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DOES THE DEFINITION OF THE COST OF CONSUMER CREDIT ACCORDING TO THE REGULATIONS SUPPORT CREDIT DECISIONS? RESULTS OF INDIVIDUAL IN-DEPTH INTERVIEWS WITH EXPERTS

Wiktor Cwynar[1]

Abstract

According to the regulations in force, including in Poland, loan institutions must disclose the costs of consumer credit. However, these costs can be presented in many ways. By conducting in -depth interviews with experts, we analyse whether the way in which the applicable regulations are imposed supports the credit decisions of the average consumer. Experts' statements show that the regulatory solutions currently in use may deliver far from what is expected. AER, annual effective rate (RRSO in Poland), the key measure of the cost of consumer credit introduced in Poland by the provisions of the Consumer Credit Act, is very ambiguous and, in the opinion of experts, in many cases distorts the actual cost of credit, thus making it difficult for consumers to make rational credit decisions. The conclusions of the study may be of significant importance both for institutions regulating the consumer credit market and for entities operating on this market.

JEL classification: G51, G53, G2

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[1] The University of Economics and Innovation in Lublin, Poland, e-mail: wiktor.cwynar@wsei.lublin.pl, ORCID: https://orcid.org/0000-0001-6890-5189.

Introduction

Since 2001, the provisions of the so-called Consumer Credit Act (hereinafter referred to as the "Act") have been in force in Poland. These regulations are a faithful reflection of the regulations introduced at the European Union level. They require the consumer to be informed by lending institutions about the cost of the loan. However, this is not about the nominal interest rate on the loan (hereinafter referred to as the "interest rate") commonly known and used in loan agreements. The Act requires that the consumer is additionally informed about the cost of the loan by means of three parameters: (i) the total cost of the loan, (ii) the total amount to be paid and (iii) the annual effective rate (AER). The first two of the three parameters are of a quota nature. The third is the percentage parameter. The unit of time in which individual parameters are expressed is also different. The total cost of the loan and the total amount to be paid apply to the entire loan period resulting from the loan agreement. AER, like the interest rate, is expressed on an annual basis. Both amount parameters, like the interest rate, do not take into account changes in the value of money over time, while AER does. In the case of two percentage parameters, the definitions of capital to which the costs are referred are different. The interest rate, with which AER is often confused, refers to the loan amount written in the agreement and disbursed. AER, on the other hand, is related to the so-called disposable capital, i.e. after taking into account all costs to be paid in advance. The interest rate only takes into account interest. AER includes all costs required to be disclosed by the Act. The different nature and method of calculating the amount and percentage parameters mean that the same loan can have at the same time, for example, the lowest AER and the highest total cost compared to other loan offers. This is not conducive to the consumer's understanding of the costs of credit and hinders the practical application of the objectives of the Act which are aimed at supporting borrowers in choosing the most advantageous loan offer.

The overarching question implementing the purpose of the study is whether the way in which the Act requires that the cost of credit be calculated and presented is optimal for rational consumer credit decisions. The study presented in this article is the first that empirically addresses these aspects. The detailed research questions that have been posed in this article are as follows: (i) Which of the listed parameters of credit costs should the consumer be guided by? (ii) Are the solutions contained in the Act adequate to the level of preparation of the average consumer to understand the cost of credit? (iii) What do experts related to the broadly understood financial market think about this? The purpose of this article is to learn the opinions of experts and representatives of the financial professional community on the above topic. We treat these opinions as potential recommendations for possible adjustments in the regulatory area and suggestions for directing future educational activities aimed at improving knowledge in the discussed aspects.

Literature review

The American market has a rich history of research devoted to the knowledge, understanding and effectiveness of regulations on the cost of consumer credit. The first piece of legislation, the Consumer Credit Protection Act (CCPA), also known as the Truth-in-Lending Act (TILA), regulating consumer credit and defining how the cost of credit is measured, was passed in the United States in 1968. Some of the first publications from the period before the adoption of the CCPA that indicated a significant lack of awareness and understanding by consumers of the costs of credit were, among others, the works of Due (1955), Juster and Shay (1964), or Mors (1965). A compendium of knowledge documenting research on the cost of consumer credit before the introduction of the TILA regulation is the study by Parker and Shay (1974). Research shows that the introduction of TILA regulations on the US market has raised consumer awareness of credit costs. However, it did not translate into a better understanding of them by consumers. This is shown, among others, by two reports of the National Commission on Consumer Finance: Shay and Schober (1972) as well as Day and Brandt (1972). These reports identify the problem of consumers' lack of understanding of the cost of credit, but do not indicate the causes of this problem.

Attempts to identify them are made by Mandell (1971), Parker and Shay (1974), or Lee and Hogarth (1999). A separate group of publications are studies showing that APR, annual percentage rate (the US equivalent of Polish AER and EU's APRC, annual percentage rate of charge), the leading measure of the cost of consumer credit formulated by TILA, does not express this cost well. These publications propose a redefinition of the method of its determination Buch et al. (2002) as well as Ramsay and Oguledo (2005). Buch et al. (2002) instead of APR propose their own, standardized measure in terms of four parameters, which they call AER, annual effective rate (Unfortunately, there is a terminological misunderstanding here. The term annual effective rate and the abbreviation AER are commonly known and used as a way to convert the effective cost from a sub-period to an annual value using compound interest). Ramsay et al. (2005) propose to include in the calculation of APR the tax shield on the financial costs incurred by the consumer, which is allowed by tax regulations in some countries. Osborne (2014) and Yard (2004) also propose their own modifications of the APR, consisting in normalizing the sum of the loan costs using the loan amount and the loan period.

The reason for proposing alternative measures is that the effectiveness of APR as a measure of the cost of consumer credit is questionable (Buch et al., 2002). The authors point out that "the APR, as currently constituted in the USA and the UK, is, at best, of marginal usefulness in discriminating among loan products and, at worst, misleading to borrowers" (Buch et al., 2002). As a result, as the authors point out, consumers are reluctant or unable to choose loan offers based on APR. The main problem with low effectiveness is the lack of understanding of APR not only by borrowers, but in many cases also by lenders (Buch et al., 2002). A similar position is presented by Osborne (2014). The author claims that "legislative emphasis on APR is misplaced" (Osborne, 2014). This is also confirmed by Lee and Hogarth (1999).

There are at least four reasons for the lack of understanding of APR by its users (Buch et al., 2002, p. 78):

1. Consumers have trouble understanding the mathematical aspects of APR and prefer to compare loan offers based on absolute cost values rather than relative values (percentage rates).
2. The assumptions on which the APR calculation is based are unclear and ambiguous.
3. Loans are a kind of undesirable product. As a result, consumers are not interested in investing time and effort in analyzing and selecting them in proportion to their importance.
4. The percentage rate is just one of the variables used as part of borrowing choices.

