

## **11. Reduction in the level of risk consciousness among mortgagors**

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### **Abstract**

The aim of this article is to analyse risk reduction mechanisms that are used by mortgagors. Two basic types of mortgage borrowers were identified: those with low creditworthiness and those with high creditworthiness. A qualitative method was used in the study based on in-depth interviews that were conducted with 20 mortgagors, which made it possible to provide a typologically representative picture of the risk reduction mechanisms used by this group. Finally, two strategies were identified, i.e. the imitation strategy and the professionalization strategy, as well as two effects that are also aimed at reducing the risk.

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## Introduction

Mortgagors are a specific social group whose boundaries are not fixed (its degree of openness can vary). This group's permeability is determined by the LTV (loan-to-value) ratio. When the LTV ratio exceeds 100%, this means that real estate buyers can obtain a mortgage in an amount that exceeds a given property's value. In this way the group of mortgage borrowers becomes open to purchasers who have no funds for a down payment. As the loan-to-value ratio declines, the group becomes increasingly more closed. This group is usually characterised by having long-term members, which is connected with the mortgage loan repayment period. Once taken out, a mortgage becomes a permanent part of an individual's life.

The aim of this paper is to analyse risk reduction mechanisms related to taking out and paying a mortgage. An objective way of measuring this risk is based on economic indicators such as the level and volatility of interest rates, loan margin, exchange rate for foreign currency mortgages, and monetary inflation. Mortgage-related risk can also be assessed subjectively, i.e. by borrowers themselves. Such subjective assessments do not have to be, and they are not consistent with objective risk assessments. Mortgagors can form various mental images of real or purported threats which reflect their notions, prejudices, stereotypes and misconceptions related to the functioning of the market. These result from an individual's level of education, ownership situation, professional experience, age or the way in which one earns his/her living. Although subjective assessments have an influence on consumer decisions, they often differ from the assessments that are made by experts, who treat such subjective judgements as irrational. Subjective ways of assessing risk allow borrowers to develop risk reduction mechanisms. It can be argued that these subjective assessment methods influence people's decisions about taking out long-term loans to a greater extent than objective indicators.

This analysis mainly deals with credit risk reduction mechanisms that are used by real estate buyers. In order to analyse these mechanisms, the author used in-depth interviews with mortgagors. The number of individuals who were interviewed was insufficient to obtain a statistically representative sample; however, the obtained results made it possible to identify several basic risk reduction mechanisms that were used by the studied mortgage borrowers. The presentation of results will be preceded by an analysis of the differences between particular types of borrowers and of the functioning of the real estate market. This study was conducted in May, 2014, as part of an internship at the Institute of Sociology, Adam Mickiewicz University in Poznań. The studied group

consisted of 20 respondents. The values of mortgages they had taken out were PLN 60,000 to 400,000, whereas the repayment terms were 8 to 35 years. Respondents had taken out mortgages in Polish zlotys and Swiss francs, and the longest amount of time the mortgages had already been in repayment was 9 years. The properties had been bought in Poznań, Warsaw, Swarzędz, Brześć Kujawski, Kutno, Opalenica, Kwilcz, Błażejewko and Chomęcice.

### **11.1. Mortgage borrowers' position in the social structure**

Borrowers differ in their creditworthiness, which is assessed by bank officers who decide whether to grant or refuse to grant a loan in a specific amount. Stanisław Kozyr-Kowalski's (1999) economic and sociological theory of ownership will be employed to analyse creditworthiness. This theory allows one to identify two basic sources that are used to assess bank customers' creditworthiness, i.e. ownership of labour-power and the private ownership of the means of production. These are the fundamental factors that determine the level of income of potential borrowers. One can identify two basic types of mortgage borrowers:

1. Borrowers with low creditworthiness. The ownership of labour-power with a market value that is close to the average wage level for employees is the main determinant of low creditworthiness, because this means that an individual is not able to make savings in his/her household budget. As for the credit market, people who are paid at this level are considered to be customers who do not have the funds, or do not have sufficient funds, to make a down payment on a home. They cannot apply for a mortgage at any time of their choosing and have to try to seize their chance when bank executives decide to relax their lending policy. A requirement that borrowers make a specific down payment is a sign that mortgage lending criteria have been tightened, and this means that those customers who do not receive financial support from their families or from other sources will be excluded from the market.

