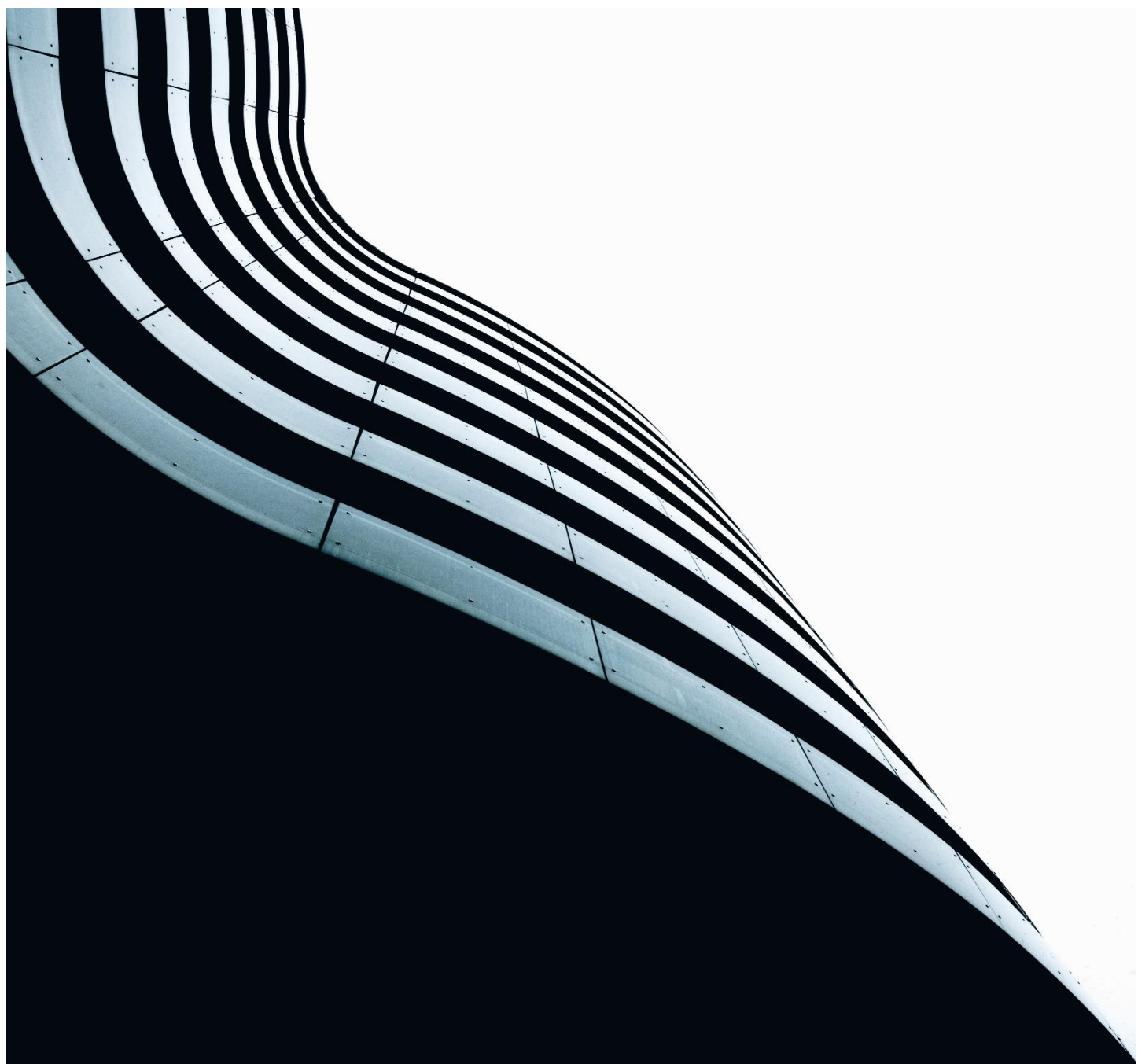


Metals PMI™

Why do I need metals PMI?



PMI™

by **S&P Global**

PMI™ Overview

Purchasing Managers' Index™ (PMI™) surveys have become key benchmark indicators of economic conditions in the world's largest economies and emerging markets. S&P Global conducts monthly surveys of private sector business conditions in over 40 economies worldwide, polling over 27,000 companies. The survey results generate PMI data that track changes in variables such as output, new orders, inventories, employment and prices.

PMI surveys are based on fact, not opinion, and are the first indicators of economic conditions published each month. The data are collected using identical methods in all countries, so that international comparisons can be made between, for example, manufacturing in Brazil and Russia by using the monthly data.

The indexes achieve considerable press coverage on a regular basis and are widely used by economists and analysts in financial institutions, industry and commerce. Notably, central banks in the European Union, United States and Asia use PMI data to help guide monetary policy.

