Financial Advice*

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Abstract

Financial advice could play an essential role in well-functioning markets for retail financial products, given that many consumers find it difficult to evaluate the complex products on offer. However, conflicts of interest, which are pervasive in some parts of the industry, can turn advice into a curse rather than a blessing for consumers, especially when consumers are not sufficiently wary. Through a simple model of financial advice, we overview the pros and cons of various policy interventions, such as imposing mandatory disclosure, banning commissions, and regulating contract cancellation terms. (JEL D18, D83, G24, G28)

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1 Introduction

Regulations for consumer financial services are under review around the world. In the United States, the 2010 Dodd–Frank Wall Street Reform and Consumer Protection Act created the Consumer Financial Protection Bureau to write and enforce rules, conduct examinations, and track consumer complaints. In the United Kingdom, a revised regulatory architecture is expected to replace the Financial Services Authority with a new Financial Conduct Authority empowered to order the withdrawal of financial products or misleading promotions (Financial Services Authority 2011). At the European level, following the request of G20 leaders at the Seoul Summit in November 2010, the newly created Financial Stability Board made a series of proposals to advance consumer finance protection, including the establishment of new consumer protection authorities (Financial Stability Board 2011).

We believe these authorities can only carry out their duties effectively and with accountability when they ground their policies in economic principles. Market failures should be clearly identified and, when possible, a cost-benefit analysis should be conducted before embracing new interventions. This requires more than detailed fact-finding work: it requires an understanding of the more general economic forces at work in specific markets for financial services. This paper focuses on financial advice, specifically, by advancing a modeling framework for financial consumer protection in markets with advice. Our objective is to guide scholars, practitioners, and policymakers toward a meaningful discussion and evaluation of potential policy interventions.

Professional advice is an essential element of many markets for retail financial services such as investments or mortgages. Consumers sometimes pay for financial advice directly, but more often they pay indirectly in the form of commissions that are channeled by product providers to brokers, investment advisers, and other intermediaries. These payments may be disclosed in some form, but not necessarily in a manner that alerts consumers to potential conflicts of interest. Sophisticated consumers may have the option of self-directed investments in some markets. More often, however, consumers need guidance and additional information to make financial decisions because they are either unaccustomed to, or unaware of, the array of choices available.

We focus on situations in which advice is given to a particular customer rather than to a broad audience, e.g., through an investment newsletter. For instance, a financial adviser might recommend a particular portfolio choice after hearing about an investor's income and tax status. While the simple model we use would allow for a broader interpretation, the

legal requirements and also the relevant institutional details depend on whether advice is personalized or generic. Also, we focus on situations in which consumers themselves make decisions rather than delegating their decisions to a portfolio manager or another agent. The fiduciary duties and legal requirements imposed on particular financial intermediaries may differ substantially across jurisdictions and across professions. For instance, brokers-dealers are excluded from regulations aimed at investment advisers if they offer advice that is "solely incidental" to their business and receive no "special compensation" for the service; nonetheless, consumers may treat the advice of brokers-dealers and investment advisers similarly.[1] In what follows, we largely use the term *financial adviser* generically, abstracting from institutional details relevant for particular professions, as defined by law or common practice.

Many legal and regulatory requirements govern the relationship between customers and the professional intermediaries who give advice. For instance, some jurisdictions require advisers to have a minimum professional qualification or require brokers to maintain a minimum net worth by posting a "surety bond" to cover liability.[2] Commission payments from product providers may have to be disclosed, or they may be capped or fully forbidden.[3] Policy makers may even attempt to reduce the need for advice by increasing consumers' financial literacy or by making investment choices more transparent or less complex. For example, authorities could demand that marketing materials standardize the presentation of annual interest rates, making it easier for consumers to compare returns across a range of products. In this article we discuss these and other policies using a simple formal framework.

Section 2 provides a more detailed description of the context for financial decision-making with advice by drawing on studies that document the pervasiveness of financial advice in many markets, the limited financial capabilities and knowledge of many con-

[1] Cf. Angela Hung et al. (2008) for a discussion of legal definitions and actual perceptions among consumers and industry participants.

[2] Cf. for US mortgage brokers Cynthia Pahl (2007).

[3] In the European Union, since January 2008 the Markets in Financial Instruments Directive (MiFID) requires the disclosure of commissions on retail financial products. In September 2010 the Board of Governors of the Federal Reserve System published a final rule amending Regulation Z (Loan Originator Compensation and Steering 12 CFR 226) to prohibit certain practices related to mortgage loan originator compensation with three drastic revisions. First, compensation of mortgage brokers based on the terms and conditions (other than size) of the loan is prohibited. Second, dual compensation of loan originators through both direct charges to consumers and indirect compensation from lenders is banned. Third, loan originators are prohibited from steering a consumer to consummate a loan that provides the loan originator with greater compensation, as compared to other transactions the loan originator offered or could have offered to the consumer, unless the loan is in the consumer's interest.

sumers, and the potential for systematic errors. Section 3 introduces a simple model of the interaction between product providers, advisers, and consumers.[4] The model focuses on the informational gap that an adviser could help to bridge. The positive and normative predictions of the model crucially depend on whether consumers are wary of the conflict of interest (as in Section 4) or they are unaware of the potential for biased advice (as in Section 5). When an industry rapidly changes its practice, consumers might be naively unaware of potential conflicts of interest because they have not had sufficient time to adjust their expectations. Some consumers might also be credulous to the extent that they take an adviser's recommendation at face value, misperceiving "sales talk" for unbiased counselling. In this context, we analyze the effect of policies designed to curb commissions by mandating disclosure or capping their size.

In Sections 6 through 8 we gradually enrich our model to discuss additional policies. The extension in Section 6 allows for richer, long-term contracts between product providers and consumers, such as life insurances or savings plans. We ask when consumers' rights to cancel early and to terminate an ongoing contract will be determined in their best interests. The answer again depends crucially on whether consumers are wary of any conflicts of interest or whether they are too credulous. We show how statutory minimum rights of cancellation can improve welfare and consumer surplus in a setting with advice. The key linkage between a consumer's right to cancel early and the quality of advice is that generous termination rights increase the cost borne by the product provider following unsuitable advice, which typically results in more cancellations.

The notion that through specific contractual features a product provider is directly affected by what "types" of consumers ultimately sign a contract is further explored in Section 7 in the context of loan contracts. We show how an information advantage by a sophisticated lender vis-à-vis retail borrowers can lead to "irresponsible" (or "predatory") lending and how the problem is aggravated when the lender subsequently reduces its exposure through securitization. An effective policy in this context is the imposition of minimum retention requirements for the lender.

