when consumers are broadly homogenous and aftermarket prices are high (either because of a lack of commitment or because consumers do not pay attention to aftermarket prices when they make their initial purchase), then firms will compete hard to supply the initial item, and aftermarket profits are largely passed-back to consumers in the form of a subsidized base item.[19] The result of this loss-leader pricing is that the consumer harm is caused by an inefficient pattern of prices – with consumer loss "triangles" – rather than the more sizable profit "rectangles" normally associated with monopoly pricing. Similarly, if the aim of high aftermarket pricing is to discriminate between high- and low-usage consumers, a policy which restricts such discrimination (e.g., by bringing aftermarket prices down) may have some modest impact on aggregate consumer welfare, but its primary effect is to redistribute surplus from low to high users.

These themes from the economic literature on aftermarkets — that market failure (if any) is associated more with an inefficient balance of prices rather than excessive profit — are relevant to the context of bank overdraft fees. But this market has special features which make it harder to be so sanguine about the laissez-faire outcome. First, the distributional aspect of high contingent charges is more acute when it comes to bank balances than, say to toner cartridges and printers. Those who make more frequent use of the unarranged overdraft facility are likely to be on average less well off than the rest, and so have a higher marginal utility of income which could make redistribution to them welfare

[19] Ellison (2005) analyzes an oligopoly model in which consumers with strong brand preferences for the base product are also more willing to buy the add-on product. In such a model, when firms hide the add-on price they make strictly greater profits than when they publicise the add-on price.

enhancing.[20] A second feature, as discussed in section 2, is that many people appear to consume the overdraft service inadvertently, whereas people do not accidently purchase a toner cartridge.[21] In sum, the aftermarkets literature does not address a central issue for consumer (as distinct from antitrust) policy – the perception that certain market practices exploit "vulnerable" consumers to the gain of others.

There is now a substantial body of literature that examines the nature of competition in mixed markets where some consumers are "sophisticated" – well-informed about the availability, price and quality of the choices on offer – and others, the "naive", are not. This work can often be fitted into the following shorthand framework. Suppose the proportion of sophisticated consumers in the population is σ and that $\bar{p}$ represents an effective price ceiling, perhaps imposed by policy, for a service in the market. In principle, consumer policy could affect either σ, via disclosure or education polices, or $\bar{p}$. In terms of these two parameters, let $P_N(\sigma, \bar{p})$ and $P_S(\sigma, \bar{p})$ stand for the (expected) outlay by a naive and a sophisticated consumer respectively, while $T(\sigma, \bar{p}) \equiv \sigma P_S(\sigma, \bar{p}) + (1-\sigma)P_N(\sigma, \bar{p})$ measures the total outlay from consumers. In reasonable settings, sophisticated consumers obtain better deals than naive consumers, so that $P_N > P_S$.

In some situations, naive consumers obtain a deal which is *linked* to that obtained by sophisticated consumers, and the greater pressure on prices induced by either the presence of greater numbers of sophisticated consumers or by a tightening of $\bar{p}$ is shared by naive ones. That is, P_S and P_N each decrease with σ and increase with $\bar{p}$. In particular, an additional sophisticated consumer exerts a positive externality on all consumers. To illustrate

[20] By contrast, those who make greater use of, say, toner cartridges are likely, all else equal, to be better off than less frequent uses. Thus an outcome with high toner prices may reasonably be viewed as distributionally "fair". Moreover, given the fixed printer cost, the effective per-page price paid by high users is lower than that paid by low users.

[21] Grubb (2011) presents a model in which firms levy a charge if a consumer's consumption goes beyond a specified level. (Applications include mobile phone tariffs where consumers get a specified number of calls including in their package, but pay charges for calls beyond this level, or — more relevant for our focus — banks who charge a fee if a customer's balance falls below a specified threshold.) He supposes that consumers might inadvertently cross the threshold and pay the penalty. He considers the impact of a policy which requires firms to warn their customers if they are about to incur a penalty charge, as in policy (b) from the above list. If consumers are homogeneous but under-estimate their likely consumption of the service, unregulated firms have an incentive to set high penalty charges, which could leave some consumers with negative surplus. In such cases, the policy intervention helps consumers, although the impact on total welfare is ambiguous.

this situation, consider Varian's (1980) model where an exogenous fraction of consumers know all prices and buy from the cheapest supplier, while other consumers buy from a random supplier. Here, a policy which boosts the fraction of informed consumers will induce firms to price more competitively and this helps both kinds of consumer, so that P_S and P_N decrease with σ. If $\bar{p}$ represents the maximum price which any firm is permitted to charge in Varian's model, then for given σ a reduction in $\bar{p}$ will make firms choose lower prices on average, which again benefits both groups.[22] In these kinds of case, a policy intervention which boosts σ or tightens $\bar{p}$ is uncontroversial (at least from a consumer welfare standpoint), since different kinds of consumer have congruent interests.

