**ACTIVITY (BUSINESS – CONSTRUCTION/SERVICES)**

**ASEAN MANUFACTURING PMI**

The ASEAN Manufacturing PMI (Purchasing Managers’ Index) is produced by IHS Markit and is based on original survey data collected from a representative panel of around 2100 manufacturing firms. National data are included for Indonesia, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. Taken together, these countries account for an estimated 98% of ASEAN manufacturing activity.

**ASIA SECTOR PMI**

The Asia manufacturing, services and whole economy PMI survey data have been analysed at sector level, using IHS Markit sector definitions.

**Asia IHS Markit Sector PMI data coverage**

<table>
<thead>
<tr>
<th>Tier 2 Groups</th>
<th>Tier 3 Sectors</th>
<th>Tier 4 Sub-sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Materials</td>
<td>Chemicals</td>
<td>Forestry &amp; Paper Products</td>
</tr>
<tr>
<td></td>
<td>Resources</td>
<td>Metals &amp; Mining</td>
</tr>
<tr>
<td>Consumer Goods</td>
<td>Automobiles &amp; Auto Parts</td>
<td></td>
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<tr>
<td></td>
<td>Beverages &amp; Food</td>
<td></td>
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<tr>
<td></td>
<td>Household &amp; Personal Use Products</td>
<td></td>
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<tr>
<td>Consumer Services</td>
<td></td>
<td></td>
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<tr>
<td>Financials</td>
<td>Banks</td>
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<tr>
<td></td>
<td>Insurance</td>
<td></td>
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<td></td>
<td>Real Estate</td>
<td></td>
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<tr>
<td>Healthcare</td>
<td>Healthcare Services</td>
<td></td>
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<tr>
<td></td>
<td>Pharmaceuticals &amp; Biotechnology</td>
<td></td>
</tr>
<tr>
<td>Industrials</td>
<td>Industrial Goods</td>
<td>Machinery &amp; Equipment</td>
</tr>
<tr>
<td></td>
<td>Industrial Services</td>
<td>Construction Materials</td>
</tr>
<tr>
<td></td>
<td>Transportation</td>
<td>Commercial &amp; Professional Services</td>
</tr>
<tr>
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<td></td>
<td>General Industrials</td>
</tr>
<tr>
<td>Technology</td>
<td>Technology Equipment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Software &amp; Services</td>
<td></td>
</tr>
</tbody>
</table>
AUSTRALIA MANUFACTURING PMI

The Commonwealth Bank Manufacturing PMI is based on data compiled from monthly replies to questionnaires sent to a representative panel of purchasing executives in over 400 private sector manufacturing firms in Australia. The panel is stratified by GDP and company workforce size.

AUSTRALIA SERVICES PMI

The Commonwealth Bank Services PMI is based on data compiled from monthly replies to questionnaires sent to a representative panel of purchasing executives in over 400 private sector services firms in Australia. The panel is stratified by GDP and company workforce size.

AUSTRIA MANUFACTURING PMI

The Austrian Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in 300 industrial companies in Austria. The panel is stratified by GDP and company workforce size.

B

BACKLOGS (MANUFACTURING/SERVICES)

BRAZIL MANUFACTURING PMI

The Brazil Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in around 350 manufacturing companies in Brazil. The panel is stratified by GDP and company workforce size.

BRAZIL SERVICES PMI

The Brazil Services PMI Report uses a panel of around 350 regularly participating companies to monitor trends in business conditions in the Brazilian private sector services economy. The panel has been carefully selected to accurately replicate the true structure of the Brazilian services economy.
**BROAD MANUFACTURING SECTORS**

As well as producing overall manufacturing indices, IHS Markit is able to produce similar data series for three broad manufacturing sectors (consumer goods, intermediate goods and investment goods). The data are derived from the national manufacturing survey panels.

The broad manufacturing sector data are currently available for France, Germany, Italy, Spain and the UK.

**BUSINESS EXPECTATIONS (CONSTRUCTION/SERVICES)**

**C**

**CAPACITY UTILISATION INDEX SERIES**

IHS Markit have derived an indicator of capacity utilisation from existing PMI data. This has been achieved by using a weighted combination of the backlogs of work and suppliers’ delivery times indices (inverted) from national surveys.

Backlogs of work is a good indicator of capacity utilisation, as higher levels of unfinished work should logically indicate that firms are struggling to cope with their current workloads and, as such, are already working at or near to full capacity. The inverse should logically be the case when backlogs of work are falling.

Delivery times, in turn, can be used as a useful gauge to the pressure being placed on suppliers’ capacity. Although a number of different factors can affect average supplier lead-times, demand for a company’s products would be the most consistently significant determinant of suppliers’ capacity utilisation and in turn, their ability to meet agreed delivery schedules. Slower delivery times should typically point to high capacity utilisation rates at suppliers. Faster delivery times should typically signal the opposite.

**CAPACITY UTILISATION – AVAILABLE COUNTRIES**

IHS Markit has derived capacity utilisation series for the following 23 countries/economic regions:

- UK
- Germany
- France
CHINA MANUFACTURING PMI

The China Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 500 industrial companies in China. The panel is stratified geographically and by Standard Industrial Classification (SIC) group, based on the regional and industry contribution to Chinese industrial production.
**CHINA SERVICES PMI**

The China Services PMI is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 400 private service sector companies. The panel has been carefully selected to accurately replicate the true structure of the services economy.

**CONSTRUCTION INDICES**

IHS Markit's national construction surveys use identical methodologies and collect question-based data to produce the following diffusion indices:

- Construction PMI – Total Construction Activity
- Housing Activity Index
- Commercial Activity Index
- Civil Engineering Activity Index
- New Orders Index
- Employment Index
- Suppliers' Delivery Times Index
- Quantity of Purchases Index
- Input Prices Index
- Sub-Contracting Indices
- Future Construction Activity

**CONSTRUCTION PMI**

Unlike the Manufacturing PMI, the Construction PMI is not a weighted composite index. Rather, it is a seasonally adjusted index designed to measure total construction activity. The index is derived from the question that asks respondents to compare the level of total construction activity with the situation one month ago.

**CONSTRUCTION QUESTIONNAIRES**

The following questions are asked of respondents participating in the PMI construction surveys:
*Total Construction Activity*

Total construction activity compared with the situation one month ago, with respondents asked to provide a breakdown for the following three types of activity:

- Housing
- Commercial
- Civil Engineering

*Sub-contracting*

Respondents are asked to compare the current situation for the following four variables with the situation one month ago:

- Sub-contractor usage
- Quality of sub-contractors
- Availability of sub-contractors
- Rates charged by sub-contractors

*New Orders*

The level of new orders received (in units, not money) this month compared with the situation one month ago. Domestic and export orders are included in this definition.

*Quantity of Purchases*

The volume or number of items purchased this month compared with the situation one month ago.