Of the reasons of users' misunderstanding of APR provided by Buch et al. (2002), the one described in the third point above is noteworthy. The argument cited in the observations of Buch et al. (2002) is confirmed in the statements of some experts in this study and is related to the psychological aspects of the purchases made (Buch et al., (2002) focus on buying a house and, as a result, financing it with a mortgage). The object of purchase is something physical, tangible, and above all, desirable. It is what the consumer focuses on in the purchasing process using credit. The loan itself is something abstract, often unnecessary, but essential because it allows a customer to buy the desired good. From the customer's perspective, the loan is absolutely of secondary importance in this process. Customers can fiercely negotiate the price of the goods they buy, often by small amounts, but they are reluctant to take the time to analyze offers that could save them much larger sums on the loan, often taken for many years (Buch et al., 2002, p. 80).

Yard (2004, p. 65) writes that "consumers tend to have problems interpreting cost information, such as the annual percentage rate (APR), pertaining to loans". His research on groups of students showed that "some absolute measures such as FC (finance charge) seem to be used rather than relative measures when ranking loans" Yard (2004, p. 65). Yard notes that on the one hand, consumers have trouble understanding APR, and on the other hand, the total cost amount (FC), despite being more obvious to the average consumer than APR, is also not a good measure of the cost of borrowing. Its amount increases with the extension of the loan period. This obvious fact is often not taken into account when comparing absolute and relative measures of the cost of credit.

Vicknair and Wright (2015) point out the misconceptions about the definitions of APR and AER found in intermediate level accounting textbooks in the United States. Citing examples of specific literature items, they emphasize that less experienced lecturers working with them may even unconsciously repeat certain misunderstandings, as a result improperly educating subsequent generations of accountants. Tlustý et al. (2015) write that the definition and, as a result, the construction of AER is very ambiguous and should not be used as a tool to support consumer choice in terms of credit.

There is a separate literature stream examining the effectiveness of regulation using traditional measures of the cost of credit. Most publications in this trend prove low or even zero effectiveness. Seira et al. (2017) in their study on credit cards prove that even explicit disclosure of interest rates does not affect the consumer's credit decisions at all, i.e. it does not change the level of debt in subsequent periods, overdue payments, or the percentage of closures or changes in the credit account. Bertrand and Morse (2011), examining so-called "payday loans", prove that providing the consumer with APR comparisons has no impact on her/his subsequent borrowing. On the other hand, providing information on the total costs, by 5.4 p.p. reduces the probability of taking a "payday loan" in subsequent periods. Ferman (2011) argues that interest rate disclosures have little impact on the decisions of credit card consumers in the Brazilian market. Stango and Zinman (2011) prove that TILA regulation has zero impact on the level of interest rates.

The Polish market is dominated by research focusing primarily on financial knowledge and skills (see: Skica et al., 2022). These studies show that consumers' knowledge of the cost of credit, including AER, and their understanding of this parameter are still insufficient. Cwynar (2022), based on three questions of the Lusardi & Tufano debt literacy test, showed that in Poland financial literacy knowledge in the field of debt instruments is low, and the biggest problem for the question showing the impact of the variable value of money over time on the cost of borrowing. A study by Provident Polska (2017) shows that "87% of Poles would pay attention primarily to its total cost before taking out a loan. Only 6% do not pay attention to this parameter. About 86% would pay attention to the amount of the monthly installment and whether they will be able to afford to repay it. Still, many people probably do not understand the concept of AER, as this category collected the highest percentage of “don't know” answers (12%). Another 12% of respondents admit that they would not take this parameter into account before taking out a loan. Only less than 40% of respondents declared that they would definitely pay attention to the AER." A study by the Debtors' Support Program Association (2017) shows that as many as 69% of respondents could not correctly decipher the AER (RRSO in Polish) abbreviation. In a study by the Capital Market Development Foundation (2020), "concepts related to costs characteristic of loans and advances turned out to be troublesome for consumers. The respondents had a problem with indicating what non-interest costs are and often confused them with the definition of the total cost of credit (1/4 incorrect indications). Only every 2nd respondent (52% of responses) showed knowledge of what the total amount of the loan is. The definition of AER was correctly indicated by 61% of the respondents. In addition, only 28%, having information about the amount of the loan, the loan period and AER, can correctly calculate the cost of a loan – 29% of respondents calculated this amount incorrectly, and 42% of people did not attempt to calculate it at all". The Warsaw Institute of Banking (2023), when asking respondents about what costs are not included in the AER, received 43% correct answers. In a survey by the National Debt Register (2014), "the second good result was recorded when asked about AER, ("What does the Annual Effective Rate – AER – mean when taking loan or credit?"), where 68% of respondents know that it means the total cost of a loan, expressed as an annual percentage rate, including interest rates, fees, commissions and other costs. However, the results of the study show that there is a large group that does not have this knowledge. 15% of respondents answer directly that they do not know what AER is. 13% incorrectly indicate that AER is a nominal interest rate, and nearly 4% believe that it is credit insurance."

Sample, method and data collection

The study was conducted using the Individual In-Depth Interview (IDI) method. Individual in-depth interviews boil down to a direct conversation between the researcher (moderator) and a single respondent. No third parties take part in such an interview. Typical target groups for IDI are specialist groups (e.g. doctors, pharmacists, medical staff, specialists in various fields). In the case of this study, the target group were people holding, currently or in the past, high managerial, expert or scientific positions in the field of finance.

The project was implemented in five stages:

1. Preparation of an interview script and materials for the moderator.
2. Recruitment of participants.
3. Conducting an examination – interview.
4. Transcription and analysis of results.
5. Preparation of the final report.

As part of the scenario, several more detailed thematic categories were built, which were intended to be explored. They are reflected in the structure of this study. Each interview was recorded (audio and video) and its transcription was automatically saved in a separate MS Word file directly by the MS Teams tool. Each of the interviews was then listened to in order to manually correct inaccuracies in the automatic transcription made by MS Teams, caused by interference, unclear sound, overlapping sounds, etc. The recorded statements have been divided according to previously built sets of thematic categories. At the stage of analyzing the results and developing the final report, each of the study participants was randomly assigned a symbol, a letter of the alphabet. The defined thematic categories were compared to the collected interviews in order to find common denominators or indicate differences.

