

## **A Survey of Composite Leading Indices for Russia**

### **Abstract**

Available composite cyclical indicators for Russia are surveyed, their components are enumerated and analysed. The aims, guiding concepts, and approaches of the newly established Russian Economic Cycle Dating Committee are also described. All the currently available monthly Composite Leading Indicators (CLIs) are tested against the most recent cyclical turning points for their capacity to provide a timely alarm signal, especially about an impending recession. It is shown that experts' informal judgments about Russia's future economic trajectory remain more informative than findings derived from formal empirical rules. This suggests that there is some room for improvement of the Russian CLIs and additional efforts should be made to construct better cyclical indicators for Russia.

### **1. Introduction**

During the long period of the planned economy, there were no real-time composite indicators to trace the level of economic activity in Russia (which was a part of the USSR). Furthermore, there was an ideological dogma that cyclical fluctuations are not possible in a planned economy. In conjunction with the lack of necessary statistical information, this made any empirical research in the field absolutely impossible. Several years after the collapse of the Soviet Union, the first attempts at constructing monthly composite coincident and leading indicators were made (Davydov *et al.* 1993, Popov and Frenkel 1996). However, they were not very successful. In the first half of the 1990s, the Russian economy was in a prolonged contraction and there was no opportunity to calibrate cyclical indices to give more confidence in their forecasting capabilities. After the Asian financial crisis of 1997, which seriously hit the Russian economy, a regular sequence of expansions and contractions began in Russia; it was only then that the construction of composite cyclical indicators became important for policy and business purposes. Since then, several systems of cyclical (leading, coincident, and lagging) composite indicators have been suggested. Some of them are still in use; others have disappeared and are now forgotten. In the next section, we survey all the current monthly updated composite leading indices (CLIs) for Russia and compare their components. In Section 3, we discuss the dating of cyclical turning points for Russia. After an examination of the real leading properties of all proposed composite leading indices (Section 4), we conclude.

### **2. Russian CLIs**

#### **2.1. Main Versions of Russian CLIs**

Currently, three reasonably efficient sets of composite cyclical indices are available for Russia.

Indices constructed by Smirnov (2001, 2006) were the first Russian cyclical composite indices to be regularly published; they are now published every month in the survey of the Russian economy produced by the Higher School of Economics (HSE).<sup>2</sup> They represent an example of a traditional system

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<sup>2</sup> See <https://dcenter.hse.ru/coi>

of leading, coincident, and lagging indicators with corresponding aggregated (or composite) indices. These indices are designed to predict the beginning and end of recessions (cyclical peaks and troughs) where recessions are understood as periods of declining economic activity. Historically, these composite indices used year-on-year growth rates instead of month-on-month seasonally adjusted growth rates, which are more appropriate for calculating base indices; hence, turning points of the Russian business cycle estimated with these indices may be slightly displaced. Another shortcoming is that the formula for aggregating components and their weights is not published and the current set of components is not strictly the same as that described in the latest publication (Smirnov, 2014). Since September 2000 (first publication), there have been six revisions of this system (April 2005, May 2006, January 2008, August 2011, January 2013, September 2016). Half of them were caused by involuntary changes in the statistical sources; the others were initiated by a desire to refine the methodology and to increase the forecasting quality.

Several years later, the Organisation for Economic Co-operation and Development (OECD) constructed a Russian CLI, which is now part of a set of similar indices for 47 countries and areas.<sup>3</sup> All of these indices, including the Russian one, use the concept of growth (not business) cycles. Meanwhile, it is not clear if the Russian economy – with all its volatility and sensitivity to external shocks - really has a definite long-term economic growth trend. Generally, the methodology for all the OECD calculations and the revisions of the Russian index are well documented (see OECD 2006, 2010) but the exact time of inclusion of one component (finished good stocks) and exclusion of another (US imports from Russia) cannot be traced precisely. They happened somewhere around February 2010, when the OECD's Russian CLI was substantially revised, but we cannot be any more certain than that.