*Employment*

The level of full time employment this month compared with the situation one month ago. For the purpose of calculation it is agreed that two part time employees should be treated as one full time employee. Seasonal hiring of employees is excluded in this definition.
Input Prices

Average prices of all goods purchased (volume weighted) this month compared with the situation one month ago.

Suppliers’ Delivery Times

The average length of time agreed to deliver the goods this month compared with the situation one month ago.

Business Expectations

Whether business activity levels will be higher, the same or lower than current levels in 12 months’ time.

CZECH REPUBLIC MANUFACTURING PMI

The Czech Republic Manufacturing PMI is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 300 industrial companies in the Czech Republic. The panel is by GDP and company workforce size.

DENMARK MANUFACTURING PMI

The Danish Manufacturing PMI is produced by DILF using a methodology identical to that used by IHS Markit. For more information go to www.dilf.dk

DEVELOPED MARKETS PMI

Developed Markets PMI data are available at the Manufacturing, Services and Composite levels. The countries classed as Developed Markets are:

Australia, Austria, Canada, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, Netherlands, Singapore, South Korea, Spain, Taiwan, United Kingdom, United States
DIFFUSION INDICES

The percentages of survey respondents reporting an increase, no change or decrease for each survey variable are converted into a single-figure ‘diffusion index’ according to the following formula:

\[ \text{INDEX} = P1 \times 1 + P2 \times 0.5 + P3 \times 0 \]

- \( P1 \) = Percentage number of answers that reported an improvement.
- \( P2 \) = Percentage number of answers that reported no change.
- \( P3 \) = Percentage number of answers that reported a deterioration.

Thus, if 100% of the panel reported an improvement the index would be 100.0. If 100% reported a deterioration the index would be zero. If 100% of the panel saw no change the index would be 50.0 (\( P2 \times 0.5 \)).

DUBAI

The Dubai Economy Tracker is based on the Purchasing Managers’ Index (PMI) series, and is an economic indicator compiled from monthly surveys of carefully selected companies in Dubai. It tracks variables such as output, new orders, employment and prices across the economy as a whole, with sub-sector available for three key areas of the economy (travel & tourism, construction and wholesale & retail).

EGYPT WHOLE ECONOMY PMI

The Egypt PMI Report is a monthly publication, researched and published by IHS Markit, featuring original research data from a survey of around 450 private sector companies operating in Egypt. The companies have been carefully selected to represent the true structure of the Egyptian economy, including manufacturing, services, construction and retail. The panel is stratified by Standard Industrial Classification (SIC) group, based on industry contribution to GDP.

EMERGING MARKETS INDEX (EMI)

Emerging Markets PMI data are available for manufacturing, services and composite. The countries classed as Emerging Markets are as follows:

- Brazil, China, Czech Republic, Egypt, India, Indonesia, Kenya, Lebanon, Malaysia, Mexico, Nigeria, Philippines, Poland, Russia, Saudi Arabia, South Africa, Thailand, Turkey, United Arab Emirates, Vietnam

EMPLOYMENT (CONSTRUCTION / MANUFACTURING / SERVICES)
EUROPE SECTOR DATA

The EU manufacturing, services and construction PMI survey data have been analysed at sector level, using IHS Markit sector definitions.

EUROPE IHS Markit Sector PMI data coverage

<table>
<thead>
<tr>
<th>Tier 2 Groups</th>
<th>Tier 3 Sectors</th>
<th>Tier 4 Sub-sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Materials</td>
<td>Chemicals</td>
<td>Resources</td>
</tr>
<tr>
<td>Consumer Goods</td>
<td>Automobiles &amp; Auto Parts</td>
<td>Beverages &amp; Food</td>
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<tr>
<td>Consumer Services</td>
<td>Media</td>
<td>Tourism &amp; Recreation</td>
</tr>
<tr>
<td>Financials</td>
<td>Banks</td>
<td>Other Financials</td>
</tr>
<tr>
<td>Healthcare</td>
<td>Healthcare Services</td>
<td>Pharmaceuticals &amp; Biotechnology</td>
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<tr>
<td>Industrials</td>
<td>Industrial Goods</td>
<td>Industrial Services</td>
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<tr>
<td>Technology</td>
<td>Technology Equipment</td>
<td>Software &amp; Services</td>
</tr>
</tbody>
</table>

EUROPE PMI survey coverage

<table>
<thead>
<tr>
<th>Country</th>
<th>Manufacturing</th>
<th>Services</th>
<th>Construction</th>
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</thead>
<tbody>
<tr>
<td>Austria</td>
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<tr>
<td>Czech Republic</td>
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<td>France</td>
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<td>Germany</td>
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<td>Greece</td>
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<td>Ireland</td>
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<td>Italy</td>
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<td>Netherlands</td>
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<td>Poland</td>
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<tr>
<td>Spain</td>
<td>●</td>
<td>●</td>
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<tr>
<td>United Kingdom</td>
<td>●</td>
<td>●</td>
<td>●</td>
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</tbody>
</table>
**PMI Question Coverage for Sectors**

<table>
<thead>
<tr>
<th>Manufacturing</th>
<th>Services equivalent</th>
<th>Construction equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>Business Activity</td>
<td>Total Activity</td>
</tr>
<tr>
<td>New Orders</td>
<td>New Business</td>
<td>New Orders</td>
</tr>
<tr>
<td>New Export Orders</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Backlogs of Work</td>
<td>Outstanding Business</td>
<td>X</td>
</tr>
<tr>
<td>Employment</td>
<td>Employment</td>
<td>Employment</td>
</tr>
<tr>
<td>Output Prices</td>
<td>Prices Charged</td>
<td>X</td>
</tr>
<tr>
<td>Input Prices</td>
<td>Input Prices</td>
<td>Input Prices</td>
</tr>
<tr>
<td>Suppliers’ Delivery Times</td>
<td>X</td>
<td>Suppliers’ Delivery Times</td>
</tr>
<tr>
<td>Stocks of Finished Goods</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Quantity of Purchases</td>
<td>X</td>
<td>Quantity of Purchases</td>
</tr>
<tr>
<td>Stocks of Purchases</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Future Output</td>
<td>Future Activity</td>
<td>Future Activity</td>
</tr>
<tr>
<td>PMI</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**EUROZONE COMPOSITE INDICES**

The eurozone manufacturing and eurozone service sector data are weighted together to produce the overall eurozone composite indices.

The weights are derived from the relative importance of the manufacturing and service sectors (for those sectors covered by the PMI surveys) across the eurozone as a whole, based on gross value added data from Eurostat.

Seven Eurozone Composite indices are currently produced:

- Eurozone Composite Output Index
• Eurozone Composite New Orders Index
• Eurozone Composite Employment Index
• Eurozone Composite Input Prices Index
• Eurozone Composite Backlogs of Work Index
• Eurozone Composite Output Prices Index
• Eurozone Composite Future Output Index

Altogether, information is collected by questionnaire from around 4,500 manufacturing and services companies each month.

