Jacek Jankiewicz[1]

PROPENSITY FOR SAVING AND CONSUMPTION DURING THE PERIOD OF TRANSFORMATION IN POLAND: FINDINGS BASED ON THE CONSUMER TENDENCY SURVEY

The aim of this paper is to analyse changes in the propensity to consume and to save in Polish households by means of qualitative indicators of consumer sentiment. The available data made it possible to observe the evolution in attitudes over the course of more than 20 years of transformation in Poland. The variability of the values in the appropriately constructed consumer sentiment indicators correlates with the results obtained by other studies which used different data. The analysis conducted made it possible to determine the impact of the changes related to progressive transformation, particularly in the early 1990s, as well as the impact of cyclical fluctuations in economic activity at a later period.

Keywords: *propensity for saving and consumption; consumer tendency survey; economic transformation; Poland.*

Яцек Янкевич

СХИЛЬНІСТЬ ДО ЗАОЩАДЖЕНЬ ТА СПОЖИВАННЯ В ПЕРІОД ТРАНСФОРМАЦІЙ У ПОЛЬЩІ: АНАЛІЗ ТЕНДЕЦІЙ В ОПИТУВАННЯХ СПОЖИВАЧІВ

У статті проаналізовано зміни у схильності до споживання та заощадження за даними польських родин. Відстежено еволюцію ставлення до споживання протягом більш ніж 20 років економічних трансформацій у Польщі. Результати авторського аналізу співпали з результатами попередніх досліджень, що були проведені на інших статистичних даних. Оцінено вплив економічних реформ на процеси споживання та заощадження населення, особливо на початку 1990-х рр., а також вплив циклічних коливань в економічній активності у країні.

Ключові слова: *схильність до заощаджень та споживання; опитування споживачів; економічні трансформації; Польща.*
Табл. 2. Форм. 3. Рис. 3. Літ. 23.

Яцек Янкевич

СКЛОННОСТЬ К СБЕРЕЖЕНИЯМ И ПОТРЕБЛЕНИЮ В ПЕРИОД ТРАНСФОРМАЦИЙ В ПОЛЬШЕ: АНАЛИЗ ТЕНДЕНЦИЙ В ПОТРЕБИТЕЛЬСКИХ ОПРОСАХ

В статье проанализированы изменения в склонностях к потреблению и сбережению по данным польских семей. Отслежена эволюция отношения к потреблению на протяжении более чем 20 лет экономических трансформаций в Польше. Результаты авторского анализа совпали с результатами предыдущих исследований, проведённых на других статистических данных. Оценено влияние экономических реформ на процессы потребления и сбережения населения, особенно в начале 1990-х гг., а также влияние циклических колебаний экономической активности в стране.

Ключевые слова: *склонность к сбережениям и потреблению; потребительский опрос; экономические трансформации; Польша.*

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1. Introduction

Qualitative indicators constructed on the basis of the opinions and expectations of households are the focus of interest for numerous academic publications. The forecasting potential of such data is a frequently discussed topic (Ludvigson, 2004; Dominitz, 2004). The issue which attracts particular attention is the strength and types of the relationships between a series of quality indicators and fluctuations in consumption (Souleles, 2004). Another issue, which is less frequently explored, though still discussed in many analyses, is the identification of the information and stimuli which influence consumer attitudes. Additionally, the findings of consumer attitudes surveys are used to assess the rationality of expectations of such agents (Forsells, Kenny, 2002).

Quantified replies from respondents are an invaluable source of information about their perception of economic reality. The data available in Poland describe sentiments among those participants of economic life from December 1991. If the launch of the government programme for economic stabilisation on 1, January 1990 can be considered to mark the beginning of social and economic transformations, the above mentioned indicators make it possible to analyse the opinions expressed by consumers almost from the very beginning of the transformation process in Poland. They provide the insight into how the attitudes of consumers changed during more than 20 years of transformation, the aim of which was to build a market economy in a democratic system.

