### Tomasz Rólczyński

Wrocław School of Banking

# The financial situation of Polish households – an analysis and an attempt at assessment

**Abstract.** Important participants in the financial market are households, which are becoming richer and richer; and financial institutions provide products especially for them. Individual clients are an important group for both investors and borrowers, so it is necessary to make an analysis of their financial situation. The purpose of the article is to present the financial situation of Polish households, its analysis, and an attempt at assessment.

Key words: household, financial situation, financial market, debts, investments, profits and costs of households

# **1. Introduction**

Recent years have witnessed a dynamic development of the Polish financial market. Important participants in this market are households. They are frequently becoming richer and richer, and financial institutions are creating products appropriate for them. Individual clients are an important group among both investors and credit recipients. More and more often households entrust their savings not only to banks, which offer mostly safe investments, but also to entities which invest the funds of their clients in increased risk investments. This is often the result of the increasing awareness of Polish society concerning the possibilities of depositing and investing financial resources. Another reason why the Poles become indebted for many years is the desire to possess certain goods (such as residential real estate, or a car). On the other hand, the competition of financial institutions offering credits and loans with lower and lower interest rates has led to the fact that household debt has become widespread.

The aim of this article is to present the financial situation of Polish households, its analysis, and an attempt at its assessment.

For the needs of the national census, the Central Statistical Office (GUS) defined a household as people who live together, related or unrelated, who mutually support each other, or as a single person supporting himself or herself alone<sup>1</sup>. One distinguishes one person- and multiperson- (two or more people), households, as well as family households and non-family households.

From the economic point of view, a household is considered to be an autonomous economic entity which may be created by one person or by more people who are related and/or unrelated, who mutually support each other and make decisions about the management of finances<sup>2</sup>.

The concept of a financial situation, whether it concerns the state, a business, or a household, is difficult to define. It is associated not only with the sphere of income and expenses as their absolute values, but also with the ability to invest, and spend money in a way that meets the needs of the interested parties. Moreover, the assessment of a financial situation cannot be based solely on an analysis of income and expenses, because it depends on the environment in which the entity operates. For example, the financial situation of a household in which the disposable income per capita is PLN 1000 should be assessed in one way if it operates in Warsaw, and differently if it operates in a rural area in eastern Poland<sup>3</sup>. It follows that in order to assess the financial situation (in this work, of a household), it is important to analyze the external factors in which the entity operates, factors which also determine this situation.

# 2. External factors influencing the financial situation of Polish households

The external factors which undoubtedly influence the financial situation of households and its final assessment are the conditions under which households

<sup>&</sup>lt;sup>1</sup> Ustawa z dnia 2 grudnia 1999 r. o narodowym spisie powszechnym ludności i mieszkań w 2001 r. (Dz.U. z dnia 14 stycznia 2000 r.), Art. 3.

<sup>&</sup>lt;sup>2</sup> B. Świecka, *Niewypłacalność gospodarstw domowych. Przyczyny – skutki – przeciwdziala*nie, Wyd. Difin, Warszawa 2009, p. 26. <sup>3</sup> The environment that influences the accessment of the formula interview of the formula interview.

<sup>&</sup>lt;sup>3</sup> The environment that influences the assessment of the financial situation in two different regions of Poland is of importance here. In Warsaw, Poland's capital, average wages are the highest in the country, but there is also the highest costs of living (such as rent, the prices of goods and services), while the eastern region of Poland is characterized by a high unemployment rate compared to other regions and lower costs of living.

function, namely the state of the economy of a given country<sup>4</sup>. To describe the state of a country's economy one can use information concerning:

- the pace of the country's development (measured, for example, by means of gross domestic product dynamics),

- the pace of price changes (determined, for example, via consumer price index),

- the state of public finances (described, for example, by means of budget deficit in relation to GDNP and/or public debt in relation to GDP ),

- the state of the labour market (measured, for example, via the unemployment rate).

The dynamics of gross domestic product indicate the pace of economic development. Countries, such as Poland, trying to "catch up" in economic development, should grow at a faster rate than the "highly developed" countries. One of the indicators describing the "wealth" of a society is the gross domestic product per capita. According to Eurostat, in 2009 Poland's gross domestic product increased in comparison with 2008 by 1.7%, while a year earlier, the GDP growth was 5%. It should be noted that in 2009 Poland was the only EU country which recorded a growth of the gross domestic product. Across the European Union GDP decreased on average by 4.2%<sup>5</sup>.

