Global Leading Indicators

Aim. TS Lombard has produced proprietary global leading indicators for over two decades (formerly under the banner of Lombard Street Research). From March 2014 we have compiled our indices to forecast quarterly real GDP growth three to six months in advance. The aim is to gauge growth momentum in the near future and identify turning points in the economic cycle.

Coverage. Over the years we have gradually extended our geographical coverage, which now includes indicators for the US, China, the Euro Area, Germany, France, Italy, Spain, the UK, Japan, Canada, Australia, South Korea, India, Brazil, and Mexico. We calculate a Global Leading Indicator index (GLI), which is the weighted average of all the country indices, where the weights are based on GDP at purchasing power parity. Similarly, we produce regional aggregates for developed and emerging markets (DM, DM excluding US, EM, and EM excluding China).

Method. First, we identify the data series that have leading properties, either because they have a causal link to GDP growth or because they anticipate changes in economic activity. Second, the components are whittled down based on their fit with GDP growth and their ability to predict turning points in the economic cycle, while the lag structure is detected through a series of pair-wise regressions. The components differ across countries depending on the structure of the economy, but in general significant importance is attributed to monetary aggregates – namely, changes in real M1. To create the indicator each month we take a simple average of the components, which is then standardised and scaled to GDP growth. We publish our indices with no more than 50% missing data points for the month.

Calibration. We have tried to calibrate the data to quarterly GDP growth but have not forced them to fit. We do not want to lose the intrinsic information that each indicator component contains. We have used our judgment to draw the line between over-fitting the components and preserving their predictive power. The residuals from our regressions for some countries have undesirable properties, but this is a minor issue as we do not use these components to generate fitted values beyond the latest data.

Interpretation. Technically, our leading indicator indices model the rate of growth three to six months ahead. For example, a reading of 0.3% indicates quarterly growth of 0.3% in the next two quarters. But the indicators ought to be interpreted more loosely. For some countries the level of the leading indicator has better predictive properties. For others, the change in the direction of the indicator is more important.

For more information, please email questions@tslombard.com