Section 8 enriches the model by making the intermediary agent perform more than one task. In particular, we stipulate that, in addition to giving consumers recommendations, the agent has to first prospect for potential customers. Our key insight is that the resulting conflict between different tasks, as created by the product provider's optimal compensation scheme, can lead to unsuitable advice even when consumers are wary of the conflict of

[4]See Roman Inderst and Marco Ottaviani (2010) for a broader introduction to the key issues in the regulation of advice beyond retail financial services.

interest. The need for policy intervention should increase when incentives for customer acquisition become more important.

Section 9 summarizes some key policy recommendations from our analysis. It also places our discussion of financial advice in the broader context of fostering economic analysis to guide policies for consumer financial protection.

2 Pervasiveness of Advice and Its Potential Benefits

Financial advice from professionals is pervasive. According to a survey conducted by Hung et al. (2008), 73 percent of all US retail investors consult a financial adviser before purchasing shares. In a large online survey among recent purchasers of investment products in the EU, Nick Chater, Roman Inderst, and Steffen Huck (2010) found that nearly 80 percent made their purchase in a face-to-face setting, usually with an employee of the investment provider or a professional adviser, while 58 percent said an adviser influenced their choice.

Several studies have shown that investors with more education and higher financial literacy are more likely to seek (additional) financial advice (Andreas Hackethal, Michael Haliassos, and Tullio Jappelli 2012; Marten Van Rooji, Rob Alessie, and Annamaria Lusardi 2007). But what is the *impact* of financial advice on consumer choices, and to what extent do consumers rely on the advice they seek or otherwise receive? Using survey data, Dimitris Georgarakos and Inderst (2010) found that placing trust in financial advice significantly affects the likelihood that less-educated households (but not more-educated households) will hold risky assets. Hackethal, Inderst, and Steffen Meyer (2010) demonstrated that a German bank's less-educated customers were more likely to report consistently relying on investment advice, which in turn was associated with substantially more trading ("churning").

Many studies have documented the lack of even basic financial literacy among consumers, increasing the likelihood of serious mistakes when financial decisions are complex (cf. Lusardi and Olivia Mitchell 2007). In the case of investment decisions, a household must decide how much to save and invest, how to allocate investments over asset classes, and how to choose specific products; these investment decisions might also need to be reviewed regularly. Consumers must often choose from a wide array of (apparently) different financial products with varying expenses and fees.[5] In spite of the range of options,

[5]For instance, Ali Hortaçsu and Chad Syverson (2004) find significant variations in expense ratios among homogeneous S&P 500 index funds.

consumers appear to search very little before choosing a product, possibly because they are overwhelmed by the complexity.[6]

We focus here on how advice can, on the one side, be instrumental for overcoming consumers' informational deficiencies or, on the other, be leveraged to exploit these deficiencies. Advice may also either exacerbate or mitigate systematic errors that affect consumer decisions.[7] Michael S. Barr, Sendhil Mullainathan, and Eldar Shafir (2008) have made a similar observation in terms of product design and marketing. Financial firms may benefit from "de-biasing" procrastinating consumers who then subscribe to (fee-generating) savings plans, but firms may alternatively want to exploit this tendency when it comes to consumer credit.[8]

3 Modeling Framework

Building on Inderst and Ottaviani (2012), we introduce a flexible modeling framework to help us analyze the possible rationales of policies targeted at the provision of advice. Consider a stylized choice problem for a consumer, represented by two options, A and B. For simplicity, suppose that these options represent different products, though one option could also correspond to not buying. Product providers $n = A, B$ have per-unit costs of product provision c_n and charge prices p_n. Initially, we focus on transactions where the contract between a provider and a customer is characterized by the exchange of a financial product for a fixed price. In Section 6 we broaden the analysis to consider ongoing interactions, as in the case of savings schemes or life insurance contracts that allow customers to cancel in the future.

For the present illustrative analysis, we focus on advice that helps consumers find the most suitable match. For some consumers, option A is more suitable than option B, while the preference is reversed for other consumers.[9] For instance, the tax implications of

[6] In a survey among recent purchasers of financial products in the UK the Financial Services Authority (2008) finds that the large majority had consulted at most one source of information. Chater, Inderst, and Huck (2010) confirm this observation across different European countries.

[7] For an authorative survey on behavioral finance see Nicholas Barberis and Richard Thaler (2003). Chapter II in Chater, Inderst, and Huck (2010) offers a more policy oriented overview, applied to retail investment services.

[8] As for the "dark side" of advice, from the perspective of consumers' potential biases, Mullainathan, Markus Nöth, and Antoinette Schoar (2010) use mystery shopping to test how investment advisers behave in their first interaction with a potential client, finding that advice sometimes amplifies rather than mitigates potential biases and misperceptions.

[9] The two products, A and B, are thus horizontally differentiated. The adviser's role is not to identify the set of options that is best for *all* consumers, for example by only helping consumers to avoid unnecessarily high fees.

different investment vehicles, such as stocks and municipal bonds, depend on an investor's tax bracket. A household's optimal choice of pension scheme, in terms of risk and liquidity, depends on factors such as years to retirement and risk tolerance. The merits of a fixed-rate or an adjustable-rate mortgage depend on a borrower's income stream.

Suppose that a consumer's utility (gross of prices p_n) is v_h when the product is suitable and $v_l < v_h$ when it is not suitable. A priori, a consumer expects that product A is suitable with probability q_0, and thus believes that product B is suitable with complementary probability $1 - q_0$.

3.1 The Adviser

In the baseline setup, the intermediary's only role is to provide advice. The adviser is able to judge which product is more suitable for a particular consumer. When learning about the consumer's specific circumstances and preferences, the adviser forms a posterior belief that option A is a better match for the consumer than option B: $q = \Pr(\theta = A)$. From an ex ante perspective, we may suppose that the adviser's posterior beliefs are distributed according to some cumulative distribution $G(q)$.

The adviser receives a commission f_n when the consumer purchases product n. For now, this is the adviser's sole source of revenue. We do not consider the possibility that the adviser charges the consumer directly through some fee F. There are several reasons why direct payments for advice are relatively rare in retail financial services, as we will explain below.

In addition to the immediate monetary interest, the adviser also cares directly that the consumer makes a suitable choice. This concern for suitability could originate from a number of sources. The adviser may be concerned about liability or reputational losses following an unsuitable sale, feel bound by a professional code of conduct, or have altruistic preferences. This concern for suitability is conveniently captured by imagining that the adviser incurs a (monetary or non-monetary) disutility ρ when a consumer purchases an unsuitable product.[10] Because the advice in this initial setup is provided by an independent intermediary, we do not allow for liability or reputational considerations on the part of product providers.

