

# **Has the Crisis Affected the Food Consumption? – Results Based on a Two-Round Questionnaire Survey**

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*From the effects of the economic crisis several studies and papers were born. All writings agree in it, that the crisis affected the corporate and the domestic sphere equally. They argue about, whether the effects of the crisis were over already or not. The income decrease caused by the crisis felt by the people differently, according to their income situation, their qualification, their age and their gender as well. The aim of a present study is to introduce the effects on the demand of the consumer goods, according to a two-round questionnaire research made in 2010 and 2013, and to reveal the inner contexts of the decisions with the help of mathematical, statistical methods.*

*Keywords: crisis, consumption, households' share*

## **1 Review of literature**

The financial and economic literature deal with the affects of the crisis and its consequences. The crisis had a deep impact on every fields of the life: on the state budget, on enterprises (Szira et.al., 2011) on education (Lazányi, 2012) an on social and health care system too. The literature lists several crisis definitions of which not one can describe completely the bubble burst in 2008 and the way to the crisis. The definition of Árvai – Vincze (1998) is perhaps the most obvious description of the concept: “if it occurs, even the blind can see it”. But what is it to see and what can be done? In order to answer this question it is necessary to overview the most important crisis definitions. The classic typology of crisis declares to have 4 types of the crisis (based on Bordo and others /2001/, Heming –

Kell – Schimmelpfening /2003, Reinhart – Rogoff /2009/): currency crisis, bank crisis, twin crises and debt crisis. The literature groups the crisis on many aspects occurred in history so far. Farkas (2009) names 3 significant groups of crisis based on lessons from history: crisis which can be traced back to classical business cycles, global crisis and intersection crisis. Farkas states in relation to the grouping mentioned above that the crisis in 2008 is a quite innovative and serious one; it is the concentration of the global and the node crisis with several unforeseen consequences. The list of Farkas can be completed with a type which was typical for the transition countries in the nineties, this is the crisis of regime when the countries have to stand their ground in a completely new economic environment. Instead of the planned economy artificially operated up until then, a completely new economic system, the competitive economy driven by the market defines the new conditional system which the countries had only known from the textbooks before the change. The new system brought the massive loss of jobs, the privatization of public enterprises, the mass termination of businesses and the drastic reduction in welfare. The Central European countries experienced the crisis more than 20 years ago but it is evident that even today we still learn from the experience. Lentner – Szigeti – Borzán (2011) emphasize the role of the following interest groups concerning the outbreak and escalation of the financial crisis in the financial markets: banks and other banking businesses on the supply side, borrowers businesses, households on the demand side, Government, Central Bank and Supervision with regulatory roles. Bélyácz – Pintér (2011) consider the following manifestations concerning the present crisis as the most important ones (including but not limited to): changes in form of loans, bubble formation then bursting, excessive in form of loans, undervaluing risks, asymmetric information flow, lack of transparency, insufficient control mechanism and misleading accounting practice.

The causes of the crisis and their predictability have been widely discussed by economists. It is common in these discussions that they do not discharge the responsibility of banks, which appears with different emphasis, together with the role of the demand side, i.e. households and consumers. Besides the responsibility of both demand and supply sides there are theories which mention the role of governments and supervisory institutions as well. There are opinions which state that economists were unable to predict the effects of the oversized and early consumption which already began in several countries of the world, especially in the US, but also in Europe, in the early 2000s (Kolozi, 2013). However, a number of well-known experts, among others Roubini, Stiglitz, and much earlier, Minsky, have dealt with the background of crises. If decision-makers had listened to them a little better, the crisis would not have had such a global size as the crisis of 2008. We need to mention one of the several classic theories, which was formed by Hyman Minsky.

According to the Minsky theory all crises has seven well discernible stages and declares that crises have a lot in common in many aspects (Askaboutmoney.com, 2008).