In other situations, naive and sophisticated consumers end up with *contrasting* deals – for example with high contingent charges being paid more often by naive consumers – and the possibility opens up that sophisticated consumers gain at the expense of naive ones. This case has more relevance for the UK bank market, where only a minority of consumers pay contingent fees, and these fees help fund the "free if in credit" model enjoyed by other consumers. If profits from naive consumers fund other services, then it is possible that both P_S and P_N increase with σ, so that an additional sophisticated consumer exerts a *negative* externality on both groups of consumer. It may also be that aggregate consumer outlay T increases in σ. In addition, if a tightening of $\bar{p}$ reduces the scope for this kind of cross-subsidy, the two groups could well have opposing preferences towards such a policy, with naive consumers benefitting from lower $\bar{p}$ and sophisticated consumers being harmed, and this conflict renders policy more contentious. We discuss this scenario in more detail in section 4.

Perhaps the leading model which illustrates this second situation is by Gabaix and Laibson (2006), who present a model where consumers buy a core product (the bank account in our framework) and possibly an "add-on" product (the unarranged overdraft). If she thinks about it in advance, any consumer can (at some cost, which is socially inefficient) substitute away from the add-on product. Firms decide whether to announce or to "shroud"

[22] However, it may be that σ and $\bar{p}$ are negatively related rather than independent parameters. Thus, as discussed further in section 4.2 below, Armstrong, Vickers, and Zhou (2009) consider a setting where consumers can choose to become better informed by incurring a cost. In this case, the incentive to become informed depends on $\bar{p}$, and so the proportion $\sigma(\bar{p})$ of consumers who choose to become better informed is an increasing function of $\bar{p}$. Tighter $\bar{p}$ reduces price dispersion, so there is less incentive to become informed. The net result can easily be that all consumers are worse off when $\bar{p}$ is tightened.

their add-on price (or contingent charge). If firms reveal their add-on price, all consumers will substitute away from the add-on unless the add-on price is low enough. However, if firms shroud their add-on price, consumers differ in their behavior: sophisticated consumers are aware of the add-on service and will substitute away in advance if they anticipate that there is a high add-on price, while naive consumers simply do not think about the add-on service and take no steps to avoid high add-on prices. Gabaix and Laibson show that it is one equilibrium for all firms to shroud add-on prices whenever the fraction of sophisticated consumers, σ, is sufficiently low. In such cases, the sophisticated consumers correctly anticipate high add-on prices, and so (inefficiently) substitute away from the add-on service. In this equilibrium, the sophisticated consumers benefit from the presence of the naive consumers, as anticipated add-on profits from the latter cause the base price (which is all that the sophisticated consumers pay) to be reduced.

4 Economic analysis

Traditional models of consumer behavior cannot easily explain the high overdraft fees seen in the UK and elsewhere. If all consumers paid attention to contingent charges and could accurately forecast, and perhaps affect, their likelihood of going overdrawn, then standard insurance arguments suggest that banks would set the contingent charge at a relatively low level.[23] In this section, we outline a model of consumer behavior which seems more consistent with observed market practice.

4.1 A stylized market for bank accounts

We present a simple model of bank accounts which illustrates several of the most policy-relevant aspects of the market. The model is a modified version of Gabaix and Laibson's (2006) framework, which was discussed in section 3, adjusted so that there is no "shrouding" decision to be made by firms. In order to focus on the consumer protection problems which could arise even in the absence of market power, we (like Gabaix and Laibson) work with

[23] One traditional reason why banks might set $p > c$ is to cover their fixed costs. In many cases, the most efficient way for a multiproduct firm to cover fixed costs is to impose a (Ramsey) mark-up on each of its products, including their unarranged overdraft service.

a model involving perfect competition.[24] Specifically, a number of identical banks compete to offer two tied services: a *bank account*, the price of which is denoted P and the cost of which is C, and, if needed, an *unarranged overdraft facility* with contingent charge p and associated cost c. Suppose that existing law or cultural norms put an exogenous ceiling $\bar{p} > c$ on the contingent charge. Like Gabaix and Laibson, we suppose that consumers are able *ex ante* to affect their probability of going overdrawn: if a consumer is *diligent* in controlling her finances, she will never go overdrawn, but if she is not diligent she will inadvertently become overdrawn α times on average.[25] Suppose that being diligent involves *ex ante* effort cost e, where

$$\alpha c < e < \alpha \bar{p} \ , \tag{1}$$

so that it is more efficient for consumers sometimes to go overdrawn (incurring cost c each time) than to be diligent, but any (sophisticated) consumer chooses to be diligent when faced with the highest overdraft charge $\bar{p}$.