[10]Many of our results remain qualitatively unchanged when the adviser incurs the disutility ρ if the consumer realizes the lowest ex post surplus *net* of prices, p_n. Note that our setup does not allow product providers or the adviser to make payments contingent on the payoff realization v_l or v_h, for example through some type of warranties. The payoff realization may not be sufficiently verifiable to uphold a contractual claim. Consumer complaints, instead, may harm the adviser's reputation and may bring with them greater scrutiny and ex post intervention by a regulator.

3.2 Commissions and Advice

What recommendation would the adviser want to give? Suppose the adviser expects the consumer to follow the recommendation. When recommending product A, the adviser earns the respective commission f_A and expects to incur disutility ρ in case of a subsequent mismatch, which happens with probability $1 - q = \Pr(\theta = B)$. When the adviser instead recommends product B, the commission is f_B and disutility ρ is now incurred with probability $q = \Pr(\theta = A)$. If the difference in commissions is not too large, there will be an interior threshold for the posterior belief q, which we denote by q^*, so that with the belief $q = q^*$, the adviser will be indifferent between the two recommendations. From this indifference condition we obtain the cutoff

$$q^* = \frac{1}{2} - \frac{f_A - f_B}{\rho}. \tag{1}$$

When both commissions are the same, $f_A = f_B$, the adviser's threshold is $q^* = 1/2$, so that product A is recommended if and only if the adviser perceives that product A is more likely than product B to generate a better match, i.e., when $q \geq 1/2$. For a given posterior belief the expected utility of the consumer is either $v_A(q) = qv_h + (1-q)v_l$ with product A or $v_B(q) = (1-q)v_l + qv_h$ with product B. Hence, advice is unbiased when, at the respective cutoff q^*, both expected values are the same: $v_A(q^*) = v_B(q^*)$.

Given our specification that the value from a good match, namely v_h, is the same regardless of whether A or B is suitable, it is immediate that unbiased advice is only given when $q^* = 1/2$, which from (1) is the case when both commissions take on the same value. When, instead, the adviser earns a higher commission with one product, e.g., with product A as $f_A > f_B$, the threshold $q^* < 1/2$ *results in biased advice*. The wedge between q^* and the unbiased threshold $1/2$ is larger when the adviser cares less about suitability (i.e., when the disutility ρ is lower). As noted above, the size of ρ should be influenced by the legal regimen and supervision. The parameter ρ captures intuitively how easily product providers can steer the adviser through commissions.

4 Commissions with Wary Consumers and Pitfalls of Regulation

In the following sections we employ our framework to discuss various policies targeted at the provision of financial advice. In this section we deal with mandatory disclosure of contingent payments. We do so by considering a market populated by consumers who,

even without disclosure, are sufficiently wary that such payments are made. They thus form rational expectations about the level of these payments and the resulting quality of advice. We relax this rationality assumption in Section 5 when considering consumer naiveté.

When consumers are wary that commissions are paid, what is then the role and impact of mandatory disclosure? On the positive side, mandatory disclosure can help to overcome a commitment problem. In particular, we show how disclosure reduces product providers' propensity to make contingent payments. Without policy intervention product providers may not achieve credible disclosure, however, as they may creatively use various forms of side payments to advisers. When consumers are wary, we also show how mandatory disclosure can, in principle, negatively interfere with the beneficial role that commissions play to steer consumers to the most (cost) efficient products.

A consumer's expected utility when receiving a recommendation depends on the consumer's *expectation* about the cutoff the adviser applies.[11] If commissions are disclosed, and if the disclosure is sufficiently salient at the time of purchase, the consumer can base this expectation on the actual commission f_n. Because the consumer in the model also knows the extent to which the adviser is concerned about suitability, the consumer can correctly expect the adviser to apply the cutoff q^* as given in (1). When commissions are not disclosed, a wary consumer forms rational expectations that are correct in equilibrium. Note, however, that a wary consumer who cannot observe the true commissions has incorrect beliefs following a deviation by at least one product provider to a different commission f_n. We denote the resulting expectation of the adviser's cutoff by $\widehat{q}^*$, where in equilibrium we have $\widehat{q}^* = q^*$, given that wary consumers are not systematically fooled. We initially consider the benchmark case in which all consumers are wary, even though this case may not always be particularly realistic in markets for retail financial services given the evidence that many consumers credulously trust advisers or are naively inattentive to the influence of commissions.

[11] Formally, a consumer who anticipates that an adviser will recommend product A when $q \geq q^*$ expects to realize the (gross) utility

$$E[v_A \mid q \geq q^*] = \int_{q^*}^{1} v_A(q) \frac{g(q)}{1 - G(q^*)} dq,$$

which is the expected value when $q \geq q^*$. Likewise, we have

$$E[v_B \mid q \leq q^*] = \int_{0}^{q^*} v_B(q) \frac{g(q)}{G(q^*)} dq.$$

4.1 Dampening Commissions through Disclosure

The price a product provider can charge is a function of a consumer's *expected* valuation conditional on being advised to purchase the respective product (see footnote 11). When the consumer observes the actual commissions, these expectations are contingent on the true value of the cutoff q^* the adviser chooses, as given by (1). When firm A raises the commission f_A, and thereby pushes down q^*, the consumer correctly anticipates that product A is recommended more often by the adviser, i.e., also for posterior beliefs q that are less optimistic about the suitability of product A. A consumer who was just indifferent between following or not following a recommendation to buy A before the commission increased will now follow the recommendation only when the price p_A drops sufficiently. In other words, when steering the adviser to recommend product A more often by increasing a disclosed commission, the product provider will have to reduce the price.

This feedback effect acting through the price is absent when commissions are not disclosed. When commissions are not disclosed, consumer expectations remain unchanged at $\widehat{q}^*$ because the consumer does not observe the change in the adviser's preferences resulting from the change in commission. Even though wary customers do not observe the deviation to a higher undisclosed commission, they form rational expectations and thus have correct beliefs in equilibrium.

Therefore, product providers have a clear incentive to raise commissions when commissions are not disclosed, because the negative feedback on the consumer's expected valuation is absent. The intuitive result is that commission levels will be higher in equilibrium when commissions are not disclosed. When firms are symmetric, so that products A and B have the same costs and market shares, disclosure will affect the level of commissions but will not affect the prevailing cutoff q^*, which will always be $q^* = 1/2$, because in equilibrium the adviser receives identical commissions for the two products ($f_A = f_B$). Without disclosure, the equilibrium commissions will be symmetrically higher for both products. These higher commissions benefit the adviser but add to the costs borne by product providers. In the case of elastic demand, these costs are then passed on to consumers through higher prices. When firms have asymmetric costs, disclosing commissions also impacts the likelihood that an adviser will recommend either product in equilibrium, as we will see next.

