The factors affecting the level of household savings and their influence on economy development

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Abstract

This article addresses the relationship between household savings and their main determinants as well as the relationship between savings and economic growth. The data presented in this paper suggest that the impact of an individual factor on savings can be different in many countries. Also the causality from savings to economic growth can be various or even bi-directional.

Key words

household savings, economic growth, rate of saving

JEL Classification: O16

    Economics theory suggests that the savings are one of the factors affecting economic development. A major part of the national savings are household savings. They are the main domestic source of funds to finance capital investment, which is a major factor of a long-term economic growth. But sometimes – in extreme situations - savings can reduce the demand for products. The purpose of this article is to identify factors which influence the level of household savings and attempt to determine the effect of selected factors on economic development in several countries.

1   Household saving trends in selected countries

    National saving consists of household saving, business saving, and government saving. Household saving is defined as the difference between a household's disposable income and its consumption. Household income consists of mainly wages received, revenue of the self-employed and net property income while the consumption includes expenditures on goods and services. The main indicator of household saving level is the household savings rate which is calculated by dividing household savings by household disposable income. A negative savings rate indicates that people spend more than they receive as regular income and finance some of their expenditure through gains arising from the sale of assets (financial or non-financial), through credit (increasing debt), or by running down cash and deposits. The table 1.   shows   the   different   household   rates   in   selected   countries.

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	2002	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Australia	0,6	-0,5	-0,4	-0,2	1,9	3,1	5,4	9,7	9,3	9,5	9,2
Austria	8	9,1	9,3	9,7	10,4	11,6	11,8	11,1	9,1	9	8,9
Belgium	12,9	12,2	10,8	10,2	11	11,3	11,9	13,4	12,2	11,2	11
Canada	3,5	2,6	3,2	2,1	3,5	2,8	3,6	4,6	4,4	4,3	4,2
Czech Republic	3	2,4	0,5	3,2	4,8	6,3	5,7	4,5	1,6	1,8	1,8
Denmark	2,1	2,4	-1,3	-4,2	-2,3	-4	-3,3	-0,5	-1,2	-1,4	-1,4
Finland	0,5	1,4	2,7	0,9	-1,1	-0,9	-0,2	3,9	4,3	2,3	2,1
France *	16,8	15,7	15,8	15	15	15,5	15,4	16,2	16	15,4	15,3
Germany	9,9	10,3	10,4	10,5	10,6	10,8	11,7	11,1	11,4	10,9	10,9
Hungary	6,4	4,3	6,8	7	7,7	5,4	3,2	5,6	8,9	9,6	8,6
Ireland	4,1	3,8	7	3,6	2,2	0	3,8	12,1	19,3	16,1	14,4
Italy	11,2	10,3	10,2	9,9	9,1	8,4	8,2	7,1	6,1	6	5,7
Japan	5	3,9	3,6	3,9	3,8	2,4	2,2	5	6,5	7,9	7,5
Korea	0,4	5,2	9,2	7,2	5,2	2,9	2,9	4,6	4,3	3,5	3,5
Netherlands	8,4	7,5	7,3	6,4	6,1	6,9	5,7	6,8	6,6	6	5,7
Norway	8,2	8,9	7,2	10,1	0,1	1,5	3,7	7,3	7,2	7,1	6,7
Poland	8,2	7,6	7,7	7,3	7,5	6,1	0,8	7,8	6,5	4,6	3,8
*Portugal**	10,6	10,5	9,7	10	8	7	7,1	10,9	9,8	9,9	12,5
Slovak Republic	3,8	1,4	0,3	1,3	0,9	3,1	2,3	4	3,8	3,6	2,7
*Spain**	11,4	12	11,3	11,3	11,1	10,7	13,4	18	13,1	11,1	11
Sweden	8,4	7,8	6,4	5,5	6,6	8,8	11,2	12,9	10,8	10	8,9
Switzerland	10,7	9,4	9	10,1	11,4	12,6	11,8	11,1	10,1	9,9	9
*United Kingdom**	4,8	5,1	3,7	3,9	3,4	2,6	2	6	5,4	4,6	4,6
United States	3,5	3,5	3,4	1,4	2,4	2,1	4,1	5,9	5,8	5,5	5

Table 1. Household saving rates. Percentage of disposable household income

Source: OECD data (gross savings, 2011-2012 forecast)*

The data presented in the table 1. allow to examine saving trends in selected countries in different periods. You can see that individual countries characterize by different levels of savings rates and that in many countries prior to the financial crisis the rates of savings fell. Different values of the saving rate and the different trends in the evolution of these values tend to analyze the factors affecting the level of saving.

