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A PATTERN FOR ASSESSMENT OF THE ECONOMIC SITUATION BY ENTERPRISES IN AN UNSTABLE ENVIRONMENT

This article presents the results of a study that aimed to assess whether entrepreneurs have changed their patterns of assessment of the economic situation amid the unprecedented instability and uncertainty in the business environment during the last few years. An econometric analysis was carried out using qualitative indicators from the GUS business cycle survey. We distinguished two periods of analysis: relatively stable (from January 2000 to February 2020) and unstable (from March 2020 to January 2023). Our results show that, regardless of the type of indicator and subperiod of analysis, the phenomenon of inertia was the main factor influencing diagnosis indicators. In all analyzed areas of companies' activity (general situation, financial situation, production) we noted a change in the pattern of impact of forecast indicators on diagnosis indicators; this was the result of a change in the conditions of the external environment (expectations effect).

Keywords: business tendency survey, manufacturing industry, nertia phenomenon, expectation effect, economic instability.

1. INTRODUCTION

The subject of the study is in some measure part of the research on qualitative indicators of economic activity and their usefulness for describing and forecasting short-term changes in economic activity[3]. The basis for constructing qualitative indicators of the economic situation are the results of research using a survey conducted among participants of

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[3] There are two main fields of studies assessing the diagnostic and prognostic usefulness of qualitative economic indicators: works in which series of selected economic indicators are confronted with the results of relevant quantitative research and works that assess the ability of enterprises to correctly predict their future situation. In the second of them, two types of analyzes are carried out: comparing the forecast indicators with the relevant quantitative indicators and comparing of forecast indicators with diagnosis indicators from previous editions of the business cycle survey ("Zeszyt Metodologiczny" 2018, p. 23).

economic life to determine current and future trends in the national economy or in its individual sectors or industries (Byrt, Kowalczyk, Rekowski, 1982). Answering the questions included in the business cycle survey, respondents express their opinions on the direction of changes in various economic categories describing their current economic situation (diagnosis) and expectations regarding its changes in the near future, usually within the next three months (forecast) (Bieć, 1996). Qualitative economic indicators (diagnoses and forecasts) are therefore a numerical, synthetic carrier of immeasurable information about the moods, beliefs, and expectations of entities regarding the development of specific economic phenomena.

The theoretical background of the business cycle survey is the assumption that short-term changes in the level of economic activity depend not only on objective factors, but also to a large extent on the moods and expectations of participants of economic life (Gaweł, 1997; Tomczyk, 2002). According to J.M. Keynes and other representatives of the psychological approach to business cycle analysis, the decisions of individual economic entities are determined by subjective reasons (Przybylska-Kapuścińska, 1990; Estey, 1959). Waves of optimism and pessimism arising among business entities affect their behavior regardless of the objective reasons. What's more, these subjective feelings may turn out to be much stronger than objective factors and may play a decisive role in the economic decisions of entrepreneurs and consumers. In this context, the subjectivity of the information collected in the business cycle survey is widely recognized as one of the advantages of qualitative indicators (Hubner, Lubiński, Małecki, Matkowski, 1994). On the other hand, this feature raises doubts as to the quality of opinions formulated by the surveyed entities, and thus the usefulness of qualitative indicators in economic analyses. It is emphasized that respondents are not always able to properly recognize market reactions (uncertainty as to the competence of respondents), and their opinions may be influenced by temporary emotions (unjustified optimism or pessimism). This may significantly distort the picture of economic reality illustrated by qualitative indicators, causing an incorrect description of the studied phenomenon (Adamowicz, Walczyk, 2012; Gruszczyński, Kotłowski, 2008).

The results of the studies on economies in which business cycle survey has a long tradition basically confirm that the qualitative indicators reflect the actual course of economic processes (it is consistent with the description obtained from quantitative data) and allow for formulating short-term forecasts whose quality is sometimes better than those formulated based on naive models or quantitative time series[4]. Similar conclusions are provided by the results of research conducted for the Polish economy[5]. An improvement in the diagnostic and prognostic properties of qualitative indicators was observed along with the ongoing transformation process (with the extension of the time of system changes), the adjustment of Polish entities to the rules of the market economy, and the rationalization of their expectations (Adamowicz et.al., 2002b; Zatoń 2015). On the other hand, some authors indicate that respondents cannot correctly assess neither the current nor the future economic situation due to the volatility of business conditions and the accumulation of

[4] Vide: (Tomczyk, 2002; Kalinowski 2015).