4.2 Commissions to Steer Advice

A more efficient firm enjoys a higher sales margin and thus has a stronger incentive to pay commissions. For instance, when $c_A < c_B$ but all else is symmetric, in equilibrium we have

$f_A > f_B$, so that $q^* < 1/2$. The adviser's recommendation is steered toward the product of the more efficient firm. But what is the effect of disclosing commissions on the cutoff, and thus on market shares?

To answer this question, we must look more closely at the calculus that leads a product provider to increase its commission. When the contract between the product provider and the adviser is fully captured by the choice of the unit commission f_n, a higher commission must be paid for all sales that are made through the adviser, not only for the *marginal* sales a higher commission encourages. The problem is akin to the one firms commonly face when lowering prices to expand demand. For a firm that is unable to price discriminate, the discounted price is enjoyed even by *inframarginal* consumers, who would also have bought at a higher price. Oligopoly pricing theory has established that this tradeoff implies that, all else equal, a more efficient firm will have an inefficiently low market share. A more efficient firm with a larger market share will commonly have a lower price in equilibrium, but the same firm will find it more expensive to reduce its price further because the lower margin will apply to a larger volume of sales. In equilibrium, then, the more efficient firm will have a higher markup over cost.

The same rationale applies when firms use commissions to steer advice, as captured by the determination of the cutoff q^* in (1). A more efficient product provider will pay a higher commission, but when commissions are disclosed, the difference between the commissions that each provider pays will be too small, so that the less cost-efficient product will be recommended too often. Inderst and Ottaviani (2012) have shown that when commissions are not disclosed, the incentive to pay commissions (under fairly general conditions) increases *relatively* more for the more cost-efficient firm. Because this firm has a larger market share, it would suffer a greater loss of profit when customers observe that higher commissions steer advisers' recommendations. Mandatory disclosure of commissions can therefore reduce efficiency, provided that the adviser cares sufficiently about providing unbiased advice (high suitability concern, ρ), which makes steering advice more costly for firms. But when an adviser cares little about providing unbiased advice (low ρ), allowing firms to secretly raise commissions will reduce efficiency, so that a policy of mandatory disclosure of commissions is desirable from a social perspective.

Note that the suitability concern can be high in highly competitive markets when consumers can switch their future business if they are not satisfied as well as in highly regulated markets in which product providers are penalized following unsuitable sales. Thus, in our simple model, policies aimed at thwarting commissions through disclosure

substitute rather than complement policies that increase liability. Also, the unintended consequences of mandatory disclosure are more pressing when firms are more concerned about suitability. We conjecture that in a more general and realistic setting in which disclosure does not result in perfect revelation of commissions (because firms are always able to hide some "soft" commissions), the optimal policy mix could include both mandatory disclosure and liability.

Overall, the model with wary customers delivers two important implications. First, commissions can play a vital role in steering recommendations toward a more efficient option. Second, requiring advisers to disclose commissions not only reduces commissions, but also has a differential impact on rival product providers' incentives to pay commissions, thereby affecting efficiency in a non-trivial way. Note that the same logic that operates for the mandatory disclosure of commissions also applies when commissions and other inducements are capped or prohibited.

5 Commissions with Naive Consumers and Beneficial Regulation

There is a widespread perception in policy circles that light-handed regulation centered around disclosure requirements might be insufficient.[12] The fact that customers have cognitive limitations might justify more intrusive interventions that regulate more closely how advisers and brokers are compensated, as we explore in this section.

Chater, Inderst, and Huck (2010) show in a survey among six thousand recent purchasers of retail investment products in Europe that respondents are largely ignorant of conflicts of interest. More than half of the respondents thought that financial advisers or the staff of a tied provider gave completely independent advice or information. Only a minority believed or even knew that the intermediary through which they purchased a product received a commission or a bonus for selling the investment. In various jurisdictions, advisers are now required to reveal conflicts of interest or even the specific inducements they receive, as discussed in the Introduction. Particularly in face-to-face

[12]This view was forcefully expressed in the US reform agenda for financial services: "Mortgage brokers often advertise their trustworthiness as advisers on difficult mortgage decisions. When these intermediaries accept side payments from product providers, they can compromise their ability to be impartial. Consumers, however, may retain faith that the intermediary is working for them and placing their interests above his or her own, even if the conflict of interest is disclosed. Accordingly, in some cases consumers may reasonably but mistakenly rely on advice from conflicted intermediaries" (US Department of Treasury 2009, p. 68).

situations, however, this information may not be sufficiently salient. Some consumers may indeed take recommendations at face value instead of correcting for the underlying conflict of interest. In a recent audit study conducted in India, Santosh Anagol, Shawn Cole, and Shayak Sarkar's (2012) find that the sophistication of customers is a key determinant of advice.

In this section we ask how the market performs when consumers are ignorant or naive in this way. In contrast to the preceding analysis of disclosure policies with wary consumers, our insights are now less nuanced. Welfare and consumer surplus are likely to increase when mandatory disclosure acts as an "eye opener" and makes consumers wary of conflicts of interest. And if such disclosure is insufficient, because the respective information does not prove salient during a face-to-face encounter with an adviser, stricter policies such as a ban or caps may be called for.

5.1 Misperceptions and Exploitation

We return now to our simple model in which an adviser can recommend one of two options. Consumer naiveté about the conflict of interest can be captured in a simple way by stipulating that the consumer always expects the adviser to apply the unbiased cutoff $\widehat{q}^* = 1/2$. Recall that this cutoff would only truly apply when both product providers set the same commission, $f_A = f_B$, so that the adviser's recommendation ultimately depends only on the perceived suitability of either option. Instead, when one product provider pays a higher commission, say $f_A > f_B$, the consumer's naive belief that advice is unbiased is wrong because the true cutoff satisfies $q^* < 1/2$, according to (1).

Consider the case in which option B represents the choice of no purchase, so that $f_B = 0$. Any positive commission $f_A > 0$ would then necessarily lead to biased advice. However, naive customers either do not take sufficient account of disclosed commissions or, when commissions are not disclosed, they do not form rational expectations, so that in equilibrium they still believe that $\widehat{q}^* = 1/2$. Consequently, naive consumers underestimate the probability with which they will be encouraged to purchase product A. This has more serious consequences as the product price p_A increases. From optimality for the product provider, a higher product price is associated with an increase in the commission f_A so as to steer advice more aggressively toward product A. As a result, in equilibrium consumers realize a strictly lower utility than they expect to realize. Product providers may then exploit consumers by inducing incorrect expectations. Consumers can be charged a higher price, given that their perceived conditional expected value of product A is larger

than the true expected value. In addition, consumers are more likely to purchase the more expensive product than they naively expect. In fact, the potential to exploit naive consumers' misperceptions in this way can provide a strong rationale for not charging consumers directly for advice, as we explore next.

