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ARE INDICATORS OF BUSINESS TENDENCY SURVEY USEFUL TO MEASURE CYCLICAL DEVELOPMENT OF THE RUSSIAN ECONOMY?

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History

- 1993: pilot surveys
- 1998: regular large-scale sectoral surveys
- 2009: all surveys are conducted by the Centre for Business Tendency Studies, Higher School of Economics (HSE) jointly with the Federal State Statistics Service (Rosstat)

Advantages of the joint HSE–Rosstat BTS

- accumulated data set over a long time period
- coverage of a wide range of regions, sectors and economic activities
- statistically significant compatibility of survey results with quantitative statistics
- compliance with international standards and classifications

Drawbacks

- frequency – only the Industry survey is monthly

Russian BTS program

Sectors	Starting year	Sample size	Frequency
Industry	1995	4 000	monthly
Construction	1993	6 500	quarterly
Retail trade	1998	4 000	quarterly
Wholesale trade	2000	3 000	quarterly
Services	2012	5 500	quarterly
Consumers	1998	5 000	quarterly
Investment	2001	10 000	yearly
Economic Sentiment Indicator	2011	25 000	quarterly

Motivation

- Testing sensitivity of business surveys data to cyclical development of the national economy
  - building an algorithm that tests the indicators for cyclical sensitivity through decomposition of their dynamics
- Constructing composite indicator that cover as far as possible all information of sectoral BTS results and allows us to track the cyclical profile in real economy … it is for future …
  - Now – as a proxy – we have modified the Economic Sentiment Indicator (HSE ESI) and tested their dynamics according to the proposed algorithm
- Evaluating retrospective turning points in GDP growth based on extracted cyclical profile in HSE ESI dynamics
- Visualizing the results as a tracer of the HSE ESI short-term cyclical profile and comparing cyclical development of economic sentiment and real economy

Algorithm to test indicators for cyclical sensitivity through decomposition their dynamics

- Statistical treatment: seasonal adjustment, outliers elimination, missing values recovery, standardisation (if needed)
- Decomposition of dynamics (double use of the Hodrick-Prescott filter)
  - identification of the medium-term cycle up to 15 years going through the HP filter for the first time
  - extraction of the unsmoothed short-term cyclical component – de-trended dynamics
  - smoothing the short-term cyclical component going through the HP filter for the second time
- Assessing the cyclic correspondence of the smoothed short-term cycles in qualitative and reference indicators
- Identifying turning points in the smoothed short-term cycles using the formalised Bry-Boschan procedure

Economic Sentiment Indicator (HSE ESI)