From the perspective of economic development, it is preferred to maintain the pace of price growth at a "low", single digit, level, which is socially acceptable and does not inhibit production. Prices in 2009, compared to 2008, increased by 3.5%. The price index of consumer goods and services was higher in 2008 because, when compared to 2007, prices increased by 4.2% in Poland. This shows that the Monetary Policy Council performs its tasks and does not allow for excessive price increases.

A "high" deficit entails the need for its funding, which can lead to the so-called "crowding out effect". The mechanism of the "crowding out effect" is to finance budget deficit through the placing of credit by the state on the financial market, thus limiting the financial resources that could be used for credits to, for example, enterprises. Moreover, because "crediting" of the state is burdened with smaller risk, it becomes a more attractive form of investing capital by banks. Another disadvantage, from the viewpoint of household income, is to finance the budget deficit by raising taxes. Both forms of financing the budget deficit lead to a deterioration of the financial situation of households as a result of a decrease in revenues and/or job loss associated with the worsened economic situation of enterprises, which arises from the inability to finance current

<sup>&</sup>lt;sup>4</sup> In the analysis of households' financial situation of a given country the condition of the country's economy is important, by analogy the analysis of the financial situation of households in a particular region condition of economic development in the region is essential.

<sup>&</sup>lt;sup>5</sup> Eurostat, http://epp.eurostat.ec.europa.eu.

businesses. A similar situation can be observed in the servicing and financing of public debt, which consists of accumulated loans taken to cover the budget deficit resulting from, for example, issued securities to cash receivables, loans and credits, and accepted deposits. In 2008 Poland witnessed a budget deficit which accounted for 3.6% of gross domestic product. It should be noted that since 2003 one has been able to observe a systematic decrease in the budget deficit in relation to GDP reaching 1.9% in 2007<sup>6</sup>. According to the recommendations of the European Union, budget deficit should not exceed 3% of GDP in order for that country to join the monetary union. The public debt in Poland stood at 47.2% of GDP in 2008 and has remained at a similar level since 2003<sup>7</sup>. Its level does not exceed the limit of 60% of GDP set by the European Union.

The unfavourable situation of "high" unemployment affects the costs incurred by the state, for example benefits and/or social expenditure. Moreover, the unemployed do not increase budget revenues, for example through direct taxes, and this negatively impacts on the budget situation. The total registered unemployment rate in Poland in 2009 amounted to 11.9%, which was by 2.4 percentage points larger, compared to the unemployment rate from the year 2008<sup>8</sup>. Undoubtedly, what lead to this change was the economic downturn which was the result of the situation in world financial markets. This was often associated with a reduction of employment in businesses, which resulted from a desire to reduce costs.

In addition to the above factors influencing the financial situation of households, it is important to identify those factors that come from the financial market. These include, among others, interest rates, exchange rates, the development of products offered by financial institutions (both those that enable households to boost their finances, as well as those that allow households to finance their needs), and the development of financial instruments on the financial market.

Depending on the level of interest rates, both financial investments as well as debts of households change their values. For example, usually when interest rates rise on the market, interest rates on bank deposits increase as well (except for deposits with fixed interest rates), and profits from capital invested in such a way are higher. However, this situation also leads to an increase in the interest on credits, which means that instalment rates also go up, which often has a negative impact on the financial situation of a household. A decrease in interest rates will, in turn, be beneficial for those who have obligations towards financial institutions, and detrimental to those who invest in products and instruments based on a floating interest rate.

<sup>&</sup>lt;sup>6</sup> Ibidem.

<sup>&</sup>lt;sup>7</sup> Ibidem.

<sup>&</sup>lt;sup>8</sup> GUS, Bank Danych Regionalnych, Roczne mierniki gospodarcze, www.stat.gov.pl.

A very important role is played by the increasing range of products offered by financial institutions, as well as by the development of new financial instruments. Thus, households can diversify their investment portfolios by incorporating new products and new instruments. This requires, of course, some knowledge of the financial market and continuous monitoring of developments on this market. In addition to investment instruments, there appear more and more products (mainly credits) through which households realize their needs and dreams. However, there is some danger here, namely that a household will enter into too many commitments, which it will not be able to repay in the future (and if interest rates go up, the probability of stopped repayment increases), because, for example, credit solvency is not always checked with hire purchase.