Building on Inderst and Ottaviani (forthcoming), suppose that the adviser could charge a fixed fee $F \geq 0$ for providing advice, unconditional on purchase. Then, the adviser and the product provider can extract consumer surplus through two instruments: the fixed fee F and the product price p_A, which are chosen so that a consumer is just indifferent between turning to the adviser or choosing the outside option (for example, not buying at all). We now argue that joint profits of the adviser and the product provider are maximized at $F = 0$ when serving naive consumers. Starting from a situation with a strictly positive fixed fee, $F > 0$, the adviser and the product provider can increase their joint profits by reducing the fixed fee F and increasing the price p_A to keep the consumer indifferent. Crucially, the naive consumer will still expect that product A is recommended with the same probability. This is because the consumer will continue to believe that the adviser's advice is unbiased: $\widehat{q}^* = 1/2$. In reality, the consumer will be counseled to purchase product A more often because the higher price p_A makes it optimal for the product provider to increase the commission f_A, pushing down the cutoff $q^* < 1/2$.[13] In equilibrium, a fixed fee for advice will not be charged, even though the higher price p_A and the corresponding higher commission t_A may lead to seriously biased advice.

By adding naive consumers to our model of advice, we arrive at a simple explanation for why consumers frequently pay indirectly for advice, through, for example, "loads" on investment products (which product providers pass on to independent advisers) or through higher interest rates (which are passed on to mortgage brokers via "yield spreads"). Admittedly, these indirect payments may be motivated by other considerations; a more careful examination would be necessary before intervening in the market to forbid commissions. When receiving a payment from the consumer, the adviser turns into a customer's agent, which may impose additional fiduciary duties according to the common law of agency. Also, commissions may encourage an adviser to exert more effort than is obtained with a fixed payment, because contingent commissions are only earned when the adviser convinces a consumer to buy a particular product.[14] Furthermore, while a direct payment

[13] The impact on firms' profits from a marginal downwards adjustment of the fixed fee F, combined with a compensating increase in p_A that keeps consumers ex ante indifferent, is exactly $G(1/2) - G(q^*) > 0$, where $G(q)$ is the ex ante distribution of the adviser's posterior beliefs and where we have used that the true cutoff is $q^* < 1/2$ while the naively expected cutoff is $\widehat{q}^* = 1/2$.

[14] That the price for the product and that for advice are not completely separated may also have other

represents an immediate and sure loss to a consumer, a commission is paid once a consumer actually benefits from purchasing a particular product. Loss aversion might then induce a consumer to prefer a commission incentive to a direct payment.[15]

5.2 Educating Consumers about Their Naiveté through Disclosure

We have explored how product providers can distort advice and exploit consumers who are naive about the existence and impact of commissions. In this section we first explore to what extent it would not be in firms' interests to create more transparency by voluntarily committing to disclosing commissions, thereby ensuring a more efficient outcome. In this case, mandatory disclosure may be called for. We then discuss various arguments explaining why such mandatory disclosure may *still* have unintended consequences, even when consumers are otherwise naive and uninformed, though we also argue that these considerations should not tilt the balance against mandatory disclosure under these circumstances.

Section 5.1 showed how an inefficient way to make consumers pay for advice, namely through contingent payments by product providers to the adviser rather than a direct payment by the consumer to the adviser, can benefit firms but hurt consumers. Indirect pay for advice will persist in the market as long as consumers remain naive. Rival firms cannot successfully compete by making consumers pay directly for advice because these firms cannot match the perceived utility consumers obtain with the prevailing practice of paying for advice indirectly.

When consumers are naive about conflicts of interest, selling products with biased advice allows firms to generate the same *perceived* utility at lower cost. Importantly, firms are still jointly better off biasing advice even when there is competition. Thus, competition does not sufficiently protect consumers from exploitation. As consumers' perceived utility becomes inflated, demand becomes less elastic, allowing firms to earn higher profits by biasing advice even though the resulting total surplus is lower. When perfect competition forces firms to give all economic surplus to consumers—so that firms do not make additional profit from consumers' misperceptions—consumers are nevertheless hurt because biased advice creates inefficiency. This inefficiency reduces the overall surplus that consumers are

reasons. Florian Hoffmann and Inderst (2011) show how this can be used to screen buyers with different ex-ante valuation, even when advisers have no private information and when their effort to produce information is fully contractible.

[15] In a large online experiment, Chater, Huck, and Inderst (2010) find evidence consistent with such loss aversion for one third of subjects.

able to eventually obtain.

When consumers do not receive sufficient feedback to learn about the quality of their financial decisions, and thus about the quality of the advice they received, policy intervention may be necessary to educate consumers about potential conflicts of interest. Mandatory disclosure could be successful if it acts as an "eye opener" for consumers. However, when this information is not sufficiently salient, as is particularly the case in (persuasive) face-to-face advising, consumer misperceptions may persist. It may be difficult, if not impossible, to assign a monetary equivalent to the adviser's incentives to recommend a particular product for advisers who are tied to particular product providers. For example, the likelihood that a bank employee will be promoted internally may depend on achieving certain sales targets. A simple "health warning" that makes the potential for bias clear to consumers may not be sufficient. In this case, mandating full and prominent disclosure of commissions or capping commissions could benefit vertically integrated providers of financial products and hurt those brokers or banks that are untied according to an open-architecture supply chain. In this case, disclosure of commissions alone will not be sufficient and may have to be accompanied by additional measures to avoid distorting the market structure.

However, there are also studies that point to possible unintended consequences of mandatory disclosure, provided that it becomes sufficiently salient for the consumer. Based on an early experimental study on this subject, James Lacko and Janis Pappalardo (2004) suggest that disclosed commissions might prevent information-overloaded customers from adequately digesting other payoff-relevant facts. In particular, consumers might overreact by avoiding products that are associated with high payments for the adviser, even when these products are particularly suitable for their specific needs. However, this may be less likely when further communication is allowed, for example when recommendations are delivered face-to-face. Chater, Huck, and Inderst (2010) confirm this view with a laboratory experiment in which advisers and advisees were able to communicate via keyboards. George Loewenstein, Daylian Cain, and Sunita Sah (2011) show that under disclosure advisers seem to feel more justified giving biased advice and that advisees seem to adhere more to advice because non-adherence would signal outright distrust in the adviser. This would suggest that disclosure leads to more rather than less biased advice, and at the same time to seemingly more naive behavior by consumers.

We feel that some of the potential drawbacks suggested by the experimental evidence may prove rather short lived, as consumers and advisers alike adjust to the new regime.

