

HOUSEHOLD SAVING IN CRISIS – LITERATURE REVIEW

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Abstract

The purpose of this article is to compare the focus of researchers and the saving behavior of households in different types of crises within the scope of the financial crisis of 2008 and the pandemic crisis.

The research focused on the literature review of publications in the WoS bibliographic database concentrated on saving and personal finance with the addition of a crisis or pandemic. 276 publications in the WoS category of Economics were identified. Full and fractional clustering with VOS Viewer was applied.

It has been found that there are differences in the behavior of households and in the focus of researchers concerning analyzed terms between the pandemic and other crises. In the case of the financial crisis of 2008, a broader approach prevailed, considering the situation of the financial market and its liquidity, but also inequalities and imbalances at the individual, national and international levels. When it comes to the pandemic, the term savings had the most associations with problems related to the situation of an individual household. Attention was paid to financial security, income, wealth, and demand generated by the household.

Keywords: saving, household finance, pandemic, crisis, precautionary saving.

JEL Class: D14, E21, G01, G51.

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INTRODUCTION

According to J.M. Keynes, the precautionary saving motive is among the saving motives that households are being driven by Browning and Lusardi (1996: 1797). It is considered one of the most important motives for saving (Lusardi, 1998). People save, among others, to build the reserve against unforeseen circumstances (Brown and Taylor, 2014: 198). The importance of saving is underlined to support the consumption of the households in times of job loss or other situations negatively influencing household finance in times of crisis. Therefore, in a crisis, households in a worse situation tend to restrain their borrowing and reduce their saving due to their lower income. During the later stage of the crisis, they also liquidate the assets used to allocate saving, mostly precautionary once accumulated in the previous periods.

From the financial markets' point of view, households are direct providers of capital as individual investors and, lately, indirect via pension plans (Gomes et al., 2020: 6). The reduction of household savings in a crisis multiplies the problems of enterprises and financial institutions with access to capital. As a result, with an increasing disproportion of demand and supply, money prices in the form of interest rates go up, as was observed at the beginning of the economic and financial crisis of 2007–2008. To provide the economy with liquid money, the central bank is forced to support the liquidity of credit institutions, at first by lowering interest rates.

However, during the pandemic crisis, as reported by central statistical offices and central banks, household sector savings significantly grew (Dey-Chowdhury et al., 2022). It is assumed that the main reason was forced saving due to restrictions on consumption spending (Schneider and Sellner, 2022).

Thus, the question arises about the differences between financial and pandemic crises to change household saving trends. That is why the purpose of this article is to compare the focus of researchers and the saving behavior of households in different types of crises within the scope of the financial crisis of 2008 and the pandemic. It was hypothesized that during the pandemic, the behavior of households concerning saving was different from their behavior during other crises.

1. METHODOLOGY

The literature review was based on publications in the Web of Science database, using keywords related to savings, personal finance, crisis, and pandemic, excluding WoS categories related to medical sciences and environmental protection. There were 997 publications identified, of which 276 were included in the

"Economics" category, and further analysis was based on them (Snyder, 2019). Statistics available in the WoS database were used for the study, and VOS Viewer for visualization and clustering. Full and fractional methods of clustering were applied.

2. RESULTS

2.1. Bibliographic analysis

The analysis of 276 publications showed that 27,9% referred to the situation in the USA, 10,87% in Great Britain and 7,97% in China. Germany, Italy, Australia, France, Canada, the Czech Republic, and Poland were also in the top ten. The authors of the publications were affiliated with universities, recognized research entities and international financial institutions, including the National Bureau of Economic Research, Federal Reserve System, Centre for Economic Policy Research, European Central Bank, and International Monetary Fund.

Considering the publication type, 86,96% of the analyzed publications were scientific articles, and 14,85% were conference materials. On average, there were 1,5 publications per source. The most active journals were Applied Economics and World Development, with seven publications each. They were followed by Brookings Papers on Economic Activity and Journal of Economic Behavior Organization with six publications in each, and by Economic Modelling and Journal of Banking Finance with five publications in each of them. Of 137 journals and other publications, only one of each was considered in this research.

In 276 publications, there were 669 authors, which gives an average of 2,42 authors per publication. Only 15 out of 650 authors participated in publications more than once.

The publications gave input in 32 WoS Categories. The prevailing number of publications was classified as business finance category (12,68%), business (7,97%), management (4,71%), development studies (4,35%) and international relations (3,99%).