Finally, since March 2014, the Eurasian Economic Commission (EEC, 2014) has calculated coincident and leading composite indices for Russia, Kazakhstan, and Belarus, which it publishes monthly.<sup>4</sup> Uniquely, these indices use automated selection of components for the leading indices. Revisions connected with the re-specification of the Russian composite leading index happened in April and July 2014, September 2015, May and November 2016, and March 2017).

Beside these three versions of a CLI for Russia, there are two other CLI-like aggregated indicators that may be used for understanding the current state of the Russian economy and forecasting the oncoming peaks and troughs.<sup>5</sup>

In 2012, a single composite index of economic activity, or some kind of a “barometer” for the Russian economy, was proposed (Frenkel *et al.*, 2012). Several leading, coincident, and lagging indicators are mixed as components of this composite index, as the authors understand them all to be coincident. This index has been revised twice, in December 2013 and February 2014. Although this composite index can be used for monitoring the Russian economy, it is of limited use as a forecasting and dating tool for

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<sup>3</sup> See <https://data.oecd.org/leadind/composite-leading-indicator-cli.htm>

<sup>4</sup> See [http://www.eurasiancommission.org/ru/act/integr\\_i\\_makroec/dep\\_makroec\\_pol/economyPrognoz/Pages/Krat\\_prog.aspx](http://www.eurasiancommission.org/ru/act/integr_i_makroec/dep_makroec_pol/economyPrognoz/Pages/Krat_prog.aspx)

<sup>5</sup> Several indicators based exclusively on surveys of enterprises (e.g., Purchasing Managers' Indices by IHS Markit) as well as some “exotic” cyclical Russian indices are not considered here; see Smirnov (2014) for a survey of these. Russian cyclical indices calculated by Economic Cycle Research Institute (ECRI) were omitted from this analysis as no public information on their methodology and components is available. Confidence indicators based on the HSE-Rosstat BTS are described in (Lipkind *et al.* 2018) and the composite index of Regional Economic Activity (REA) in (Smirnov and Kondrashov 2018).

cyclical turning points. In addition, the indicator is not published monthly,<sup>6</sup> resulting in some inevitable additional lags in discerning cyclical turning points.

Since 2013, the Center for Macroeconomic Analysis and Short-Term Forecasting (CMASF, 2013, Pestova, 2013,) has used a signal approach to estimate two separate risks – the risk of entrance into a recession during the three next months and the risk of coming out of recession (if it has already begun).<sup>7</sup> They calibrated their model using a panel of several dozen countries and then applied it to Russia. Hence, they also do not differentiate between leading, coincident, and lagging components, but instead consider all of them as leading.

## **2.2. Sets of Components**

All Russian composite cyclical indices mentioned above, along with their components are given in Table 1 (we list only the most recent sets of components for all these indicators, not all historical versions of those sets). Several additional comments are needed.

Firstly, the leading indicators most frequently used as components of composite indices are: crude oil prices, stock market index, and order books from (different) Business tendency surveys (BTSs); on the other hand, none of the indicators are used by all authors and no Russian cyclical composite index has the yield curve as a component.

Secondly, the composite index constructed by CMASF (2013) uses the OECD's business confidence index as one of its components. Smirnov (2001, 2006) and OECD (2006, 2010) indices have several common components (crude oil price, the same stock index, the same BTS). Hence, all these indices are not strictly independent.

Thirdly, sometimes different authors use the same statistical indicators as components with different types of lags. For example, Smirnov (2006) understands freight transportation turnover as a coincident indicator while the EEC (2014) understands it as a leading one; Smirnov (2006) considers number of unemployed as lagging while CMASF (2013) as leading.

Fourthly, there is only one full system of cyclical indicators (leading, coincident, and lagging) (Smirnov 2006). Evidently, cyclical movements of a broad range of Russian statistical time-series have not been analyzed in detail.

This does not mean that the existing Russian composite leading indices are useless. In any case, their practical ability to predict recessions should be examined.

