

Introducing OECD Standardised Business and Consumer Confidence Indicators and Zone Aggregates

Based on the high external interest in the OECD Composite Leading Indicators (CLIs) OECD has decided to widen the range of its cyclical indicators. Accordingly, a standardised set of business tendency and consumer opinion (BTS/COS) time series has been calculated and included for the first time as a subject table in Part One of the Main Economic Indicators (MEI) publication. The standardisation of these confidence indicators, which makes data comparable across countries, has also facilitated the calculation of geographical zone aggregate confidence indicators which was not previously possible. Further benefits of having the new standardised cyclical indicators are as follows:

- The Business Confidence Indicators (BCIs) augment the information set of cyclical indicators by providing indicators that can reinforce signals of the CLIs, since these indicators tend to have shorter but more stable lead times than the CLIs, and they are subject to little or almost no revision at all.
- The Consumer Confidence Indicators (CCIs) focus on a different aspect of the economic cycle. They are not particularly successful in signalling turning points in production; however they capture cyclical patterns in household consumption behaviour fairly well.

The standardised BCIs represent only the manufacturing sector. Other sectors (construction, retail trade and other services) were not included since data availability is scarce among Non European Union OECD member countries and in the Big 6 OECD Non-member Economies. In order of preference the following types of business survey data have been used to calculate the standardised indicators by country: the harmonized industrial confidence indicator, business confidence indicators (national definition), business situation or business sentiment indicators. In the case of the standardised consumer confidence indicator, the national consumer confidence indicator has been used where available. This existed for all OECD member countries except Norway and Turkey but only for three of the Big 6 OECD Non-member Economies (Brazil, China and South Africa).

Standardisation methodology

One problem with the available confidence indicators is the different measures (i.e. balance, balance +50 or balance +100, index, % positive answers) used for the presentation of the national indicators for countries outside Europe. In addition, only quarterly data are available for most of the Big 6 Non-member Economies and two of the major OECD member countries (Canada and Japan) in the case of confidence or business situation indicators for the manufacturing sector. The same issues arise in the case of consumer confidence indicators, with only quarterly data being available for Japan, New Zealand and Switzerland and no surveys are conducted in India, Indonesia, Norway, the Russian Federation and Turkey.

In order to be able to present comparable indicators across countries and to present zone aggregates the data had to be standardised. We accomplished this by applying techniques similar to the ones used for the calculation of the OECD CLIs. Business tendency and consumer opinion data series are bounded series, thus long term trends are not dominating cyclical patterns. Here we omitted therefore the trend removal step - usual in the production sequence of the CLIs. We employed the following data transformations:

- Frequency conversion: quarterly series were converted to monthly frequency by linear interpolation. The converted series were aligned within the quarter based on the information we have on the survey timing.

1 The Big 6 OECD Non-member Economies consist of Brazil, China, India, Indonesia, Russian Federation and South Africa. However, data for Indonesia is not included in the new table as the time series stops in 2005 Q3 due to a current data transmission problem.

2 The industrial confidence indicator is a composite indicator, calculated as an average of 3 business survey questions by the European Commission for EU countries. The method is described in OECD's: *Business Tendency Surveys: a Handbook*, p. 63 <http://www.oecd.org/dataoecd/29/61/31837055.pdf>.

3 For further reading on the composite leading indicators methodology please refer to the document: *OECD composite leading indicators, a tool for short-term analysis*, at <http://www.oecd.org/dataoecd/4/33/15994428.pdf>.

- Smoothing: it is necessary to ensure that all country confidence component series have equal "smoothness". With this we guarantee that month-to-month changes in the composite indicator are not unduly influenced by irregular movements in the indicator series. The OECD smoothes data with the "Months for Cyclical Dominance" (MCD) moving average.
- Normalization and amplitude adjustment: the country confidence component series were normalised so that their cyclical movements have the same amplitude. If this were not done, series with particularly marked cyclical amplitude would have excessive weight in the zone aggregate indicators. Our method to calculate the normalised indices was to subtract the mean and then to divide by the mean of the absolute deviation in each country series. Then the normalized series were amplitude adjusted to match the amplitudes of the de-trended world proxy aggregate industrial production index series. Finally the normalised series were converted into index form by adding 100.
- Weighting and aggregation (this last step only applies for the zone aggregates): Country weights were derived from GDP at purchasing power parity figures for 2004 taken from OECD sources and the World Bank's World Development Indicators database. The World proxy zone covers 83.1% of total world GDP and includes OECD member countries and the Big 6 OECD Non-member Economies. Zone aggregates were only calculated when the country coverage is above a certain threshold. For the zone aggregates considered here, the thresholds are as follows: 90% of total weight for the zone consisting of the Major 7 OECD countries, 60% of total weight for other zones (OECD Total, OECD Europe, EU 15, Euro area, Major 5 Asia and the World proxy).

Publication

The new standardised business and consumer confidence indicators will be updated and published monthly in Part One of OECD's Main Economic Indicators publication. The data will also be available on the CD-Rom accompanying the publication and in Source OECD. The set of standardised indicators will replace the data contained in the Excel file: "OECD Business Tendency and Consumer Confidence Indicators", available on the OECD web at <http://www.oecd.org/std/bt-coi> under the heading Statistics. A wide set of business tendency and consumer opinion raw data is also available via OECD.Stat (OECD's new data dissemination vehicle) at http://stats.oecd.org/wbos/default.aspx?datasetcode=MEI_BTS_COS. The new set of harmonized business and consumer confidence indicators will be soon added to the cyclical analysis dataset: http://stats.oecd.org/wbos/default.aspx?datasetcode=MEI_CLI.

4 This new geographical zone aggregate consists of China, India, Indonesia, Japan and South Korea.