[5] It should be noted that the authors' conclusions as to the usefulness of qualitative indicators in diagnosing and forecasting the economic activity differ due to different temporal, subjective and spatial scopes of research, as well as the methods of analysis and indicators used (Adamowicz, Dudek, Walczyk, 2002a; Adamowicz, Dudek, Walczyk, 2002b; Mocek, 2002; Matkowski, Nilsson, 1997; Włodarczyk, Małczęć, Pala, 2021; Guzik, Bosacki, 2009; Guzik, 2009).

random events in the environment (Adamowicz, Walczyk, 2017; Adamowicz et.al., 2002b; Włodarczyk et.al., 2021; Dudek, 2001). This view is confirmed by the results of a study conducted by E. Adamowicz and K. Walczyk for the Polish economy in 2013–2017 (Adamowicz, Walczyk, 2017). Based on the analysis of qualitative data from the IRG SGH business cycle survey, the authors noted a change in the established pattern of the cyclical fluctuations – the emergence of a sideways trend. The authors stated that although risk and uncertainty were inherent in running a business, their spectacular increase translated into the moods of market participants and their performance, causing disturbances in the pattern of behavior observed so far – at the macroeconomic level. In the light of the events of recent years, caused by the COVID-19 pandemic and the war in Ukraine, the results of the study raise the question of whether the unusual situation in business entities described by E. Adamowicz and K. Walczyk as "a state of constant tremors, expecting the unexpected, and fear of making a serious mistake" (Adamowicz Walczyk, 2017) is reflected by the qualitative indicators.

In our opinion, one cannot ignore the possibility that enterprises follow established patterns when the economic system is unstable. Such a behavior is the essence the phenomenon of inertia. The phenomenon of inertia is some invariability of the process despite changes in the environment in which the process takes place. The condition for flexible adaptation of the process on a macro scale to changes in external factors is the ideal behavior of entities on a micro scale (precise forecasting, full rationality). The lack of these ideal behaviors means that the process follows common patterns, and the effects of external factors are visible with a certain delay (Łyko, 1992).

We assume that the pattern of entrepreneurs' assessment of their economic situation is the resultant of the phenomenon of inertia in economic processes and the expectations of entities indirectly expressing the impact of external factors on their economic situation (expectations effect). We find interesting to recognize whether the entrepreneurs changed the pattern in the conditions of unprecedented instability and uncertainty of the business environment observed during last years. Although the objective of our research formulated in this way omits the issue of comparing the forecast indicators with the diagnosis indicators, our study may create a new context for interpreting the results of other authors' research in this area.

To achieve the goal of the research the econometric analysis was conducted. The study used data from the GUS business cycle survey for the manufacturing industry in Poland in the period from January 2000 to January 2023. The conclusions were based on a multiplier analysis based on the results of ARDL models estimated for two sub-periods, in which business environment conditions were defined as relatively stable (from January 2000 to February 2020) and unstable (from March 2020 to January 2023). The results of the analyzes and their interpretation were preceded by a discussion of the qualitative indicators used and the research method.

2. DATA

In the study we used monthly, seasonally unadjusted data series (from January 2000 to January 2023) from the business cycle survey conducted in the manufacturing industry by the Central Statistical Office. The study used indicators expressing the opinions of entrepreneurs on their current (diagnosis) and expected (forecast): general economic situation of the enterprise, financial situation of the enterprise, and production of the

enterprise. Diagnostic and prognostic questions are single-choice questions with three answer options:

- positive (+), meaning an improvement of the situation from the point of view of the economic entity,
- neutral (=), meaning no change in the economic situation of the entity,
- negative (–), identical to the deterioration of the situation.

