

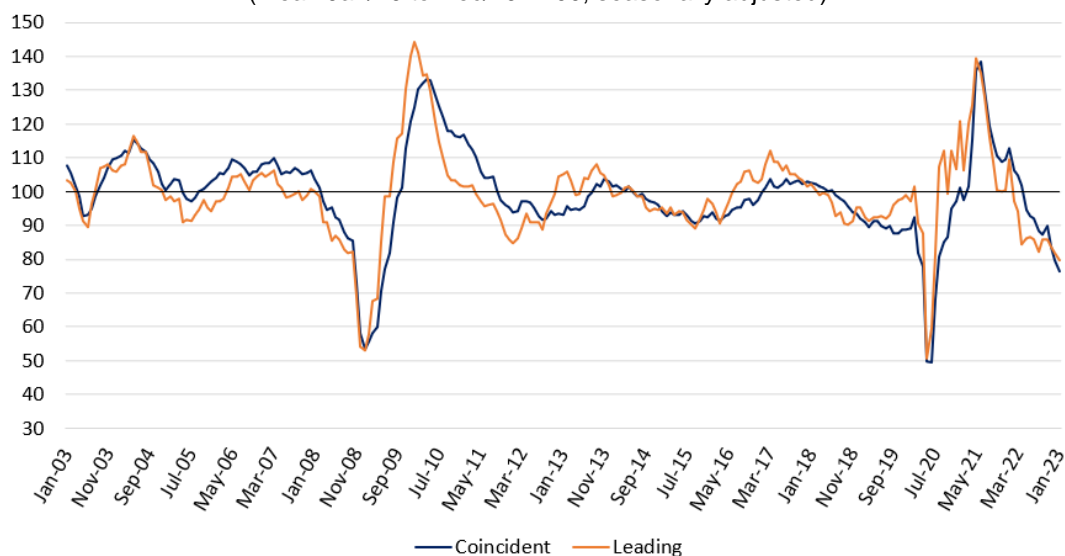
Press Release

Rio de Janeiro and Zurich, January 10, 2023, 10 am (local time) – 1 pm (UTC).)

Global Barometers continue to fall

The Global Barometers continue to signal a pronounced world economic slowdown at the beginning of 2023. Both indicators record a fall for the month and reach levels which – excluding the worst period of the COVID-19 crisis – have not been seen since 2009. The latest results are particularly depressed by developments of the indicators in the *Asia, Pacific & Africa* region.

Global Economic Barometers: Coincident vs Leading
(Mean Jan/10 to Dec/19 =100, seasonally adjusted)



Source: KOF ETH Zurich and FGV IBRE

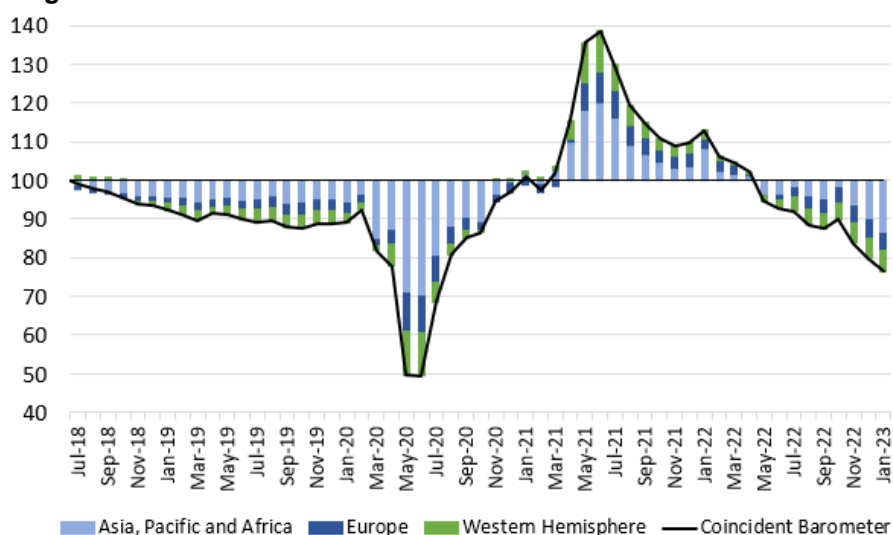
In January 2023, the Coincident Global Economic Barometer falls 3.3 points to 76.5 points, the lowest level since July 2020 (68.5 points), while the Leading Global Economic Barometer drops 2.1 points to 79.6, the lowest level since June 2020 (59.6 points). With this result, the Coincident Barometer is below the level of the Leading Barometer for the second month in a row. The decrease in the two indicators was mainly caused by the worsening of the economic environment in the *Asia, Pacific & Africa* region, while the results for the other regions show a slight positive movement.

