Caution! Borrowing money costs money

A study of the effectiveness of a warning in credit advertisements

Originally published: December 2016

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.

Contents

Summary

In this report, the Dutch Authority for the Financial Markets (AFM) describes the effect of the credit warning on the behaviour of consumers. The credit warning: ‘Caution! Borrowing money costs money', was introduced in 2009. This study was carried out in cooperation with the Ministry of Finance, and has made use of the most recent insights from psychology and behavioural economics (hereafter: behavioural sciences).

In order to determine which (short-term) effect the credit warning has on the behaviour of consumers, the AFM has conducted an experiment in cooperation with a Dutch bank that provides consumer credit. We also examined what influence the warning has on people’s perception of borrowing, and we asked researchers, debt and behaviour experts, consumers and credit providers, credit advisers and credit intermediaries to contribute to this research.

The empirical research did not establish any short-term effects of the credit warning on the behaviour of consumers. A potential long-term effect, for example a change of the social norm, cannot be established with this study. Behavioural insights tell us that increasing awareness (the current objective of the credit warning) is often ineffective and inadequate when trying to stimulate other, better decisions. Based on this, the AFM recommends to the Minister of Finance to determine whether he wants to realise other, more concrete behavioural objectives. Subsequently, we can determine which intervention – in addition to the credit warning – must be introduced to reach the newly determined objectives.

The objectives of the credit warning

Since 2009, credit providers are obliged to include the warning: 'Caution! Borrowing money costs money' in advertisements for consumer credit. This warning was one of the many measures that were introduced after consumer debt levels had increased strongly and the number of problematic debts had grown in the period before 2009. The warning aimed to:

1. stimulate consumers to carefully consider their choices;
2. create awareness among consumers by pointing out the consequences of the credit; and
3. counter the image presented in some of the credit advertisements that borrowing for consumer purchases is perfectly normal.

Behavioural insights

Based on behavioural insights, we doubt whether a credit warning can encourage consumers to consider their decisions more carefully before taking out a loan. Consumers mostly take decisions intuitively, make use of rules of thumb and often base their choices on a limited amount of information. In addition, experiencing scarcity has a negative influence on a person's ability to consider their options carefully and rationally. In order to enable consumers to take appropriate decisions, the decision-making environment (choice architecture) within which they make choices must be optimally structured. For example, by making use of clever default options or anchors that work in the consumer's best interests.

The influence of a credit warning on consumer behaviour

We examined whether the credit warning succeeds in stimulating more rational decisions. Among other variables, we have looked at the influence of a credit warning on:

- clicks on banners;
- the way in which consumers browse through a website;
- the decisions that consumers make.

The figure[1] below shows the different versions of the credit warning that were examined. The study shows that a credit warning does not have an effect on the frequency with which consumers click on banners, the way in which they browse through web pages and the choices they make when requesting a quote. Based on this, we conclude that a credit warning does not have any short-term effect on the behaviour of consumers in practice; consumers do not make more well-considered decisions due to a credit warning. The study cannot make statements about the long term effects of a warning.

The influence of a credit warning on how consumers perceive borrowing and how they experience credit advertising

In addition to the behaviour of consumers, we examined whether a credit warning influences attitudes towards borrowing, the intentions of consumers on how they would search for a new loan, and whether credit adverts are experienced differently. It appears that:

- the credit warning had little to no influence on how consumers perceive a credit advertisement;
- consumers do not change their perceptions regarding borrowing;
- they do not state a different intended approach on searching and taking out a new loan;
- they perceive advertisements with a credit warning to be slightly clearer than advertisements without a credit warning.

[1] Clockwise: 1) & 2) *A smart borrower checks the costs*, 3) *Borrowing = repaying + costs*, 4) *Taking out a loan? Check what you have to pay*

What do relevant stakeholders think about the usefulness of the credit warning?

Various stakeholders were asked about their opinion about the credit warning. The views differ:

- Consumers are positive about the existence of the credit warning and have confidence in its effectiveness.
- Communication and behaviour experts are critical about the possible effect of the credit warning.
- It is possible that the credit warning has influenced the social norm about borrowing money in the long term.
- Debt experts suspect that the credit warning does not work for the most vulnerable groups, but that it could work as a useful label when it is not immediately apparent from the product's name that it actually concerns a loan.
- The trade association of credit providers, advisers and intermediaries doubts whether the credit warning has any effect on the decisions of consumers.

Conclusions and recommendations

Based on insights from behavioural sciences and our empirical research, we determined that the current and alternative credit warnings do not have a short-term effect on the behaviour of consumers. The warning has no short-term influence on the attitude of consumers towards borrowing, the intended course of action and the way in which consumers experience credit advertisements. This study cannot determine any long term effects of a warning.

Given this conclusion, we make two recommendations:

1. Behavioural insights tell us that increasing awareness is often ineffective and inadequate when trying to stimulate other, better decisions. The AFM advises the Minister of Finance to determine whether he wishes to realise other, more concrete behavioural objectives with regard to the decisions of consumers.
2. If the Minister of Finance revises the existing objectives or determines alternative objectives, examine how these objectives can be realised, to what extent the credit warning contributes to these objectives, and whether alternative measures are required.

It is important to take the behavioural insights presented in this report into account when developing new objectives and interventions, and to realise the influence of the choice architecture on decisions. The AFM would like to contribute to these efforts.

1. Introduction

Since 2009, consumer credit providers, advisers and intermediaries are obliged to include a warning in credit advertisements: 'Caution! Borrowing money costs money'. In the years leading up to that measure, the number of people with problematic debts had increased. The Dutch House of Representatives initially asked for a ban on all credit advertisements on television[2]. In order to take a well-considered decision, the then Minister of Finance requested that a study be carried out into the effectiveness of credit regulation (EIM, 2007). This study did not demonstrate that credit advertisements were a significant contributing factor to the debt problem, hence the ban was not introduced. In order to counter the impression that borrowing is a perfectly normal way to finance your purchases, a different measure was introduced: the credit warning.[3] This was expected to introduce a threshold, which in turn would cause consumers to consider their credit decisions more carefully.[4] After some initial hiccups, firms did incorporate the credit warning into their advertisements relatively quickly. As a result, the general public soon became aware and used to the warning (Gfk, 2009 and 2011).

Since the introduction of the warning, no study has been conducted into the effectiveness of the measure on consumers' decisions. Studies carried out by the AFM in different context, suggest that behaviour can be influenced by many factors. For instance, the way in which information is presented, the number of alternatives that are offered, and which option is selected as default. Based on behavioural insights, we doubt whether the credit warning is effective. In consultation with the Ministry of Finance, we have decided to study it. This report describes the outcomes of this study. In addition to measuring the effect of a warning on credit decisions, we have included opinions and experiences from researchers, experts, credit providers and consumers with the credit warning.

In chapter 2, we will take a closer look at the way in which the credit warning came into being, after which we will describe the exact objectives of the warning in chapter 3. In chapter 4, we describe a number of relevant behavioural insights that help us assess the effectiveness of the credit warning. Chapter 5 discusses our empirical study into the short-term effects of the credit warning on the actual behaviour of consumers. Chapter 6 describes the results of a study of the short-term effect of the credit warning on the attitude of consumers towards borrowing.[5] Chapter 7 describes the qualitative results from a survey and interviews held with consumers, firms, researchers, and debt advisors. We conclude our research in chapter 8, and end with several recommendations to the Ministry of Finance.

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[2] Parliamentary papers II, 2006/07, 29942, 28, Motion of the member Vietsch

[3] Parliamentary papers II, 2007/08, 24515, 119, Letter from the Secretary of State of Social Affairs and Employment and the Minister of Finance

[4] Decree of 9 December 2008, comprising an amendment of the Decree on Conduct of Business Supervision of Financial Undertakings under the Wft (Bgfo).

[5] The outcomes of this study can be read in full in the research report 'The credit warning - Influence and base of support' by research institute Veldkamp (2015).

2. How did the credit warning come into being?

The credit warning was introduced in response to aggressive marketing by firms and an increase in consumer debt.

The history of the credit warning goes back to around 2006. Consumer debts and excessive lending was high on the political agenda in this period. Around the turn of the century, consumer debt levels were increasing (see figure 1), as were the number of people with problematic debts. The large number of aggressive credit advertisements on television increased the sense of urgency.

Increase in consumer debt, the debt problem and aggressive marketing

Consumer debt levels in the Netherlands strongly increased between 1992 and 2004 (Statistics Netherlands, CBS, 2007). In the early 2000s, there also appeared to be a substantial increase in problematic debts (EIM, 2006). In 2005, the Dutch Credit Registration Agency (BKR) registered around 500,000 people who had difficulty meeting their payment obligations (EIM, 2007). Requests for debt assistance doubles, from 78,000 in 2001 to nearly 152,000 in 2004 (EIM, 2007).