## **3. Dating of Cyclical Turning Points for Russia**

It is important to note that there is no unanimity among Russian experts concerning the concept of business cycles. For example, the OECD investigates growth cycles, whilst all others analyze cycles of economic activity; CMASF (2013) identifies the beginning of a recession as the first month in which the 12-month moving average growth rate of real GDP is negative, while Smirnov (2017) regards the beginning of a recession as the first month after a cyclical peak, which is the turning point between an expansion and contraction in economic activity. Meanwhile, the cyclical indicators currently used by Smirnov (2001, 2006) are more suitable for monitoring growth rate cycles, not classical business cycles; hence, some inconsistencies are evident.

<sup>6</sup> See <http://www.inesnet.ru/keywords/sostavlyayushhie-kies/>

<sup>7</sup> See <http://www.forecast.ru/SOI.aspx>

**Table 1. Components of the available Russian composite cyclical indices**

Composite cyclical indices					
Publications with descriptions of the indices	Smirnov (2001, 2006)	OECD (2006, 2010)	Frenkel <i>et al.</i> (2012)	CMASF (2013)	EEC (2014)
First published for (month/year)	09/2000	04/2006	08/2012	02/2013	04/2014
Components*					
<i>Products and financial markets</i>					
Crude oil price	L	L	C		L
RTS Stock market index	L	L			L
Interest rate (MIACR overnight)	L			L	
Real effective exchange rate	L			L	
Price of dwelling space in Moscow	Lg				
<i>BTs**</i>					
Manufacturing, production tendency		L			
Manufacturing: production expectations					L
Manufacturing: order books	L	L	C		
Manufacturing: export orders books		L			
Manufacturing: finished goods stocks	L				
Manufacturing: financial self-sufficiency			C		
Industry: capacity utilization			C		
<i>Real and household sector</i>					
Agriculture production	C				
Industrial production			C		C
Mining production	C				
Manufacturing production	C				
Construction production	C				
Freight transportation turnover	C		C		L
Retail trade sales	C		C		C
Paid services to population	C		C		
Employment			C		
Unemployed	Lg			L	
Fixed investments			C		C
Real disposable income			C		L
<i>Banking sector and money supply</i>					
Personal bank deposits			C		
Absolutely liquid bank assets				L	
Credits to real sector	Lg		C		
Consumer and enterprise loans				L	
Loans-to-credits ratio				L	
M2 Money aggregate	L				
<i>Foreign sector</i>					
Current account balance				L	
Foreign exchange reserves	Lg				
Foreign debt-to-foreign exchange reserves				L	
Imported autos	Lg				
<i>Other indicators</i>					
OECD's Business confidence index for Russia				L	
OECD's Composite leading index for the USA				L	

\* The components are considered as leading (L), coincident (C), and lagging (Lg); \*\* different authors use different Russian Business tendency surveys (BTs).

Moreover, there are several leading, coincident, and (rarely) lagging composite indices proposed for Russia, but no commonly recognized set of cyclical peaks and troughs. Each leading index anticipates its unique set of turning points. Hence, there has been no way of comparing various CLIs for their leading properties in a strict way in order to choose the best one. Furthermore, recently Smirnov *et al.* (2017) revealed that the exact dates of turning points – if defined with formal methods only – always depend on the nuances of the procedures used (such as the choice of supposedly coincident indicators, methods of seasonal adjustment, frequency filters, etc.). As no decision may be *a priori* seen as flawless, there are only two options:

a) To allow each expert to estimate cyclical turning points independently. In this way, a set of peaks and troughs will change not only from one researcher to another but also when the time-series is updated by the same researcher. Implicitly, the OECD has chosen this way: its set of turning points for Russia is not constant but drifts over time.

b) To establish a national dating committee comprising a number of credible experts in the field of Russian economic cycles. This committee may define – by a consensus decision – the next peak (or trough) 9–18 months after it has occurred. Thereafter, this date will never change and any researcher should use the same set of turning points to analyze historical cyclical processes or to calibrate his own forecasting instruments. Most successfully, this option has been used in the United States where cyclical peaks and troughs dated by the NBER’s Business Cycle Dating Committee are now seen as a common benchmark.<sup>8</sup> Among BRICS, this approach has been used in Brazil (see Picchetti 2018) and partially in South Africa, where no formal national dating committee exists, but business cycle turning points are determined by an internal committee of experts at the South African Reserve Bank (see Venter 2018).