“The persistent inflationary process around the world at the beginning of this year reinforces the expectation that the cycle of monetary tightening begun in 2022 will last even longer. The resulting slowdown in the level of activities is the cost of the deflation process, as captured by the Coincident Barometer, which will also be the case for the coming months, as reflected in the expectations behind the calculation of the Leading Barometer”, evaluates Paulo Picchetti, researcher of FGV IBRE.

Coincident Barometer – regions and sectors

In January, the *Asia, Pacific & Africa* region contributes negatively to the Coincident indicator with -3.6 points, while *Europe* and the *Western Hemisphere* contribute in the opposite direction with 0.2 and 0.1 points, respectively. The strong decrease in the *Asia, Pacific & Africa* region reflects the dramatic Covid-19 situation in China and its economic and social impacts. The continued low levels of the regional indicators constitute an adverse scenario for economic growth at the beginning of 2023. The graph below illustrates the contribution of each region to the deviation of the Coincident Barometer from the historical mean of 100 points.

Regional Contributions to the Coincident Global Economic Barometer

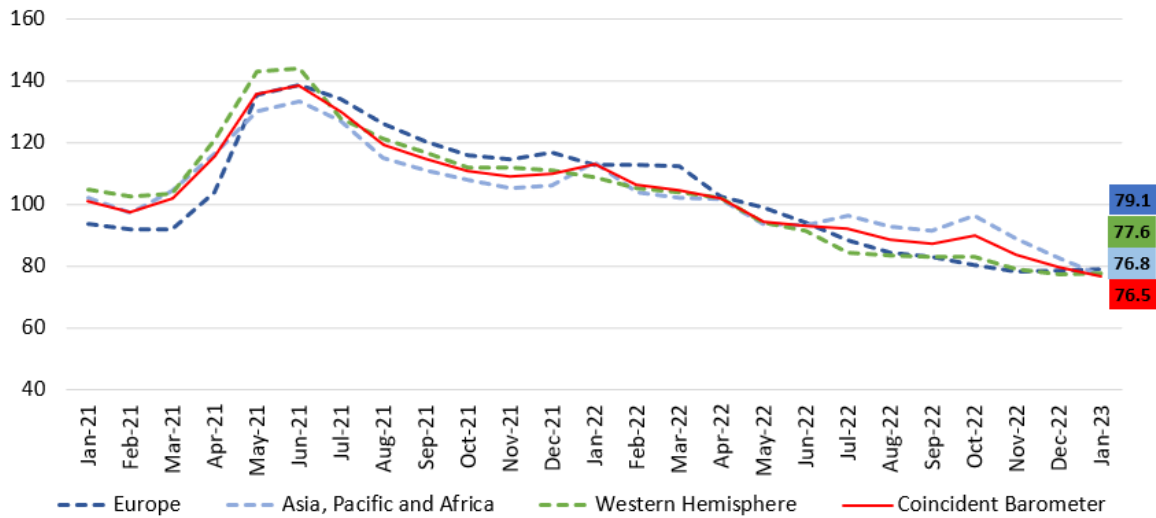


Source: KOF ETH Zurich and FGV IBRE

| Regional Contributions to Changes in the Coincident Barometer | | | | |