EUROZONE CONSTRUCTION PMI

Eurozone construction data are currently based on surveys in Germany, France, Italy and Ireland.

EUROZONE MANUFACTURING INDICES

A composite eurozone series for each of the eleven manufacturing indices are calculated by taking a weighted average of the individual (seasonally adjusted) national manufacturing indices in question. For example, the Eurozone Manufacturing Output Index is calculated as a weighted average of the Manufacturing Output indices of each of the eight eurozone nations covered.

Weights are derived from the latest Eurostat data on the gross value added of manufacturing (in euros) for each of the nations covered. Total manufacturing gross value added of the eight countries is calculated and then each component country’s manufacturing GVA is calculated as a percentage of the total of the eight countries, giving a weight for each country.

In addition to the usual eleven indices, a composite manufacturing PMI for the eurozone is produced by weighting together the eurozone manufacturing indices of output, new orders, employment, suppliers’ delivery times and stocks of purchases, using the usual PMI weights.

The eurozone surveys are conducted in Germany, France, Italy, Spain, Austria, Greece, the Netherlands and Ireland, accounting for 89% of total eurozone manufacturing output.

EUROZONE RETAIL PMI

For the Retail PMI, IHS Markit has recruited a representative panel of retail companies in France, Germany and Italy. Together, these three countries account for approximately 62% of total eurozone retail sales by value. The panel includes large chain retailers as well as smaller retailers.
to ensure balanced representation of the true structure of the eurozone retail sector. Similarly, the composition of the panel by classification of retailer (i.e. type of good sold) is monitored to ensure accurate representation. IHS Markit ensures the correct structure remains in place over time and that response rates remain sufficiently high to generate reliable economic data.

The Retail PMI surveys cover the following specific sectors. The definition of the retailers included in each sector is shown along with the Standard Industrial Classification (SIC) codes of the companies included in each sector.

- Clothing & Footwear: Retail sale of clothing, footwear and leather goods (SIC 5242 & 5243)
- Food & Drink: Retail sale of food, beverages and tobacco (SIC 5210 & 5220)
- Household Goods: Retail sale of household goods (SIC 5240, 5241, 5244-5248)
- Autos & Fuel: Sale of motor vehicles and motorcycles; Retail sale of automotive fuel (SIC 5000)
- Pharmaceuticals: Retail sale of pharmaceutical and medical goods, cosmetic and toiletries (SIC 5230)
- Other (included in total only): Other retail not in stores (SIC 5250 & 5260)

**EUROZONE SERVICES INDICES**

Composite eurozone series for each of the services indices are calculated by taking a weighted average of the individual (seasonally adjusted) national indices in question. For example, the Eurozone Service Sector Business Activity Index is calculated as a weighted average of the Service Sector Business Activity indices of each of the five eurozone nations covered.

Weights are derived from the latest Eurostat data on gross value added of services (in euros) for each of the nations covered. Total service sector gross value added of the five countries is calculated and then each component country’s services GVA is calculated as a percentage of the total of the five countries, giving a weight for each country.

Surveys are conducted in Germany, Italy, France, Spain and Ireland, accounting for 78% of total eurozone private sector services output.

**EXPORT CLIMATE PMI**

The Export Climate PMIs are calculated by weighting together national PMI data on output trends from PMI surveys for manufacturing, services and construction. All data are seasonally adjusted. Weights are derived from government statistics relating to the relative importance of individual trading partners’ contributions to the external trade of a specific country (henceforth referred to as ‘country A’). Our website currently carries Exporters’ PMI data for the United States of America, China, Japan, India, Germany, the United Kingdom, France, Italy, Brazil and Spain.
By weighting together the output trends from national PMI surveys according to their importance to the external trade of country A, an advance indicator for the economic health of country A’s export markets is obtained.

The output trends for country A’s trading partners are calculated using a weighted average of (where available) their Manufacturing PMI Output, Services PMI Business Activity and Construction PMI Activity indices.

The sector coverage of output trends for each country available for inclusion in the Exporters’ PMI series are shown in the table below.

<table>
<thead>
<tr>
<th></th>
<th>Manufacturing</th>
<th>Services</th>
<th>Construction</th>
<th>Whole Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
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<tr>
<td>Austria</td>
<td>Yes</td>
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<tr>
<td>Brazil</td>
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<tr>
<td>China</td>
<td>Yes</td>
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<tr>
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<td>France</td>
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<tr>
<td>Republic of Ireland</td>
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<tr>
<td>Russia</td>
<td>Yes</td>
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</table>
N.B. As the Exporters’ PMI measures export performance, data for country A are excluded from the Exporters’ PMI composition. For example, the composition of the UK Exporters’ PMI does not include PMI data for the UK.

**FLASH PMI**

The Flash PMIs are advance estimates of final PMI data. The Flash PMI data are published approximately one week before final PMI data and are typically based on 85%-90% of total PMI responses each month.

Flash PMI data are currently produced for the below surveys:

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<th>Composite</th>
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<tr>
<td>Japan</td>
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**FRANCE CONSTRUCTION PMI**

The IHS Markit French Construction PMI survey uses a panel of regularly participating companies to monitor trends in business conditions in the private sector construction economy. The panel has been carefully selected to accurately replicate the true structure of the construction economy.

**FRANCE MANUFACTURING PMI**

The French Manufacturing PMI Report features survey data collected from a representative panel of over 400 companies based in the French manufacturing sector. The panel is stratified by GDP and company workforce size.

**FRANCE SERVICES PMI**

The French Services PMI Report features original survey data collected from a representative panel of over 300 companies based in the French service sector. The panel has been carefully selected to accurately replicate the true structure of the services economy.
FRANCE RETAIL PMI
For the France Retail PMI, IHS Markit has recruited a representative panel of retail companies. The panel includes large chain retailers as well as smaller retailers to ensure balanced representation of the true structure of the French retail sector. Similarly, the composition of the panel in geographical terms and by classification of retailer (i.e. type of good sold) is monitored to ensure accurate representation.

GERMANY CONSTRUCTION PMI
The IHS Markit German Construction PMI survey uses a representative panel of over 200 companies based in the German construction sector. The panel structure is designed to accurately represent the structure of the German economy, taking into account the different sub-sector weights by CNAE-93 (National Classification of Economic Activities) group, based on the regional, company size and industry contribution to GDP.

GERMANY MANUFACTURING PMI
The German Manufacturing PMI features original survey data collected from a representative panel of over 500 companies based in the German manufacturing sector. The panel is stratified by GDP and company workforce size.

GERMANY RETAIL PMI
For the Germany Retail PMI, IHS Markit has recruited a representative panel of retail companies. The panel includes large chain retailers as well as smaller retailers to ensure balanced representation of the true structure of the German retail sector. Similarly, the composition of the panel in geographical terms and by classification of retailer (i.e. type of good sold) is monitored to ensure accurate representation.