2.2. Clustering results

The analysis of the results and the division of keywords into clusters was carried out using the full and fractions method. In the full method, five clusters were identified (as shown in Table 1). In the fraction method, seven clusters were created (as shown in Table 2). Clusters of keywords around the terms of pandemic, crisis, and financial crisis showed the diversity of terms associated with the word pandemic in the scope of the other two.

2.2.1 The financial crisis and saving

As mentioned above, the full clustering method divided analyzed publications into five clusters. None of the main analyzed keywords is in the same cluster. A financial crisis relates to such terms as monetary policy, inflation, growth, inequality, money, countries, and global imbalances. Similarly, in cluster 4, the keyword crisis is accompanied by banking, policy, financialization, investment and state. In the fraction clustering method, the term financial crisis is accompanied by precautionary saving. The placement of these terms in the same clusters points out that the focus of researchers while analyzing crises is on the macroeconomic (Zhuk, 2015) and systemic aspects, such as the influence of the crisis on the banking sector (Rughoo and Sarantis, 2014). Some researchers observed that the motive for a rise in saving which followed the financial crisis might include more cautious bankers, or increased risk aversion by households (Zoega, 2021).

Table 1. Clusters full-counting method

	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
1	countries	behavior	business cycles	banking	household finance
2	debt	demand	consumption	crisis	impact
3	dynamics	determinants	income	financialization	market
4	financial crisis	family	insurance	investment	pandemic
5	global imbalances	financial literacy	precautionary saving	liquidity	poverty
6	growth	health	risk	policy	
7	inequality	information	shocks	state	
8	inflation	retirement	unemployment		
9	model	saving			
10	monetary- policy	wealth			
11	money				
12	rates				

Source: Own study of publications using the VOS Viewer app.

Another problem researchers and savers observed during the financial crisis was banks' need for government support. It influenced the handling of households' bank accounts and customers' loyalty to banks (Van der Crujssen et al., 2012). Customers of banks that experienced problems tend to spread their savings between financial institutions to minimize risk. In general, the financial crisis of 2008 changed the saving habits of households (Bohdalova and Pazicky, 2019).

Table 2. Clusters fractional counting method

	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6	Cluster 7
1	business cycles	behaviors	debt	crisis	banking	impact	insurance
2	consumption	demand	household finance	dynamics	financial literacy	investment	risk
3	countries	health	inflation	financialization	liquidity	monetary-policy	unemployment
4	determinants	income	market	inequality	policy	shocks	
5	family	pandemic	model	poverty	state		
6	financial crisis	retirement	money				
7	global imbalances	saving					
8	growth	social security					
9	information	wealth					
10	precautionary saving						
11	rates						

Source: Own study of publications using the VOS Viewer app.

In the household saving scope, the research focused on the precautionary motive and its connection to consumption. Researchers emphasize that many households change their attitude to saving during and following the financial crisis. As they were forced to use their precautionary savings because of the crisis (or some of their family or friends had to), they decided to raise their value afterwards (Bouyon, 2016; Lugilde et al., 2018)

2.2.2 The pandemic and saving

Referring to the term pandemic, its placement in clusters falls together with behavior, wealth, and demand. The researchers put their primary focus on the economic situation of households. First, they underline the problem of forced savings that emerged due to lockdowns. People unable to follow their consumption patterns reduced their expenses. As a result, their fall in expenditure transformed into forced saving (Borowski and Jaworski, 2023; Zhang et al., 2021; Fitzgerald et al., 2021; Fitzgerald et al., 2023; Waliszewski and Warchlewska, 2021). A result of forced saving is excessive savings in households' portfolios. This is the problem.

It is imperative for ensuring sustainable economic development to unload excessive savings. It is also essential to encourage households to change their habits from saving compulsorily to saving voluntarily (Kolodko, 2021)

The second problem with households' financial situation, which translates into a problem with savings, is liquidity constraints (Li et al., 2020). It was observed that during the pandemic, many low-income households had problems paying off their debts or borrowing money. The researchers conclude that a stable labor market is the best solution to reduce liquidity constraints (Ning and Wang, 2020).

