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Indicator of Economic Sentiment and Confidence Indicator in Services

The Statistical Office of the Slovak Republic
Department of Production Statistics

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Indicator of Economic Sentiment and Confidence indicator in services

Business tendency surveys in the Slovak Republic are performed since 1983. Within the harmonization process the composition of questions has been gradually changed since 1983 and from 1993 business tendency surveys in industry, construction and retail trade are fully harmonised with requirements of the European Commission in the field of methodology, way of providing as well as realization of calculations of composite indicators. Business tendency surveys in services have been carried out since 2002.

Surveys in industry, construction, retail trade and services are provided in monthly periodicity on a voluntary basis. Extended set of questions is surveyed quarterly in some branches of industry, construction and services. Survey on investments in industrial branch is carried out every six months. Processed data are delivered to the EC monthly, or rather half-yearly on a regular basis in required size.

Both on the national and international level they are used for calculation of composite indicators (Confidence Indicator in Industry, Construction, Retail trade, Services, Consumer Confidence Indicator and subsequently calculated Indicator of Economic Sentiment), which describe expected short-term development of economic environment in relevant area.

IES and its components

Current state

Indicator of Economic Sentiment as composite indicator of opinion and expectations of participants of economic environment and opinions and postures of consumers is calculated on a monthly base since 1997. It is aggregated from results of processing of business tendency survey in industry, construction, retail trade and from results of processing on opinion of consumers on current economic situation.

Indicator of Economic Sentiment is calculated as weighted arithmetic mean of four partial components – confidence indicators in industry, construction, retail trade and consumers by the following formula:

$$IES = a \cdot ICI + b \cdot BCI + c \cdot RCI + d \cdot CCI$$

a, b, c, d are weights

ICI is Confidence Indicator in Industry having weight 40 %

BCI is Confidence Indicator in Construction having weight 20 %

RCI is Confidence Indicator in Retail trade having weight 20 %

CCI is Consumer Confidence Indicator having weight 20 %

Confidence Indicator in Industry (ICI) is composite indicator calculated as weighted arithmetic mean of business balances of the level of total demand, inventories of finished goods (with opposite sign) and expected volume of industrial production.

Confidence Indicator in Construction (BCI) is composite indicator calculated as weighted arithmetic mean of business balances of the total demand and expected employment.

Confidence Indicator in Retail trade (RCI) is composite indicator calculated as weighted arithmetic mean of business balances of current and expected business situation and inventories (with opposite sign).

Consumer Confidence Indicator is composite indicator describing expected total consumer confidence of population. It is calculated as weighted arithmetic mean of balances of expected development of economy, unemployment (with opposite sign), expected development of financial situation and savings in household.

IES including services – experimental calculations

Indicator of Economic Sentiment including Confidence Indicator in Services has begun to be calculated at the end of 2004. It is not officially released considering the short time series of available data for services (from 2002).

Indicator of Economic Sentiment is calculated as weighted arithmetic mean from five partial components – Confidence Indicator in Industry, Construction, Retail trade, Services and Consumer Confidence by the following formula:

$$IES = a*ICI + b*BCI + c*RCI + d*SCI + e*CCI$$

a, b, c, d, e are weights

ICI is Confidence Indicator in Industry having weight 40 %

BCI is Confidence Indicator in Construction having weight 5 %

RCI is Confidence Indicator in Retail trade having weight 5 %

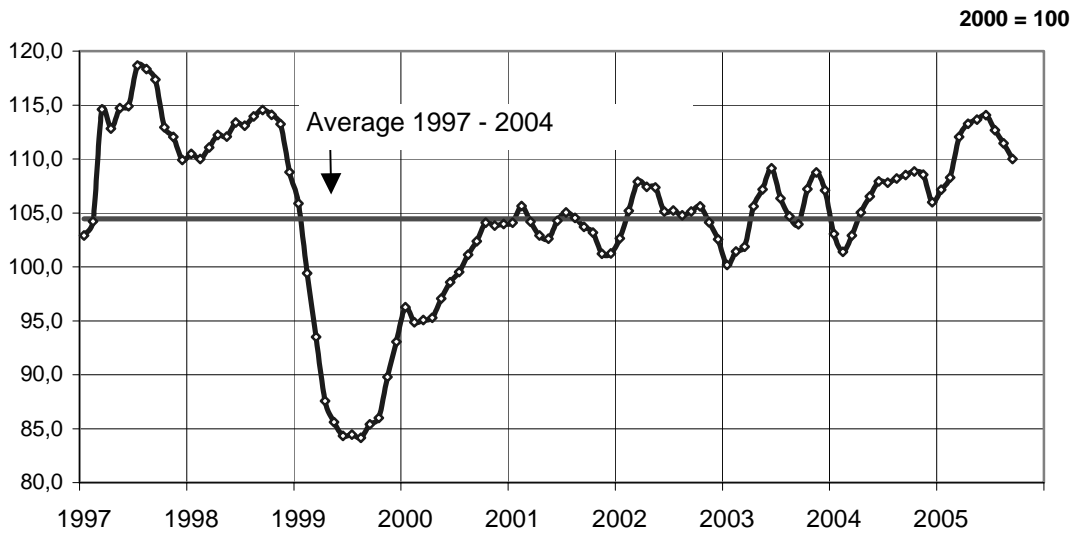
SCI is Confidence Indicator in Services having weight 30 %

CCI is Consumer Confidence Indicator having weight 20 %

Confidence Indicator in Services (SCI) is composite indicator calculated as weighted arithmetic mean of business balances of opinions of current business situation and of current and expected demand development.