GERMANY SERVICES PMI
The German Services PMI Report features original survey data collected from a representative panel of over 500 companies based in the German service sector. The panel has been carefully selected to accurately replicate the true structure of the services economy.

GLOBAL COMPOSITE INDICES
Global manufacturing and service sector data are weighted together to produce the overall Global Composite Indices. The weights are derived from the relative importance of the manufacturing
and service sectors (for those service sectors covered by the PMI surveys) across all those countries covered by the Global PMI surveys, based on gross value added data from the World Bank.

Six Global Composite indices are produced:

- Global Composite Output Index
- Global Composite New Orders Index
- Global Composite Employment Index
- Global Composite Input Prices Index
- Global Composite Output Charges
- Global Composite Backlogs

**GLOBAL ELECTRONICS PMI**

The Global Electronics data are compiled from monthly replies to questionnaires sent to purchasing executives in over 600 companies that specialise in the manufacture of goods which utilize semiconductors and ICs as key inputs in the production process.

The sectors covered by the survey include:

- Manufacture of computers and other information processing equipment;
- Wired and wireless communications devices;
- Manufacture of medical, precision and optical instruments;
- Manufacture of consumer electronics devices.

Companies participating in the survey include firms based in the US, Western and Central Europe and Asia (including Japan, China, Hong Kong, Taiwan and South Korea).

In line with IHS Markit manufacturing PMIs, the Global Electronics PMI is a weighted composite index derived from the usual five individual indices.
GLOBAL MANUFACTURING INDICES

Results from the national manufacturing surveys are used in the compilation of the Global manufacturing series to produce the following eight indices:

- Manufacturing Output Index
- Manufacturing New Orders Index
- Manufacturing New Export Orders Index
- Manufacturing Input Prices Index
- Manufacturing Suppliers' Delivery Times Index
- Manufacturing Stocks of Purchases Index
- Manufacturing Employment Index
- Manufacturing Future Output

Composite Global series for each of these indices are calculated by taking a weighted average of the individual (seasonally adjusted) national manufacturing indices in question. For example, the Global Manufacturing Output Index is calculated as a weighted average of the Manufacturing Output indices in over 40 nations covered.

In addition to the seven indices indicated above, a composite Global Manufacturing PMI is produced by weighting together the Global manufacturing indices of output, new orders, employment, suppliers’ delivery times and stocks of purchases, using the usual PMI weights.

The surveys are conducted in the USA, Japan, the UK, Germany, France, Italy, Spain, the Netherlands, Austria, Ireland, Greece, Poland, the Czech Republic, Russia, China, India, Brazil, Turkey, South Korea, Taiwan, Indonesia, Mexico, Malaysia, Myanmar, the Philippines, Thailand, South Africa, Australia, Singapore, Kenya, Nigeria, UAE, Saudi Arabia, Egypt, Lebanon and Vietnam by IHS Markit Economics and in a number of other countries: Denmark, Israel, Hungary, Switzerland and New Zealand. These countries together account for an estimated 95% of global manufacturing output.

GLOBAL PMI SERIES

The Global PMIs, produced by IHS Markit, are designed to provide the most up-to-date picture of global private sector business conditions.

In total, the surveys cover an estimated 89% of global GDP.
GLOBAL SECTOR DATA

The Global manufacturing, services, construction and whole economy PMI survey data have been analysed at sector level, using IHS Markit sector definitions.

Global IHS Markit Sector PMI data coverage

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<th>Tier 3 Sectors</th>
<th>Tier 4 Sub-sectors</th>
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<td>Chemicals Resources</td>
<td>Forestry &amp; Paper Products Metals &amp; Mining</td>
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<td>Automobiles &amp; Auto Parts Beverages &amp; Food Household &amp; Personal Use Products</td>
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## Global PMI survey coverage

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PMI Question Coverage

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GLOBAL SERVICES INDICES

Results from national service sector surveys are used in the compilation of the Global services series to produce the following seven comparable indices:

- Service Sector Business Activity Index
- Service Sector New Business Index
- Service Sector Outstanding Business Index
- Service Sector Input Prices Index
- Service Sector Output Charges
- Service Sector Employment Index
- Service Sector Future Activity
Composite Global series for each of these indices are calculated by taking a weighted average of the individual (seasonally adjusted) national service indices in question. For example, the Global Service Sector Business Activity Index is calculated as a weighted average of the Service Sector Business Activity indices of each of the 15 nations covered.

Surveys are conducted in the USA, Japan, China, Germany, the UK, France, Italy, India, Brazil, Spain, Ireland, Russia, Hong Kong, Kenya, Nigeria, UAE, Saudi Arabia, South Africa, Singapore, Egypt and Lebanon by IHS Markit, and in New Zealand by Business NZ. These countries together account for an estimated 76% of global service sector gross value added (GVA).

**GLOBAL WEIGHTS**

Weights for the Global Indices are derived from the latest available World Bank data on the gross value added of manufacturing and services for each of the nations covered. World Bank data on value added are in constant 2000 US$, with all national currencies converted to 2000 US$ by the World Bank using DEC alternative conversion factors.

The DEC alternative conversion factor is the underlying annual exchange rate used for the World Bank Atlas method. As a rule, it is the official exchange rate reported in the IMF’s International Financial Statistics (line rf). Exceptions arise where further refinements are made by World Bank staff.

**GREECE MANUFACTURING PMI**

The Greek Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in 300 manufacturing companies in Greece. The panel is stratified by GDP and company workforce size.

**HONG KONG WHOLE ECONOMY PMI**

The Hong Kong PMI Report is a monthly publication, researched and published by IHS Markit, featuring original research data from a survey of purchasing managers in companies operating in Hong Kong. The survey panel comprises over 300 companies. The panel is stratified by Standard Industrial Classification (SIC) group, based on industry contribution to GDP.
INDIA MANUFACTURING PMI

The India Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 400 manufacturing companies. The panel is stratified by GDP and company workforce size.

INDIA SERVICES PMI

The India Services PMI is based on data compiled from monthly replies to questionnaires sent to purchasing executives in around 350 private service sector companies. The panel has been carefully selected to accurately replicate the true structure of the services economy.

INDONESIA MANUFACTURING PMI

The Indonesia Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 300 manufacturing companies. The panel is stratified by Standard Industrial Classification (SIC) group and company size, based on industry contribution to Indonesian manufacturing value added.

INPUT PRICES (CONSTRUCTION/MANUFACTURING/SERVICES)

IRELAND CONSTRUCTION PMI

The Irish Construction PMI survey uses a panel of regularly participating companies to monitor trends in business conditions in the Irish private sector construction economy. The panel has been carefully selected to accurately replicate the true structure of the construction economy.

IRELAND MANUFACTURING PMI

The Irish Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in around 285 manufacturing companies. The panel is stratified by Standard Industrial Classification (SIC) group, based on the industry contribution to GDP.

