

IMPACT OF ECONOMIC CRISIS ON CONSUMER BEHAVIOUR TOWARDS MEAT¹

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Abstract. The economic crisis with its origin in 2008 has influenced many areas of consumer life. It also determines their behaviour related to purchasing and consuming products, including food products. An example of an important product in the human diet is meat consumed by the Poles at the level of more than 75 kg per person per year, which on one hand has adequate nutritional value and is consumed by the consumers because of the reasons related to a tradition, habits and pleasure, but on the other hand, it is an expensive product and therefore, in the time of the crisis, its consumption level is decreased and consumers look for cheaper alternatives. The aim of the research carried out within the framework of a NCN in Kraków research project “Determinants of selection and consumption of meat in Poland – diagnosis and forecasts” was to assess the impact of the economic crisis on consumers’ behaviour towards meat. The statistical analysis led to the conclusion that for 18.1% of the respondents it was the economic crisis that contributed to the changes in the consumption of meat. As calculated based on the 7-point scale (where 1 rating – the lack of any changes, and evaluation of 7 – changes with high intensity) in the past few years, consumers have noticed reduce the level of total meat consumption (5.02), an increase in the level of consumption of cheaper types of meat (4.85), reducing consumption of more expensive meats (4.48), buying a one-off smaller portions of meat than it was 2–5 years ago (4.23). They also began to pay more attention to the price of buying.

Key words: economic crisis, consumer behaviour, meat

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INTRODUCTION

Human behaviour changes under the influence of many factors. One of the strongest impacts within this area is the current economic crisis with its origin in 2008. Its results are already noticeable in macro- (e.g. decrease of GDP, closing or restricting business activities by companies) and micro-economic scale (decrease of consumption). However, according to Drozdowicz-Bieć [2009], Pater and Skica [2011] and data included in Konjunktura... [2011], Poland has been recording a positive economic growth during the economic crisis which has weakened economies of many countries throughout the world. During the highest economical slump in 2009 yearly dynamics of actual GDP in Poland equaled 1.7%, whereas the European GDP has decreased during that year.

The crisis has resulted in behavioural changes of many consumers not only due to consequences related to financial situation, but also to emotional and psychological effects. A feeling of consumers' uncertainty has grown during this time [Rozmus 2010]. It has also been confirmed by Słaby [2009] according to whom, the basic social dimensions of the crisis are: growth of the unemployment rate, decrease of the household income, changes in consumption structure, changes in behaviour and serious states of anxiety and depression resulting from a fear of losing a job, difficulties in finding new employment, deterioration of the financial situation, fear of losing savings or incapability of repaying loans.

According to Frączak-Rudnicka [2009], crisis of the whole economy changes behaviour of individual purchasers to a small extent, until they do not feel directly threatened by the crisis and its effects. Direct experiences is a factor forcing people to change their behaviour. Within 2007–2012, the majority of households did not feel any effect of the crisis on their living standard. Lack of noticeable changes in the level nor structure of Polish households could have been a result of a delayed and mainly indirect effect of the economic crisis on consumption issues. However, other data prove that there is a significant relation between the economical crisis and consumption in households. The crisis results in worsening situation on the labour market and people's financial situation what triggers decreasing level of consumption and worsening consumption structure in households [Bywalec 2010, Kieźel and Smyczek 2011, Sobczyk 2013]. Society's consumption depends on a level and rate of development of the national economy measured with a level of the gross domestic product and household incomes. Other (non-economic) determinants of consumption in the macro scale are demographic and social processes and influence of the country realizing allocation, distributive and stabilization functions [Bywalec 2010].

Many research show that the consumers have begun to make decisions concerning selection of products more rationally what, in most cases, can be a result of worsening living standard and being afraid of the crisis effects [Kryzys... 2009, Czy Polacy... 2012]. According to the research conducted in Lubelskie Voivodeship, households maintained their level of consumption during the increasing economic crisis and over 58% of interviewed persons claimed that they 'will definitely not' and 'will rather not' lower the level of purchasing foodstuffs. The biggest group, which has denied lowering the level of such purchases, was households including 2–3 persons. Households with the oldest persons indicated the most significant decrease in consumption. These research have proven that changes in behaviour of consumptive households mainly consisted in changing decisions related to worsening financial situation of several social groups and changes in

purchasing and consumption habits of households. Over 43% of interviewed households have 'resigned' or 'rather resigned' from purchasing some products, 44% has decided to purchase the same products as before the crisis but in smaller amounts. A characteristic approach (69%) has also been a replacement of more expensive, branded products with cheaper, more affordable ones [Sobczyk 2013].