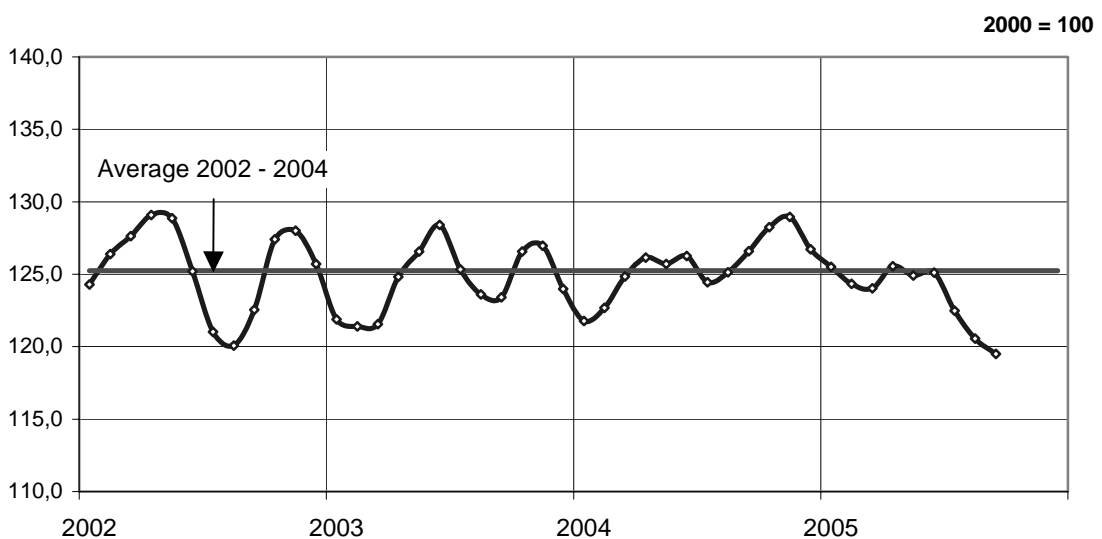
Comparison of results

Economic Sentiment Indicator without Services



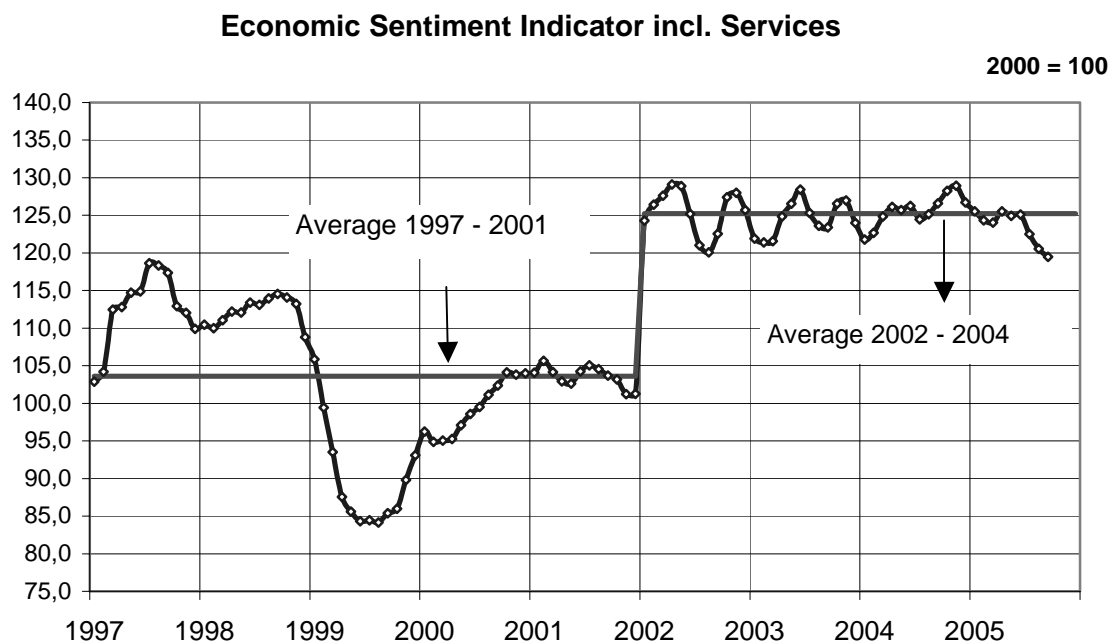
Indicator of Economic Sentiment (without Services) had downward trend after relatively favourable development in 1997 up to autumn of 1998, when parliamentary elections were held and it fell considerably in the first half of 1999. After considerable increase at the end of 1999, which still speeded up during the 2000, it oscillated about average value in 2001 up to 2004. Favourable development in the first half of 2005 having considerable rising tendencies was stopped in July and downward tendencies continued up to September 2005. The development in the 2nd half of 2005 was influenced by relatively considerable decrease in Consumer Confidence, which fell particularly owing to unstable political situation in this period (government lost major support in the parliament). Concerning the economic aspects rising prices of oil and oil products, which was reflected into unfavourable expectations of price development and development of the whole economy, had the most significant influence.

Economic Sentiment Indicator incl. Services



After including services into calculation of Indicator of Economic Sentiment, development tendencies did not change considerably except for 2005, when a drop of values of Confidence Indicator in Services was unfavourably reflected on development of the total indicator already in the 2nd quarter. But the level of achieved values of Indicator of Economic Sentiment went up significantly as well as average value of the long-lasting average for 2002 up to 2004 (approximately by 20 points).

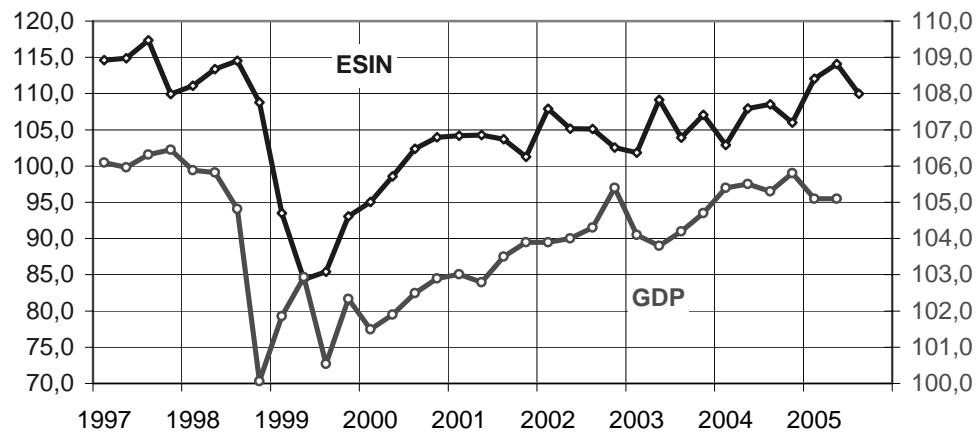
The following graph shows the development in the long-term, where break-even point is seen clearly (on the turn of 2001 and 2002), which came after including data of Confidence Indicator in Services into composite Indicator of Economic Sentiment together with change of calculation methodology.