In the diagnostic questions, the respondents evaluate the current situation in a given area by comparing it with the previous period or the state considered normal by the respondents[6], while in the prognostic questions they indicate the expected direction of changes in the next three months[7]. The respondents' answers are the basis for constructing simple economic indicators, which are calculated as the differences between the percentage share of positive indications (+) and the percentage share of negative indications (–). It should be noted that the neutral answers are not considered in estimation of simple indicators. The values of simple economic indicators range from –100 to +100. A positive value of the simple indicator is information about the prevalence of positive opinions over negative ones, a negative value indicates that the percentage of negative answers was higher than positive ones. An increase in the value of the indicator means an improvement in the situation of entrepreneurs and is interpreted as an improvement in the national economic situation, while a decrease in the value of the indicator means a deterioration of the situation of entrepreneurs, and thus a deterioration in the national economic situation.

Three pairs of qualitative indicators were used in the study:

- current and expected general economic situation of the enterprise – *GESD* and *GESP* respectively;
- current and expected financial situation of the enterprise – *FSD* and *FSP* respectively;
- current and expected production of the enterprise – *QD* and *QP* respectively.

The time series were seasonally adjusted using the X-12-ARIMA in EViews 11.

3. METHOD

We modeled diagnosis indicators (*GESD*, *FSD*, *QD*) as a function of their values in previous periods and simultaneous and delayed values of forecast indicators (GESP, FSP, QP respectively). This implied the use of the ARDL(3, 3) econometric model:

$$y_t = C + \alpha_1 y_{t-1} + \alpha_2 y_{t-2} + \alpha_3 y_{t-3} + \beta_0 x_t + \beta_1 x_{t-1} + \beta_2 x_{t-2} + \beta_3 x_{t-3} + \varepsilon_t \quad (1)$$

where: C – constant;
y – endogenous variable;
x – exogenous variable;
α_1, α_2, α_3, β_0, β_1, β_2, β_3 – regression parameters;
ε_t – error term.

[6] Variants of answers in the diagnostic questions: in relation to the current general economic situation – good/satisfactory/bad; in relation to the current financial situation – improving/staying the same/deteriorating; in relation to the current production – increases/is unchanged/decreases. It should be noted that there is no precisely defined reference period for the formulated assessment.

[7] Variants of answers in forecasting questions: in relation to the general economic and financial situation – it will improve/be unchanged/deteriorate; in relation to production – will increase/be unchanged/decrease.

It was assumed that the autoregressive part of the model (AR part) reflects the influence of the phenomenon of inertia on the dependent variable. The impact of inertia is reflected by the sum of the regression parameters with lagged values of dependent variable $\sum \alpha$. The distributed lags part of the model (part DL) describes the impact of the expectation effect, which strength is expressed by the cumulative multiplier calculated as $\sum \beta$.

In addition, the use of the ARDL model enables the estimation of the long-term multiplier describing the impact of a permanent change in x on the variable y (Verbeek, 2004; Hill, Griffiths, Lim, 2011; Davidson, MacKinnon, 1999; Johnston, DiNardo, 1997):

$$m_d = \frac{\sum \beta}{1-\sum \alpha} \tag{2}$$

If the estimated parameters of the model described by equation (1) meet the following conditions: the absolute value of the sum of parameter estimates $\alpha_1 + \cdots + \alpha_p$ is less than unity ($|\sum \alpha| < 1$) and the long-term multiplier is statistically significant, then the model has a long-term equilibrium described by the formula:

$$y^* = C + m_d x^* \tag{3}$$

where: y* – long-term level of the endogenous variable;
x* – long-term level of the exogenous variable;
$C = \frac{c}{1-\sum \alpha}$ – long-term constant.

The econometric study was conducted by distinguishing two sub-periods of the analysis: the period of relative stability from January 2000 to February 2020 (the period before the COVID-19 pandemic and the war in Ukraine) and the period of instability from March 2020 to January 2023 (the period of the COVID-19 pandemic and the war in Ukraine).

