

**Office of the Economic Adviser  
Department of Industrial Policy and Production**

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**A statement showing comparison of Index of Industrial Production (IIP) with Purchasing Managers Index (PMI)**

|                    | <b>IIP</b>                                                                                                                                                                                                         | <b>PMI</b>                                                                                                                                                                                                                                     |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Definition</b>  | IIP is defined as the ratio of the volume of commodities produced within a specified group of industries in a given time period to the volume produced in the same group of industries in a specified base period. | Purchasing Managers Index or PMI is based on a survey of purchase managers of companies and is used as an indicator to assess demand by businesses.                                                                                            |
| <b>Measurement</b> | IIP growth is expressed in year-on-year (y-o-y) terms.                                                                                                                                                             | PMI is a seasonally adjusted month-on-month (m-o-m) indicator.                                                                                                                                                                                 |
| <b>Compilation</b> | Central Statistics Office (CSO)                                                                                                                                                                                    | Markit (HSBC)                                                                                                                                                                                                                                  |
| <b>Frequency</b>   | Monthly                                                                                                                                                                                                            | Monthly                                                                                                                                                                                                                                        |
| <b>Release</b>     | IIP is released on 12th day of the following month (with a time lag of around 6 weeks).                                                                                                                            | The PMI surveys are released shortly after the end of the reference period. Manufacturing data are generally released on the 1st working day of the month, followed by construction on the 2nd working day and services on the 3rd working day |
| <b>Coverage</b>    | Includes 682 items covering broad sectors of mining, manufacturing and electricity with disaggregated results being provided at 2-digit industry groups for the manufacturing.                                     | It is a survey based indicator covering only the private sector companies. It is a composite of five of the survey indices. These are New orders, Output, Employment, Suppliers' delivery times and Stocks of                                  |

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|                |                                                                                                                                                                                                                                                                                                                                                                                                    |         | purchases.                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |
| Weights        | Sectors                                                                                                                                                                                                                                                                                                                                                                                            | Weights |                                                                                                                                                                                                                                                                                                                                                                                                                                              | Weights |
|                | Mining & Quarrying                                                                                                                                                                                                                                                                                                                                                                                 | 14.2    | New orders                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.3     |
|                | Manufacturing                                                                                                                                                                                                                                                                                                                                                                                      | 75.5    | Output                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.25    |
|                | Electricity                                                                                                                                                                                                                                                                                                                                                                                        | 10.3    | Employment                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.2     |
|                | Overall IIP                                                                                                                                                                                                                                                                                                                                                                                        | 100.0   | Suppliers' Delivery Times                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.15    |
|                |                                                                                                                                                                                                                                                                                                                                                                                                    |         | Stocks of purchases                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1     |
| Source of Data | Sixteen Source agencies viz. Department of Industrial Policy & Promotion, Indian Bureau of Mines, Directorate of Sugar, Salt Commissioner, Directorate of Vanaspati, Tea Board, Coffee Board, Textile Commissioner, Jute Commissioner, Coal Controller, Ministry of Petroleum, Development Commissioner Iron & Steel, Railway Board, Development Commissioner MSME, Central Electricity Authority. |         | The HSBC India Manufacturing PMI is based on data compiled from monthly replies to questionnaires sent to purchasing executives in over 500 private manufacturing companies.                                                                                                                                                                                                                                                                 |         |
| Base Year      | 2004-05                                                                                                                                                                                                                                                                                                                                                                                            |         | -                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |
| Methodology    | IIP in India uses base year weights, which remain fixed through the entire period of the series and uses a combination of volumes and deflators in its compilation. The weights assigned to sectors, i.e. manufacturing, mining and electricity are in terms of their relative importance in GDP and are derived from National Accounts aggregates.                                                |         | The national PMI surveys are based on questionnaire responses from panels of senior purchasing executives or similar in manufacturing and services companies. Questionnaires are completed and returned in the latter half of each month, and then processed by economists at Markit Economics. Respondents are asked to state whether business conditions for a number of variables have improved, deteriorated or stayed the same compared |         |

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|  |  | <p>with the previous month. Reasons for any changes are also requested from respondents.</p> <p>PMI data are presented in the form of diffusion indexes and are calculated as follows:</p> <p><b>INDEX = (P<sub>1</sub>*1) + (P<sub>2</sub>*0.5) + (P<sub>3</sub>*0)</b></p> <ul style="list-style-type: none"><li>• P<sub>1</sub> = Percentage number of answers that reported an improvement.</li><li>• P<sub>2</sub> = Percentage number of answers that reported no change.</li><li>• P<sub>3</sub> = Percentage number of answers that reported a deterioration.</li></ul> <p>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 (P<sub>2</sub> * 0.5).</p> <p>Therefore, an index reading of 50.0 means that the variable is unchanged, a number over 50.0 indicates an improvement while anything below 50.0 suggests a decline. The further away from 50.0 the index is, the stronger the change over the</p> |
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|                           |                                                                                                                                                       | month. E.g. a reading of 55.0 points to a stronger increase in a variable than a reading of 52.5. |
| <b>Volatility</b>         | More volatile.( IIP is subject to large fluctuations on account of base effect, seasonal factors such as festivals, hardening of interest rates etc.) | -                                                                                                 |
| <b>Revision</b>           | in three months lag.                                                                                                                                  | Not revised.                                                                                      |
| <b>Representativeness</b> | With a large and more representative basket, IIP better capture the industrial scenario.                                                              | Perceived index based on business expectations shows only expansion or contraction.               |

As the methodology used for calculating IIP and PMI are different, one being based on actual production data and the other on business expectations, the comparison between the two cannot be made. The table shows that there exist no one-to-one correspondence between the two. The IIP for March decelerated to while the manufacturing PMI, however, showed expansion.

**Table : Monthly figures of IIP and PMI**

| <b>Months</b>   | <b>Manufacturing PMI</b> | <b>IIP</b> |
|-----------------|--------------------------|------------|
| July, 2011      | 53.6                     | 3.7        |
| August, 2011    | 52.6                     | 3.4        |
| September, 2011 | 50.4                     | 2.5        |
| October, 2011   | 52.0                     | -5.0       |
| November, 2011  | 51.0                     | 6.0        |
| December, 2011  | 54.2                     | 2.7        |
| January, 2012   | 57.5                     | 1.0        |
| February, 2012  | 56.6                     | 4.1        |
| March, 2012     | 54.7                     | -3.2       |
| April, 2012     | 54.9                     | 0.1        |
| May, 2012       | 54.8                     | -          |