The consumer survey contains questions on purchasing durable goods, savings, as well as the financial status of households. Therefore, this paper aims to analyse the changes in the propensity for consumption and saving in Polish households during the period of economic transformations on the basis of the indicators from the consumer attitude surveys.

2. The stages of transformation and the fluctuations in economic conditions of Poland

The transformation from a centrally planned to a market economy in its initial stage involved a wide range of areas including the political system, the economic system as well as social relationships (Balcerowicz, 1997). Democratic principles, considered to be indispensable and inextricably linked with the capitalist system, were developed much more quickly than market structures which could be considered to meet the standards which exist in developed economies (Balcerowicz, 1999, 26). Creating new institutions as well as privatising a large portion of state property required considerably more time than organising democratic elections and enabling competition between political parties.

Transformation is a gradual and long-lasting process, the duration of which depends on a variety of factors (Kolodko, 1999, 5). Among others, it requires considerable financial capital, new investments, as well as properly prepared human capital. Additionally, this process can be measured and described in different ways. According to the analyses conducted by the European Bank of Reconstruction and Development, as early as in the 1990s Poland met the standards of an industrialised market economy in 3 out of the 6 key criteria ("Small scale privatisation" and "Trade & Forex system" in 1996, "Price liberalisation" in 1998). The remaining 3 areas ("Governance and enterprise restructuring", "Large scale privatisation" and

"Competition policy") were awarded relatively high marks (3.7 points on the scale from 1 to 4+) in 2005 for the first of the 3 and in 2010 for the 2 remaining ones (Forecast, Macrodata and Transition Indicators).

According to G.W. Kolodko, the process of Polish transformation can be divided into 4 distinctive stages: 1 — the period of "shock without treatment" in 1989—1993; 2 — implementing the programme for social and economic development in 1994—1997; 3 — cooling down of the economy in 1998—2001; 4 — implementing the Programme for the Financial Recovery of Poland in 2002—2005 (Kolodko, 2007).

Developed economies are characterised by mid-term fluctuations in economic activity. In an economic system which was designed to imitate such economies cyclical oscillations were also bound to occur. It ought to be mentioned that in the first half of the 1990s Polish economy was not very stable and was affected by considerable so-called "transformation noises." Research into the dynamics of the economic situation in Poland shows that during this period the system did not display the cyclical pattern characteristic of Western European countries (Drozdowicz-Biec, 2007, 7). Medium-term oscillations occurred more frequently, which seems to confirm the assumption that catching-up economies are characterised by greater sensitivity to various factors which divert their development from long-term trends.

Depending on the adopted method and the business cycle series, specific turning points can be indicated at various points in time. For example, by using the IRG (Research Institute for Economic Development) coincident economic indicator and the Bry-Boschan procedure, the end of the first growth phase was indicated in the first quarter of 1998 (Drozdowicz-Biec, 2012). The next turning point (trough) can be placed in the first quarter of 2002. The growth phase which followed continued until the first quarter of 2008, and the next slowdown lasted until the first quarter of 2009.

During the period analysed (January 1992 — March 2013) Poland did not experience a recession in terms of absolute declines in the values of GDP. Gross domestic product was on the increase throughout theperiod, but the rate of growth fluctuated from relatively high to relatively low and vice versa. Oscillations of this kind are often observed in modern economies (Zarnowitz, 1992). In such cases the concept of growth cycles can be used to measure changes in economic activity. An example of such an approach at identifying cyclical fluctuations for Polish economy are the analyses conducted by E. Adamowicz et al. (2012).

3. Data and findings

Because there is a link between the volume of consumer spending and the level of consumer confidence, in developed economies it is a common practice to analyse the consumer tendency surveys data. The findings of such surveys conducted in Poland through the use of a harmonised EU programme form are available starting from May 2001. The surveys are conducted by GfK Polonia and published by the Eurostat. The IPSOS market research company has a much longer series of data describing the confidence of Polish consumers. These surveys, however, use a different, non-harmonised form (Drozdowicz-Biec, 2012). The considerable advantage of these data is their time range as they go back as far as December 1991. What is equally important, the set of questions in the survey has remained unchanged since the beginning. Because of these two features this paper is based on the findings of IPSOS surveys.

