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**Role of Mass Media in Formation of Consumer
Expectations of Russian Population**

Thesis Summary for the purpose of obtaining academic degree PhD in Sociology

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Relevance and Problem Statement of the Research

Currently, there is a growing global interest in the determinants of consumer expectations—a topic that has traditionally been the domain of economists and economic psychologists. The numerous existing studies on this subject primarily reflect a “macro-economic” perspective on consumer expectations, while the consideration of socio-demographic profiles and social institutions has largely remained overlooked. Over the past 20 years, the interest in the topic of consumer expectations has increased within Russian sociology; however, the impact of news and other social and economic institutions has yet to be addressed. This dissertation research aims to fill this gap by not only significantly refining the determinants of consumer expectations previously published in Russian literature at the micro-sociological level but also, more importantly, providing a quantitative assessment of the influence of mass media on the dynamics of consumer expectations in Russian society during 11-year period—from the financial/economic crisis of 2008 to the COVID-19 pandemic in 2020.

The measurement of consumer expectations and sentiments is conducted using the Consumer Sentiment Index (CSI), a macro-level indicator developed in the 1950s at the University of Michigan to forecast the subjective well-being of the population. The index measurement includes the population's subjective assessment of financial situation, attitudes towards the current economic conditions, evaluations of short-term and medium-term economic expectations as well as assessment of readiness to purchase large good. In its aggregated form, this index has traditionally been utilized primarily by economists, as the CSI has shown a reasonable ability to predict macroeconomic parameters such as inflation and GDP. Consequently, over the past 70 years, significant experience in econometric modeling of time series has been accumulated. Since the late 1990s, economists have encountered challenges regarding the explanatory power of the CSI, leading to an increase in interdisciplinary research, including interest in the media as an important predictor of the CSI. Concurrently, studies examining the micro-sociological determinants of consumer expectations have emerged, predominantly in Russia, largely due to the availability of survey statistics that form the basis for the aggregated assessment of the CSI. However, both foreign and Russian studies still leave many gaps in understanding the nature of the Index and explaining the dynamics of consumer expectations, particularly regarding the role of the media.

The peculiarity of the index construction lies in the use of sociological surveys for its derivation. The CSI monitoring is carried out in more than 50 countries worldwide (state statistical services, central banks), published in reports, forecasts, and scientific papers. In Russia, the index is being calculated and published since 1993. Aggregated data are present in statistical collections and reviews (Rosstat, Central Bank of the Russian Federation, monitoring by FOM, VCIOM, GfK-Rus,

etc.), as well as in many scientific publications¹. Currently, research of the influence of socio-demographic factors, including the impact of social environment, values, well-being, and institutions (media) is being conducted. Modeling consumer expectations at the macro level becomes especially relevant during crisis periods, as proven in several studies². Therefore, the question of the macro-sociological nature of the CSI in terms of the influence of social institutions on the internal dynamics of consumer expectations remains relevant at present.

As previously noted, the discussion surrounding social and functional roles of mass media in the transformation of consumer expectations, changes in financial markets, and the economic behavior of individuals as a whole is remained. A specific issue is the study of the discourse surrounding economic events and signals as distinct categories of "performatives." The consideration of informational signals accounts for a deeper understanding of the extent of socio-economic shocks and the subjective evaluations of individuals — a topic that has not been thoroughly addressed in existing research³. Most researchers, primarily from the economic literature, adhere to a logic that explains changes in consumer expectations through economic factors, which is supported by empirical examples such as rising inflation, unemployment, declining economic growth rates, consumer activity, and the GDP of the country.

The issue of the formation of consumer expectations and its "sensitivity" during periods of high economic uncertainty is raised in order to explain the modeling results. The Russian economy generates different patterns of motivation and mobilization among individuals in the context of prolonged crises and recessions⁴. Negative trends across various sectors of the economy exert a

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- 1 Anastasiou, D. et al. (2023) 'Household deposits and consumer sentiment expectations: Evidence from Eurozone', *Journal of International Money and Finance*, 131, p. 102775. ; Baghestani, H. and Fatima, S. (2021) 'Growth in US Durables Spending: Assessing the Impact of Consumer Ability and Willingness to Buy', *Journal of Business Cycle Research*, 17(1), pp. 55–69. ; Dement'eva I.N., Shakleina M.V. (2019) 'Applying the index method in the research on consumer sentiment', *Economic and Social Changes: Facts, Trends, Forecast*, 12(1), pp. 153–173. (in Russian) ; Ibragimova, D. Kh (2014) 'Consumer expectations of the Russian population (1996-2009): how cohorts, generations and age are interconnected', *Journal of Economic Sociology = Ekonomicheskaya sotsiologiya*, 15(3), pp. 24–69. (in Russian); Ibragimova, D. Kh., Krasilnikova, M. D. and Nikolaenko, S. A. (1996) 'Consumer Sentiment Index', *Public Opinion Monitoring: Economic and Social Change*, (6), pp. 36–42. (in Russian).
 - 2 Starr, M.A. (2012) 'Consumption, sentiment, and economic news', *Economic Inquiry*, 50(4), pp. 1097–1111. ; Ibragimova, D. Kh (2014) 'Consumer expectations of the Russian population (1996-2009): how cohorts, generations and age are interconnected', *Journal of Economic Sociology = Ekonomicheskaya sotsiologiya*, 15(3), pp. 24–69. (in Russian) ; Krasilnikova, M.D. (2010) 'The Russian Population in the Light of Another Economic Crisis', *Universe of Russia*, 19(4), pp. 162-181. (in Russian).
 - 3 Boukes, M., Damstra, A. and Vliegenthart, R. (2021) 'Media Effects Across Time and Subject: How News Coverage Affects Two Out of Four Attributes of Consumer Confidence', *Communication Research*, 48(3), pp. 454–476. Huang, M.Y., Rojas, R.R. and Convery, P.D. (2018) 'News Sentiment as Leading Indicators for Recessions'. arXiv. Available at: <http://arxiv.org/abs/1805.04160> (Accessed: 17 April 2023). Tworek, H.J.S. (2020) 'Oligopolies of the past? Habermas, Bourdieu, and conceptual approaches to news agencies', *Journalism*, 21(12), pp. 1825–1841. Kazun N. (2017) 'Kak ekonomika v novostyakh vliyaet na novosti v ekonomike? Obzor teorii o spetsifike i roli ekonomicheskikh diskussiy v SMI [How Does Economy in News Affects News in Economy? A Review of Theories on the Specific and Role of Economic Discussions in the Media]'. *Journal of Economic Sociology = Ekonomicheskaya sotsiologiya*, 18(3), pp. 97–129. (in Russian).
 - 4 Smirnov, S.V. (2012) 'Russian cyclical indicators and their usefulness in "real time": experience of the 2008-2009 recession', *Economic Journal of the Higher School of Economics*, 16(4), pp. 479–513. ; Abosedra, S., Laopodis, N.T. and Fakhri, A. (2021) 'Dynamics and asymmetries between consumer sentiment and consumption in pre- and during-COVID-19 time: Evidence from the US', *The Journal of Economic Asymmetries*, 24, p. E00227. ; Algaba, A. et al. (2020) 'Econometrics meets sentiment: an overview of methodology and applications', *Journal of Economic Surveys*, 34(3), pp. 512–547. ; Billore, S. and Anisimova, T. (2021) 'Panic buying research: A systematic literature review and future research agenda', *International Journal of Consumer Studies*, 45(4), pp. 777–804. ; Curtin, R. (2019) 'Consumer expectations: a new paradigm', *Business Economics*, 54(4), pp. 199–210. Dixon, R., Griffiths, W. and Lim, G.C. (2014) 'Lay people's models of the economy: A study based on surveys of consumer

systemic impact on the quality of life, particularly leading to certain changes in purchasing activity, thereby altering the potential for making significant purchases. The experience of past economic crises demonstrates that the topic of crisis itself evokes various feelings and expectations in mass surveys. Uncertainty increases among individuals, at the level of governmental, financial, and market institutions⁵. Consequently, new attempts are being made to study the nature of consumer expectations, with a focus on the media as a crucial institutional factor⁶, and on the informational space filled with everyday events, forecasts, meanings, and signals. This research aims to illustrate which discourses in the news characterize periods of economic fluctuations and "calmness", and how they relate to changes in individuals' expectations. We pay attention to both micro and macro levels of the impact of factors—determinants of changes in consumer expectations. **The research question is:** what role do the media play in shaping consumer expectations?

This study fills a gap in the literature between economic modeling of consumer expectations and research dedicated to the social and material well-being of households, as well as the portrayal of the economy in the media. The emphasis is on assessing the qualitative content of news (semantic structure, message tone, constructed discourse) in relation to changes in quantitative assessments in the dynamics of consumer expectations (micro and macroeconomic).

Degree of Scientific Development of the Problem

The research topic is based on the conceptualization of consumer expectations. Historically, foreign researchers such as G. Katona, H. Simon, E. Likert, C. Manski, and R. Curtin have worked with this concept grounded in psychological economics. The emergence of this field contributed to the formation and establishment of economic psychology as an independent discipline (G. Tarde, J. S. Mill, J. Bentham, T. Veblen, J. Keynes). In the 1990s, the issue of the analytical validity of the Consumer Sentiment Index arose. Works by authors such as K. Carroll, D. Wilcox, K. Zagorski, F. Howrey, D. Fang and D. Cook are revising the accumulated experience. Only a few researchers (D. Blood, M. Doms, J. Hester) proposed new options for modeling and operationalization of CSI, going beyond economic and psychological factors. In Russia, this direction has been developing

sentiments', *Journal of Economic Psychology*, 44, pp. 13–20. Garner, C.A. (1981) 'Economic determinants of consumer sentiment', *Journal of Business Research*, 9(2), pp. 205–220. ; Lischka, J.A. (2015) 'What Follows What? Relations between Economic Indicators, Economic Expectations of the Public, and News on the General Economy and Unemployment in Germany, 2002-2011', *Journalism & Mass Communication Quarterly*, 92(2), pp. 374–398. ; Lozza, E. et al. (2016) 'Consumer Sentiment after the Global Financial Crisis', *International Journal of Market Research*, 58(5), pp. 671–691. Soroka, S.N. (2006) 'Good News and Bad News: Asymmetric Responses to Economic Information', *The Journal of Politics*, 68(2), pp. 372–385. 1. Zagórski K., McDonnell J. S. "Consumer Confidence" Indexes as social indicators // *Soc Indic Res.* 1995. T. 36. № 3. C. 227–246.