The interviews were conducted from 6th October 2023 to 18th January 2024 with twelve people, 11 men and 1 woman. Participants were selected for the study based on four criteria. The person had to speak Polish, had to be between 18 and 65 years old, had not previously participated in any similar study and could be assigned the title of an expert in the field of finance. Experts were invited to take part in the survey by phone. Experts have represented (currently or in the past): ministerial positions, the highest level of management in the case of business and non-profit positions (director or board member) or independent scientific position (habilitated doctor or full professor) in the case of academic staff. The institutions represented by the experts participating in the survey are, among others, the Ministry of Finance, the Polish Bank Association, the Credit Information Bureau, the National Polish Bank, the Polish Association of Loan Institutions, commercial banks and universities. Representatives of companies from the non-financial industry held the position of a member of the management board responsible for finance / CFO – Chief Financial Officer.

The interviews were conducted online using MS Teams. With the consent of the interviewees, it was recorded with simultaneous transcription. Interviews usually lasted between 40 and 60 minutes. The basis for the interview was a pre-prepared scenario with ready-made questions, and each conversation – in accordance with the assumptions of the IDI study – was directed individually and referred to selected questions, depending on its course. Thus, not all participants of the study had to be asked the same questions. Before the start of the study, an application for permission to conduct it was submitted to the Bioethics Committee of the WSEI Academy in Lublin. Such consent was granted. Before the individual interview, each participant received by e-mail: a) a document entitled "Information for the participant of the exploratory study", b) consent to informed participation in the study and c) consent to the processing of personal data. Consent was given in writing or orally before the start of the study.

In this study, the terms "loan" and "credit" are used interchangeably, despite the awareness of the differences in the definitions of both products. These terms are always applied to products addressed exclusively to the consumer, unless explicitly stated otherwise. The discussions during the interviews, as well as the article itself, were not aimed at a specific type of consumer credit, although colloquially it can be identified rather with short-term loans. The definition of consumer credit formulated in the provisions of law was also not rigidly adhered to. As the equivalent of the Polish name "roczna rzeczywista stopa oprocentowania" and the abbreviation RRSO, the English name "annual effective rate" and the abbreviation AER are used. The terms ”actual rate” and ”effective rate” are used interchangeably. When we talk about the loan (credit) market, it means both the banking and non-banking markets.

The cost of credit can be expressed either in absolute terms (in monetary units) or relative (as a percentage rate). The percentage rate expressing the cost of the loan, in accordance with the convention applicable in banking, is given by default on an annual basis. However, the very concept of "credit cost rate" is very general. They are usually identified with the annual interest rate on the loan written in the loan agreement. However, the interest rate applies only to one category of loan costs, i.e. interest. In fact, in the case of a large part of loans, the borrower is obliged to incur additional costs (e.g. commissions, fees), often payable in advance, and not, as is assumed by default, in arrears. In addition, the interest itself is usually paid with a periodicity more frequent than annual (e.g. monthly). As a result, we can talk about several approaches to the "borrowing cost rate", such as:

a) interest rate; this rate takes into account only the interest cost and is based on the mechanics of simple interest; in English-language literature, it is most often referred to as the contract interest rate (CIR) or annual interest rate (AIR),
b) percentage rate; this rate takes into account all the costs of the loan and is based on the mechanics of simple interest; in English-language literature, it is most often referred to as the annual percentage rate (APR),
c) effective rate; this rate takes into account all the costs of the loan and is based on the mechanics of compound interest; in English-language literature, it is most often referred to as the annual effective rate (AER).

This is summarized in Figure 1 (For the sake of completeness, the figure also includes the effective interest rate (EIR), which rarely appears in the literature, and is found, for example, in credit cards).

Figure 1: Ways of expressing annual borrowing costs in percentage terms

Annualization (annual cost formula)

Cost category		Simple interest (w/o intraperiod compounding) (linear annualization)	Compound interest (with intraperiod compounding) (geometric annualization)
	Interest Cost	CIR	EIR
	All costs	APR	AER

Source: Author’s own work.

The contractual nominal interest rate is also referred to in the literature as nominal rate, stated rate, simple rate, quoted rate, or simply interest rate. RRSO in Poland is the definition appropriate for AER. The above division of "interest rates" gives rise to many misunderstandings. The use of appropriate definitions is also not supported by the inconsistent terminology used in the literature on the subject. In the United States, the equivalent of the Polish RRSO (AER) is APR. In the European Commission's directive (For the first time, the so-called APRC was defined in Council Directive 87/102/EEC. The provisions of the Directive have been updated many times since then, but the definition of APRC has remained unchanged in a fundamental respect), the equivalent of the Polish RRSO (AER) is APRC (annual percentage rate of cost). While APRC is calculated in the same way as AER, APR is not. APRC, looking at Figure 1, is in fact an AER, because it is based on compound interest, and not, like APR, on simple interest.

Results

One measure or several at the same time

The Consumer Credit Act requires the cost of the loan to be presented simultaneously using three parameters. We asked experts whether they think this is a good solution. Based on the cost of the loan given in one of the ways, will we come up with a cost calculated using a different parameter? If not, does the adopted method of presenting costs not lead to confusion for the consumer? Perhaps additional information and education efforts are needed to support regulatory activity. Expert B, among others, refers to the issues raised.

Expert B: "The client immediately tries to translate this AER into the cost of the loan (in terms of amount – author's note), i.e. tries to compare two not necessarily related to each other into one, to one size. And now the question is. Because maybe the mistake in using AER is not that we generally use it, that we require EAR to be calculated and disclosed, but maybe it is a mistake that we present these customers with this AER every time in such a form that prompts them to make this mental simplification and transfer this AER to the cost of the loan (expressed in terms of amounts – author's note)".

The sum of total costs and AER are measures based on different assumptions. A loan can have the lowest AER and the highest sum of all costs compared to other offers. Presenting both values together undoubtedly makes it difficult to make rational credit decisions. The consumer wonders about the basis of which of the criteria she/he should make a decision. Should we therefore present the above three cost parameters at the same time, as required by the Act? Perhaps we should focus on only one of them? In this context, the comment of another expert is interesting. It shows that due to the ambiguity of the interpretation of the AER, the regulatory requirements deliberately include more than one way of presenting the cost of credit. At the same time, as the expert puts it, the AER is indicated as a way that "distorts" the perception of the actual costs of credit by the consumer in many cases.

Expert A: "We have always advised that AER should not be the only parameter that the consumer follows when choosing financing. We have two additional parameters required by the law. In the example you used (It is one of the three classic Lusardi & Tufano questions about debt literacy), i.e. the PLN 1200 repaid in one lump sum or in installments, it seems to me that here the consumer should consider what will be more optimal for her/him. Of course, from the point of view of the time value of money, it would probably be worth choosing this option with a one-time repayment, but perhaps there is a consumer who will find it easier to repay this PLN 1000 at PLN 100 per month and it will simply be more convenient for her/him, due to the fact that this is how her/his budget is organized. However, I would absolutely not be guided by the AER value here, because it will be disturbed in this particular example. That is, it gives consumers a completely different tip than it should look like in practice."