In an attempt to find values which would at least partly reflect the propensity of households for consumption and saving, this study concentrated on the balance series statistics which were created on the basis of the respondents' answers to the following questions: "Is this a good time for purchasing durable goods?", "In your opinion, is it worth saving money in the current situation?", "How would you evaluate the financial situation of your household as compared to the situation 12 months ago?" In the initial procedure, the balances are calculated as the difference between the percentages of positive and negative responses (Anderson, 1952). The value of 100 is then added to the IPSOS indicators:

$$dB_t = (dP_t - dN_t) + 100 \tag{1}$$

where dB_t — balance, and d stands for "diagnosis", dP_t — positive answer option measured as % of the total answers over the period from t-12 to t, dN_t — negative answer option measured as % of the total answers over the period from t-12 to t. The above indicators were used to construct the following multiple regression formulas:

$$dC = \alpha_0 + \alpha_1 dY + \alpha_2 dS + \varepsilon, \tag{2}$$

$$dS = \beta_0 + \beta_1 dY + \beta_2 dC + \delta, \tag{3}$$

where dC — current propensity for consumption, dS — current propensity for saving, dY — current household income. The results of calculations are presented in Tables 1 and 2.

Table 1. **Results of the specification of regression function with the dependent variable dC**

Coefficient	Parameter	t-statistics	p	Partial correlation	F(2, 252)	R²
Intercept	78.96	40.47	0.000	-		
dY	0.56	15.59	0.000	0.70	135.51	0.62
dS	-0.18	-7.96	0.000	-0.45		

Source: Own calculations based on IPSOS data.

Table 2. **Results of the specification of regression function with the dependent variable dS**

| Coefficient	Parameter	t-statistics	p	Partial correlation	F(2, 252)	R²
Intercept	108.13	9.23	0.000	-		
dY	1.59	20.11	0.000	0.78	220.63	0.64
dC	-1.13	-7.96	0.000	-0.45		

Source: Own calculations based on IPSOS data.

The part the independent variable dY plays in explaining the dependent variables is the greatest in both cases, which indicates that the evaluation of the financial condition of a household is a decisive stimulus for both saving and consumption. The results obtained confirm the usefulness of the series used for further analyses.

If the dC, dS and dY values were treated as percentage changes, the coefficient of the income elasticity of consumption (dC / dY) and the income elasticity of savings (dS / dY) could be obtained (Burkl, 1996) (see Figure 1).

Initially the propensity for consumption measured in the above way significantly decreased as Polish society "caught up" in terms of purchasing goods which used to be in short supply. Then it leveled off, with a slight tendency for growth. During

2002—2007 the tendency to consume decreased further, and during the period between 2008 and 2013 it remained at a similar level.
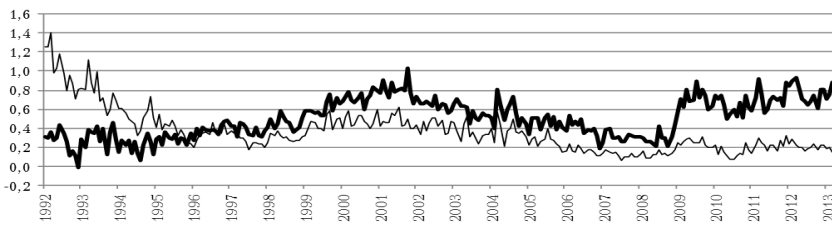
Source: Own calculations based on IPSOS data.
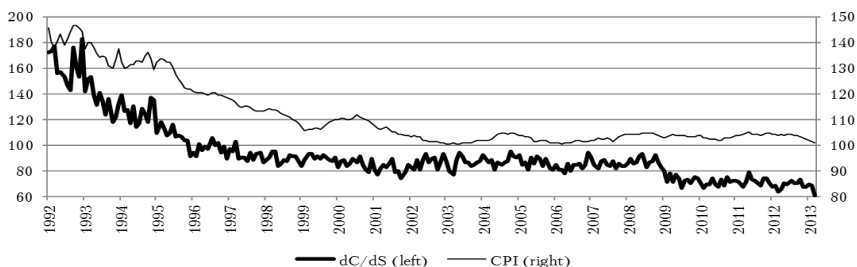*Figure 1.* **Income elasticity of consumption and savings**