An exogenous fraction σ of consumers are sophisticated in the following sense: they are aware of the possibility of inadvertent overdraft unless they are diligent, and they costlessly examine the marketing materials for the associated contingent charge. Such consumers will be diligent if $e \leq \alpha p$, and they choose the bank with the lowest value of $P + \min\{e, \alpha p\}$. The remaining $1 - \sigma$ consumers are naive, in the sense that they do not consider *ex ante* the danger of inadvertently going overdrawn or of paying a high contingent charge. In particular, they do not take the trouble to investigate p and nor are they ever diligent. Naive consumers simply choose the bank with the lowest base price P.

Perhaps the most natural justification for a naive consumer's inattentiveness is that she is over-optimistic in some way. For instance, consistent with survey responses mentioned in section 2, she may be over-optimistic about her ability to avoid getting overdrawn. If she does not anticipate going overdrawn, she pays no attention to a bank's contingent

[24] This is not to suggest that there are not competition problems in the UK banking sector. As well as discussing the special features of contingent charges, OFT (2008) describes market performance in the sector more generally. See also ICB (2011).

[25] A consumer might, for instance, avoid going overdrawn by going to the trouble of setting up a "sweep" account, which automatically shifts money from a savings account to the current account when the latter's funds are low. Alternatively, she might reduce the chance of inadvertent overdraft by maintaining a large average account balance. If consumers defend themselves against a high contingent charge in this manner, this boosts the profits of banks when they invest these large balances at market rates. This could give banks an additional incentive to choose a high p, beyond those discussed in this model.

charge p, no matter how conspicuous this fee is.[26] Alternatively, the consumer may be over-optimistic about the true level of the contingent charge p. For instance, she may mistakenly believe that regulations or moral norms already enforce a cost-reflective p, and that it is not worth going to the effort of reading the details of a bank's contract. Such a consumer would therefore choose not to be diligent.

Turning to banks' pricing incentives, note first that a bank will choose its contingent charge to be either $p = \bar{p}$ or $p = e/\alpha$.[27] Given (1), the latter is the efficient outcome since consumers need not incur the cost of diligence. The form of the equilibrium depends on the fraction of sophisticated consumers σ and the level of the price limit $\bar{p}$. Consider first the possibility that all banks choose efficient contract terms, so that $p = e/\alpha$. In such an equilibrium, competition ensures that banks just break even, so the tariff takes the form

$$p = \frac{e}{\alpha} \; ; \; P = C - [e - \alpha c] \; . \tag{2}$$

Suppose one bank deviates and sets $p = \bar{p}$. This does not affect the attraction of its offer to either type of consumer. (The naive do not choose their bank on the basis of p, while a sophisticated consumer's expected outlay is $P+e$ in any case.) This bank's expected profits from the contingent charge per consumer are now $\alpha(1-\sigma)(\bar{p}-c)$ (since now only the naive pay the charge), while before each consumer generated $e - \alpha c$ in expected profit from the contingent charge. Thus, this deviation is unprofitable provided $\alpha(1-\sigma)(\bar{p}-c) < e - \alpha c$, or

$$\sigma > \frac{\alpha\bar{p} - e}{\alpha(\bar{p} - c)} \; . \tag{3}$$

Thus, if the fraction of sophisticated consumers is large enough, or the maximum contingent charge $\bar{p}$ is low enough, then banks choose efficient contract terms.[28] In this equilibrium,

[26] There is now a rich literature which documents consumer over-optimism and constructs models where firms respond to this consumer bias. See DellaVigna and Malmendier (2006) for theory and evidence related to over-optimism about the frequency of gym visits, and Sandroni and Squintani (2007) for a model of insurance when agents are over-optimistic about their accident probability. See Spiegler (2011) for detailed discussion of this literature.

[27] If a bank chooses to set $p > e/\alpha$ then sophisticated consumers will be diligent and will not pay the contingent charge; therefore, the firm might as well set the highest possible p as that has no impact on its demand from the naive consumers. Likewise, if a bank sets $p < e/\alpha$ then it could raise p a little and reduce P a little so that $P + \alpha p$ remains constant. This tariff modification does not affect its demand or profit from the sophisticated consumers, but may boost demand from the naive consumers (while keeping profit from each one unchanged) as these consumers care only about P.

[28] This result corroborates an old intuition that if there are enough informed consumers firms have an

both kinds of consumer have the same expected outlay, which is the expected cost of providing the service:

$$P_N = P_S = C + \alpha c \ . \tag{4}$$

The base price in (2) is subsidized, to reflect the (modest) profits generated by the contingent charge.