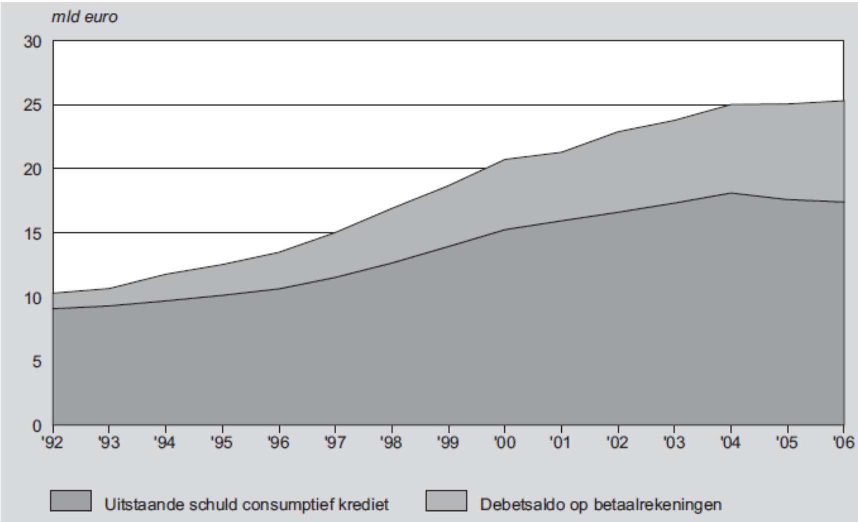

Figure 1: Development of consumer credit. Measures in billion euros: outstanding consumer credit debt & debit balance on current accounts (Statistics Netherlands CBS, 2007)

Around 2006, a number of credit providers used very aggressive marketing techniques, combining frequent television commercials, cold calling and intermediaries visiting consumers at home. The sale of payment protection insurance products[6], in combination with a loan, was very profitable and relatively easy. The purchase of these products were typically financed with credit as well, increasing the burden on consumers. The AFM (2007) concluded that a large number of credit providers engaged in irresponsible lending.

[6] Invalidity, life, and unemployment insurance.

Measures

The consumer credit levels and conduct of credit firms attracted a lot of political attention. Various measures were introduced in the Financial Supervision Act (Wft) to prevent debts. For instance, the credit worthiness valuation was made stricter, the loan amount for which a mandatory BKR assessment is required was lowered, and measures were taken to bring products more in line with the needs, financial situation, and knowledge and experience of the consumer. An upper limit for interest rates was set, and the legal definition of credit was extended.[7]

'Caution! Borrowing money costs money'

Part of the House of Representatives also wished to put an end to the 'aggressive and misleading' credit commercials on television.[8] In order to introduce a ban, the connection between credit advertisements and excessive lending had to be demonstrated. The Ministry of Finance commissioned such a study in 2007. The results did not show a causal relationship that would justify a ban on credit advertisements.[9]

The legislator did decide to introduce a credit warning as an alternative for the proposed ban, and asked the AFM to develop this warning. Various sentences and symbols were put before a large group of consumers. The current sentence and symbol come out on top; consumers expected that this sentence would have the greatest warning effect (AFM, 2008). No research was conducted in advance on the effects on behaviour.

From April 1, 2009 firms are obliged to include the credit warning in all of their consumer credit advertisements. This means that it must either be seen or heard in all credit advertisements on television, radio, the internet and in printed media.[10]

Figure 2: Credit warning: 'Caution! Borrowing money costs money'

[7] Refer to Appendix 1 for recent developments in the consumer credit market.
[8] Parliamentary papers II, 2006/07, 29942, 28, Motion of the member Vietsch
[9] Parliamentary papers II, 2007/08, 24515, 119, Letter from the Secretary of State of Social Affairs and Employment and the Minister of Finance
[10] As from 1 July 2016, the requirements regarding the credit warning were amended in the Further Regulations on the Supervision of the Conduct of Financial Undertakings (Nrgfo). If it is technically impossible to include an image of the warning in the advertisement, then a (shortened) text has to be included.

3. What is the objective of the credit warning?

The objective of the credit warning is to encourage consumers to consider their decision to take out consumer credit more carefully.

The objectives of the credit warning can be deduced from the explanatory memorandum to the Decree of Conduct of Business Supervision of Financial Undertakings under the Wft (BGfo).[11] The relevant sentences from the Memorandum are included below. We have highlighted the key messages.

> (….) With this measure, we respond to the concerns that exist in society about credit advertisements. These concerns go further than only the excessive lending issue. Consumers are generally encouraged by credit advertisements to consume in the short term, whereas the costs have to be borne in the long term which limits future spending capabilities.
>
> This decision may be well-considered, but also be made impulsively, which may result in post-purchase regret. By highlighting the downside of borrowing money in advertisement and by influencing the idea that borrowing is obvious and perfectly normal, **consumers can be encouraged to consider their choices more carefully**, before turning to a credit provider.
>
> (…) The objective of the credit warning should be to **create a sense of awareness** among consumers.
>
> (…) The first measure comprises a mandatory warning to consumers with regard to the consequences of the loan. This will ensure a consumer takes notice **of the costs of the loan and the problems that might arise when you borrow too much**.
>
> (…) Such a warning **forms a counterweight** to the positive images presented in advertisements, which typically leave out risks and costs.

Various objectives with various levels of ambition can be derived from the memorandum; however, an unequivocal and exact behavioural objective of the credit warning has never been formulated.

We derive the following objectives from the memorandum:

1) To stimulate consumers to carefully consider their choices;
2) To create awareness by highlighting the consequences of the credit; and
3) To counter the positive image presented in some of the advertisements that borrowing for consumer purchases is perfectly normal.

[11] Following from Article 53, seventh paragraph, BGfo.

The language used in these objectives is rather abstract. It is not possible to determine clearly which behaviour of consumers is expected or intended exactly. As a consequence, it is difficult to conclude when the warning is having a positive effect.

Based on the memorandum, the intended effect of the credit warning are more carefully considered and rational decisions by consumers. By increasing their awareness, consumers are expected to take the consequences of credit into consideration more often. However, increased awareness, or rational behaviour, is difficult to define and observe in practice. Behavioural insights can help us to determine which expectations we may have of the effect of the credit warning.

4. What do relevant behavioural science insights tell us?

It is nearly impossible to make consumers behave more rationally. The objectives of the credit warning are therefore too ambitious. Moreover, a conscious decision-making process does not always lead to other or better choices.

The previous chapter described the credit warning's main objective: to have consumers make more carefully considered choices. However, behavioural insights teach us that the consumer acts less rationally than the legislator and supervisors initially assumed.

4.1 The consumer is boundedly rational

In 2015, the AFM published a review on financial decision-making and the possible use of standardised products (AFM, 2015b), and a review on investor behaviour (AFM, 2015c). We followed this up with our publication *AFM and the application of behavioural insights* (2016). All three reports covered the boundedly rational behaviour of consumers, the rules of thumb they use and the cognitive biases which influence decisions. We have learned that decisions are not solely based on information. Most decisions are taken intuitively, and even if all information is made available, this often had more effect on firms than on the behaviour of consumers (Loewenstein, Sunstein and Golman, 2014).

Even when consumers do decide rationally, these decisions are not necessarily more sensible or better. Two important insights may be distilled from earlier publications. Firstly, people's preferences are often not stable. Choices depend on the context in which these are made or on the way in which the options are presented. Secondly, people have limited motivation to invest time and effort into the gathering and reviewing all information concerning the various options. A large part of the behavioural science literature is summarised in Kahneman's *Thinking Fast and Slow* (2011). He makes a distinction between system 1 and system 2 thinking.

System 1 thinking takes place automatically, intuitively, fast and is effortless. This type of thinking makes use of heuristics; simple rules of thumb that result in faster and more easily made decisions. As a result, only a limited part of all relevant information is gathered and used. An example of this is choosing a financial product based on other people's recommendation, without repeating the complete decision process yourself. When heuristics systematically lead to incorrect or irrational decisions, we refer to this as a cognitive bias (Tversky & Kahneman, 1974). Anchoring is an example of such a bias; a pre-defined amount which is used as a reference point (anchor) when choosing a loan amount. Although seemingly irrelevant, behavioural research suggests that the higher an anchor, the higher the amount consumers borrow.

The other way of thinking (System 2) takes place more slowly, more considerate and controlled, and takes more effort. This form of thinking is closer to the assumed rational decision-making process. Decisions are nevertheless influenced by heuristics and biases. It is therefore not the case that System 2 thinking always leads to better choices. Moreover, Kahneman describes that it is part of people's nature to take decision quickly and intuitively (System 1) and that it is difficult to get people to take well-considered, more rational (System 2) decisions. Based on this, it is quite ambitious to expect that a credit warning would lead to consumers considering their credit choices more carefully.

4.2 Influence of scarcity

Mullainathan and Shafir (2013) argue that people who experience scarcity, have an increased likelihood of making ill-considered decisions. Their capacity is strongly reduced by their focus on short-term objectives. People have limited time and mental capacity to consider long-term consequences of their decisions. Whenever you experience scarcity (be it food, time, money), you look for a quick fix to solve that problem. The energy and mental capacity this takes is at the expense of other problems. It increases your focus on a single specific objective. It is therefore unrealistic to assume that people who take out loans out of necessity will consider all their options carefully or will consider the long-term consequences of a certain choice. Consumer credit may be a good short-term solution to solve scarcity, but the costs and other specifics of the loan are hardly considered.

The credit warning is expected to make people consider their loan choices more carefully. When people experience scarcity, it is unlikely that this objective will be achieved.

4.3 The effect of an increased awareness

More conscious decisions are not necessarily more sensible or lead to better outcomes. Informing consumers, through warnings or explanations, intends to increase awareness. The credit warning stresses the fact a loan must be repaid, including interest. Behavioural sciences offer three relevant insights that question the effects of increasing awareness on behaviour.