In Russia, such a committee was established by the Association of Russian Economic Think Tanks (ARETT) in June, 2017. It consists of eight members: Vladimir Bessonov (Higher School of Economics), Sergey Drobyshevsky (the Gaidar Institute for Economic Policy), Eugene Nadorshin (Pension Fund “Capital”), Sergey Nikolaenko (Vnesheconombank), Alexander Schirov (Institute of Economic Forecasting, Russian Academy of Science), Sergey Smirnov (Chairman, Development Center and Higher School of Economics), Oleg Solntsev (Center for Macroeconomic Analysis and Short-Term Forecasting), and Anton Stroutchenevski (Sberbank CIB). They work for authoritative Russian universities, independent think-tanks, and financial companies; all of them have published on the topic in scientific journals and business press.

The main aim of the ARETT’s Economic Cycle Dating Committee (Russian Dating Committee, RDC) is to date turning points (peaks and troughs) of the Russian business cycle, or cycle of economic activity (not growth or growth rate cycle). The main concepts and principles by which the Committee is guided in its work are outlined in a special memorandum (see Appendix 1).

According to the RDC’s preliminary discussions, the latest Russian recession began in January 2015 and ended in June 2016 (December 2014 is the latest peak and June 2016 is the latest trough).<sup>9</sup> The RDC has not dated the turning points of preceding Russian cycles (although it is likely that it will do so in the future). Using estimates made by Smirnov *et al.* (2017), we may trace Russian business cycles from 1980 to the present day (see Table 2).

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<sup>8</sup> It was not always the case. In the end of the 1980s – beginning of the 1990s, many criticized the NBER’s choices. For examples, see McNees 1987; Diebold and Rudebusch 1992; Boldin 1994; Romer 1994. Later, the number of sceptics became less but not equal to zero (see Berge and Jordà 2011; Stock and Watson 2014).

<sup>9</sup> Official press-release of the RDC is not published yet.

**Table 2 Durations of the identified Russian economic cycles and/or phases, in months**

Reference dates		Contraction	Expansion	Cycle	
Peak	Trough	(peak to trough)	(previous trough to this peak)	(trough from previous trough)	(peak from previous peak)
NA	Dec. 1979*	NA	NA	NA	NA
Jan. 1989	Nov. 1996	94	109	203	NA
Nov. 1997	Sep. 1998	10	12	22	106
May 2008	May 2009	12	116	128	126
Dec. 2014	Jun. 2016	18	67	85	79

Note: \* rough estimate; we only know two facts: a) 1979 was a recession year; b) there was an expansion from January 1980 onwards.

Sources: Smirnov *et al.* (2017)