IRELAND SERVICES PMI

The Irish Services PMI Report is based on data compiled from monthly replies to questionnaires sent to executives in around 450 companies operating in the Irish private sector services economy. The panel has been carefully selected to accurately replicate the true structure of the services economy.
**ISRAEL MANUFACTURING PMI**

The Israel Manufacturing PMI is produced by the Israeli Purchasing and Logistics Managers Association (IPLMA) using a methodology identical to that used by IHS Markit. For further information go to www.iplma.org.il

**ISTANBUL MANUFACTURING PMI**

The Istanbul Chamber Of Industry Istanbul Manufacturing PMI (Purchasing Managers’ Index) is produced by IHS Markit. The report features original survey data collected from a representative panel of around 300 companies based in the Istanbul manufacturing sector. The panel is stratified by Standard Industrial Classification (SIC) group, based on the industry contribution to GDP.

**ITALY CONSTRUCTION PMI**

The IHS Markit Italian Construction survey uses original survey data collected from a representative panel of over 150 companies based in the Italian construction sector. The panel has been carefully selected to accurately replicate the true structure of the construction economy.

**ITALY MANUFACTURING PMI**

The Italian Manufacturing PMI Report features original survey data collected from a representative panel of over 450 companies based in the Italian manufacturing sector. The panel is stratified by GDP and company workforce size.

**ITALY RETAIL PMI**

For the Italy Retail PMI, IHS Markit has recruited a representative panel of retail companies. The panel includes large chain retailers as well as smaller retailers to ensure balanced representation of the true structure of the Italian retail sector. Similarly, the composition of the panel in geographical terms and by classification of retailer (i.e. type of good sold) is monitored to ensure accurate representation.

**ITALY SERVICES PMI**

The Italian Services PMI Report features original survey data collected from a representative panel of over 450 companies based in the Italian service sector. The panel has been carefully selected to accurately replicate the true structure of the services economy.
J

**JAPAN MANUFACTURING PMI**

The Japan Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 400 manufacturing companies. The panel is stratified by Standard Industrial Classification (SIC) group, based on the industry contribution to Japanese GDP.

We also publish flash PMI data for the Japanese manufacturing sector.

**JAPAN SERVICES PMI**

The Japan Services PMI is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 400 private service sector companies. The panel has been carefully selected to accurately replicate the true structure of the services economy.

K

**KENYA WHOLE ECONOMY PMI**

The Kenya PMI is based on data compiled from monthly replies to questionnaires sent to purchasing executives in approximately 400 private sector companies, which have been carefully selected to accurately represent the true structure of the Kenyan economy, including agriculture, mining, manufacturing, services, construction and retail.

L

**LEBANON WHOLE ECONOMY PMI**

The Lebanon PMI Report is a monthly publication, researched and published by IHS Markit, featuring original research data from a survey of purchasing managers in companies operating in Lebanon. The survey panel comprises around 350 companies. The panel is stratified by Standard Industrial Classification (SIC) group, based on industry contribution to GDP.
**MALAYSIA MANUFACTURING PMI**

The Malaysia Manufacturing PMI is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 400 industrial companies. The panel is stratified by Standard Industrial Classification (SIC) group, based on the industry contribution to GDP. The manufacturing sector is divided into the following 8 broad categories: Basic Metals, Chemicals & Plastics, Electrical & Optical, Food & Drink, Mechanical Engineering, Textiles & Clothing, Timber & Paper, Transport.

**MANUFACTURING & SERVICES COMPOSITE PMI**

National manufacturing and service sector PMI data are weighted together to produce a series of Manufacturing & Services Composite PMIs.

The weights are derived from the relative importance of the manufacturing and service sectors in each respective national economy, based on gross value added data provided by national statistical institutes in each country.

Manufacturing & Services Composite PMIs are produced for the following nations:

- Australia
- Brazil
- China
- France
- Germany
- India
- Italy
- Japan
- Spain
- Republic of Ireland
- Russia
- United Kingdom

Data are available for the following diffusion indices:
• Manufacturing & Services Composite PMI Output Index
• Manufacturing & Services Composite PMI New Orders Index
• Manufacturing & Services Composite PMI Backlogs of Work Index
• Manufacturing & Services Composite PMI Employment Index
• Manufacturing & Services Composite PMI Input Prices Index
• Manufacturing & Services Composite PMI Output Prices Index
• Manufacturing & Services Composite PMI Future Activity Index

MANUFACTURING INDICES

IHS Markit’s national manufacturing surveys use identical methodologies and collect question-based data to produce the following eleven diffusion indices:

• Manufacturing Output Index
• Manufacturing New Orders Index
• Manufacturing New Export Orders Index
• Manufacturing Quantity of Purchases Index
• Manufacturing Input Prices Index
• Manufacturing Suppliers’ Delivery Times Index
• Manufacturing Stocks of Purchases Index
• Manufacturing Stocks of Finished Goods Index
• Manufacturing Employment Index
• Manufacturing Backlogs of Work Index
• Manufacturing Output Prices Index
• Manufacturing Future Output Index

MANUFACTURING QUESTIONNAIRES

The following questions are asked of respondents participating in the PMI manufacturing surveys:
OUTPUT

The volume of units produced this month compared with the situation one month ago (based on respondent's definition).

NEW ORDERS

The level of new orders received (in units, not money) this month compared with the situation one month ago. Domestic and export orders are included in this definition.

NEW EXPORT ORDERS

The level of new orders received which will require shipment across the national border (in units, not money) this month compared with the situation one month ago.

BACKLOGS OF ORDERS

The level of unfinished sales orders, i.e. sales orders not yet started or not yet completed (in units, not money) this month compared with the situation one month ago.

QUANTITY OF PURCHASES

The volume or number of items purchased this month compared with the situation one month ago.

STOCKS OF PURCHASES

The level of inventory of materials purchased (in units, not money) this month compared with the situation one month ago.

STOCKS OF FINISHED GOODS

The level of finished product which has come off the production line and is awaiting shipment/sales (in units, not money) this month compared with the situation one month ago.
EMPLOYMENT

The level of full time employment this month compared with the situation one month ago. For the purpose of calculation it is agreed that two part time employees should be treated as one full time employee. Seasonal hiring of employees is excluded in this definition.

INPUT PRICES

Average prices of all goods purchased (volume weighted) this month compared with the situation one month ago.

OUTPUT PRICES

Average selling prices of all goods produced (volume weighted) this month compared with the situation one month ago.

SUPPLIERS’ DELIVERY TIMES

The average length of time agreed to deliver the goods this month compared with the situation one month ago. For the surveys produced by IHS Markit, the interpretation of the Suppliers’ Delivery Times Index is a reading above 50.0 signals shorter average lead-times, below 50.0 signals longer average lead-times and a reading of 50.0 signals no change in average lead-times.