2 The impact of selected factors on the household savings

There are a number of determinants of saving. The level of savings depends on various factors such as income, interest rates, fiscal factors, demographics factors as well as psychological, cultural and social factors.

Income is an important determinant of the capacity to save. Several alternative hypotheses about income impact on the size of the savings have been proposed in the literature. The most popular is the Absolute Income Hypothesis. It is theory proposed by the English economist John Maynard Keynes. The theory examines the relationship between income and consumption as well as between income and savings. According to the theory, in current

income both consumption and saving increase, but not necessarily at the same rate (the share of consumption expenditure in income is smaller and the share of savings in income is higher). One of the alternative hypothesis presented in literature is the life-cycle model of consumption developed by Franco Modigliani. According to the theory, for each individual, it is assumed that increases in life-time resources lead to proportionate increases in consumption in all periods of life. That means that consumption is proportional to lifetime resources. (Deaton,2005) According to him the average propensity to consume is higher and at the same propensity to save is lower in young and old households. Middle-aged people tend to have higher incomes with lower propensities to consume and higher propensities to save. He argued also that there is a positive relation between income and saving for poor countries (Ahmad M.H., Atiq Z., Alam S., Butt M.S., 2006).

It can be noted in many studies that for some countries (developing ones) the saving ratio tends to rise with income, while in others (developed ones) there is no significant, systematic relationship between income and saving.

In this paper, in most of the examined countries, a relationship has been found between changes in disposable household income and saving rates (table 2).

Country	correlation coefficient	Country	correlation coefficient
Australia	0,2133	Japan	0,4836
Austria	-0,2227	Korea	0,3181
Belgium	-0,0465	Netherlands	-0,2708
Canada	-0,0972	Norway	0,6639
Czech Republic	0,3555	Poland	-0,2596
Denmark	0,2876	Portugal	-0,1021
Finland	0,1454	Slovak Republic	0,2090
France	0,4188	Spain	-0,7117
Germany	0,3265	Sweden	0,0425
Hungary	0,3576	Switzerland	0,2756
Ireland	-0,1266	United Kingdom	0,2083
Italy	0,7581	United States	-0,2783

Table 2. The correlation coefficients between household income and household saving rates (calculated for the period of 2002-2009)

Source: Own work based on OECD data

Based on data from the table 2 it is possible to specify the following groups of countries:
- countries where positive correlation between the rise in income and the rise in national savings was noted (most items in the table),
- countries which are characterized by relatively constant and rather high rate of savings, regardless of changes in income (Austria, Belgium, Germany, Spain, Sweden)
- countries which are characterized by a stable (but at a lower level) rate of savings regardless of changes in income (Canada),

Among the economic factors the interest rate is also considered as an important factor affecting the level of savings Many studies have indicated a positive effect of interest rates on savings in several countries. No such evidence has been concluded in others . Still other ones have reported an inverse relationship between interest rates and savings. Table 3 shows a correlation coefficient (calculated for the period of 2002-2009) between real interest rates and saving rates in selected countries.