First, it turns out that financial education hardly have any effect on financial decision-making behaviour (Fernandes, Lynch and Netemeyer, 2014). Although a lively debate is ongoing within and outside the scientific community about the effectiveness and the usefulness of financial education (see for example Lusardi and Mitchell, 2014), there is hardly any evidence at present that the transfer of knowledge about financial concepts (such as compound interest), and financial instruments leads to other or better choices. If awareness is stimulated by financial education, or by a warning, the likelihood that the behaviour of consumers will actually change is small. Research into the mandatory warning of the US SEC *past performance does not guarantee future results,* found no effect on the purchase intention among investors (Mercer, Palmiter and Taha, 2010). A modification of the choice architecture is probably more effective to influence consumer behaviour.

Secondly, it appears that in situations where all information is available and has been summarised comprehensively, consumers still do not succeed in taking the optimal decision. In a study where participants could earn real money with their investment decisions, it turned out that it did not make much difference how they received the information about the costs of the various funds (Choi, Laibson and Madrian, 2010). Even when the participants received a short and clear summary of the cost structure and had enough time to study this, they still selected options with a low expected return. Despite its efforts to enable consumers to make a more conscious decision, this study still resulted in suboptimal outcomes.

Finally, we will return to the distinction between System 1 and System 2 thinking. Conscious choices demand an active effort of System 2 thinking. Behavioural sciences teach us that it is very difficult to get people to make choices in this way: many (financial) decisions are made largely based on System 1 thinking. Any supervision intervention that aims to improve decision-making must therefore also be aimed at influencing System 1 thinking.

4.4 Influence of choice architecture

Behavioural insights have taught us that information by itself is insufficient to change consumer behaviour. The AFM therefore encourages alterations of the choice architecture as well. The choice architecture consists of the way in which information is presented, in combination with the product offered and the distribution channel used. For instance, the number of alternatives, any default options (e.g. type of loan or instalment amount), preference settings, wording, the design of a website, tools and product features that are stressed or left out. Consumers are sensitive to these element, particularly to default options from which they tend not to deviate (Kahneman, 2003). Such options are often perceived as implicit recommendations (Soll et al., 2014; Smith et al., 2009).

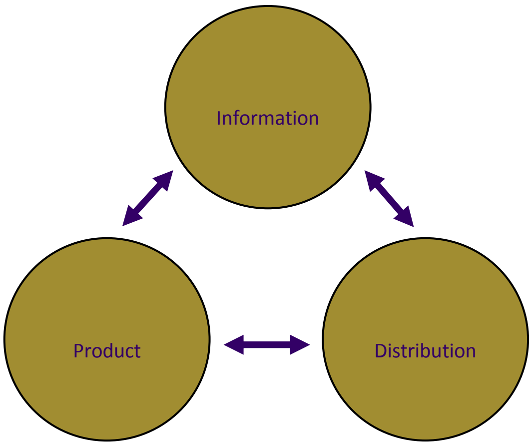

Figure 3: Choice architecture

If default options are used they should be cleverly chosen, and must always work in the consumer's best interest. Various measures have already led to changes in the three pillars that together make up the choice architecture. For example, stricter requirements for pre-contractual information and credit advertisements have been put in place. With respect to the distribution of the product, the test which measures creditworthiness was made stricter, and the loan amount for which a mandatory credit assessment (BKR) is required has been lowered. Other measures have focuses on bringing the product properly in line with the needs, financial possibilities and/or its knowledge and experience of consumers. For example, the upper limit of interest rates has been lowered.

A well-structured decision-making environment enables consumers to take appropriate decisions and promotes responsible borrowing. However, the AFM observes that firms do not sufficiently put the customer's interests first. In its report *Consumer behaviour on the consumer credit market* (2016), the AFM recently described several elements in the choice architecture that could influence consumer behaviour.

Warnings and providing information

In spite of the fact that information in itself is not sufficient to enable consumers to take better decisions, correct and clear information is a necessary precondition for properly functioning, fair and transparent financial markets. Information enables the consumer to become aware of the most important characteristics of products and services, and to take responsibility themselves in their choice for a specific product or service. This information must easily be found, understandable and well-balanced. It aids both consumers and firms; access to information increases public scrutiny which positively effects the way in which firms operate.

Despite the fact that it is not realistic that a credit warning encourages consumers to consider their decisions more carefully, it is conceivable that a warning is not completely ineffective. Communication experts emphasise that a warning may influence a person's attitude. It may also influence heuristics and rules of thumb. The effects of this on actual behaviour have not yet been examined extensively. Warnings used in the other contexts (for example on a pack of cigarettes) have been examined, and it appears that fear appeal is hardly effective and that other ways of influencing behaviour have shown much more potential (Ruiter et al., 2014).

Based on experimental research (chapter 5), the perception of consumers (chapter 6) and input from firms, experts, trade- and consumer associations (chapter 7), we will describe the effects of the credit warning.

5. What is the effect of a credit warning on the behaviour of consumers?

The study shows that there is hardly any short-term effect of a credit warning on the behaviour of consumers.

Based on the aforementioned behavioural insights, we have our doubts regarding the degree in which a credit warning can encourage consumers to consider their choices more carefully before taking out a loan. The actual effects of the credit warning have not been assessed previously. In order to examine the true effect of the credit warning, the objectives described in chapter 3 have been made measurable:

- In order to measure whether decisions differ after being presented with a credit warning, we have run a randomised controlled trial to examine loan decisions in practice (chapter 5).[12]
- To test whether a credit warning could act as a possible counterweight to credit advertisements, we measure consumer's perception of borrowing and how they experience such advertisements (chapter 6).

Research design

We have run an experiment in the online sales environment of a Dutch bank that provides consumer credit to measure the influence of a credit warning. If a credit warning encourages consumers to take well-considered decisions, then it is likely that this effect can be observed in:

- clicks on banners;
- the way in which consumers browse through the website;
- the decisions that consumers make.

In order to observe this effect, different versions[13] of the credit warning were displayed in the online sales environment of the credit provider during a period of two months.[14] Consumers were randomly divided into groups who were either shown the existing, and alternative[15], or no credit

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[12] For a complete description of the methodology and the study results, we refer to the research report of the research agency Veldkamp (2015).
[13] Clockwise: 1) & 2) *A smart borrower checks the costs*, 3) *Borrowing = repaying + costs*, 4) *Taking out a loan? Check what you have to pay*
[14] See Appendix 2 and 3 for a description of the experiment and the additional research limitations.
[15] The objective of this study was to obtain insight into the effectiveness of a credit warning in a credit advertisement. As the existing credit warning has already been in existence since 2009, it is possible that

warning[16]. This study can only measure possible short-term effects of the credit warning; we cannot conclude about the effects in the long term. It is possible that since its introduction in 2009, the credit warning has had an effect on the social norm regarding borrowing money.

Advantages and disadvantages of experiments

Experiments are the only way to demonstrate a causal relationship. Fortunately, it is becoming easier to carry out (online) experiments. By testing our assumptions and by carrying out experiments, we can obtain a clearer and more realistic picture of how consumers make decisions, and how various policy instruments influence these. However, experiments in which many variables are measured run the risk of reporting false positives: effects that are statistically significant but that do not exist in reality. It is very likely that we will find a number of false positives due to the large number of analyses that we have carried out for this report. We have chosen to report the significant results, but not to attribute too much value to this. We sometimes refer to these effects as negligible. We have analysed all data carefully, examined significant results seriously, but have only examined them more closely when they form part of a coherent combination of effects.

Results

In short, our study does not show any influence of a credit warning on the frequency with which consumers click on banners, the way in which they browse online and the choices that they make when requesting a quote. Based on this, we conclude that a credit warning does not have a short-term effect on consumer behaviour.

5.1 The influence on clicks

The study does not show any short-term effect of a credit warning on clicks on banners

Firms can use banners as a way to attract more visitors to visit their websites. Banners regarding consumer credit legally qualify as credit advertisements and therefore must contain the credit warning. If the credit warning influences the behaviour of consumers, we would be able to see that reflected in how often consumers click on banners. However, in our study, we see no such difference between the different test groups (existing credit warning / alternative credit warning / no credit warning).

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this no longer has an effect because consumers have become used to it. This is why we have also examined alternative credit warnings.

[16] The obligatory credit warning was not displayed in the research category 'no credit warning'. This is why consumers in this category received an extra letter from the credit provider after they requested a quote. This letter did contain the existing credit warning and the possibility to cancel the agreement after sending back a signed letter. In this way, we prevented that this group of consumers would have taken out a loan without having seen the obligatory credit warning.

5.2 The influence on orientation on the website

The study shows a negligible short-term effect of a credit warning on the way in which consumers browse through the website

Large sections of websites of consumer credit providers are regarded as advertising and must therefore contain the credit warning on every page. Among other variables, we examined whether the credit warning has an effect on:

1. The amount of pages consumers view;
2. The amount of time consumers spend on the website; and/or
3. The number of times certain online forms and calculation tools are started and completed.

We have looked at thirteen different indicators in total. We did not observe any effects of the different credit warnings in twelve of these. We have only observed one single significant difference: consumers in the no warning group opened up an alteration form for an existing loan relatively more often. The warning had no effect on the use of any of the other forms and tools, nor did we observe any effect on the number of pages viewed. The time that consumers spent on the website also did not differ between groups. This leads us to believe that a credit warning has a negligible short-term effect on the way in which consumers browse on the website.