In markets where consumers seem to be unaware that financial inducements are paid to advisers, or where the size and importance of such inducements is grossly misperceived at the point of sale, there should be little doubt about the overall benefits of educating consumers.

6 Cancellation Terms and Minimum Statutory Rights of Cancellation

Our baseline model lumps the consumer's realization of utility v into a single period by constraining the consumer to a single decision such as a once-and-for all purchase. Many financial products have longer durations, allowing the consumer to make further decisions after initially signing a contract. In this section, the consumer is given the contractual option of terminating a contract prematurely, as is possible with life insurances, pension products, and mortgages that permit early repayment. After signing a contract based on advice, the consumer learns over time whether the contract provides an appropriate fit, for example, by experiencing the ability to make the required payments. Likewise, the consumer may only belatedly become aware of some features of the contract, such as the trade-off between insurance and illiquidity due to a policy's low surrender value. In turn, the product provider sets the contractual terms for cancellation. Can we expect the market to lead to an efficient choice of cancellation terms? If this is not the case, should regulation directly interfere with contracts, for instance, by imposing statutory minimum rights of cancellation?

To shed light on these questions, we will conveniently restrict the analysis to the contract design by one provider, say provider A. Also, for now, we will assume that the adviser's incentives and those of the product provider are sufficiently closely aligned through, for example, integration or sufficiently flexible contingent payments, so that we can focus on their joint incentives to maximize firm profits.

We first introduce a more detailed description of the timing. We envisage that contracts are designed in a first period, $t = 1$. Subsequently, in $t = 2$, the customer receives advice and decides whether to purchase the product. Recall that, at this point, the adviser has more precise information, as captured by the posterior belief q that product A provides a better fit. After signing a contract, in $t = 3$, the consumer has the right to cancel it prematurely. Though the details of early termination may look different for particular financial products, we simply stipulate that after cancellation the consumer is refunded

part of the payment, namely r. At this stage, we suppose that the consumer learns whether the (gross) utility is v_l or v_h. If no cancellation occurs, the utility accrues to the consumer in the final period $t = 4$.[16] Finally, while we still denote the firm's cost of initiating a contract by c, we now add that extending the contract beyond $t = 3$ (when it could be terminated by the customer) to $t = 4$ involves the additional cost k. The parameters are chosen such that it is efficient to cancel the contract in $t = 3$ if and only if the customer's utility is low: $v_l < k < v_h$.

We first focus on the case with naive consumers. Following Ottaviani and Francesco Squintani (2006) and Navin Kartik, Ottaviani, Squintani (2007), we now stipulate a strong form of consumer credulity, whereby a naive consumer takes *any* sales talk of an adviser at face value. In our illustrative model, it is then optimal for firms to always pretend that the product is perfectly suitable. Given that we presently focus on the sale of product A, this amounts to the claim that the adviser is perfectly convinced that this product is suitable, i.e., that the posterior belief is $q = 1$ and thus the consumer always obtains $v = v_h$. However, when the adviser inflates the consumer's valuation in this way, the adviser also generates distorted perceptions about the value of the right of early termination. In fact, at least in our present model, the consumer would be wrongly convinced that termination would never occur, and would thus place zero value on this option. The firm instead knows that there will be some cancellations in equilibrium. Given this endogenous difference in perceptions, the firm can extract more consumer surplus by setting an *inefficiently low* refund $r < k$ (or, more generally, inefficiently strict terms of cancellation). Thus, the threat of a cancellation does not deter the firm from recommending a purchase. A key implication of this is that the firm will not be cautious when recommending a purchase. Given that presently we abstract from any exogenous cost of unsuitable advice (such as liability or reputational concerns), advice will then no longer be informative in equilibrium. This is not understood by credulous consumers.

A statutory *minimum right of cancellation* does not by itself prevent the adviser from inflating consumers' perceptions, but it nevertheless helps consumers and improves efficiency. The imposition of a minimum refund benefits consumers by reducing the scope to which consumers' misperceptions (that are generated by an adviser) can be exploited. The consumer wrongly expects to lose only a little (or no) value when signing a contract that severely limits the rights of cancellations, whereas these rights are truly valuable because the inflated beliefs induced by the seller's sales talk lead consumers to underestimate the

[16] While this implies for simplicity that the consumer does not enjoy a utility initially, i.e., between $t = 2$ and $t = 3$, this specification is not essential.

probability of later cancellations. By reducing consumer exploitation, the imposition of minimum statutory rights can reduce the number of unsuitable purchases advisers recommend and can also make subsequent termination decisions more efficient.[17]

However, whether consumer protection policies are beneficial depends once again on whether consumers are sufficiently wary of firms' incentives when they receive advice. With wary consumers, Inderst and Ottaviani (2008) show that firms should be expected to set the terms for cancellation in order to maximize efficiency, because they can then share in the resulting gains.[18] Interfering with contracts can then lead to inefficient outcomes. Instead, when consumers are credulous, rather than serving as an instrument to commit to good advice or other behavior that is beneficial to consumers, contractual terms such as inefficiently strict termination clauses become an instrument of consumer exploitation. Inderst and Ottaviani (2008) show that a statutory minimum right of cancellation with $r \geq k$ would always be (at least weakly) beneficial. It would strictly increase consumer surplus and welfare when consumers are credulous, but it would not prove restrictive when consumers are wary and contracts are second-best efficient.

7 Irresponsible Lending and Minimum Retention Requirements

In the last section the product provider remained exposed to how suitable a purchase was for a particular consumer because the contract could be terminated prematurely.[19] Something similar happens with loan contracts because the lender is naturally exposed to the "type" of the borrowing household, provided that loans are not securitized and sold off. In what follows, we explore the specific case when households borrow from a lender who has an information advantage, so that the lender's decision whether to accept or reject

[17] In additon, Inderst and Ottaviani (2008) show that such a minimum statutory right can prevent firms from targeting their offers exclusively at credulous consumers. Also, when firms could target different offers at wary and credulous consumers, who would then self-select, it can be beneficial to prevent such discriminatory offers, for example by granting all terminating consumers the best terms that the firm offers to any customer.

[18] Precisely, Inderst and Ottaviani (2008) show that with wary consumers a generous right of cancellation—which hurts the firm when it is exercised—allows the firm to commit to providing better advice. Precisely, when it holds that $r > p - c$, then the firm incurs a loss when a contract is initiated but subsequently terminated prematurely. This requires, in particular, that $r > k$, as otherwise the firm could not make profits even when a contract was not terminated. So as to commit not to recommend a purchase too often, the refund must now be inefficiently large.