Expert A's statement refers to several very interesting threads. Our particular attention was drawn to the phrase "the consumer should consider what will be more optimal for her/him". The consumer, despite the protection provided by the provisions of the Act, is left without support, without a clear indication of which of the loan repayment options she/he should choose. The borrower sees three cost parameters of the analyzed offers, which may be inconsistent or even contradictory. As we assume, in the light of the available research, she/he does not understand the reasons for the identified differences and inconsistencies. From here, it is a straight path to a suboptimal credit decision, despite regulations intended to protect the consumer against such a situation.

Disturbed AER

In the statement of Expert A, our attention is also drawn to the sentence "However, I would absolutely not be guided by the AER value here, because it will be disturbed in this particular example". The passage "in this particular example" is particularly important. The Expert suggests that – according to the expert – AER is more adequate for some cases than for others. We return to this topic later in the article.

Expert A clearly recommends caution in the use of AER. As it turns out, this opinion is shared by the absolute majority of experts participating in the interviews.

At the same time, they draw attention to various reasons for such an opinion, pointing out, among other things, that:

1. AER is generally a difficult concept.
2. The vast majority of consumers do not know how the AER is calculated.
3. The vast majority of consumers do not understand AER.
4. The vast majority of consumers are not able to use AER on their own.
5. The vast majority of consumers identify AER only with the sum of all loan costs.
6. The vast majority of consumers do not understand the concept of the time value of money, on which AER is based.
7. The use of compound interest, on which the AER is based, in relation to credit products is debatable.
8. AER significantly distorts the perception of credit costs in the case of short-term loans (up to a year).
9. In the case of long-term loans (over a year), on which only interest is paid, AER does not contribute much in relation to information based on the annual nominal interest rate (it is close to the CIR and independent of the loan amount and repayment period).
10. In the case of long-term loans (over a year), for which, in addition to interest, there is an additional requirement to pay a commission (in advance), AER distorts the perception of credit costs (it increases when the loan period is shortened and decreases when it is extended, regardless of the loan amount, inversely correlating with the change in the amount of interest, which decreases when the loan period is shortened and increases when it is extended and depends on the loan amount).

Reasons 8-10 relate to the problem we mentioned and which we return to later in the article, i.e. the adequacy of using AER in certain cases (e.g. in the case of short-term loans).

Low knowledge, skills and understanding of the cost of credit

The opinions presented above are reflected in selected comments from experts. The first of them refer to the four opening points of the above list.

Expert C: "The very structure of the credit price is so complicated for the average consumer that it is completely incomprehensible. I think the fact that interest rate is almost always confused with AER is worth mentioning in the first place."

Expert A: "With installment payments, we have to “play” with Excel and the average Joe is not able to calculate it. Well, it's just not."

Expert D: "I think that this knowledge is there, that there is something like this (AER – author's note). Admittedly, I don't know, if we asked people what AER is, most would probably not be able to read this abbreviation, but I think that is awareness of course. As for the second question, how is it calculated, I think that knowledge on this subject outside the circle of professionals is basically secret knowledge."

The lack of knowledge, understanding and ability to use AER is confirmed by the statements of other experts, who additionally draw attention to the complicated way of presenting AER calculation formula in the Act.

Expert K: "The formula itself, if you see, if you show people on the board, they will also have a headache."

Expert E: "The formula for AER is a hell of a difficult equation."

One of the experts points out that people's knowledge of calculating the cost of credit, especially AER, is very general (focusing primarily on the sum of all costs). This remark applies not only to borrowers, but also to employees of lending institutions.

Expert J: "People, customers don't know (how AER is calculated – author's note) and I think that bank employees don't know it. We (bank employees – author's note) simply have everything given on a silver platter. As a bank employee, I do not go into how it is calculated, I know more or less the main principle, but I also do not discuss the methodology of calculating it (AER – author's note). Everyone does it in a similar way, and how it is actually, I don't investigate, and the clients don't do it at all. It is commonly assumed that this (AER – author's note) is simply a total cost and that's it, and that's enough for them and the employees in the bank also don't know anything else, I can assure you."

AER as a comparison tool

In the opinion of experts, AER does not have to and should not be seen as a measure of the costs of a specific loan. We should rather emphasize that it is a tool for the comparability of many loan offers. In other words, as you can read from the experts' statements, we know that AER in many situations "distorts" the understanding of the actual costs of an individual loan, but in a proper, standardized way, using a single, consistent tool, taking into account several criteria at the same time, it arranges many offers in a price ranking, allowing you to choose the most attractive one. In this sense, it is a very useful tool and, consequently, necessary. Low knowledge and inability of consumers to use AER on their own is not an obstacle to its use in the above way. It is enough for them to be able to rank loan offers in terms of price, using AER, from the highest to the lowest.

Expert C: "From the point of view of a consumer who compares the cost of a loan or two loans with identical parameters using such a rate (AER – author's note), it seems to me that it does not matter much which of these indicators (based on simple or compound interest – author's note) would be used, because technical nuances or slight differences in the result would not affect her/his decision. I think that the greater value is that the consumer gets a tool for an objective price comparison of different loans and credits with identical parameters of amount and duration."

Expert B: "Do we need a single measure? If we have a whole lot of different ways to present this cost of credit, if we do not regulate it, everyone will try to present their loan in such a form that it seems to be the least expensive for their group of customers. And now, in my opinion, it is good that there is one measure that aggregates this multidimensionality of the loan. And such a measure is naturally AER."

Expert F: "No, no, AER is needed, (but only – author's note) to compare different offers. Only in this way will it allow you to compare which is cheaper."

Expert F: "It seems to me that from the point of view of the effectiveness or action of people, their conscious choice, they do not need to understand the mechanism (of how AER is calculated – author's note). They must consciously choose the right contract, i.e. the best offer available."

Credit decision criteria

At the same time, the vast majority of experts are of the opinion that the average consumer, when choosing a loan, is not at all guided not only by the size of the AER, but by any percentage parameter describing the cost of the loan at all. What's more, the most important thing for consumers are not any cost parameters at all. However, if you focus only on them, she/he definitely prefers the amount parameters. Here again comes an important observation. Namely, these are not at all the parameters disclosed by lenders in response to the applicable regulatory requirements (the sum of all costs or the total amount to be paid). Most often, it is simply the amount of the periodic installment that the consumer will have to repay. This figure is easiest for her/him to assess in relation to her/his household budget and the resulting financial capabilities. On the other hand, in general, the opinion of experts shows that consumer choices are primarily determined by non-financial criteria, including behavioral, related to emotions or consumer needs. This is clearly illustrated by the following comments and remarks from experts.

Expert C: "We have observed that the percentage rate, and in particular the AER, is not the main selection criterion or decision when taking out a consumer loan or a credit. Much more often, people are guided by emotions, impulse and need, and above all, the availability of financing."