PMI surveys have established highly-regarded track records for accurately anticipating changes in economic conditions in key economies, including the US, the United Kingdom, Germany, France, Italy, Japan, Hong Kong SAR and the eurozone.

Key benefits

PMI surveys have been developed in order to provide analysts with an accurate and timely dataset which helps them to better understand economic conditions. In many cases, the advantages offered by PMI data overcome deficiencies in official economic data. These advantages include:

Frequent publication

PMI surveys are published monthly. National accounts data, from which the most comprehensive and important measure of economic activity – gross domestic product – is derived, are generally published only quarterly.

Timely publication

PMI surveys are published on a timely basis just after the reference period. In contrast, a significant period of time often elapses before official data are published. For GDP, the delay may be several months. PMI data provide figures several weeks in advance of comparable official monthly output data, and several months ahead of quarterly national accounts data.

Not subject to revision after first publication

Unadjusted PMI data are not revised after first publication. In comparison, official data are frequently subject to revision, and phrases such as ‘the economy grew faster than first thought’ remain commonplace in press articles and analysts’ briefing notes.

International comparability

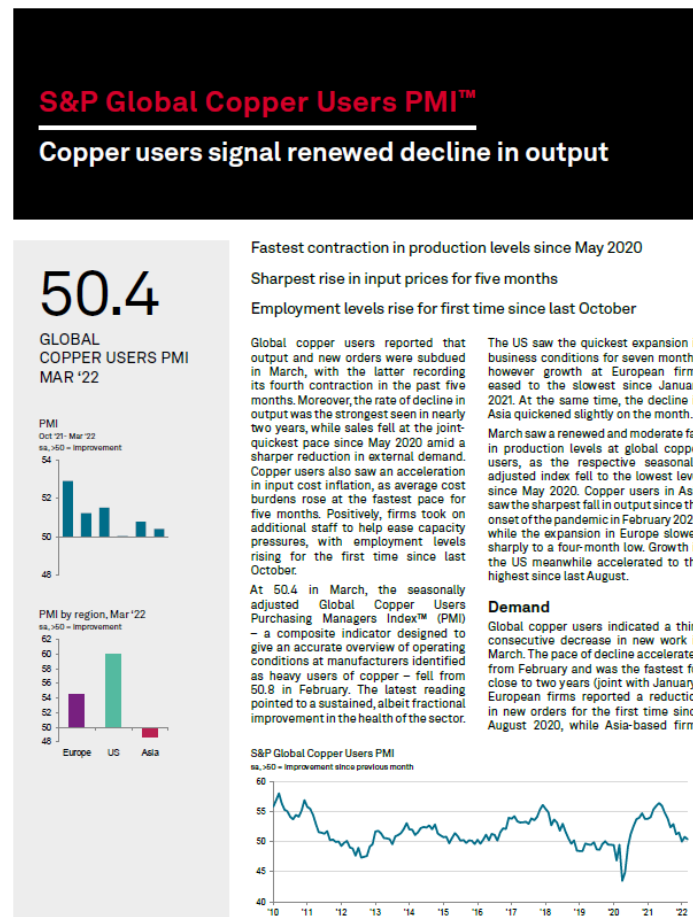
PMI surveys are conducted internationally using a consistent methodology. By comparison, a further problem associated with official data is that not all statistical bodies compile data using identical methodologies. For example, a great deal of effort in terms of harmonization of methodologies was required among the national European statistics offices in order to obtain a consistent measure of eurozone GDP.

S&P Global Metal Users PMI™

The S&P Global Metal Users PMI™ is compiled by S&P Global from responses to questionnaires sent to purchasing managers in manufacturers identified as heavy users of metals. The sample is selected from S&P Global's worldwide PMI survey panels, covering over 40 countries. Metals Users PMI data is available for 3 key metals: Aluminium, Copper and Steel.

Global metals reports:

HS Markit Metals Users PMI reports provide subscribers with an overview of the key trends in industries which are heavy users of metals. Each report gives a one-page summary illustrating global business conditions of metal users for that month and gives the results of sub-indices. Global and regional trends are highlighted, key findings are presented on the side and charts of PMI index conclude the summary.



Summary Sample:

At 50.4 in March, the seasonally adjusted Global Copper Users Purchasing Managers Index™ (PMI) – a composite indicator designed to give an accurate overview of operating conditions at manufacturers identified as heavy users of copper – fell from 50.8 in February. The latest reading pointed to a sustained, albeit fractional improvement in the health of the sector.

The US saw the quickest expansion in business conditions for seven months, however growth at European firms eased to the slowest since January 2021. At the same time, the decline in Asia quickened slightly on the month.

March saw a renewed and moderate fall in production levels at global copper users. Copper users in Asia saw the sharpest fall in output since the onset of the pandemic in February 2020, while the expansion in Europe slowed sharply to a four-month low. Growth in the US meanwhile accelerated to the highest since last August.

