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COMPOSITE INDICATORS OF BUSINESS ACTIVITY FOR POLAND BASED ON SURVEY DATA[*]

Executive Summary

Business and consumer surveys, as well as composite indicators of aggregate economic activity based on them, provide an effective framework for the assessment of current conditions in major sectors of the economy and in the economy as a whole. In the developed market countries, business indicators based on survey data have become one of the most popular sources of information on economic trends. The EU member countries have adopted a harmonised methodology for business and consumer surveys, including a uniform concept of economic sentiment indicator (ESI), a composite indicator of aggregate economic activity derived from qualitative survey data.

After EU accession, Poland will be obliged to deliver its economic survey data to the common monitoring system, including an economic sentiment indicator. Several institutions in Poland are conducting business and consumer surveys. What is still missing, is the lack of an aggregate economic indicator based on survey data. Our project could contribute to fill the gap by providing a conceptual and analytical basis for compiling and interpreting such indicators.

The aim of this project was to develop and test composite indicators of economic activity for Poland based on qualitative data from business and consumer surveys, which could be used in assessing current economic conditions and prospects. This kind of indicator is very useful both for business and government. The indicator shows current economic trends and signals major swings in aggregate economic activity. Such information is necessary for both local and international business, including foreign investors. It is also necessary for policy purposes. An effective fiscal or monetary stabilisation policy requires continuous assessment of economic conditions. A wrong or too late diagnosis may result in false decisions and improper actions, which would only worsen the situation and compound the existing problems.

The basic idea behind this attempt was to combine business indicators for individual sectors of economy, compiled from survey data, into a single indicator reflecting the overall condition of national economy. This kind of macroeconomic index resembles the EU concept of economic sentiment indicator (ESI), but the author has also developed and tested alternative formulas, with different coverage and weights. The ultimate aim is to choose the best version of the indicator designed for operational use.

Economic sentiment indicator used in European Union is calculated as a weighted average of confidence indicators for industry, households, construction, and stock exchange. It is compiled and published monthly for all the member countries and for the EU as a whole. This indicator has proved to be very useful for monitoring and forecasting purposes.

In this project, several versions of economic sentiment indicator for Poland have been developed and tested, including the original EU ESI formula and alternative concepts proposed by the author. The latter cover major productive sectors: industry, construction, agriculture, and trade, and component indicators reflecting the business tendency in each sector are weighted by GDP shares. Four alternative formulas of the composite indicator, filled with survey data from two different sources, make a total of eight indicator variants tested in this project. Time series of the indicators have been compiled at monthly intervals for the period 1994–2001.

The comparative assessment of different ESI variants included four steps. First, the alternative ESI formulas were evaluated as to their economic significance, coverage, and weights. Second, statistical properties of the indicators were analysed using X11-ARIMA procedure, with particular attention paid to irregular and seasonal factors which may obscure the actual business tendency. Third, business tendencies reflected by our indicators, represented by their deseasonalised and MCD-smoothed time series, have been compared with the actual development of the economy as reflected by reference indices: GDP, IP, GCI (our own reference index). Fourth, component variables entering the composite index were tested against output or sales records in the respective sectors.

All that has helped us to select two ESI variants which seem most promising for monitoring purposes. The first is the closest implementation of the EU ESI concept while the second is the most consequent alternative proposed by the author. Both indicators were filled with the RIED survey data. Probably, an even better indicator could be obtained by filling the two alternative formulas with best fitted component variables taken from different sources of survey data. Such a composite indicator would include RIED's business indicators for industry and agriculture, CSO's indicators for construction and trade, and Ipsos-Demoskop indicator for households. All the component variables will be available at monthly intervals. However, in order to find the best variant of the indicator for operational use, a longer observation would be needed.

Some of our composite indicators reflect the actual changes in aggregate economic activity quite precisely, signalling major swings in advance. The recent slowdown of economic growth was announced at least 1–2 years in advance. The estimated regression equations can be used to project GDP growth rates.

The close correlation between composite indicators based on survey data and the statistical reference indicators provides an additional proof to the hypothesis that real macroeconomic developments depend to a large extent on microeconomic perception of current conditions and prospects. Microeconomic judgements influence the supply and demand decisions taken by economic agents, shaping the actual course of economic activity. Therefore, economic sentiment indicators, reflecting microeconomic judgements and attitudes, are a valuable tool in assessing current economic trends.

Our analysis brings some important conclusions as to the practical use of composite

indicators based on survey data and their proper interpretation. First, if such indicators are significantly affected by seasonal changes, they must be seasonally adjusted before any judgement is made about current business tendency. The latter is best reflected by the deseasonalised and MCD-smoothed time series representing trend and cycle. Second, survey-based indicators show changes in the growth rates of economic activity rather than changes in absolute output levels. A decrease in the indicator may reflect a worsening of economic climate due to a slowdown in economic growth, but not necessarily a recession.

Composite indicators of economic activity based on survey data are a helpful tool in assessing current economic trends and prospects. They can significantly increase the power of the existing macroeconomic monitoring and forecasting systems. Such indicators are intended to supplement other instruments used in macroeconomic assessments, but not to replace them. For a correct evaluation of the general state of economy we cannot rely on a single indicator, no matter how good it is. Composite indicators of economic activity based on survey data can easily be updated, using the newest survey data. The simplicity of the indicator and its availability on a monthly basis add to its attractiveness as a tool for monitoring and forecasting.

During the last two years Poland's economy experienced a marked slowdown, coupled with rising unemployment. The GDP growth rate fell to 1.0% in 2001, and it will probably remain so in 2002. The deceleration of economic growth contributed to a further rise in unemployment to 18.5%, but also to a substantial fall in inflation (the latter now, measured by the consumer price index, stays at about 1%). The expected recovery, as suggested by the rise of some indicators based on survey data, has not yet come true. Contrary to many optimistic growth forecasts, based on arbitrary assumptions, there are no real premises for a distinct revival in the economy during the next year. Apart from weak domestic investment and consumer spending, there is a prolonged slowdown in major export markets. Therefore, our estimate of the GDP growth rate in 2003, based on composite indicators of business activity and on a broader analysis of the macroeconomic context, is cautious: economic growth most probably will remain quite slow, ranging between 1% and 2%.

Even if further efforts are necessary to improve the quality of our composite indicators, some of them are ready for operational use. The research team implementing this project could continuously compile an economic sentiment indicator for Poland on a monthly or quarterly basis, giving a concise assessment of current economic trends and prospects. Macroeconomic assessment can be supplemented by the evaluation of current situation in major sectors of the economy. The results could be disseminated by one of the leading newspapers and made available on Internet. Such a constant information can be provided on behalf of a governmental agency, monetary authorities, an international organisation, or a private sponsor. The estimated total cost would be negligible as compared with information gain.

All the CEE & FSU countries in transition urgently need reliable monitoring and forecasting systems in order to assess their economic trends and prospects for business and policy purposes. Our experience in composite indicators of economic activity for Poland might be utilised in developing similar indicators for the other countries in transition.