Expert K: "Emotions also come into play here. Buying a car in a bank, that's where the emotions are. There, the customer, she/he already sees herself/himself in this car. Really, hardly anyone is very meticulous at that time, they already want to drive. I think that here it is availability on site and this is what you pay this price for. Then hardly anyone analyzes the AER."

Expert G: "For example, in my opinion, they are guided by convenience, e.g. in which branch / bank they have access. Secondly, accessibility, in the sense of flexibility. Today, we are moving from a reactive to a proactive model. So financial institutions actually have a ready-made "click" offer all the time. We enter the emotional aspect. I will satisfy some dream or need of mine, and how much it will cost is difficult to assess in relation to the emotional benefits I get from it, from having something or gaining some competences."

Expert B: "I think that the criteria related to needs, i.e. how the loan will be able to meet their needs, are in the first place. That is, the topic of costs, of course, it occurs somewhere, but it often gets blurred."

However, if a consumer reaches for the financial criteria of choosing a loan offer, then, as we mentioned earlier, she/he definitely prefers the amount criteria rather than the percentage criteria. Among them, the periodic installment of the loan is put in the first place. This is the opinion of the vast majority of experts.

Expert K: "For most, the monthly installment is important and it is important how much they paid back at the end."

Expert B: "Credit is not even reduced to how much it will cost completely, but how much it will cost you per month."

Expert A: "We, when we asked consumers in our research what they pay attention to when choosing a loan, the overwhelming majority really told us: the amount of the installment. I want to know how much I will pay per month and that's all I'm interested in. I want to know how much I will pay tangibly, and that's it. Why should I calculate it? I need to know the amount of the installment, that's what I can afford, okay?".

Expert I: "What is the client looking at? I think, at a monthly repayment charge, simply. So not even the cost. Monthly, period".

Expert F: "More importantly, the key is to be aware of how much she/he will have to repay. But how, she/he will probably have to adapt to her/his cash flow."

Expert G: "We did such a survey, they converted it into packets of cigarettes, not into any percentage.

She/he is interested in taking given amount and giving back given amount, no percentage is of interest to her/him at all. She/he does not understand it at all and does not want to understand. You know what they told me, that she/he pays an amount, not a percentage. She/he said, after all, I pay PLN 100 and I don't make a transfer for 15% in the bank, but I make a transfer for PLN 15, so she/he is interested in the absolute value, not the relative value, because then they said, I have to take it into account in the household budget."

One of the experts argues that even if the loan has a zero interest rate, customers are still analyzing whether they will be able to afford to service the installment. And this is the most important criterion for them in their credit decision.

Expert I: "Because see, even in these installment loans, when buying in installments. Well, this is also often shown zero credit. However, the customer also calculates whether I will be able to afford to service the entire installment."

If consumers are nevertheless guided by the percentage cost of credit, as some experts claim, it is rather a nominal interest rate, i.e. an annual, contractual interest rate, and not AER.

Expert L: "Most people look only at the main percentage given by financial institutions, and do not take into account these, let's say, additional costs related to debt service, for example, insurance or maintaining a credit card. And so on."

Any costs, including financing, are related by consumers to their budget, and in this budget all items are included in absolute values, not relative ones. In a borrower's opinion, it is very important whether she/he can afford to pay an installment of a certain amount or not, looking at the overall budget. In this context, AER becomes only additional, potentially supporting, supplementary, if at all, and not leading information, all the more decisive for the choice of a given loan product.

Expert A: "That's why we always said: not only AER, it can be a hint for you if you have the same offers to compare. Look at how much you actually have to pay nominally, because this is such crucial information for you."

One of the experts points out that the market is adapting to the described consumer practices. This is noticed in the communication of loan costs as part of, for example, advertising spots for selected products. Car commercials, common in the media, expose the amount of the potential loan or leasing installment, not the total price of a car itself. Today, the consumer focuses more on short-term parameters. What matters to her/him is what she/he gets in exchange for a certain amount of the loan installment and whether it will not damage her/his budget too much. Experts agree, however, that the amount of the periodic loan installment does not have the characteristics of the percentage rate, including AER – it is incomparable between individual offers (as we wrote above).

The problem of converting amounts into percentages

There is also a full consensus among experts that the average consumer is not able to cope with the calculation of percentages, including the conversion of amounts into percentages. Experts cite many situations they have encountered in practice relating to the above observations. For example, when a customer is surprised to discover that a housing loan for several hundred thousand dollars, e.g. for 30 years, which she/he found attractive in terms of price, looking at the interest rate, in the entire repayment horizon of this loan means the need to return more than twice the borrowed funds. Or, when the bank makes an entry of a contractual mortgage in the land and mortgage register of the property in the case of a mortgage loan, for an amount constituting, for example, 1.5-2 times the sum of the borrowed funds. One of the experts points out how much people do not understand that the two measures presented to consumers at the same time, i.e. the annual interest rate and the sum of all costs, are completely different constructions. The interest rate is the average annual cost, expressed as a percentage. The total sum of costs extends over the entire loan period and expresses the cost in amounts. Comparing one with the other is like comparing apples with pears. The conclusions from such a comparison will not be obvious in many cases.

Expert I: "These are the opinions I have heard. Listen, this loan is not expensive at all. It was still the moment when the loan was at 6-7% more or less. And then someone starts to think and people realize when they are shown how much they will pay in total after the entire loan period."

The problem with converting amounts into percentages is revealed in its entirety when people are asked to solve one of the questions of the classic Lusardi & Tufano test. This example shows that the same amount cost in a given unit of time, e.g. a year, payable at different times (e.g. in advance or in arrears) or in installments, with different cyclicality, determines a different level of AER with the same nominal annual cost of the loan (in the Lusardi & Tufano question, it is a loan of USD 1,000 per year, with annual interest of USD 200, repaid in arrears with the principal, i.e. a total of USD 1,200 or in 12 total monthly installments of USD 100 each, also USD 1,200 in total). For the average consumer, it often does not matter whether a given annual amount cost of the loan is repaid once after a year or, for example, in 12 monthly installments (although for the latter repayment option the AER will be higher). Moreover, she/he often even indicates that she/he prefers monthly repayment for fear that when the moment comes to (balloon) repay the loan with interest, she/he will not have the money to pay it. It is easier to provide funds for smaller, regular payments than for one large, distant payment. When you ask people about the annual percentage cost of both variants of repayment of the loan under consideration, they answer without hesitation that it is 20% for the first option (which is the correct answer, regardless of whether we ask about the interest rate, APR, or EAR). However, with the second option, there are doubts and hesitation. At the same time, many people still answer that this rate is the same as for the first variant, i.e. 20%. In fact, in the example above, the APR is 35% and the AER is 41%. For most people taking such a test, this is pure abstraction.