It is worth noting that the exchange rate is another important consideration when a household invests, for example, in investment funds denominated in foreign currency, or when it has commitments in foreign currency (which applies to a large proportion of mortgage loans). In such a situation, significant changes in the exchange rate will have a positive or negative effect on the household's finances.

### **3. Income analysis**

Disposable income is income which a household has at its disposal, spending it on consumption, investments and savings. According to GUS, the nominal disposable income per capita increased in 2008 to 1046 PLN and in reality was 8% higher than the income from the year 2007<sup>9</sup>. As shown in Fig. 1, since 2005 one has been able to observe a higher rate of growth of the nominal disposable income per capita in a household, which, at a lower rate of price increase, means faster growth of real income per person.

Fig. 2 shows the average annual net disposable income per capita in a household, according to socio-economic group, in 2007 and 2008. Research conducted by the Central Statistical Office indicates that the socio-economic group with the highest net disposable income per capita in 2008 included households where the main or only source of income was self-employment (with the exemption of small farms). In 2008 the net disposable income in such households equalled about 13.4 thousand PLN per person per year, and was nominally by 20% higher compared to 2007. Net disposable income per capita in 2008 amounted to over 13 thousand PLN in households of employees, i.e. in

<sup>&</sup>lt;sup>9</sup> GUS, Sytuacja gospodarstw domowych w 2008 r. w świetle wyników badania budżetów gospodarstw domowych, Material for press conference on 26 May 2009.

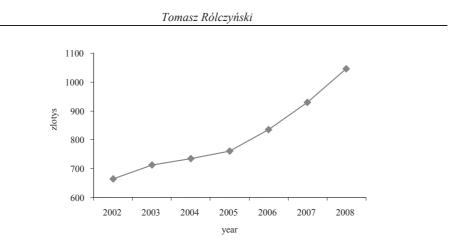


Fig. 1. Nominal disposable income per person in Poland in 2002-2008 Source: GUS, www.stat.gov.pl; Bank of Regional Data.

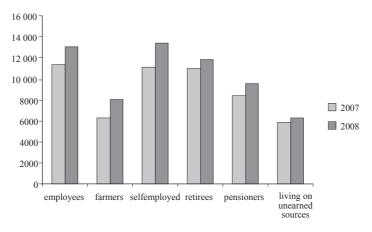


Fig. 2. Average annual net disposable income per capita in households in PLN according to socio-economic group in 2007 and 2008

Source: author's own study based on GUS. Departament Pracy i Warunków Życia. Dochody i warunki życia ludności polski, GUS, Warszawa 2009.

households where the dominant or main source of income came from employment in Poland or abroad. The lowest net disposable income in both 2007 and 2008 was recorded in households living on unearned sources and amounted, respectively, to 5.8 thousand PLN and 6.2 thousand PLN per person annually. The households with persistent non-commercial sources of income are households where the predominant or sole source of income is unemployment benefits, regular transfers from outside of the household, family benefits, rental

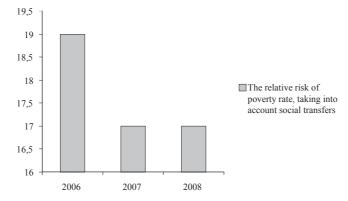


Fig. 3. Index of relative poverty risk after including social transfers in income Source: author's own elaboration based on GUS, Bank of Regional Data.

income or capital income, etc. The lowest increase in the annual net disposable income per person occurred in the households of the retired and those living on unearned sources. It equalled 7% in 2008, as compared to  $2007^{10}$ .

According to the definition adopted by GUS, the percentage of people with expenses below 50% of the average total monthly household expenditures are considered to be at risk of relative poverty. It is believed that this is the expenditure level of a subsistence existence, i.e. the level below which biological life and mental development of a person are at risk. In Poland in 2007, the index of relative poverty risk was at the same level as the average for 27 European Union countries and amounted to 17%. At the same time, however, Poland was among the countries with the lowest levels of poverty limits<sup>11</sup>.

# 4. Analysis of expenditure

As shown in Fig. 4, since 2005 a systematic increase in the average monthly expenditure per person has been noticeable. In 2008 the average monthly level of nominal expenditures in households in total was about 905 PLN per person, out of which 865 PLN was spent on consumer goods and services. Differen-

<sup>&</sup>lt;sup>10</sup> GUS, Departament Pracy i Warunków Życia, *Dochody i warunki życia ludności Polski*, GUS, Warszawa 2009.