Data for Confidence Indicator in Services are available only since 2002, i.e. relatively short time series in the long-term view, which does not enable to assume development and influence of the indicator on development tendencies of composite Indicator of Economic Sentiment in the longer-term view. This aspect was one of the decisive, which played the most important role in decision on publication of results of development of economic sentiment.

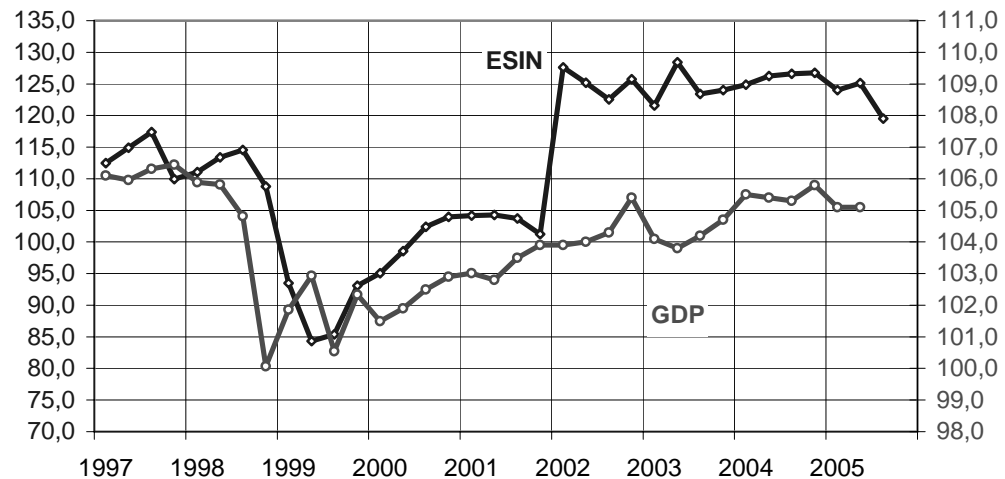
Comparison of IES and its components with GDP development

Economic Sentiment Indicator (without Services) and GDP (quarterly)



Development tendencies of the Indicator of Economic Sentiment lying in higher-level area and gross domestic product indicate the same line of development. After including the Indicator in Services, development tendencies did not change considerably. But values of indicator moved markedly to higher positive values.

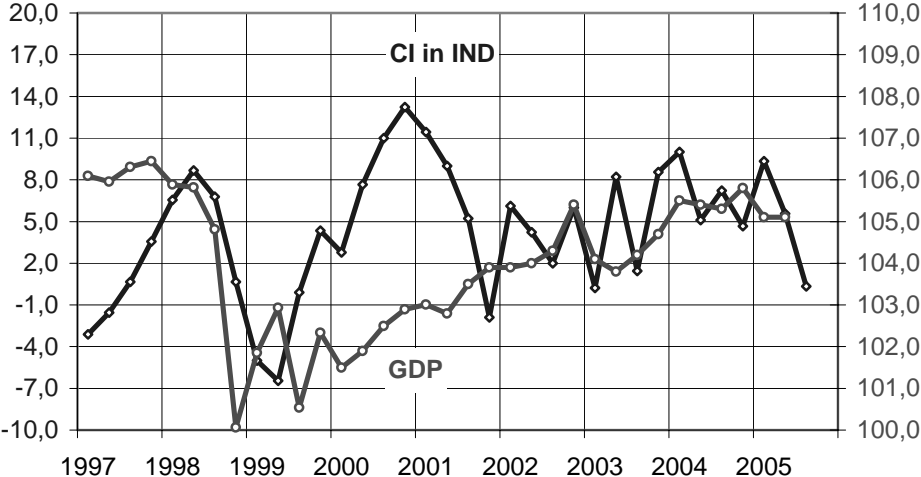
Economic Sentiment Indicator (incl. Services) and GDP (quarterly)