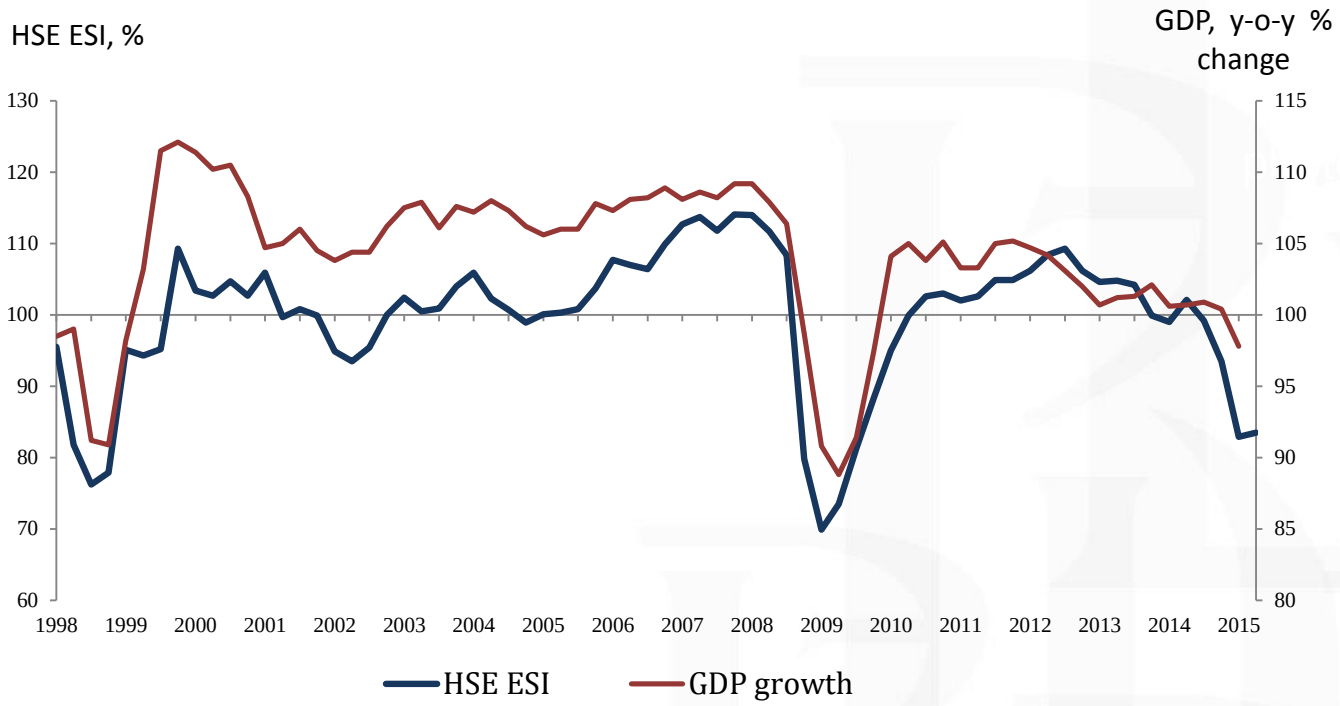
Coverage

- about 23 000 organizations and 5 000 consumers
- total contribution to the national GVA is about 80%

15 Components

- Industry:
  - level of order books
  - production expectation
  - level of stocks of finished products
- Construction:
  - current order book
  - employment expectation
- Retail trade:
  - current business situation
  - expected business situation
  - level of stocks
- Wholesale trade:
  - current business situation
  - expected business situation
  - level of stocks
- Services:
  - current demand
  - expected demand
  - current business situation
- Consumers:
  - confidence indicator

HSE ESI and GDP dynamics: graphical comparison



Correlations

0.814 lag (0)
0.705 lag (-1)