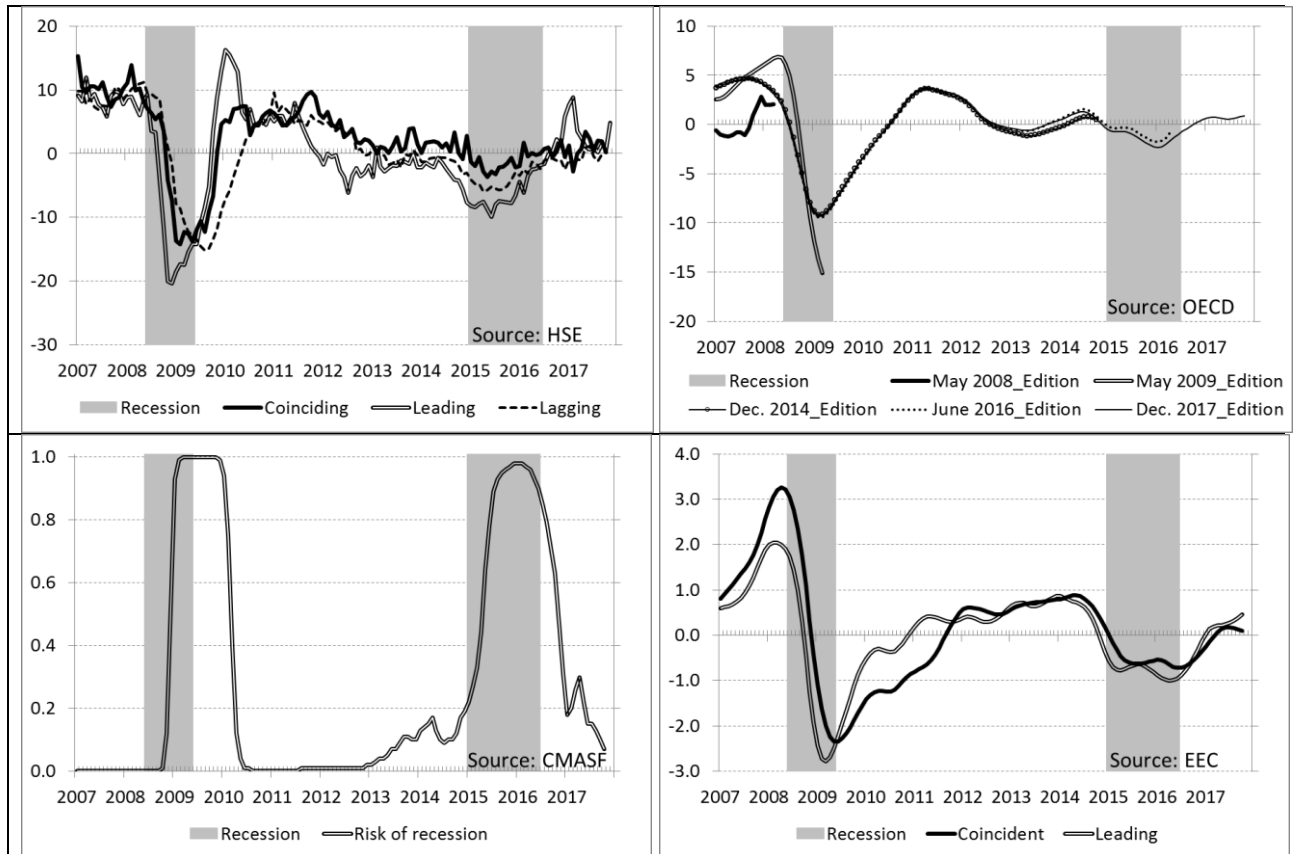
Note that for calibrating leading, coincident, and lagging indicators, only the turning points for the two or three latest recessions matter: there are almost no monthly time-series in Russia from the beginning of the 1990s that are still in use; most of the currently available statistical indicators began at least 10-15 years later.

#### 4. Warning Signals for the Recent Russian Recession

To establish if there were timely warning signals for the recent Russian recession (in other words, for the corresponding peak and trough) we first plotted all available Russian cyclical indicators. For HSE (see Smirnov 2001, 2006), these are the year-on-year growth rates of coincident, leading, and lagging composite indices; for the OECD (2006, 2011) these are real-time vintages (editions) of the amplitude-adjusted Russian CLIs (minus 100); for the CMASF (2013) this is the probability of entering into recession; for the EEC (2014) these are coincident and leading indices (minus 100).<sup>10</sup>

Figure 1 shows clearly that the turning points of almost all composite leading indicators precede the cyclical turning points mentioned in Table 2. However, there are two issues that suggest that the problem of forecasting leading indicators has not been resolved. They are: a) the turning points of CLIs tend only to become evident retrospectively; because of the volatility of CLIs, there is often insufficient information to identify them in real time; b) by construction, CLIs do not signal a reversal in economic trends (from expansion to contraction or vice versa) but only indicate slower or faster movement in the same direction.