[19] With naive consumers, however, we argued that from $r < k$ the firm would indeed prefer early termination, albeit with wary consumers the opposite arises in equilibrium (cf. the discussion in footnote 18.)

a loan application qualitatively resembles an adviser's decision whether to recommend a purchase.

For a highly stylized application of our basic model to such a setting, suppose that a lender can make a loan of size k with interest r, requiring a repayment of $k(1+r)$. A borrower who is able to repay realizes the (consumption) benefits u from the purchase funded by the loan, minus the repayment, $k(1+r)$. Suppose that a borrower who is unable to repay incurs personal bankruptcy costs $z > 0$. Such costs of bankruptcy could capture the exclusion from access to further credit or personal costs associated to eviction following foreclosure. In terms of our basic model, we now have the two utility realizations for the consumer, $v_l = -z$ and $v_h = u - k(1+r)$. The key novelty is that the product provider's payoff now depends directly on the consumer's type. The product provider loses k when the loan is unsuitable and is not repaid, while he realizes rk otherwise. Abstracting again from an agency conflict between the product provider and an advising agent, such as a broker, given the posterior belief q that a particular loan is suitable, it is in the lender's interest to approve the loan when $q > 1/(1+r)$.

The potential borrower again relies on advice, this time about the likelihood of being able to repay the recommended loan. In the present setting, this advice essentially coincides with the lender's optimal decision whether to accept or reject a loan application, at least as long as the preferences of the agent and the lender are perfectly aligned. To us the assumption that the lender and the advising agent are in some respect more sophisticated than a retail borrower seems realistic. Wary borrowers will now take into account the respective incentives to lend when considering a particular offer, while naive borrowers may once again overestimate the likelihood that a recommended and approved loan is in their own best interest. When personal costs of bankruptcy are high, Inderst (2008) shows how the information advantage of a lender can lead to overlending, in particular with naive borrowers. Intuitively, this is the case because the lender does not take into account bankruptcy costs z when making the approval decision.[20] In our simple illustration, such "irresponsible lending" occurs when

$$z > \frac{u-k}{r} - k. \tag{2}$$

Thus, overlending is more likely when personal bankruptcy costs z are higher or when the

[20] When the exercise of market power with elastic demand results in a deadweight loss, there is a countervailing force that makes some "overlending" efficient, though not necessarily in the consumers' interest.

lender has more pricing power, so that the interest rate r is higher.[21] (We could solve for the prevailing interest rate in the same way that we solved for the equilibrium price p.)

Irresponsible lending is more likely when the loan is securitized (or more likely to be securitized). While this assertion is easily formalized, it also follows intuitively from the following argument. Clearly, when *investors* in the lender's security are wary, they will not overpay in equilibrium, given that their willingness-to-pay truly reflects the average quality of a loan. The likelihood of default for the average loan is, however, strictly lower than that of the marginal loan (i.e., of the loan approved at the cutoff belief that the lender implements). Securitization reduces the lender's exposure by trading in a contingent payment for a fixed payment and thus boosts the lender's payoff at the marginal loan, for which the likelihood of default is higher. Consequently, the equilibrium cutoff will decrease and the lender will approve more loans, resulting in more overlending.[22]

In specific applications of our basic model there may be a greater choice of instruments for policy intervention. In the present case of loans, policy could prescribe the imposition of a minimum retention requirement for lenders. Evaluating the pros and cons of *different* instruments would then be a natural next step in the analysis.[23]

8 Multitasking and Regulation of Advising Salespeople

Our analysis has so far focused squarely on a single role of the adviser, namely that of giving consumers recommendations. We now enrich the contract between the product provider and the advising agent to incentivize additional tasks performed by the agent. In addition to providing advice, in many cases the agent has to facilitate the transaction and prospect for customers in the first place. These tasks and the compensation they require may be in conflict with the task of providing unbiased advice, as we show next. To what extent an adviser may have to carry out additional tasks, most notably that of prospecting for new purchasers, proves to be important for policy, as it determines the need for (stricter) regulation.

We introduce multitasking for the agent in a modified setting where the product

[21] Note that the interest rate does not condition on the posterior belief q, which we take to capture the information that is private to the advising agent.

[22] As is immediate, this effect is amplified if *investors* are themselves naive about how securitization affects the lender's incentives.

[23] Inderst and Sebastian Pfeil (2010) analyze this policy in a model that abstracts away from personal bankruptcy costs and focuses, instead, on commitment vis-à-vis investors in securitized loans.

provider cares to some extent about whether advice is suitable or not. We presume, for convenience, that the advising agent does so only to a very limited extent or not at all. To be specific, we stipulate that the agent is employed by a product provider and advises a customer whether a particular product should be purchased or not. Our key extension is that now this employee must exert effort at private disutility $\kappa > 0$ in order to generate a potential customer ("prospecting"). The compensation contract between the product provider and the employee now specifies three potentially different levels of payment: the employee receives w_0 when no purchase is made; w_h when a purchase is made that turns out to be suitable (e.g., as the contract was not terminated prematurely); and w_l for an ultimately unsuitable purchase. Abstracting from risk aversion, it is immediate that optimally the contract will prescribe that $w_l = 0$, which leaves us with w_0 and w_h to be determined. An employee who does not care directly about the suitability of a recommendation ($\rho = 0$) will only give informative advice when an unsuitable recommendation puts some of the compensation at risk: $w_0 > w_l = 0$.

In fact, the employee's privately optimal cutoff for the posterior belief is simply derived to be $q^* = w_0/w_h$, i.e., the ratio of what is at stake for the employee when a recommended purchase was unsuitable or suitable. To push up the cutoff q^*, it is thus necessary to either increase w_0 or to decrease w_h. However, our key observation is that the employee's incentives to prospect for customers are then reduced. In particular, note that the adviser can earn w_0 even when failing to contact a prospective customer. In fact, so as to provide sufficient incentives for the agent to prospect for customers at private cost κ the wedge between the *compensation-plus-bonus* w_h and the *baseline compensation* w_0 must remain sufficiently large. To raise q^* it is thus necessary to increase both w_0 and w_h.[24] The upshot of this is that inducing the employee to recommend a purchase less often, while still exerting effort, increases compensation costs for the firm.[25] Under the product provider's optimal compensation contract, a higher than socially optimal level of unsuitable advice results.