The estimation of the regression equations was preceded by ADF unit root tests. The test results showed that all variables in our study were stationary[8]. The regression equations were estimated using ordinary least squares with the heteroscedasticity and autocorrelation consistent Newey-West estimator of the variance-covariance matrix (HAC) (Greene 2012)[9]. The normality assumption was tested using the Jarque-Bera test (Baltagi 2011). The statistical significance of the parameters of the long-term equilibrium equation was tested using the Wald test (Baltagi, 2011). The statistical significance of the regression parameter estimates was determined at the level of α = 0,05. Istotność statystyczną parametrów równania równowagi długookresowej testowano za pomocą testu Walda (Baltagi, 2011). The statistical significance of the parameters of the long-term equilibrium equation was tested using the Wald test (Baltagi, 2011).

The results and their interpretation are presented in the next part of the study focusing on the results significant from the point of view of the implementation of the research objective[10].

[8] ADF test results available on request.
[9] Bartlett weights were used in the estimation (Greene, 2012).
[10] Complete documentation of the study authors will provide upon request.

4. RESULTS

The results of the estimation of the regression for the dependent variable *GESD* (Table 1) showed that in both distinguished subperiods the parameters in the autoregressive part of the equation (part AR) and their sums ($\sum \alpha$) met the condition of statistical significance. It can therefore be concluded that both in the period of relative stability (Jan. 2000–Feb. 2020) and during instability of the environment (March 2020–Jan. 2023), the phenomenon of inertia had a statistically significant impact on the diagnosis of the current economic situation of entities, although the strength of this impact in the second of the distinguished periods was slightly weaker[11].

Table 1. Estimation results – dependent variable *GESD*

Variable	Jan. 2000–Feb. 2020	March 2020–Jan. 2023
	Coefficient [Std. Error]	Coefficient [Std. Error]
C	**–0,1091** **[0,0343]**	0,1775 [0,1001]
$GESD_{t-1}$	**2,5658** **[0,0507]**	**1,8964** **[0,1744]**
$GESD_{t-2}$	**–2,3809** **[0,0924]**	**–1,4476** **[0,2536]**
$GESD_{t-3}$	**0,8115** **[0,0479]**	**0,4416** **[0,1250]**
GESP	**0,4375** **[0,1632]**	–0,2503 [0,2406]
$GESP_{t-1}$	**–0,9871** **[0,4554]**	1,1386 [0,6539]
$GESP_{t-2}$	0,8595 [0,4474]	–1,2457 [0,6192]
$GESP_{t-3}$	–0,2932 [0,1554]	0,4359 [0,2512]
	R-squared 0,999; Adjusted R-squared 0,999; F-statistic 100966,6; Prob(F-statistic) 0,00; normality J-B test 3,638815; Prob(J-B-statistic) 0,162122	R-squared 0,999; Adjusted R-squared 0,999; F-statistic 189120,3; Prob(F-statistic) 0,00; normality J-B test 0,748401; Prob(J-B-statistic) 0,687839

* Statistically significant estimates of regression parameters are shown in bold.

Source: own calculations.

Significant differences between the sub-periods of the analysis are visible in terms of the role of expectations effect in determining the diagnosis of the general economic situation of entities (DL part). During period of relative stability, the expectations of entities were an important factor influencing the *GESD* indicator. This statement applies to

[11] The sum of the coefficients was 0.99 in the period of relative stability of the environment [Wald test: $\mathcal{X}^2 = 211155{,}0;\ \mathrm{p} = 0{,}00$], and 0.89 during the period of environmental instability [Wald test: $\mathcal{X}^2 = 262{,}8585;\ \mathrm{p} = 0{,}00$].

the impact described by both the cumulative multiplier and the long-term multiplier[12]. The long-term equilibrium relationship between the *GESD* and *GESP* variables is described by the equation[13]:

$$GESD^* = -29{,}4 + 4{,}51 * GESP^* \tag{4}$$

The relationship between diagnoses and forecasts of the general economic situation of enterprises in the long-term equilibrium implies that in the period of relative economic stability, a unit sustained increase/decrease in the expectations of entities (wave of optimism/wave of pessimism) resulted in a multiplied increase/decrease in the value of diagnosis indicators in the long term.