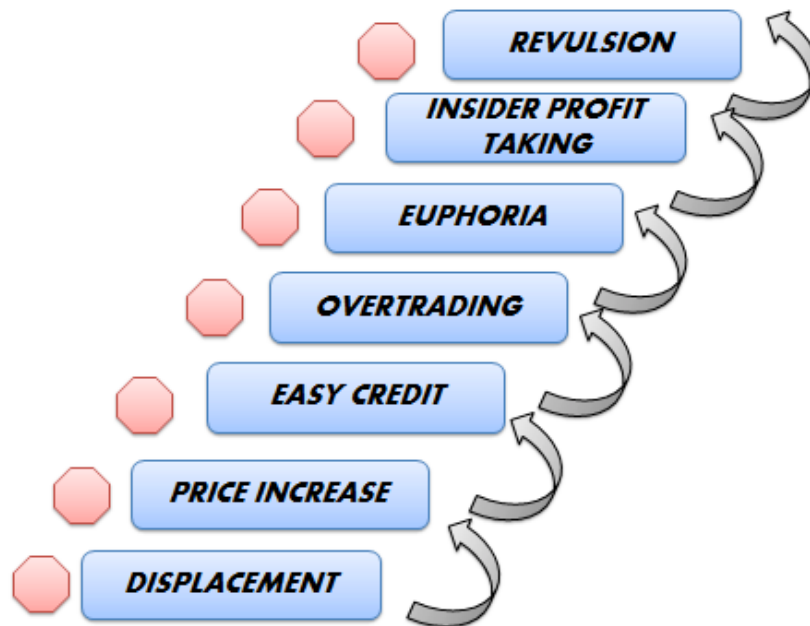


Figure 1  
The stages of the crisis  
Source: own compilation according to Minsky

Minsky with his theory formulated the paradox of bubble theory (Shostak, 2007): everybody knows that the combination of easy credit, over-demand and euphoria will sooner or later become lethal. However, America falls in the trap from time to time so starting from the supply bubbles to the real estate bubbles we could meet a lot of types of bubbles so far. A real estate bubble also developed in Japan at the end of the 1980s which entailed various detrimental consequences (Szekeres, 2003). As it can be seen, the stages listed above can be traced from point to point even in connection with the present-day subprime crisis. In our opinion, if the monetary and fiscal decision-makers of those days had studied Minsky's theory, they could have seen the signs which were the precursors of the crisis way before 2007 and 2008. These could have been explained scientifically with the help of this theory. The telltale signs were not only visible by Minsky's theory and Roubini's predictions, who later proved to be right in every respect (Mihm, 2008), but also according to the values of Case-Shiller index (Shiller, 2006). However,

there have been heated discussions about the visibility, type, and the root causes of the crisis ever since.

The effects and consequences of the crisis are extensively covered and dealt with in economic literature. There are several interpretations of the concept and the definition of the crisis and still, none of them could fully characterize neither the bubble burst in 2008 nor the path leading to it. Perhaps the most obvious definition for the description of it was given by Árvai – Vincze (1998) ” when it occurs, even the blind can see it ”. Our question is what can we actually see and what can be done at that certain time. In order to answer this question it is essential to review the following most important crisis definitions.

As a result of the financial crisis on households' consumption habits have also changed their decision significantly. (Fodor, et.al, 2010). Changes in the demand side, are favourable for some sectors, while others have unfavorable market conditions. (Fodor – Medve, 2012).

## **2 Material and method**

Our quantitative research was made as a nationwide survey during the autumn and winter of 2010, and also in the spring of 2013 when everyone had met the effects of the world crisis or experienced them personally. The research was carried out with the help of a standardised, pre-tested written questionnaire, which did not contain open questions to which the respondents could answer using their own words, due to the diversification of the sample. Therefore, for better assessment, the questionnaire only contains closed questions to which respondents can choose replies previously defined by the researchers. Furthermore, we ensured that there are no questions that impede or jeopardise the intentions of the respondents to answer them or that there are no questions that violate their privacy rights.

We tried to get responses to questions which have not been analysed by daily press and the media, so they were based on the respondents' personal opinion and experience. We also attempted to include questions which convey information for the researcher based on substantial experience, therefore we addressed respondents on the basis of a relatively wide circle according to age group, occupation, and education. We obtained the results and conclusions using basic statistics and cross-table analysis. The questionnaire was processed with the help of SPSS (Statistical Package for Social Sciences) 14.0 and Microsoft Office Excel 2007 programmes. In the first survey in 2010 we have distributed 400 questionnaires altogether, out of which 61 were not returned, 48 were returned incompletely, therefore were not to be evaluated, so altogether 291 questionnaires have been processed. In the second survey in 2013 our method was not print or

paper-based but was conducted online using the opportunities offered by Google. In the second survey 352 questionnaires have been processed. The composition of the sample is demonstrated in the following table.

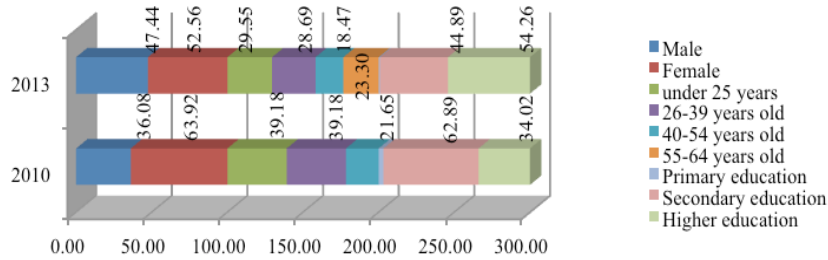


Figure 2

The composition of the sample

Source: own research 2010 (N = 291), 2013 (N = 352)

The examined question was:

	Not affected at all	Rather not affected	Rather affected	Entirely affected	I do not know
How has the crisis affected your food consumption?					