5.3 The influence on choices when requesting a quote

A credit warning has no short-term effect on the choices that consumers make when requesting a quote

We have examined the possible effects of a credit warning on the average requested credit amount, the average instalment amount and the percentage of consumers which eventually took out a loan. We did not find any significant differences between the research groups.

To summarise, the study did not show any effects on how often consumers click on banners, their browsing behaviour on websites, or the choices that consumers make when requesting a quote. Based on this, we conclude that a credit warning has no short-term effect on behaviour.

6. Does a credit warning have any effect on how consumers perceive borrowing and how they experience credit advertisements?

The study shows that a credit warning has no direct effect on how consumers perceive borrowing money and how they experience credit advertisements.

From our empirical research, it appears that the credit warning has hardly any direct effect on consumer behaviour. This indicates that the credit warning does not contribute to the objective of encouraging the consumer to take a more carefully considered decisions. This is in accordance with our expectations based on behavioural insights (chapter 4).

In addition to the effect on behaviour, we have examined the effect of a credit warning on the perception of borrowing, people's intention when taking out a loan, and how they experience credit adverts.

Figure 4: Fictional advert

Research design

In this study, we showed consumers a fictional credit advertisement (see figure 4) and put questions to them related to borrowing and this specific advert.[17] As in the RCT described in chapter 5, consumers were randomly divided into different groups and shown either the existing warning, an alternative version, or no warning at all.

Results

To sum up, we do not see any effects of a credit warning on the way in which consumers experience advertisement and their general perception of borrowing money. We also do not see any effect on the steps consumers intend to take when taking out a loan. We will elaborate these findings in more detail below. As does the experiment in chapter 5, this study only provides some insight into the short-term effect of warnings in credit advertisements.

6.1 The influence on how consumers think about borrowing money

A credit warning has a very small effect on the attitude and intended course of action of the consumer

Showing a fictional advertisement that contains the existing, an alternative or no credit warning has hardly any effect on the attitudes to borrowing money. Consumers do not respond differently

[17] This study is described in paragraph 3.1 and 4.1 of the Veldkamp report 'The credit warning – Influence and base of support' *De kredietwaarschuwing – Invloed en draagvlak*' (Veldkamp, 2015).

to the question how positive or negative they regard borrowing money. They also hardly react differently to statements about borrowing money. We only observe a significant difference for one out of the ten statements (see figure 5) for those who already own a loan: "*I would like to make a big purchase, without having to think about how much I will have to pay back later.*" The subgroup who were shown the existing credit warning agreed significantly less often with this statement than in all other conditions.

Can you indicate to what extent you agree or disagree with the following statements about borrowing money after seeing the advertisement?

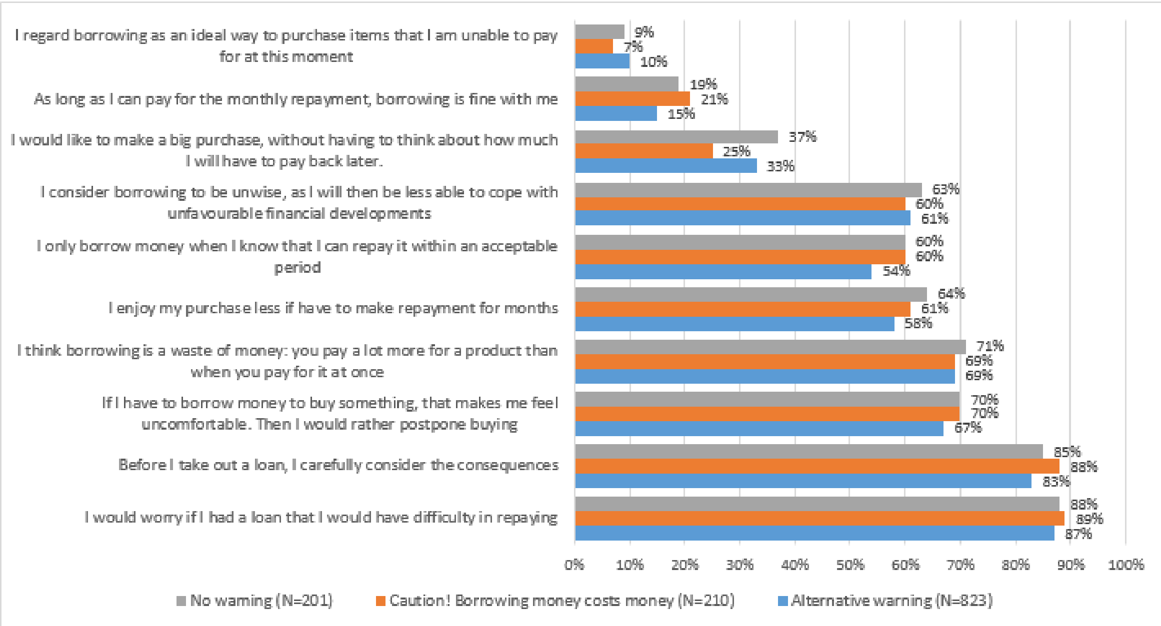


Figure 5: Attitude towards borrowing after seeing the advert

If we also look at the intended steps consumers would take when taking out a loan, we fail to find any large differences (see figure 6).

Let us assume that you intend to take out loan. Which steps do you intend to make? (% I will certainly do that)

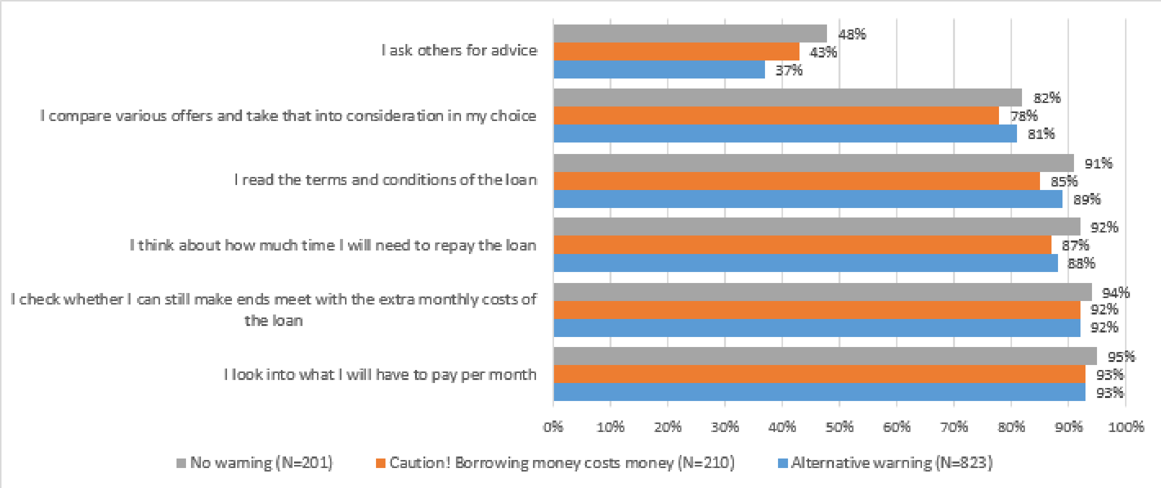


Figure 6: Intended course of action when concluding a loan

If we zoom in on the results a bit further, we notice a number of effects that appear to indicate that the credit warning has a counterproductive effect. For instance, we see that consumers who do not own a loan have a slightly more positive attitude towards borrowing when they are shown the existing credit warning than those in the group to whom no credit warning was shown (3.12 versus 2.78 on a scale of 7). Furthermore, we see that consumers with a loan, and who have not been shown a credit warning, consider borrowing to be a waste of money more often than those who are shown the existing credit warning (61% versus 43%). In addition, consumers with a loan who have not been shown a credit warning have a higher intention of reading the terms and conditions, than consumers who are shown the existing credit warning (92% versus 80%).

However, these differences do not show an unequivocal trend. The number of significant differences that occur is very limited if we compare these to the number of analyses that we have carried out. Therefore, we do not treat this as evidence of an effect of a credit warning. However, the differences do make us realise that any intervention could possibly have an undesired effects.

Please note: Intention is not the same as behaviour

We have asked people's intentional course of action when taking out a loan. By no means does this mean they will follow through on this intention. Research shows that the behaviour that consumers think that they will display and the behaviour that they actually display often does not correspond with each other (for an example regarding pensions, see Choi, Laibson, Madrian and Metrick, 2002). Therefore, we cannot conclude from this study that, for example, 85% of the consumers will read the terms and conditions when they take out a loan. The purpose of this study was to obtain insight into whether a credit warning in an advertisement may have an effect.

6.2 The influence on how consumers perceive a credit advertisement

A credit warning has a small effect on how consumers perceive a credit advertisement

This study shows that a credit warning has a very small effect on how consumers perceive the credit advertisement. We only see a significant difference for one of the seven statements: non-borrowers are of the opinion that credit advertisements with the existing or an alternative credit warning are clearer those without a credit warning (see figure 7).