During the unstable period *GESD* values depended only on the phenomenon of inertia, and the expectations effect played a passive role in this process: the regression parameters in the DL part of the equation were not statistically significant, therefore neither the cumulative multiplier nor the long-term multiplier could be estimated.

The results of the estimation of the regression equations for the dependent variables *FSD* and *QD* are presented in Tables 2 and 3 respectively. Regarding the phenomenon of inertia, the results obtained for *FSD* and *QD* – concerning the financial situation and production of the enterprise – lead to similar conclusions as those derived for the variable *GESD*. The impact of inertia on the diagnosis indicators *FSD* and *QD* in the distinguished sub-periods was similar[14].

Table 2. Estimation results – dependent variable *FSD*

Variable	Jan. 2000–Feb. 2020	March 2020–Jan. 2023
	Coefficient [Std. Error]	Coefficient [Std. Error]
C	–0,0260 [0,0211]	0,1741 [0,1048]
FSD_{t-1}	**2,6577 [0,0350]**	**2,4211 [0,1349]**
FSD_{t-2}	**–2,5234 [0,0702]**	**–2,1963 [0,2579]**
FSD_{t-3}	**0,8615 [0,0382]**	**0,7554 [0,1369]**
FSP	**0,6597 [0,0580]**	**0,8204 [0,0669]**

[12] The value of the cumulative multiplier was 0,017 [Wald test: $\mathcal{X}^2 = 14{,}71849; \mathrm{p} = 0{,}00$], and the value of the long-term multiplier was 4.51 [Wald test: $\mathcal{X}^2 = 4{,}399392; \mathrm{p} = 0{,}04$].

[13] Wald test for constant: $\mathcal{X}^2 = 4{,}79838; \mathrm{p} = 0{,}03$.

[14] In the case of the model for the dependent variable *FSD*, in the period of relative stability of the environment $\sum \alpha = 0{,}99$ [Wald test: $\mathcal{X}^2 = 163311{,}2; \mathrm{p} = 0{,}00$], and in the period of instability of the environment $\sum \alpha = 0{,}98$ [Wald test: $\mathcal{X}^2 = 4124{,}725; \mathrm{p} = 0{,}00$].
In the case of the model for the dependent variable *QD*, in the period of relative stability of the environment $\sum \alpha = 0{,}99$ [Wald test: $\mathcal{X}^2 = 169267{,}5; \mathrm{p} = 0{,}00$], and in the period of instability of the environment $\sum \alpha = 0{,}98$ [Wald test: $\mathcal{X}^2 = 4735{,}102; \mathrm{p} = 0{,}00$].

Table 2 (cont.). Estimation results – dependent variable *FSD*

Variable	Jan. 2000–Feb. 2020	March 2020–Jan. 2023
	Coefficient [Std. Error]	Coefficient [Std. Error]
FSP_{t-1}	**–1,6319 [0,1771]**	**–1,8443 [0,2692]**
FSP_{t-2}	**1,4476 [0,1944]**	**1,5696 [0,3485]**
FSP_{t-3}	**–0,4703 [0,0754]**	**–0,5170 [0,1521]**
	R-squared 0,999; Adjusted R-squared 0,999; F-statistic 189120,3; Prob(F-statistic) 0,00; normality test J-B 1,442012; Prob(J-B-statistic) 0,486263	R-squared 0,999; Adjusted R-squared 0,999; F-statistic 189120,3; Prob(F-statistic) 0,00; normality test J-B 0,748401; Prob(J-B-statistic) 0,687839

* Statistically significant estimates of regression parameters are shown in bold.

Source: own calculations.

The analysis of the parameters estimated in the DL part of both models leads to different conclusions. In the period of relative stability, all regression parameters in the DL part of the models met the criteria of statistical significance, however the cumulative multipliers did not meet the condition of statistical significance, what excluded the possibility of determining long-term multipliers and long-term equilibrium equations[15].

Table 3. Estimation results – dependent variable *QD*.