Country	correlation coefficient	Country	correlation coefficient
Australia	-0,0152	Japan	0,8152
Austria	-0,3409	Korea	-0,5601
Belgium	0,6568	Netherlands	-0,0880
Canada	0,4393	Norway	0,1911
Czech Republic	-0,4857	Poland	0,6077
Denmark	0,4122	Portugal	0,2589
Finland	0,7247	Slovak Republic	0,8351
France	0,6655	Spain	0,7780
Germany	-0,6662	Sweden	-0,2067
Ireland	0,9267	Switzerland	-0,0821
Italy		United Kingdom	0,2499
	-0,4359	United States	0,4952

Table 3. The correlation coefficients between real interest rates and household saving rates (calculated for the period of 2002-2009)

Source: Own work based on OECD data

An inconclusive results presented in table 3 could be explained by the following results of other studies (Nowak A.Z., Ryc K. 2002):

savings accumulated for special purposes (such as education) or due to the precautionary motive are insensitive to changes in interest rate. On the other hand the savings react to the availability as well as conditions and costs of credits.

people who accumulate large sums of money react to interest rates

people who accumulate small sums of money don't react to interest rates

people who have information about efficiency of different financial products are more likely to react to interest rates.

Calculated correlation coefficients are the simple measures and they do not take into account a range of other factors that simultaneously impact on savings.

Among fiscal factors there are tax incentives often offered by the governments of the countries. They cover a number of saving schemes on financial market that are tax exempt in order to promote the practice of saving in the country. By investing in such financial products, the households can save a considerable amount of tax. The governments can thus invest earned capital in various development projects of the country and the same in order to help in economy growth. But sometimes it is possible to read the opinion that there is no evidence that tax incentives that enhance rate of return of saving actually boost the national saving rate.

The demographics factors cover, among others, the population structure. The demographic variables like percentages of children and old people are very important determinants of savings, because this section of a country's population is not expected to generate income as well as savings. Besides, this group is dependent on the remaining part of the population for maintaining their livelihood. All these factors cause that the saving of the working people are reduced to a certain level.

In addition, psychological, cultural and social factors within a country all affect savings rates. Consumerism which characterizes the modern society, its overall wealth as well as the increased availability of borrowing opportunities are all very important reasons, that households are saving less.

There are a lot of models in theory of economy that describe the relationships between various factors and savings.

3. Household savings and economic development

The household savings and economic development are closely related with each other. The relationship between the household savings and economic growth are studied by various economists a number of times. And it is generally believed that the level of household saving can have a big impact on the performance of an economy. There are many aspects of savings affecting the economy growth. Fundamentally, the household savings are the main domestic sources of funds for capital investment in infrastructure, education, technology ect. which are necessary for the growth in economy. Besides, higher levels of household savings allow a larger portion of a country's overall debt to be financed internally (instead external, foreign creditors) and also have a positive impact on economy and its growth.

The relationship between the household savings and economic growth depend on a form of savings. In practice, there are following basic forms of household savings:

- accumulation of savings in the form of investment in durable household goods. This form of savings has a positive effect on economic development because it stimulates the production of consumer goods as well as investment demand.
- investments in securities. This form of savings causes the increase of the capital of the issuers and at the same stimulates investment demand.
- keeping money in bank deposits. This form of saving gives the banks new capital, that they can lend out for loans and credits. This will stimulate these institutions and produce a profit for them.
- keeping money in a sock or a money belt. This form of saving is not important for an economic growth.

On the other hand, many analysts fear that a rising household saving rate can hamper the economic recovery. Consumer expenditures are such an important component of aggregate demand that even a small decline in consumption could have a noticeable effect on economy. In such conditions more saving means less consumption and at the same time less consumer demand. It means that increased household saving could slow economic growth.

Some economists believe that in relationship between savings and economic growth bi-directional causality should be more prevalent. In many opinions the causality flows from saving to economic growth. The causality from savings to economic growth is supported from the argument that domestic investment is determined by domestic savings. But in many countries the causality goes in the opposite direction - higher savings are the consequence of higher economic growth (Sinha D., Sinha T 2007).

4. Summary

Conclusion of this paper is that savings play an important role in economy development. The household savings contribute a major part of the national savings. It means, that many factors affecting household of savings also have an impact on economic growth. Of course, it would be incorrect to conclude that the higher saving rate ultimately means the faster economic growth. Empirical studies give an inconclusive results about relationships between various factors and the level of savings (savings rates) as well as savings and economic growth. That is the main reason why it is very difficult to find a way to optimize the level of household savings as a determinant of economic development.

It is also very important, that a lot of determinants of household savings affect economy development directly. But this may be an area for other studies.

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