The number of households with savings in Poland is decreasing. According to a survey conducted by the global research company Ipsos, 70–80% of Poles reported that they had no savings in the years 1995–2012. The proportion of respondents who had savings in an amount that was equal to their income for the last 2–5 months was between 12.64 and 20.52%. A total of 3.42–7.43% of Poles reported that their savings equalled the amount of their income for the last 6–11 months, whereas 2.15–4.10% had saved an amount equal to their annual income. The results of *Social Diagnosis* for 2000–2011 are consistent with these findings. According to this

research survey, every fourth household had savings (22.1–23.5%) in the years 2000–2005. During the next period, this proportion increased and 36.1% of households had savings in 2011, and more than half of them had saved an amount that did not exceed their three-month income. Eurostat data show that the gross household savings rate in Poland, which is expressed as the ratio of savings to disposable income, fell significantly, i.e. from 12.87% in 1999 to 1.7% in 2011. Since 2002 the savings rate in Poland has been lower than the UE average. In 2010 only five countries in the European Union had a lower savings rate than Poland (Anioła and Gołaś, 2012, p. 26–29, 37–38). This means that a vast majority of Polish households are not able to generate a significant amount of funds on their own to make a potential down payment on a home.

For these property buyers, a mortgage is a key factor in the process of reproducing labour-power, which is their only source of income. The necessity of making regular mortgage payments determines the way in which borrowers manage their household budgets and constitutes an important criterion for assessing a customer's reliability for bank officers. Discontinuous employment or irregular income is an obstacle to discharging one's liabilities to a bank. Any increase in interest rates or the exchange rate of the foreign currency in which a mortgage has been taken out poses a direct threat to the economic condition of mortgagors with low creditworthiness.

When a labour-power owner's income exceeds the average wage, *ceteris paribus*, his/her creditworthiness as well as the margin of economic safety for his/her household also increase. Whether this will be a continued trend depends on many factors such as keeping one's job, being further promoted within a given organisation, or one's health.

Among borrowers with low creditworthiness are most employees, retirees, pensioners and jobseekers. The creditworthiness of many natural persons who run their firms as sole traders is also low and similar to that of employees. Sole traders in Poland represent about three-fourths of all entrepreneurs. There is no minimum capital contribution required for running a one-person business. Among those who decide to start such a business can be labour-power owners who did not manage to find employment with production and non-production organisations. Not all of them, however, secure a long-term position in the system of the private ownership of the means of production.

2. **Borrowers with high creditworthiness.** The private ownership of the means of production is the main determinant of high creditworthiness because it allows an individual to obtain income that significantly exceeds the average employee wage. Those who formally are employees but who convert earned income into financial capital also have high

creditworthiness. They can invest financial capital in such objects of ownership as different kinds of means of production and durable luxury consumption goods. Unlike savings, which are an addition to wages, the private ownership of capital can permanently replace one's own labour-power as a source of income. Ownership of this kind is only associated with employment income that is significantly higher than the average wage for employees.

The real estate market has a high "hoarding" value. The high level of prices that is maintained in this market might provide protection against monetary inflation. If real property is acquired at the right time, this makes it possible to earn profits related to an increase in its market value.

Borrowers with high creditworthiness may treat the acquisition of real property as an investment method which is an alternative to production investments. During certain periods, this method may generate greater returns on capital investments than the means of material and intellectual production. For borrowers with low creditworthiness, however, the acquisition of property serves the purpose of satisfying their basic need of life and is not an investment. Price appreciation in the housing market increases, but usually temporarily, the value of the real property which is used as security for a mortgage loan.

Borrowers with high creditworthiness have enough funds to make a down payment, if it is required by bank executives. They can demonstrate that they have sufficient income to pass the verification procedure and fulfil the formal requirements that are laid down by mortgage lenders. Their future income may allow them to pay off part of a mortgage earlier. They also have greater bargaining power in negotiations with bank officers. Their high creditworthiness makes them desirable and valuable customers, who can be attracted by a broader range of services than other consumers. As a result, such borrowers can negotiate more favourable terms than other property buyers who also use this kind of financing. Most of all, they can get access to a mortgage at any time of their choosing and they do not have to wait until mortgage lending criteria are relaxed. They can seize extraordinary opportunities such as a downturn and a decline in prices in the real estate market. Since they have funds for a down payment, they can shape the structure of their mortgage obligations. A loan mortgage allows them to avoid "freezing" the entire cash for the purpose of making transactions of this kind.

As for borrowers with high creditworthiness, household budget management is an integral part of the process of reproducing the private ownership of capital. Among these mortgage borrowers are business owners, managers, specialists and high-ranking officials whose profits and earnings exceed the average wage for employees.

## 11.2. Functioning of the real estate market

The real estate market should be regarded as a luxury consumer market. This market follows a high-price strategy which makes it impossible for price-sensitive customers to afford a home with their current income and savings without additional financial instruments.