Variable	Jan. 2000–Feb. 2020	March 2020–Jan. 2023
	Coefficient [Std. Error]	Coefficient [Std. Error]
C	–0,0088 [0,0197]	0,1686 [0,1095]
QD_{t-1}	**2,5573 [0,0434]**	**2,4251 [0,0902]**
QD_{t-2}	**–2,3790 [0,0764]**	**–2,2171 [0,1713]**
QD_{t-3}	**0,8189 [0,0365]**	**0,7704 [0,0935]**
QP	**0,8096 [0,0902]**	**0,7634 [0,0844]**
QP_{t-1}	**–1,8942 [0,2596]**	**–1,6290 [0,2423]**

[15] In the case of the model for the dependent variable *FSD*, in the period of relative stability of the environment $\sum \beta = 0{,}005$ [Wald test: $\mathcal{X}^2 = 2{,}993753; \mathrm{p} = 0{,}08$]. In the case of the model for the dependent variable *QD*, in the period of relative stability of the environment $\sum \beta = 0{,}003$ [Wald test: $\mathcal{X}^2 = 1{,}634645; \mathrm{p} = 0{,}2$].

Table 3 (cont.). Estimation results – dependent variable *QD*.

Variable	Jan. 2000–Feb. 2020	March 2020–Jan. 2023
	Coefficient [Std. Error]	Coefficient [Std. Error]
QP_{t-2}	**1,6443 [0,2714]**	**1,3585 [0,2703]**
QP_{t-3}	**–0,5569 [0,1002]**	**–0,4531 [0,1171]**
	R-squared 0,999; Adjusted R-squared 0,999; F-statistic 98356,7; Prob(F-statistic) 0,00; normality test J-B 29,35978; Prob(J-B-statistic) 0,000	R-squared 0,999; Adjusted R-squared 0,999; F-statistic 9028,372; Prob(F-statistic) 0,00; normality test J-B 1,592867; Prob(J-B-statistic) 0,450934

* Statistically significant estimates of regression parameters are shown in bold. Residuals of the model estimated for the period of relative economic stability did not meet the assumption of normal distribution, therefore the results should be interpreted with caution.

Source: own calculations.

A long-term relationship between the diagnosis indicators and the corresponding forecast indicators was noted only in the period of economic instability. Relationships described by long-term equilibrium equations[16]:

$$FSD^* = 1{,}45 * FSP^* \tag{5}$$

$$QD^* = 1{,}84 * QP^* \tag{6}$$

indicate a positive relationship between the analyzed variables, stronger in the case of a diagnosis concerning the production volume. A comparison of the values of the cumulative multipliers resulting from the DL part of both models ($\sum \beta$) leads to an analogous conclusion[17]. It can therefore be concluded that the expectations effect which played a passive role in the period of relative stability became an important factor determining enterprises' diagnoses of their financial situation and production in the period of instability.

Summarizing the results of the econometric research, it can be stated that:

- regardless of the type of indicator and subperiod of analysis, the phenomenon of inertia was the main factor influencing diagnosis indicators;
- in all analyzed areas of companies' activity (general situation, financial situation, production) we noted a change in the pattern of impact of forecast indicators on diagnosis indicators, which was the result of a change in the conditions of the external environment (expectations effect).

[16] Constants in both long-term equilibrium equations did not meet the condition of statistical significance.

[17] In the case of the model for the dependent variable FSD $\sum \beta = 0{,}03$ [Wald test: $\mathcal{X}^2 = 4{,}952419; \mathrm{p} = 0{,}03$], and in the case of the model for the dependent variable QD $\sum \beta = 0{,}04$ [Wald test: $\mathcal{X}^2 = 4{,}869111; \mathrm{p} = 0{,}03$].

5. CONCLUSIONS

The common point of studies on qualitative indicators is the search for answer to the question whether the assessments of entrepreneurs in the business cycle surveys adequately reflect changes in business conditions. It is assumed that, unlike other entities, entrepreneurs do not succumb to the emotions of the moment so easily, but rather coldly calculate (Adamowicz, Walczyk, 2012, p. 47). Enterprises change their behavior only under the influence of a sufficiently strong stimulus – small changes in business conditions do not affect their behavior. There is a range of indifference in which changes in the business environment do not affect the economic entity (Byrt, Kowalczyk, Rekowski, 1982, p. 412). These statements were confirmed by the results of our study regarding the variables concerning the financial situation and production volume of enterprises. In the period of relative stability, only a short-term impact of forecasts on diagnoses formulated by companies was recorded. This means that changes in the environment in this sub-period were absorbed only by short-term reactions, which did not create permanent long-term patterns. Such patterns, on the other hand, were recorded during the period of instability of the economic system caused by the COVID-19 pandemic and the war in Ukraine.

