

# Inflationary expectations of consumers in the Republic of Croatia

Daria Jergan, Ivana Đundek Kokotec, Marina Klačmer Čalopa

University of Zagreb

Faculty of Organization and Informatics

Pavlinka 2, 42 000 Varaždin, Croatia

djergan@student.foi.hr, {idjundjek, marina.klacmer}@foi.unizg.hr

**Abstract.** *The main goal of this paper is to examine respondents' views on inflation and their understanding of the concept of inflation, considering its very large impact on the everyday life of citizens. From the above, consumers must understand the concept of inflation, given that the annual inflation rate was on January 13, 2022—13.1% for the Republic of Croatia. The work is based on primary research. Therefore, the main research instrument is a survey questionnaire. The questionnaire was modelled after research conducted by The University of Michigan to report on consumer attitudes about inflation, monetary policy, and money's value over several years. Finally, based on the collected answers, appropriate statistical analyses will be made to determine the understanding of inflation and its effect on consumers and identify guidelines for possible improvements in the financial literacy of the citizens of the Republic of Croatia.*

**Keywords:** inflation, personal consumption, financial literacy, value of money

## 1 Introduction

The main problem of research on the topic "Inflationary expectations of consumers in the Republic of Croatia" is the growing rate of inflation in the Republic of Croatia in the last five years, from 2018-2022, with a record inflation rate of 13.1% in December 2022, which caused concern among Croatian citizens. The media are increasingly following inflation and the concept of inflation. Also, the media emphasize that the prices of the consumer basket are rising. Understanding consumer expectations and opinions about future events is extremely important. Also, one of the problems is the poor financial literacy of Croatian citizens. Today, various institutions are trying to expand initiatives on strengthening financial literacy. One of the ideas of this work is also to see if citizens understand the concept of "inflation," which is one of the basic concepts related to financial literacy. Accordingly, a survey deals with the specific questions of the citizens of Croatia related

to inflation. The entire research is narrowly focused on the attitudes and opinions of citizens, that is, consumers. The research aims to see what consumers expect in the future (short and long-term). The work also includes sections where citizens could express themselves freely about inflation-related problems.

The aim of the paper is to determine whether citizens understand the concept of inflation and to determine what knowledge and attitudes they have about the current situation, which refers to the short term, but also to determine citizens' expectations about inflation in the long term and to analyse citizens' opinions about price increases on a personal level. The same is based on analyses that will provide conclusions related to the expected inflation rates of citizens, their opinions on the Government's measures or the growth of certain components of the consumer basket. By the defined field of work and highlighted research goals, several research questions were asked: RQ1: What is the consumer's perception of inflation trends in Croatia?; RQ2: Do consumers in the Republic of Croatia think that the future is uncertain?; RQ3: Is the financial literacy of consumers in the Republic of Croatia at a satisfactory level?

The paper is designed in such a way as first to describe the concept of inflation in general, that is, inflation and the components of the Harmonized Index of Consumer Prices over several years. After dealing with the theoretical aspect of inflation, several previous types of research, both abroad and at home, were singled out. These served as a reference for the initial conduct of this research and the survey preparation. In the next chapter, the research methodology is briefly explained, and only the most important results of the answers obtained from a total of 286 respondents collected by the survey are presented. Finally, the Cronbach alpha coefficient measure is used for the research, which is used as a measure of internal consistency where one wants to see the data connection within each section. The paper concludes with a conclusion and certain guidelines for improving the current situation.

## 2 Literature overviews

Inflation refers to the situation in the economy when the general price level of goods and services consumers buy in a certain period increases. The rise in the price level leads to a decrease in the purchasing power of the domestic currency, so consumers have to pay more month after month for the same basket of goods and services than before (CNB, 2021).

Babić (1996) states that inflation results from an imbalance in the national economy, i.e., inflation manifests itself in the rise of prices in the country, which various price indices can monitor. He also notes that any stronger inflation, regardless of its triggers or causes, has consequences, namely the impact on production, consumption, savings, investments, budget revenues and expenditures, the balance of payments, and social and political problems. Higher inflation affects the population's behaviour, spending more and saving less.