Next, consider a possible equilibrium in which all banks choose inefficient contracts, so that $p = \bar{p}$. In such an equilibrium, competition ensures that banks just break even, so the tariff takes the form

$$p = \bar{p} \ ; \ P = C - \alpha(1-\sigma)(\bar{p} - c) \ . \tag{5}$$

(Here, the base price is subsidized by the factor $\alpha(1-\sigma)(\bar{p}-c)$, which is the expected profit from the contingent charge given that only the $1-\sigma$ naive consumers pay it.) Suppose one bank deviates, and sets $p = e/\alpha$. If this bank keeps its base price P unchanged it will attract the same consumers, but now all its consumers will pay the (reduced) contingent charge. This deviation is not profitable if condition (3) is violated. Thus, when enough consumers are naive or the maximum fee $\bar{p}$ is high enough in the sense that condition (3) fails, the equilibrium involves banks choosing inefficiently high contingent charges. Note that, regardless of which regime applies, only a single contract is observed in the market, even though consumers are heterogeneous.[29]

Using the notation introduced in section 3, in this inefficient equilibrium expected outlays are

$$\begin{aligned} P_N(\sigma, \bar{p}) &= C - \alpha(1-\sigma)(\bar{p} - c) + \alpha\bar{p} > C + \alpha c \ ; \\ P_S(\sigma, \bar{p}) &= C - \alpha(1-\sigma)(\bar{p} - c) + e < C + \alpha c \ ; \\ T(\sigma, \bar{p}) &= C + (1-\sigma)\alpha c + \sigma e \ . \end{aligned} \tag{6}$$

Thus, compared to their expected outlay (4) in the efficient equilibrium, naive consumers are worse off and the sophisticated are better off.

Recall that in section 3 we discussed two kinds of market: one where the deals obtained by sophisticated and naive consumers were linked, and another where the respective deals

incentive to offer efficient contracts, even though some consumers do not read the small print. See Schwartz and Wilde (1983) for an influential exposition of this view.

[29] One can check that, unless (3) holds with equality, there are no asymmetric equilibria where some banks offer efficient contract terms aimed at the sophisticated, while other banks exploit the naive in the small print.

are contrasting. The model presented here illustrates both possibilities. Within the parameter region where the inefficient equilibrium applies, both kinds of consumer are harmed when the proportion σ of sophisticated consumers rises. Indeed, since a greater fraction of consumers take the inefficient action of being diligent, total welfare falls and total consumer outlay T rises with σ in this region. However, if σ is increased enough that the equilibrium changes to the efficient one (i.e., (3) is satisfied), then total outlay from consumers drops again. In this setting, welfare is maximized when no consumers are diligent, which occurs either when $\sigma = 0$ or when σ is large enough that (3) holds. The fraction σ might be increased by disclosure or consumer education policies (policy (a) in the introduction). For instance, if many consumers are over-optimistic about the level of overdraft fees, and for that reason they are not diligent, then a publicity campaign to disclose high fees levels may boost the proportion of sophisticated consumers. (An indirect effect of the UK bank case, discussed in the next section, may have been to make consumers more aware of the level of charges.) However, in this model at least, such a policy is only beneficial if it increases σ so much that the market shifts to the efficient outcome.[30]

Turning to the impact of tightening $\bar{p}$ (policy (d) in the terminology in the introduction), in the region where the inefficient equilibrium occurs one can see from (6) that the two kinds of consumer obtain contrasting deals. Sophisticated consumers like a high $\bar{p}$ since they do not pay it, and the greater profits from the naive consumers subsidize the base price. The naive are harmed by a high $\bar{p}$, since they do pay it and get only a fraction of this charge back as subsidy of the base price. Total outlay T does not depend on $\bar{p}$, reflecting the zero-sum nature of surplus enjoyed by the two groups of consumer. However, if $\bar{p}$ is tightened sufficiently that the regime moves from the inefficient to the efficient equilibrium, then aggregate consumer welfare (but not a sophisticated consumer's welfare) and overall welfare rise. Any policy which acts to reduce the contingent fees charged by banks has opposite effects on the different consumer groups, and so may be contentious.

[30] Kosfeld and Schüwer (2011) analyze an extension of Gabaix and Laibson's model in which a seller can partly distinguish naive from sophisticated consumers. In their model, as in the results described here, they find that an education policy which boosts σ can be bad for welfare unless the shift is enough to move to the efficient equilibrium in which firms do not shroud their prices.

4.2 Extensions

In this section we outline some extensions of the model just presented, and discuss the impact of the remaining policy options listed in the introduction.

Negative prices not feasible: In the model presented, the subsidy on the base price may be large enough that P in (2) or (5) is negative. This is most likely to happen when the fraction of sophisticated consumers, σ, is small. If negative prices are not feasible, the outcome will then be that $P = 0$, which is consistent with the UK's "free if in credit" funding model for bank accounts. If $P = 0$, then inefficient contracts with $p = \bar{p}$ will be offered whenever condition (3) is violated. Importantly, there will then be strictly positive industry profits, equal to $\alpha(1-\sigma)(\bar{p}-c) - C$. The non-negativity constraint on the base price means that firms have no way to compete away the profits from the contingent charge by subsidizing the base price. Moreover, there is no motive to reduce the contingent charge below $\bar{p}$, since sophisticated consumers do not pay this charge, and naive consumers do not take account of it. Thus, the presence of naive consumers acts to soften competition in this market.[31] In this situation banks will care about the level of $\bar{p}$ and would resist proposed regulation which tightens this cap.