<sup>10</sup> As time-series by Frenkel *et al.* (2012) are never published there is no corresponding chart.



**Figure 1. Composite cyclical indicators for Russia**

For this reason, we analyzed all available Russian CLIs in two additional dimensions. We considered: a) the results of applying a very simple decision rule to the CLIs real-time trajectories; and b) real-time expert judgements taken from relevant official press-releases. Table 3 sets out the results of a decision rule (DR) and the appropriate expert judgements (EJ) to each composite index.

As a decision rule, we used the so called “five-sixths” rule of thumb. This rule implies that five or six growing months (out of six in a row) signal an oncoming expansion while null or one growing months (out of six) signal an oncoming contraction. All other values do not give definite signals for a change in the direction of the economic trajectory.<sup>11</sup> “Plus” in a cell in Table 3 means that the latest available signal is positive (economic activity will grow); “minus” means that the latest signal is negative (economic activity will decline).<sup>12</sup>

<sup>11</sup> See Smirnov (2011) for a survey of such decision rules and their properties. It might appear from the results below that the “five-sixths” rule is too rigid. We tested several other decision rules, and the results were generally the same (they are available upon request).

<sup>12</sup> To take into account the specifics of the EEC’s index we considered zero change as growth. For all other indices, this does not matter. We also considered  $(1 - \text{CLI})$  instead of CLI for the CMASF index: for better comparisons with other indices we converted their estimate of probability of recession into probability of expansion. Values of Frenkel’s index are not published and so no decision rule can be applied to them.

Table 3 Warning signals from various Russian CLIs

Month of release	Smirnov (2001, 2006)		OECD (2006, 2010)		Frenkel <i>et al.</i> (2012)		CMASF (2013)		EEC (2014)	
	DR	EJ	DR	EJ	DR	EJ	DR	EJ	DR	EJ
Jan. 2014		=	+	=	NA	NA		>	NA	NA
Feb. 2014		=	+	=	NA	=		>	NA	NA
Mar. 2014		<	+	=	NA	NA		>	NA	NA
Apr. 2014	-	<		<	NA	=		>	NA	NA
May 2014	-	≤	-	<	NA	NA		≤	+	=
June 2014	-	=	-	<	NA	=	-	<	+	>
July 2014		=		=	NA	=	-	<	+	=
Aug. 2014		=	+	≥	NA	NA		<	+	>
Sep. 2014		=	+	>	NA	<		<	+	>
Oct. 2014		≤	+	>	NA	<		<	+	>
Nov. 2014		<	+	≤	NA	<	+	<	+	>
Dec. 2014		<		=	NA	<	+	<	+	=
Jan. 2015		<		<	NA	NA		<		<
Feb. 2015		<	-	<	NA	<		<		<
Mar. 2015		<	-	<	NA	<	-	<		<
Apr. 2015		<	-	<	NA	<	-	<	-	<
May 2015		<	-	<	NA	<	-	<	-	<
June 2015		<		≥	NA	NA	-	<		<
July 2015		<		≥	NA	NA	-	<		=
Aug. 2015		<	-	>	NA	NA	-	<		=
Sep. 2015		≤	-	≤	NA	<	-	<		<
Oct. 2015		≤		<	NA	<	-	<	+	=
Nov. 2015		≤		NA	NA	<	-	<	NA	NA
Dec. 2015		=	-	<	NA	<	-	<	+	=
Jan. 2016	+	<	-	<	NA	NA	-	<	+	=
Feb. 2016		<	-	<	NA	<	-	<	+	>
Mar. 2016		<	-	<	NA	<	-	<	NA	>
Apr. 2016		<	-	<	NA	<	-	<	NA	=
May 2016		<		≥	NA	<	-	<	NA	>
June 2016	NA	NA		≥	NA	<		<	NA	>
July 2016	NA	NA	NA	NA	NA	NA		≤	NA	>
Aug. 2016	NA	NA	NA	NA	NA	NA		≤	NA	>
Sep. 2016	NA	NA	+	>	NA	<	+	>	NA	>
Oct. 2016		≤	+	>	NA	<	+	>	NA	>
Nov. 2016		>	+	>	NA	<	+	>	NA	>
Dec. 2016		>	+	>	NA	NA	+	>	NA	>
Jan. 2017	NA	NA	+	>	NA	NA	+	>	NA	>
Feb. 2017	+	≥	+	>	NA	NA	+	>	NA	>
Mar. 2017	+	≥	+	NA	NA	<	+	>	NA	>
Apr. 2017	+	≥	+	>	NA	NA	+	>	NA	>
May 2017		≥	+	>	NA	<		>	NA	>
June 2017		≥	+	>	NA	NA		>	NA	>
July 2017		≥		≤	NA	NA		>	NA	=
Aug. 2017		≥		≤	NA	NA		>	NA	=
Sep. 2017	-	≥		≤	NA	NA	NA	NA	NA	=