5 Karavay, A.V. (2020) 'Changes in the Russians' strategies of socio-economic adaptation in the late XX - early XXI centuries ', *Journal of Institutional Studies*, 12(1), pp. 144–159. (in Russian); Krasilnikova, M.D. (2010) 'The Russian Population in the Light of Another Economic Crisis ', *Universe of Russia*, 19(4), pp. 162-181. (in Russian).

6 Kleinnijenhuis, J., Schultz, F. and Oegema, D. (2015) 'Frame complexity and the financial crisis: A comparison of the United States, the United Kingdom, and Germany in the period 2007–2012', *Journal of Communication*, 65(1), pp. 1–23. Song, M. and Shin, K. (2019) 'Forecasting economic indicators using a consumer sentiment index: Survey-based versus text-based data', *Journal of Forecasting*, 38(6), pp. 504–518.

since the mid-1990s in the form of conceptual and substantive aspects of CSI research and the identification of consumer expectations (D. Ibragimova, S. Nikolaenko, M. Krasilnikova, E. Balatsky, N. Ekimova, M. Yurevich), regional specifics (A. Semenov, I. Dementieva, M. Shakleina, V. Zvonovsky), and methodological issues (D. Ibragimova, S. Sugaipov). At the same time, an insufficient degree of structural (sociological) development of the topic has been identified. It is partially considered in the context and dynamics of the social structure of Russian households, their expectations, motivations, categories of subjective well-being, and emotionally charged consumption (A. Pishnyak, A. Karavai, S. Mareeva, L. Kitrar, T. Lipkind, N. Tikhonova, T. Morozova, R. Belaya, S. Murina, D. Fangazzini, K. Yuzhaninov, A. Rykun, Y. Roshchina, I. Pavlova, V. Radaev), the transformation of practices for covering negative events in the media (A. Kazun, G. Gradoselskaya), and the determination of the value orientations of the population (V. Kashpur).

The issues surrounding the formation of consumer expectations are linked to economic factors (consumption of goods/services, unemployment, inflation, stock market, GDP) and have been explored in the works of E. Mueller, G. Shapiro, G. Avgenin, J. Tobin, F. Adams, R. Leoni, D. Pierce, G. Theil, and R. Kosobud prior to the 1990s. Since the mid-1990s, researchers have attempted to identify the influence of non-economic factors on the formation of expectations, focusing on cohort differences, demographics, income, and the dynamics of anomalous behavior (D. Ibragimova, V. Nguyen, E. Klaus, R. van Giezen, A. Collins). In recent years, it has been suggested that individual actions, social environment, and values affect political and economic institutions, ultimately leading to a cyclicity of mutual influences, encapsulated in the hypothesis of "self-fulfilling expectations" (R. Curtin). Currently, thesis regarding the sociological nature of consumer expectations remains unexplored, while macro-level analysis predominates, the micro-level is limited to issues of data processing quality (M. Shakleina, M. Bogdanov, Y. Chen). A potential connection between individuals' attitudes (characteristics) and the constancy of consumer expectations may be represented by the concept of embeddedness as a promising "sociological" link. It can be noted that there is a high degree of development in the fundamental concept of embeddedness and various applied cases (M. Granovetter, B. Uzzi, J. Murdoch, T. Marsden, J. Banks, S. Bowen, Z. Kotelnikova). However, insufficient attention has been paid to further typologization of embeddedness (P. DiMaggio, S. Zukin), which is useful for explaining the dynamics of consumer expectations and incorporating the media factor.

Since the late 1980s, researchers have focused on analyzing the influence of mass media on consumer expectations. Initial efforts involved operationalizing media as a macroeconomic index, a task undertaken by D. Blood, P. Phillips, M. Doms, H. Wu, and D. Harrington. This approach faced

criticism for the need for substantive analysis of the structure of news reports and their qualitative processing (M. Song, K. Shin, G. Casey). Attempts to incorporate substantive aspects into the analysis of publications, conducted by J. Vuchulen, D. Fan, M. Doel, J. Segott, K. Newton, and E. Lozza, revealed the ambiguous influence of media narratives over different time periods. Sociology of mass communication extensively examines the operational principles of the media institution, which is a cornerstone theme in the study of public opinion and subjective expectations (M. McCombs, D. Shaw, L. Guo, Y. Cheng). Equally important is the analysis of the effects of event representation on audience behavior from the perspectives of psychology, sociology, and mass communication (M. Levin, R. Nabi, M. Oliver, W. Lippmann, D. Shoefele, A. Lang, S. Ball-Rokeach, M. DeFluer, D. McKeil, W. Potter). Attention to the professional qualities of journalists (D. Berry, J. Singer, A. Kazun), the role of publications as the "last mile" before news reaches a broad audience (P. Shoemaker, E. Tandoc), the framing of events, and the objectification of media frames (R. Entman, J. Tankard, F. Tichenor) is critical. Additionally, issues of media uncertainty and information overload (B. Franklin, M. Starr) are significant, as is the depth of the semantic structure of discourse constructed by journalists when covering economic and quasi-economic events and news (E. Colleoni, I. Himelboim, L. Bogomazova, A. Kazun).

Thus, the current degree of development of the topic highlights the multifaceted history of studying consumer attitudes and expectations in economic psychology and econometrics, while in sociology the topic under consideration is insufficiently discussed, especially in the Russian scientific field.

Object, Subject, Goal, and Objectives of the Research

The object of the study is the adult population of the Russian Federation aged 18+ years (an all-Russian sample), whose consumer expectations are approximated in the form of CSI (inflation, unemployment, currency exchange rate, etc.) and are mediated by the presentation of news reports on economics, finance, acute socio-economic processes (recessions, crises, dollar exchange rate, growth prices, etc.) in the media. **The subject of the study** is the content, severity and influence of signals generated by the corpus of Russian economic media on consumer expectations of Russians in different time periods.

The goal of the study is to assess the impact of economic news in the media on the dynamics of the Consumer Sentiment Index. To achieve the goal, **the research tasks** are formulated:

1. Operationalize the concept of "constancy of consumer expectations" based on a synthesis of existing theoretical approaches to the study of consumer expectations;

2. Systematize relevant empirical and methodological approaches used in the study of consumer expectations and the media;
3. Develop and test a methodology for automated quantitative and qualitative content analysis of economic messages in media materials;
4. Identify and describe periods of structural changes in consumer expectations in comparison with the dynamics of macroeconomic indicators and economic news reports in the media;
5. Assess the impact of macroeconomic indicators and socio-economic profiles of Russians on consumer expectations;
6. Characterize the impact of the intensity and structure of the discourse of economic events in the media on changes in consumer expectations.

Theoretical and Methodological Foundations of the Research

The theoretical model of the research is constructed around the concept of "consumer expectations" — socially determined aggregation of subjective assessments and expectations regarding changes in material conditions, the economic situation in the country, and the readiness to make significant purchases in the near future. The foundational framework for conceptualizing this notion is the theory of consumer sentiment by G. Katona. The main thesis posits that the influence of objective economic conditions on the final behavior of subjects is mediated by subjective perceptions of the economy, emphasizing the presence of "willingness" and "ability" to purchase goods or services⁷. This leads to the conclusion that subjective assessments and expectations of the future become a crucial factor in the "justification" of one's actions. This approach has proven resilient since World War II and is based on the premises of G. Tarde and several neoclassical economists (J. Duesenberry, M. Friedman), who maintain a critical stance towards the psychological foundations of economic processes.

The theoretical foundation of G. Katona contributed to the development of scientific directions related to consumer sentiments. Some of these gained significant recognition but ceased to be relevant to the measurement of consumer sentiments and expectations (for instance, the limitations of economic logic in J. Keynes' theories⁸, H. Simon's theory of bounded rationality⁹, and D. Kahneman and A. Tversky's prospect theory¹⁰). Incorporating subsequent approaches from behavioral economics, following Katona's psychological economics, allowed for the identification

7 Katona, G. (1951) *Psychological analysis of economic behavior*. New York, NY, US: McGraw-Hill (Psychological analysis of economic behavior), pp. ix, 347.

8 Rozmainsky, I.V. (2012) 'The General Theory of J. M. Keynes: Lessons Three Quarters of a Century Later', *Terra Economicus*, 10(1), pp. 46–52. (in Russian).

9 Simon, H.A. (2000) 'Bounded rationality in social science: Today and tomorrow', *Mind & Society*, 1(1), pp. 25–39. Available at: <https://doi.org/10.1007/BF02512227>.

10 Tversky, A. and Kahneman, D. (1981) 'The Framing of Decisions and the Psychology of Choice', *Science*, 211(4481), pp. 453–458. Available at: <https://doi.org/10.1126/science.7455683>.

of information as a fundamental criterion defining the nature of individuals' consumer expectations (and sentiments). The theory of rational expectations by J. Muth plays a productive role: optimal economic decisions require accurate expectations based on all available information; psychological aspects, including emotions and social influences, can lead to "biased expectations"¹¹.

Based on the analysis of empirical studies, the theoretical foundation of psychological economics has been supplemented with the following thesis: the rational choice of individuals represents a function of utility maximization, largely dependent on a multitude of factors, including the sociocultural attitudes of the individual and the surrounding society¹². The ultimate goal of individual action is to formulate a "balanced decision" that serves as a response to events that are not subject to precise forecasting¹³. The individual does not find themselves in a state of profound uncertainty ("ambivalence"), but rather attempts to adapt to changes caused by the "complexity" of the environment¹⁴. Although the theory of consumer expectations (sentiments) does not address the question of the formation and maintenance of stable consumer expectations, R. Curtin asserted that economic expectations possess a social nature, leading to the thesis of "self-fulfilling expectations," where consumers play a crucial role as participants in the economy alongside businesses and the state¹⁵. Thus, the sociological nature of G. Katona's thesis¹⁶ is operationalized in terms of the "quality" of individual characteristics, age-related perceptions of past and current experiences, and significant dependence on fragmented information (for example, from the media) or social environment.