Overdraft warnings: A natural policy (policy (b) in the introduction) is to require banks to warn consumers when they request a transaction which would lead them into overdraft. Thus, a consumer requesting £100 from an ATM from their debit card, when they have only £90 in their account, could see a message on screen warning that such a transaction would incur the specified charge. Suppose that if a consumer is warned that she is about to incur the contingent charge, she can with cost b avoid the charge by using an alternative means of payment (or by ceasing the transaction altogether). As with assumption (1) for the diligence cost, suppose that

$$c < b < \bar{p} \ , \tag{7}$$

so it is more efficient to go into overdraft than to find another means of payment, but a consumer would prefer to find another means of payment than pay the maximum contingent charge. Clearly, a bank will set its contingent fee no higher than b in this regime. Since we

[31] Similarly, in Ellison's (2005) model with imperfect competition between sellers, profits are strictly higher when firms conceal their contingent charges.

assume $b > c$, banks prefer to induce consumers to go into overdraft than to decide against the transaction, as is efficient. Thus, if $\bar{p}$ is high enough that the inefficient equilibrium applies, the policy is akin to tightening $\bar{p}$. As discussed in section 4.1, such a tightening helps the naive consumers but harms the sophisticated. But if b is small enough that the regime changes to the efficient equilibrium, then aggregate consumer welfare, and total welfare, rise when warnings of this kind are required.

One problem with this policy, however, is that warnings may only be feasible for certain transactions, such as those involving ATMs or debit cards, and may not operate when a consumers writes a cheque or authorizes a standing order with insufficient funds. In these cases, even with such a policy in place, some consumers remain vulnerable to high overdraft charges.

Hard budget constraint: An alternative policy is to require banks to give consumers the option of an account with a hard budget constraint (policy (c) in the introduction).[32] If a consumer chooses such an account, when she requests a transaction for which she has insufficient funds her transaction is declined. For now, suppose that a "unpaid item" fee is not levied when a transaction is declined. When a transaction is declined by the bank, the consumer must find an alternative means of payment (or cease the transaction) and she then incurs the same cost b as above.[33] Assumption (7) implies that using an account with a hard budget constraint is inefficient relative to the automatic overdraft service.

Allowing consumers to opt out of the automatic overdraft facility would have no impact on the naive consumers if they did not consider the possibility of needing an overdraft in any case. The opt-out policy may have some modest impact on the sophisticated consumers, depending on whether they view it as more costly to be diligent *ex ante* or to incur the cost b each time they go overdrawn, i.e., whether or not $e < \alpha b$. Regardless of which case applies, it is clear that the opt-out policy cannot shift the regime from the inefficient to

[32] In the United States since 2010 policy towards overdraft charges caused by debit card and ATM payments is the opt-in variant of policy (c). See the Federal Reserve's consumer document *New overdraft rules for debit and ATM cards*, available to download at www.federalreserve.gov/consumerinfo/wyntk_overdraft.htm.

[33] The assumption that the cost of having a transaction declined is no greater than the cost of choosing an alternative after an advance warning implies, for instance, that there is no "embarrassment" involved in having a transaction declined.

the efficient equilibrium, and nor can it protect the naive consumers.[34]

By contrast, an opt-*in* regime may have more significant effects. If the naive consumers are automatically enrolled on a bank account with a hard budget constraint, it is not clear why they would choose actively to move to the soft budget constraint. If the naive consumers do not opt in to the automatic overdraft facility, the result may be that only the sophisticated consumers ever pay the contingent charge, in which case banks would set p just low enough that these consumers are willing to pay it. Assuming that before the intervention the inefficient regime applied, the impact of the policy is mixed: naive consumers previously behaved efficiently (neither being diligent, nor incurring the declined-transaction cost $b > c$) but now they incur the cost b when they reach their budget constraint, while the sophisticated previously were inefficiently diligent but now behave efficiently. Then the net impact of the policy will depend on the detailed parameter configuration in the market.

As well as the potential inefficiency of a hard budget constraint versus an automatic overdraft, this policy has another significant drawback, which is that banks may continue to levy contingent fees in the form of unpaid (rather than paid) item charges. (Recall from section 2 that in the UK, unpaid item fees were also at a high level.) Even if policy prevents banks levying such charges for ATM or debit card transactions, it is harder to so in the case of cheques, standing orders and so on. Simply allowing consumers to choose a hard budget constraint does not necessarily help vulnerable consumers, absent a parallel policy to control unpaid item fees.