In the opinion of experts, consumers cannot cope with the elementary knowledge of the principles of calculating percentages in general in the broadly understood field of economics, not only in relation to loans. This applies to issues such as inflation, wage calculation or taxation. This is highlighted by subsequent statements.

Expert G: "When I ask (MBA students – author's note), when it comes to the deposit rate, for example, the deposit for a quarter at the 5% rate, they do not understand that it is an annual rate and it must be converted into a quarterly rate. They divide it by 4, which means they don't do it exponentially, they just calculate the arithmetic mean, not the geometric mean."

Expert L: "For example, if it appears on some leaflets or advertisements, I don't know on the windows of banks or branches that we give you 12% on the deposit, everyone thinks that they get 12% every month. I also blame it on the fact that people are used to getting a salary per month. Because, for example, in the United States, the annual remuneration is presented."

These observations are confirmed by other practitioners, who give examples from their experience, among others, in the field of didactics.

Expert D: "We used a quarter as the basic unit of time, all costs in this whole game are given on a quarterly basis, but I give the interest rate on an annual basis. And I was convinced that if this one piece of information is in percentages, that it is on an annual basis, I don't even have to talk about it, that it is obvious. Suddenly, it turns out that she/he doesn't even understand it. If we have an overnight, the rate is given on a yearly basis anyway, right?".

According to experts, the approach to inflation is a great example of consumers' misunderstanding of the percentage rate. When it comes to falling inflation, the absolute majority of people equate it with falling prices. The average borrower is also unable to clearly assess the impact of inflation on their financial situation. It is easier for her/him to understand the impact of inflation on the increase in the amount of the installment, much more difficult to influence the reduction of the real value of the debt (as one expert put it, "part of the loan is repaid by inflation"). A great example of the lack of ability to convert absolute values into relative values is the misunderstanding of the base effect, as one of the experts mentions, i.e. that the same amount increase of a quantity in two consecutive periods can have a different relative value (e.g. an increase by PLN 5, from PLN 5 to PLN 10 and then to PLN 15, is an increase of 100% and 50%, respectively).

AER and short-term loans

Let's go back to one of the first quoted comments, the author of which suggested that AER is more adequate for certain situations or loans than for others. The vast majority of experts agree that AER is not a good measure of the cost of short-term loans.

Expert B: "There is only a problem related to the fact that the AER is very, very sensitive to the period for which it (the loan – author's note) is granted."

Expert B: "And now the question is whether we should really rely on this instrument (AER – author's note) for loans that are for a month, 2, 3, because here we are reaching such a level that the customer will not compare between AER reaching 1000% and 2000%, and in fact it may turn out that the difference (in terms of amount – author's note) in this, what she/he actually has to pay back between these two loans is not particularly significant."

Expert C: "In my opinion, the AER is inadequate to assess, or at all to be used for loans and credits with a repayment period shorter, significantly shorter than a year. This leads to a multiplication of costs and an absolute disruption of the information layer for the consumer. In a word, the indicator goes crazy and shows values that for the average consumer suggest that they will have to repay much more than they borrow, when this is not the case. In addition, the ratio (AER – author's note), due to its structure, is very significantly distorted for loans for low amounts, where the interest rate is not the main cost component, but most often a one-time commission for granting, which is a significant percentage value of such a loan. On the other hand, when we confront this with the short period of such a loan, the AER is presented, in many hundreds, or even thousandths of nominal values, while in reality we are most often dealing with a loan for several hundred PLN of cost, i.e. several dozen, PLN 100, PLN 200, so these are not frightening amounts in the nominal amounts. When expressed as a percentage, or using the compound rate of capital, we obviously have very, very high percentages, which mislead most consumers who are not familiar with this market, and not only consumers. Experts, very often even economic ones, catch themselves in the fact that they do not understand the AER indicator and present it as proof that when borrowing an amount of, let's say, PLN 1000, after a year you have to pay back PLN 20,000, even though it is not true."

Expert A: "I think that this is not a good parameter for short-term loans and credits. Simply. And the fact that it is incomprehensible to the consumer is an absolutely indisputable issue in general."

Expert A: "Therefore, as if all of us consistently claim that the AER parameter is an absolutely misguided parameter in the case of short-term loans, because it first of all, for example, even with the nominally low costs of a short-term loan, such as for a month, gives very distorted values, gives a value of, for example, 300% and the consumer thinks that I borrowed 1000, I will have to pay back 3000, well, no, nothing of the sort."

Expert A: "Unfortunately, there is also this extrapolation to a year, which means that with short loans we get absurdly high levels of AER, which completely do not translate into these nominal amounts and this is also misleading for journalists, because there are journalists, even economic ones, really, unfortunately I have to say this, who write 1200% AER, someone borrowed 1000 will have to pay back 12,000".

Almost all experts appreciate the idea of using the equivalent of AER tailored to the needs of a short period of time, e.g. the monthly effective rate, MER. It is an indicator that has all the features of AER, with one exception, expressing costs not on an annual basis, but e.g. on a monthly basis (or just as well weekly or quarterly; then we would talk about WER or QER). In many cases, due to the lack of cost recurrence sub-periods, e.g. in a month, the value of such a rate would be close to a simple interest rate.

Expert B: "And here I agree that in the case of (short-term loans – author's note) it would be possible to introduce, for example, a measure for loans and credits up to one year, for example, to introduce this effective monthly rate, which will then be very close to simple interest."

Discussion

Interviews with experts show that the way in which the regulations require credit institutions to present the costs of consumer credit may not be optimal primarily due to a significant mismatch between the measures of credit costs used and the knowledge, understanding and skills, as well as the preferences or practices of the average borrower. The findings of the interviews are not surprising. They confirm the conclusions of previous research. The measure that poses particular difficulties for consumers is AER, a measure that has been strongly popularized for years as part of various types of information campaigns and which seems to be presented as key information about the cost of consumer credit. Along with other credit parameters required by the Act, it must be provided in every consumer loan offer, in every advertisement or every information material, as part of the so-called representative example. Without questioning the advantages of AER, which are obvious to economists, experts point out that what is an advantage for an expert, from the perspective of a person with significantly less economic knowledge, can be a limitation and a disadvantage. Since the vast majority of surveys still report low financial literacy of consumers, also in Poland, a justified question arises as to whether when making credit decisions, they should be guided by a measure they do not understand. Doesn't such a decision lead to suboptimal choices? The vast majority of experts had a similar answer to this question. The average consumer does not have to understand all the calculation complexities inherent in AER. It would also be utopian if we expected to thoroughly educate each borrower on the detailed calculation of this parameter. The only thing the consumer needs is to know that AER is a standardized measure, always calculated the same for each loan, which allows for the comparability of offers, i.e. to arrange them in a ranking, from the best to the worst in terms of price. This price is expressed by the AER.