Attempts to understand the social nature of consumer expectations have led to certain theoretical and methodological difficulties. Some of them are solved by referring to the sociological concept of embeddedness, known from the works of K. Polanyi and M. Granovetter. However, a more structural, highly specialized functional basis is the theoretical framework of Sh. Zukin and P. DiMaggio, comprehensively discussed by P. Dequech — the typologization of embeddedness with an emphasis on structural, cultural and institutional subtypes¹⁷. Working with these categories made it possible to formulate analytical and methodological "bridges" between consumer expectations, social and institutional factors (the key is the media). The idea of embeddedness is as follows:

11 Muth, J.F. (1961) 'Rational Expectations and the Theory of Price Movements', *Econometrica*, 29(3), pp. 315–335. Available at: <https://doi.org/10.2307/1909635>.

12 Schwery, R. (1995) 'Rational choice theory: an analytical review', *Sotsiologicheskii zhurnal = Journal of Sociology*, (2), pp. 43–56. (in Russian).

13 Campbell, J.Y. (2006) 'Household Finance', *The Journal of Finance*, 61(4), pp. 1553–1604. Available at: <https://doi.org/10.1111/j.1540-6261.2006.00883.x>.

14 Dequech, D. (2001) 'Bounded Rationality, Institutions, and Uncertainty', *Journal of Economic Issues*, 35(4), pp. 911–929. Available at: <https://doi.org/10.1080/00213624.2001.11506420>.

15 Curtin, R. (2019) 'Consumer expectations: a new paradigm', *Business Economics*, 54(4), pp. 199–210. Available at: <https://doi.org/10.1057/s11369-019-00148-1>.

16 Katona, G. (1968) 'Consumer behavior: Theory and findings on expectations and aspirations', *The American Economic Review*, 58(2), pp. 19–30.

17 Zukin, S. and Dimaggio, P. (1990) *Structures of Capital: The Social Organization of the Economy*. CUP Archive. ; Dequech, D. (2003) 'Cognitive and Cultural Embeddedness: Combining Institutional Economics and Economic Sociology', *Journal of Economic Issues*, 37(2), pp. 461–470.

overcoming uncertainty is associated not only with psychological aspects (emotions, moods, etc.), but also with the constancy of patterns of behavior, the amount of knowledge (skills, information), which makes it possible to improve an individual's interpretation of "complex reality", make effective decisions, form stable or changeable expectations¹⁸.

Within the framework of structural embeddedness, the role of horizontal networks of interaction between social and economic systems in "embedding" economic action in the context of interaction is outlined; this affects the constancy of subjective perception of the economy, growth of trust (a source of additional confidence in understanding what is happening) and is operationalized in terms of the structure of the social environment¹⁹. Cultural embeddedness in the study is understood as a set of categories and attitudes that contribute to the involvement of an individual in economic action through various practices of perception of reality, a set of social, generational schemes, as well as shared values, beliefs, social/ material well-being, and standards of living²⁰. Another approach is related to the categories of "black swans" and economic crisis as "typical regularity" (periods of growing concern, the inevitability of negative scenarios)²¹ at the macro level of analysis.

In the context of the topic under consideration, an important subtype of embeddedness is institutional, in which the focus of analysis is located at the level of macro-systems reproducing a set of orders and institutions ("rules of the game") that ensure the smoothness and systemically efficient operation of agents (business agents, economics, government and the media). Approach by J. Beckert implies economic forecasts as a tool for coordinating economic agents in periods of recessions or crises, with the emergence of a cyclical institution of expectations²². Researchers and consumers are involved in this institution through indirect mechanisms and institutions, one of which is mass media²³. Attention to this focus of analysis made it possible to highlight the promising role of news in explaining the dynamics of consumer expectations. This is due to the fact

18 Cacciatore, M.A., Scheufele, D.A. and Iyengar, S. (2016) 'The End of Framing as we Know it ... and the Future of Media Effects', *Mass Communication and Society*, 19(1), pp. 7–23.

19 Granovetter, M. (2002) 'Economic Action and Social Structure: The Problem of Embeddedness', *Economic Sociology*, 3(3), pp. 44–58. (in Russian) ; Molm, L.D., Melamed, D. and Whitham, M.M. (2013) 'Behavioral Consequences of Embeddedness: Effects of the Underlying Forms of Exchange', *Social Psychology Quarterly*, 76(1), pp. 73–97. ; Pool, V.K., Stoffman, N. and Yonker, S.E. (2015) 'The People in Your Neighborhood: Social Interactions and Mutual Fund Portfolios', *The Journal of Finance*, 70(6), pp. 2679–2732. ; Bailey, M. et al. (2018) 'Social Connectedness: Measurement, Determinants, and Effects', *Journal of Economic Perspectives*, 32(3), pp. 259–280.

20 DiMaggio, P. (1992) 'Social Structure, Institutions, and Cultural Goods: The Case of the United States', in *Social Theory For A Changing Society*. Routledge. ; Ibragimova, D. Kh (2014) 'Consumer expectations of the Russian population (1996-2009): how cohorts, generations and age are interconnected', *Journal of Economic Sociology = Ekonomicheskaya sotsiologiya*, 15(3), pp. 24–69. (in Russian).

21 Taylor, J.B. and Williams, J.C. (2009) 'A Black Swan in the Money Market', *American Economic Journal: Macroeconomics*, 1(1), pp. 58–83. ; Herrmann-Pillath, C. (2010) 'Social capital, Chinese style: individualism, relational collectivism and the cultural embeddedness of the institutions–performance link', *China Economic Journal*, 2(3), pp. 325–350.

22 Beckert, J. (2013) 'Imagined futures: fictional expectations in the economy', *Theory and Society*, 42(3), pp. 219–240.

23 Zuckerman, E.W. (2004) 'Structural Incoherence and Stock Market Activity', *American Sociological Review*, 69(3), pp. 405–432. ; Lischka, J.A. (2015) 'What Follows What? Relations between Economic Indicators, Economic Expectations of the Public, and News on the General Economy and Unemployment in Germany, 2002-2011', *Journalism & Mass Communication Quarterly*, 92(2), pp. 374–398.

that one of the likely causes of the sources of influence on consumer expectations are economic messages, as suggested by G. Katona, which implies a separation of the theories used by researchers in the argumentation and interpretation of econometric models²⁴.

The apparatus of the sociology of mass communication has a wide range of approaches to interpreting the functional role of the media. The classical approaches for this topic are R. Entman's framing theory and the McCombs and Shaw²⁵ agenda setting theory. The most relevant is the theory of setting the agenda of the "third level"²⁶, which implies a large role of the network of contacts of the audience in spreading a certain line of reflection of the event, which is also operationalized in the form of the effect of the social environment of the consumer of information and analytically returns to the original theses of G. Katona. Within the framework of the study, an important technical aspect of interpreting events in the prism of economic messages as a collection of aggregated accents (frames) is highlighted, the problem of bias, media bias, the emergence of information biases, which are operationalized and measured in terms of the centrality of the discourse of an economic event, the intensity of coverage and the tone of the message is posed. The theory of use and gratification by E. Katz, J. Blumer and M. Gurevich is important: consumers form certain preferences in terms of choosing news publications and certain content topics in order to maximize economic usefulness, and the media "adjust" accents when describing economic events and processes²⁷, which is highlighted during the analysis of empirical research²⁸. Another operational approach is the hypothesis of information bias (M. Starr and M. Luo): economic news forms a certain picture of the economy, which is not always accessible to non-specialists. The presence of negative news acts as impulses that encourage solving the problem of making a rational decision²⁹. The mechanisms of building news stories can cause serious "failures" in building a

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- 24 Pallas, J. and Fredriksson, M. (2011) 'Providing, promoting and co-opting: Corporate media work in a mediatized society', *Journal of Communication Management*. Edited by J. L'Etang, 15(2), pp. 165–178. ; Logemann, J. (2020) 'Measuring and Managing Expectations: Consumer Confidence as an Economic Indicator, 1920s–1970s', *Futures Past. Economic Forecasting in the 20th and 21st Century* [Preprint]. Available at: <http://resolver.sub.uni-goettingen.de/purl?fidaac-11858/1004> (Accessed: 22 July 2023). ; Doms, M.E. and Morin, N.J. (2004) 'Consumer sentiment, the economy, and the news media', *FRB of San Francisco Working Paper* [Preprint], (2004–09). Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=602763 (Accessed: 24 March 2023).; Hester, J.B. and Gibson, R. (2003) 'The Economy and Second-Level Agenda Setting: A Time-Series Analysis of Economic News and Public Opinion about the Economy', *Journalism & Mass Communication Quarterly*, 80(1), pp. 73–90.
- 25 McCombs, M.E. and Shaw, D.L. (1972) 'The agenda-setting function of mass media', *Public opinion quarterly*, 36(2), pp. 176–187. ; McLeod, J.M., Becker, L.B. and Byrnes, J.E. (1974) 'Another Look At the Agenda-Setting Function of the Press', *Communication Research*, 1(2), pp. 131–166. ; Entman, R.M. (2003) *Projections of Power: Framing News, Public Opinion, and U.S. Foreign Policy*. Chicago, IL: University of Chicago Press (Studies in Communication, Media, and Public Opinion).
- 26 Candia, J. and Mazzitello, K.I. (2008) 'Mass media influence spreading in social networks with community structure', *Journal of Statistical Mechanics: Theory and Experiment*, 2008(07), p. P07007. ; Guo, L., Vu, H.T. and McCombs, M. (2012) 'An Expanded Perspective on Agenda-Setting Effects. Exploring the third level of agenda setting', *Revista de comunicaci3n*, 11(1), pp. 51–68.
- 27 Katz, E., Blumler, J.G. and Gurevitch, M. (1973) 'Uses and gratifications research', *The public opinion quarterly*, 37(4), pp. 509–523.
- 28 Chahrour, R., Nimark, K. and Pitschner, S. (2021) 'Sectoral Media Focus and Aggregate Fluctuations', *American Economic Review*, 111(12), pp. 3872–3922.
- 29 Starr, M.A. (2012) 'Consumption, sentiment, and economic news', *Economic Inquiry*, 50(4), pp. 1097–1111 ; Luo, X. (2017) 'Collective mass media bias, social media, and non-partisans', *Economics Letters*, 156, pp. 78–81.

holistic picture of the economic situation in the country³⁰. Fluctuations in consumer expectations are often explained by economic reasons. The results of the study showed that the sociological side of the issue is mostly overlooked due to the attachment of CSI researchers to methodology and psychological prerequisites.