Rational but uninformed consumers: One can modify the model in section 4.1 so that the potentially uninformed consumers are rational rather than naive. Specifically, suppose that a fraction $1 - \sigma$ of consumers incur a reading cost when they observe a bank's choice of contingent charge. (Suppose that the remaining σ consumers can see both prices for free, as before.) If a consumer chooses not to investigate a bank's choice of contingent charge, suppose she holds equilibrium beliefs about the level of this charge. Unlike the naive consumers earlier in this section, these uninformed consumers will therefore be diligent if they anticipate a high contingent charge. Even if this reading cost is small, these $1 - \sigma$

[34] However, it is possible that after they have incurred an unexpected overdraft fee (and before they have forgotten about the painful experience) a naive consumer may consider switching to an account without an automatic overdraft facility.

consumers will not choose to read the "small print" if they anticipate that firms do not differ significantly in their choices for p.

In this modified framework, it remains an equilibrium for firms to offer efficient contract terms whenever condition (3) applies: the $1-\sigma$ costly readers correctly anticipate efficient terms and so they neither read the small print nor are they diligent. If the fraction of costly readers is higher than this, the outcome is more complicated.[35] However, the outcome is easy to understand in the limit case where $\sigma = 0$, where all consumers incur reading costs. Here, the equilibrium outcome is that no consumer discovers a bank's contingent charge, all banks charge the maximum fee $p = \bar{p}$, and all consumers are diligent. This outcome is essentially Diamond's (1971) famous paradox, but applied to the contingent charge instead of the base price: if no consumers read the small print, a firm cannot attract custom by offering efficient contracts, and if all firms offer the same monopoly terms in the small print, it is not worth any consumer spending effort to discover this. In such a situation, welfare is increased in this model if policy acts to reduce $\bar{p}$ to a level at which consumers have no need to be diligent.[36]

However, as discussed in Armstrong, Vickers and Zhou (2009), if consumers rationally *choose* whether or not to become informed of contractual terms then policy which constrains charges may discourage consumers from investigating contracts in detail. If consumers are partly protected by policy from exploitative terms in the small print, they have less incentive to take care, and fewer consumers may choose to become fully informed. When the fraction of informed consumers, $\sigma(\bar{p})$, increases with the maximum contingent charge $\bar{p}$, firms have greater scope to set disadvantageous terms, and consumers could even be made worse off when $\bar{p}$ is tightened.

[35] A complicating factor when the uninformed consumers are Bayesian rather than naive is that they will try to infer the content of small print terms from a firm's base price. The same issue arises with unobserved product quality, for instance when a sophisticated but ill-informed buyer of wine attempts to estimate the wine's likely quality from its price. See Cooper and Ross (1984) for a model in which some consumers observe both quality and price, while others only observe price but hold rational beliefs about quality given price. They find that a greater proportion of fully-informed consumers implies that the less informed are offered a poor quality product less often.

[36] See Hermalin, Katz, and Craswell (2007, section 2.3.4) for further discussion of the impact of contract reading costs and the (mostly legal) literature which addresses this issue.

5 The UK bank charges case

The central question in the UK bank charges case[37] was whether or not the contract terms relating to unauthorized overdraft charges were excluded from regulatory assessment under the Unfair Terms in Consumer Contracts Regulations 1999.[38] (These regulations transpose into UK law a European Directive, so the case is of European, not just UK, significance.) Regulation 5(1) states that "A contractual term which has not been individually negotiated shall be regarded as unfair if, contrary to the requirement of good faith, it causes a significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer". The bank charges case hinged on the interpretation and application to the facts of the provision in Regulation 6(2), which excluded certain terms from this fairness constraint:

> "In so far as it is in plain intelligible language, the assessment of fairness of a term shall not relate
>
> (a) to the definition of the main subject matter of the contract, or
>
> (b) to the adequacy of the price or remuneration, as against the services or goods supplied in exchange."

The interpretation of this Regulation had been at issue in the *First National Bank* case[39] that came to the Law Lords some years earlier.[40] That case, brought by the OFT, concerned a term in a mortgage contract about the rate of interest payable on unpaid debt. The Lords ruled that the term was not excluded from fairness assessment. The view was held that it would frustrate the purpose of the regulation to interpret the exclusion broadly, and Lord Steyn observed that '[a]fter all, in a broad sense all terms of the contract are in

[37] *Office of Fair Trading v Abbey National Plc and Others* [2009] UKSC 6. The account here draws on Whittaker's (2011) legal analysis of the decision of the Supreme Court as well as the judicial opinions therein. An insightful discussion of the economics relating to the case, and to contingent charges more generally, is provided by Bennett (2012).

[38] In terms of the taxonomy in the Introduction, the answer to this question determines whether policy option (d), price capping, is available.