In comparison of GDP development with individual components of Indicator of Economic Sentiment – Confidence Indicator by branches and consumers, there is evident high rate of similarity of development tendencies almost of all components except development of Indicator in Services, which has downward trend in longer-

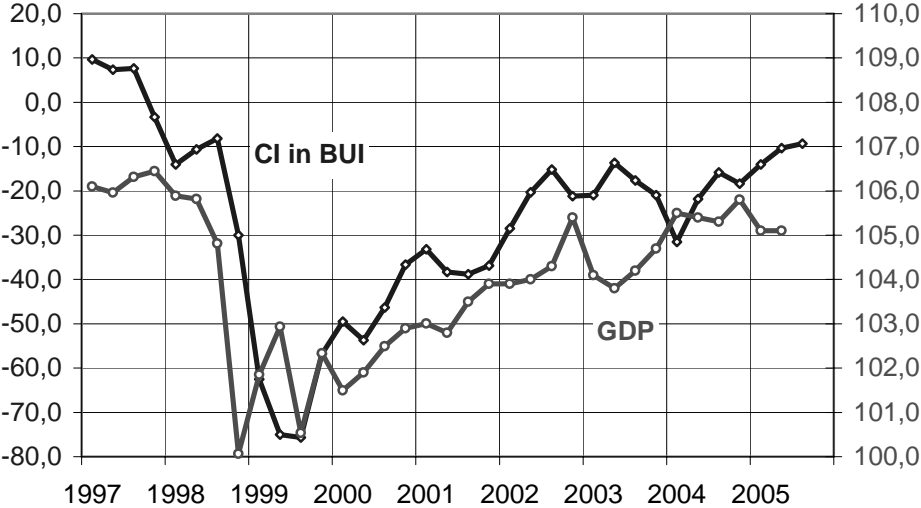
term with breaks of a growth of unimportant values and partially except Indicator of Confidence in Industry as well.

Confidence Indicator in Industry and GDP (quarterly)



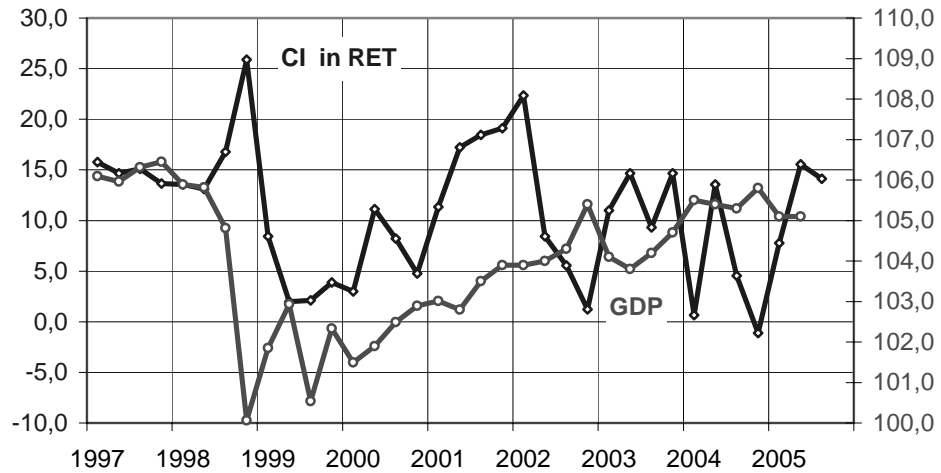
The greatest similarity of tendencies is between GDP and Confidence Indicator in Construction.

Confidence Indicator in Constuction and GDP (quarterly)