However, for Australia Manufacturing and New Zealand Manufacturing Suppliers’ Delivery Times Indices, the interpretation is the opposite. A reading above 50.0 signals longer average lead-times and a reading below 50.0 signals shorter average lead-times.

For the purposes of the Global Manufacturing PMI, data for these nations are inverted to be consistent with that of the other surveys.

FUTURE OUTPUT

Whether business activity levels will be higher, the same or lower than current levels in 12 months’ time.
MEXICO MANUFACTURING PMI

The Mexico Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in around 400 manufacturing companies. The panel is stratified by GDP and company workforce size.

MYANMAR MANUFACTURING PMI

The Myanmar Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in around 400 manufacturing companies. The panel is stratified by GDP and company workforce size.

NETHERLANDS MANUFACTURING PMI

The Netherlands Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in 350 manufacturing companies in the Netherlands. The panel structure is designed to accurately represent the structure of the Dutch economy, taking into account the different sub-sector weights by CNAE-93 (National Classification of Economic Activities) group, based on the regional, company size and industry contribution to GDP.

NEW BUSINESS (SERVICES)

NEW EXPORT ORDERS (MANUFACTURING)

NEW ORDERS (CONSTRUCTION/MANUFACTURING)

NEW ZEALAND MANUFACTURING PMI

The New Zealand Performance of Manufacturing Index (Business NZ PMI) Report is produced by Business NZ and is a monthly survey of the New Zealand manufacturing sector providing an early indicator of activity levels. The monthly data are generated from more than 200 responses. In line with IHS Markit’s own headline manufacturing PMI readings, the NZ PMI is a national composite index based on the diffusion indices for production, new orders, deliveries, inventories and employment. For further information go to www.businessnz.org.nz
**NIGERIA PMI**

The Nigeria PMI is based on data compiled from monthly replies to questionnaires sent to purchasing executives in approximately 400 private sector companies, which have been carefully selected to accurately represent the true structure of the Nigerian economy, including agriculture, mining, manufacturing, services, construction and retail.

**O**

**OUTPUT**

**OUTPUT PRICES (MANUFACTURING/SERVICES)**

**ORDERS TO INVENTORIES RATIOS**

Orders to Inventories Ratios in the manufacturing sector are calculated by dividing the New Orders Index by the Stocks of Finished Goods Index. This data is currently available for the following countries/regions: Austria, Brazil, China, Czech Republic, Emerging Markets, eurozone, France, Germany, Greece, India, Ireland, Italy, Japan, Netherlands, Poland, Russia, South Korea, Spain, Taiwan, Turkey, UK.

**P**

**PHILIPPINES MANUFACTURING PMI**

The Philippines Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in around 400 manufacturing companies. The panel is stratified by GDP and company workforce size.

**PMI (PURCHASING MANAGERS’ INDEX)**

The PMI (Purchasing Managers’ Index) is a summary composite index based on the seasonally adjusted diffusion indices for five of the manufacturing survey indicators, each of which is assigned with specific weights as shown below*

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Weight</th>
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<tbody>
<tr>
<td>New orders</td>
<td>0.30</td>
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<tr>
<td>Output</td>
<td>0.25</td>
</tr>
<tr>
<td>Employment</td>
<td>0.20</td>
</tr>
</tbody>
</table>
Suppliers’ delivery times 0.15
Stocks of purchases 0.10

The Suppliers’ Delivery Times Index is inverted in the above calculation.

*N.B. The composition of the Switzerland Manufacturing PMI differs slightly from that of the other PMIs carried on our website. The Switzerland PMI comprises:

Backlogs of orders 0.30
Output 0.25
Employment 0.20
Suppliers’ delivery times 0.15
Stocks of purchases 0.10

**PMI SEASONAL ADJUSTMENT**

The seasonal adjustment of PMI survey data is usually calculated using the X12 statistical programme of adjustment, as used by governmental statistical bodies in many developed countries. However, the X12 programme only produces satisfactory data if five years’ historical data are available. In the absence of such a history of data, the PMI survey data are seasonally adjusted using an alternative method, developed by IHS Markit.

This method was initially designed to provide analysts with a guide to the underlying trend in the survey data and should be recognised as a second-best approach to X12. However, past experience in other countries suggests that IHS Markit’s method of seasonal adjustment goes beyond this initial purpose and in fact in many cases outperforms X12 as a guide to comparable official data.

IHS Markit’s method involves using reasons cited by responding survey panel member companies for changes in variables, which are then used to ascertain whether a reported increase or decrease in each variable reflects an underlying change in economic conditions or simply a seasonal variation. Seasonal variations may include changes in demand arising from Christmas, Easter or other public holidays. Normal, expected changes in weather are not included. The net balance of companies reporting an improvement in a variable less those reporting a deterioration is then adjusted to allow for the percentages of companies reporting seasonal induced increases or decreases in the variable.

**POLAND MANUFACTURING PMI**

The Poland Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 200 manufacturing companies. The panel is stratified by GDP and company workforce size.
**PRODUCTIVITY PMI**

IHS Markit calculate productivity using company level data from national manufacturing and service sector panels. Data for output and employment from each respondent are analysed to produce a rate of change of each company’s productivity.

The information from each company is then averaged to form a single-figure index for manufacturing and service sectors. This figure is then seasonally adjusted using X12 to allow for expected movements arising from anticipated events such as Christmas and holidays. Finally, the published data are smoothed using an end-point three-month moving average.

Adjusted, smoothed data for manufacturing and services are then weighted together using official gross value added data to construct an overall figure for each country.

Country level data are also combined to produce manufacturing, services and total economy productivity measures for the eurozone and European Union.

**Q**

**QUANTITY OF PURCHASES (CONSTRUCTION/MANUFACTURING)**

**QUESTIONNAIRES**

A key feature of the PMI surveys is that they ask only for factual information. They are not surveys of opinions, intentions or expectations and the data therefore represent the closest one can get to “hard data” without asking for actual figures from companies. Questions asked relate to key variables such as output, new orders, prices and employment. Questions take the form of up/down/same replies. For example, “Is your company’s output higher, the same or lower than one month ago?”

Respondents are asked to take expected seasonal influences into account when considering their replies.

For each main survey question, respondents are asked to provide a reason for any change on the previous month, if known. This assists not only the understanding of variable movement but also in the seasonal process when X12 cannot be used.

For the specific questionnaires used by IHS Markit see construction questionnaire, manufacturing questionnaire, services questionnaire.
Retail PMI data is currently available for France, Germany, Italy and the Eurozone.

The following questions are part of the Retail PMI surveys:

- Sales (Monthly change)
- Sales (Annual change)
- Actual versus Planned Sales
- Expected Sales
- Employment
- Input Prices
- Margins
- Stocks of Goods for Resale
- Value of Goods Purchased for Resale

The Russian Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in 300 manufacturing companies in Russia. The panel is stratified by GDP and company workforce size.