And this is where a number of questions arise, especially whether this is the best way to express the price of a consumer loan from the consumer's perspective. Interestingly, many experts, pointing out that AER is needed as a standardized measure ensuring the comparability of offers, taking into account the, as one of the experts put it, "multidimensionality" (many parameters that should be reduced to a common denominator), at the same time say that AER "distorts" the perception of credit costs and we should not be guided by it when deciding on a loan. And certainly not only the AER itself and certainly not in relation to short-term loans. One of the experts says directly that AER does not express the actual cost of the loan, but only a certain theoretical cost, which does not mean that it does not work as a comparative criterion, ordering offers from the cheapest to the most expensive. It can be summarized as follows: AER viewed individually, related to the costs of one specific credit product, in many cases will not tell us much. It will only show a certain hypothetical cost, calculated according to standardized rules. In many cases, this cost does not even represent the actual cost of the product in question. In this sense, experts recommend at least caution in the use of this measure. Especially if the person does not have interpretative proficiency resulting from their knowledge. On the other hand, AER perceived in a broader context, by comparing its value specific to a given product to the value of other, competitive offers, is a great benchmarking tool, allowing you to see the price of a given offer against the prices of other offers in a standardized way.

What does this understanding mean in concrete terms? Probably what some experts, although not directly, are trying to convey in conversations. Namely, that it is not possible, although it is very desirable, to show the consumer the cost of the loan only by means of one parameter. We write "not directly" because although some experts clearly indicate that it would not be good if we showed the consumer only the AER and therefore, we supplement this information by providing the amount of costs and the total amount to be repaid at the same time, the firm question of which of these measures consumers should follow when deciding on a loan is difficult for them. The answers to this question are not unambiguous. Especially when we expand on them, specifying that the same offer can have the lowest cost expressed as a percentage (using AER) and the highest cost expressed in terms of amount (using the sum of costs) compared to competing offers. Such an example is very easy to construct by comparing offers with the same amount (loan and repayment) and the same repayment period, only changing the frequency of repayments (as presented by one of the classic Lusardi & Tufano questions). In a sense, this is a theoretical example, especially in relation to long-term products. In practice, in the case of e.g. mortgage loans, we rarely have a choice as to the interval of installments to be repaid. They are usually paid simply monthly. However, in relation to short-term products, e.g. installment purchases, the question becomes highly adequate. In this type of loan offer, we usually have a choice of at least several variants differing, among other things, also in the periodicity of repayments (e.g. one-time repayment of the loan after a quarter, or payment in three monthly installments). And here other important questions arise. The two, in our opinion, most important of them are:

a) Does AER express the actual cost of short-term loans, or is it really just a hypothetical cost?
b) Does the use of AER make sense at all for short-term loans (usually for small amounts)?

As for the answers to the first of the questions asked, experts definitely agree. AER, as we have already cited, in the opinion of most experts, "distorts" the perception of the true cost of short-term loans. Certainly, it expresses it in a standardized way, on an annual basis. Thus, it draws attention to the fact that, for example, PLN 100 interest on a loan for PLN 1000 per month is not 10% per annum, but much more. But is this information really necessary for the consumer? Especially when the example of PLN 100 of monthly cost is converted into an annual value, taking into account the specifics of compound interest. If we would like to stick to costs expressed as percentage, why can't the unit of time in which we compare the costs of individual loans be, for example, a quarter or month instead of a year, and the equivalent of AER, e.g. MER (monthly effective rate), while maintaining all the "mechanics" inherent in the effective rate (compounding, opportunity cost, distribution of payments over time)? Most experts, with a few exceptions, openly accept such a proposal, considering it interesting, valuable, reasonable and therefore worth considering. A similar reaction appears in relation to the proposal to replace compound interest with simple interest, generally in the formula of the percentage rate, regardless of the period for which it would be calculated, e.g. annual or quarterly (if not in general, then especially in relation to short-term products). Again, many experts consider this proposal to be reasonable and worth considering. This reaction is also, in a sense, an answer to the second of the questions asked above. The property of AER is that it is based on the princip characteristic of the variable value of money over time. What does this mean specifically? The fact that from the point of view of AER, the distribution of payments over time is important (when they occur – e.g. at the beginning or at the end of periods and how often they occur in a given unit of time). How this distribution of cash flow looks is important in the context of the opportunity cost of capital (which can be the inflation rate itself). In addition, periodic costs (payments) are converted into an annual value (expressed as a percentage) using the compound interest mechanism. As you can see, calculating the AER in the case of short-term loans is therefore a use of quite sophisticated and complicated mechanics for an uninformed user, to show something that is relatively simple. Hence, it seems justified to ask whether calculating AER for short-term loans for small amounts makes any sense at all, especially since consumers, to whom an attempt is made to explain the essence of AER application using the time value of money, compound interest and opportunity cost, answer that, first of all, they do not take a loan to consider investment decisions implied by the concept of opportunity cost. And second, even if they were to harness investment logic in their lending decisions, in the case of short-term loans, the amounts are so small and borrowed for such short periods of time that the capital multiplication effect resulting from the significant opportunity cost is negligible. In other words, it is pure abstraction for them, which they absolutely do not bother with. However, AER works exactly differently. It takes into account the variable time value of money, opportunity cost, and compound interest. Most of the experts see a large inadequacy of the method of measuring and presenting the cost of credit to the specifics of these products, but also to the needs of the consumer.

However, the statements of experts show something else. Namely, in their opinion, when making credit decisions, consumers are not guided not only by the AER parameter, but by any percentage parameter expressing the cost of credit. Much more important from their perspective, because it is better suited to their expectations and understanding of the cost of credit, is the amount cost, expressed in absolute terms, not relatively. Of the various absolute ways to express a loan cost, in the opinion of experts, the most important one that the consumer most often follows when choosing a loan is the expected repayment installment. What is more, in the opinion of experts, the financial (cost) parameter, of any structure (whether expressed as a percentage or amount), is not at all the most important criterion that the consumer follows when making credit decisions. Soft criteria are much more important to her/him: the purchase need itself, the availability of financing, or its flexibility.

Conclusions

Interviews with experts clearly show that the issue of how to disclose the cost of credit required by the regulator from lending institutions is not indisputable. Experts expressed many comments, including critical ones, about the current solutions. Despite the objectivity of the statements, in the case of some of them, there is an emphasis on opinions consistent with the perspective of looking at the problem specific to a given market or institution that a given expert represents. The loan market is diverse. In addition, it dynamically changes over time. It offers many products different in terms of many parameters. AER, on the other hand, is a single measure that must take these differences into account and present them in a unified, standardized way, in the same unit of time. At the same time, this method also takes into account the impact of the variable value of money over time, i.e. opportunity cost and compound interest, which results directly from the construction of this measure. This is not ensured by the other two parameters required for disclosure by the regulator, those expressing costs in monetary terms. In this sense, they are incomparable (although they take into account the same cost components as AER) for different loan offers. And this, according to the vast majority of experts, justifies the need to use a measure such as AER (we deliberately write "such as AER", not simply "AER"). It is the only measure of the cost of credit, ensuring the comparability of loan offers, taking into account all their criteria.