Changes in previous behaviour can be a result of consumers' reaction to the atmosphere of anxiety related to the effects of the crisis created by the media [Słaby 2009]. Information about possible effects of the crisis presented by the media had a more significant influence on worsening public mood than on a decrease of actual living conditions of Polish citizens. Awareness of the crisis in media and actually worsening financial situation of several social groups have influenced (to various extent) behaviour-related purchasing and consuming products including foodstuffs [Sobczyk 2013].

The aim of this work was to evaluate the effect of the economic crisis on consumers' behaviour towards meat.

MATERIALS AND METHODS

The research was conducted within the framework of the research project by the National Science Centre in Cracow entitled "Determinants of selection and consumption of meat in Poland – diagnosis and forecasts". The evaluation of the economic crisis on changes in consumers' behaviour towards meat was made in June 2012 on a group of 1,500 people constituting all-Polish community sample. A group of 272 people was selected for final statistical analyses. All these people agreed that the economic crisis has the effect on meat consumption level. The research was qualitative and was conducted with the use of direct interview method. 16 voivodeships were included and selected proportionally to the number of citizens and according to the following criteria: gender, age, level of education and place of residence. Issues included in the questionnaire were related to factors determining changes in consumers' preferences towards meat and were particularly purposed for verifying if consumers actually feel the effect of the economic crisis in Poland and other countries since 2008 on changes in consumption of meat.

The interviewed group included mainly women (59.4%) and people living in urban environments (62.6%). 39.2% of interviewed respondents are people between 18 and 39 years of age, 33.7% declared to be 60 or more and 27.1% are people between 40 and 59. Over 30% of respondents declared higher education. Subjective analysis of opinions related to respondents' income has shown that the majority of them (35.2%) stated that their income allows to fulfill only basic needs. Interviewed respondents are characterized in Table 1.

Size (average rating) and descriptive statistics have been used in order to analyze the results and percentage share of ratings from 1 to 7 has been shown. Moreover, a sum of the lowest – 1 and 2 ratings and highest – 6 and 7 ratings has been calculated. Chi² statistics and Cramer's V correlation coefficient have been used in order to determine the statistical significance of the relationship between variables at the significance level of $p \leq 0.05$. Statistical analysis of the results has been developed with the use of SPSS 14.0 for Windows.

Table 1. Socio-demographic structure of respondents [%]

Whole population	Overall N = 272 (100%)
Gender	
Female	59.4
Male	40.6
Opinion related to income	
Insufficient	20.7
Enables only to fulfill basic needs	35.2
We can afford some but not all expenditures	17.9
We can afford all	12.9
We can afford all and we are able to save money	13.3
Place of residence	
City	62.6
Village	37.8
Age (years)	
18–39	39.2
40–59	27.1
60 and more	33.7
Level of education	
Primary	17.0
Vocational	25.4
Secondary	23.2
High	34.4

Source: Author's own research.

RESULTS AND DISCUSSION

One of the most important foodstuff playing a significant role in everyday diet and nutrition of humans is meat. It is a compound product consisting of various chemical compounds indicating, e.g. its nutritional value. It also contains considerable amounts of proteins, vitamins and minerals [Layman et al. 2008, Paddon-Jones et al. 2008]. More and more often, apart from a positive impact of meat on human's health, it is assigned with a negative impact too. Some scientists claim that the excessive amounts of meat can result in obesity, circulatory system diseases and cancers [Gawęcki and Hryniewiecki 2003, Wagemakers et al. 2009]. Such concerns have also been reported by meat consumers what is confirmed by research related to behaviour of respondents consuming beef [Gutkowska et al. 2011].

Changes in consumers' behaviour towards meat depend on many factors, mainly including ones related to its quality, appearance and taste, but also lifestyle, fashion and affordability depending on the income and prices of products offered on the market.

According to 63.1% of respondents taking part in the empirical research, the amounts of consumed meat have changed over the last few years. For 18.1% of the respondents, it

is the economical crisis which has been a reason of changes related to meat consumption, what is also reflected in European Union forecasts for 2012–2013. According to them, the economic slowdown in EU and high unemployment rate result in consumers buying cheaper food, including cheaper meat. Moreover, the additional problem negatively impacting the meat sector is growing prices of fodder as a result of drought in many regions throughout the world [Komisja... 2010]. Author's own research suggested other determinants which influenced changes in consumers' behaviour towards meat. These determinants are meat price growth (20%), poor quality of meat and consumers' concerns about possibilities of becoming infected with zoonotic diseases after consuming meat (Fig. 1).

