# THE UKRAINIAN ECONOMY TENDENCIES IN THE CONTEXT OF THE GLOBAL CRISIS (STUDY ON THE BASIS OF BUSINESS TENDENCY SURVEYS)

## Maryna Pugachova

Scientific & Technical Complex for Statistical Research Address: Esplanadna str., 4–6, Kyiv, UA-01601 Ukraine. E-mail: maryni@ukr.net

Received: April 2013 Revised: September 2013 Published: November 2013

**Abstract:** This article discusses the possibilities to study the economy in times of crisis and its post-crisis performance by use of selected indicators from the Business Tendency Survey. Unlike conventional statistical indicators, these indicators can give quick information about the opinions, judgments and expectations of enterprise managers concerning their company's performance, which allows the drawing of conclusions about business operation by economic activity, sector and the whole economy. The analysis is made by use of several indicators from Ukrainian surveys: change in the competition; production capacities utilization and wear; factors limiting enterprises' development. The analysis is made by economic sector: industry, construction and transport.

**Keywords:** conjuncture (business tendency) surveys of enterprises (BTS), indicators of enterprises' business activity, competitiveness in branches of economy, capacity utilization.

#### 1. Introduction

As known, studies of an economy are based on a set of indicators. It may be only statistical indicators or a set of statistical and financial indicators, which can also be combined with other information sources. Recent publications of foreign and Ukrainian analysts [3; 4; 7–9] show the lack of a well-established information base that would meet the societal demand for the evaluation of societal conditions, future developments or the potential to predict the nearest turning points of the economic cycle. Issues of a more comprehensive and sound evaluation of the country's economic performance before the crisis and at the following phases of the economic cycle still remain important and relevant for economics.

The Ukrainian economy is a European economy that suffered greatly from the global financial and economic crisis, as its GDP fell by nearly 15 percent in 2009 relative to the previous year. National industries have still not regained their pre-crisis performance, meaning that economic rehabilitation is yet to come.

Conjuncture surveys, or Business Tendency Surveys of Enterprises (BTS)<sup>1</sup>, are considered by researchers as a supplementary source of information that is valuable for its quickness and non-statistical nature, apart from the use of conventional macroeconomic indicators. These surveys supply interesting non-statistical information about managers' opinions on the current performance, performance change relative to previous periods, and forthcoming performance tendencies in their enterprises.

A Business Tendency Survey has been held in Ukraine since the middle of the 1990s by the Harmonized Program of the EU and OECD. It allows us to build quite long series used in analyses of change in economic tendencies and the construction of high quality models for forecasting.

This article contains an analysis of tendencies of change in the indicators based on the information obtained from BTS and specific for this category of surveys. It cannot be obtained from other sources such as observations organized by official statistics services or other administrative offices. These indicators cover the ratio of production capacity utilization, competition in various economic sectors and factors that influence business performance (all indicators at enterprise level).

<sup>&</sup>lt;sup>1</sup> More detailed information about conjuncture surveys of Ukrainian enterprises and the system for statistical monitoring of business activity at enterprise level can be found in the book [6].

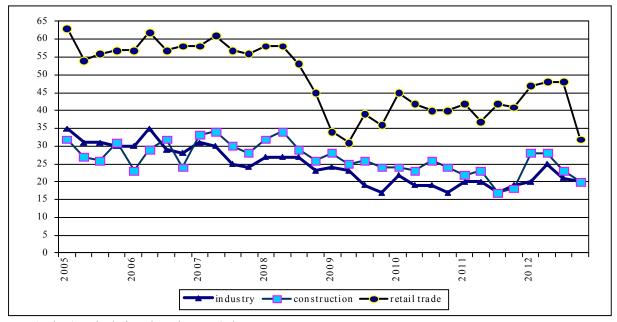
Referred to as harmonized by international organizations and included in conjuncture surveys in various economic activities<sup>2</sup>, these indicators are also used in the Ukrainian BTS.