This can be illustrated by the housing affordability index which is measured as the ratio of the average housing price per square metre to the average wage in the corporate sector. In 2007 this index fell to its lowest point, i.e. 0.45. For example, if we assume that the value of this index remains constant, the average buyer would have to accumulate the necessary funds to buy a flat with an area of 60 square metres for more than 11 years by saving all his/her earnings. In 2012 the housing affordability index was at 0.60, which means that if the index value was constant, the average buyer would have to save all of his/her earnings for more than 8 years in order to be able to buy the above-mentioned flat. The need to save up for a flat of their own does not relieve consumers who are very sensitive to prices of the necessity of reproducing labour-power on which their livelihood depends. In reality the period that is determined by using the housing affordability index becomes much longer. It is impossible for one-person households to save all of their earnings. If one does not have his/her own flat, the amount of his/her savings decreases by the amount of rent. The costs associated with raising children extend the time that is needed to collect the appropriate amount of money to buy a home.

According to the NBP, the housing affordability index for 7 Polish cities, which reached a low in 2007, had not increased to the level from before 2006 by 2013. According to the Home Brokers agency's analysts, flat prices have fallen by an average of 26% since 2008. However, the decline in housing prices after the boom years did not offset their reduced affordability.

From the perspective of the lifetime of a consumer whose sensitivity to prices is growing, the purchase of a flat only with the money he/she has been putting aside for years is not very effective, even if the consumer is able to save this amount of money him-/herself. The real estate market is governed by the rules of luxury consumption and its functioning falls outside Joseph Schumpeter's model, according to which capitalist production increases the purchasing power of the working masses.

Mortgages which are offered by banks constitute a sanction that prevents buyers with high price sensitivity from being excluded from the housing market. In Poland the mortgage affordability index, which is calculated in relation to the average monthly wage in the corporate sector, reached the highest values in the years 2005–2006. At that time, the

cumulative index of change in the criteria used by banks as part of their lending policy assumed positive values, which means that banks relaxed their policy as compared to the previous period. The housing affordability index reached its lowest value in 2007 (Łaszek et al., 2014, p. 13). Therefore, the cure turned out to be worse than the disease. Banks' lax lending policy and greater access to mortgages were important factors influencing the demand in the real estate market, which led to an increase in property prices. Finally, these factors limited the purchasing power of a vast majority of labour-power owners in the housing market.

Banks' lending policy is a significant factor that influences the purchasing power of price-sensitive consumers. On the one hand, it prevents them from being excluded from the market due to their wage and savings level; on the other hand, it imposes income- and domination-related restrictions on them. These restrictions are usually much more severe and long-lasting in the housing market than in the mass consumption market. The possibility of incurring excessive debt related to buying a flat can have financial consequences for the next generations of the family.

Even though banks' lax lending policy opens up the real estate market to price-sensitive consumers, it also creates demand, which results in an increase in real property prices. A sharp downturn in the housing market exposes these buyers' ownership position. Moreover, real property's hording value is completely reduced for mortgage borrowers for whom a constant increase in housing prices is the only security for the transaction. And this is what happened when the housing bubble burst in the U.S. and in Poland. For many labour-power owners an investment in a the real estate market with rising property prices was to be a means of changing one's ownership situation. But instead of earning income from selling or letting out a flat that would be comparable to the profits made by private owners of the means of production, they became burdened with the necessity of making increasing mortgage payments under conditions of falling property prices. There was an increase in the risk of over-indebtedness among these mortgagors, which in the end leads to household bankruptcies.

### **11.3. Risk reduction mechanisms used by mortgagors**

Credit risk can be generally defined as a temporary or permanent threat of losing the ability to discharge financial liabilities on time, which can occur at different stages of the mortgage loan life-cycle. A reduction in a borrower's risk perception during the decision-making phase is a condition of entering into a mortgage agreement. A mortgage borrower also

uses certain “effects” that increase his/her subjective sense of security during the mortgage loan term. One can identify the following credit risk reduction mechanisms:

1. Imitation strategy. When making decisions, a borrower is influenced by the behaviour of people who have already taken out mortgages and who become the main source of knowledge for him/her. He treats their opinions as authoritative. These are people from a borrower’s immediate family as well as social and neighbourhood milieu. The imitating individual chooses the same bank and the same mortgage product, and this kind of strategy is visible in the following answer provided by one of the respondents:

“[A] close friend of ours had a great impact on our decision. She’d taken a similar mortgage loan, from the same bank and on similar terms” (X 20).