Decomposition: iterations

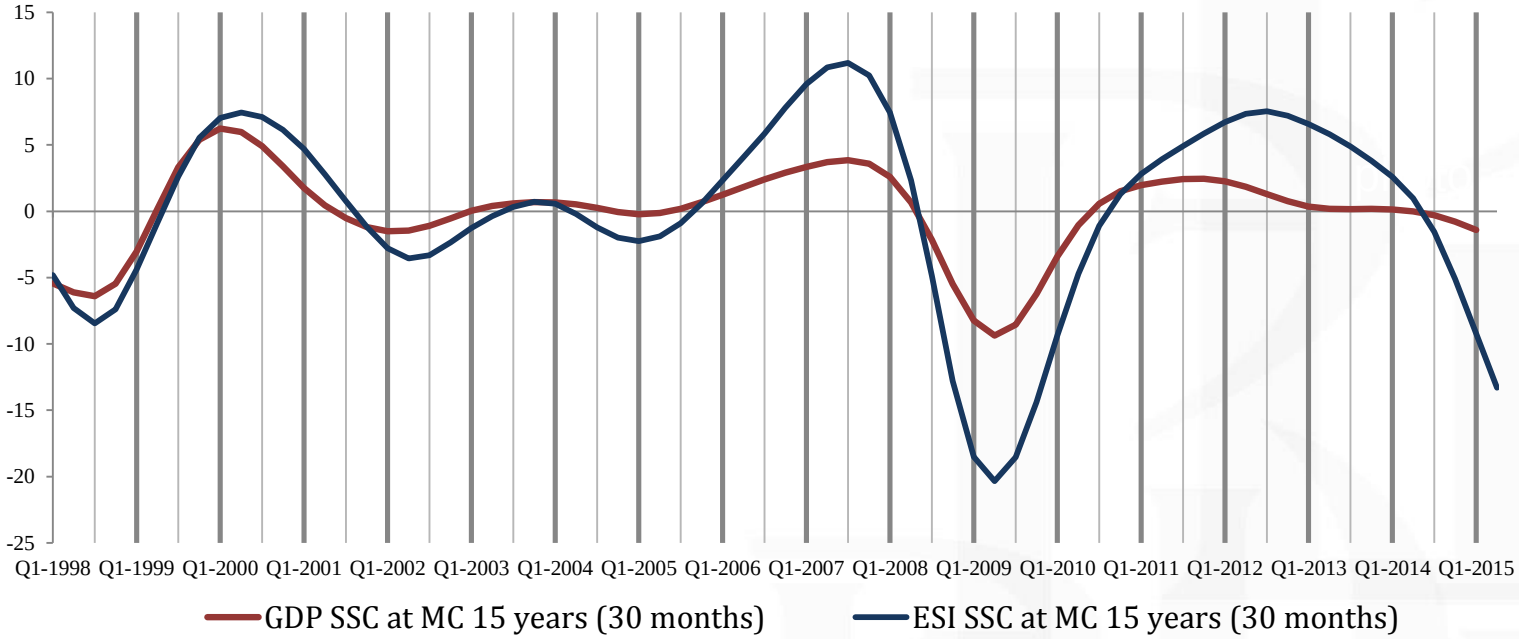
Iteration 1	
Years	**λ**
10	1649.327
15	8330.659

Iteration 2	
Months	**λ**
18	1
24	2.914
30	6.854

Correlation coefficients

0.912 lag (0)
0.878 lag (-1)
0.732 lag (-2)