The Russian Services PMI Report is based on data compiled from monthly replies to questionnaires sent to a panel of 300 private companies in the Russian service sector. The panel has been carefully selected to accurately replicate the true structure of the services economy.
The PMI indices are derived from original national surveys of manufacturing, services and construction sector business conditions conducted by IHS Markit. In many cases, the surveys are produced in conjunction with national members of the International Federation of Purchasing and Materials Management (IFPSM). All surveys are produced using identical methodologies, thus ensuring comparability of data.

**SAUDI ARABIA WHOLE ECONOMY PMI**

The Saudi Arabia Whole Economy report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in approximately 400 private sector companies, which have been carefully selected to accurately represent the true structure of the Saudi Arabia economy, including manufacturing, services, construction and retail. The panel is stratified by Standard Industrial Classification (SIC) group, based on industry contribution to GDP.

**SERVICES PMI**

The Services PMI is a phrase sometimes used to refer to the Business Activity Index – the headline index from the IHS Markit service sector reports. This series is not a weighted composite index like the Manufacturing PMI, rather it is an index designed to measure changes in total services business activity. The index is derived from the question that asks respondents to compare the level of total services activity with the situation one month ago.

**SERVICES INDICES**

IHS Markit’s national services surveys use identical methodologies and collect data to produce the following seven indices:

- Service Sector Business Activity Index
- Service Sector New Business Index
- Service Sector Outstanding Business Index
- Service Sector Input Prices Index
- Service Sector Prices Charged Index
- Service Sector Employment Index
- Service Sector Business Activity Expectations Index

The PMI Report on Irish Services also includes the following additional question:
Service Sector New Export Business Index

SERVICES QUESTIONNAIRE

The following questions are asked of respondents participating in the PMI service sector surveys:

BUSINESS ACTIVITY

The direct equivalent of manufacturing output. The level of business activity (as defined by respondent) this month compared with the situation one month ago.

INCOMING NEW BUSINESS

The direct equivalent of manufacturing new orders. The level of incoming new business received (in units, not money) this month compared with the situation one month ago.

OUTSTANDING BUSINESS

The direct equivalent of manufacturing backlogs of work. The level of unfinished sales orders or work outstanding, i.e. sales orders not yet started or not yet completed (in units, not money) this month compared with the situation one month ago.

EMPLOYMENT

The level of full time employment (in units, not money) this month compared with the situation one month ago. For the purpose of calculation it is agreed that two part time employees should be treated as one full time employee. Seasonal hiring of employees is excluded in this definition.

INPUT PRICES

Average prices of all inputs (volume weighted) this month compared with the situation one month ago. Purchases of goods and services, staff costs, rents etc. are all included.

PRICES CHARGED

The direct equivalent of manufacturing output prices. Average prices charged for all services (volume weighted) this month compared with the situation one month ago.
BUSINESS EXPECTATIONS

Whether business activity levels will be higher, the same or lower than current levels in 12 months’ time.

NEW EXPORT BUSINESS

Included in the PMI Report on Irish Services, this index is the direct equivalent of manufacturing new export orders. Respondents are asked to compare the level of new orders/new business from abroad placed at their company compared with the situation one month ago.

SINGAPORE WHOLE ECONOMY PMI

The Singapore PMI is based on data compiled from monthly replies to questionnaires sent to executives in over 400 private sector companies, selected to accurately represent the true structure of the Singapore economy, including manufacturing, services, construction and retail. The panel is stratified by Standard Industrial Classification (SIC) group, based on industry contribution to GDP.

SOUTH AFRICA WHOLE ECONOMY PMI

The South Africa PMI report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in approximately 400 private sector companies, which have been carefully selected to accurately represent the true structure of the South African economy, including manufacturing, services, construction and retail. The panel is stratified by Standard Industrial Classification (SIC) group, based on industry contribution to GDP.

SOUTH AFRICA MANUFACTURING PMI

The Bureau for Economic Research (BER) produces a Purchasing Managers’ Index (PMI) of current business conditions in the South African economy, with a sample of around 300 companies. The index is compiled on a monthly basis by the BER in collaboration with Barclays and currently focuses on business conditions in the manufacturing sector. For further information go to www.ber.ac.za

SOUTH KOREA MANUFACTURING PMI

The South Korea Report on Manufacturing is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 400 manufacturing companies. The panel is stratified by GDP and company workforce size.
**SPAIN MANUFACTURING PMI**

The Spanish Manufacturing PMI Report features original survey data collected from a representative panel of 400 companies based in the Spanish manufacturing sector. The panel is stratified by GDP and company workforce size.

**SPAIN SERVICES PMI**

The Spanish Services PMI features original survey data collected from a representative panel of over 300 companies based in the Spanish services sector. The panel has been carefully selected to accurately replicate the true structure of the services economy.

**STOCKS OF FINISHED GOODS**

**STOCKS OF PURCHASES**

**SUPPLIERS’ DELIVERY TIMES (CONSTRUCTION/MANUFACTURING)**

**SURVEY PANELS**

Purchasing managers form a near ideal survey sample base, having access to information often denied to many other managers. Due to the nature of their job function, it is important that purchasing managers are among the first to know when trading conditions, and therefore company performance, change for the better or worse. IHS Markit therefore uses such executives to produce data on business conditions.

In each country, a panel of purchasing managers is carefully selected by IHS Markit, designed to accurately represent the true structure of the chosen sector of the economy as determined by official data. Generally, value added data are used at two-digit SIC level, with a further breakdown by company size analysis where possible. The survey panels therefore replicate in miniature the actual economy. A weighting system is also incorporated into the survey database that weights each response by company size and the relative importance of the sector in which that company operates.

Particular effort is made to achieve monthly survey response rates of around 80%, ensuring that an accurate picture of business conditions is recorded over time.

Data are collected in the second half of each month via mail, email, web, fax and phone.

**SWITZERLAND MANUFACTURING PMI**

The SVME Purchasing Managers’ Index (PMI) is a joint project between the SVME Association of Purchasing and Materials Management (SVME) and procure.ch. It is based on a monthly survey
of around 200 SVME members. The survey and its evaluation follow the guidelines of the International Federation of Purchasing and Materials Management, guidelines which have been established in the USA for many decades. The SVME carries out the survey while procure.ch evaluates and publishes the results.

IHS Markit’s website carries Switzerland Manufacturing PMI data on the following variables:

- Backlogs of Orders
- Employment
- Output
- Purchasing Managers’ Index (PMI)*
- Suppliers’ Delivery Times**
- Stocks of Purchased Goods
- Average Input Prices

*The composition of the Switzerland Manufacturing PMI differs slightly from that of the other PMIs carried on our website. The Switzerland PMI comprises:

<table>
<thead>
<tr>
<th>Index</th>
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</tr>
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<tr>
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<tr>
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<td>Suppliers’ Delivery Times</td>
<td>0.15</td>
</tr>
<tr>
<td>Stocks of Purchases</td>
<td>0.10</td>
</tr>
</tbody>
</table>

** The interpretation of the Switzerland Manufacturing Suppliers’ Delivery Times Index differs from that of equivalent indices produced by IHS Markit.