Another person admitted:

“I talked to my sister who also has a mortgage and with my friends who’d decided, or who’d been forced to decide to buy a flat in this way” (X 3).

According to respondents, this imitative behaviour somewhat compensated for their lack of knowledge and competence and helped them to prepare themselves for negotiations with bank officers:

“I used the experience of my family members who’d taken out mortgage loans from different banks. I found their advice and comments on the whole process helpful” (X 4).

The experience of people who have already purchased a home is of crucial importance for borrowers following the imitation strategy:

“I talked to my husband’s sister a lot. She’d just bought a flat so she was a valuable source of information for me” (X 15).

It is particularly important for consumers who employ the imitation strategy to know some people who have already taken a mortgage. These consumers believe that talking to such people is a convenient way of verifying the reliability of a given bank’s products which does not require extensive financial knowledge. People in their immediate environment who have mortgages are regarded as particularly credible because they are impartial. This is what makes them different from professional financial advisers who provide information as part of their paid employment. Therefore, one cannot be sure what their real intentions are:

“Of course, they’ll praise everything and encourage you to take out a mortgage loan. After all, this is their job” (X 14).

This imitative behaviour reduces the perception of risk on the part of potential borrowers. They follow their friends’ or relatives’ example and this makes it easier for them to make the final decision. Additionally, they start comparing themselves to others, which motivates them to take out a mortgage:

“Some people in our family had a mortgage and they somehow got by, so why can’t we?” (X 14).

A decrease in their risk awareness is based on everyday social consciousness. In Kozyr-Kowalski’s (2001) opinion, this construct encompasses beliefs and ideas which are a manifestation of people’s life experience and which are checked against this experience. Our thinking is influenced or even manipulated by those who professionally create social consciousness, which contains elements of scientific knowledge, but which is also not free from misconceptions, stereotypes and ordinary ignorance. Everyday social consciousness provides justifications for the decisions made by mortgagors who use the imitation strategy and is a source of knowledge about practical ways of dealing with particular situations. As a result, they become more market-oriented and learn about the problems they may encounter when applying for a mortgage, the procedure of granting mortgage loans, the legal “tricks” that are used in mortgage loan agreements, and bank officers’ strategies. Borrowers may be able to more effectively go through the formalities by drawing on the experience of their predecessors.

On the other hand, everyday social consciousness poses certain threats. It can lead to “herding behaviour” in the mortgage market, which is when consumers reinforce one another’s belief that current market conditions are unchangeable; for example, several years ago consumers were convinced that the Swiss franc’s exchange rate against the Polish złoty would always remain low. The prevailing ideas that are held by market participants can reduce an individual’s sense of responsibility for his/her mortgage obligations. These individuals expect favourable institutional arrangements because others also have similar problems. When mortgagors refer to everyday social consciousness, this may lead to self-deception, i.e. they may have unrealistic visions of both the immediate and distant future. For example, they perceive an increase in property prices as a constant trend, but they do not notice that they themselves are the main driving force behind this trend.

2. The professionalization strategy. A mortgagor relies on the opinions of advisers for whom such advisory services are a source of income and follows the guidelines provided by them. Financial advisers are more credible than the other mortgage borrowers:

“Of course, at the very beginning my wife and I tried to find out on our own what the situation was going to be like after taking a mortgage. We also asked those friends who had already taken this kind of loan. Finally, we decided to ask a professional, a financial adviser, for help because advisers are knowledgeable about this topic” (X 8).

Such advisers become borrowers’ “market guides” who provide knowledge and information about this market’s functioning:

“We found this woman who was a financial adviser. We went to see her and said that we wanted to take out a mortgage and buy a home. Later on, we visited her and she showed us products offered by different banks. She told us what to do, which margin was lower and which bank had a good reputation. We basically relied on her for everything” (X 9).

Mortgage borrowers can also use comprehensive services that are offered in the housing market:

“One real estate agent also offered some help. He put me in touch with a professional mortgage adviser who then ran a simulation of how much a mortgage would cost for several banks” (X 12).

Here, borrowers’ level of risk awareness goes down as a result of referring to professional social consciousness, which is built by people who have a certain “certificate” of education that is legally and socially recognised. Such a certificate often creates an opportunity to close a particular professional group to others. Those who have specialist knowledge and information as well as access to these can monopolise specific jobs. The high status of science and scientific ways of learning about reality in the hierarchy of social values attracts customers to these professionals. However, if mortgagors want to utilise this knowledge, they must bear additional costs. Their low creditworthiness, especially when they do not have funds for a down payment, can make them follow the imitation strategy rather than the strategy of professionalization. However, even the most professional help will not change banks’ strict lending policy. These customers have to wait until banks relax their policy, which will allow them to enter the market. The help of advisers is much more important for those purchasers who are always able to meet the criteria that are set out by banks and who can choose a convenient time to take out a mortgage loan. The information and simulations presented by financial advisers can increase these customers’ ability to use the real estate market’s hording value.