A distinctive feature of this study — use of a mixed quantitative methodology to determine causal relationships between economic, social factors and changes in consumer expectations of Russians. The methodology of exploratory analysis and coding of media materials for subsequent inclusion in the composition of causal models based on econometric and structural regression design has been developed. To measure expectations, the methodology of the University of Michigan was applied with adaptation by Russian specialists³¹ based on a sociological survey of the population. The CSI is aggregated based on the individual responses of respondents to 5 questions-indicators of changes in financial conditions, expectations of an improvement in the economic situation in the country and the perception of opportunities to make large purchases. The final implementation of the index was carried out using a balanced approach³².

To determine the determinants of changes in consumer expectations at the micro level, the method of linear regression by the OLS-method. In different periods of the study of the dynamics of CSI, the approbation of the approach assumed the use of only macroeconomic indicators, which do not allow to study the individual properties of consumer expectations³³. The study notes the limited number of approaches to solving this problem (limitations of periods and contexts). In this study, the established practice of constructing multilevel hierarchical linear models with the inclusion of Bayesian methods of a posteriori analysis and MCMC sampling is expanded³⁴. This approach is new in consumer expectations research, but allowed to minimize errors in regression residuals and improved the quality of estimates.

30 Casey, G.P. and Owen, A.L. (2013) 'Good News, Bad News, and Consumer Confidence', *Social Science Quarterly*, 94(1), pp. 292–315.

31 Ibragimova, D. Kh., Krasilnikova, M.D. and Nikolaenko, S.A. (1996) 'Consumer Sentiment Index', *Public Opinion Monitoring: Economic and Social Change*, (6), pp. 36–42. (in Russian).

32 The index is calculated as follows: four indicators (CSI_{1,2,4,5}) have a 3-point ordinal scale: from the most negative value to the most positive. Their difference is the actual change in the level of consumer sentiment. In the third question (CSI₃), there is additionally a neutral assessment ("neither one nor the other"). To calculate this component, not only the "extreme" answers (%PP and %NN) are taken, but also those characterizing the tendency to agree with a negative or positive answer (%P and %N, respectively). To obtain an aggregated indicator (CSI_{ij}), a balanced approach is used: 100 percentage points are added to the difference in the proportion of positive and negative responses, which forms "zones" of positive (100-200 percentage points) and negative sentiments (range 0-100 percentage points). This allows you to additionally obtain the Current Status Index (CSI_{ICC}) — the average of the CSI₁ and CSI₅ indicators and the Consumer Expectations Index (CSI_{ICE}) — the average of CSI_{2,3,4}. As a result, the constant 100 is added to the difference in the proportion of positive and negative responses.

33 Tobin, J. (1959) 'On the predictive value of consumer intentions and attitudes', *The review of economics and statistics*, pp. 1–11.; Shapiro, H.T. and Angevine, G.E. (1969) 'Consumer Attitudes, Buying Intentions and Expenditures: An Analysis of the Canadian Data', *Canadian Journal of Economics*, 2(2), pp. 230–249. ; Ward, A.V. and Pickering, J.F. (1981) 'Preliminary testing of the explanatory power of the EEC consumer attitudes survey in the United Kingdom', *Applied Economics*, 13(1), pp. 19–34. ; Ibragimova, D. Kh. (2014) 'Consumer expectations of the Russian population (1996-2009): how cohorts, generations and age are interconnected', *Journal of Economic Sociology = Ekonomicheskaya sotsiologiya*, 15(3), pp. 24–69. (in Russian)

34 Lynch, S.M. and Bartlett, B. (2019) 'Bayesian Statistics in Sociology: Past, Present, and Future', *Annual Review of Sociology*, 45, pp. 47–68.

To determine the determinants of changes in consumer expectations at the macro level, the historically established practice of constructing models based on vector autoregression (abbreviated VAR)³⁵ is highlighted, where variables in the time series equation alternately become dependent and independent, explaining the relationship between them. However, the main problem of VAR is highlighted — the requirement to take into account a large number of checks of the source data for a reliable model of effect³⁶. The study proposed autoregressive modeling on distributed lags (ARDL), which uses the original time series, with differences or passed through the stages of trend/seasonality cleaning³⁷. Instead of predicting the behavior of variables, the causal nature is investigated (the search for an answer to the question whether a variable can be a statistically significant factor influencing the behavior of a single, established dependent variable). Such an equation, built on the basis of a single equation, is related to regression modeling, common in sociological research³⁸.

The methods of automated collection and parsing of news portals and websites based on Web-crawling and Natural Language Processing approaches, as well as a Semantic Network Approach, were used as the basis for processing and analyzing news reports³⁹. The basis of the development was a series of papers in which a discussion was held on the relevance of using classical methods of content analysis and arguments were given in favor of testing methods for digitizing text data using computerized algorithms to combine quantitative analysis and qualitative interpretation of the content of messages⁴⁰. The study suggests two methods for solving the problem⁴¹: 1) thematic modeling of the collected textual data was carried out using the Dirichlet Latent placement algorithm (LDA); 2) structural modeling of economic discourse was carried out on the basis of the semantic network approach algorithm developed by the author (SNAt). The

35 Adams, M. and Thornton, B. (2013) 'Black swans and VaR', *Journal of Finance and Accountancy*, 14, p. 1. ; Algaba, A. et al. (2020) 'Econometrics meets sentiment: an overview of methodology and applications', *Journal of Economic Surveys*, 34(3), pp. 512–547.

36 Kryshantovsky, A.O. (2000) 'Methods for time series analysis', *Monitoring Public Opinion: Economic and Social Change*, (2), pp. 44–51. (in Russian) ; Sugaipov, D.R. (2022) 'Forecasting consumption using the consumer confidence index in Russia', *Moscow University Economics Bulletin. Series 6. Economics*, (2), pp. 45–70. (in Russian).

37 Pesaran, M.H., Shin, Y. and Smith, R.J. (2001) 'Bounds testing approaches to the analysis of level relationships', *Journal of applied econometrics*, 16(3), pp. 289–326.

38 Semenov, A.V. (2020) 'Nerovnyy temp: dinamika gotovnosti k ekonomicheskim protestam v Rossii (1996-2019)', *Journal of Economic Sociology = Ekonomicheskaya sotsiologiya*, 21(4), pp. 107–124. (in Russian)

39 Van Atteveldt, W., Kleinnijenhuis, J. and Ruigrok, N. (2008) 'Parsing, semantic networks, and political authority using syntactic analysis to extract semantic relations from Dutch newspaper articles', *Political Analysis*, 16(4), pp. 428–446. ; Khalil, S. and Fakir, M. (2017) 'RCrawler: An R package for parallel web crawling and scraping', *SoftwareX*, 6, pp. 98–106. ; Larsen, V.H. and Thorsrud, L.A. (2019) 'The value of news for economic developments', *Journal of Econometrics*, 210(1), pp. 203–218.

40 Carley, K. (1993) 'Coding Choices for Textual Analysis: A Comparison of Content Analysis and Map Analysis', *Sociological Methodology*, 23, pp. 75–126. ; Puschmann, C. and Powell, A. (2018) 'Turning Words Into Consumer Preferences: How Sentiment Analysis Is Framed in Research and the News Media', *Social Media + Society*, 4(3), p. 205630511879772.

41 Degree Centrality is a metric indicating the actual number of associations per individual token. Shows the number of associations between words in a single text. The higher the metric, the more often the author of the article uses the token in his narratives. PageRank is a specialized metric developed by Google specialists. It allows you to calculate the degree of "importance" of a token in the semantic network based on the ranking of metrics for all tokens of the same text. The higher the metric value, the more valuable the token turns out to be, i.e. author of the research attaches more importance to this word, even if it is not often repeated in the text. See Borge-Holthoefer, J. and Arenas, A. (2010) 'Semantic networks: Structure and dynamics', *Entropy*, 12(5), pp. 1264–1302.

following specialized indexes were used in digitization and analysis: 1) Degree of Centrality (Degree Centrality); 2) Centrality based on the PageRank method. The sequence of methods provided a more “holistic” picture of associations around the key category under study.

Informational Basis of the Research

Three categories of data were used in the study: 1) microdata of consumer sentiment in Russia; 2) macroeconomic indicators (indices); 3) a corpus of economic news reports on a number of topics. Monthly and quarterly time series (opinion slices) were used to analyze the structure of CSI and identify key determinants at the micro and macro levels. A database has been formed that includes estimates of consumer expectations from FOM, Rosstat and a number of other sources at the macro level of analysis. The total time horizon is 2009-2019. The size of the study population was 130 months. As an experimental level of microanalysis (secondary research), microdata from sample surveys with partial inclusion in time series (the total volume of the sample population is \approx 126 thousand respondents) were used⁴². The collection of macroeconomic indicators⁴³ for joint modeling with CSI was carried out on the basis of the information and analytical portal “Investing.com”, EAESD (HSE) and Rosstat. To build a sample of economic news, specialized expert assessments and ratings of “Medialogy”, published on a monthly basis, were used. The choice of publications was determined by estimates of coverage and citation. The sample includes public, business printed publications (with Internet access) and online publications (9 sources in total). Based on rating information using the media database “Public.Ru” a text set of news reports has been prepared. Based on the analysis of applied research⁴⁴, the unit of observation was messages on one of the following topics: Brent oil prices, price growth / inflation, dollar exchange rate, unemployment rate, recession / crisis level. The initial size of the news corpus was 3254.653 unique messages, and the final volume was 813.203 messages (22%).

Scientific Novelty of the Research

1. Within the framework of this work, a fundamentally new synthesis of theoretical approaches is proposed, linking the concept of psychological economics by G. Katona with sociological

42 The Courier project was used as an array of microdata. The average sample population in each wave was 1,600 people. A more detailed description of the data is mentioned in the work: Pashkov S. G. (2021) Features of ARDL modeling in the sociological analysis of time series (on the example of economic news in the dynamics of IPN in 2010-2017) // *Sociology: methodology, methods, mathematical modeling*, 53. pp. 39-82. (in Russian)

43 Based on the analysis of applied research, these included the unemployment rate (in %), the inflation rate (for products and services together, in% compared to the previous month), the price of Brent crude oil, the exchange rate of the national currency (the ruble against the US dollar), indicators of the structure of income and expenses of the population.