A reading above 50.0 for the Switzerland Manufacturing Suppliers’ Delivery Times Index is interpreted as a lengthening of average supplier lead-times, whereas a reading below 50.0 signals a shortening.
TAIWAN MANUFACTURING PMI

The Taiwan Report on Manufacturing is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 300 manufacturing companies. The panel is stratified by GDP and company workforce size.

THAILAND MANUFACTURING PMI

The Thailand Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in around 400 manufacturing companies. The panel is stratified by GDP and company workforce size.

TURKEY MANUFACTURING PMI

The Turkey Manufacturing PMI Report features original survey data collected from a representative panel of over 400 manufacturing companies. The panel is stratified by GDP and company workforce size.

UGANDA WHOLE ECONOMY PMI

The Uganda PMI is based on data compiled from monthly replies to questionnaires sent to purchasing executives in approximately 400 private sector companies, which have been carefully selected to accurately represent the true structure of the Ugandan economy, including agriculture, mining, manufacturing, services, construction and retail.

UK CONSTRUCTION PMI

The UK Construction PMI survey is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 170 construction companies. The panel is stratified geographically and by Standard Industrial Classification (SIC) group, based on the regional and industry contribution to GDP.

UK JOBS

The Report on Jobs features original survey data from a panel of around 400 recruitment consultancies which provide the most up-to-date and comprehensive monthly picture of recruitment, employment and employee earnings trends available. Data were first collected in October 1997.
In the Report on Jobs, panel members are asked to respond on the following:

- **Permanent Staff Placements**
- **Billings from Temporary/Contract Staff**
- **Demand for Staff by Sector**
- **Availability of Permanent Staff**
- **Availability of Temporary/Contract Staff**
- **Permanent Salaries**
- **Temporary/Contract Pay Rates**

**PERMANENT STAFF PLACEMENTS**

A Permanent Staff Placements Index is derived from panel members’ responses to the question: “Please compare the number of staff placed in permanent positions with the number one month ago.” The index therefore provides a measure of permanent staff recruitment activity relative to the previous month.

**TEMPORARY STAFF BILLINGS**

A Temporary Staff Billings Index is calculated from responses to the question: “Please compare your billings received from the employment of temporary and contract staff with the situation one month ago.” This indicator tracks the level of use of temporary employees sourced through recruitment agencies.

**DEMAND FOR STAFF BY SECTOR**

Consultants are requested to compare the demand for staff (ie. level of vacancies) according to sector with the situation one month ago. The sectors monitored are:

- Computing & IT
- Executive & Professional
- Accounting & Financial
- Secretarial & Clerical
- Nursing/Medical/Care
- Hotel & Catering
- Engineering & Construction
- Blue Collar
Demand is measured separately for permanent and temporary staff in each sector.

Additionally, responses are aggregated to produce a composite Job Vacancies Index and indices of overall demand for permanent and temporary staff.

**Availability of Permanent Staff**

A Permanent Staff Availability Index is calculated from the question: “Is the availability of candidates for permanent vacancies better, the same or worse than one month ago?”. Declining availability of staff indicates the emergence of skill shortages, while improving availability signals a growing pool of candidates.

**Availability of Temporary/Contract Staff**

A Temporary/Contract Staff Availability Index is calculated from the question: “Is the availability of candidates for temporary vacancies better, the same or worse than one month ago?”. This indicator monitors the supply of temp workers.

**Permanent Salaries**

A Permanent Salaries Index is calculated from the question: “Are average salaries for permanent staff higher, the same or lower than one month ago?”. This index tracks pay pressures in the market for permanent staff.

**Temporary/Contract Pay Rates**

An Index of temporary staff pay is calculated from the question: “Are average hourly rates for temporary/contract staff higher, the same or lower than one month ago?”. This indicator monitors pay rates offered to temporary staff by agencies.

**UK Manufacturing PMI**

The UK Manufacturing PMI Report features original survey data collected from a representative panel of over 600 companies based in the UK manufacturing sector. The panel is stratified by GDP and company workforce size.

**UK Services PMI**

The UK Services PMI Report features original survey data collected from a representative panel of around 700 companies based in the UK services sector. The panel has been carefully selected to accurately replicate the true structure of the services economy.
**UNITED ARAB EMIRATES WHOLE ECONOMY PMI**

The UAE Whole Economy report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in approximately 400 private sector companies, which have been carefully selected to accurately represent the true structure of the United Arab Emirates economy, including manufacturing, services, construction and retail. The panel is stratified by Standard Industrial Classification (SIC) group, based on industry contribution to GDP.

**US MANUFACTURING PMI**

The IHS Markit US Manufacturing PMI is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 400 manufacturing companies. The panel is stratified by GDP and company workforce size.

We also publish flash US Manufacturing PMI data.

The IHS Markit US Manufacturing PMI data are included in the Global Manufacturing PMI.

**US SECTOR PMI**

The US manufacturing and services PMI survey data have been analysed at sector level, using IHS Markit sector definitions.

**US IHS Markit Sector PMI data coverage**

<table>
<thead>
<tr>
<th>Tier 2 Groups</th>
<th>Tier 3 Sectors</th>
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</thead>
<tbody>
<tr>
<td>Basic Materials</td>
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<td>Technology</td>
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</tbody>
</table>
**US SERVICES PMI**

The IHS Markit US Services PMI is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 400 services companies. The panel is stratified by GDP and company workforce size.

We also publish flash US Services PMI data.

The IHS Markit US Services PMI data are included in the Global Services PMI.

**VIETNAM MANUFACTURING PMI**

The Vietnam Manufacturing PMI Report is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 400 manufacturing companies. The panel is stratified by Standard Industrial Classification (SIC) group and company size, based on industry contribution to Vietnamese GDP.

**WHOLE ECONOMY QUESTIONNAIRES**

Whole Economy questionnaires contain some indices that do not appear on the questionnaires of other sectors. These are:

**PURCHASE PRICES**

Average prices of purchases of goods and services this month compared with the situation one month ago.

**STAFF COSTS**

Average costs of wages and salaries this month compared with the situation one month ago.
OVERALL INPUT PRICES

Average prices of all inputs this month compared with the situation one month ago. Purchases of goods and services, staff costs, rents etc. are all included.

X

X12

X12 is a statistical programme designed to account and correct for expected seasonal variation in underlying raw data series. For further details see US Census Bureau.

Y

Z

ZAMBIA WHOLE ECONOMY PMI

The Stanbic Bank Zambia Purchasing Managers' Index is based on data compiled from monthly replies to questionnaires sent to purchasing executives in approximately 400 private sector companies, which have been carefully selected to accurately represent the true structure of the Zambian economy, including agriculture, construction, industry, services and wholesale & retail. The panel is stratified by GDP and company workforce size.