So is the way in which the Act requires that the cost of credit be calculated and presented optimal to rationally make consumer credit decisions? According to the experts participating in the study, not necessarily. However, the main problem is the mismatch between the statutory message and the knowledge and skills of consumers. On the basis of their statements, at least several interesting recommendations can be formulated to improve the current shape of regulations in this area. We present them at the end of this section. Which of the listed parameters of credit costs required by the Act should the consumer be guided by? The answer to this question should be provided together with the answer to the question "Are the solutions contained in the act adequate to the level of preparation of the average consumer to use the cost of credit?". According to experts, they are not. As a result, the way in which the act communicates information about the costs of the loan to the average consumer may cause confusion. This method is based on simultaneous communication of costs determined in several ways. This is good, but only if you know what the potential differences are due to. Each of them is based on different assumptions and, as a result, informs about costs, paying attention to slightly different aspects. A conscious consumer should pay attention to each of them. And here the law works well. The problem is the low level of awareness, knowledge, understanding and skills on the part of the consumer. In his credit decisions, she/he should be guided by those parameters that will allow her/him to CONSCIOUSLY choose the best offer for her/him. And it does not have to be just one parameter, but several at the same time. Practice shows, as one of the experts points out, that unfortunately, consumers are often passive in their choices, and the act, instead of supporting the right choices, through the intensity of the required disclosures, has triggered a kind of "clause blindness". As a result, instead of a conscious analysis of many aspects and debt parameters, the consumer makes an ill-considered and emotional decision.

Below we summarize the key conclusions of the interviews, about which there are no major differences between the experts.

1. Consumer awareness of the existence of various ways of calculating credit costs, including AER, has increased in recent years and is currently satisfactory.
2. However, this awareness does not translate into knowledge and understanding of the available measures of the cost of credit, and consequently into the ability to use them by consumer oneself.
3. However, there is no need for the average consumer to have such detailed knowledge and understanding. There is also no need for her/him to have the ability to calculate the cost of the loan on her/his own. It is enough for them to know and understand what information is provided by individual cost parameters.

In the case of AER, it is particularly about knowing that AER is a standardized measure that ensures the comparability of loan offers.

4. However, the information provided by individual cost parameters, especially when their values are presented simultaneously, is not unambiguous. Amount parameters can send signals that are opposite to the signals generated by percentage parameters. This is due to the different construction of both types of measures.
5. In addition, the average consumer is also generally unable to convert absolute values into percentages, especially in situations that take into account the impact of the variable value of money over time.
6. The average consumer, when making credit decisions, is not primarily guided by any cost parameters. If she/he reaches for them, these are absolute parameters, not percentages. Within the group of amount parameters, the amount of the periodic loan installment is of key importance for the consumer.
7. Basing the AER on the mechanics of compound interest may be considered unnecessary, inadequate for loan products and not contributing much in terms of supporting the consumer in making rational credit decisions.
8. The use of AER in relation to short-term loans significantly distorts the information about their actual cost. Experts allow for potential modifications in this area consisting in replacing or supplementing information in the form of AER with an alternative or additional measure, such as e.g. MER (monthly effective rate).

Based on the above summary, we have decided to present the following recommendations for consideration in possible discussions and then potential updates of the provisions of the Act in terms of the method of disclosing credit costs required by the regulator.

1. If, as shown not only by the opinions of experts in our exploratory study, but also by a number of other studies conducted in many countries around the world, consumers do not make their credit decisions primarily based on financial criteria, and at the same time confront this finding with the fact of low savings and retirement security of many consumers, it would be advisable to consider shifting the emphasis in education dedicated to credit products. It should be an education aimed at illustrating the benefits of reducing today's consumption, often supported by easy credit, for the sake of future financial well-being (security and even financial independence, which require a long period of time to build). As one expert said, "let's make them aware that money is running out of their accounts."
2. The opinions of experts, supported by their own experience, show that when reaching for cost criteria in the process of making credit decisions, consumers are primarily guided by the amount cost parameters. In addition, these are not at all the parameters that the regulator requires to be disclosed by lending institutions. This is an incentive to redefine the current regulatory solutions in this area. In the literature on the subject, there are solutions available that, on the one hand, are absolute, and on the other hand, their scientific validation shows that they give indications similar to relative measures (e.g. Osborne, (2014) as well as Yard, (2004)).
3. It remains to be considered to replace the logic appropriate for the APRC used and required by the European regulator and, consequently, the logic appropriate for the AER (in Poland) with the solution chosen by the American regulator. The APR rate, defined in the TILA regulations (the equivalent of the European APRC) is based on the principle of simple interest, not compound interest. The US regulator decided that such a solution is more adequate for loan products. It was only in the case of savings products that the US regulator decided to implement a rate based on compound interest (this is the annual percentage yield, APY, defined in the TISA – Truth-in-Savings Act). Not only our study, but a number of other studies show that people don't understand the mechanics of compound interest. Experts also agree that the logic inherent in compound interest is not entirely appropriate for credit products, especially short-term products.
4. If the solution in which the annual effective rate is calculated based on the mechanics of compound interest is maintained, it is recommended to consider replacing or supplementing it in the case of short-term loans with a rate based on the same assumptions, but determined for a different unit of time, e.g. a month or a quarter (MER, WER, etc.).
5. Any proposed changes will not completely eliminate the problems related to the way the cost of the loan is presented. The dilemmas will remain. It seems important to adapt this method to the ability of the average consumer to understand it. If the numerical message alone, whatever it is, is not sufficient to properly understand the cost of credit, it may be necessary to replace or supplement it with a message of a different nature, e.g. graphic. It opens a separate field for exploring the thread as to how such a message should be configured. Studies such as those by Seira et al. (2017) can be helpful here.

Limitations

Despite its novel nature, the study has limitations. It was designed as the first stage of a broader research process dedicated to the issues raised. First of all, it is based on the assumption that experts represent a common understanding of the issues raised. An additional cognitive value could be brought by a comparison of opinions on the cost of consumer credit of various participants of the credit market, including consumers themselves, but also regulators, lawyers, representatives of various financial market institutions, financial advisors, etc. A limitation of this study is the lack of quantitative analysis of the collected research material. This aspect was conceived as the next step to be implemented as part of a wider research process.

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