|---|---------------------------|------------|--------------------|----------------------|
| Period | Contributions per Regions | | | Monthly Variation |
| | Asia, Pacific and Africa | Europe | Western Hemisphere | Coincident Barometer |
| Worst pandemic moment: Cum. Contrib. Mar/20-May/20 | -25.0 | -8.4 | -9.4 | -42.7 |
| Cum. Contrib. Jun/20-Jan/22 | 37.3 | 12.7 | 13.2 | 63.1 |
| Feb-22 | -5.8 | 0.0 | -0.9 | -6.7 |
| Mar-22 | -1.1 | -0.1 | -0.2 | -1.4 |
| Apr-22 | -0.3 | -2.0 | -0.5 | -2.7 |
| May-22 | -4.9 | -0.7 | -1.8 | -7.5 |
| Jun-22 | 0.0 | -0.9 | -0.7 | -1.7 |
| Jul-22 | 1.9 | -1.2 | -1.6 | -0.9 |
| Aug-22 | -2.3 | -0.8 | -0.3 | -3.4 |
| Sep-22 | -0.9 | -0.3 | 0.0 | -1.1 |
| Oct-22 | 3.1 | -0.5 | -0.1 | 2.5 |
| Nov-22 | -4.7 | -0.4 | -0.9 | -6.1 |
| Dec-22 | -3.7 | 0.0 | -0.4 | -4.0 |
| Jan-23 | -3.6 | 0.2 | 0.1 | -3.3 |
| Cum. Contrib. Last 12 months | -22.3 | -6.7 | -7.3 | -36.3 |
| Cum. Contrib. Mar/20-Jan/23 | -10.0 | -2.4 | -3.5 | -15.9 |

Source: KOF ETH Zurich and FGV IBRE

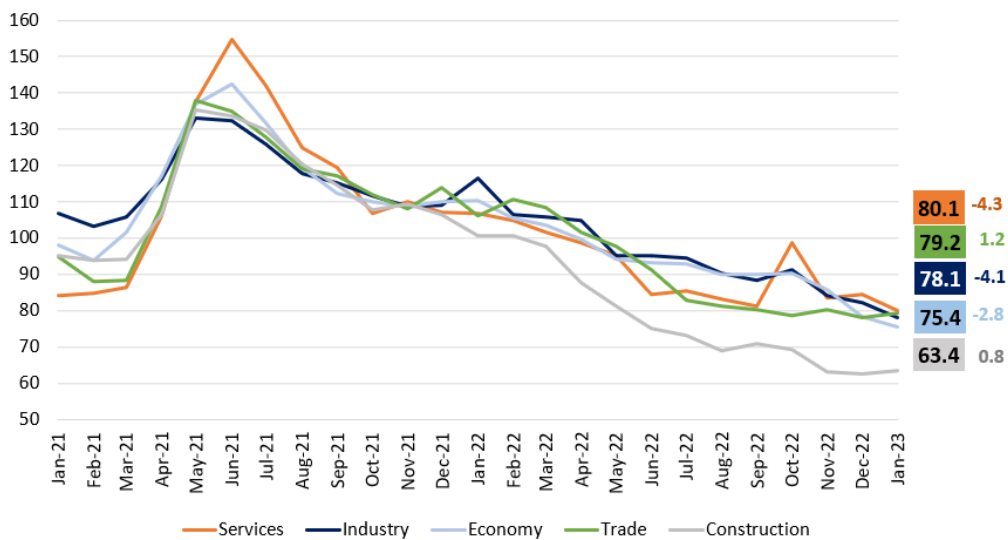
Coincident Global Barometers – Regions



Source: KOF ETH Zurich and FGV IBRE

Among the coincident sector indicators, *Services*, *Industry*, and the *Economy* (aggregated business and consumer evaluations) decrease this month, while *Trade* and *Construction* move in the opposite direction. All the sector indicators remain far from the historic mean of 100 points and suggest an economic slowdown spread across the sectors.