Professional social consciousness is not free from bias, prejudice or self-interest. John Maynard Keynes (2003, p. 130–145) noticed that instead of curbing the unpredictable whims of an ignorant who had been left on his/her own in the market, professional experts strengthened his/her belief that there was a specific market convention at a given time and place. Professional social consciousness may significantly prompt mortgagors to practice self-deception, which is a driving force behind housing bubbles.

Some purchasers are in a favourable position because there are professionals among their relatives:

“My mother works in a bank and I had access to the information. No, I did not look for advice in commercial banks, but I trusted my mom and took out a mortgage from the bank she works at” (X 11).

Financial professionals can also belong to one's social group:

"A friend of ours did it for us. He works in a bank. He did us a favour, and because he knows all those, let's say, mortgage tricks, he gathered information about mortgage products and helped us to choose the best option" (X 13).

3. The Compensation effect. Having one's own house or flat makes up for the sense of risk which is connected with the obligation to discharge financial liabilities. This fact changes borrowers' way of life in various aspects:

"Well, yes, we have a great house and we are leading a better and more comfortable life now" (X 14).

The location of the home that has been purchased may reduce one's commuting distance:

"I don't have to spend so much time in the car. I'm paying the mortgage with the money I would otherwise be spending on transport" (X 12).

Having more time allows one to revive his/her social and cultural life.

"I live closer to work. I can enjoy social life and I meet with people more often. More people can visit me now because we live closer to each other. I can get to the cinema more easily. A lot has changed. And I can get home from work earlier because it takes me fifteen minutes to get there" (X 11).

A mortgage loan is the cost that one has to pay for having a sense of control over one's own life:

"I enjoy less economic comfort, but my capacity for self-determination has increased" (X 5).

In exchange for taking on mortgage obligations, property buyers who are in either marital or non-marital relationships can start living on their own and become independent from other family members or free from the control of others:

"We live in our own home. Nobody tells us what to do" (X 8).

According to Kozyr-Kowalski (1999), the corporeal and sensuous nature of ownership is most common as far as everyday social consciousness is concerned. This notion can be represented as a human being's attitude towards his/her body. An individual treats what he/she can touch and look at every day as well as what he/she can decide about as his/her possessions. When trying to compensate for the obligation they have taken on, i.e. to make regular mortgage payments, mortgagors like to stress the prestige they gained as a result of buying their own home and compare themselves to those who do not own a property:

"Now that I know that I have my own flat I'm living a more comfortable life. This is important today for young people, and it is a big

problem for them. Everybody dreams of having their own flat. I already have mine" (X 4).

The "corporeal" way of perceiving ownership is more firmly entrenched in everyday social consciousness than the legal understanding of this concept:

"I know that I will actually own this flat only after making the last payment. I am responsible for this property. I know it belongs to the bank but I don't think about it every day. We don't think about it a lot because we didn't really have any other choice. After all, we've finally settled and we can furnish the flat in any way we like. We lived in a rented flat before and we didn't have this opportunity. So, in part, we definitely feel we own this flat" (X 20).

Everyday social consciousness can go beyond the formal, legal understanding of ownership because people find many ways to derive income from the property they hold:

"I feel that this property belongs to me. I'm registered at this address and I have all the papers. I can decide what this flat will look like and how it will be decorated. I can also, for example, let out one of the rooms and make a profit which I'll be able to partially spend on making mortgage loan payments" (X 4).

Mortgagors may compensate for the burden of discharging financial liabilities by radically changing their current personal life. The new home becomes the centre of their lifeworld and the source of new image schemas that they use to interpret reality:

"No, we do not spend our free time in front of the TV or by going to the cinema, and so on, but we dig our garden, plant vegetables, paint the walls or decorate the attic. This has an impact on our daily life. (...) It's a good thing to have one's own house! You have this feeling that there is a place on earth where you come back after work or holiday... This is where we live!" (X 9).

4. The investment effect. Mortgage borrowers believe that the value of the homes they bought secures them against the risk of losing funds for mortgage payments:

"As I said, a flat is an investment. If one fails, it can be sold or rented out, which will cause an influx of cash. The money can then be used to pay off the mortgage, or one can gain a stable source of income if the flat's been let out. So far I can't see any minuses. I'm happy that I have my own flat. This gives me a sense of stability in life" (X 4).