Author Olivier Blanchard (2011) notes that inflation is a permanent increase in the general price level, while the inflation rate is the rate at which prices rise. Macroeconomists often look at the consumer price index (CPI) to measure the average consumption or the cost of living - consumer price index, hereafter, CPI.

Product prices may change over time, depending on supply and demand for those products. For example, when it comes to the supply of corn, a good crop increases the supply of corn, which can cause its price to fall, but a bad crop will reduce the supply, so the price of corn will rise. On the other hand, on the demand side, for example, some expensive brands cause their prices to rise, while the price of less popular products will fall if their demand is lower. In addition to supply and demand, inflation is also affected by the amount of money in circulation. The greater the amount of money in circulation in an economy, the greater the risk of price growth, that is changes and increases in the general price level. Inflation means that an increase in the general level of prices means a decrease in the value of money; in other words, it is necessary to pay more to buy the same amount of products and services as before. High inflation is usually bad for individuals or entire households because it reduces their "purchasing power." Also, high inflation is bad for the economy because it can damage economic activities. Households with a low or fixed income are often affected by inflation, as it is unlikely that they have protected themselves from inflation (European Central Bank, 2023). Figure 1 shows the annual and average annual inflation rate, based on which the nominal price growth can be seen. Moreover, one of the reasons for the same in 2012 is the increase in fuel prices, as Poslovni.hr (2012) noted, because it is noted that the increase in the price of gasoline began in 2000 when the policy of banning the formation of the market price of gasoline was interrupted and suspended. A big problem was the increase in the price of fuel, so in 1999, the average

price of a litter of Euro super 95 was HRK 4.03, and in March 2012, the price of Euro super 95 jumped to HRK 10.77.

In 2021, according to the data of the Croatian National Bank, inflation amounted to 5.5%, which manifested itself in the bills for fuel and food products and caused increased attention from the media and the general public. The increase in inflation in 2021 is the result of several reasons, namely: the increase in imported inflation, i.e., the rise in the prices of raw materials and industrial products on the world market, then the recovery of domestic personal consumption, which encouraged manufacturers and traders to pass on the increase in costs to end customers, i.e., consumers. The opening of the economy due to the pandemic in 2019 and 2020 stimulated the recovery of the global system, which led to an increase in the price of energy on the world market. From the middle of 2020, the prices of most other raw materials on the world market increased: cereals, oilseeds, wood and metal. In addition, oil prices have affected some other services over time, such as the increase in transportation services. In practice, the increase in the price of raw materials such as oilseeds increases the price of oil, and this indirectly affects the increase in the price of restaurants, considering that they use oil to prepare food. In 2021, many changes in habits took place, so people avoided public transport, which indirectly led to more work from home or buying more IT equipment, which indirectly led to an increase in the price of the same. The increase in the prices of food raw materials was also influenced by unfavourable weather conditions (droughts, floods, frost), which affected the yields of certain crops, such as the cultivation of cereals and wheat (CNB, 2022).

The increase in the price of crude oil on the global market resulted in an increase in the prices of oil derivatives on the Croatian market, given that Croatia is an importer of oil as well as most other raw materials such as metal for semiconductors or grains for certain products, i.e., the Croatian economy is based on imports and is dependent about prices at the world level and the increase in the prices of raw materials on the global market causes an increase in the prices of raw materials on the Croatian market, as was visible in 2021. In 2022, inflation reached a record 13.1%, and one of the indirect reasons is the war between Ukraine and Russia that took place in the first half of 2022. Namely, the Croatian economy was not particularly exposed to the direct impact of Russian aggression on Ukraine because it had limited trade and financial ties with those countries compared to other European countries with direct ties. However, the restrictions on production and production due to the war events that the war events caused other European members caused a weaker supply of certain raw materials. It is known that Russia is the world's gas exporter, so the gas prices on the European market also rose as a reflection of lower supplies. The prices of certain metals and food raw materials, which Russia and Ukraine used to