[39] *Director General of Fair Trading v First National Bank* [2001] UKHL 52. Regulation 6(2) was slightly differently worded at the time.

[40] In 2009 the judicial function of the Appellate Committee of the House of Lords – the Law Lords – were taken on by the new Supreme Court of the United Kingdom. One of its first cases was the bank charges case.

some way related to price or remuneration'. It was emphasized that the term concerned the consequences of default. However, having decided that the term at issue in that case was capable of being assessed for fairness, the Law Lords overturned the judgment of the Court of Appeal that the term was in fact unfair within the meaning of the Regulation.

Subsequent to the *First National Bank* case, the OFT launched an investigation into the fairness of standard terms in credit card contracts imposing charges for defaults, including fees for late payment and exceeding credit limits.[41] As to the law, the OFT (2006) concluded that "default charge provisions are open to challenge on grounds of unfairness if they have the object of raising more in revenue than is reasonably expected to be necessary to recover certain limited administrative costs incurred by the credit card issuer". This view accords with the common law principle that penalties for breach of contract are legally unenforceable, while a clause which genuinely seeks to pre-estimate the other party's loss caused by breach – so-called "liquidated damages" – is enforceable. In a sense this is the common law's own test of fairness for contract terms that provide for sums of money payable on breach. On the facts, the OFT found that credit card default fees were generally much higher than the "fair" level that reflected cost recovery (in the sense of a genuine pre-estimate of loss). The OFT said further that it would not take action against fees below a £12 threshold, but that it would have a rebuttable presumption that higher fees were unfair. Faced with this regulatory position, the card issuers reduced the charges, most by almost a half, rather than challenge the OFT in court. The OFT immediately, and publicly, turned its attention to bank current account charges. The stage was now set for the bank charges case.

In July 2007 the OFT sought a court declaration that the Regulation 6(2) exclusion did not apply to bank charges levied on personal current account customers for unauthorized overdrafts – i.e., so that their fairness could be assessed under the Regulations. A large number of cases brought by individual consumers were suspended pending the outcome of the OFT proceedings. The OFT won in the Commercial Court and also prevailed in the Court of Appeal before the matter came to the Supreme Court.

A preliminary question was the interpretation of "the services ... supplied in exchange". If that had been taken narrowly to mean the contingent service of providing an unauthorized overdraft, then its price would immediately have been excluded from unfairness as-

[41] One of us (JV) was chairman of the OFT when this investigation began.

sessment. But the Court adopted the broader view that "the services" refers to the overall package of current account services – i.e., to the contract as a whole and not to individual aspects of it. That being so, were unauthorized overdraft charges part of the "price and remuneration" for the package?

Below the Supreme Court, the Court of Appeal had said not. For the typical or average consumer, it held, unauthorized overdrafts are not part of the essential current account package – the "main subject matter of the contract". The Court of Appeal took the view that unauthorized overdraft charges are not typically in mind when consumers choose current account providers.[42] Consumers mostly incur such charges not through choice, still less "in exchange", but rather through inadvertence.[43] Though not expressed as such, they are on this view like default charges for breach of contract (which the Law Lords in *First National Bank* had held to be subject to fairness assessment). Consumers choosing to go overdrawn generally arrange overdraft facilities in advance rather than triggering expensive charges for unauthorized overdraft use. In sum, on this view, the liability to pay the contingent charges is not "part of the core or essential bargain", and they are therefore not beyond the scope of regulatory assessment of fairness.

The Supreme Court, however, unanimously ruled that the charges are part of the price or remuneration for the package of services. The Court disagreed that the charges were akin to default charges. Rather, they are contingent payments due "in exchange" for the package of services. They are made in widespread, not aberrant, circumstances. Prominent in the Court's reasoning was the importance of the charges as a revenue stream for the banks.[44] This has attracted criticism. Whittaker (2011) argues that some of the judicial statements "come very close to saying that the fact that the banks make a good deal of money out of the charges generated by the relevant terms means that they provide for part of the price or remuneration for the package of services". It is indeed paradoxical

[42] See section 2 above for evidence on this point.

[43] It may be countered that even inadvertent consumers ought to learn from experience. But whatever the degree of competition for new accounts, switching current account providers is perceived by consumers as difficult. In any case, as a matter of law, the assessment of fairness should be by reference to the point of contracting.

[44] Thus, for example, Lord Phillips, President of the Court, at paragraph 88: "the Banks now rely on the Relevant Charges as an important part of the revenue that they generate from the current account services. If they did not receive the Relevant Charges they would not be able profitably to provide current account services to their customers in credit without making a charge to augment the value of the use of their funds".

that, assuming the elasticity of demand to be less than one, higher charges mean greater revenue, and hence, on this argument, count against assessment for potential unfairness. Whittaker also criticises the apparent adoption by some of the judges of the viewpoint of the suppliers, the banks, for the assessment of fairness, rather than that of the typical or average consumer.