Coincident Global Barometers – Sectors

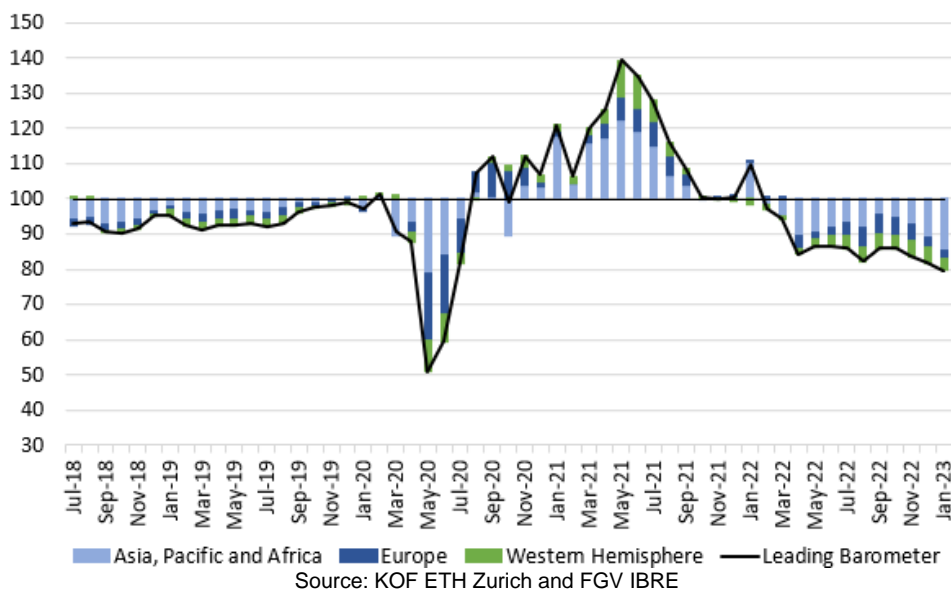


Source: KOF ETH Zurich and FGV IBRE

Leading Barometer – regions and sectors

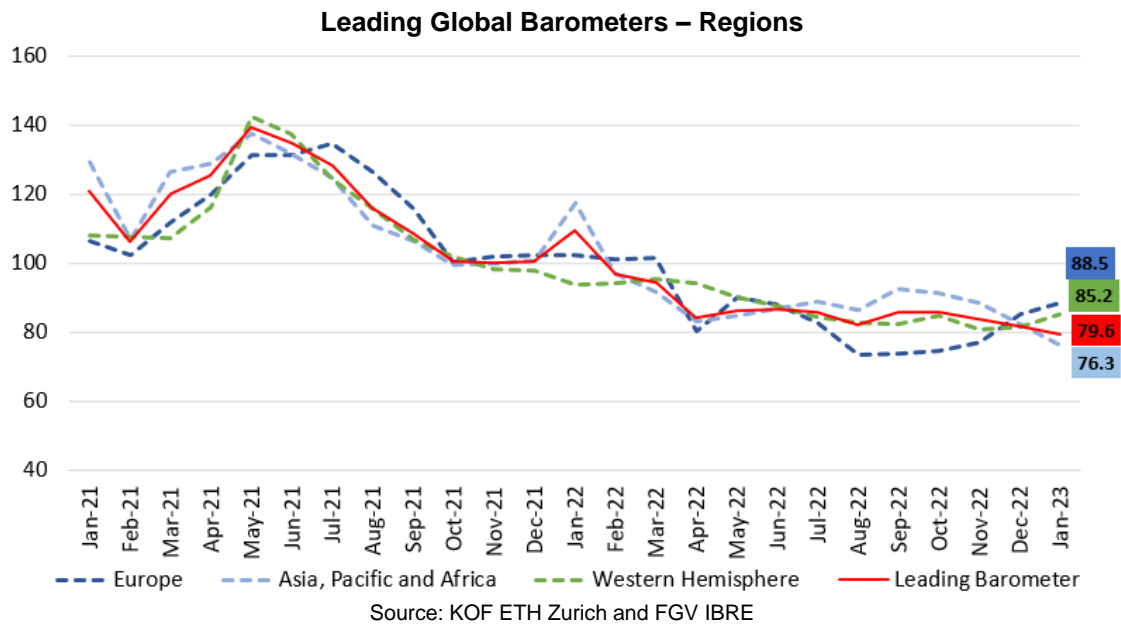
The Leading Global Barometer leads the world economic growth rate cycle by three to six months on average. For the second consecutive month, only the *Asia, Pacific & Africa* region contributes negatively to the fall in the indicator, with -3.8 points. In contrast, the *Western Hemisphere* and *Europe* have gained 1.0 and 0.7 points, respectively. All levels of the indicators point to a continued scenario of pessimism for these economies for the coming months, with the *Asia, Pacific & Africa* region showing the lowest level among the regions, which has not occurred since June 2022.