<sup>&</sup>lt;sup>11</sup> GUS, Departament Warunków Życia, *Ubóstwo w Polsce na tle krajów Unii Europejskiej* w świetle Europejskiego Badania Dochodów i Warunków Życia, Material for press conference on 28 January 2010.

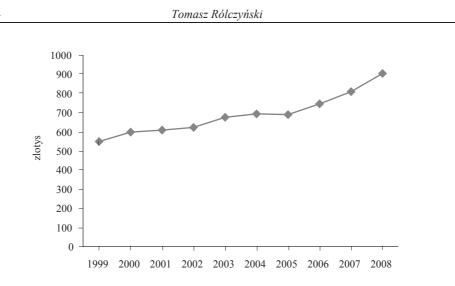


Fig. 4. The average monthly expenditure for a person in a household in PLN, current prices Source: author's own elaboration based on GUS, Bank of Regional Data.

tiation of the average monthly expenditure among the different socio-economic groups in 2008, just as in 2007, was relatively large. An expenditure level higher than average could be observed in the households of the self-employed and was higher than the average by 31.9%, in the households of pensioners it was higher than the average by 8.6%, and in the households of non-blue-collar workers higher than the average by 29%. The level of monthly nominal expenditure was lower than the average in households of farmers by 23.3%, pensioners by 14.7%, and workers by 1.9%. In total, the real household expenditures on consumer goods and services per capita in 2008 were higher than in 2007 by 7.1%. A real growth in spending on consumer goods and services occurred in all socioeconomic groups. The largest increase in nominal expenditures was recorded in the households of blue-collar employees (by14.2%) and in the households of farmers (by 12.8%). The lowest increase in nominal spending occurred in the households of pensioners, amounting to 8.7%. Differences in the structure of the total household expenditures between 2008 and 2007 for most groups of consumer goods and services did not exceed 0.3 percentage points. An exception was the increase in the share of expenditures on transport by 0.8 percentage points and the use of housing and energy by 0.5 percentage points, including increased spending on energy itself by 0.2 percentage points. The share of spending on food and soft drinks fell by 1 percentage point. Such a decrease was also recorded in all socioeconomic groups except the households of pensioners, where the share of expenditure on food and soft drinks remained unchanged. The biggest differences in nominal spending between 2008 and 2007 occurred in the households of farmers, in which there was a decrease of 2 percentage points, and in the households of blue-collar workers, where there was a decline of 1.6 percentage points. On the one hand, the increase in expenditure was due to a substantial increase in prices of some goods, especially food and transport, on the other hand, to a rise in remunerations which exceeded the increase in prices. Therefore, goods and services have become more attractive for a significant part of society (despite the price increase)<sup>12</sup>.

# 5. Analysis of savings and investments

Among the financial decisions taken by households one can distinguish decisions concerning: consumption, savings, investments, credits and financial risk management. These decisions cannot be treated separately because they are closely linked to each other. A household decides how much of its revenue can be allocated to consumption, and how much to savings for use in the future. In addition, it decides how much financial means to allocate to investments/savings (if it has the financial resources for that purpose), and whether and how much to use credits and/or loans.

Investment decisions are closely linked to savings decisions, and to distinguish between them nowadays is almost impossible, because even keeping financial resources in a current account is connected with the interest rate on the deposits and obtaining additional funds as interest.

Investment decisions mean decisions involving depositing capital in assets in order to achieve benefits and increase revenue. The effects of investment decisions are:

- financial investments, such as deposits, participation units, and investment funds certificates, bonds, treasury bills, stocks, currencies,

- in kind investments, such as real estate (land, housing estate, real estate buildings), works of art, etc.

Fig. 5 shows the structure and the changes of the value of household financial assets in the years 2000-2008. The largest portion in the structure of household assets is formed by bank deposits. In 2008 their value exceeded 300 thousand million PLN. You can also note the increasing value of resources on the accounts of Open-ended Pension Funds, because the people who joined the second pillar of the pension system, up to now, have mainly accumulated funds for future pensions. In 2008, compared to 2007, the value of shares held by

<sup>&</sup>lt;sup>12</sup> GUS, Departament Pracy i Warunków Życia, *Budżety gospodarstw domowych w 2008 roku*, GUS, Warszawa 2009.