We would like to know how you experienced the advertisement. You will receive a number of descriptions for which you can indicate for each one to what extent you do or do not consider this applicable to the credit advertisement that you have seen (% applicable, very applicable)

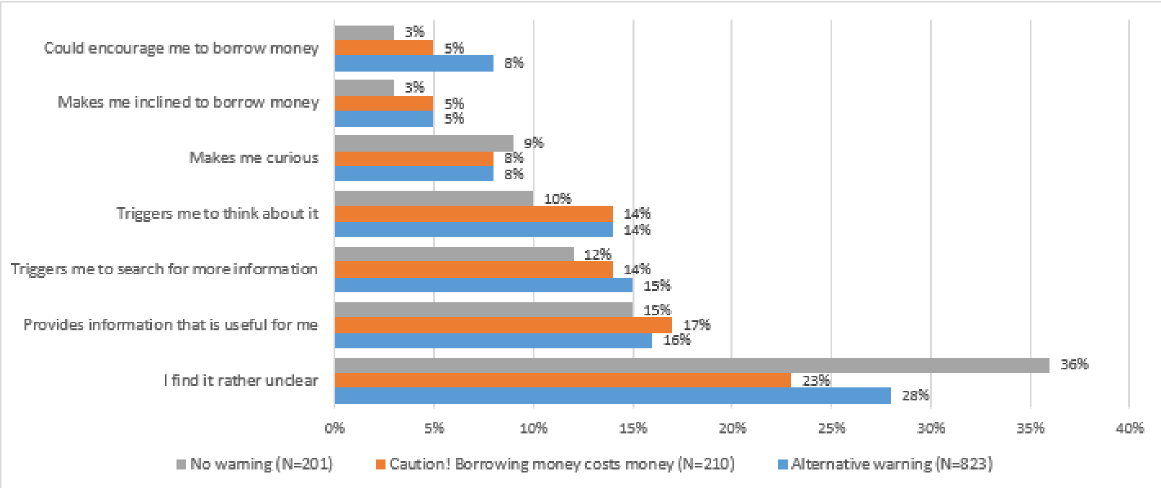


Figure 7: Attitude of non-borrowers towards the advertisement

If we zoom in on the results some more, we find a few more small significant differences. Individuals with a loan consider the advertisement with the existing, or an alternative credit warning as more insightful than an advertisement without a credit warning (alternative: 19%, existing: 16%, without: 6%). They also indicate that the advertisement with the existing or alternative credit warning makes them more inclined to borrow money than the advertisement without the credit warning (alternative: 12%, existing: 9%, without: 2%). As was the case in the previous paragraph, these results do not show an equivocal trend. Therefore, in our opinion, this does not provide proof that a credit warning has an effect on consumers' perception of credit advertisements.

Explanation of the study

We emphasise that the advertisement that we have created could have had a large effect on the outcomes. After all, a different advertisement could be experienced differently, which could also have resulted in other effects of the warning.

If consumers indicate that something is clearer to them, this does not automatically mean they have actually understood it better. We have not examined the actual comprehensibility.

7. What do other stakeholders think about the usefulness of the credit warning?

Despite the high expectations of consumers, experts believe that credit warnings hardly have an effect on the behaviour of consumers who take out loans. It is possible that the credit warning does influence the social norm in the long term.

In this chapter, we will describe the views of stakeholders who deal with the credit warning in practice (consumers, firms, experts, and debt advisors) regarding the usefulness of the warning. Consumers filled in a questionnaire about warnings in credit advertisements. Contrary to the consumer survey described above, consumers are not shown a credit warning, but were asked a number of general questions about it instead. Interviews were held with the other organisations involved.

7.1 The opinion of consumers

As the credit warning was designed to warn consumers, we were curious to find out to what extent they think that the credit warning influenced their behaviour. As there is often a big difference between intention and the actual behaviour of consumers, we do not attach much weight to these finding in our conclusion on the effectiveness of the warning. However, we do consider it important to obtain insight into the degree of confidence and the size of the base of support among consumers, so that this can be taken into consideration when deciding on the future of the credit warning.

Consumers have much confidence in the effectiveness of a credit warning

The study shows that consumers have high expectations of the effectiveness of the credit warning. A large majority of the respondents (see figure 8) thinks, for example, that a warning (completely or partially) encourages people to be cautious (81%) and to think about the consequences of borrowing (87%).[18]

[18] Chapter 2 of the Veldkamp report 'The credit warning - Influence and base of support' (Veldkamp, 2015) contains a detailed description of consumers' expectations with regard to the effectiveness of the credit warning.

Can you indicate to what extent you agree or disagree with the following statements about warnings in advertisements about borrowing money? (n=479)

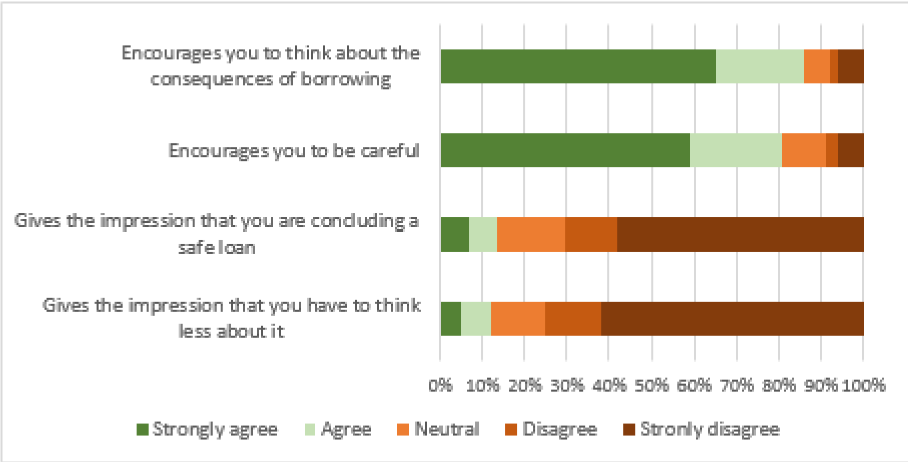


Figure 8: Statements regarding the warning in advertisements about borrowing money

There is a large base of support for the credit warning among consumers

Given the high expectations regarding the effectiveness of the credit warning, it is not surprising that 80% of the consumers consider it positive that the government obliges credit providers to include a credit warning in their advertisements. The majority of consumers (see figure 9) considers the warning in credit advertisements important (76%), necessary (74%), useful (74%) and informative (67%). Only a small group has a less positive view of the warning: about one out of ten consumers (11%) consider the warnings in advertisements unimportant.

A number of contrasts are listed below. What is your opinion about warnings in advertisements about borrowing money? (n=479)

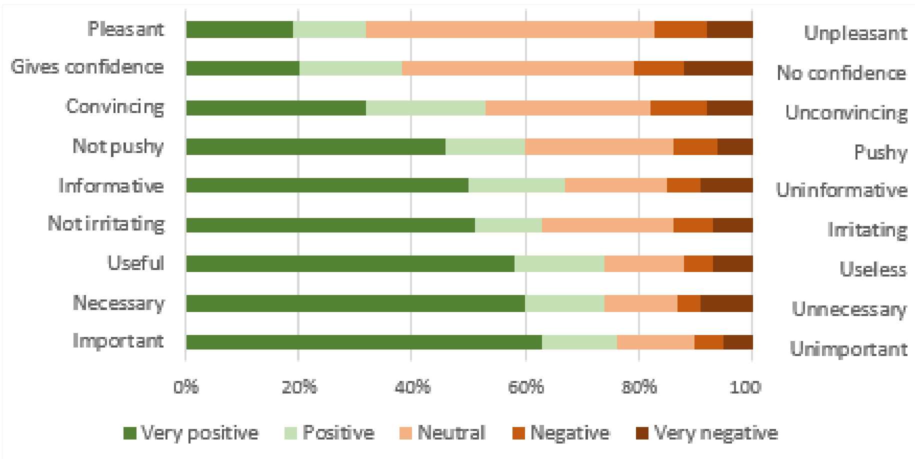
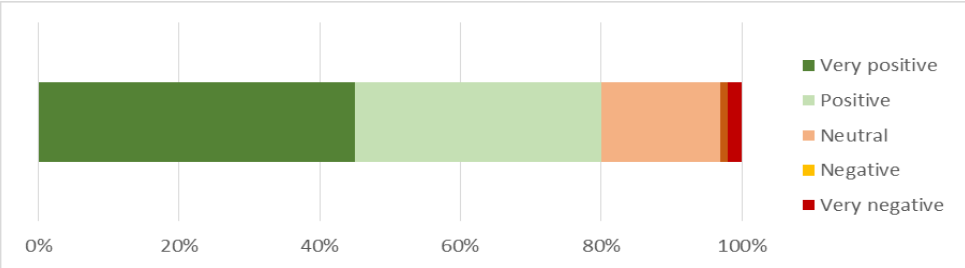


Figure 9: Attitude towards warning

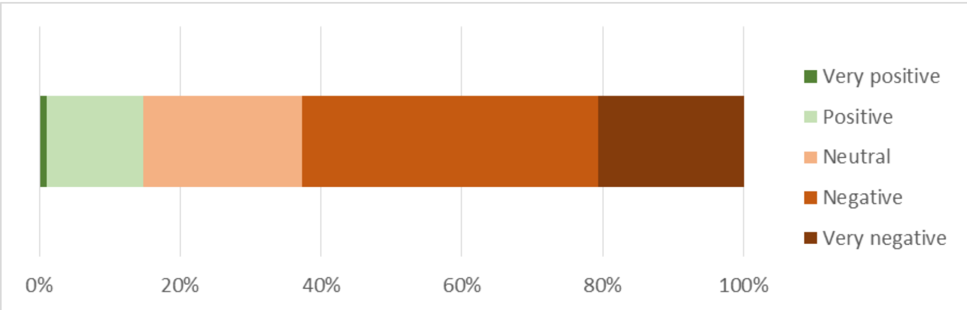
The large base of support for the credit warning is in line with how consumers regard borrowing money and credit advertisements. A majority of the Dutch public (64%) holds negative views regarding borrowing money. Only 15% is positive about borrowing money and a little under 23%

is indifferent. This shows that the social norm is negative with regard to borrowing. Consumers are also negative about credit advertisements.

