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## PRESENT CONDITIONS AND PROSPECTS OF FINANCIAL MECHANISM OF TRANSFORMATION HOUSEHOLD SAVING INTO INVESTMENT RESOURCES FOR UKRAINIAN ECONOMY

**Abstract.** The author presents information on the financial mechanisms of savings transformation into investment resource of the economy. Has been reviewed the definitions of household savings in international science and actual ideas of Ukrainian scientists divided by fundamental approaches. The efficiency of financial mechanisms of savings transformation has been considered as a key option to develop investment performance of household savings. Volumes of passive savings and their financial capacity were analyzed.

A number of measures for financial system of Ukraine to improve the effectiveness of implementation of savings' investment potential were offered in order to improve economic growth of the country.

**Keywords:** household savings, financial mechanism, financial system, investment resources.

**Introduction.** The problem of investment resources accumulation for Ukraine is extremely topical for today. As a result of global financial crisis Ukrainian financial sector has faced a lot new challenges, one of the main of which is a search for new sources of investment resources for the economy. One of the main problem in this case is the growth of Ukrainian country risks and as a result interest rates for Ukrainian Government and Commercial bonds has grown and increased the pressure on the stability of Hryvna.

Among sources of investment resources we might indicate: state government's capital inputs, amortization funds and recapitalization of profits/mixed income of the enterprises, household saving and foreign direct investments. According to the potential and involvement into the process of funding the further economic growth all these sources might be reviewed as possibly effective and controversial.

The estimation of present conditions of financial mechanisms of household saving transformation into investment resources of Ukrainian economy is extremely important as household saving are one of the most attractive sources for financing the further economic growth of Ukraine due to a positive influence on monetary stability, population welfare and long term public consumption growth prospects.

The research includes introduction, 3 parts, conclusions and references. Part 1 Defining household saving is answering the question how to identify and classify the household saving. Part 2 Household saving estimation offers the analysis of the actual level of household saving and household saving rate. Part 3 Evaluation of financial mechanisms of household saving activation describes the scheme of household saving transformation into investments and includes the research of banking mechanism of household savings activation.

**Defining household saving.** According to the classic theoretical approach household saving could be classified as a part of households' income that has not been consumed over the period<sup>1</sup>. This definition was offered in the research of O. Vatamaniuk, where he describes the most basic idea that simplifies the calculation of household saving on a basis total population income and retail consumption of goods and services.

In this case we might mention that Ukrainian economists have several different views on defining the household saving. For example V. Zhupanin defines household saving as a system of social relations between individuals about saving money for their further consumption. In this case the author pay attention only to monetary form of savings, while Y. Belugin pays attention to the fact, that household saving are the part of households income, that has not been used for current consumption.

<sup>1</sup> Кізіма, Т. (2009). Стратегії та моделі фінансової поведінки домашніх господарств у сучасних умовах. *Світ фінансів*, 2 (19), 86–96.

So, all these definitions have a common difficulty to indicate household saving fully correctly, because of limitations in methodology to allocate costs of long-term goods to a proper period of time (by depreciation the value) or classifying them as a form of savings.

Therefore we might classify household saving by the form:

- Cash (in a form of bills and current accounts).
- Real assets (durable goods, realty, luxuries and so on).
- Financial assets (term deposits, securities and so on).

Key fundamental approaches of household saving might be divided into:

- Part of the income that is not used for current consumption.
- Part of the property accumulated in credit institutions, or at a disposal of household.
- The share of property or wealth of households, generated as a result of income accumulation.
- Deferred consumption.
- Free cash remaining after payment of necessarily expenses.
- A potential source of investment.
- Social relations between individuals.
- Tool of economic existence, or a means of social comfort<sup>2</sup>.

All these describe household saving as a part of an income (cumulated income) and is calculated by the general formula:

$$S_{hh} = I_t - C_c - T_{avg}.$$

Where:  $S_{hh}$  – household saving;

$I_t$  – total households' income;

$C_c$  – current households' consumption;

$T_{avg}$  – average taxation rate.

According to this formula we can classify all the income of the households, including financials and leasing income and so on, as a total households' income that is weighted by current consumption and taxes. As a result of such a calculation we can assume the amount of household saving.

Brian W. Cashell (Specialist of Congressional Research Service) says that household saving matters for two reasons:

- 1) It is an important source of funding to finance domestic investment.
- 2) It is the means by which workers accumulate wealth and maintain their living standard into retirement<sup>3</sup>.