On the other hand, the propensity for saving was on the increase between 1994 and 2001. This was caused by a rise in disposable incomes during 1993—1997 (Figure 2). Then, between 1998 and 2001, due to the economic slowdown in Poland, the tendency to save increased for precautionary reasons (although in 1998—2000 the nominal disposable income increased, in real terms the purchasing power of households decreased). Later, until 2008, the tendency for saving was on the decline. A marked increase in the dS/dY ratio was caused by the growing uncertainty resulting from the global financial crisis.
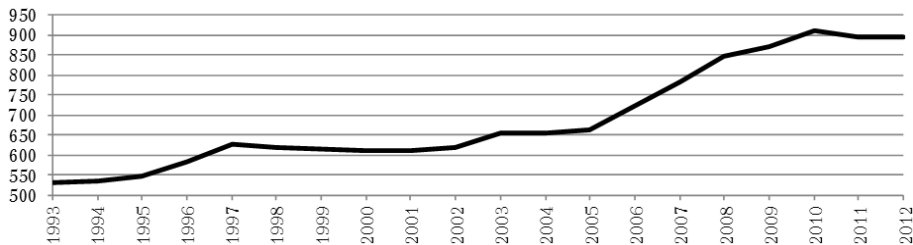
Source: Own calculations based on Central Statistical Office data.
Figure 2. **Average monthly disposable income per capita in the year 2000 prices**

The dynamics of the dC/dS ratio was also analysed (Figure 3). This ratio, as in Burkl's work (1996), was treated as the elasticity of substitution consumption and saving. If the value of this ratio exceeds 100, the propensity for consumption is greater than the propensity for saving. A value below 100 means there are more respondents tending to save than those who are opting to purchase durable goods.

Source: Own calculations based on IPSOS and Central Statistical Office data.
Figure 3. **Elasticity of the substitution of consumption and saving (dC/dS)**

During the analysed period 4 sub-periods can be distinguished. During the first one (1992–1995), when many previously unavailable goods and services became obtainable, the situation was still fairly new to Polish people. The previously mentioned phenomenon of "catching up" in terms of consumption occurred. A rapid increase in the purchase of durable consumer goods could be observed even earlier, in 1989–1992 already, which led to a marked increase in households equipped with such goods (Balcerowicz, 1997). Interestingly, this did not adversely affect the average consumption of meat and fruits.

At the same time, high inflation which characterised the initial stages of transformation resulted in the decrease in people's purchasing power, which effectively discouraged them from accumulating savings (in 1990 the rate of inflation was 685.8%, in 1991 – 70.3%, in 1992 – 43%, and in 1993 – 35.3%) (Central Statistical Office). During this period the desire to consume dominated over the desire to save, which is clearly shown by qualitative indicators. An additional element which reinforced the abovementioned tendencies was a weak private banking sector. Very low minimum capital requirements for new banks meant that a number of such institutions quickly went bankrupt, causing their customers lose money (Wilczynski, 2005).

During the next stage (1996 to the first half of 2001) the propensity for saving began to dominate and this phenomenon gradually intensified. This was connected, among others, with bringing inflationary pressures under control and the development of the financial market.

The following stage (2001–2008) is the time when the indicator used did not change a great deal, though the tendency to save did dominate slightly. During the whole of this period, with the exception of 2004, the real disposable income of the population increased (Figure 2), and the economic situation gradually improved. At the same time the financial services market developed rapidly and numerous opportunities for saving and investing money appeared. As the rate of inflation was relatively low (the average rate during this period was 2.7%) the interest rates offered by financial institutions were able to offset any depreciation of, among others, bank deposits.

