AFM and the application of behavioural insights

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The Dutch Authority for the Financial Markets

The AFM is committed to promoting fair and transparent financial markets.

As an independent market conduct authority, we contribute to a sustainable financial system and prosperity in the Netherlands.

Invitation to collaborate

With this publication, the AFM wishes to inform the financial sector, regulators, and policy makers about how it takes consumer behaviour into consideration and which implications this has for conduct supervision. This publication also serves as an invitation to collaborate.

Behavioural insights show that consumers only act rationally to a limited extent. The AFM takes these insights into account in order to align its attention and interventions with the actual behaviour of consumers. We assess how firms respond to psychological mechanisms in the decision-making processes of consumers, encourage them to apply behavioural insights to the advantage of consumers and to look for more effective interventions.

The amount of research on decision making behaviour is ever increasing. As a result, our understanding of the limitations of traditional interventions is becoming better and better. It appears that merely providing more information to increase financial literacy, or showing warnings to increase awareness, is not always sufficient in order to accomplish the desired behavioural change. Additional measures are often required in order to ensure that consumers make more appropriate decisions.

Many decisions are taken intuitively and are strongly influenced, or nudged, by the way in which choices are presented. ‘Evil nudges’ direct consumers towards decisions that are not in their best interest. For instance, when firms offer the lowest monthly repayment amount for a loan by default. Examples of ways in which consumers’ interests are appropriately considered in the design of choice options, are automatic retirement saving enrolment or the visualisation of most important information in graphs. The focus of our conduct supervision is broadened to include the choice architecture of firms. We look at the way in which information is presented, and the way in which consumers are being led through decision making processes, in order to improve the effectiveness of our interventions and consumer outcomes.

The application of behavioural insights in supervision is still being developed. In order to develop our approach effectively and more quickly, we invite firms, consumer organisations, regulators, supervisors and scientists to contribute their ideas related to this topic. Their input will contribute to a situation in which consumers take decisions that are in their best interests, both in the short and long term.

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1. Introduction

Many interventions by regulators and supervisors, including the AFM, are based on the assumption that consumers will take the right decisions as long as they have the right information. However, behavioural insights show that people only act rationally to a limited extent, and that they do not make use of all information in their decision making. For instance, despite extensive efforts by firms of appropriately informing everyone, many clients owning an insurance policy with excessive charges have not switched to more suitable, and cheaper alternatives. Nor have consumers with a pension shortfall or interest-only mortgage taken timely measures to avoid problems in the future.

Financial planning is becoming more and more important, given the increased individual responsibility of financial decisions. However, given the multitude of decisions faced by consumers, considering financial matters often does not have the highest priority. This may leave consumers worse off than they could have been.

The developments outlined above are a reason for the AFM to take the boundedly rational behaviour of consumers into account more often. This means it sometimes has to make other choices. Nevertheless, the AFM's objective remains unchanged: identifying problems and solving or mitigating them. Behavioural insights are used to design promising interventions and test the effectiveness of these interventions in practice. The AFM aims to adopt a more rigorous and scientific approach when looking for solutions to problems. For instance, given the limited effectiveness of warnings, it will look for alternatives to encourage behavioural change.

We are both ambitious and realistic with regards to this effort. The application of behavioural insights in supervision has huge potential, yet it is an unrealistic assumption that everyone will ultimately take optimal financial decisions. However, it does provide a starting point from which consumers may be 'nudged' in the right direction, without limiting their freedom of choice. Our objective is to make it as easy as possible for consumers to realise better outcomes. This does not mean we expect *more* of firms, but we may occasionally ask other things from them. For instance, we may ask for evidence their choice architecture is in the consumer's best interest.

In Chapter 2, we provide a brief description of the behaviour of financial consumers. Chapter 3 illustrates how behavioural principles can be applied in practice. In Chapter 4, we explain what these principles mean for our supervision, and what we expect from firms. Chapter 5 concludes with a call for collaboration.

2. What do we know about financial consumers?

This chapter provides a general overview of what we already know about the behaviour of consumers. In the next chapter, we will show in which ways these insights can be applied.

2.1 From rational human beings..

Until recently, policy makers and supervisors often regarded consumers as rational[1] financial decision makers. They assumed that everyone would go through the same process illustrated below; after identifying their need for a financial product or service (problem recognition), they will start collecting and studying all relevant information. They then compare a number of alternatives, and choose the best option among them. After the purchase, the consumer regularly checks whether the decision that he/she has taken is still the correct one.

Figure 1: The decision making process of a rational financial consumer. Based on Kotler and Keller (2011).