Methodological difficulties in household saving identification for Ukraine are also caused by a high level of shadow economy in Ukraine and the fact that the biggest part of household saving are concentrated and accumulated there. Therefore the identification of household saving interconnects with shadow economy estimation approaches.

**Household saving estimation.** Actual State statistical committee's methodology is based on estimation household saving as a part of household income after taxes and consumption costs.

According to State statistics household saving has a dynamics of increase despite the financial crisis that has greatly influenced the purchasing power of households and has suspended the economic growth.

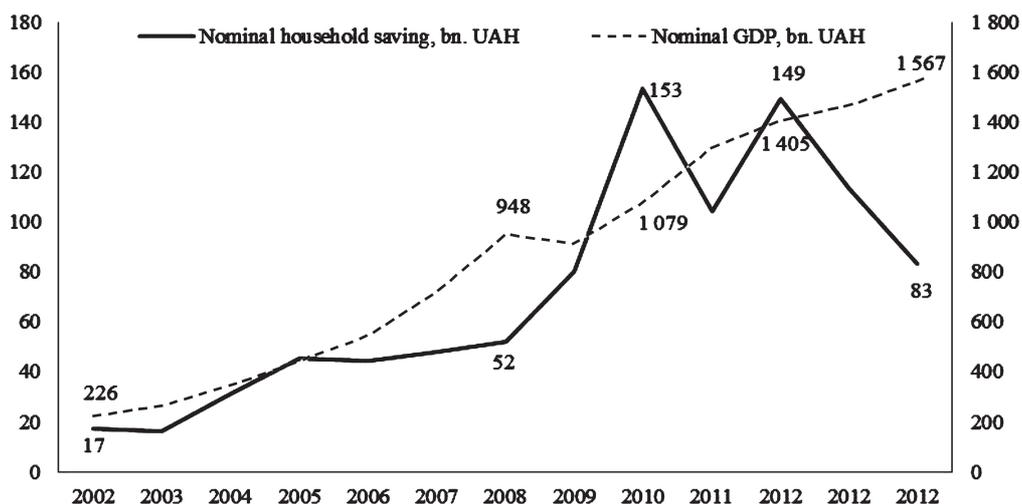
The annual dynamics of household saving is shown on the picture 1.

Analyzing the dynamics of household saving we might indicate several interesting points that might be investigated in details:

- The growth of household saving in a period of 2003 – 2008 matches with the economical growth of Ukraine.
- The pick growth of household saving in 2009 and 2010 does not reflect the decline of GDP and indicates the interconnection of household saving growth to not income-connected factors.
- Household saving dynamics in 2011 and 2012 is similar to GDP changes in previous years.

<sup>2</sup> Кондрацька, Н.М. (2013) Сучасний стан та особливості трансформації заощаджень домогосподарств через банківські інструменти. *Проблеми раціонального використання соціально-економічного та природно-ресурсного потенціалу регіону: фінансова політика та інвестиції*, 19, 1, 184-192.

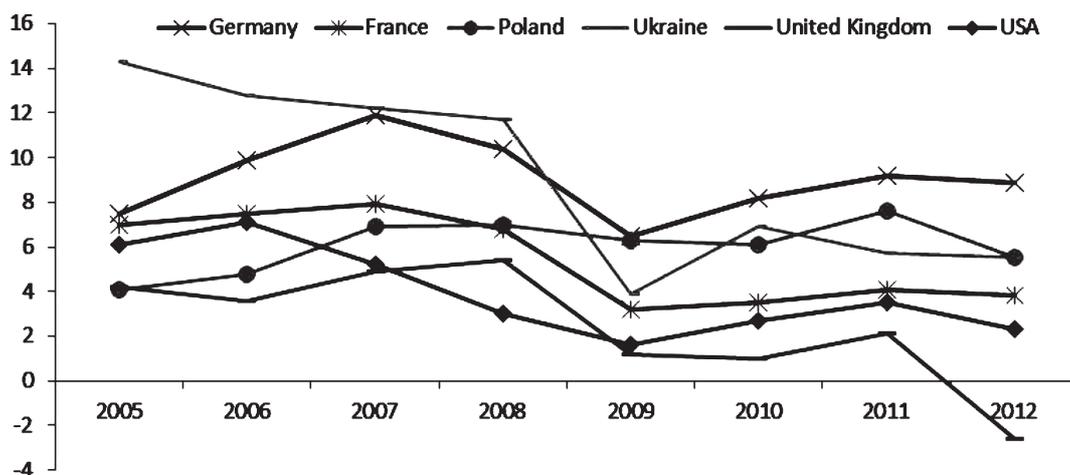
<sup>3</sup> Cashell, Brian W. (2009). The Fall and Rise of Household Saving. *Congressional Research Service*.