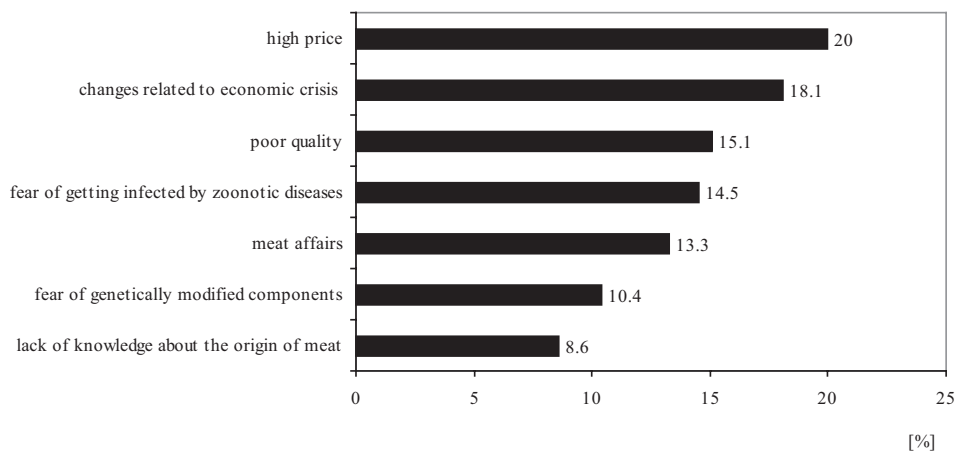


Fig. 1. Factors influencing changes in the meat market according to consumers [%]

Source: Author's own research.

With an assumption that the economic crisis is a process which considerably effects changes in consumers' preferences towards meat, it was found out that the crisis has been a cause of, e.g. limitation of total meat consumption (5.02), increasing level of consumption of cheaper types of meat, e.g. poultry, particularly chicken meat (4.85), decreasing level of consumption of smaller portions of meat in relation to 2–5 years ago (4.23). People also began to pay attention to prices of purchased meat (4.06) – Table 2. Results of the research are coherent with research executed by TNS OBOP [Kryzys... 2009] and CBOS [Czy Polacy... 2012], according to which, consumers' behaviour on the market of consumption goods is similar. And in these cases, consumers try to limit their expenditures by buying less amounts of products or by searching for cheaper substitutes.

Limitation of the total meat consumption as a consequence of the economic crisis, as Table 3 shows, was considerably more often noticed by men (5.15), people over 60 years of age (5.15), town citizens (5.17) and people with primary education (5.18). Changes consisting in increasing the level of consumption of cheaper types of meat, e.g. poultry, and particularly chicken meat was relatively more often noticed by women (4.97), responders between 40 and 59 years of age (4.96), agglomeration citizens (4.91) and

Table 2. Selected changes in consumer preferences due to the influence of the economic crisis

Perceived changes	Average rating	Sum of higher and the highest ratings (4, 5, 6, 7) [%]	Sum of the highest ratings (6, 7) [%]	Sum of low and the lowest ratings (1, 2, 3) [%]	Sum of the lowest ratings (1, 2) [%]
Limitation of total meat consumption	5.02	81.1	59.3	17.2	7.7
Increasing level of consumption of cheaper types of meat, e.g. poultry, particularly chicken meat	4.85	72.9	47.6	26.1	14.4
Decreasing level of consumption of more expensive types of meat, e.g. beef	4.48	68.7	43.5	20.9	13.5
Buying smaller portions of meat in relation to 2–5 years ago	4.23	67.1	52.8	13.5	11.0
Paying more attention to prices of purchased meat	4.06	59.8	46.2	21.2	8.3

Source: Author's own research.

people with higher level of education (5.21). However, changes consisting in decreasing consumption of more expensive types of meat, e.g. beef was noticed by men, respondents over 60 years of age (4.58) and between 40 and 59 years of age (4.51), town citizens (4.67) and people with lower level of education, particularly with primary (4.89) and vocational (4.76) education. Change in approach towards meat related to buying smaller portions in relation to the past was noticed by women (4.27), young people between 18 and 39 years of age (4.35) and villagers (4.37). This dependency was statistically significant considering respondents' level of education, since it was found out that the average rating decreased with an increase of respondents' level of education.

Decreasing life standard of some social groups in Poland resulted in the fact that consumers more and more often declared taking the price of meat into consideration before making a final decision of buying it. A research executed in this case has shown that the price of meat was a particularly significant variable for women (4.15), people over 59 years of age (4.21), villagers (2.25) and people with the lowest level of education (4.52).