Regional Contributions to the Leading Global Economic Barometer



| Regional Contributions to Changes in the Leading Barometer | | | | |
|--|---------------------------|------------|--------------------|-------------------|
| Period | Contributions per Regions | | | Monthly Variation |
| | Asia, Pacific and Africa | Europe | Western Hemisphere | Leading Barometer |
| Worst pandemic moment: Cum. Contrib. Mar/20-May/20 | -21.6 | -19.8 | -9.5 | -50.8 |
| Cum. Contrib. Jun/20-Jan/22 | 31.6 | 19.8 | 7.4 | 58.8 |
| Feb-22 | -12.3 | -0.3 | 0.1 | -12.6 |
| Mar-22 | -3.2 | 0.1 | 0.3 | -2.8 |
| Apr-22 | -5.4 | -4.3 | -0.3 | -9.9 |
| May-22 | 1.0 | 1.9 | -1.0 | 2.0 |
| Jun-22 | 1.3 | -0.3 | -0.6 | 0.3 |
| Jul-22 | 1.2 | -1.2 | -0.8 | -0.7 |
| Aug-22 | -1.5 | -1.8 | -0.3 | -3.7 |
| Sep-22 | 3.9 | 0.0 | -0.1 | 3.8 |
| Oct-22 | -0.8 | 0.2 | 0.5 | -0.1 |
| Nov-22 | -1.8 | 0.5 | -0.9 | -2.2 |
| Dec-22 | -3.8 | 1.7 | 0.1 | -2.0 |
| Jan-23 | -3.8 | 0.7 | 1.0 | -2.1 |
| Cum. Contrib. Last 12 months | -25.2 | -2.8 | -2.0 | -30.0 |
| Cum. Contrib. Mar/20-Jan/23 | -15.2 | -2.8 | -4.1 | -22.0 |