[24]Formally, note that with a cutoff q^*, the employee's ex ante expected payoff from exerting effort equals the sum of $[1 - F(q^*)]w_0$ and $\int_{q^*}^1 q w_h f(q)dq$ minus κ, so that the employee exerts effort only when

$$\int_{q^*}^1 (q w_h - w_0)\, f(q)dq \geq \kappa.$$

[25]When we impose limited liability and a zero reservation utility for the employee, the cost of compensation equals the cost of effort κ plus a rent for the agent that is exactly equal to w_0 and given by

$$w_0 = \kappa \frac{q^*}{\int_{q^*}^1 (q - q^*)\, f(q)dq}.$$

As Inderst and Ottaviani (2009) show, this wedge tends to increase as the multitask problem becomes more severe, e.g., as the customer acquisition cost κ increases. In terms of policy implications, this suggests that one should expect the standard of advice to be lower when the roles of consumer acquisition and advice provision are performed by the same agent, and when performance cannot be easily measured and rewarded in isolation by separating the two tasks. We should expect the need for policy intervention to increase when incentives for customer acquisition become more important to firms. Intuitively, the more agents are expected to actively prospect for new customers, the more scope there is for misselling to occur at the advice stage, even when consumers are wary and product providers directly bear costs following unsuitable advice. In this case, regulators should watch conduct more closely or possibly even monitor incentives, as captured by the ratio w_0/w_h, so as to ensure that the agent's incentives are still focused on providing good advice or, at last, not on steering consumers towards unsuitable products.

9 Policy Conclusions and Outlook

Professional financial advice is pervasive in retail financial markets. It can play a key role in improving efficiency, as consumers often lack knowledge and capability to make informed decisions in their own best interest. When consumers are sufficiently wary about the adviser's conflicts of interest, policy intervention can backfire by stifling the various beneficial roles played by commissions.

Conflicts of interest can turn advice from a blessing to a curse for consumers, particularly when they are not sufficiently wary. Existing evidence suggests that consumers frequently receive advice from agents without understanding the potential impact of inducements and other incentives paid to those agents. Consumers seem to misunderstand, ignore, or overlook the potential conflicts of interest created when product providers either pay commissions or inducements to advisers or employ advisers directly. It is also common that customers of retail financial services receive advice and obtain services by paying indirectly, rather than directly, through loads on investment products, yields on mortgage spreads, or other methods. Our analysis illustrates how consumer naiveté can be exploited through inefficient contractual practices, creating scope for beneficial policy intervention. Making naive and credulous customers pay indirectly rather than directly for advice can be a means to exploit these consumer misperceptions.

Potential interventions must also ensure that disclosure is a sufficiently strong eye-opener, particularly in the context of face-to-face advising. If it proves insufficient, more

intrusive measures may be needed, such as caps on commissions or closely monitoring conduct, even though these measures may generate inefficiencies of their own. Commissions and other performance-based sales inducements may serve important functions, as they can steer advice to the most efficient product or generate incentives for customer acquisition and information gathering. When customers are already aware that these inducements are paid, and that they may create a conflict of interest, interfering with industry practice may lead to inefficient outcomes.

Policy intervention needs to weigh in the bright and the dark side of commissions. For products or distribution channels populated by naive customers, mandatory disclosure of conflicts of interest should increase welfare and consumer surplus. However, when not all conflicts of interest can be made equally transparent, care must be taken not to distort the marketplace, e.g., in favor of vertically integrated providers.

The effectiveness of different policy interventions crucially depends on the features of specific products and on the composition of customers in particular market channels. In markets mostly populated by customers who are naive about incentives, the benefits of policy intervention can more easily outweigh the negative side effects. As shown by Inderst and Ottaviani (forthcoming), intervention can also create additional efficiency gains by making it less attractive for firms to target exclusively naive customers. The unintended consequences of policy intervention should weigh more when, instead, contingent payments serve the additional purpose of incentivizing the agent to carry out other tasks, such as costly information acquisition for specialized new products.

Policy makers considering interventions should first establish to what extent consumers in a given market and distribution channel are unaware of conflicts of interest. For instance, policy makers should determine if consumers systematically treat sales talk as unbiased advice or fail to distinguish between those advisers who have a strong fiduciary duty and those who are merely brokers. Policy makers should next clarify that the mandatory disclosure of inducements would not backfire by, for example, driving the industry toward arrangements in which conflicts of interest are less visible to consumers, as in the case of tied advisers or firms that integrate product provision and advice. Finally, given the various, potentially beneficial roles that commissions and other inducements play in some settings, commission caps, bans, and other strict measures should be imposed only when disclosure has been proven (or can reasonably be expected) to fail.

We focused on the way consumers and product providers interact with agents who provide advice, by regulating, for example, the payments those agents receive or the disclosure

of conflicts of interest. Our discussion about the costs and benefits of various instruments and our list of policy instruments are far from exhaustive. Policy could aim at directly increasing the quality of information that consumers receive by, for instance, requiring advisers to obtain a minimum qualification or by imposing higher liability standards so as to better align incentives. Alternatively, policy intervention could strive to make advice less important by improving consumer financial literacy or by simplifying otherwise complex decisions and increasing transparency (see Bruce I. Carlin 2009). For example, the number of retirement savings options that obtain tax advantages could be restricted, or the scope of financial decisions could be reduced by placing more weight on "Pillar 1" government-administered retirement plans. In our simple model, various policy instruments serve the purpose equally well, but this may no longer be the case when taking into account the particular institutional circumstances that prevail in markets for different retail financial services.

Further modeling should work out differences between various types of interventions in particular markets. Important extensions would be to allow consumers to consult multiple intermediaries and to directly acquire independent information, an option that can be facilitated by efforts to improve financial literacy. It would be particularly interesting to derive more nuanced hypotheses about when particular industry structures or contractual arrangements should arise (e.g., when advisers are tied or untied to particular product providers or when advice is paid for directly or indirectly through commissions) and with what consequences for consumers.

In order to generally make the market for advice work better, it must be ensured that consumers can more readily discern good advice from bad advice. But there is often little scope for consumers to assess the suitability of products and the quality of advice. For life insurance policies or pension plans, for example, the value may only be learned after decades. Retail investors also have substantial difficulty judging the soundness of general investment advice. In fact, we conjecture that many investors are blatantly ignorant about their actual returns on past investments, let alone about the riskiness of a potential new investment. For instance, in an analysis of the German market for retail investment services, Hackethal and Inderst (2011) note that no bank provided its advised customers with a statement of the realized risk and return from their security portfolio. As a measure to improve transparency, the authors propose to provide benchmarks and to give consumers the right to an electronic copy of their past transactions data, so that they may calculate some performance metrics (perhaps with the help of a third party). This information

could provide the basis for regular talks with advisers, where past objectives in terms of net returns and possible risks are compared with actual realizations. We anticipate that measures to enhance transparency will harness market forces to raise the quality of advice, without interfering with contractual practices. In addition to more theoretical analysis, we badly need more empirical work to determine both how the market for advice works in different circumstances and what policies prove to be most effective.[26]

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