The final stage (2009–2013) is connected with the impact of the global financial crisis. The uncertainty associated with the deteriorating situation at the world markets has contributed to a substantial increase in the propensity for saving. In 2009 the value of the dC/dS indicator fell considerably, which indicates that the percentage of consumers convinced in the merits of saving grew faster than the percentage of the respondents who felt that this was the right time for the consumption of durable goods.

It follows from the basic version of the Permanent Income Hypothesis that the consumption of an individual in a particular period depends not so much on current income but on long-term income. According to this theory, in order to smooth the path of consumption a person or entity will use their savings and/or borrowed money (Romer, 2000).

During the financial crisis the lack of trust between financial institutions led to a significant tightening of policies implemented by banking institutions, reducing the availability of credit products. Faced with decreasing incomes and rising barriers to taking out loans, consumers become unable to finance their usual level of consump-

tion. One of the ways to maintain the current status is through savings reduction, provided, however, that households possess such resources. The data for March 2011 show that 62% of Polish households did not have any savings (Czapinski, Panek, 2011). Among those who declared having free cash, the majority were the households whose savings amounted to between 1 and 3 months income. In such circumstances the impact of current income on the level of consumption increases in relation to the impact of permanent income.

If consumers believe that the phenomena which occur are temporary, the marginal propensity to consume should not significantly change (Samuelson, Nordhaus, 1998). It has to be noted that at a time of severe economic crisis the belief that the changes which occur are permanent can be quite strong and widespread. Then, as uncertainty regarding the size of future revenues increases, so does the tendency to accumulate precautionary savings. In order to maintain an appropriate level of consumption in the future people decide to postpone spending and save part of their income. In such a situation maintaining liquidity is preferable to purchasing illiquid durable goods — consumption is limited in favour of accumulating precautionary savings (Mishkin, 1978; Carroll at al., 1994).

The findings of the "Social Diagnosis" survey confirm the indications following on from the dynamics of the dC/dS qualitative indicators (Czapinski, Panek, 2011). In 2007—2011 there was a significant increase in the number of households with savings (from 28.9% in 2007 through 32.6% in 2009 to 37.1% in 2011), which in comparison to the stable level of this rate at around 23—24% in the surveys conducted in 2000, 2003 and 2005 indicates a marked increase in the propensity to save. Despite the fact that the growth rate of household income in Poland in 2009—2011 was significantly lower (amounting to 3.4% as opposed to 22% in 2007—2009), there was still an increase in the percentage of households with savings during that time. It is worth noting that the respondents who participated in the 2011 survey mostly declared they accumulated savings for emergency situations.

4. Conclusions

More than 20 years of Polish transformation was the period of intense political, economic and social changes. Structural changes were very quickly accompanied by cyclical fluctuations in economic activity. On having access to qualitative data which describe consumer sentiment, almost from the very beginning of the transformation to the present, the author decided to examine the changing sentiment of Polish households during this eventful period. Consumer survey data are typically used for forecasting basic macroeconomic variables such as individual consumption and inflation. The results presented show that they can also be used to monitor changes in the propensity for consumption and saving. To this end, the measures of income elasticity of consumption and income elasticity of savings as well as the elasticity of the substitution of consumption with savings were analysed. The dynamics of the constructed ratios of simple indicators regarding consumer sentiment correlate with the phenomena observed in reality. This is confirmed by the findings of the previous studies conducted through the use of official statistics as well as the results of the surveys concerning the conditions and quality of life in Poland carried out in the last decade.

The next stage of the research ought to include elasticity measures constructed through the use of qualitative indicators of consumer sentiment in econometric mod-

els. Thus, one can attempt to describe and predict the processes which occur at the macroeconomic level using information about the attitudes observed at the microlevel.

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