How positive or negative are you about the fact that the government obliges banks and credit providers to include a warning? (n=479)



How positive or negative are you in general about borrowing money? (n=479)



How positive or negative are you in general about advertisements about borrowing money? (n=479)

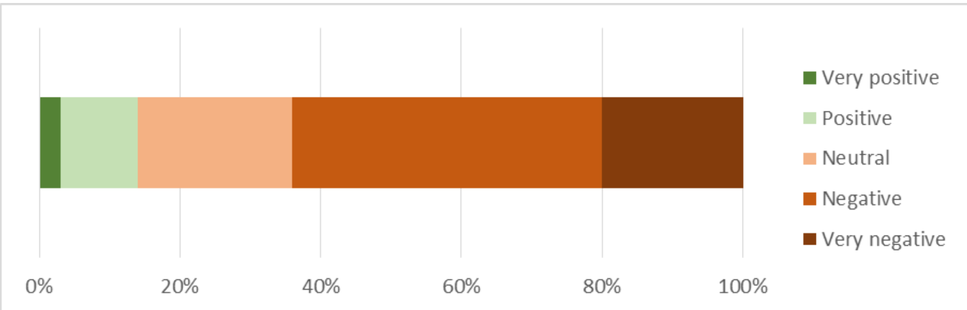


Figure 10: Attitudes towards borrowing money and credit advertisements

7.2 The opinion of communication and behaviour experts

The credit warning has hardly any effect on borrowing behaviour, but it could influence the social norm

In chapter 4, we used behavioural insights to show possible effects of the credit warning. We would also like to consider what experts in the field of communication and consumer behaviour think about the effectiveness of a warning as a policy measure. Therefore, we have spoken to three experts: Prof. dr. R.A.C. Ruiter of Maastricht University (professor of Applied Psychology, specialised in the effectiveness of persuasive messages), Prof. H.H.J. Das of Radboud University Nijmegen (specialised in persuasive and health communication) and Dr. R.J. Renes of the University of Applied Science Utrecht (specialised in (health) communication and behavioural change).

In accordance with the behavioural insights described earlier, these experts expect that the existing credit warning has hardly any effect on consumers who intend to borrow or have borrowed money before. The reasons they cite for this are:

- It is difficult to get borrowers to take action solely by providing information;
- The credit warning does not offer a specific course of action; and
- Consumers may have grown accustomed to the warning.

The communication and behaviour experts also indicated that a warning is not sufficient enough in itself to change consumer behaviour. Their expectation is that the credit warning mainly confirms the negative attitude of consumers who are already negatively think about borrowing. It is possible that the credit warning has influenced the social norm with regard to borrowing in the long term.

A number of aspects are of importance to effectively influence consumer behaviour:

- When designing communication messages, it must be clear:
    - Who the target group is;
    - Which behavioural change is desired;
    - Which factors may lead to this change;
    - Whether a warning would contribute to a change in behaviour; and
    - At which point in the process behaviour can be influenced most effectively.
- Based on the warning, it is clear for consumers which behaviour is expected of them, how they can achieve this and whether they consider themselves able to carry out that behaviour (self-efficacy).
- If consumers do not know how they should change their behaviour, they often deny the consequences of their current behaviour.
- A credit warning forms part of a combination of measures. The effect of a warning is negligible on its own.
- The message must be in keeping with the social norm.
- The message is conveyed by various senders.
- Symbols have to be made known, and be given meaning to separately.

If we compare the existing credit warning with these conditions for effectively influencing consumers, we conclude that it does not satisfy a number of these conditions. For example, it is not clear for consumers which behaviour is exactly expected from them. It is a stand-alone warning and does not appear to be part of a larger group of measures.

7.3 The opinion of debt experts

The warning probably does not work for vulnerable groups, but could serve as a useful label

We spoke to the Dutch National Institute for Budget Information (Nibud), the Dutch Association for Public Credit (NVVK[19]) and the research group Poverty Interventions at the University of Applied Science Utrecht (research group). We wanted to know what they think about the effectiveness of the credit warning, as they are more aware of the plights of the most vulnerable groups of consumers. The NVVK and the research group doubt whether the existing credit warning is useful for those consumers who already experience financial difficulties.

They cite the following three reasons:

- It is difficult to influence consumers if they have debts or if they need money in the short term and have no savings. They make ends meet every day and take short-term decisions. According to the NVVK and the research group, the credit warning will hardly change this.
- The cognitive capacity of consumers with debts decreases considerably (see also chapter 4). As a result, they often make suboptimal decisions. According to the NVVK, the credit warning will not change this. The research group regards this as an important obstacle for the effectiveness of the credit warning.
- The credit warning targets people who would already consider their options carefully before deciding. The credit warning probably only effects consumers who take such rational decisions.

These experts suspect that the credit warning is more likely to influence consumers who least need to be warned. The reasons outlined above are in concurrence with the theory and results described in previous chapters. According to the Nibud, a credit warning has one important general function: offering a counterweight to advertisements. It may act as a useful label, stressing that it concerns an advertisement for a loan when this might not directly have been clear from the name or description of the product itself. The Nibud argues that credit firms have the natural tendency to avoid words like 'borrowing' and 'credit' in order to influence the consumer's emotions positively.

7.4 The opinion of credit providers, advisers and intermediaries

Trade associations doubt the effectiveness and necessity of the credit warning

Credit providers, advisers and intermediaries are obliged to include the credit warning in their advertisements. In order to sound out their opinion, we spoke with the following four trade associations: the Dutch Banking Association (NVB), the Association of Financing Companies in the Netherlands (VFN), the Dutch Association of Financial Advisers and Intermediaries (NVF) and the Dutch Home Shopping Organisation (NTO).

[19] The NVVK is the association for debt assistance and social banking.

It became apparent from the interviews that these organisations doubt the effectiveness and usefulness of the credit warning, although they do support its objectives. They have the following reservations:

- Does the warning reach the right target? The credit warning is not included in every single piece of information that consumers receive before taking out a loan. It is therefore not guaranteed that all consumers will see the credit warning;
- Does an increase in information results in better decisions?
- What is the effect of a warning after years of repetitions, during which consumers have become accustomed to its message?
- How effective is a warning when a consumer has already made up his mind?
- Consumers may regard the credit warning as a quality label.

The organisations we have spoken to were unable to substantiate their doubts with figures or research. However, a number of these doubts are in line with the reservations the theory expresses with respect to the effects on human behaviour. Furthermore, they question whether the warning is still necessary altogether. After all, the pre-contractual information requirements have been expanded since its introduction, and the quality of providers and intermediaries has improved, they argue.

They cite the following disadvantages of the credit warning:

- The symbol, which looks like a chained prisoner, leads to a negative perception of the image of the sector and scares away customers;
- The sentence is confusing for 0% loans, because no interest is paid;
- It warns about the costs of borrowing, which is common knowledge nowadays;
- The credit warning is expensive in itself to implement in all advertisements; and
- The warning limits credit providers, advisers and intermediaries in their freedom of communicating their message appropriately via adverts.

8. Conclusions and recommendations

The AFM has measured the effectiveness of the credit warning in collaboration with the Ministry of Finance. This warning was introduced in 2009 as a counterweight to credit advertisements and to increase the awareness of consumers so that they would make a more carefully considered and rational choice. Based on behavioural insights and empirical research, we determined whether the credit warning does actually have a (short-term) effect on the behaviour of consumers. Based on our study, there does not appear to be any short-term effect. A long-term effect on the social norm is difficult to demonstrate. There is a broad base of support for the credit warning among consumers; they consider it important that advertisements contain a warning and have high expectations of its effects. We do not recommend to abolish the credit warning. We do recommend to redefine the warning's current objectives and subsequently determine whether alternative interventions are needed that would contribute to these objectives.

8.1 Conclusions

There was much reason to intervene in the credit market in the period 2006-2009, due to a strong increase in consumer loans and people with problematic debts. As studies did not find a causal link between credit advertisements and debts, no general ban was imposed. The credit warning was introduced instead, pursuing the following objectives:

1. To stimulate consumers to carefully consider their choices;
2. To create awareness among consumers by pointing out the consequences of the credit;
3. To counter the image presented in some of the credit advertisements that borrowing for consumer purchases is perfectly normal.

The credit warning was supposed to enable consumers to make a more carefully considered and rational decision. In order to measure whether the credit warning succeeds in this, we examined the short-term effects of the credit warning on the behaviour and the perception of consumers.

The most important conclusions of our study are the following:

- Based on behavioural insights, the AFM has no reason to assume that the credit warning has any influence on the way in which consumers make their decisions. It is apparent from research that a larger degree of awareness of possible risks often does not result in other, or better choices.
- Our empirical research within the decision-making environment of a consumer credit provider confirms this. A warning, both the existing and an alternative version, does not lead to a change of behaviour.
- Our study showed that the credit warning has no influence on the attitude of consumers towards borrowing, and the way in which consumers experience credit advertisements. These are indications to believe that the credit warning is not able to offer a sufficient counterweight to credit advertisements.

8.2 Recommendations

Correct and clear information is a necessary precondition for properly functioning, fair and transparent financial markets. Based on our research and behavioural insights, we conclude that information in itself has a limited effect of the behaviour of consumers.