In the real world, most people do not have the motivation, time, and/or capacity to process all information and choices. Behavioural scientists are offering us more and more insight into the way in which people deviate from the rational choice path, and why they happen to do so. For instance, this can be caused by the fact that their preferences are not stable. People's decisions differ whenever the potential profit or potential loss of an option is emphasised. The list of elements which turn out to influence decisions continues to grow. Insight into psychological pitfalls helps to explain all sorts of behaviour. For example, why home owners are unwilling to take a loss on the sale of their home, even though they are still able to repay their mortgage in full.

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[1] Rational in this sense means that people have certain preferences and that they base their choices on these preferences. If there are several options, a rational consumer will make a choice by weighing the advantages and disadvantages of these options. It chooses the option that is most closely aligned with his/her preferences. Rational is therefore a description of the decision making process, it is not a judgement about the quality of the choice that someone makes. By definition, a rationally chosen option is not a more sensible or better choice. An unwise choice, for example an investment decision that does not turn out well, can also be the consequence of a rational decision making process.

Scientist Daniel Kahneman has summarised (2003) human decision making behaviour as follows:

> “The central characteristic of agents is not that they reason poorly but that they often act intuitively. And the behaviour of these agents is not guided by what they are able to compute, but by what they happen to see at a given moment”

That is: people act intuitively and are influenced by the way in which choices are presented to them. As a result, their preferences are not stable.

2.2 ..To consumer behaviour in practice

The way in which people take decisions does not always lead to outcomes in their own interest. Many decisions are based on estimates of the risks involved, differences between short- and long-term effects, and provide limited possibilities to learn from mistakes. As a result, many consumers are unable (or unwilling) to envisage the consequences, and therefore use shortcuts to inform their decisions. For instance, they may decide to avoid extreme choices, but opt for the middle option instead, or decide based on other people’s testimonials.

This does not have to problem. A boundedly rational decision process often results in appropriate outcomes, and in some cases even in better ones than a rational process (Wilson & Schooler, 1991; Gigerenzer & Gaissmaier, 2011). However, they may also result in suboptimal outcomes. Financial products are often difficult to understand. And they sometimes concern matters people do not want to think about at all, such as old age or disability. The intertemporal effect of many financial decisions may also be a complicating factor: you have to act and spend your money now, but will only reap the benefits much later (if at all).

If you do happen to make a mistake, you will often only learn about it much later. Most consumers only take out mortgages a couple of times during their lives. The same goes for additional investments into your retirement account (Llewellyn, 1999). Consumers who least need assistance, are the ones most able and likely to find and use it (Bhattacharya et al., 2012). The cognitive capacities of older people decrease (Korniotis & Kumar, 2008), as they do for those with financial problems; making ends meet takes up most of your capacity, preventing long-term planning (Mani et al., 2013). The consequences of a wrong decision can be very big, especially for the more vulnerable groups in our society.

Decisions related to financial products or services need to compete with all sorts of decisions in other areas. From important choices related to your education and career, to other ‘minor’ decisions related to your telecom provider, and health insurer. The more choices you are required to make, the less energy and capacity remains for financial decisions. We can help consumers take these decisions, by taking relevant psychological mechanisms into consideration, which we will describe in the next chapter.

3. Applying behavioural insights

The previous chapter discussed how consumers make financial decisions, and that these decisions often do not contribute to their own objectives. Various underlying psychological mechanisms play a role in this. By taking these into account, firms can nudge the behaviour of consumers, both negatively and positively. This chapter outlines examples of both in order to illustrate how behavioural insights could be applied in practice.

3.1 Evil nudges

Firms can profit from psychological mechanisms to the customer's disadvantage. In behavioural economics, this is known as 'evil nudges' (Gabaix & Laibson, 2006; Beshears et al., 2008; Thaler & Sunstein, 2006). This often concerns deliberately concealing information, putting up obstacles, designing contracts that take advantage of the customer's present bias, and pricing schemes which imply cross subsidisation between customers (Gabaix & Laibson, 2006; Dellavigna & Malmendier, 2004, 2006; Agarwal et al., 2010), making clever use of the status quo bias - the tendency of people not to take action.

We also see firms deliberately increasing the complexity of choices. This often results in passivity, and consumers who don't switch products or firms. The terms and conditions of many insurance products, for instance, differ significantly and are therefore difficult to compare. Something which a survey of consumers, conducted by the European Commission (2015), confirmed.

In some cases, a default option may also work against the interest of consumers. For instance, when the amount of monthly instalments for credit cards and other loans are set at the minimum. Although it is possible for consumers to deviate, and choose a higher amount, this decision takes significantly more effort than accepting the default option. Surveys conducted by the AFM show that consumers do wish to repay their loans as soon as possible.

The purchase of products and services is often made as easy as possible, often with the use of the latest digital techniques. Terminating or adjusting a contract, on the other hand, tends to be a lot more difficult. By putting up such obstacles, firms may profit from the consumer's tendency to procrastinate.