**Pic. 1. Dynamics of nominal household saving and nominal GDP, bn. UAH (According to National Bank of Ukraine data)**

In this case we might make a conclusion that household saving depends not only on the financial basis (growth GDP, income and so on), but also on the behavior aspects, such as devaluation expectations, growth of hesitation of financial stability, general propensity to save money and so on<sup>4</sup>.

In order to identify the propensity to save of Ukrainian household we have analyzed the data on Picture 2. Where you can see that while in general Ukraine has a moderate level of saving propensity due to the low level of private pension funds development household generate a low level of savings.



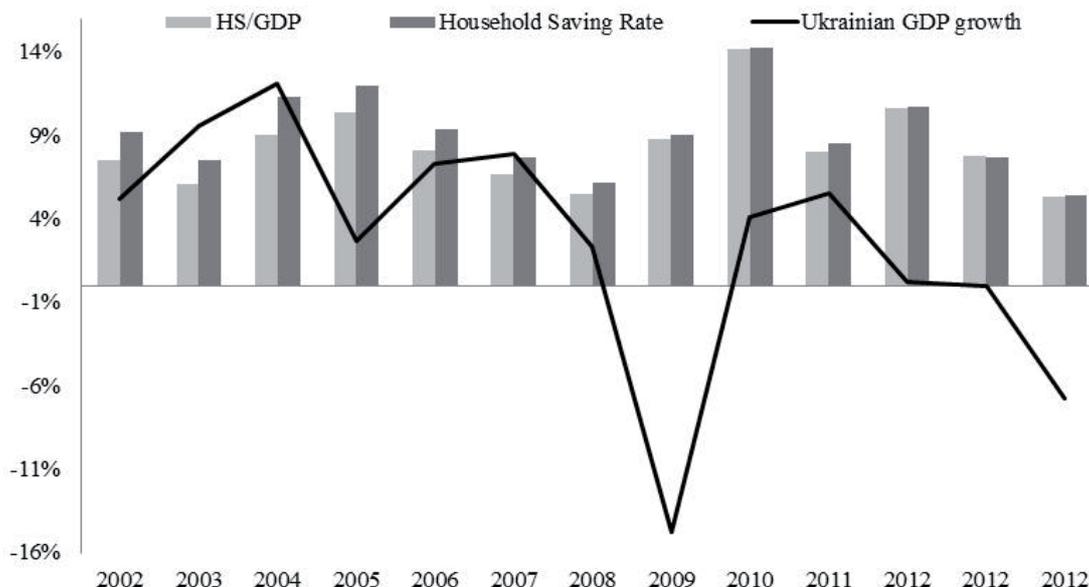
**Pic. 2. Household propensity to save dynamics (According to World Bank data)**

To indicate the households' level of propensity to save we might identify the dynamics of household saving to GDP ratio (HS/GDP) and household saving to household income (Household Saving Rate). The calculations are based on the official State statics and author's calculations and are shown on the picture 3.

According to the data on the picture 3 the minimum level HS/GDP and Household Saving Rate is about 5 % that indicates the basic idea, that household are trying to accumulate savings even when the income is growing slow. When the crisis starts household are trying to accumulate more than before, as the negative expectations about the income stability are negative.

The recording level of household saving part in total household income according to the data available was indicated in 2010, when household saved more than 14.7 % of their income. In the case to identify the level of interconnection of household saving, households' income and GDP see the correlation matrix in the table 1.

<sup>4</sup> Одінцова, Т.М. (2014) Заощадження населення як джерело інвестиційних ресурсів української економіки. *Бізнес Інформ*, 7, 89-92.