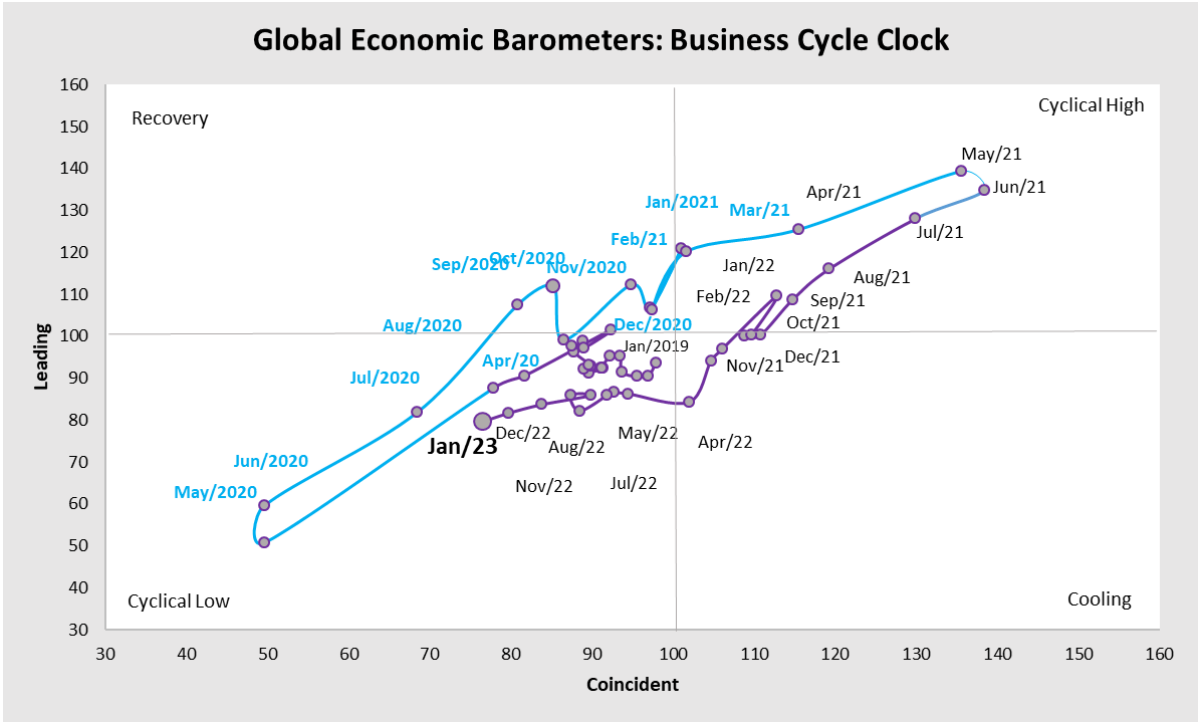
Source: KOF ETH Zurich and FGV IBRE



Among the Leading indicator sectors, *Industry*, *Trade*, and *Construction* decrease in January, while the *Economy* and *Services* move in a positive direction. With this result the indicators also signal a pessimistic outlook for the coming months spread across the sectors.

| Sectoral Leading Indicators | | | | | |
|---|--------------|-------------|-------------|-------------|-------------|
| Period | Construction | Economy | Industry | Trade | Services |
| Feb-20 | 97.7 | 102.7 | 100.3 | 104.2 | 105.9 |
| Mar-20 | 104.3 | 80.7 | 90.9 | 104.1 | 102.4 |
| Apr-20 | 91.7 | 84.0 | 92.6 | 72.9 | 82.9 |
| May-20 | 62.8 | 66.4 | 48.8 | 53.1 | 29.5 |
| Worst pandemic moment: Cum. Variation. Mar/20-May/20 | | | | | |
| | -34.9 | -36.3 | -51.5 | -51.1 | -76.4 |
| Cum. Variation Jun/20-Jan/22 | | | | | |
| | 35.7 | 27.6 | 70.7 | 48.0 | 77.8 |
| Feb-22 | 97.6 | 98.8 | 94.4 | 102.4 | 104.3 |
| Mar-22 | 93.5 | 92.5 | 94.4 | 92.6 | 102.4 |
| Apr-22 | 91.9 | 82.5 | 82.2 | 98.8 | 92.9 |
| May-22 | 97.8 | 79.2 | 86.1 | 94.2 | 100.6 |
| Jun-22 | 89.0 | 86.1 | 87.5 | 87.0 | 87.3 |
| Jul-22 | 80.3 | 87.0 | 88.5 | 77.2 | 84.6 |
| Aug-22 | 76.8 | 84.4 | 83.8 | 83.4 | 77.7 |
| Sep-22 | 82.6 | 90.2 | 86.5 | 83.7 | 81.7 |
| Oct-22 | 92.2 | 82.7 | 89.2 | 79.1 | 83.4 |
| Nov-22 | 88.6 | 84.1 | 85.5 | 79.7 | 79.3 |
| Dec-22 | 77.4 | 78.7 | 85.5 | 79.5 | 82.5 |
| Jan-23 | 74.9 | 82.3 | 79.9 | 75.5 | 85.8 |
| Cum. Variation Last 12 months | | | | | |
| | -23.6 | -11.7 | -39.6 | -25.6 | -21.5 |
| Cum. Variation Mar/20-Jan/23 | | | | | |
| | -22.8 | -20.4 | -20.4 | -28.7 | -20.1 |