44 Salatova, L.M. (2011) ‘Reflection of crisis images by Russian media’, *Political Linguistics*, (3), pp. 162–166. ; Казун, А.Д. (2017) ‘Как экономика в новостях влияет на новости в экономике? Обзор теорий о специфике и роли экономических дискуссий в сми’, *Экономическая социология*, 18(3), pp. 97–139. ; Starr, M.A. (2012) ‘Consumption, sentiment, and economic news’, *Economic Inquiry*, 50(4), pp. 1097–1111. Jacobs, L. et al. (2018) ‘Back to Reality: The Complex Relationship Between Patterns in Immigration News Coverage and Real-World Developments in Dutch and Flemish Newspapers (1999–2015)’, *Mass Communication and Society*, 21(4), pp. 473–497.

principles. For the first time, the concept of “embeddedness of consumer expectations” is conceptualized, along with the proposed operationalization of its properties. An original approach to measuring the stability of expectations has been developed, allowing for the assessment of changes at both the micro and macro levels of analysis.

2. The research proves the relevance and methodological advantages of including the media as an independent socially significant indicator that contributes to better tracking changes in the dynamics of consumer expectations of the population during periods of recession, crisis and economic stability.
3. A new methodological toolkit has been developed for the in-line collection, processing and content analysis of large news corpuses. With the help of a series of experimental cases, the productivity of defining the concepts under study in comparison with probabilistic approaches that have developed in research practice has been proved. The validity of the semantic network approach in the analysis of texts of different volume, structure and number of specialized terminology is proved. The mechanics of the potential formation of the population's reaction to economic events of a rooted nature is illustrated on separate text materials.
4. The connection between the intensity, severity of coverage of financial/economic processes, and the reaction of the population to these events through the study of CSI at the macro and micro levels is substantiated on a broad time perspective. Separate periods of structural pessimism and optimism of the population have been identified, supported by the quality of media coverage of events. Directions for the refinement of research measuring instruments for the full disclosure of the spectrum of entrenchment of consumer expectations are proposed.

Statements to be defended

1. It has been demonstrated that contemporary science lacks a systematic conceptualization of the sociological nature of consumer expectations. It has been proven that the sociological nature of consumer expectations manifests at both the micro and macro levels.

The results of a systematic review of the literature substantiate the need to revise the concept of psychological economics by G. Katona in the theoretical and methodological aspect. Katona's theoretical background played a role in the development of a methodology that ensures the study of subjective (psychological) effects at the macro level. Based on research materials, the value of CSI as an important macroeconomic tool has been proven. The evolution of economic theory has significantly advanced the issue of studying the asymmetry of information and the limited

rationality of consumers and raises doubts about the constancy of the rational nature of individual decisions⁴⁵. The existing tradition of CSI research does not allow us to explain the influence outside of individual factors. The need to study consumer attitudes at the micro level contributes to the consideration of the role of the individual's social environment, social well-being and other processes in making rational and irrational strategic decisions. The transition to the micro-level is limited by the insufficient degree of development of appropriate tools. We argue that in order to systematically substantiate the influence beyond individual factors, it is necessary to study consumer expectations at the micro level, taking into account the social environment, values and categories of well-being. The transition from the macro level to the micro level of consumer expectations analysis with a more in-depth study of the media as a principal agent allows us to formulate the idea of embeddedness as a function of substantiating the constancy of consumer expectations. The necessity for developing a new approach that transcends the methodological limitations of the consumer sentiment index is postulated. Prospects for integrating theoretical and methodological principles linking media and consumer expectations are discussed. Emphasis is placed on a deeper exploration of the semantic structure of journalists' discourse when covering economic events. The idea of embeddedness, known in the interpretation of M. Granovetter, acquires a broader perspective due to the consideration of its various subtypes in the interpretation of Sh. Zukin and P. DiMaggio. An analysis of a series of works has allowed for the problematization of the operationalization of the influence of the social environment and the search for a qualitative alternative in the form of three types of rootedness—structural, cultural, and institutional. The transition to institutional rootedness has enabled a shift to the macro level of interpreting the stability of consumer expectations. The updated conceptual framework proposed in the dissertation research includes the operationalization of key characteristics of consumer expectations, which aids in explaining the influence of institutional agents on the formation of subjective perceptions of economic processes and the corresponding level of consumer expectations.

2. Media as a social institution plays a key role in the reproduction of consumer expectations.

Research on consumer expectations in the macroeconomic context has identified periods of significant fluctuations in the index during major (or notable) economic crises prior to the 2010s. Since 2010, changes resulting from the Global Financial Crisis of 2008-2009 have occurred more slowly than in the 1990s, coinciding with the emergence of a “structural” pessimism effect, where assessments of the current state and consumer expectations consistently remained below the “neutral” zone of 100 points, indicating a predominantly negative outlook. A study conducted from

45 Stigler, G.J. (1961) ‘The Economics of Information’, *Journal of Political Economy*, 69(3), pp. 213–225. ; Stiglitz, J.E. (2000) ‘The contributions of the economics of information to twentieth century economics’, *The quarterly journal of economics*, 115(4), pp. 1441–1478.

2010 to 2019, based on data from FOM, Rosstat, and other sources, confirmed this effect at the macro level. A notable intensification of this effect was observed during the periods from 2014 to 2016, where trends in international politics and economics contributed to a slight increase in the Consumer Sentiments Index above 100 points in certain months. However, the prolonged nature of recovery from crisis periods, coupled with the impact of international economic restrictions and sanctions⁴⁶, perpetuated patterns of negative subjective perceptions of economic events within society. Comparative analysis of the dynamics of the Consumer Sentiments Index with several socially significant macroeconomic indicators and the quality of media “activity” revealed that changes exhibit a nonlinear character, with characteristic causality during the “phase” period of 2015 and the period of “negative stabilization” in 2016. Additionally, structural analysis of consumer sentiment dynamics highlighted the significant role of assessments regarding material conditions and motivations for making large purchases. Thus, it is noted that Russian consumers tended toward a cautious and pragmatic approach in responding to crisis changes, considering their low material status, weak readiness for saving strategies, and a more careful analysis of currency exchange rates and oil price quotations. The analysis of the Consumer Confidence Index at both micro and macro levels raises questions regarding the influence of media on this process.

3. The use of multi-level regression modeling of consumer expectations made it possible to identify a micro-sociological portrait of consumer expectations that is resistant to temporary fluctuations and regional inequalities, which is characterized by a subjective assessment of the socio-economic status of the family. Subjective wealth and female gender are among the key determinants that contribute to higher consumer expectations scores at the micro level. Key micro-sociological determinants that reduce consumer expectations of Russians include subjective poverty, living in rural areas and older age.

The study presents and tested a new methodological algorithm for digitizing text data, combining the principles of quantitative and qualitative content analysis on big data⁴⁷ — a semantic network approach. The key principle is the organization of encoding a separate unit of textual information as a knowledge graph (network of associative links). Each graph is analyzed in terms of the frequency of mentions and the structural position of the studied working categories, the integrity of the media frame. The algorithms used in the approach for calculating and aggregating the structural position of categories have significantly accelerated the procedure for collecting and processing news information in large volumes. The semantic network approach is complemented by thematic modeling algorithms (Latent Dirichlet Allocation) to identify key thematic groups and the

46 Viktorov I., Abramov A. The 2014–15 financial crisis in Russia and the foundations of weak monetary power autonomy in the international political economy //New political economy. 2020. T. 25. №. 4. C. 487-510.

47 Riffe, D. et al. (2019) Analyzing Media Messages: Using Quantitative Content Analysis in Research. 4th edn. New York: Routledge. ; Segev, E. (2022) Semantic Network Analysis in Social Sciences. London: Routledge.

degree of expression of working categories in them. The specifics of constructing narratives around oil and unemployment made it possible to see the quality of the “centering” of the image of oil and the desynchronization of associations with the image of inflation in the materials of public (online) publications. Combining the two approaches made it possible to improve the quality of interpretations of events that are not statistically significant either in text metrics or in models. The analysis of the dynamics of the degree of centrality and, in particular, the importance of a particular image proves the ambivalent nature of economic signals suitable for audience perception, which ultimately determines their embeddedness. The conducted series of case studies made it possible to verify the correctness of identifying associative links between similar concepts (for example, “price growth” and “inflation”). The significance of the selected economic topics (Brent oil, price growth / inflation, dollar, unemployment, recession/ crisis) was calculated using the mechanism of parallel calculations from the point of view of the frequency of associative connections and the level of semantic expression over time.

4. The leading determinants of the formation of consumer expectations at the micro level of analysis are related to the age and education of the respondent, as well as the categories of social environment and material well-being. The insufficiency of the current toolkit for complete proof of the logic of sustainability is stated.

Most existing studies have sought to prove the existence and nature of the constancy of the relationship between CSI and macro-dynamic indicators. The lack of progress in this direction leads to a request to identify the significance of individual differences in the formation of consumer attitudes and expectations⁴⁸. An analysis of existing empirical works has shown that the micro-sociological focus of analysis is poorly developed due to the insufficient degree of sophistication of measuring instruments – and despite the fact that the initial data is collected using sociological tools⁴⁹. In Russia, separate attempts have been made to micro-sociologically model data on consumer expectations over the time interval from 1996 to 2009⁵⁰. The results obtained earlier indicate the significance of the socio-demographic profile. This study continues the micro-level analysis using data from 2012-2018. A distinctive feature is the development and testing of a three-level hierarchical model, which includes individual-oriented factors, social environment, material security, regional and spatial characteristics. The obtained result indicates that the simultaneous inclusion of factors to assess changes in the CSI is an insufficient condition. An important determinant is time (year of research), rooted in certain historical and economic contexts. Verification of the results obtained using Bayesian multilevel regression modeling proved the

48 Ghosh, S. (2021) ‘Consumer Confidence and Consumer Spending in Brazil: A Nonlinear Autoregressive Distributed Lag Model Analysis’, *Arthaniti: Journal of Economic Theory and Practice*, 20(1), pp. 53–85.

49 Ludvigson, S.C. (2004) ‘Consumer confidence and consumer spending’, *Journal of Economic perspectives*, 18(2), pp. 29–50.

50 Ibragimova, D. Kh (2014) ‘Consumer expectations of the Russian population (1996-2009): how cohorts, generations and age are interconnected’, *Journal of Economic Sociology = Ekonomicheskaya sotsiologiya*, 15(3), pp. 24–69. (in Russian).

significance of the time continuum, and the need to refine the logic for constructing survey waves is substantiated. Additionally, the need to refine the measurement tools, including issues of social (material) well-being, social values, has been proven to substantiate the principles of functioning of the cultural rootedness of consumer expectations.