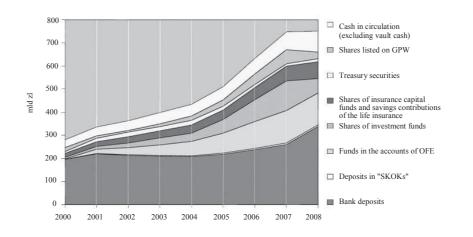
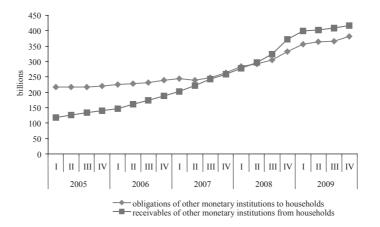
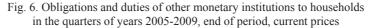


Fig. 5. The structure and value of household financial assets in 2000-2008, end of period, in thousands of millions PLN

Source: NBP, Financial System Department, Development of the Financial System in Poland, Warsaw, January 2009, www.nbp.pl





Source: author's own work.

households and the value of investment funds shares decreased noticeably. This situation may have arisen from two causes. As a result of "economic downturn" the value of shares and the value of units in investment funds went down, and in addition, some households withdrew their money from the stock exchange and from investment funds in order to avoid further depreciation or to reduce the investment risk.

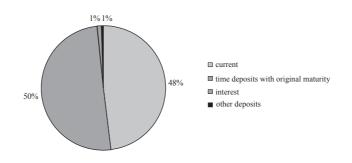
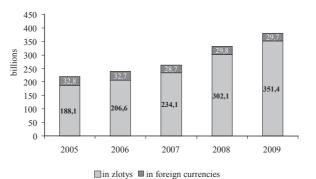


Fig. 7. The structure of liabilities of other monetary financial institutions to households at the end of 2009



Source: author's own calculations based on NBP.

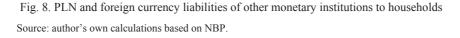


Fig. 6 presents payables and receivables of other monetary institutions to households. According to the definition of NBP (National Bank of Poland), *other monetary financial institutions* are commercial banks. The *financial sector* consists namely of sub-sectors, for example: monetary financial institutions (the central bank and other monetary financial institutions), insurance corporations and pension funds, financial intermediaries, and financial auxiliaries<sup>13</sup>. In terms of the value of deposits and credits and loans of households, a crucial period was the beginning of 2008, when the value of credits and loans granted to households exceeded the level of their deposits held in commercial banks. This meant that the rate of indebtedness of households exceeded the rate of savings formation. The reason for this may be over-consumption, which does not allow for putting aside savings, or investing surplus funds in such investments as may have

<sup>&</sup>lt;sup>13</sup> See: NBP, Departament Statystyki, *Zmiany w definicjach agregatów monetarnych*, www.nbp.pl/statystyka/pieniezna i bankowa/dwn/zmiany definicyjne.pdf.

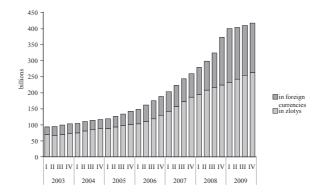


Fig. 9. Claims on other monetary financial institutions from households in billions of PLN, as of end of period, current prices

Source: author's own calculations based on NBP.

a higher rate of return than bank deposits, however, achieving such a rate of return is associated with higher risk.

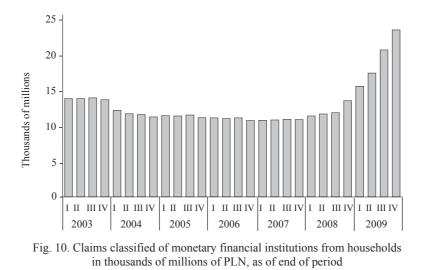
Half of the value of household deposits in commercial banks are fixed-term deposits, i.e. funds deposited in a bank for a specified period. The second largest part of households' deposits in commercial banks, which constitutes 48% of the total value of deposits, comprises current deposits, i.e. deposits which are repayable on demand, and may be taken without loss of interest due. This shows that households do not use fixed-term deposit funds for investments which may have a higher rate of return than current deposits.