Notes: NA – not available; DR - decision rule; EJ - expert judgement. Recent peak (December 2014) and trough (June 2016) are marked with grey. See text for other explanations.



As for expert judgments, we used the following notations for short-run outlooks of economic activity:

- < – definitely bad or worse (continuation of contraction or certain deterioration);
- ≤ – slightly worse (some signs of deterioration);
- = – same (no definite changes);
- ≥ – slightly better (some signs of improvement);
- > – definitely better or good (certain improvement or continuation of expansion).

As Russian authors do not use certain verbal formulas in their expert judgements, we “translated” these judgements into our own categories according to their general sense. For the OECD’s news releases we compiled a special short “glossary” (see Appendix 2).

Keeping this in mind, we should draw attention to the following:

Firstly, the beginning of the recent recession was forecasted in advance – in their expert judgements - by all experts under consideration, except the EEC: by CMASF (8 months beforehand), by Frenkel *et al.* (4 months), by Smirnov (3 months), and by the OECD (2 months) (the EEC’s alarm signal was simultaneous with the first month of the recession, that is 1 month after the peak). The beginning of the recent expansion was forecasted in advance by EEC (9 months), the OECD (4 months), CMASF (2 months). Smirnov was delayed by 1 month, while Frenkel *et al.* have not recognized the ending of the recession until now, more than one year after the trough. Evidently, the general pessimism (Frenkel *et al.*) or optimism (EEC) of experts matters.

Secondly, no single index gave an alarm signal for the beginning of recession in advance (several negative signals in April–July, 2014 were later “compromised” with evidently positive signals; therefore, they cannot be considered as the leading alarm signals). The most impressive gap between the formal decision rule and informal expert judgement may be seen in August, 2014–February, 2015 when the CMASF index showed no signs of recession but CMASF experts insisted that recession was inevitable (and they were correct!). As for the beginning of the expansion, the OECD’s and CMASF’s indices gave signals 2 months before the first month of growth but their expert judgments were more perceptive, especially for the OECD.

All this means that for their judgments, experts evidently used some information not contained in the trajectories of their indices. The intuition and practical experience of experts made their verbal judgments better (more informative) than their CLIs.

## 5. Conclusion

Several CLIs for Russia are published on a regular monthly basis. They have different components, use different weightings and calculations, and are even based on different concepts of cycles and recessions (respectively, they use different sets of peaks and troughs).

The Russian Dating Committee (RDC), which is made up of authoritative independent experts, has been recently established. It has not yet “officially” dated cyclical turning points of the latest cycle, however it has preliminarily identified December 2014 as the peak and June 2016 as the trough. This

has provided an opportunity for meaningful comparison of the forecasting properties of various Russian CLIs.