We assumed that the diagnoses are a function of the phenomenon of inertia and the expectation effect. The phenomenon of inertia, by definition, means the lack of immediate reaction of entities to changes taking place in their environment. Our results indicate that inertia played an important role in formulating diagnoses in both distinguished periods, and in each of them its essence seems to be different. While in the period of relative stability the processes proceed in a normal mode, according to established rules, in the period of instability inertia becomes a kind of protection against making a mistake in an unpredictable environment, creating a model of long-term equilibrium together with the expectations effect.

It seems reasonable to ask why the results regarding the assessment of the general economic situation differ from this scenario. In the case of the *GESD*, the long-term pattern was identified only in the period of relative stability of the economic system. The reason for this difference may lie in the substantive content of the indicators. While the *FSD* and *QD* indices relate to narrower, measurable spheres of economic activity, the general economic situation is a broader and imprecise concept in the business cycle survey. Assessing the general economic situation in relatively stable conditions, entrepreneurs rely both on forecasts formulated in the past and on diagnoses that may turn out to be wrong in a period of instability, and thus cease to be the basis for formulating assessments.

The reported results may seem paradoxical, but this apparent paradox encourages us to continue research, and especially to seek an answer to the question why the instability of the economic system may be conducive to the creation of a long-term equilibrium relationship between diagnosis and forecast indicators in the study of the economic situation using the business cycle survey.

REFERENCES

Adamowicz, E., Dudek, S., Walczyk, K. (2002a). *Czy można wierzyć badaniom koniunktury*, *„Prace i Materiały Instytutu Rozwoju Gospodarczego”*, No. 72.

Adamowicz, E., Dudek, S., Walczyk, K. (2002b). *Wykorzystanie wyników testu do prognoz krótkoterminowych* [In:] Adamowicz, E., ed., *Diagnozy i prognozy stanu gospodarki w świetle badań koniunktury*, *„Prace i Materiały Instytutu Rozwoju Gospodarczego SGH”*, No. 739.

Adamowicz, E., Walczyk, K. (2012). *Fakty empiryczne w danych jakościowych. Z badań koniunktury*, *„Prace i Materiały Instytutu Rozwoju Gospodarczego SGH”*, Vol. 90(3).

Adamowicz, E., Walczyk, K. (2017). *Zaburzenia cykliczności aktywności gospodarczej w Polsce w świetle wyników badania koniunktury gospodarczej IRG SGH*, *„Prace i Materiały Instytutu Rozwoju Gospodarczego SGH”*, Vol. 101.

Baltagi, B.H. (2011), *Econometrics*, Springer, Berlin.

Bieć, M. (1996). *Test koniunktury. Metody, techniki, doświadczenia*, Warszawa: SGH.

Byrt, A., Kowalczyk, Z., Rekowski, M. (1982). *Metody badania koniunktury gospodarczej* [In:] Kowalczyk, Z. ed., *Koniunktura gospodarcza*, Warszawa: PWE.

Davidson, R., MacKinnon, J.G., (1999). *Foundations of Econometrics*, London: Oxford Press.

Dudek, S. (2001). *Możliwości formułowania krótkookresowych prognoz ilościowych na podstawie wyników testu koniunktury*, *„Prace i Materiały Instytutu Rozwoju Gospodarczego SGH”*, No. 67.

Estey, J.E. (1959). *Cykle koniunkturalne*, Warszawa: Polskie Wydawnictwa Gospodarcze.

Gaweł, A. (1997) *Koniunktura w polskim przemyśle przetwórczym z perspektywy wahań gospodarek wysoko rozwiniętych,* „*Ruch Prawniczy, Ekonomiczny i Socjologiczny”*, No. 2.