**Pic. 3. Dynamics household saving to GDP ratio, Household Saving Rate and GDP growth (Author’s calculations based on National Bank of Ukraine data)**

**Tab. 1.**

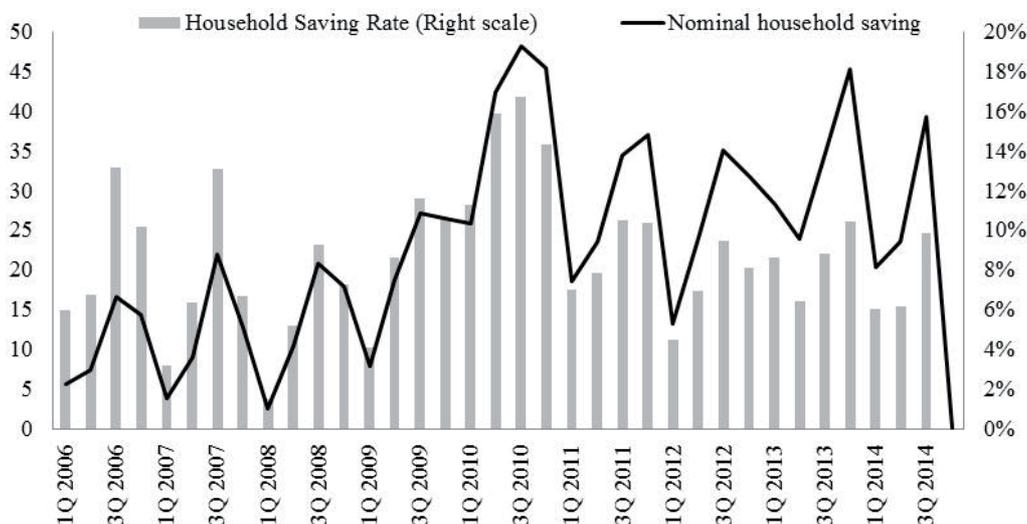
**Correlation matrix of household saving, households’ income and GDP**

	Nominal household saving	Nominal GDP	Nominal households’ income
Nominal household saving	1		
Nominal GDP	0.839	1	
Nominal households’ income	0.865	0.997	1

As you can see in the table 1 the level of correlation between GDP and Nominal households’ income is higher than 99 % as household income is a component of GDP and fully indicates its dynamics and proportions. Nominal household saving correlate by ~84 % with GDP and by ~87 % with Nominal households’ income and reflect two main points:

- 1) Nominal household saving highly depend on income dynamics.
- 2) There some behavior matter for households to save part of income.

To indicate the savings periodicity over the year there was chosen the NBU monthly statistics that is shown on the picture 4.



**Pic. 4. Dynamics of nominal household saving and Household Saving Rate quarterly (Author’s calculations based on NBU data)**

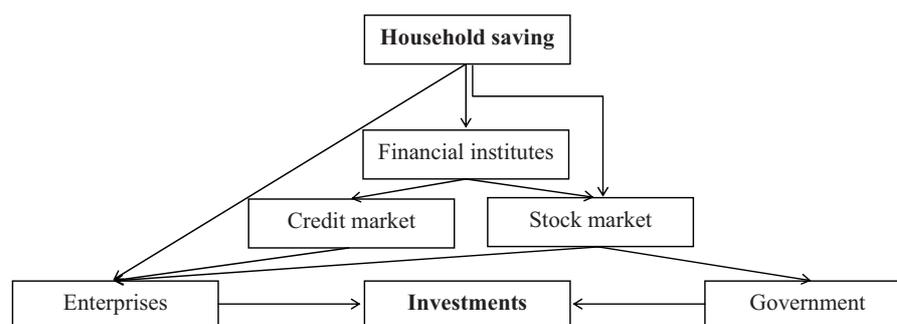
According to Picture 4 the household saving have a high seasonal periodicity, mainly due to a high level of savings in 3<sup>rd</sup> quarter of the year and the smallest level of savings in 1<sup>st</sup> quarter of every year. This fact could be described by the periodicity of expenses, when in 1<sup>st</sup> quarter households are consuming a lot due to a long winter holidays and the increase in consumer prices, while in 3<sup>rd</sup> households wastes less because of seasonal food prices decline and the growth of income due to a vocations income and saving for further consumption in the New Year's Holidays period. Extremely topical is the situation in 4<sup>th</sup> Q 2014 when the level of HH savings has fallen almost to 0 mostly due to the economic decline and high level of Ukrainian Hryvna devaluation that has increased consumption costs.

**Evaluation of financial mechanisms of household saving activation.** Financial mechanisms are the key elements of the economy to transform household saving into the financial and investment resources of the economy. Therefore we might mention that by the level of savings involvement into the investment process household saving could be divided into:

- Passive savings (savings in the form of money of equity, that does not directly stimulate the economical growth – cash, luxuries, estate and so on).
- Conditionally-active savings (savings, that are made in a form of banking and insurance instruments, mutual investments etc, and are transformed into investments professional financial institutions).
- Active savings (savings that are made in a form of direct investment in securities of a company or in the equity of a company).