Although some consumers have noticed the effects of the economic crisis and these effects have significantly influenced their approach towards meat, the experts emphasize that the situation on agricultural markets in Poland is not so bad. It was found that particularly in years 2008–2009, the largest economic benefits have been obtained by producers of vegetables, animals sold for slaughter and beet grower. A group mostly influenced by price changes was grain cultivators and dairy farmers [Rynek... 2009].

Table 3. Respondents determining changes in their preferences towards meat by gender, age, place of residence and level of education (average rating)

Perceivable changes	Gender		Age			Place of residence			Level of education		
	men	women	18–39	40–59	60 and more	town	village	primary	vocational	average	higher
Limitation of total meat consumption	5.15 ^a	4.89	4.92	4.99	5.15	5.17	4.87	5.18 ^a	5.09	4.99	4.82
Increasing level of consumption of cheaper types of meat, e.g. poultry, particularly chicken meat	4.73	4.97	4.76	4.96	4.83	4.91 ^a	4.79	4.11	5.13	4.95	5.21 ^a
Decreasing level of consumption of more expensive types of meat, e.g. beef	4.56	4.40	4.35	4.51	4.58	4.67 ^a	4.29	4.89	4.76	4.31	3.96
Buying smaller portions of meat in relation to 2–5 years ago	4.19	4.27	4.35 ^a	4.21	4.13	4.09 ^a	4.37	4.69	4.51	4.01	3.71
Paying more attention to prices of purchased meat	3.97	4.15 ^a	3.88	4.09	4.21 ^a	3.87	4.25 ^a	4.52 ^a	4.17	4.02	3.53

^aStatistically significant differences between variables, χ^2 , Cramer's V, $p < 0.05$.
Source: Author's own research.

SUMMARY

Research conducted on all-Polish community sample has confirmed that for 18.1% of respondents, the economic crisis is a considerable determinant of their approach towards meat. According to the respondents, reminiscences of this process are mainly related to a necessity of lowering the total meat consumption level, perceived increase of cheaper meat consumption level, including poultry and decrease of more expensive meat consumption level, including e.g. beef. Meat consumers also stated that they buy less meat in relation to a past few years and moreover they more often pay attention to prices of meat.

REFERENCES

- Bywalec C., 2010. Konsumpcja a rozwój gospodarczy i społeczny (Consumption and the economic and social development). Wydawnictwo C.H. Beck, Warszawa.
- Czy Polacy boją się kryzysu? (Is Poles fear the crisis?), 2012. Komunikat z badań CBOS, BS/2/2012, styczeń (Communication CBOS, BS/2/2012, January).
- Drozdowicz-Bieć M., 2009. Wzrost w cieniu światowego kryzysu (Growth in the shadow of the global crisis). *Barometr Regionalny. Analizy i Prognozy (Regional Barometer. Analyses and Forecasts)* 3 (17), 7–14.
- Frątczak-Rudnicka B., 2009. Konsumenci w gorszych czasach (Consumers in bad times). *Marketing w Praktyce (Marketing in Practice)* 4.
- Gawęcki J., Hryniewiecki L., 2003. Żywnienie człowieka. Podstawy nauki o żywieniu (Human Nutrition. Basic science of nutrition). Wydawnictwo Naukowe PWN, Warszawa.
- Gutkowska K., Żakowska-Biemans S., Sajdakowska M., Kosicka-Gębska M., Wierzbicki J., 2011. Perception of beef attributes by Polish consumer as a factor determining demand for this food category. *Acta Sci. Pol., Oeconomia* 10 (4), 33–41.
- Kieźel E., Smyczek S. (Eds) 2011. Zachowania polskich konsumentów w warunkach kryzysu gospodarczego (Polish consumer behavior in terms of the economic crisis). Placet, Warszawa.
- Komisja Europejska przedstawiła nowe prognozy dla unijnego rynku mięsa w 2012 oraz 2013 roku (The European Commission presented new forecasts for the EU meat market in 2012 and 2013 years), <http://ksow.pl/pl/rynki-rolne/news/entry/3582-komisja-europejska-przedstawila-nowe-prognozy-d.html> (Accessed 24.10.2012).
- Koniunktura gospodarcza w wybranych krajach w okresie kryzysu finansowego, 2011 (The economic situation in some countries during the financial crisis of 2011). Raport Ministerstwa Gospodarki. Departament Analiz i Prognoz, Warszawa, styczeń (Report of the Ministry of Economy. Analyses and Forecasting Department, Warsaw, January).
- Kryzys: reakcja i adaptacja (Crisis: response and adaptation). 2009. Sondaż TNS OBOP z dn. 2–5.04 (TNS survey dated 2–5.04).
- Layman D.K., Clifton P., Gannon M.C., Krauss R.M., Nuttall F.Q., 2008. Protein in optimal health: Heart disease and type 2 diabetes. *American Journal of Clinical Nutrition* 87, 1571–1575.
- Paddon-Jones D., Westman E., Mattes R.D., Wolfe R.R., Astrup A., 2008. Protein, weight management, and satiety. *American Journal of Clinical Nutrition* 87, 1558–1561.
- Pater R., Sklica T., 2011. Skutki kryzysu gospodarczego lat 2007–2009 dla sfery realnej polskiej gospodarki na tle Unii Europejskiej (The effects of the economic crisis in 2007–2009 for the real sector of the Polish economy with the European Union). *Barometr Regionalny. Analizy i Prognozy (Regional Barometer. Analyses and Forecasts)* 1 (23).