Source: KOF ETH Zurich and FGV IBRE



| Period | <i>Global Coincident Barometer</i> Vintages | | <i>Global Leading Barometer</i> Vintages | |
|--------|--|----------------------|---|----------------------|
| | <i>January 2023</i> | <i>December 2022</i> | <i>January 2023</i> | <i>December 2022</i> |
| Jan-22 | 112.8 | 111.8 | 109.6 | 109.3 |
| Feb-22 | 106.1 | 105.4 | 97.0 | 95.5 |
| Mar-22 | 104.7 | 104.3 | 94.2 | 94.1 |
| Apr-22 | 102.0 | 101.8 | 84.3 | 85.9 |
| May-22 | 94.5 | 94.4 | 86.3 | 87.2 |
| Jun-22 | 92.8 | 92.8 | 86.6 | 86.6 |
| Jul-22 | 91.9 | 92.0 | 85.9 | 85.2 |
| Aug-22 | 88.5 | 88.3 | 82.2 | 81.4 |
| Sep-22 | 87.4 | 87.5 | 86.0 | 86.1 |
| Oct-22 | 89.9 | 90.4 | 85.9 | 87.6 |
| Nov-22 | 83.8 | 83.9 | 83.7 | 84.1 |
| Dec-22 | 79.8 | 80.2 | 81.7 | 81.8 |
| Jan-23 | 76.5 | | 79.6 | |

Source: KOF ETH Zurich and FGV IBRE

*The Global Barometer series are revised monthly to reflect updates in the component series and revision of the seasonal adjustment..

The Global Economic Barometers

The Global Economic Barometers are a system of indicators enabling timely analysis of global economic development. They represent a collaboration between the KOF Swiss Economic Institute of the ETH Zurich in Switzerland and Fundação Getulio Vargas (FGV), based in Rio de Janeiro, Brazil. The system consists of two composite indicators, the Coincident Barometer and the Leading Barometer. The Coincident Barometer reflects the current state of economic activity, while the Leading Barometer provides a cyclical signal roughly six months ahead of current economic developments.

The two Barometers comprise the results of economic tendency surveys conducted in more than 50 countries with the aim of achieving the broadest possible global coverage. The advantages of economic tendency surveys are that their results are usually readily available and are not substantially revised after first publication.

The Coincident Barometer includes more than 1,000 different time series, while the Leading Barometer consists of over 600 time series. Cross-correlation analysis is used to decide which individual time series are included in the barometers. This involves correlating the individual time series with a reference series. The reference series used is the year-on-year growth rate of global gross domestic product (GDP), in which individual national GDPs are aggregated at purchasing power parity to form global GDP. A time series is only included in a Barometer if it shows a sufficiently high correlation and a suitable synchronization or lead with the reference series.

The series of the two Barometers are revised each month at publication and are standardized to have a mean of 100 and a standard deviation of 10 for the 10-year period previous to the most recent observations. The coefficients of the component series of the Global Barometers have remained stable since the April 2020 edition.

More information on the Global Economic Barometers is available on the KOF website:

<https://kof.ethz.ch/prognosen-indikatoren/indikatore/kof-globalbaro.html> →

The Global Barometers methodology is described in Klaus Abberger, Michael Graff, Aloisio Campelo Jr, Anna Carolina Lemos Gouveia, Oliver Müller and Jan-Egbert Sturm (2020), The Global Economic Barometers: Composite indicators for the world economy. KOF Working Papers, vol. 471, Zurich: KOF Swiss Economic Institute, ETH Zurich, 2020.

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