Table 1

The examined question

Source: own research 2010 (N = 291), 2013 (N = 352)

### 3 Results

As mentioned in the methodological part, we conducted our research in two rounds, in 2010 and 2013. The aim of this study is to show the result of a part of our research, the changes in the consumption of food, according to average citizens. We tried to see with the help of calculating Pearson's Chi-square if there is a statistically proven correlation among the gender, age, educational level and their consumption of food. The following table shows the results:

	<b>Gender</b>	<b>Age</b>	<b>Level of education</b>
Research of 2010	0,0509	<b>0,0007</b>	<b>0,0001</b>
Research of 2013	<b>0,0093</b>	<b>0,0001</b>	0,3119

Table 2

The values of Pearson's Chi square test according to food consumption and characteristics  
 Source: own research 2010 (N = 291), 2013 (N = 352)

As it can be seen there is a visible correlation between the age and level of education of the results of 2010. In order to discover inner correlations we calculated the values of corrected standardised residuals, according to which we experienced the following correlations. Among the respondents who are under 25 and mainly students who are not at work yet felt in greater proportion than expected that their food consumption had absolutely been influenced by the crisis. It is interesting that the following young age group of 25-29-year-olds, who have jobs and regular income felt, above the expected value, that the crisis had rather influenced their food consumption, however, less than expected felt that the consumption of these products had completely changed. Older respondents also felt the mainly negative effect of the crisis on food consumption in a greater proportion than expected. If we examine the 2010 sample according to level of education it is another interesting fact that in the case of those with secondary education more respondents than expected felt that the crisis had absolutely changed their food consumption. It was the opposite in the case of those with higher qualifications. The reason can be found in differences of wages. While in the case of those who have secondary school degrees a few thousand or ten thousand forints difference has a significant effect on the household budget, this is not experienced with the considerably higher salaries of those with tertiary education.

		Not effected at all	Not very much effected	Rather effected	Absolutely effected
Age	Under 25	0,10	0,27	-1,86	<b>2,02</b>
	25-39 years	1,28	0,27	<b>2,08</b>	<b>-4,33</b>
	40-55 years	-1,64	-0,64	-0,26	<b>2,74</b>
Qualifications	Primary	-1,03	1,24	0,23	-1,20
	Secondary	-0,35	-1,68	-1,78	<b>5,16</b>
	Tertiary	0,73	1,26	1,73	<b>-4,82</b>

Table 3  
 The corrected standardized residual values according to the 2010 research  
 Source: own research 2010 (N = 291)

According to the 2013 research there was a statistical correlation, based on Pearson's Chi-square between the gender and age of respondents. Examining the corrected standardized residual values it is a striking fact that men felt in a greater proportion that the crisis had not effected their food consumption at all. As opposed to this, female respondents had experienced the contrary. Compared to the values of 2010 it is also remarkable that five years after the crisis respondents, and mainly those younger than 25 years old felt that the crisis had not influenced their consumption. More than expected thought that the crisis had not effected their consumption at all, and parallel to that they felt less than the expected value that it had changed. 25-39-year olds and the oldest, 56-64-year-olds thought in a considerably less extent than expected that the crisis had not influenced their consumption

		Not effected at all	Not very much effected	Rather effected	Absolutely effected
Gender	Male	<b>3,12</b>	-1,42	0,47	-1,15
	Female	<b>-3,12</b>	1,42	-0,47	1,15
Age	Under 25	<b>4,47</b>	1,89	<b>-2,20</b>	<b>-2,69</b>
	25-39 years	<b>-2,04</b>	0,62	-0,25	1,04
	40-55 years	-0,35	-1,57	0,73	1,20
	56-64 years	<b>-2,32</b>	-1,26	1,97	0,69

Table 4  
 The corrected standardized residual values according to the 2013 research  
 Source: own research 2013 (N = 352)

## Conclusions

We can conclude that immediately after the crisis, in 2010, examining the change of food consumption it can be stated that every segment of the research had felt the changes. It can be underlined that according to the corrected standardized residual values the most significant relationship was seen with those absolutely effected, compared to the expected values. The curiosity of the 2013 research is that five years after the crisis hit respondents do not feel that it has considerably influenced the amount of their food consumption, which is also shown by the residual values. Therefore, the principle that time heals has already been proven in 2013, since we do not see as a disaster what was leading the world towards a complete economic collapse some years before.

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