Deposits of households are primarily in PLN. Fig. 8 shows that the share of foreign currency deposits in comparison to the total deposits declined steadily from 15% in 2005 to 8% in 2009. This is a situation opposite to that which is observed in the case of credits and loans, where the share of foreign currency credits and loans in comparison to the total amount of credits and loans has been increasing steadily (see Fig. 9).

## 6. Debt analysis

*Credit decisions* are decisions which result in a household borrowing capital to meet its needs. The effect of a decision to take credit is the creation of a financial commitment in the form of a credit or a loan with a financial institution such as a bank<sup>14</sup>.

<sup>&</sup>lt;sup>14</sup> Households may incur liabilities also in other institutions such as, for example, SKOK and Provident, but owing to a lack of relevant data, they have not been analyzed in this study.



Source: author's own calculations based on NBP.

The value of household debt in comparison to banks in the years 2003-2009 grew steadily. In the third quarter of 2009 debt levels exceeded 400 thousand million PLN. As shown in Fig. 9, the growth rate decreased from the fourth quarter of 2008. The increase of the value of debt in the fourth quarter of 2008 compared to the third quarter of 2008 was influenced by an increase of the share of foreign currency claims, caused by a "abrupt" depreciation of the Polish currency, in particular in relation to the Swiss franc and euro. Most foreign currency credits are given in these currencies. In December 2008 the credits granted in Swiss francs accounted for 96% of foreign currency credits, and credits in euro accounted for 1.7% of the foreign currency credits<sup>15</sup>.

Since the third quarter of 2008 an increase in the value of liabilities of banks at risk from households has been observed (see Fig. 10). This happened simultaneously with the fall of the value of the Polish currency and with the increase of household debts to banks arising from foreign currency credits. The increase in claims classified was due to an increase in instalment rates (mostly mortgages) because of currency appreciation against the Polish zloty.

This situation is also shown in Fig. 11, which represents the value of mortgage loans granted to households in the years 2005-2009. In 2008 there is a clear increase in the value of foreign currency credits to an amount of over 130 billion PLN, while the value of mortgage loans in the Polish zloty in the same year amounted to nearly 60 billion PLN. In 2009 the value of PLN credits in mort-

<sup>&</sup>lt;sup>15</sup> See: NBP, Departament Systemu Finansowego, *Rozwój systemu finansowego w Polsce*, Warszawa, styczeń 2009.

gage loans exceeded 140 billion PLN, and foreign currency mortgage loans 80 billion PLN, which means that there is a noticeable increase in the share of foreign currency credits in the total mortgage loans.

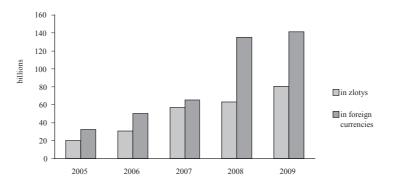


Fig. 11. Value of housing loans to households in thousands of millions PLN Source: author's own calculations based on NBP.

Fig. 12 shows the structure of loans and credits granted by banks to households taking into account the situation at the end of September 2009. It reveals that over half of household debts to banks came from credits linked to financing real estate (53.94%). More than 28% of household debt in banks are "other loans and credits" which include, primarily, cash credits, and automobile credits.

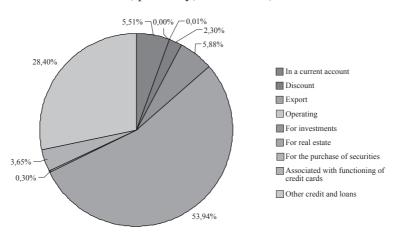


Fig. 12. The structure of the value of credit granted to households by other monetary financial institutions as of the end of September 2009

Source: author's own calculations based on NBP.

#### **6.** Conclusions

Based on the above considerations, it can be concluded that the financial situation of Polish households is improving year by year. Important is the fact that savings increase, which means that households generate financial surplus, which means that they do not consume all their income. In addition, the value of credits granted to households increases, which means that they have adequate credit ability, because if they did not have it, these credits would not be released. Disturbing might be the fact that debts exceed deposits, which eventually (under unfavourable macroeconomic conditions) may lead to the inability to repay debt by households. However, given the fact that in 2009 an increase of gross domestic product, compared to 2008, was recorded in Poland, while in other countries of the European Union, the United States and Japan the GDP in 2009 decreased in comparison with 2008, a deterioration of the financial situation of the Polish households should not be expected.

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