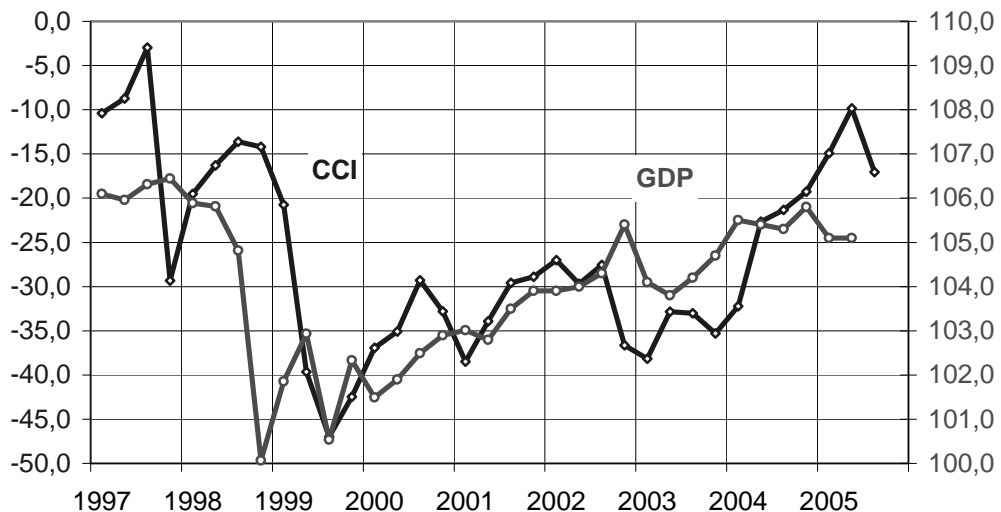
After almost equal development to 2002 Confidence Indicator in Retail trade is oscillating around the GDP development tendency in the following years.

Confidence Indicator in Retail Trade and GDP (quarterly)



Considerable similarity is also between GDP development tendencies and Consumer Confidence Indicator.

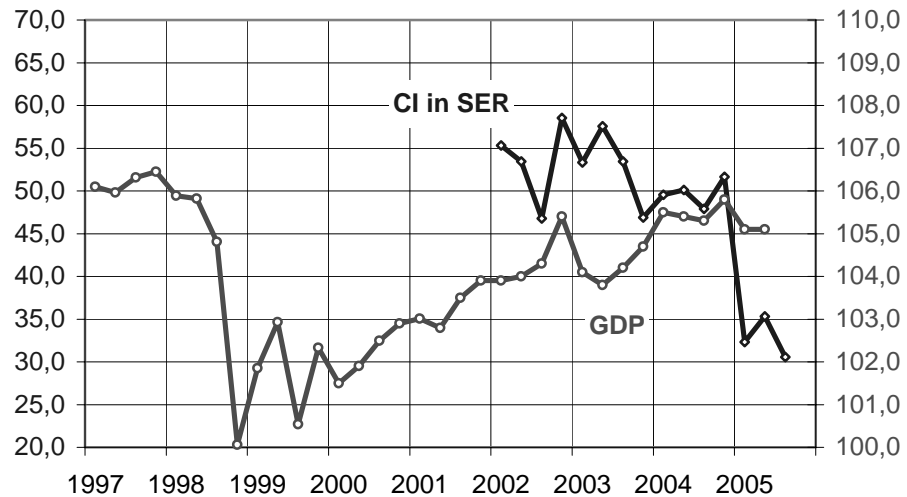
Consumer's Confidence Indicator and GDP (quarterly)



GDP development tendencies and Indicator of Confidence in Services show low rate of development similarity. Regardless services are significant part on GDP production (almost 60 %), development lines are not coincident, mostly on the turn of 2004/2005. This fact encourages analyzing of sample for 2005 and surveying used weight system in calculation of balances of individual indicators and is the other

significant factor, which influenced decision on publication of results by previous methodology.

Confidence Indicator in Services and GDP (quarterly)



Conclusion

Currently, results of calculations by previous methodology are officially released, i.e. services are not included into composite Indicator of Economic Sentiment. In this practice we will still continue in 2006 as well. Simultaneously we will calculate experimentally index by new methodology under providing of following measures:

Order of the next planned measures:

1. to analyze of sample and to survey weighted system used in calculation of Confidence Indicator in Services
2. to lengthen time series of Indicator in Services by retrospective re-calculations via econometric models
3. to continue in realization of experimental calculations of Indicator of Economic Sentiment by new methodology
4. after lengthening of time series of Confidence Indicator in Services to realize retrospective re-calculations of time series of Indicator of Economic Sentiment
5. to inform economic public on changes in realization of calculations in sufficient ahead of time
6. to release methodology of a new way in calculation together with first publication.

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