- Rozmus S., 2010. Psychologiczne i socjologiczne uwarunkowania kryzysu na brytyjskim rynku mieszkaniowym. www.ae.katowice.pl/images/user/File/katedra_ekonomii/S.Rozmus_Psychologiczne_i_spoleczne_uwarunkowania_kryzysu_na_brytyjskim_rynku_mieszkanowymi.pdf (Psychological and sociological conditions of the crisis in the UK housing market). (Accessed 15.05.2010).
- Rynek rolny (Farmer's Market), 2009. IERiGŻ-PIB 7–8, Warszawa.
- Słaby T. (Ed.), 2009. Reakcje polskiego konsumenta na kryzys gospodarczy (Polish consumer reactions to the economic crisis). Oficyna Wydawnicza SGH, Warszawa.
- Sobczyk G., 2013. Zachowania konsumentów w warunkach kryzysu (na przykładzie województwa lubelskiego) (Consumer behavior in times of crisis (for example, Lublin Province)). *Zeszyty Naukowe WSEI Seria: EKONOMIA (Scientific Papers Series WSEI: Economics)* 6 (1), 323–345.
- Wagemakers J.J.M.F., Prynne C., Stephen A.M., Wadsworth M.E.J., 2009. Consumption of red or processed meat does not predict risk factors for coronary heart disease; results from a cohort of British adults in 1989 and 1999. *European Journal of Clinical Nutrition* 63 (3), 303–311.

WPLYW KRYZYSU GOSPODARCZEGO NA ZACHOWANIA KONSUMENTÓW WOBEC MIĘSA

Streszczenie. Kryzys gospodarczy zapoczątkowany w 2008 roku ma wpływ na wiele sfer życia konsumentów i istotnie warunkuje ich zachowania związane z nabywaniem i konsumowaniem produktów, w tym produktów żywnościowych. Przykładem ważnego w diecie człowieka produktu jest mięso spożywane przez Polaków na poziomie ponad 75 kg na osobę rocznie, które z jednej strony ma odpowiednie walory odżywcze i spożywane jest przez konsumentów ze względu na tradycję, przyzwyczajenie i sprawianie przyjemności głównie przez odczuwanie pozytywnych wrażeń smakowych, ale z drugiej strony jest produktem droгим, którego spożycie ogranicza się lub poszukuje się tańszych zamienników w niekorzystnych ekonomicznie warunkach. Celem podjętych badań realizowanych w ramach projektu badawczego NCN w Krakowie pt. „Uwarunkowania wyboru i konsumpcji mięsa w Polsce – diagnoza i prognozy” była ocena wpływu kryzysu gospodarczego na zachowania konsumentów wobec mięsa. Przeprowadzona analiza statystyczna pozwoliła na stwierdzenie, że dla 18,1% badanych to właśnie kryzys gospodarczy przyczynił się do zmian w zakresie spożywania mięsa. Jak obliczono na podstawie 7-stopniowej skali ocen (gdzie: ocena 1 – brak jakichkolwiek zmian, a ocena 7 – zmiany o dużym natężeniu), w ostatnich kilku latach konsumenci zauważyli obniżenie poziomu spożycia mięsa ogółem (5,02), zwiększenie poziomu spożycia tańszych rodzajów mięs (4,85), zmniejszenie poziomu spożycia droższych rodzajów mięs (4,48), kupowanie jednorazowo mniejszych porcji mięsa niż to miało miejsce 2–5 lat temu (4,23). Zaczęto także bardziej zwracać uwagę na cenę kupowanego mięsa.

Słowa kluczowe: kryzys gospodarczy, zachowania konsumentów, mięso

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