5. It has been demonstrated under which circumstances media activity compensates for the negative impact of macroeconomic parameters on changes in consumer expectations, and in which cases it exacerbates this impact. It has been proven that a high intensity of media coverage on topics such as oil and the exchange rate of the ruble significantly reduces the dynamics of consumer expectations. The representation of inflation in the media enhances consumer expectations, thereby offsetting the negative influence of objective macroeconomic parameters.

Research in the field of mass communication has been initiated in relation to CSI since 1990. With a sufficient level of knowledge, there is still a discussion in those areas where operationalization in the form of any additional indicators is possible. Unlike the established economic assumptions, which are strong enough even at the moment, human action in relation to the future turns out to be very "fictitious", difficult to predict. The media exerts influence in various ways, not only by providing operational information, but also by forming certain patterns of adaptation and resilience, which can potentially be rooted in nature. News coverage more often in a negative way in the financial, energy and other sectors of the economy inevitably affects the quality of life of Russians, their purchasing power and, to a greater extent, their understanding of what is happening — what can also be described as consumer sentiment. In this regard, the period from 2014 to 2016 is particularly attractive. in Russia, which does not fit into the global agenda, but has had a significant impact on the work of national economic institutions, which is reflected in inflation, rising prices for products and services. Tested on the quantitative phase of the model in the period from 2009 to 2019. allowed to state that rare footages of economic surveys (e.g., unemployment) can serve as a performative "signals", which are perceived by the individuals. At the same time, fairly regular messages regarding oil prices, currency exchange rates or inflation, due to the presence of signs of information overload, turn out to be not such a significant signal. The tonality of information messages may have a potential influence, which, however, methodically may not be "synchronized" with the possibilities of constructing appropriate ARDL models. The study proved the lack of statistical significance of the "initial" indicators, which may affect the operation of autoregressive models. It is proved that the influence of mass media in topics related to economic events depends on the specifics of the individual representation of the event and its presentation by the publication to a wide audience. The reviewed publications use different ways of

combining "complex" information. As a result, the intensity of publication of messages and the quality of presentation of economic events from the standpoint of the semantic structure of meanings become the key determinants of influence. It has been revealed that topics less frequently mentioned in the media, such as unemployment or inflation, are less significant predictors during periods of serious economic changes than topics that appear more often, such as oil or the ruble exchange rate. At the same time, when macroeconomic variables are excluded and only indicators of the intensity and quality of the semantic structure of news information remain, the impact of news becomes very pronounced, significantly reducing the dynamics of consumer expectations. The image of inflation in the media has a significant negative impact on consumer expectations if mass communication institutions reproduce this discourse on a regular basis one month before the survey of the population about their economic expectations. Thus, the image of inflation in the media and its reflection at the level of macrostatistics tends to influence a decrease in consumer expectations only at time t (the current month of observation). The image of unemployment, characterized by a significantly lower intensity of publications in mass media materials, plays a positive role in improving consumer expectations, unlike macroeconomic data. News about oil prices, unlike news on the ruble exchange rate, act as a significant information signal for the population about the situation in the economy.

Structure of the Dissertation

The dissertation consists of an introduction, three chapters, a conclusion, a bibliography, which contains 381 sources, and one appendix. The total amount of work amounted to the 174 pages.

Introduction

- Relevance and Research Problem
- Object, Subject, Aim, and Objectives of the Research
- Theoretical and Methodological Foundations of the Research
- Information Base of the Research
- Scientific Novelty of the Research
- Main Results and Propositions for Defense
- Personal Contribution of the Author to the Methodology and Data Collection of the Research
- Testing of Research Results
- Chapter 1. Consumer Expectations: From Economic to Sociological Analysis

1.1 The "Classical" View on the Problem of Consumer Expectations: Economic Determinism and the Absence of Sociological Progress

1.2 Main Approaches to Analyzing the Determinants of Consumer Expectations: The Role of Economic Information and Macroparameters

1.3 Interdisciplinary Evolution: Preconditions of the Social Nature of Expectations

1.4 Modern Sociological Perspective on the Conceptualization of Consumer Expectations: The Role of Structural and Cultural Embeddedness

1.5 Institutional Embeddedness: The Role of Media and the Stability of Consumer Expectations

- Main Conclusions of Chapter 1

Chapter 2. Methodological Program of the Research

2.1 Hypotheses and Assumptions of the Research

2.2 Research Design

2.3 Operationalization and Measurement of Research Concepts

- 2.3.1 Operationalization of Consumer Expectations and Key Determinants
- 2.3.2 Operationalization and Measurement of Economic News (Media Level)
- 2.4 Information Base of the Research and Data Collection Mechanisms
- 2.5 Degree of Methodological Development of the Research
- 2.5.1 Revision of Methods for Modeling Consumer Expectations at the Micro Level
- 2.5.2 Construction of the Dependent Variable ("Delta-CPI") for the Micro Level
- 2.5.3 Features of Modeling Consumer Expectations at the Macro Level
- 2.5.4 Revision of Research Principles in Media in the Context of Consumer Expectations
- Conclusions of Chapter 2

Chapter 3. Dynamics of Consumer Expectations and the Intensity of Economic Media Discourse

3.1 General Dynamics of Consumer Expectations from 2009 to 2019

3.2 Structural-Comparative Analysis of CPI Dynamics

3.3 Dynamics of CPI in Terms of Socio-Demographic Profile

3.4 Comparison of CPI Dynamics with Macroeconomic Trends

3.5 Specificity of the Representation of Economic Events in the Media Over Time

- Conclusions of Chapter 3

Chapter 4. Determining the Influence of Socio-Demographic Profile, Macroeconomics, and Media on Consumer Expectations

4.1 Influence of Individual Effects on Consumer Expectations

- 4.1.1 Descriptive Structure and Adequacy Assessments of Used Predictors
- 4.1.2 Study of Socio-Demographic Profile and Time Factor

Conclusions of Section 4.1

4.2 Assessment of the Influence of Macroeconomics and Mass Media on the Dynamics of Consumer Expectations

- 4.2.1 Descriptive Characteristics and Functional Diagnostics of Indicators
- 4.2.2 Influence of Macroeconomics and Media on the Dynamics of Consumer Sentiment

Conclusions of Section 4.2

Conclusions of Chapter 4

General Conclusion

Main Findings of the Dissertation Research

Limitations of the Research and Future Directions for Developing the Topic

List of References

Appendices

Overview of the content of Dissertation

The introduction demonstrates that starting from the late 1990s, a series of past financial and economic crises and related changes in the socio-economic situation of the population necessitate a separate, detailed analysis of the variability (nature) of consumer expectations, including the presence/absence of adaptation to the ongoing changes in the economy. It is noted a significant increase in researchers' attention to the topic of mass media, which differently cover changes in the economy during periods of uncertainty. The necessity of focusing attention on this institution, ways of measuring and analysis, is proved. This is related to the research problem: what determines the change in consumer expectations — economic/institutional (objective) or socio-demographic (subjective) conditions. To answer the question, the section defines the object, subject, aim, and objectives of the research, describes the theoretical and methodological foundations of the research, and presents the novelty and propositions submitted for defense.

In Chapter 1, the conceptualization of the research object and various options for operationalization are presented. Theoretical approaches and methodological foundations from economic psychology, economic sociology, and mass communication theory are formulated. The literature review is structured around three key focal points.

In Section 1.2, the concept of "consumer expectations of individuals" is conceptualized. This concept is grounded in a fundamental theoretical framework proposed in the 1950s by American psychologist G. Katona. His scientific direction—psychological economics—serves as the key subject of discussion in this section. The classical view of the nature of consumer expectations is examined through the lens of economic determinism. A review of early works indicates that psychological economics represents a pivotal, "classical" stage in the development of behavioral economics, an essential component of economic psychology. Its theoretical foundation, first institutionalized by French sociologist G. Tarde in the early 20th century, subsequently lacked sociological support, yielding to pro-economic approaches (A. Smith, J.S. Mill, J. Bentham, T. Veblen, J. Keynes, M. Friedman, J. Duessenberry, C. Manski) and pro-psychological approaches (H. Simon, A. Tversky, D. Kahneman, R. Thaler, R. Curtin, E. Angner, J. Levenstein). The primary focus of the review is on the methodological principles for measuring consumer expectations in the form of the Consumer Sentiment Index. The institutionalization of the methodological apparatus of

psychological economics occurred in the 1940s, leading to the development of an original methodology for measuring consumer sentiments through mass surveys. Based on the empirical research review aimed at testing the effectiveness of the index from the 1950s to the 1990s by researchers (G. Katona, R. Likert, E. Mueller, S. Burch), a thesis is formulated: since the 1990s, there has been a need to revise methodological principles, particularly concerning the measurement of consumer psychology, the consideration of demographic differences, and the rapid changes in economic conditions. Special attention is given to establishing causal relationships. Currently, the question of the "sensitivity" of the Consumer Sentiment Index to changes and the decisions made by individuals, as well as the impact of external factors, remains a topic of discussion.

In Section 1.3, the exploration of this thesis continues with an overview of the approaches to incorporating economic and non-economic factors in explaining changes in consumer expectations. Initially, studies that predominantly highlight economic factors are examined—these include the structure and dynamics of durable goods consumption, inflation rates, unemployment, GDP, and market conditions in the country (K. Garner, N. Souleles, E. Lozza, R. Dixon). The findings demonstrate varying qualities of influence, allowing for a transition to sociological approaches and theories. Since the mid-1990s, attempts have been made to conceptualize the role of socio-demographic factors. One example is the examination of the variability and constancy of consumer expectations from an intergenerational perspective, justifying the potential focus on sociological foundations (D. Ibragimova). Another example is the study of consumer expectations in an interregional context; cases are also mentioned that explore consumer sentiments alongside issues related to the structure and dynamics of the social fabric of the population in Russia (D. Ibragimova, R. Kurtin, I. Dementyeva, A. Karavai, L. Kitrar). The limited number of works generates the problem of identifying the sociological nature of consumer expectations, referred to as the "micro-level/macro-level" issue. The necessity of developing a new approach is postulated, one that transcends the methodological limitations of the consumer sentiment index. The prospects for integrating theoretical and methodological principles regarding the relationship between media and consumer expectations are discussed. A deeper investigation into the semantic structure of the discourse of media agents during the coverage of economic processes is proposed (E. Colleoni, I. Himelboim, A. Kazun). Another direction involves examining the phenomenon of embeddedness (K. Polanyi, M. Granovetter, B. Uzzi) as a "sociological" link between people's attitudes and their consumer behavior. Based on the review results, a key thesis is formulated: a comprehensive understanding of the nature of consumer expectations is possible only with a more structured, specialized analysis of the nature of embeddedness (P. DiMaggio, S. Zukin, D. Decache).