Smoothed short-term cycle in HSE ESI and GDP growth



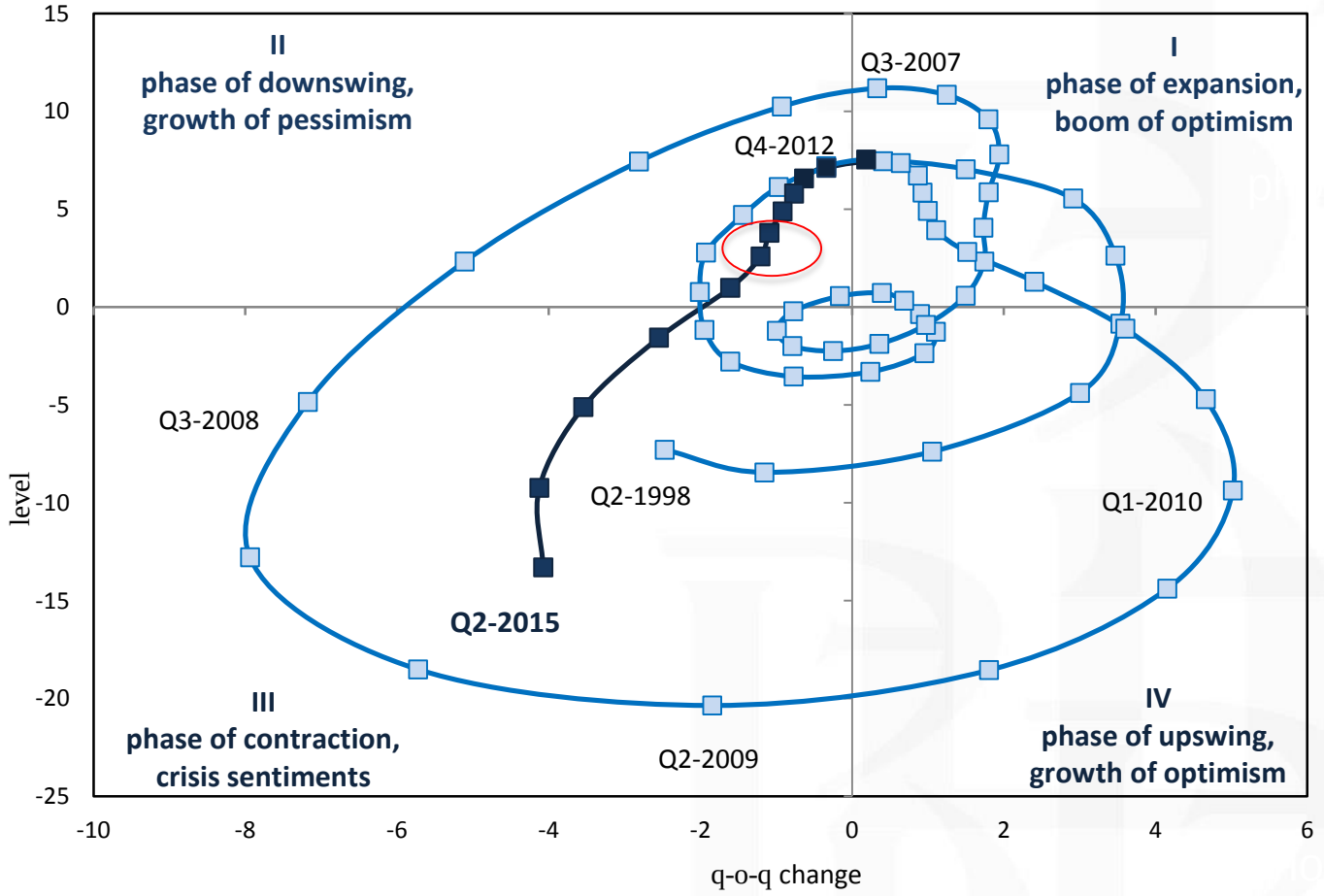
Correlations

0.912 lag (0)
0.878 lag (-1)
0.732 lag (-2)

Indication of short-term cycles in the dynamics of GDP and HSE ESI

	Turning points dating			
	GDP		HSE ESI	
	Peak	Trough	Peak	Trough
Cycle I	Q2 1997	Q3 1998	Q2 1997	Q3 1998
Cycle II	Q1 2000	Q1-2 2002	Q2 2000	Q2 2002
Cycle III	Q4 2003	Q1-2 2005	Q4 2003	Q1 2005
Cycle IV	Q3 2007	Q2 2009	Q3 2007	Q2 2009
Cycle V	Q4 2011		Q2 2012	

Tracer of the HSE ESI short-term cyclical profile



HSE ESI tracer and real economy

Period	Cyclical phase	Economic sentiment	Real economy
Q2-Q3 2012	expansion	peak of optimism	intensive economic growth
Q4 2012	downswing	growth of pessimism	gradual slowdown in economic growth, protracted stagnation
Q1 2014	Direction to cyclical recovery phase	possible optimism growth	possible economic recovery
Q2 2014	turned into the contraction phase	intensive pessimism growth	geopolitical tension, economic uncertainty
Q3 2014	contraction	crisis	drop in oil prices, currency depreciation ↓ inflation, real incomes decline
Q2 2015	the lowest value for the last 5 years	crisis	crisis escalation

Conclusion and future development

- Methodology
  - Proposed algorithm can be used to test potential qualitative components of CI and CIs themselves for cyclic sensitivity
  - Economic Sentiment Indicator (HSE ESI) shows high correlation (mainly synchronous) with GDP cyclical dynamics – it enables using the HSE ESI time series as a preliminary indicator of turning points and phases in GDP growth
  - The next point – to construct composite leading indicator for Russia
- Economy
  - Since Q2 2014 we can see pronounced downward trend in business and consumer sentiment and real economic activity in Russia. May be, the Russian economy has reached the cyclical minimum …

Thank you for your attention!

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