Analysis of the link between demand and supply in an economy is central to the study of the "quality" of an economy's operation and equilibrium, either existing or required. Measures of output and demand/contracts have always been part of economic analyses. Yet, studies of indicators related to the above market measures, like production capacity utilization and ratio of production capacity utilization, which are direct measures of the current demand and demand-related expectations of managers, tend to be overlooked. The same is true for the factors affecting the performance of individual enterprises and limiting their future development, namely, increases in production output and sales. It should be emphasized, that each economic sector that is going to be covered by analysis has sector-specific features in terms of the making up and implementation of production plans, conditions for sales, operation in market conditions etc.

#### 2. Changes in the competitive environment

It is known that the competitive environment in which enterprises operate has strong implications for ways in which the "supply – demand" equilibrium is set in each economic sector. The indicator of change in competition is derived on the basis of responses given by enterprise managers (competition is up relative to the previous quarter, or same as in the previous quarter, or down relative to the previous quarter) as the balance that is the difference between the shares of "up" and "down" responses.

An analysis of change in the competition over the latest eight years in three economic sectors in Ukraine (see Figure 1) shows that of the three sectors, the highest rise of competition used to be found in retail trade. Yet, it rapidly declined during the latest crisis. Being up throughout 2012 (the rise being the highest in the post-crisis period), it nevertheless declined at the end of this year in all the sectors.



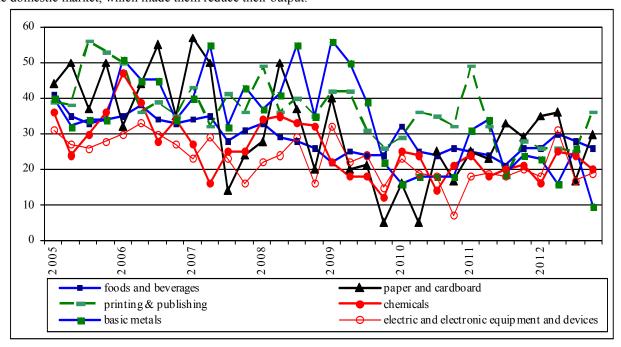
Source: Author's calculations based on BTS data

Fig. 1. Change in the competition in economic sectors of Ukraine (balance, %)

The competition at industrial enterprises is strongly dependent on economic activity. Industries like food and beverages, production of paper and cardboard, printing & publishing and other production (covering furniture, coins and medals, jewelry, musical instruments, sports goods, games and toys, bijouterie etc.) feature the highest competition rise. Last year the competition rapidly declined in important export-oriented Ukrainian industries like basic metals and

<sup>&</sup>lt;sup>2</sup> Information about European harmonized conjuncture surveys can be found on the web-sites of the European Commission [2], OECD [5] and Center for International Research on Economic Tendency Surveys (CIRET) [1].

chemicals (see Figure 2), which may be caused by the shrinking demand at global markets and the reducing demand in the domestic market, which made them reduce their output.



Source: Author's calculations based on BTS data.

Fig. 2. Change in the competition in the Ukrainian industry (balance, %)

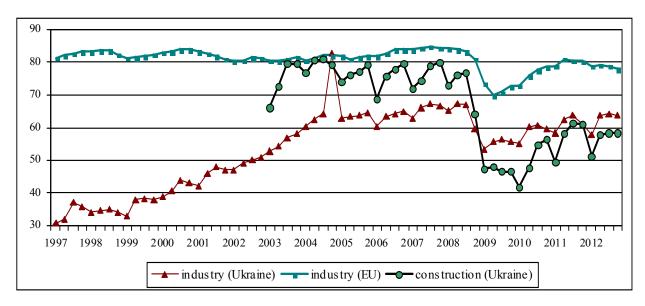
#### 3. Capacity utilization in branches of economy

The ratio of production capacity utilization is an indicator providing for easy measurement of whether or not enterprises operate at full capacity, whether or not they have a "margin" (that is, the potential to increase output if demand is up), and whether or not the demand is a stimulus to increase capacity. It is commonly assumed that under normal operation of an enterprise, given satisfactory demand for its products and macroeconomic equilibrium in place, the ratio of capacity utilization should be in the 80–85% interval, meaning that there cannot be an extra amount of unutilized production capacity at the enterprise. It also requires that most of the production facilities are in good technical condition, which is unlikely to apply for the Ukrainian reality with its worn fixed assets.