The main objective of the research is to determine the mechanisms of effective conditionally-active savings transformation into investment resources and development mechanisms to activate passive savings<sup>5</sup>.

In general, the scheme of household saving transformation into investment resources with the help of financial mechanisms is shown on the picture 5.

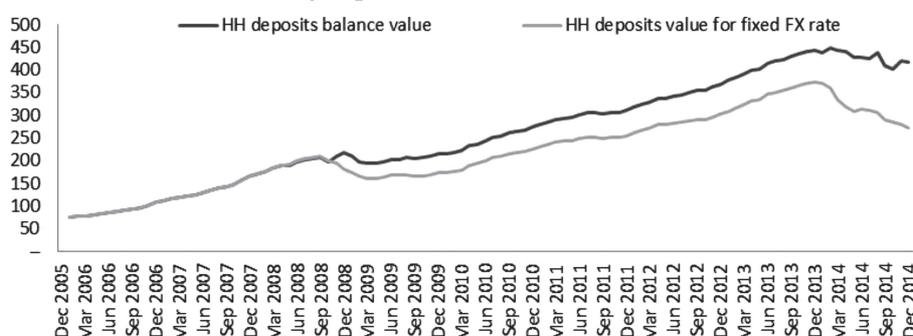


**Pic. 5. Scheme of household saving transformation into investments**

Петренко, Я.С. (2010). Неорганізовані нагромаджені заощадження в механізмі трансформації заощаджень в інвестиції. Економіка України, 1, 54–59.

According to the picture 5 financial institution play a leading role in transformation household saving into investments mostly due to an opportunity to operate on the credit market and to fund the financial needs of enterprises for further investment.

In the case of identification the key direction of household saving investment we might mention that the assets of para-banking institutions are much lower than the assets of banking system. Therefore we would like to analyze dynamics of household banking deposits.



**Pic. 6. Dynamics of nominal household deposits and FX weighted household deposits quarterly (Author's calculations based on National Bank of Ukraine data)**

<sup>5</sup> Кулеша, В.О. (2008) Сутність і особливості управління заощадженнями населення. Збірник наукових праць Черкаського державного технологічного університету. Серія: Економічні науки, 21, ч. 2.

As you can see on the picture 6 the dynamics of nominal household deposits has a trend of gradual increase since the beginning of 2006. But the physical amount of deposits in 3Q-4Q 2008 has fallen and recovered only at the beginning of 2010, as a result we might mention that this fact was one of the reasons of the banking and financial crisis in Ukraine. Returning to the picture 3 we might say that in this case the decline of household deposits has been caused by the households' hesitation in economical stability, while the level of household saving remains positive.

In this case we might mention that household saving is a main source for financing Ukrainian banking sector and the shocks in the volume of household saving activity influence greatly the stability of banking and Ukrainian economy in general.

Therefore improvement of the efficiency of financial mechanisms of passive savings transformation into investment might become one of the main directions of financial policy of Ukraine.

Another decline of household deposits in FX was performed in 2014 when the net decline of household deposits in FX reached ~8 billion USD that sharply influenced the funding structure of Ukrainian banks. As a result from the beginning of 2014 by the end of April 2015 47 (out of 173) Ukrainian banks got bankrupt.

**Conclusions.** Household saving defined as a part of unconsumed income has for Ukraine a rather high level from the beginning of 2000's. The minimum level of Household Saving Rate for Ukraine is about 5 % that in comparison of developed countries is very high and could not be compared with the level of financial sector development and indicates a high level of passive savings in the economy.

High level of household saving correlation to household income (87 %) indicates two main points: the first, is that household saving depends highly on income and illustrates the low level of household wealth; the second, is that households have not only the income-based motives to save but are driven by some kind of behavior motives.

Ukrainian financial sector is characterized by a low level of development of all the institutions except banks. Therefore, banking mechanism of household saving transformation into investments plays the main role in Ukrainian financial sector. As a result of this financial crisis of 2008 demonstrated that household deposits are the key resource of Ukrainian banking system.

In this case we would like to say that the current situation with the financials in Ukraine might be improved by:

- Stimulation of household long-term deposits to solve the problem of banking resources duration.
- Development of financial markets for simplifying the activity of household direct investments.
- Popularization of mutual investment for formation of high level of investment resourced to fund the capital expenditures of the economy.

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