Given this conclusion, we make two recommendations:

3. Behavioural insights tell us that increasing awareness is often ineffective and inadequate when trying to stimulate other, better decisions. The AFM advises the Minister of Finance to determine whether he wishes to realise other, more concrete behavioural objectives with regard to the decisions of consumers.
4. If the Minister of Finance revises the existing objectives or determines alternative objectives, examine how these objectives can be realised, to what extent the credit warning contributes to these objectives, and whether alternative measures are required.

It is important to take the behavioural insights presented in this report into account when developing new objectives and interventions. The AFM would like to contribute to this. Some important points to take into consideration:

- Our empirical research has been conducted in a specific context, i.e. the online sales environment of a Dutch bank. Based on behavioural insights, it is unlikely that the credit warning would have a different effect in other contexts. We have not studied this.
- The credit warning may have a number of unforeseen side effects.
    - The credit warning may influence the social norm in the long term, influencing people’s credit decisions. This effect was not defined as an objective upon introduction of the warning, and was therefore not included in this particular research.
    - The credit warning may work as a useful label when it is not immediately apparent from the product’s name that it actually concerns a loan.
- Although no causal relationship has been demonstrated between consumer credit and problematic debts (Panteia, 2015), the debt problem (which was initially cited as the reason for the introduction of the credit warning) has not decreased in recent years (see Appendix 1). Nevertheless, consumer credit continues to have a major impact on the financial affairs of consumers and therefore receive the AFM’s continuous attention.

References

Autoriteit Financiële Markten (AFM, 2007). *Verantwoorde kredietverstrekking 2006*. https://www.afm.nl/nl-nl/professionals/nieuws/rapporten/2007/verantwoorde-kredietverstrekking

Autoriteit Financiële Markten (AFM, 2008). *Evaluatie AFM – Bewustwordingszinnen – Studie naar de beste wijze om te waarschuwen voor de nadelige gevolgen van lenen*. (niet gepubliceerd)

Autoriteit Financiële Markten (AFM, 2015a). *Dashboard Module Consumptief Krediet (2014-2015)*. https://www.afm.nl/nl-nl/over-afm/toezicht-thema/kbc/dashboard/consumptief-krediet

Autoriteit Financiële Markten (AFM, 2015b). *Standaardproducten en financieel beslisgedrag van consumenten - Een gedragswetenschappelijke analyse*. https://www.afm.nl/nl-nl/professionals/nieuws/2015/mrt/rapport-standaardproducten

Autoriteit Financiële Markten (AFM, 2015c). *Belangrijke inzichten over zelfstandige beleggers.* https://www.afm.nl/~/profmedia/files/rapporten/2015/inzichten-zelfstandige-beleggers.ashx

Autoriteit Financiële Markten (AFM, 2016a). *AFM & Consumentengedrag: Een verkenning.* https://www.afm.nl/nl-nl/professionals/nieuws/2016/okt/consumentengedrag

Autoriteit Financiële Markten (AFM, 2016b). *Consumentengedrag op de markt voor consumptief krediet – Impact van de keuzeomgeving op het beslisgedrag van consumenten.* https://www.afm.nl/nl-nl/nieuws/2016/okt/kbc-keuzeomgeving-consumptief-krediet

Bureau Krediet Registratie (BKR, 2015). *Ruim 777.000 mensen met betalingsachterstand op lening*. https://www.bkr.nl/nieuws-en-berichten/bkr-kredietbarometer-juli-2015/

Centraal Bureau voor de Statistiek (CBS, 2007). *Totale consumptieve schuld stijgt licht door meer roodstand en creditcardkrediet*. http://www.cbs.nl/NR/rdonlyres/B3C3C708-2864-4ADA-B446-9F794E7FE500/0/2007totaleconsumptieveschuldstijgtlichtdoorroodstandencreditcardkredietart.pdf

Centraal Bureau voor de Statistiek (CBS, 2014). *Consumptief krediet 1998-2013*. http://statline.cbs.nl/Statweb/publication/?DM=SLNL&PA=70699ned&D1=a&D2=0&D3=168-192&HDR=T&STB=G1%2cG2&VW=T. Cijfers verwerkt door AFM.

Centraal Bureau voor de Statistiek (CBS, 2016). *Roodstand op betaalrekeningen*. http://statline.cbs.nl/Statweb/publication/?DM=SLNL&PA=82219NED&D1=0&D2=6,18,30,42,54,66-67&HDR=T&STB=G1&VW=T

Choi, J.J., Laibson, D. & Madrian, B.C. (2010), Why Does the Law of One Price Fail? An Experiment on Index Mutual Funds. *Review of Financial Studies, volume 23*, pp. 1405-1432

Choi, J.J., Laibson, D., Madrian, B.C., & Metrick, A. (2002). Defined contribution pensions: Plan rules, participant choices, and the path of least resistance. *Tax Policy and the Economy, volume 16,* pp. 67-114. MIT Press.

Economisch Instituut voor het Midden –en Kleinbedrijf (EIM, 2006). *Krachtenveld minnelijke schuldhulpverlening*. Uitgevoerd in opdracht van het ministerie van Sociale Zaken en Werkgelegenheid. https://zoek.officielebekendmakingen.nl/kst-24515-97-b1.pdf

Economisch Instituut voor het Midden –en Kleinbedrijf (EIM, 2007). *Overkreditering aan banden - Onderzoek naar de effectiviteit van beleid om overkreditering tegen te gaan*. Uitgevoerd in opdracht van het ministerie van Financiën. https://www.rijksoverheid.nl/documenten/rapporten/2007/09/01/evaluatierapport-overkreditering-aan-banden

Fernandes, D., Lynch, J.G., & Netemeyer, R.G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management Science, volume 60*, pp. 1861-1883.

GfK Nederland (GfK, 2009). *AFM Consumentenmonitor Q3 2009 - Kredietwaarschuwing*. Uitgevoerd in opdracht van de Autoriteit Financiële Markten. https://www.afm.nl/nl-nl/professionals/nieuws/2009/dec/kredietwaarschuwingszin-succes

GfK Nederland (GfK, 2011). *AFM Consumentenmonitor najaar 2010 Consumptieve kredieten*. Uitgevoerd in opdracht van de Autoriteit Financiële Markten. https://www.afm.nl/nl-nl/professionals/nieuws/2011/april/consumentenmonitor-kredieten-q3-2010

Kahneman, D. (2003). A perspective on judgment and choice: Mapping bounded rationality. *American Psychologist, 58: 9*, pp. 697-720.

Kahneman, D. (2011). *Thinking, fast and slow*. New York, NY: Farrar, Straus and Giroux.

Loewenstein, G., Sunstein, C. R., en Golman, R., (2014). Disclosure: Psychology changes everything. *Annual Review of Economics, 6,* pp. 391-419.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature, 52*, pp. 5-44.

Mercer, M., Palmiter, A.R., & Taha, A.E. (2010). Worthless warnings? Testing the effectiveness of disclaimers in mutual fund advertisements. *Journal of Empirical Legal Studies*, *7*(3), 429-459.

Mullainathan, S. & Shafir, E. (2013). *Schaarste: Hoe gebrek aan tijd en geld ons gedrag bepalen.* Nederland: Maven Publishing.

Panteia (2015). *Huishoudens in de rode cijfers 2015 - Over schulden van Nederlandse huishoudens en preventiemogelijkheden*. Uitgevoerd in opdracht van het ministerie van Sociale Zaken en Werkgelegenheid. https://www.rijksoverheid.nl/documenten/rapporten/2015/11/27/bijlage-2-huishoudens-in-de-rode-cijfers-2015

Ruiter, R.A.C., Kessels, L.T.E., Peters, G.J.Y. & Kok, G. (2014). Sixty years of fear appeal research: Current state of the evidence. *International Journal of Psychology, volume 49, issue 2*, pp. 63-70.

Smith, N.C., Goldstein, D.G. & Johnson, E.J. (2013). Choice without awareness: ethical and policy implications of defaults. *Journal of Public Policy and Marketing, 32*, pp. 159-172.

Soll, J.B., Milkman, K.L. & Payne, J.W. (2014). *A user's guide to debiasing.* To appear in Keren, G. & Wu, G. (Eds). *Handbook of Judgment and Decision Making.* Boston: Wiley-Blackwell.

Tiemeijer, W. (2016). *Wetenschappelijke Raad voor het Regeringsbeleid: Eigen schuld? Een gedragswetenschappelijk perspectief op problematische schulden.* Amsterdam University Press. http://www.wrr.nl/publicaties/publicatie/article/eigen-schuld-een-gedragswetenschappelijk-perspectief-op-problematische-schulden-33/

Tversky, A. & Kahneman, D. (1974). Judgment under uncertainty: heuristics and biases. *Science, volume 185*, pp. 1124-1131.

Veldkamp (2015). *De kredietwaarschuwing – Invloed en draagvlak*. Uitgevoerd in opdracht van de Autoriteit Financiële Markten.

Vereniging van financieringsondernemingen Nederland (VFN, z.j.). *Marktcijfers 2006 - 2013.* http://www.vfn.nl/marktcijfers-2

Nederlandse Vereniging voor Volkskrediet (NVVK, z.j.). *Jaarverslag 2014.* http://www.nvvk.eu/jaarverslag2014/cijfers/

Appendix 1 Trends in the consumer credit market

Amount of consumer credit

According to data from the Centraal Bureau voor de Statistiek (CBS - Statistics Netherlands), the total outstanding consumer credit in December 2013 amounted to € 15 billion (see figure 11). This concerns only revolving credits and personal loans. This balance has gradually decreased since 2009 (CBS, 2014).