supply the world market, also rose. Russia and Ukraine played an important role in the global market as they were large producers and exporters of sunflower (sunflower oil), wheat, barley, corn, coal and oil as energy and artificial fertilizers. The mentioned raw materials were used as input for producing many food products in many countries. Furthermore, the supply of these products was reduced due to the events of the war, which increased the prices of food raw materials on the world market. Also, Russia exploited metal ore deposits and supplied many countries with iron, steel and non-ferrous metals. At that time, the supply of these raw materials was reduced due to sanctions, which made trade and payment transactions with Russia more difficult, as well as bans on the export of certain raw materials from Russia, which strongly increased metal prices on the world market after the start of the war. Croatia's food price increase was higher than the average of EU member states (CNB, 2022). It is mentioned that the war had no direct connection with the price rise in Croatia. However, Croatia is predominantly an import economy, meaning it imports most of its food raw materials, oil raw materials, and processed products from European countries. Russia and Ukraine were large exporters, large producers and exporters of sunflowers (sunflower oil), wheat, barley, corn, coal and oil as energy sources and artificial fertilizers, and this directly influenced the increase in the prices of raw materials for European countries, and after that European countries increased raw materials that they export, for example, to Croatia. After that, in response to the increase in the prices of raw materials, Croatia increased consumer prices, which is one of the reasons why the increase in prices in Croatia was higher than the average of EU member states.



Figure 1. Annual and average annual inflation rate (Croatian Bureau of Statistics, 2023)

### 2.1 Projections of inflation rates until 2025

Macroeconomic inflation projections were made from September 2022 to September 2024, i.e., for three years. In 2021, Croatia and the Eurozone were affected by the energy crisis and increased inflation. The consequences of the war in Ukraine led to strong inflationary pressures for Croatia and the Eurozone. One of the scenarios for 2023, according to Figure 2, "Inflation Projections of Eurosystem Experts and European Central Bank Experts," is a negative scenario with inflation of 7.4% and 3.4% in 2024, and the reason

for this is the possibility of supply disruptions in energy sources in Europe, which would consequently lead to an increase in energy prices and a decrease in production. One of the expected positive outcomes is a reduction in gas prices due to the financial support measures of the Government of the Republic of Croatia. Fiscal measures that compensated for and reduced high prices and inflation improved the inflation outlook in the projection period. HIPC-measured food price inflation is also expected to decrease in the later years of the projection period due to the underlying assumption of falling commodity prices (European Central Bank, 2023). Namely, in 2022, a package of measures to mitigate the rise in energy prices in Croatia was presented, worth HRK 4.8 billion. An example of the measures is that the VAT on pellets, briquettes, wood chips and firewood was reduced from 25% to 13%. Also, the VAT on gas and thermal energy was permanently reduced by changing the law from 25% to 13% (Government of the Republic of Croatia, 2022). Figure 2. Inflation projections of Eurosystem experts and European Central Bank experts (European Central Bank, 2023)



Figure 2. Eurosystem and European Central Bank experts' inflation projections (European Central Bank, 2023)

### 2.2 Measuring inflation expectations

In the article "Measuring Inflation Expectations," the authors Oliver Armantier, Wändi Bruine de Bruin, Simon Potter, Giorgio Topa, Wilbert van der Klaauw and Basit Zafar (2013) review and explain an initiative by the "Federal Reserve Bank of New York" which sought to improve the understanding of inflation expectations. Pointing out that inflation expectations play a key role in the functioning of modern monetary policy. Also, Armantier et. al. (2013) stated that expectations drive consumers and lead them to make a wide range of decisions, such as savings and investments, purchases of durable goods and salary negotiations. These decisions affect real economic activity and inflation. However, inflation should follow shocks; for example, if energy prices suddenly rise due to supply disruptions, short-term inflation expectations should rise simultaneously. On the other hand, long-term expectations should not change after the end of supply disruptions. Long-term inflation expectations concerning short-term inflation expectations are a hallmark of stable monetary policy. Central banks rely on various indirect approaches to measuring inflation expectations in the real world, such as expert surveys.