Among the factors that encourage a consumer to take out a mortgage is a belief that the property's price was good:

“I still managed to buy a flat at a good price. If I sold it today, I’d be able to pay off the mortgage and I’d still have some cash left. (...) I pay the mortgage, and I explain it to myself in this way” (X 3).

When mortgagors carry out a valuation of the property they have purchased, they also take into account the fact that it is situated in a good location. They feel that location is another factor that increases the value of property:

“I was lucky because the district where the home is situated is constantly developing, and the property prices are still growing. And if I wanted to let out this flat, the payments of rent would easily cover the mortgage payments” (X 1).

As far as everyday social consciousness is concerned, people have no qualms about regarding public, municipal or commune-owned facilities as assets that increase property prices:

“The property’s market value is now slightly different than it was on the day when it was bought. Homes in this location have slightly gained in value, about 10%, because many public purpose investments have been made here – several places where people can spend their time actively and new trade-related and transportation infrastructure. This is why the cost of the mortgage is now lower than the increased value of the flat due to its location” (X 12).

Mortgagors also count the funds they have spent in relation to the finish and decor as well as the cost of their labour as assets that increase the expected value of their homes:

“I also invested extra money in decorating the flat. If I sold it now, in its current form, I would certainly get a price that exceeds the value of the mortgage” (X 5).

In everyday social consciousness, it is property purchase prices, not current market value of properties, that are used as a reference point when carrying out a valuation:

“The price was not excessive. The very location of this house is very important – there is no house in front of it, no neighbour. I think that now it can be even slightly more expensive if we wanted to sell it, because house prices are going up. Considering how much extra money we invested in this house, we would get more than the mortgage value” (X 9).

Mortgagors tend to overestimate the value of the homes they have purchased. Apart from material assets, they also take into account their own misgivings which are connected with these assets but which are also not important to potential buyers at all. As for everyday social consciousness, practical knowledge and real worldly wisdom is constantly counteracted by human destructive tendency towards self-deceit.

### 11.4. The protective functions of fixed mortgage interest rates

Borrowers' everyday social consciousness provides opportunities for bank executives to increase their income. The U.S. market can provide many examples of this tendency. There are two basic types of mortgages, i.e. fixed-rate mortgages (FRMs) and adjustable-rate mortgages (ARMs), in this market. Among the most popular kinds of mortgages are 30-year fixed-rate mortgages with the option to pay the loan off earlier. Among adjustable-rate mortgages one can identify hybrid ARMs, which offer an initial interest rate that is constant for the first 2–5 years or the possibility of paying only the interest during the initial period of time.

In the years 1990–2010 the proportion of adjustable-rate mortgages was lower than that of fixed-rate mortgages with the exception of the year 1994, which is when the proportion of ARMs was 60% to 70%. Since then, there has been a significant decline in their proportion; however, it was more than 40% in 2000 and 2004–2005. In the years 2009–2010 the proportion of ARMs was less than 10% (Moench, Vickery and Aragon, 2010).

Long-term fixed-rate mortgages have specific consequences that are related to the risk that banks incur. This risk can be connected with a mismatch between income, which is spread over time and which is derived from the constant stream of mortgage payments, and banks' current liabilities to their depositors and other customers. Bank risk is also associated with the loss of interest income due to early repayment (Moench, Vickery and Aragon, 2010).

On the other hand, adjustable-rate mortgages attract borrowers because they give them options which FRMs cannot provide. An ARM offers a promise that the borrower will be able to buy a larger number of square metres for a smaller amount of money. The option to make lower mortgage payments during the initial period allows a borrower who meets specific criteria to obtain a larger mortgage amount. ARMs offer potential savings, relative to FRMs, provided that the interest rate based on which mortgage payments are calculated does not increase. They are attractive to borrowers with limited purchasing power or to those who had already taken out a loan. The risk resulting from changes in interest rates is the cost that must be incurred. Therefore, it is not surprising that ARMs dominated the nonprime mortgage markets, where mortgages were available to purchasers with considerably low creditworthiness (Moench, Vickery and Aragon, 2010).