Greene, W.H. (2012). *Econometric Analysis*, Upper Saddle River: Prentice Hall.

Gruszczyński, M., Kotłowski, J. (2008). *Metody mikroekonometrii w ocenie zachowań przedsiębiorstw* [In:] Adamowicz, E., ed., *Koniunktura gospodarcza – 20 lat doświadczeń Instytutu Rozwoju Gospodarczego SGH*, *„Prace i Materiały Instytutu Rozwoju Gospodarczego SGH”*.

Guzik, B. (2009). Trafność prognoz koniunktury przemysłowej w zakresie produkcji sprzedanej, „*Roczniki Ekonomiczne Kujawsko-Pomorskiej Szkoły Wyższej w Bydgoszczy”,* No. 2.

Guzik, B., Bosacki, S. (2009). *Trafność prognoz koniunktury turystycznej na przykładzie testu koniunktury GUS 2003–2008* [In:] *Ekonomiczne Problemy Turystyki,* No. 12, *„Zeszyty Naukowe Uniwersytetu Szczecińskiego”*.

Hill, R.C., Griffiths, W.E., Lim, G.C. (2011). *Principles of Econometrics.* New York: John Wiley & Sons.

Hubner, D., Lubiński, M., Małecki, W., Matkowski, Z. (1994). *Koniunktura gospodarcza.* Warszawa: PWE.

Johnston, J., DiNardo, J. (1997). *Econometric Methods.* New York: McGraw Hill.

Kalinowski, S. (2015). *Czynniki wpływające na opinie przedsiębiorców w kwestionariuszowych badaniach koniunktury, „Bank i Kredyt”*, No. 4.

Łyko, J. (1992). *Zasada inercji i prognozy gospodarczej* [Access: 27.01.2023]. Access on the internet: https://www.wir.ue.wroc.pl/info/phd/UEWRbbf55edc4f6f47629b27e38041f9bfa7/.

Matkowski, Z., Nilsson, R. (1997). *Analiza zgodności między wybranymi wskaźnikami testu przemysłowego IRG SGH a indeksem produkcji przemysłowej, „Prace i Materiały Instytutu Rozwoju Gospodarczego SGH”*, No. 51.

Mocek, M. (2002). *Przydatność testu koniunktury w prognozowaniu sytuacji na rynku usług ubezpieczeniowych* [In:] Adamowicz, E., ed., *Badania gospodarki polskiej. Stan bieżący i perspektywy rozwoju*, *„Prace i Materiały Instytutu Rozwoju Gospodarczego SGH”*, Vol. 72.

Przybylska-Kapuścińska, W. (1990). *Identyfikacja cyklu na podstawie ilościowych i jakościowych wskaźników koniunktury (w gospodarce włoskiej)* [In:] Kowalczyk, Z., ed., *Zagadnienia koniunktury gospodarczej*, *„Zeszyty Naukowe”,* No. 180, Poznań: AEP.

Tomczyk, E. (2002). *Test koniunktury jako źródło danych o oczekiwaniach podmiotów gospodarczych* [In:] Adamowicz, E., ed., *Diagnozy i prognozy stanu gospodarki w świetle badań koniunktury, „Prace i Materiały Instytutu Rozwoju Gospodarczego SGH"*, No. 73.

Verbeek, M., (2004). *A Guide to Modern Econometrics*, London: John Wiley & Sons.

Włodarczyk, J., Małczęć, P., Pala, K. (2021). *Po nitce do kłębka – analiza zmian koniunkturalnych w branży tekstylno-odzieżowej, „Annales Universitatis Mariae Curie-Skłodowska"*, Vol. 55, No. 1.

Zatoń, W. (2015). *Trafność prognoz w stosunku do ocen w teście koniunktury przemysłowej GUS, „Metody Ilościowe w Badaniach Ekonomicznych"*, SGGW, Vol. 16(XVI), No. 4.

Zeszyt metodologiczny. Badanie koniunktury gospodarczej (2018). Warszawa: GUS.