In addition to market measures and survey evidence, professional Central Bank forecasters rely on survey measures of general inflation expectations, with households being the main drivers of activity. Furthermore, at the same time, they play a major role in inflation expectations, and future realized inflation. An important source of survey-based information on US households and their inflation expectations is the Thomson Reuters/University of Michigan Consumer Survey. The Michigan survey randomly selects 500 households each month and asks questions that have not changed for 30 years. Armantier et. al. (2013) (according to (Gali, 2008; Sims 2009, and Woodford 2005) point out that although surveys are conducted routinely around the world, there are several problems, one of which is the possibility that consumers did not act and did not respond by their beliefs, attitudes and expectations related to inflation. In the Republic of Croatia, not much research of this type has been carried out on the title topic of the paper. However, it is worth noting the research by the authors Žmuk and Bonić (2022), who, in their work, analysed the attitudes of Croatian citizens on ways to preserve the value of property in periods of high inflation. The authors conclude that the citizens of the Republic of Croatia are familiar with the concept of inflation to a significant extent. However, they conclude that they are passive in the fight against inflation and try to preserve the value of property by saving or spending less, which are inefficient means of preserving the value of money. The inflation rate during the research period (August - September 2022) was not as pronounced as it was at the end of 2021, i.e., at the beginning of 2022, and the authors, therefore, understand that citizens did not need a higher level in the area of protecting the value of money.

### 3 Methodology description

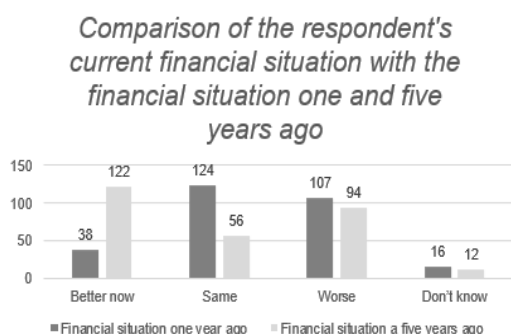
In order to investigate the attitudes and expectations of the citizens of the Republic of Croatia about inflation and to propose appropriate measures to improve financial literacy, research was conducted using a survey as an instrument of the same, whereby the goal was to understand how citizens act and behave under the same economic conditions. An example of the same economic conditions is the occurrence of inflation, where one wants to see how many citizens will decide on some form of savings to suppress inflation on a personal level or what percentage of citizens have not prepared for the arrival of a wave of price increases. A survey questionnaire was distributed, created using the Google Forms tool, intended for the creation of online surveys and was conducted from April 4, 2023. until April 11, 2023. years. The survey questionnaire was created according to the example of the research mentioned earlier, namely the survey conducted by the "Federal Reserve Bank of New York" and the survey conducted by "The University of Michigan," and the

final number of responses collected is 286 (n=286). This research included 286 respondents who responded to the questionnaire that was available in the period from April 4, 2023, until April 11, 2023. The questionnaire consisted of closed and open-type questions divided into three sections. Before the first section, questions are asked about the demographic characteristics of the respondents. The first section is related to the respondents' opinions on the current financial situation, and the aim was to see if the respondents understood the concept of inflation and price increases. The second section is related to the increase in prices in the respondents' households and the increase in certain components of the consumer basket. Namely, we wanted to find out what, at the respondents' opinion, has become more expensive and how they prepared for inflation. The third section is related to respondents' expectations, that is, consumers, about the occurrence of certain events. It was required to specify and specify the exact percentage of price increase or decrease in different periods to understand consumer decisions. The last part of the questionnaire was related to the respondents' views and the possibilities and probabilities of certain events, such as job loss in the next few years. Descriptive statistics were used to process closed-ended questions, and content analysis was used to analyse open-ended questions, intending to determine the presence of certain words or concepts within the text. Specifically, a conceptual analysis was used, whereby the text was coded into categories based on selective reduction. It ultimately consisted of words, sets of words, or phrases indicative of the analysis. Using the method of comparison, the obtained results were compared with the results of previous research, and a general conclusion was reached using the induction method.