In 2004, in a speech at a conference of the National Credit Union Association Alan Greenspan said: "American consumers might benefit if lenders provided greater mortgage product alternatives to the traditional

fixed-rate mortgage". According to data from the Mortgage Bankers Association, more than 40% of adjustable-rate mortgages which had been taken out by customers with lowered credibility (the subprime market) were in arrears in the years 2003–2009. In the prime market, i.e. among borrowers with higher creditworthiness, the proportion of mortgages in arrears grew from 0.63% in 2005 to 18% at the end of 2009. Also in 2009, a total of 5% of fixed-rate mortgages were in arrears in the prime market, whereas the proportion of subprime FRMs in arrears was not higher than 25% (Bergstresser and Beshears, 2010, p. 2–3, 19).

Bank executives are able to use mortgage borrowers' low level of knowledge, which is a feature of everyday consciousness. Many of those customers who have taken ARMs do not understand how these kinds of mortgages function. According to Daniel Bergstresser and John Beshears, this is true of borrowers who know little about economic issues and are very trusting.

The behaviour of those who professionally create social consciousness supports this hypothesis. The National Association of Realtors in the U.S. expressed the opinion that lenders who grant mortgages of this kind have more flexibility in determining margins, indices and indicators, which confuses consumers and pushes them into the debt trap (Bergstresser and Beshears, 2010, p. 3). Hybrid ARMs are particularly dangerous. Borrowers are attracted by the initial period during which payments are lower, which is possible because they will have to be fully paid later. After the initial period, this realisation comes as a shock to the household budgets of property buyers who are neither financially nor cognitively prepared for a significant increase in the payment amount. A survey that was conducted by the Consumer Federation of America in 2004 shows that ARMs are more often chosen by young people who have lower income and are less educated (Finke, Huston, Siman and Corlja, 2005, p. 18).

The protective value of fixed-rate mortgages is visible in the U.S. mortgage market. Fixed interest rates make consumers' mortgage obligations more stable, thus safeguarding their household budgets against the effects of sudden changes in the value of mortgage payments. If borrowers take out mortgages in their domestic currency, in which they earn their living, this strengthens the protective value of a fixed interest rate. A fixed interest rate protects a borrower against negative situational sanctions which can be used by bank executives to a greater extent than a variable (adjustable) interest rate. Overdue mortgage payments can lead to foreclosure or make it necessary to provide collateral for the loan or purchase payment protection insurance. A fixed-rate mortgage represents fixed expenses in one's household budget, therefore it allows one to make short- and long-term plans, save money or undertake actions in advance to mitigate the

effect of a decrease in household members' income. A variable interest rate introduces more uncertainty in the process of managing the household budget, and this in turn increases the likelihood that a certain type of negative sanctions, which is an additional burden on a household, will be used. As for hybrid ARMs, this is accompanied by a shock associated with the necessity of making "real", i.e. higher, mortgage payments after the initial period. Possible fluctuations in the interest rate reduce the stability of one's household budget expenses and create a risk of a temporary, and finally permanent, loss of creditworthiness on the part of a property buyer if his/her obligations exceed his/her financial capabilities.

Fixed mortgage interest rates allow one to overcome the information asymmetry between consumers and bank executives. A mortgage borrower makes a decision while knowing the entire obligation value. A fixed interest rate provides information which, to a large extent, protects a borrower against "flexibility" in calculating mortgage payments. A variable interest rate increases the opportunity for manipulating information and the customer. When it is used, those who offer mortgage loans fuel property buyers' unrealistic expectations concerning a constant decline in the value of mortgage payments or a continuously low level of these payments in the immediate and distant future. These expectations may influence the way in which borrowers manage their household budgets, also with regard to other areas of consumption, thus reinforcing their tendency to run up excessive debts. Unlike in the case of fixed-rate mortgages, a consumer who has taken out an adjustable-rate mortgage only knows the amount of the first, initial mortgage payment. Therefore, these consumers' creditworthiness may be overestimated, which can also be a consequence of the low level of education of some of the borrowers who choose ARMs and their poor knowledge of economic issues. They may regard the low mortgage payments that are to be made at the initial stage as a constant trend and treat them as the only reference point for estimating the whole amount of the debt. For bank executives, low initial payments are a marketing strategy which they use in order to attract customers and the costs of which can be recouped at later stages of the mortgage loan life-cycle.