The study of production capacity utilization is made on the basis of three indicators: ratio of production capacity utilization, measure of their utilization, possibilities to increase utilization, and the share of production capacities that cannot be utilized due to wear. The former two indicators are indicators of European surveys for the industry. In Ukrainian surveys they were applied to another two economic activities (the first one is included in the questionnaire for construction survey, the second one – for transport survey). Data for the latter two indicators included in Ukrainian surveys are collected in industry and construction. Also, it should be noted that the indicator to measure capacities wear is more relevant for a transitional country.

Ukrainian industry has nearly a 30-percent share of GDP and remains a core economic sector in most developed countries. Because production output and other indicators measuring industry operation are central ones in measuring economic performance, in European countries it was industry where BTS were introduced first; the largest part of questions in questionnaires is, therefore, about industry, including ones concerning production capacities of enterprises.

As follows from the analysis of the ratio of production capacity utilization in industry in Ukraine and European countries, the Ukrainian economy showed a gradual increase in the pre-crisis period (before III quarter 2008, with exception of 1998, when the previous crisis occurred). However, its peak measure did not exceed 70%, which is the minimum in European surveys (see Figure 3). Therefore, industrial capacities utilization in Ukraine, either previously or now, is distant from that observed in Europe.



Source: [2] and information from BTS of Ukrainian enterprises.

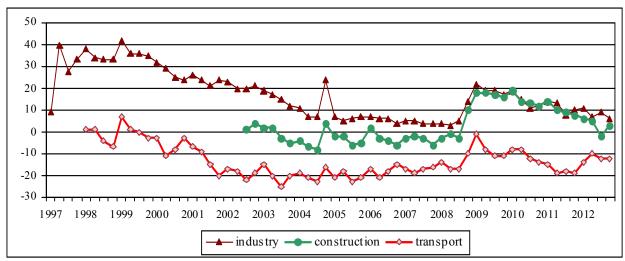
Fig. 3. Ratios of production capacity utilization (%)

Construction is the sector giving a very good profile of change across the economy. It is known that quite often economic analysts determine the current phase of the business activity cycle in a country from the change in the output of cement, which signals a change in construction output. There was a boom in dwelling output in Ukraine in 2003–2007, although (unfortunately) one never occurred in industrial construction. As can be seen from Figure 3, the situation in construction was much better in that period, than in industry, in spite of the seasonality of the business operation in construction: the utilization ratio periodically approached 80%, although never went beyond it. However, unlike in industry, the crisis-led fall in the output of the construction sector continued as long as the beginning of 2010 when a slow growth of capacities utilization occurred, which, however, failed to regain its pre-crisis level. The average ratio of capacities utilization during 2003–2012 in Ukrainian industry is 61.8 %, in construction – 66.5 %; whereas the average ratio in industry in European countries is 80.0 %.

It is only to be expected now that construction will be the driver capable of "pulling" the national economy out and giving it a new impulse for growth.

Another measure of production capacity utilization is the assessment of the level of utilization. It is derived in the form of balance, as the difference between the shares of responses "capacities are more than sufficient" and "capacities are insufficient" given the available amount of orders. A negative balance shows that capacities available at enterprises are not sufficient for normal operation, whereas a positive balance is an indication of extra capacities that cannot be utilized.

As shown in Figure 4, change in this indicator also allows for the adequate measurement of Ukrainian economic performance in various periods. It is true for industry, construction and transport alike. However, while in the pre-crisis period capacities in the industrial sector of Ukraine used to be underutilized, in the construction and transport sectors capacities were insufficient given the available contracts.



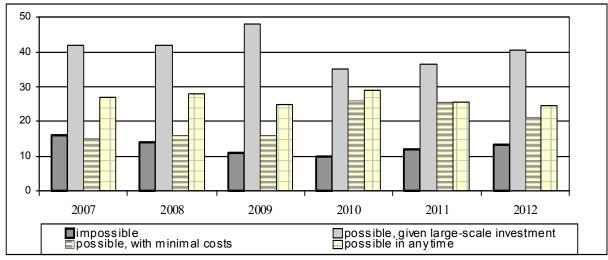
Source: Author's calculations based on BTS data.