Does the importance of the charges for bank revenues yield an inference that consumers must be well aware of the charges, and hence that no question as to their fairness arises? Not necessarily, because although affected consumers may become all too aware *ex post* of the level of charges, there is clear evidence (see section 2) of widespread lack of awareness *ex ante* – hence the controversy over them. Why then don't consumers who tend to be liable for the charges change bank? Doubtless some do, but the actual, or at any rate perceived, costs of switching relative to the benefits appear significant and may be a deterrent. There might also be biased expectations regarding recurrence of charges. Anyway, substantial charges can mount before customers realise. For this and other reasons, high contingent charges might become an equilibrium feature of the market, as in the analysis in section 4, in which case liable customers lack attractive options to switch to.[45]

In giving his judgment Lord Mance[46] saw no basis for a requirement to identify a typical consumer or to confine the scope of consideration to contract terms that s/he is likely to have focused upon. Regard should be had to the view which the hypothetical reasonable person would take of the nature and terms of the contract. From that perspective, the contingent charges in this case were part of the price or remuneration for the overall package of banking services. That being so, reasoned Lord Mance[47], the level of those charges could not be challenged under the regulations. The fairness of the pricing of part of the package could only be judged in relation to the pricing of the package as a whole, but that was clearly precluded by Regulation 6(2).

[45] In concurring with her judicial colleagues, Lady Hale added a paragraph (paragraph 93) on the difficulty of finding a public policy solution to the problem at hand. "[I]s the real problem", she wrote, "that we do not have a real choice because the suppliers all offer much the same product and do not compete on some of their terms? This is the situation here. But it is not clear to me whether the proper solution is to find some way of forcing the suppliers to compete with one another in the terms they offer or whether the solution is to condemn one particular model of charging for those services. Fortunately, however, that is for Parliament and not for this Court."

[46] At paragraph 113.

[47] At paragraph 99.

The Supreme Court judgment was the end of the matter in law but not in practice. In March 2010 the OFT announced "significant improvements in unarranged overdrafts" following discussions with the banks.[48] In addition to substantial paid item charge reductions since the case began in 2007, these have included improved transparency of charges and real-time account information and greater ability for consumers to opt out of unarranged overdraft facilities. However, now that the regulatory cloud has lifted from the banks, it is possible that the frequency with which overdraft charges are levied has increased. It remains to be seen what will be the overall effect on bank revenues from such charges.

The wider implication of the Supreme Court ruling appears to be that it is unclear what scope, if any, exists for challenge under the regulations of pricing terms other than default charges and charges closely akin to default charges. While, from an economic perspective, there is good reason for caution about regulating pricing structures in competitive conditions, this is not a very satisfactory position. Arguably it places undue weight on the price/non-price distinction, and among price terms the distinction drawn between default (and default-like) charges and others is one with a questionable economic rationale.

6 Concluding comment

Stepping back from the bank charges case that motivated the discussion in this paper, we conclude with a general comment about markets in which "sophisticated" and "naive" consumers coexist. In reality, of course, consumer sophistication is a matter of degree rather than a binary matter. As the discussion above has illustrated, the distinction between those two types can take different forms. For example, it may be that the naive are irrational in some sense, or it could just be that they lack information available to the sophisticated, perhaps because they lack incentive to get it.

Be that as it may, the analysis above has illuminated a sharp difference between (i) markets where outcomes for the naive are *linked* to those of the sophisticated, and (ii) markets where the two types have *contrasting* outcomes. In the first case the naive are protected by the sophisticated, and the market works better for all consumers when there are more sophisticated consumers. The case for consumer protection regulation of contingent charges is not so strong, and it could even be counter-productive by diminishing the

[48] Press release available at www.oft.gov.uk/news-and-updates/press/2010/26-10.

incentive to become sophisticated.

On the other hand, in markets with contrasting outcomes, there is redistribution (relative to natural benchmarks) from naive to sophisticated consumers. The latter benefit from the presence of the naive because competition between firms causes some profit from the naive to be channelled to them, which in turn harms the naive. Whether, and to what extent, one regards such redistribution as bad depends on the respective welfare weights of the two consumer types in the market in question, but in many settings (which plausibly include bank accounts) it may be reasonable to accord a higher welfare weight to naive consumers. Market efficiency can also suffer in markets with contrasting outcomes as the sophisticated take socially inefficient actions to avoid the high contingent charges paid by the naive. The market can work worse for both consumer types when there are more sophisticated consumers. Depending on the importance placed on distributional concerns, a stronger case for consumer protection regulation of contingent charges – though not necessarily by price control – is then apparent.

A general issue for policy design towards markets with contrasting outcomes is the need for more analysis of distributional issues in retail markets, from which the industrial organization literature has normally steered clear.

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