For a mortgage borrower it is the moment of taking out a mortgage loan that counts. The protective value of fixed mortgage payments is even more evident against the background of an increase in variable interest rates. This means that one derives income benefits from choosing a fixed-rate mortgage, and not an adjustable-rate mortgage. The stage of life one is in is a decisive factor in purchasing a home. Property buyers do not always have the chance to take out a mortgage when the level of mortgage rates is most optimal. For example, a loss of income advantages during a period when the variable interest rate is lower than the fixed interest

rate for the mortgage one has taken out is the cost that a given consumer must incur in exchange for being protected against a decline in his/her creditworthiness. Here, the risk resulting from a change in the interest rate is reduced. The mortgage borrower knows the total amount of his/her obligation and mortgage payments represent fixed expenses in his/her household budget. Since borrowers can avoid "surprises" related to an increase in the value of mortgage payments, this is conducive to pursuing a strategy which is aimed to pay off the mortgage loan at an earlier time. With this end in view, a mortgage borrower can build up savings while managing his/her household budget during periods in which he/she earns a higher income. These savings constitute funds which can be used to make mortgage payments and which are not affected by an increase in mortgage interest rates.

Since ARMs have higher arrears rates than FRMs in the U.S. market, this makes it impossible to put forward a hypothesis that the type of mortgage interest rates is not important for borrowers in the long run. Variable-rate mortgage payments pose a greater threat to household budget liquidity than fixed-rate mortgage payments. The need to wait for a reverse trend and a reduction in mortgage interest rates can be unbearable for many households. Potential long-term income advantages may be thwarted by current problems associated with maintaining a household. For mortgage borrowers with low creditworthiness it is the amount of the current mortgage payment that is important.

In Poland borrowers have been deprived of the protective value of fixed mortgage interest rates. For example, most variable-rate mortgages that are taken out in Polish zlotys are calculated based on the three-month WIBOR rate. The downward trend that lasted from 2001 to 2014 can be cited as an argument supporting the assertion that variable interest rates were beneficial to borrowers during this period. In 2000 the WIBOR rate was higher than 16%, whereas in 2002–2014 it decreased below 8% and reached a low of 2.06% in November 2014. A decrease in WIBOR performed a protective function with respect to borrowers during this period. On the other hand, it should be noted that foreign currency mortgages, especially Swiss-franc mortgages, had a similar protective effect on property buyers during a certain time period. The reversal of the trend and the increase in the exchange rate of the Swiss franc against the Polish zloty shows that protective properties that are based on changeable parameters are limited in time. The protective value of these parameters was also reduced due to various forms of "flexibility" in calculating mortgage payment amounts. For example, the amount of debt that was denominated in Swiss francs was calculated based on the so-called currency spread. The customers were obligated to buy the currency from the bank from which

they took out a mortgage and pay more than they would have paid if they had exchanged money at bureaux de change or other banks. While this spread was not that burdensome when the Swiss franc's exchange rate was low against the Polish zloty, it constituted an additional burden for borrowers with mortgages in Swiss francs when the exchange rate started growing. Similar forms of "flexibility" are also practiced with regard to variable-rate mortgages that are taken out in Polish zlotys. Bank executives may delay their reaction to a decrease in WIBOR by postponing a reduction in mortgage payments.

Banks in Poland have only recently started to offer fixed mortgage interest rates. The continued low WIBOR rates increase the chance that it will be possible to use protective properties of mortgage interest rates of this kind in the future. However, banks do not offer a fixed interest rate throughout the mortgage term, but only for a period of 2, 5 or 10 years. After this period has elapsed, a variable interest rate period begins, or customers can again choose a fixed interest rate option in certain banks regardless of the previous interest rate value. However, customers are not much interested in mortgages of this kind.

Most of all, such mortgages have higher interest rates than variable-rate mortgages, but this is a standard practice in mature mortgage markets. What is problematic is the difference between these mortgage interest rates. Bank executives mitigate the risk of interest rate variability by shortening fixed interest rate periods. The hybrid nature of some of these products may give mortgage borrowers a shock associated with the necessity of making higher payments after the end of the initial period. A reluctant attitude towards fixed-rate mortgages, apart from limitations related to products that are offered by banks, shows that there is a certain market convention in Poland that indicates that a low WIBOR rate must be a stable trend.

## Conclusion

The view that a downturn in the housing market usually occurs once in a generation in a given country because this is the amount of time that must pass for people to forget negative experiences is a product of professional social consciousness. Under conditions of "turbo-capitalism", housing bubbles can start emerging at a much earlier rate. The strategies and effects which are identified in this paper and which lead to a reduction in mortgagors' level of risk consciousness not only do not protect consumers against the risk but may also significantly increase this risk. Mortgage borrowers with low creditworthiness are not protected by the imitation

strategy, which involves making decisions based on the behaviour of other market participants, even if all these consumers have similar economic status. Moreover, the professionalisation strategy does not have to protect bank customers from the shackles of a given market convention. The compensation effect usually does not have any importance as far as income is concerned, whereas the investment effect leads one to overestimate the value of the property that has been purchased.

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