Fig. 4. Assessments of production capacity utilization in Ukraine, by economic sector (balance, %)

Again, the best situation in industry and construction was registered from 2003 until the earlier half of 2008. It worsened in the following two years and recovered in 2011–2012. Several questions occur concerning transport. What is the reason behind the persistently reported shortage of production capacities in the transport sector? Why amidst the crisis (in 2009) did the transport sector have a larger amount of contracts than ever over the preceding 13 years? Why are prices reported as up when the capacities are not utilized in the optimal way? Or, when the demand exists, would prices be better reduced and income increased through increasing the output of services?

As the comparison of the Ukrainian and European ratio of capacities utilization in industry shows strong variations even in periods of economic growth, this made us seek respondents' opinions to find out the reason why this happens. For this purpose, the questions about the wear of production facilities and if the facilities could be better utilized given additional investment were included in the Ukrainian questionnaires for the industry and construction survey.

As shown in Figure 5, the situation with production capacities in industry looks as follows: even if demand is up, only one in four respondents expects that extra (unutilized) production capacities can be utilized in any time, whereas according to 35 to 50 percent of reports coming from respondents in various years, this would only be possible given large-scale investment.



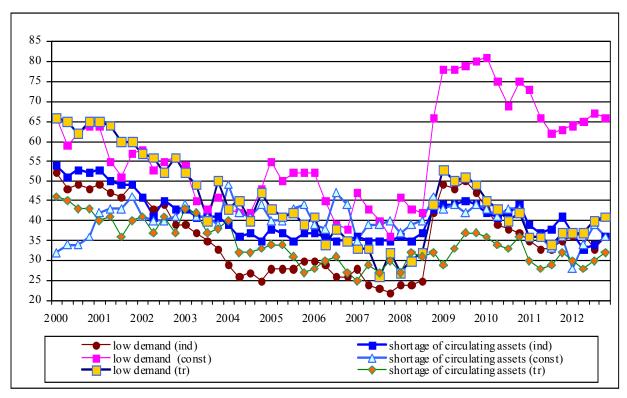
Source: Author's calculations based on BTS data.

Fig. 5. Possibility to utilize production capacities in industry given increased demand (% of respondents)

The last analyzed question is if it is physically possible to utilize production capacities given that most of them have not been renovated for a long time. Respondents, who are managers of industrial enterprises, believe that nearly 20% of the capacities available at their enterprises cannot be utilized due to wear. There are economic activities where this share is much higher than the industrial average: mining and quarrying (26%), other non-metallic mineral products (23%), energy, gas and water supply (24%). The share in construction is nearly 17%.

#### 4. Limiting factors

One of the most interesting and seemingly useful indicators of BTS is factors limiting enterprises' development, because they can give information about the business climate in various economic activities and factors having the strongest influence on future business opportunities. The most influential factors in the three analyzed sectors (industry, construction, and transport) prove to be low demand, lack of circulating assets (see Figure 6), and high taxes. It should be noted that low demand used to be a stronger pressure in the construction sector than the other economic sectors, and since 2008 this factor has had the strongest effect for enterprise performance. Heavy tax pressure has been reported by more than half of respondents in each of the three economic sectors. In addition, essential limiting factors referred to by industrial enterprises in the latest three years are imperfect legislation (20–25% of respondents) and high tariffs of natural monopolies (22–28%); construction companies refer to shortage of funds (49–64%) and high interest rates on bank loans (20–27%); transport enterprises report about out-dated fleet (32–41%). After 2008, neither of the above sectors reported about pressure from a shortage of skilled or unqualified personnel, although before the crisis it had been felt by 30 to 40 percent of enterprises in the construction sector, and 25 to 32 percent in the industrial sector. In fact, this radical change in managers' opinions evidences on the shrinking of demand, entailing a reduction in output.



Note: abbreviations "ind", "const" and "tr" signify economic sectors: industry, construction and transport. Source: Author's calculations based on BTS data.