### 4 Analysis

A total of 286 respondents participated in the research, where 23.8% of the respondents were male, while 76.2% of the respondents were female. Based on the rest of the answers collected related to the demographic characteristics of the respondents, it can be concluded that most of the respondents were in the age from between 15 and 24 years old, 20.3%. Furthermore, from the analysis of the level of education from the answers, it is evident that the largest share of respondents have completed a four-year high school (40.90%) and completed higher school or college (35.31%). Most respondents stated that they currently work full-time, and most were households with four people living in them (51.05%). In the context of analysing the financial situation of respondents in the analysed period, it is clear that most of the respondents live the same as 12 months ago; however, if the current situation was analysed with the situation five years ago, then it is clear that most of the respondents still live better or the same, and even because of all

macroeconomic shocks that were present in the analysed period. A comparison of the respondents' current financial situation with the financial situation one and five years ago is shown in Figure 3.

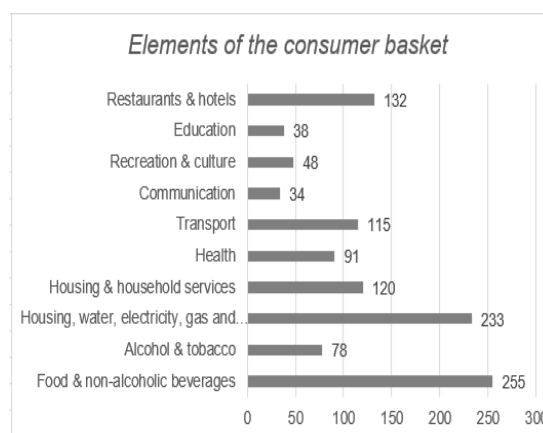


**Figure 3.** Comparison of the respondent's current financial situation with the financial situation one and five years ago (authors' representation according to the results of the survey)

Such results can be attributed to a rapid price increase for those who declared that they currently live worse than one or five years ago and to an increase in wages or employment for those who declared that they live better than one or five years ago. Below is the annual inflation for the previous five years. In their opinion, food and non-alcoholic beverages, as well as housing, water, electricity, gas and other fuels, furniture, home equipment and regular household maintenance, have become more expensive, significantly affecting the consumer basket. In addition, the arrival of a child is cited as a reason for the negative household budget, which specifically means higher salary charges and an increase in the prices of diapers, food for children, supplementary feeding, etc. The respondents pointed out that they believe food, non-alcoholic beverages, housing, and water have become more expensive. Electricity, gas and other fuels, furniture, home equipment and regular household maintenance, supported by the HCPI consumer price index in Croatia shows that these three components experienced the greatest price increase. According to the respondents' opinions, figure 4 shows the elements that will increase in price the most in 2022.

On the other hand, the respondents who declared that they live better as a reason cite an increase in wages in their work sectors. For example, they cited the banking sector, which significantly eased price differences due to inflation. In addition to higher salaries, some respondents also cited career advancement and the employment of other household members as a reason for a better life, which meant additional income that could cover the increase in prices. Respondents' answers suggest a conclusion of relatively low financial literacy, given that most respondents did not think long-term about the household's financial position, given that the majority of respondents did not prepare for possible negative

scenarios, such as a general increase in prices, and only reflexively reacted to the newly created situation in such a way that they sequentially tried to solve the problem mostly by reducing consumption. In connection with this, the majority believe that now is not the right time for investments or buying real estate, and they expect that the inflation rate will continue to rise at a higher rate than their incomes will grow and that some additional shocks with record high-interest rates are possible.