Section 1.4 provides a more detailed elaboration of the previous thesis. A new concept is formulated — "constancy of consumer expectations", which acts as a key property of changes in consumer sentiment and expectations. As a result, an interpretation of consumer expectations from the standpoint of embeddedness is proposed and substantiated. The logic of the rationale begins with a discussion of L. Thévenot's theory of "self-fulfilling expectations". The hypothesis of externally "imposed" solutions and interpretations that contribute to the formation of certain expectations is highlighted. An analysis of a series of works allowed to problematize the operationalization of the influence of the social environment and the search for a qualitative alternative in the form of three types of embeddedness — structural, cultural and institutional. The text provides a detailed disclosure of each of them. For structural embeddedness, the emphasis was placed on the existing systems of horizontal networks of interaction between social and economic groups, where economic action is "embedded". Within the framework of cultural embeddedness, the idea was introduced that the cultural environment plays a significant role in shaping a set of social, cultural and "generational" schemes and categories of perception of reality, including those of an economic nature. Cultural embeddedness as the "nature" of economic events implies an emphasis on labeling market situations as "black swans". The transition to institutional embeddedness allowed moving to the macro level of interpreting the constancy of consumer expectations. Recurring social orders and institutions provide a systematic work of economic agents (business agents, the state, the media). The empirical examples described in the section made it possible to identify the limitations of their measurement on the scale of mass surveys. One of the solutions to the problem was an appeal to the institutions of the media, which became a supporting approach in the study. It allows determining the functional role of the media both from the macro level (economy) and the micro level (individual economic decisions and expectations). It is assumed that the media occupy a special functional level (Y. Beckert, J. Owen, E. Zuckerman, E. Dugin), remaining at the macro level of analysis. The section focuses on discussing theoretical and methodological approaches to studying the influence of the media on the economic behavior of the population. First of all, this is an analysis of the principles of the institute's work, including issues of agenda management, effects of media representation of events and audience behavior (M. McCombs, D. Shaw, R. Entman, L. Guo, Y. Cheng, M. Levin, R. Nabi). Then the functional role of mass communication in attracting attention to the professional qualities of journalists, the work of the publication as a whole as the "last mile" is disclosed. Special attention is paid to the theory of agenda setting and framing. As a result, a final conceptual research model and main hypotheses are formed. A scheme for distinguishing levels of analysis is presented, under which the main assumptions and directions of work were formulated.

Chapter 2 presents the dissertation research program. In particular, it describes the design, information base, operationalization and measurement options for the working concepts. **Section 2.1** presents three hypotheses and six assumptions based on the results of Russian studies indirectly related to the topic under consideration: 1) the hypothesis of the influence of age, education and household characteristics on consumer expectations; 2) the hypothesis of the impact of inflation, unemployment and the national currency exchange rate on the dynamics of the Consumer Sentiments Index; 3) the hypothesis of the influence of the semantic structure of categories of economic events in the media on the dynamics of consumer expectations. A methodological program is presented and described, implementing the tasks set in the study, consisting of three stages. **Section 2.2** carried out the first stage — the operationalization of the constancy of consumer expectations, which allowed: 1) to form a system of indicators, where CSI represents the property of variability in the dynamics of CSI, macroeconomic indicators and the media; 2) To determine the structure of CSI in terms of highlighting the key determinants; 3) To form a sub-program for collecting and processing data of textual news on the economy. As a result, to study the dynamics of consumer expectations at the micro and macro levels, a methodology for calculating the Consumer Sentiments Index (CSI), individual indices for each respondent, and the Index of the difference between individual and general assessments — delta-CSI — was prepared. For media analysis, based on a literature review, a list of working analytical categories was formulated, and information coding schemes were defined. **Section 2.3** implemented the second stage of the study — the organization of data collection and systematization. The structure of the sample and the logic of selecting observations are specified. The program for collecting and preparing data is described. Three categories of sources were collected — microdata from sample surveys (secondary experimental data), materials from economic statistical platforms (aggregated data), databases of media news messages (individual texts collected by crawling from media platforms/websites). The processing procedure for the collected microdata included the calculation of CSI, delta-CSI and the aggregation of the socio-demographic profile of the respondents. For the media, a sub-program ("pipeline") was formed, including textual data cleaning, lemmatization, stemming, and constructing a single corpus of messages. **Section 2.4** presents the mechanism for data analysis and obtaining the corresponding results with subsequent discussion. For the first time in the practice of analyzing the dynamics of CSI on Russian data, a scheme of multilevel research of the influence of the socio-demographic profile of respondents on the formation of delta-CSI using the method of Bayesian multilevel modeling and Markov-Chain Monte-Carlo (MCMC-coupled) simulations is proposed. The results obtained on a large volume of simulations made it possible to rank individual and social characteristics over different time periods. An original method of structural coding and content analysis of textual data containing economic terms and processes (combining SNAt and

LDA methodologies) has been created, which is not widely used in existing studies. Probabilistic topic modeling made it possible to identify hidden topics and patterns in large datasets, generate ideas that formed the basis of semantic modeling. For the first time in the study of CSI, an alternative methodology of econometric data modeling based on autoregressive distributed lag (ARDL) models was applied, provided the opportunity to identify causal relationships between economic news and changes in the level of consumer expectations depending on the intensity and "centrality" of the economic event in news publications, as well as the dynamics of macroeconomic indicators.

Chapter 3 presents the first part of the description of the main findings of the dissertation research. It provides a structural descriptive characteristics of the dynamics of consumer expectations, incorporating determinants at both micro and macro levels of analysis, as well as the structure of discourse surrounding economic events in the media. **Section 3.1** is dedicated to the analysis of the overall dynamics of the CSI, along with the current conditions index and the consumer expectations index. The dynamics reflect the aggregate level of consumer sentiment observed from the beginning of 2009 to the end of 2019, allowing for the examination of a series of crisis phenomena and periods during which the Russian economy reached a positive plateau until the onset of another major "black swan" event in the form of the coronavirus pandemic. The analysis of the CSI dynamics, based on data from the Public Opinion Foundation (FOM), Rosstat, and other sources, allows for the identification of a series of transitional phases in consumer sentiment assessments, shifting from a state of equilibrium to one of structural fluctuations. It is noted that the consequences of the Global Financial Crisis continue to manifest and evolve in discussions regarding the "fair" and "social" functioning of market environments, ultimately shaping the strategies and economic "feelings" of individuals, which can be characterized as entrenched uncertainty. This was demonstrated through the study of four distinct periods (2009-2011, 2012-2013, 2014-2016, 2017-2019), each of which is characterized by specific dynamics of consumer sentiment. **Section 3.2** deepens this aspect of analysis by focusing on the structure of consumer sentiment dynamics across different projections. Primarily, it compares the dynamics of the CSI, as measured by FOM, with those of Rosstat and other sources. An important finding is the observed "synchrony" of assessments across different time periods, which demonstrates the resilience of the CSI dynamics throughout the entire study period. Additional analysis of the individual components of the CSI justifies the significant decline in the CSI since 2015 due to substantial changes in the material conditions of households, while assessments of the economic situation remained maximally positive. The identification of this trend allowed for the formulation of a hypothesis regarding the role of individual (socio-demographic) characteristics of individuals and households in constructing the aggregated CSI. In **Section 3.3**, the dynamics of the CSI are

structured by socio-demographic profiles, enabling a more comprehensive analysis of differences. In particular, it was highlighted that assessments of consumer sentiment are associated not only with the level of material well-being or age but also reveal additional differences related to education, region of residence (including the size/type of settlement and district), as well as gender specificity. The comparison of different data sources emphasizes the need for improving existing tools that allow for the examination of socio-demographic profiles in dynamics. **Section 3.4** examines the macroeconomic context, including "objective" and "socially significant" economic indicators. Their comparison with the dynamics of the CSI and the Consumer Expectations Index (ICE) allows for the identification of signs of "entrenched pessimism" in consumer sentiment, which intensifies in the context of a local crisis. This supports the hypothesis regarding the functional role of the CSI in tracking the dynamics of economic processes "from the bottom up." Notably, significant similarities are found when comparing the CSI with the dynamics of oil prices, the dollar exchange rate, real income levels, and consumer prices. However, a direct comparison of time series raises questions about the presence of a mediating effect of consumer sentiment. The analysis of the CSI at both micro and macro levels leads to the hypothesis of the influence of mass media on this process. In **Section 3.5**, the trend of media discourse development regarding economic news is examined in comparison with the dynamics of the CSI. It was shown that the media, in general, effectively performs the function of covering economic events, intensifying their focus shortly before and during crises. However, a structural analysis of the dynamics of media intensity revealed that the preconditions for the emergence of the economic crisis of 2014-2016 may be linked to the increased activity of media outlets in the two years leading up to the observed period. Special attention was given to categories of events that can be characterized as "culturally entrenched" in economic terms—such as news about inflation, the dollar exchange rate, and recession. Semantic network (graph) analysis further indicated an anomalous media focus on crisis and oil topics at the onset of the crisis in 2014.