Fig. 6. The strongest factors limiting business development in Ukrainian economic sectors (% of respondents)

### 5. Conclusions

The study of economic performance in Ukraine on the basis of information from the Business Tendency Survey and effects from the global financial and economic crisis for the Ukrainian economy shows that indicators measuring

the competitive environment in various economic sectors, the ratio and assessment of production capacities utilization, and factors limiting business development at enterprise level give a good illustration of the crisis-led change in the above sectors. In addition, the study gives grounds for a series of conclusions. First, economic performance analyses should not be limited to traditional sources, as these sources cannot always give flash information about conjuncture change. Enterprise managers who "keep abreast of the latest developments" in production processes can respond much more quickly to market fluctuations. Second, because the analyzed indicators are considered by analysts as both quantitative and qualitative measures, they can provide a more comprehensive performance picture at the enterprise or macroeconomic level. Third, unfortunately, the small size of this article does not allow us to show analysis by economic activity in industry (foods and beverages, basic metals, chemicals etc.) and other economic sectors covered by the Ukrainian BTS (retail trade, non-financial and financial services, agriculture), which, we hope, would allow for more interesting conclusions. Finally, a comprehensive picture of economic conjuncture can only be derived by a complex analysis that would integrate the above given segment of BTS indicators and other statistical and financial indicators.

#### References

- 1. Centre for International Research on Economic Tendency Surveys (CIRET), [online] http://www.ciret.org, 04.09.2013.
- European Commission, Directorate General of Economic and Financial Affairs. [online] http://ec.europa.eu/economy\_finance/db\_indicators/surveys/time\_series/index\_en.htm, 04.09.2013.
- 3. Giovannini, E. 2008: Understanding Economic Statistics. An OECD Perspective, OECD Papers, Paris, OECD.
- 4. Kolodko, Grzegorz W. 2012: Truth, Errors, and Lies: Politics and Economics in a Volatile World, New York, Columbia University Press.
- OECD. Leading Indicators and Tendency Surveys. Business Tendency and Consumer Surveys: International Development Work and Co-ordination. [online] http://www.oecd.org/std/clits/businesstendencyandconsumersurveysinternationaldevelopmentworkandco-ordination.htm, 04.09.2013
- 6. Pugachova, M. 2007: Methodological Background for Statistical Monitoring of Business Activities at Enterprises, Kyiv, Public Enterprise "Information and Analytical Agency" (Ukrainian)
- 7. Pugachova, M. 2008: Tendencies in the Ukrainian Economy in the Eyes of Enterprise Managers (analytical review). Study of Demand for Enterprises' Products and Production Capacities Utilization, *Statistics of Ukraine*, 3 (42), p. 71–80.
- 8. Report of France on the Measurement of Economic Performance and Social Progress. *Note by the Secretary-General to 42 session of UN Statistical Commission, 22-25 February 2011*, UN Economic and Social Council. [online] http://unstats.un.org/unsd/statcom/doc11/2011-35-France-E.pdf, 04.09.2013
- 9. Stiglitz, J. E. and Sen, A. and Fitoussi J.-P. 2009: Report by the Commission on the Measurement of Economic Performance and Social Progress, [online] www.stiglitz-sen-fitoussi.fr, 04.09.2013.

# UKRAINOS EKONOMIKOS TENDENCIJOS GLOBALIOS KRIZĖS SĄLYGOMIS (ANALIZĖ, PAREMTA VERSLO TENDENCIJŲ TYRIMAIS)

#### Maryna Pugachova

Santrauka. Straipsnyje nagrinėjama galimybė tirti ekonomiką krizės metu ir jos pokrizines apraiškas naudojant kai kuriuos pasirinktus verslo tendencijų tyrimo rodiklius. Skirtingai nei įprasti statistiniai rodikliai, šie rodikliai gali greit duoti informacijos apie įmonių vadybininkų nuomones, sprendimus ir lūkesčius įmonės veiklos klausimais, leidžiančios daryti išvadas apie verslo sėkmę ekonominės veiklos rūšių, sektorių, o taip pat ir viso ūkio lygiu. Analizėje naudojami keletas Ukrainos tyrimų rodiklių: kompetencijų pokyčiai, pajėgumo išnaudojimas, įmonės pažangos stabdžiai. Analizė atlikta pramonės, statybos ir transporto ekonomikos sektoriuose.

Reikšminiai žodžiai: įmonių konjunktūros (verslo tendencijų) tyrimai, įmonės verslo aktyvumo rodikliai, pramonės šakų konkurencingumas, pajėgumo išnaudojimas.