**Figure 4.** Elements of the consumer basket that will increase in price the most in 2022 (authors' representation according to the results of the survey)

## 5 Conclusion

The research problem of this paper was related to the examination of inflationary expectations of consumers in the Republic of Croatia. It was primarily initiated by the rising inflation rate in the Republic of Croatia in the last five years, from 2018-2022, with a record inflation rate of 13.1% in December 2022, which caused concern among Croatian citizens. The aspiration was to investigate whether citizens are aware of the long-term nature of consumer decisions in making financial decisions related to the household budget, which indirectly leads to certain conclusions about financial literacy. Therefore, it is very important to understand consumer expectations and their opinions about events in the future in order to be able to give certain guidelines for their improvement. Accordingly, a survey questionnaire was defined based on two American surveys, namely the survey conducted by the "Federal Reserve Bank of New York" and the survey conducted by "The University of Michigan."

The obtained results gave an insight into the consumer's perception regarding the movement of the inflation rate, thus answering the set RQ1. Namely, consumers in the Republic of Croatia mostly understand the very concept of inflation; they point out that they are aware of and have recognized the negative trends in the market, along with the identification of price increases of key elements that influence the

increase in the cost price of their consumer basket, and state that they expect further price increases, which is identical to existing research. What is additionally emphasized is that consumers believe that price growth does not, nor will it, sufficiently follow the general rise in prices, where there is room for the introduction of additional measures by legislative bodies and institutions that should act in the direction of establishing a better social balance for the working population as well, students, but especially vulnerable groups such as pensioners. With this, consumers point out quite a lot of concern and uncertainty in the coming period (RQ2). Certain developments are visible in the context of increasing wages for completed student work, raising wages in the state sector, and increasing pensions, but also the introduction of special measures in conditions of great uncertainty, such as the COVID-19 pandemic, and later certain measures during the expansive rise in the prices of oil derivatives due to geopolitical instability in Europe. However, certain problems were also identified, especially in the segment of citizens' still low financial literacy (RQ3), which can be read from the respondents' answers. Namely, the answers indicate that consumers did not think enough about the possible negative outcomes in moments of positive developments in the markets (before the pandemic) in terms of savings and investments, so in crises, they had to react relatively spontaneously and reactively in terms of short-term solutions such as direct reduction spending, giving up, for example, buying real estate or any investment.

However, positive developments in this context are visible, given that consumers are aware of upcoming events in the financial sector, have recognized the risks and understand the concepts relatively well. The same is confirmed by the national examination of citizens' financial literacy conducted by Croatian Financial Services Supervisory Agency (HANFA) and CNB in 2023, which indicates that financial literacy in Croatia is continuously growing slightly. The overall rating of financial literacy in 2023 was 12 out of 20 points, i.e., the respondents, on average, answered 60% of the questions correctly. A comparison with two earlier surveys (from 2015 and 2019) shows that citizens' financial knowledge is continuously growing: from 60% in 2015 and 65% in 2019 to 70% in 2023 (HANFA, CNB, 2023). However, there is certainly room for progress. Hence, the Government of the Republic of Croatia adopted the National Strategic Framework for Consumer Financial Literacy for the period from 2021 to 2026, in which the priority is financial education in two pillars, formal and informal education, which will include those individuals who are not included in any form of formal education. It is intended as support for formal education in the context of which a series of measures will be implemented that include various workshops, seminars, the creation of educational materials and the use of various forms of informing the public, taking into account the specific financial needs of each target group (children and

youth, younger adults, people of working age who earn income and older people) (National strategic framework of consumer financial literacy for the period from 2021 to 2026, NN 68/21 (NN 68/21)).