Chapter 4, "Determining the impact of the media on consumer expectations in crisis periods," presents the results of a study of the determinants of changes in consumer expectations depending on socio-demographic, macroeconomic and media factors. **Section 4.1** presents the results of a micro-level study aimed at assessing the impact of respondents' socio-demographic profiles on their individual assessments of consumer sentiment and expectations. **Paragraph 4.1.1** provides a descriptive structure of the sample under study. Based on the results of the assessment of measures of the central trend and frequency distributions, the adequacy of the sample structure in terms of the socio-demographic profile of respondents was revealed, its correspondence to the general population—the population of Russia aged 18 years and older. The value of the deviation of individual estimates of the consumer sentiment index from the aggregated sample average

(CSI_{IND}), with an average of $-0.8 - 3.5$ percentage points (standard deviation 42-45 percentage points), was used as a dependent variable. The predictive capabilities of CSI_{IND} were evaluated. Based on hierarchical regression modeling, an idea was obtained about the contribution of individual components to the construction of the aggregate Index: the "delta Index of Consumer Expectations" (ICE_{IND}) has the strongest predictive ability, which explains the variation of the delta- CSI by 85%. The obtained results served as a justification for further consideration of CSI and ICE as key objects of analysis and comparison. In **Paragraph 4.1.2**, three models of the hierarchical structure are constructed, highlighting the following characteristics: 1) individual socio-demographic characteristics (gender, age, education); 2) with the addition of household characteristics (household size, children, subjective assessment of financial situation, income, family status); 3) with the addition of the respondent's residence and time factor. The results of the description of individual selected periods ("stability" 2012-2014, "turbulence" (2014-2016) and "adaptive recovery" (2016-2018) have been prepared for the considered models. All the studied models were tested and adjusted taking into account the heteroscedasticity of regression residuals, the absence of pronounced multicollinearity, and the sequential inclusion of factors significantly expanded the interpretation of the dependent variable. The results showed that, on average, women demonstrate more positive assessments of consumer sentiment compared to men, which is partially consistent with studies of crisis periods (1997). The younger generation of respondents is more optimistic about future changes, which may be related to their priorities, such as self-realization, focus on economic stability, a healthy lifestyle and meaningful values. The education factor turned out to be unstable in terms of statistical significance, which can be explained by the different strength and structure of an individual's investments in their human capital, as well as the quality of consumption of digital devices and technologies. An increase in the "strength" of income growth (logarithm) increases consumer sentiment and expectations more strongly compared to other effects. However, the category of material well-being clearly fragments subjective assessments of moods, indirectly enhancing the effect of constancy of negative/positive expectations. Household size and place of residence (urban or rural) they also have an impact on consumer expectations. Larger households, especially in rural areas and small towns, show lower levels of consumer sentiment and expectations. To validate the results obtained, multilevel hierarchical linear modeling was applied with the inclusion of Bayesian methods of a posteriori analysis and MCMC sampling ("Bayes MLM"), whose results, taking into account differences in survey time and region of residence, confirmed the constancy of regression coefficients. In **conclusion to Section 4.1**, the results of testing the hypothesis and assumptions are indicated (partially confirmed), limitations and further directions of research.

In **Section 4.2**, time series models describing the impact of macroeconomic indicators and the media on changes in the level of consumer expectations of individuals are considered. The key contribution of the analysis is identified — the development of effective tools for the simultaneous assessment of these characteristics, caused by the need to revise the conclusions of existing foreign and few Russian studies. The key contribution of the study is the use of autoregressive models with distributed lag (ARDL), which also differs from the analysis based on vector autoregressions (VAR) accepted in economic practice and is related to the existing practice of regression modeling in sociological research. **Paragraph 4.2.1** describes the measures of the central trend for macroeconomic parameters and semantic network metrics: the unemployment rate, the consumer price index, the price per 1 barrel of Brent crude oil, the exchange rate of the national currency against the US dollar, the per capita income index, the index of household expenditure on final consumption, the intensity of coverage of economic news in six main headings, the degree of centrality of the token in the headings and the degree of semantic expression of the plot category in the selected headings. A descriptive description of the data used is given and it is indicated that macroeconomic indicators show moderate values with some volatility, reflecting a moderately stable, "controlled" economic situation in the period under review. Separately, data analysis showed a moderately high intensity of news coverage with high volatility, as well as moderate values of the degree of centrality of the token and the degree of the eigenvector with moderate volatility. Within the framework of this paragraph, an additional study of the nature of data series was conducted, and an idea was obtained about the non-stationary nature of macroeconomic indicators against the background of the stationary indicators of the discourse of economic news, which justified the need to refine the data by constructing ARIMA and further switching to ARDL modeling. In **Paragraph 4.2.2**, a system of econometric equations is constructed and analyzed, describing the functional dependence of the Consumer Sentiment Index and the Consumer Expectations Index on the predictors highlighted above, taking into account possible differences in the magnitude of the lag effect. Based on the results of a step-by-step (hierarchical) analysis of the CSI/ICE relationship with individual groups of determinants, two final configurations were formed and tested, characterizing: 1) the relationship of macroeconomics and the intensity of coverage of economic stories in the media with CSI/ICE and 2) the relationship of macroeconomics and the degree of severity of categories of economic events in the media with CSI/ICE. The performed series of models showed the presence of cointegration in the trends of time series, indicating the influence of the considered determinants in the short and long term. Conclusions are formulated about the role of the media and macroeconomics in changing the level of consumer sentiment and expectations. Firstly, the statistical significance and dependence of consumer expectations on macroeconomic indicators in the short term have been proved. In particular, attention is focused on indicators that directly affect

the change in the rate of disposable income and the structure of household spending — the ruble exchange rate against the dollar, changes in the inflation rate, changes in the personal income tax in the previous time period (-1 month). The potential increase in unemployment has a negative impact on expectations and the level of the current (material) condition of households. The second conclusion is that the dynamics of oil prices, actively published in the media during the period under review, showed signs of a lack of statistical significance, which means an indirect, indirect effect on consumer sentiment and expectations through the exchange rate of the national currency. The third conclusion is a "passive" but symmetrical change in the dynamics of CSI/ICE under the simultaneous influence of macroeconomics and the media. With the growing attention of news outlets to the problem of inflation (any tone of coverage), the dollar exchange rate or recession, estimates of consumer expectations tend to decrease. The corresponding changes in macroeconomics enhance this effect. The fourth conclusion: the degree of severity of the category of economic event in the media (measured on the basis of the PageRank metric) is the most effective predictor of changes in CSI and ICE compared with other semantic network metrics. In conclusion to **section 4.2**, the basic effectiveness of the methodology used when working with a large volume of disparate data types is noted and demonstrates its suitability for expansion at the micro level (including issues of social values, subjective well-being) and at the macro level (expansion of quantitative indicators of discourse, macroeconomics).

In Conclusion, the results of the dissertation are described, which are formulated in the form of the following theses: (a) the thesis on the need to form a sociological understanding of consumer attitudes and expectations of people by including and distinguishing structural, cultural and institutional embeddedness for further study of the potential role of non-economic factors and characteristics of individuals in the formation of their subjective expectations and moods; (b) the thesis about the paradox of "rooted pessimism" of consumer sentiments during a local crisis, especially expressed during the phase shift of consumer sentiment in 2014-2016; (c) the thesis about the significant impact of the socio-demographic profile on consumer expectations of Russians and the need for further refinement of tools to substantiate the embeddedness of consumer expectations at the micro level; (d) the thesis on the impact of macroeconomic processes on consumer sentiment through the quality of functioning of the institute of mass communication. Limitations at the methodological and analytical levels are described separately, directions for further work are proposed, and the thesis of including indicators of media consumption and media activity in the structure of the CSI measurement toolkit is presented.

Practical Significance of the Work (Personal Contribution)

The materials of this dissertation research are valuable for understanding the principles and factors influencing the constancy of consumer expectations among Russians, as well as for comprehending the functional role of mass media in this process. The experience gained from regression modeling and econometric analysis may be beneficial for the further development of survey instruments within the framework of analyzing the dynamics of the Consumer Sentiment Index and the Consumer Sentiments Index in scientific and applied sectoral monitoring (longitudinal) studies. The method of analyzing mass media as big data, validated by the author, can be utilized for teaching the fundamentals of semantic network analysis of documentary data, applied forecasting, sociological data analysis, and the development of applied software programs (including R). Additionally, it can serve as a foundation for teaching courses on consumer expectations sociology, economic sociology, sociological research methods, and other related disciplines.

The dissertation results were presented in the following articles (in Russian):

1. Pashkov S.G. (2019) «Kogda proval'nyy kontrakt luchshe vpolnimogo»: kak «novoe» ponimanie fi-nansovykh obyazatel'stv na rynke ICEtechnogo kreditovaniya privelo k finansovomu krizisu v SShA i vo vsem mire ["When a Failed Contract is Better than Doable": How a "New" Understanding of Financial Obligations in the Mortgage Market Led to the Financial Crisis in the United States and Around the World. Book Review on Appadurai A. (2015) *Banking on Words: The Failure of Language in the Age of Derivative Finance*. Chicago, IL: University of Chicago Press. 176 p.]. *Journal of Economic Sociology = Ekonomicheskaya sotsiologiya*, vol. 20, no 5, P. 188-201. DOI 10.17323/1726-3247-2019-5-188-201 (in Russian).
2. Pashkov S.G. The Semantic Network Approach: Opportunities and Restrictions (Example of Inflation Image in the Media). *Sotsiologicheskiy Zhurnal = Sociological Journal*. 2020. Vol. 26. No. 2. P. 8-30. DOI: 10.19181/socjour.2020.26.2.7262 (in Russian).
3. Pashkov S.G. (2024) Peculiarities of ARDL modeling in sociological time series analysis (the case of economic news in the dynamics of CSI in 2010-2017). *Sociology: methodology, methods, mathematical modeling (Sociology: 4M)*, no. 53. P. 39-82. DOI: 10.19181/4m.2021.53.2 (in Russian).
4. Pashkov S. G. (2024) "Perphormativnye resheniya v usloviyakh sistemnoy neopredelyonnosti»: kak deystvovala FRS SShA vo vremya mirovogo phinansovogo krizisa 2007-2008 gg. ["Performative Decisions in Conditions of Systemic Uncertainty": How the US Federal Reserve Sought Solutions During the Global Financial Crisis of 2007-2008. Book Review: Abolafia M. Y (2020) *Stewards of the Market: How the Federal Reserve*

Made Sense of the Financial Crisis, Cambridge, MA: Harvard University Press. 224 p.].
Journal of Economic Sociology = Ekonomicheskaya sotsiologiya, vol. 25, no 1, P. 161-175.
DOI: 10.17323/1726-32472024-1-161-175 (in Russian).

5. Pashkov S.G. (2024) Neekonomicheskoe ustroystvo potrebitel'skikh nastroeniy: rol' sotsial'noy ukorenjonnosti v analize izmenchivosti ozhidaniy [Non-Economic Structure of Consumer Sentiments: The Role of Social Embeddedness in Variability of Consumer Expectations]. *Journal of Economic Sociology = Ekonomicheskaya sotsiologiya*, vol. 25, no 3, pp. 183–212. doi: 10.17323/1726-3247-2024-3-183-212 (in Russian).