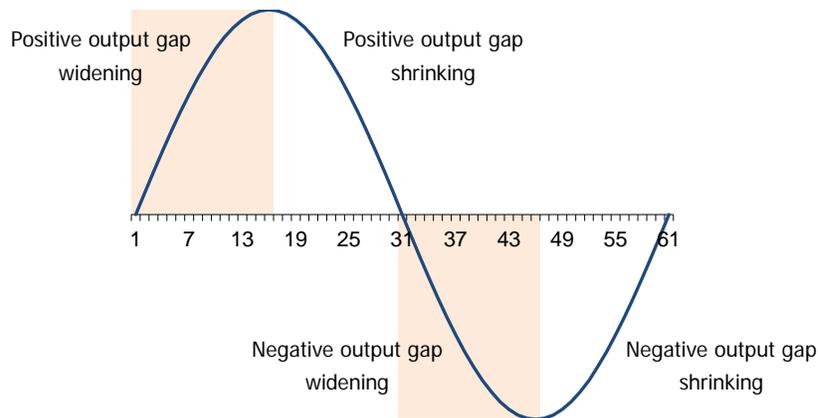


Methodological Notes

Purpose

The OECD Composite Leading Indicators (CLIs) are designed to provide early signals of turning points in business cycles – fluctuations of economic activity around its long term potential level. The approach, focusing on turning points (peaks and troughs), results in CLIs that provide qualitative rather than quantitative information on short-term economic movements. The identification of four cyclical phases forms the basis of this qualitative approach:



Reference Series

An OECD Composite Leading Indicator, as the name suggests, is constructed from a small number of economic time series that have similar cyclical fluctuations to those of the business cycle, and moreover have a tendency to turn earlier than the business cycle. The business cycle is typically represented by movements in GDP around its long term trend.

Up till March 2012, the OECD system of composite leading indicators has used the index of industrial production (IIP) as a reference series, which is available on a monthly basis and has also, historically at least, displayed strong co-movements with GDP.

In 2011 however the OECD has investigated whether methods could be applied to generate monthly estimates of GDP based on the official quarterly estimates. This investigation has demonstrated that it is feasible to do so, whilst also continuing to provide high quality results. From April 2012 therefore the OECD has switched to using GDP as the reference, ceasing to rely on the IIP as an intermediate target. The change means that the timeliness of the reference series decreases by approximately two months but the timeliness of the CLI is not affected and the change brings improved clarity and interpretability of the CLIs; as the CLI based projections will be referenced to a broader measure of economic activity. More detailed information explaining the changeover from the IIP to GDP as the reference series is available at: <http://www.oecd.org/sdd/leading-indicators/49985449.pdf>

Summary Methodology

The OECD CLIs are composite indicators with components that:

- measure early stages of production,
- respond rapidly to changes in economic activity,
- are sensitive to expectations of future activity or
- are control variables that measure policy stance.



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All components are passed through a series of filters before aggregation (seasonal adjustment, outlier detection, trend-removal, smoothing and normalisation). The composite indicator is constructed to preserve the leading properties of the components, but at the same time have more stable lead times, and have fewer missed or extra turning-points with respect to the business cycle than the components alone.

The CLIs reflect statistical information available at the time of the calculation. Hence they may not fully reflect the potential impact of the most recently policy announced measures.

More information on methodology is available in the following document: "[OECD system of composite leading indicators](#)".

The historical performance (median lead, and standard deviation) of the CLIs, with the most recent turning points marked are set out in the table below:

	CLI Historical Performance Lead at all turning points			Recent Turning Point dates in the CLI	
	start year	mean	st. dev.	trough	peak
OECD Area	1961	6	6.2	Feb 2009 (Confirmed 3 months lead)	Feb 2011 (Provisional)
Euro Area	1970	6	5.3	Feb 2009 (Confirmed 4 months lead)	Feb 2011 (Provisional)
Major Five Asia*	1990	5	5.1	Dec 2008 (Confirmed 2 months lead)	Jan 2010 (Provisional)
Major Seven	1959	6	5.8	Feb 2009 (Confirmed 3 months lead)	Mar 2011 (Provisional)
Canada	1956	8	7.1	Feb 2009 (Confirmed 4 months lead)	Mar 2010 (Provisional)
France	1970	7	5.6	Feb 2009 (Confirmed 3 months lead)	Feb 2011 (Provisional)
Japan	1959	4	5.6	Mar 2009 (Confirmed 1 month lead)	Feb 2011 (Provisional)
Germany	1961	7	7.0	Feb 2009 (Confirmed 3 months lead)	Jan 2011 (Provisional)
Italy	1962	5	5.8	Mar 2009 (Confirmed 2 months lead)	Feb 2011 (Provisional)
United Kingdom	1958	6	7.5	Jan 2009 (Confirmed 4 months lead)	Mar 2010 (Provisional)
United States	1955	4	5.1	Mar 2009 (Confirmed 2 months lead)	Mar 2011 (Provisional)
Brazil	1989	4	2.9	Jan 2009 (Confirmed 3 months lead)	Dec 2010 (Provisional)
China*	1990	6	6.0	Nov 2008 (Confirmed 2 months lead)	Dec 2009 (Provisional)
India	1994	4	4.6	Nov 2011 (Provisional)	
Russia	1992	2	1.9	Feb 2009 (Confirmed 4 month lead)	Feb 2011 (Provisional)

* The reference series for China is the Index of Industrial Production.

Data

A large set of component series, selected from a wide range of economic indicators, are used in constructing CLIs (around 200 series are used in total, about 5-10 for each country). CLIs are calculated for 33 OECD countries, 6 non-member economies and 8 zones. They are calculated in three forms: amplitude adjusted, trend-restored, and year-on-year growth rate. These are comparable, respectively, with the de-trended reference series, the original reference series and the year-on-year growth rate of the reference series. The press release focuses on the amplitude adjusted form of the CLI, and includes the major countries and zones.

Access to time series data and methodological information for OECD *Composite Leading Indicators* (CLI) and *Consumer and Business Confidence Indicators* is provided by the OECD Business Cycle Analysis Database available at the OECD web site at <http://stats.oecd.org/mei/default.asp?rev=2>



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The **OECD-Total** covers the following 32 countries: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Japan, Korea, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

The **G7 area** covers Canada, France, Germany, Italy, Japan, United Kingdom and United States.

The **Euro area** (only Euro area countries that are members of OECD) covers the following 15 countries: Austria, Belgium, Estonia, Finland, France, Germany, Greece, Italy, Ireland, Luxembourg, the Netherlands, Portugal, Slovak Republic, Slovenia and Spain.

The **Major Five Asia area** covers China, India, Indonesia, Japan and Korea.

This Press Release can be found on the OECD web page, see [OECD Internet Site](#)

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