Three CLIs were most informative: those produced by the OECD, CMASF, and Smirnov. The fact that expert judgments extracted from official news releases gave better warning signals for the beginning and the end of the recent recession than the trajectory of CLIs may mean several things: a) the initial statistical time-series compiled by Rosstat (the Russian statistical agency) or their seasonally adjusted versions are of poor quality (especially, in real time); b) available CLIs miss some important variables while experts implicitly use some additional information that is not contained in available CLIs. The latter may already be quite useful for monitoring the current economic situation, but additional research for more careful calibration of the broad spectrum of economic and financial indices, as well as their identification as leading, coincident, or lagging indicators for the Russian cycle, is evidently needed.

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## Appendix 1. Memorandum of the Russian Economic Cycle Dating Committee

### Russian Economic Cycle Dating Committee (Russian Dating Committee, RDC) under the Association of Russian Economic Think Tanks (ARETT): Key Concepts and Approaches

1. The Russian Economic Cycle Dating Committee (Russian Dating Committee, RDC) under the Association of Russian Economic Think Tanks (ARETT) uses the following concepts in its work:
  - *Cycle of economic activity* (business cycle): Fluctuations in Russian economic activity that continue through several quarters for 10–12 years or more. A full cycle in this sense comprises two phases: growth and contraction (recession), which do not adhere to strict pattern of periodicity.
  - *Phases of growth and contraction (recession)*: Alternating periods of overall increase and decrease in economic activity. During the growth phase, production and sales volumes of goods and services in the entire economy, and in most sectors, grow; in the contraction (recession) phase, they fall.
  - *Turning point*: A moment in time immediately preceding the transition of the economy from one phase to the other.
  - *Peak*: A moment when economic activity is at its maximum, followed by the economy's transition from a growth phase to recession.
  - *Trough (or bottom)*: A moment when economic activity is at its minimum, followed by the economy's transition from recession to growth.
2. The RDC's goal is to date turning points in Russian cycles of economic activity (business cycles) to appropriate months.
3. The RDC does not see it as its goal to date turning points of growth cycles (deviations from the long-term trend) or growth rate cycles. Nor does the RDC develop or test theories that seek to explain the existence of economic cycles, or identify drivers of any particular cycle or cyclical phase. Any member of the RDC may, as an individual, study these issues but their opinion on such matters should be considered as their own personal view.
4. When offering real-time comments on the state of the Russian economy, members of the RDC may define the Russian economy as reaching or not reaching a recent turning point (peak or trough). The RDC will formulate a consolidated position of its members over time, taking as much time as is needed to conclusively analyze the situation.
5. Every RDC member uses those indicators and methods in their analysis that they feel are most useful. RDC members form a consolidated position through open and grounded discussion of the results put forward, taking into account not only the results of statistical tests, but also members' qualitative analyses.
6. Although the RDC's decisions always relate to the past, rather than the current, state of the economy, it would be erroneous to assume that they are 'delayed'. The RDC seeks to date turning points as soon as it becomes clear that the coming change in economic activity will not be a continuation of the preceding phase, but will constitute a new phase of the cycle; besides, statistical data that appears should enable these turning points to be discerned with reasonable accuracy. As a rule, this takes 6–9 months, from the month of the turning point.
7. If the subsequent revision of Rosstat data radically changes the perception of the course of the Russian economic cycle, then the RDC may update the turning point dating.
8. If there are two or more months that offer almost similar grounds to be considered turning points, the RDC prefers to choose the later one.

9. Results of and grounds for dating are published by the RDC in dedicated press releases on the RDC website.
10. Dating of cyclical turning points established by the RDC can be used for further analysis of historical economic dynamics in Russia, and to predict future dynamics, in particular in developing and calibrating systems of leading, coincident, and lagging indicators.

**Appendix 2. Short glossary for the OECD's news releases**

Standard "diagnoses" by the OECD	Short notation
Growth below trend Weak growth momentum Growth losing momentum	<
Tentative signs of easing growth Growth tentatively losing momentum Signs of easing growth Signs of slowing growth momentum	≤
Stable growth momentum Growth around trend	=
Tentative signs of positive change in growth momentum Signs of positive change in growth momentum Stabilization of growth momentum	≥
Growth gaining momentum Growth picking up Stable growth momentum	>