3.2 Positive nudges

Psychological mechanisms can also be used to nudge customers in the right direction. For example, merely changing to an opt-out system, from opt-in registration, has increased the number of registrants in US pension schemes, and therefore the amount of pension savings. The Education Executive Agency of the Dutch Ministry of Education, Culture and Science (DUO), responsible for coordinating student loans in the Netherlands, made two simple changes to its website: removing a check box next to 'maximum loan', and changing the default loan amount after a student has completed its studies. Both changes resulted in a significant reduction in the number of students borrowing the maximum amount (Van der Steeg & Waterreus, 2015).

After a pension reform in Sweden, consumers were strongly encouraged to set up their own investment portfolio from a large range of products. A survey (Cronqvist & Thaler, 2004) showed that a large number of participants did not actively make decisions, and ended with a standard portfolio. Most of those who did make an active choice, did not diversify enough. This problem can be mitigated by offering a well-balanced, limited product range or portfolio by default.

Although the effect of information on behaviour is often limited, scientific evidence (De Goeij et al., 2014) suggests that consumers make slightly better choices whenever the most relevant information is presented in a graph. It ensures that consumers pay less, and appropriately align the risks of their portfolio with their preferences. A recent study by the AFM (unpublished) suggests that the use of anchors (pre-filled amounts) influences the chosen loan amounts. Setting lower pre-filled amounts could ensure that consumers do not borrow more than they need.

The above-mentioned examples show that behavioural insights can be used both to the advantage and disadvantage of consumers. We will discuss what this means for the AFM's conduct supervision in the next chapter.

4. Implications for supervision

The previous chapters described how regulators and supervisors often developed interventions based on the assumption that consumers act rationally. For example, providing more information would automatically result in more conscious decisions. We now know that information in itself is not sufficient, and that additional measures are sometimes necessary to ensure that consumers take good decisions.

4.1 AFM contributes to sustainable financial well-being

The AFM's mission is as follows: "*The AFM is committed to promoting fair and transparent financial markets. As an independent conduct-of-business supervisor, we contribute to sustainable financial well-being in the Netherlands.*"

Consumers and firms have asymmetrical knowledge about, or access to information regarding financial products and services. Furthermore, the possibilities to learn from earlier mistakes are often limited. The consequences of a particular decision often only manifest themselves in the long term, and for some products it is simply not possible to gain any experience. By creating more equally balanced relationships, the AFM wishes to prevent financial risks which impact our society.

4.2 Supervision of the choice architecture

The complexity and the consequences of financial choices that people have to make put a large responsibility on firms, policy makers and supervisors. This is why our supervision is constantly developing. In order to improve our effectiveness, we base our principles on more realistic assumptions of consumer behaviour. From now on, we will utilise these insights when identifying and analysing problems, define our priorities and carrying out our supervision.

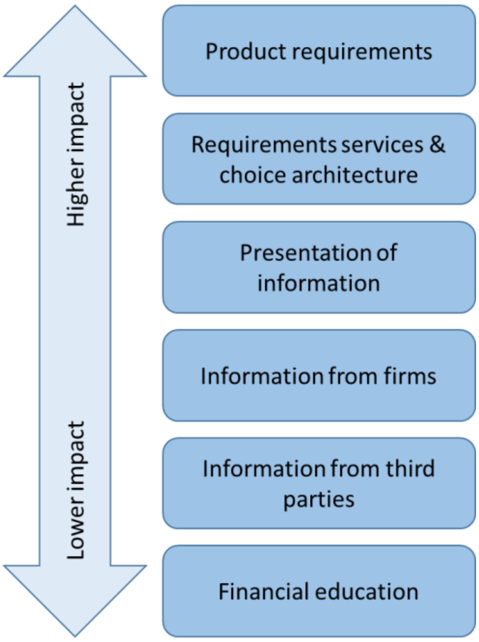

Figure 2: Intervention scale

Where possible we will aim to strengthen the consumer's self-reliance. If this is not a feasible solution, we will focus on improving the choice architecture, i.e. the way in which decisions are presented. A well designed choice architecture enables consumers to make decisions which have more suitable outcomes. We may ask for evidence from firms whether their current design is not harming the interests of consumers, and to apply behavioural insights in ways which benefit their consumers.

Some circumstances require an earlier or more forceful intervention. These interventions share a common principle that consumers should not be limited in their options unnecessarily. Intervening is warranted whenever a consumer's interest is seriously harmed, if consumers are unable to assess the risks involved themselves, or whenever the consequences of irrational behaviour are severe. Various possible interventions can be plotted on a scale (see figure 2).

4.3 Interventions

As is the case for regulators, supervisors such as the AFM, are constantly looking for effective interventions that demonstrably contribute to the welfare of consumers. Some of these interventions are based on the expectation that consumers will adapt their behaviour. However, we will also introduce interventions which take into consideration the fact that not everyone acts rationally.

What works less well?