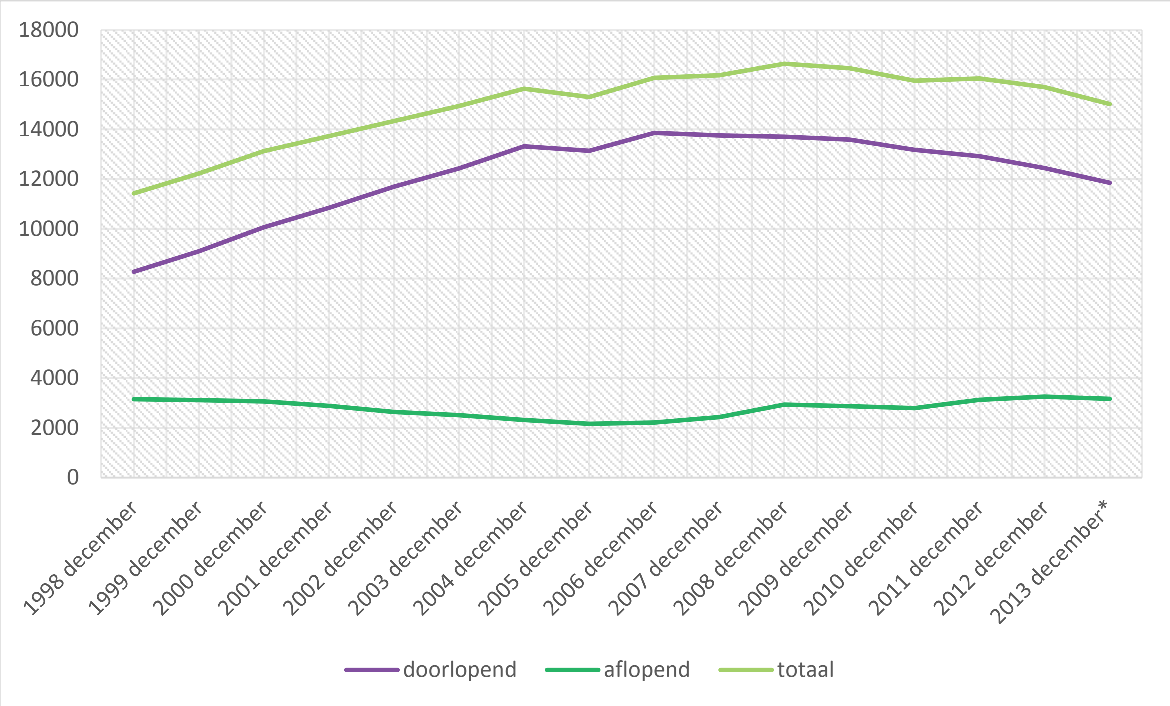


Figure 11: Outstanding revolving and non-revolving consumer credit x € 1 million (CBS, 2014), compiled by the AFM. Revolving / Non-revolving / Total

However, the CBS no longer registers this data as from 2014. The Dutch Credit Registration Agency (BKR) also keeps track of consumer credit data. In spite of the fact that this data is not directly comparable to that of the CBS, we observe that the decreasing trend has continued after 2013. Over the period 2011-2015, non-revolving credit and revolving credit decreased by € 3.62 billion and € 4.36 billion respectively. This is a decrease of about € 700 million.[20] Overdrafts on current accounts have also shown a decreasing trend in recent years. At the end of 2010, these overdrafts amounted to € 14.23 billion and at the end of 2015, this had decreased to € 11.18 billion (CBS, 2016). It is apparent from data that we received from the Dutch Central Bank (DNB) that credit card debts are also decreasing. At the end of 2010, credit card debts amounted to € 2.0 billion compared with € 1.5 billion at the end of 2015.

[20] The data was requested directly from the BKR.

Increasing debt problem

In spite of the gradual decrease of the balance of outstanding consumer credit, the number of people who are dealing with problematic debts is increasing. Research carried out by Panteia (2015), indicate that between 17.4% and 18.8% of the households in the Netherlands have debts. The nature of these debts has changed in 2015 compared to 2012 and 2009. There are more households with overdue payments and fewer households that regularly make use of overdrafts or credit cards.

In addition, the BKR Credit Barometer shows that there were 777,767 people with overdue payments on loans on 1 July 2015 (BKR, 2015), about 630,000 on 1 July 2010 (BKR, 2015) and around 500,000 in 2005 (EIM, 2007). The data regarding requests for debt assistance of the Dutch Association for Public Credit (NVVK) also show an increase in recent years from 76,000 requests in 2011 to 92,000 in 2104 (NVVK, no date). The number of registered requests for debt assistance decreased to 90,400 in 2015. The average debt of people who applied for debt assistance amounted to € 42,900 (Tiemeijer, 2016).

Although no causal relationship has been demonstrated between consumer credit and problematic debts, the existing problems provide sufficient reason for the AFM’s continuous attention.

Appendix 2 Description of the experiment and accountability

Experiments, also referred to as randomised controlled trials, A/B tests or split runs, are the golden standard for assessing the effectiveness of policy instruments. Carrying out an experiment is the only way to determine with certainty which effect a specific policy has. However, in practice there often appears to be (too) little time, money or need to carry out such thorough assessments. In the evaluation of the effectiveness of the credit warning, the AFM did however opt for this thorough method. We are proud that we have taken this step towards a more evidence-based approach which is in line with our ambition to exercise data-driven supervision.

A good experiment must satisfy a number of stringent conditions. Below, we describe how we have ensured that we satisfied these conditions, which practical problems resulted from this, and which solutions we found for this.

Condition 1: Random allocation to various versions of the warning.

Why? Random allocation is an important condition for a successful experiment. The reason for this can be best explained by describing what occurs when this condition is not satisfied. Let us assume that the allocation to different versions of the warning had taken place based on the characteristics of the visitor; for example, that borrowers see version A and non-borrowers see version B. If there were differences between the behaviour of visitors who saw version A and those who saw version B, we are unable to determine whether these differences are a result of the differences between version A and B, or differences between borrowers and non-borrowers. This question cannot be answered with certainty. With random allocation of a large group of observations (in total more than 60,000), we can obtain this certainty. Any observed differences between conditions can then be allocated to the difference between the warnings.

How? The consumer credit provider with whom we worked together often carries out A/B tests on its website. The test application that runs these tests offers the possibility to allocate visitors randomly to different conditions.

Condition 2: Sufficient observations for every version of the warning.

Why? To ensure that we can detect the possible effects of the warning, we must observe the behaviour of a large number of visitors for each version of the warning. The term 'statistical power' is used in statistics to indicate how large the probability is that an effect of a certain size can be detected with a specific analysis.[21]

How? In order to have sufficient statistical power, we had to divide the experiment into four test periods, which each lasted two weeks. In each test period, we compared the behaviour of the visitors between one or two versions of the warning and the original credit warning.

[21] The Veldkamp Research Report describes on page 48 how much statistical power this study has.

Condition 3: The assessed policy has a clear (behaviour) objective.

Why? In an experiment, the same behaviour is measured in each condition and then compared between conditions. This is why a clear behavioural objective has to be formulated that can be measured of each of the subjects.

How? The (behaviour) objective of the credit warning was reconstructed in chapter 3 based on policy documents. We have translated the objectives (e.g. making more well-considered decisions), into measurable objectives (e.g. more frequent, longer browsing).

Condition 4: Each visitor only sees one version of the warning.

Why? Similar to random allocation, the reason for this condition can best be explained by indicating what occurs when this condition is not satisfied. Let us assume that visitors sees several versions of the credit warning; is their behaviour influenced by the first, the second or the third warning? How do we then separate all of these effects? By ensuring that each visitor only sees one version of the warning, it is relatively easy to test which effect each version of the warning has on the behaviour of visitors.

How? In theory, the test application of the consumer credit provider ensures that each visitor is allocated to one version of the warning. By installing cookies, the test application monitors which visitor has been allocated to which version. In the event of a repeat visit, the visitor is allocated to the version that was displayed to him/her earlier. Unfortunately, it is not always possible to allocate one person to only one condition. There are two reasons for this:

1. The test application does not always function optimally, causing some visitors to be allocated to more than one condition. As a result, when they visited the site again they saw a different version of the warning than they saw the first time.
2. If consumers visit the website from several devices, for example from their phone, laptop and iPad, they first appear to be three unique visitors.

The data of these non-unique visits are not included in our analyses. For a detailed explanation and elaboration on our analyses, we refer to Veldkamp's research report (2015).

Appendix 3 Additional research limitations

In addition to the description of the research limitations in the research report (Veldkamp, 2015), our empirical research into the effect of the credit warning has a number of important limitations. These limitations are described below:

- The study took place on the website of one specific credit provider.
    - The effect of the credit warning in other media, such as radio, television and newspapers has not been examined.
    - Only the behaviour of (potential) customers of this credit provider was examined. Based on the characteristics of consumers in its panels, research agency Veldkamp has determined that the characteristics of the customers of the credit provider hardly differ from the average Dutch person;
    - Therefore, we cannot observe the effect of the credit warning on the behaviour that the consumer displays on other websites.

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