The COVID-19 pandemic negatively influenced the income distribution among households and countries. The low-income households faced with the risk of unemployment got a large share of government help. In contrast, high-income households could accommodate the reduction in their income using their accumulated savings. In their cases, reducing spending due to the lack of opportunities caused by lockdowns allowed for unplanned savings. The biggest losers of the pandemic appeared to be middle-income households (MacGee et al., 2022). They received financial support, but it was lower than the reduction of their income. Consequently, government support was necessary (Bhutta et al., 2020; Wang-Ly and Newell, 2022; Achou et al., 2020). But in the case of the pandemic, government funds were used to support the income and consumption of households as opposed to the financial crisis when help was provided to financial system entities.

2.2.3 Research on saving themselves

While comparing the results of full-counting and fractional counting methods of analysis, it was observed that saving is in the same cluster as behavior, demand, health, retirement, and wealth. This points out that researchers are interested in saving themselves, not only in their changes due to some event, e.g. crisis. They study the behavior of individuals and households in the scope of financial and real saving. They research the relationship between saving and consumption (represented by demand). They also investigate the demand for financial instruments and tangible assets used to allocate savings. The terms like wealth, health and retirement indicate researchers' interest in saving motives, while wealth signals relevance between the process of saving and saving assets.

For precautionary saving, only consumption and business cycles repeat themselves as partnering terms in the same clusters. However, four more attending terms will appear if we combine terms appearing in the same clusters as saving and precautionary saving in both methods. These are determinants, information, family, and income.

This confirms the earlier observations that precautionary savings support consumption in a crisis and that research on saving is accompanied by research on consumption, income and demand. Researchers are interested in households' behavior in the scope of finance, so they analyze its determinants.

Based on this analysis, it is not easy to discern whether either research on saving during the crisis is distinct or part of the research on saving themselves.

CONCLUSIONS

It must be stated that the main goal of the article has been achieved. The presented analysis clearly shows that in both types of crises, the pandemic and financial crisis, different problems refer to household savings. Concerning the financial crisis, researchers focused on the macroeconomic and institutional aspects of the problem. Regarding the crisis, a broader approach prevailed, considering the situation of the financial market and its liquidity, but also inequalities and imbalances at the individual, national and international levels.

In the case of the pandemic, the term savings had the most associations with problems related to the situation of an individual household. Attention was paid to financial security, income, wealth, and demand generated by the household both in financial and real markets.

However, it must be pointed out that there are a lot of publications focusing on saving themselves with crisis as one of the additional researched issues. Therefore, considering the assumptions of this research it is difficult to recognize whether research on saving is singular or part of the more thorough research on household finance and crisis. On that account, more research questions arise. Nevertheless, the research shows that in the scope of saving the behavior of households during the crisis of 2008 was typical, as predicted in theoretical and empirical works. Yet, the pandemic forced households to behave in uncharacteristic ways. This confirms the hypothesis stated in the Introduction. Additionally, it translates into the need, in case of future crises, to verify the causes of the situation before taking action in order to properly support households and their behavior and as a consequence lessen the negative impact of crises on the economy.

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OSZCZĘDNOŚCI GOSPODARSTW DOMOWYCH W KRYZYSIE - PRZEGLĄD LITERATURY

Streszczenie

Celem artykułu jest porównanie skupienia badaczy i zachowań oszczędnościowych gospodarstw domowych w różnych typach kryzysów w zakresie kryzysu finansowego z 2008 r. i kryzysu pandemicznego.

Badania koncentrowały się na przeglądzie literaturowym publikacji w bazie bibliograficznej WoS skoncentrowanych na oszczędzaniu i finansach osobistych z dodatkiem kryzysu

lub pandemii. Zidentyfikowano 276 publikacji w kategorii WoS Ekonomia. Zastosowano klastrowanie pełne i frakcyjne za pomocą VosViewer.

Stwierdzono, że między pandemią a innymi kryzysami istnieją różnice w zachowaniu gospodarstw domowych i skupieniu badaczy na analizowanych pojęciach. W przypadku kryzysu finansowego z 2008 r. dominowało podejście szersze, uwzględniające sytuację rynku finansowego i jego płynność, ale także nierówności i nierównowagi na poziomie indywidualnym, krajowym i międzynarodowym. Jeśli chodzi o pandemię, termin oszczędności najczęściej kojarzył się z problemami związanymi z sytuacją pojedynczego gospodarstwa domowego. Zwrócono uwagę na bezpieczeństwo finansowe, dochody, majątek oraz popyt generowany przez gospodarstwa domowe.

Słowa kluczowe: oszczędzanie, finanse gospodarstw domowych, pandemia, kryzys, oszczędzanie na zabezpieczenie.

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