Supervisors often focus on two possible solutions: 1) increasing risk awareness, and 2) increasing financial literacy. It is questionable whether such solutions stimulate the consumer's own responsibility. If consumers are aware of a problem, or even have the intention to do something about that problem, this does not necessarily mean that they will follow through and actually change their behaviour.

Increasing the awareness of financial risks does not immediately change behaviour. If increasing awareness is a means to an end (e.g. make better financial decisions), and not the objective itself, there may be other, more effective ways to achieve that objective. Financial education falls within the same category. It is not always the case that more knowledge leads to better decisions. You may know what would be a sensible investment choice, you can even have the intention to adapt your investment portfolio accordingly, but that does not mean that you will actually take necessary steps to carry this out. Many initiatives that aim to increase financial knowledge have had only limited success in achieving better decisions. The effect of increasing people's knowledge about their own psychological pitfalls on the outcomes of their decisions, is yet unknown. If a certain problem needs a solution in the short-term, interventions which rely on improving awareness or financial education can not solely be relied upon.

What works better?

In the previous chapter, we described a number of examples of solutions that have proven to be effective. These solutions did not try to change the natural inclination of consumers. On the contrary: they take the behaviour and the preferences of consumers into account. However, we must realise there are no ready-made solutions to every problem. We often know what probably does not work, and based on behavioural insights, we have an inclination about what might be promising. We will therefore measure the effects of certain measures on behaviour more often.

For example, how effective are suitability tests? How can we encourage more diversification in investor's portfolios? Do certain elements in the decision making environment encourage more borrowing? In order to find answers to these questions, we wish to cooperate with firms more often.

The AFM employs this approach in some sectors already. In the consumer credit market, we will test the effects of default options and pre-filled amounts. We supervise the provision of information regarding execution-only investments, and the quality of the standard portfolios. It appears from a survey (AFM, 2015) that personal contact is more important to nudge pension participants, supported by a digital decision-making environment.

If problems demand a solution in the short term, regulators, supervisors, and firms players must take a step further up on the intervention scale. It is more effective to change the decision-making context for consumers, or to impose requirements on products. The most far-reaching and impacting of these interventions is a product ban. In the following chapter, we will discuss the various stakeholders that can play a role in supporting the financial consumer.

4.4 A neutral decision-making context does not exist

When someone receives a little nudge in the desired direction, and subsequently changes his or her behaviour, without them being aware of this. Is that fair?

It is important to realise that is not possible not to influence people. A completely neutral decision-making environment does not exist. The way in which choices are presented will always influence the decisions people make. For example: someone has to choose a certain financial product. If you present three options to this person, then there is a large probability that he or she will choose the middle option. If you present ten options, then he or she may base this decision on other rules of thumb, such as "many of my family members have product X, so it will probably be the best for me as well". However, if you present fifty options, then the consumer could be so overwhelmed that he or she no longer makes any choice and start to procrastinate. In many cases, consumers will not be aware of this. Moreover, no effective ways have been discovered yet to make people immune for these types of influences. That is why we would rather turn the question around: the AFM does not consider it desirable when we see that firms give consumers a nudge in a direction that is not in the consumer's best interest.

4.5 Impact on financial firms

The AFM will sometimes make other choices in its supervision. We focus on traditional instruments such as providing information, but also on elements in the decision-making environment and the quality of products. In doing so, we aim to make a demonstrable effective contribution to the financial decisions of consumers.

Behavioural insights form an integral part of AFM's supervision and its ambition to be an innovative and pioneering supervisor. We do not intend to ask more of firms, but we may occasionally ask other things from them. For instance, we have recently tightened our supervision with regard to marketing and advertising for securities based on behavioural insights (AFM, 2016).

We will ask firms to test the effect of certain design choices. Some interventions appear intuitive, but turn out to have a limited effect or even the opposite effect in practice.

This chapter has explained how our supervision is changing due to application of behavioural insights, and what this means for the firms that are subject to our supervision. In the next chapter, we will describe the possibilities we see to work together with other stakeholders to create an environment in which consumers can take better financial decisions.

5. Sustainable financial well-being in the Netherlands

Based on their own role and responsibilities, each actor on the financial markets contributes to the financial well-being of consumers: firms, advisers, consumer organisations, regulators, supervisors, scientists and the consumers themselves. Conduct supervision by the AFM can benefit from the exchange of knowledge, expertise, best practices and studies.

The application of behavioural insights in supervision is still being developed. In order to develop our approach effectively and quickly, we invite firms, consumer organisations, regulators, supervisors and scientists to contribute their ideas related to this topic. Their input will eventually contribute to a situation in which consumers take decisions that are in their best interests, both in the short and long term. To this end, we have started conducting experiments to find out what does and what does not work. We wish to expand these efforts and our cooperation with firms and scientists in the future.

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