## References

- Armantier, O., Bruine de Bruin, W., Potter, S., Topa, G., Van Der Klaauw, W. & Zafar, B. (2013). Measuring inflation expectations. *Annu. Rev. Econ.*, 5(1), 273-301.
- Babić, M. (1996). *Makroekonomija*. Zagreb: Mate.
- Blanchard, O. (2011). *Makroekonomija*. Zagreb: Mate.
- Croatian Bureau of Statistics (CBS) (2023) Inflation calculator. Retrieved from <https://web.dzs.hr/calcinfl.htm>
- Croatian Bureau of Statistics (CBS) (2023). Consumer price indices in October 2022. Retrieved from <https://podaci.dzs.hr/2022/hr/29198>
- Croatian Financial Services Supervisory Agency, Croatian National Bank (2023). Measuring financial literacy and financial inclusion in Croatia – 2023. Retrieved from <https://www.hanfa.hr/media/9662/istra%C5%BEiv-anje-financijske-pismenosti-2023.pdf>
- Croatian National Bank (CNB) (2021). Retrieved from <https://www.hnb.hr/en/-/sto-je-inflacija>
- Croatian National Bank (CNB) Effect of the War in Ukraine on Consumer Price Inflation (2022). Retrieved from [https://www.hnb.hr/en/javnost-rada/rat-u-ukrajini/html/-/asset\\_publisher/lwOTLx5fWZDC/content/utjecaj-rata-u-ukrajini-na-inflaciju-potrosackih-cijena](https://www.hnb.hr/en/javnost-rada/rat-u-ukrajini/html/-/asset_publisher/lwOTLx5fWZDC/content/utjecaj-rata-u-ukrajini-na-inflaciju-potrosackih-cijena)
- Croatian National Bank (CNB) GDP growth to decelerate to 1.4%, inflation to drop to 7.5%?. (2022). Retrieved from <https://www.hnb.hr/en/-/rast-bdp-a-u-2023-usporava-se-na->
- Croatian National Bank (CNB) Why has inflation increased significantly in recent months?. (2022). Retrieved from <https://www.hnb.hr/javnost-rada/aktualno-o-inflaciji/html>
- European Central Bank (ECB) Euro area statistics (2023) Retrieved from <https://www.euro-area-statistics.org/digital-publication/statistics-insights-inflation/bloc-1.html?lang=hr>
- European Central Bank (ECB) Macroeconomic projections (2023). Retrieved from [https://www.ecb.europa.eu/pub/projections/html/ecb.projections202303\\_ecbstaff~77c0227058.hr.html#toc2](https://www.ecb.europa.eu/pub/projections/html/ecb.projections202303_ecbstaff~77c0227058.hr.html#toc2)

- European Central Bank (ECB) Measuring inflation – the Harmonised Index of Consumer Prices (HICP) (2023). Retrieved from [https://www.ecb.europa.eu/stats/macroeconomic\\_and\\_sectoral/hicp/html/index.en.html](https://www.ecb.europa.eu/stats/macroeconomic_and_sectoral/hicp/html/index.en.html)
- Galí, J. (2015). Monetary policy, inflation, and the business cycle: an introduction to the new Keynesian framework and its applications. Princeton University Press.
- National strategic framework of consumer financial literacy for the period from 2021 to 2026 NN 68/21 (NN 68/21). Retrieved from [https://narodne-novine.nn.hr/clanci/sluzbeni/2021\\_06\\_68\\_1316.html](https://narodne-novine.nn.hr/clanci/sluzbeni/2021_06_68_1316.html)
- Poslovni.hr (2012). 12 years ago, we had HRK 2,000 less salary, but we could buy more gasoline than today. Retrieved from <https://www.poslovni.hr/vijesti/prije-12-godina-imali-smo-2000-kn-manju-placu-ali-smo-mogli-kupiti-vise-benzina-nego-danas-198799>
- Sims, C. A. (2009). Inflation expectations, uncertainty and monetary policy.
- Woodford, M. (2005). Central bank communication and policy effectiveness.
- Žmuk, B. & Bonić, A. (2022). Analiza stavova hrvatskih građana o načinima očuvanja vrijednosti imovine u razdobljima visoke stope inflacije. Zbornik Ekonomskog fakulteta u Zagrebu, 20(2), 15-31.