Coverage

Data are available at the Global level in addition to 3 key regions: Europe, Asia and the US. Historical start dates are as follows:

Europe: November 1997

Asia: January 2004

US & Global: May 2007

Survey responses are weighted by country, based on national copper consumption figures sourced from S&P Global's Pricing & Purchasing Service. Survey responses are collected in the second half of each month and indicate the direction of change compared to the previous month. A diffusion index is calculated for each survey variable. The index is the sum of the percentage of 'higher' responses and half the percentage of 'unchanged' responses. The indices vary between 0 and 100, with a reading above 50 indicating an overall increase compared to the previous month, and below 50 an overall decrease. The indices are then seasonally adjusted.

The headline figure is the Purchasing Managers' Index™ (PMI). The PMI is a weighted average of the following five indices: New Orders (30%), Output (25%), Employment (20%), Suppliers' Delivery Times (15%) and Stocks of Purchases (10%). For the PMI calculation the Suppliers' Delivery Times Index is inverted so that it moves in a comparable direction to the other indices.

The following Indices are available as part of the Metal Users PMI™:

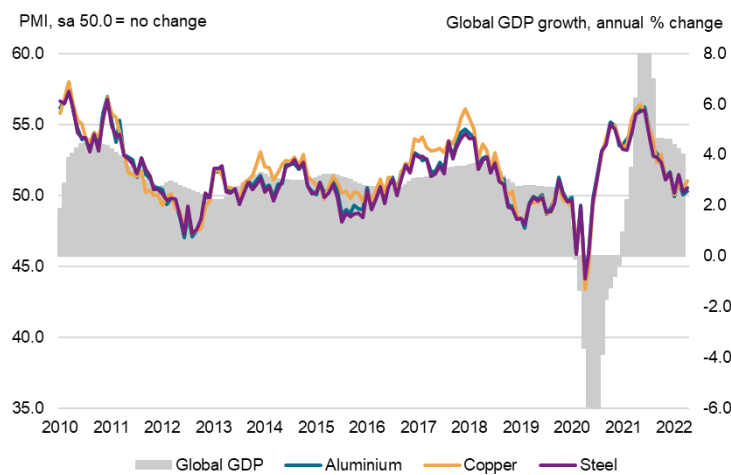
Output	Quantity of Purchases
New Orders	Suppliers' Delivery Times
New Export Orders	Stocks of Purchases
Employment	Input Prices
Backlogs of Work	Output Prices
Stocks of Finished Goods	Purchasing Managers' Index™ (PMI™)

Macroeconomic forecasts:

In addition to current insights into operating conditions, Metal Users PMI data offer a reliable indicator of global GDP growth figures 3-6 months ahead, since many businesses identified as heavy users produce primary manufactured goods.

As such, key trends offer subscribers solid direction and understanding of the economic health of the global economy. This will then help subscribers in making key investment and business decisions.

Global Metal Users PMI vs World GDP Growth

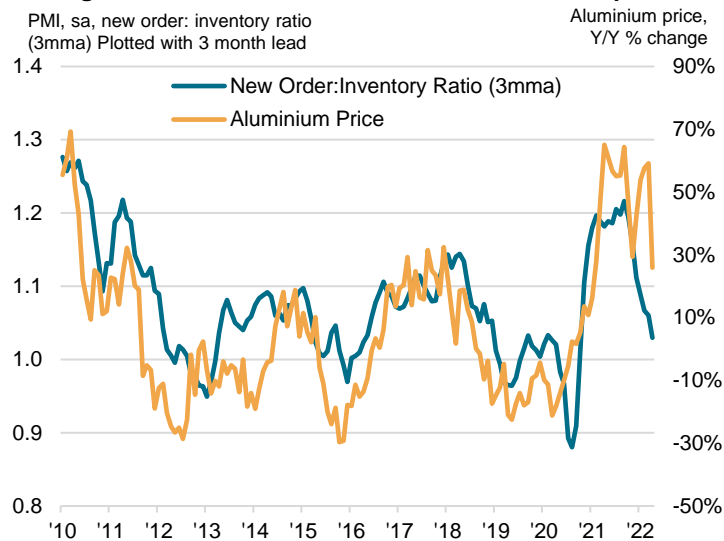


Anticipating future metals prices:

The PMI data can also be an excellent indicator for future metals prices. Combining the two sub-indices for New Orders and Stocks of Finished Goods offers a forward indicator with a strong track record of predicting changes in metals prices. If metal users see a greater rise in new orders than inventories, we can expect prices to increase in the coming months. Tracking these two sub-indices can thus be a useful tool for investment fund allocation, as well as for business decisions.

$$\text{New Order: Inventory Ratio}_{it} = \frac{\text{New Orders}_{it}}{\text{Stocks of Finished Goods}_{it}}$$

Using Aluminium users PMI data as an indicator of price



Using Copper users PMI data as an indicator of price

