Wage Rate Index (WRI)

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The "Phillips Curve" is a relationship in modern macroeconomics which postulates that higher wages tend to coincide with lower unemployment and vice versa. This finding was the contribution of the British economist A.W. Phillips, who noted a stable and inverse relationship between inflation and unemployment. The theory states that unemployment in an economy can be lowered by increasing wage rates and wage growth (inflation) can be lowered at the cost of higher unemployment[1]. In a labour abundant country like India, the nature and level of wages and employment are instrumental to our understanding of the economy and especially the forces underlying the level of inflation and growth. Since nominal wage costs influence the pricing decisions of the firms, and consequently the dynamics of growth and inflation, it is necessary to observe the changes in the wage rates of specific industries as well as the general level of wages across a spectrum of industries.

In this context a measuring tool for understanding the change in wages across the country becomes necessary. While, the Ministry of Labour had been publishing the Wage Rate Index (WRI) since 1963, the base year had remained antiquated in 1963-65=100. Correcting this anomaly, in November 2021, the Ministry of Labour has revised the base of the existing wage rate index from 1963=100 to 2016=100. The WRI measures the relative changes in wage rates over a period of time. The recent revision of the index offers some insight into the wage growth in the industry covering three major sectors i.e. Manufacturing, Mining and Plantation.

Scope and Methodology: The Wage Rate Index published by the Labour Bureau, Ministry of Labour & Employment has been revised after a gap of six decades, based on the recommendations of the International Labour Organisation (ILO) and the National Statistics Commission (NSC). The base year has been revised to 2016=100 to make the index more representative of the dynamics of the labour market. The results used in the construction of the index are sourced from the seventh round of the Occupational Wage Survey (OWS) conducted by the Labour Bureau, Ministry of Labour & Employment. The new WRI basket (2016=100) has included sixteen new industries as compared to the old WRI series (1963-65=100). Overall, 37 Industries which include 30 industries under Manufacturing, 4 industries under Mining and 3 Industries under Plantation have been covered in the new WRI. The current wage data has been collected during the period January 2021 to June 2021. The frequency of the WRI compilation would be point-to-point half yearly as on 1st January and 1ST July every year under the new WRI 2016=100.

The most important change in the WRI was the selection of industries. The 1963=100 had 21 industries while the 2016=100 has covered 37 industries. The selection of 37

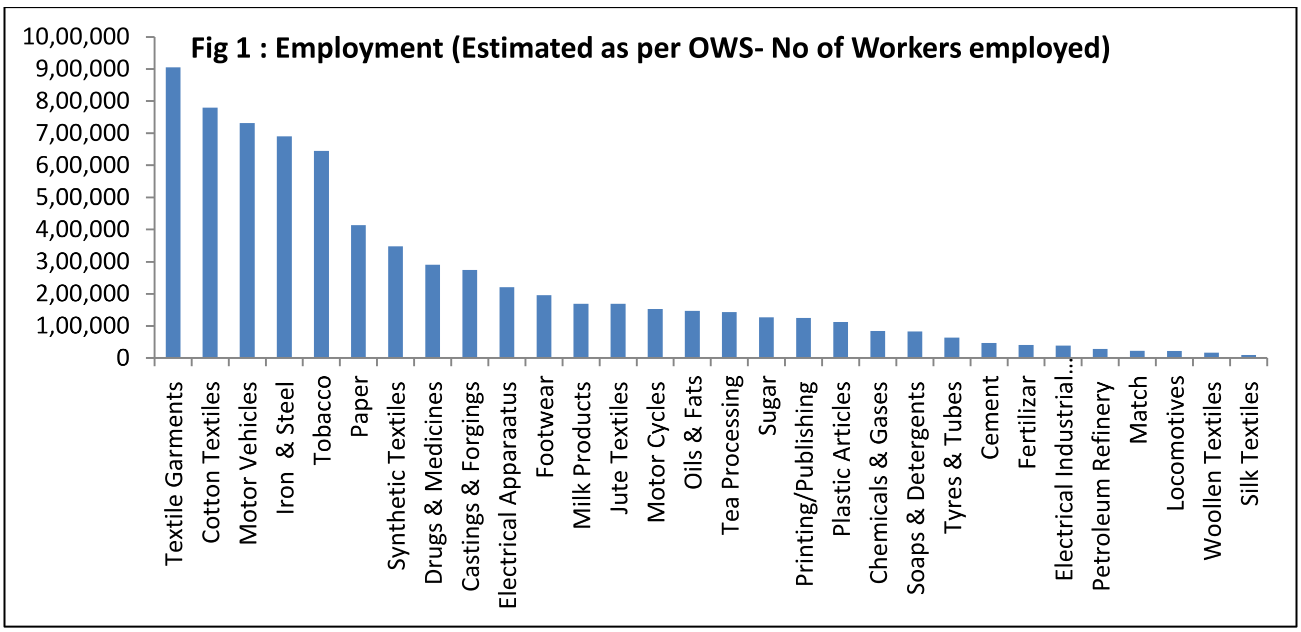
[1] Is the Phillips Curve in India Dead, Inert and Stirring to Life or Alive and Well? Michael Debabrata Patra et al , RBI Bulletin November 2021.

industries for the Occupational Wage Survey (OWS) Seventh round was based on the following criteria:

1. That the industry belonged to the organized sector ;
2. That the industry had an importance in the national economy; and
3. That the industry had significant share of employment in the organized industrial sector.

Based on these criteria, the 30 Manufacturing Industries in Fig 1 were selected.. The remaining seven industries comprise of 4 mining industries (Coal Mines, Iron ore Mines, Manganese Mines and Oil Mines) and three plantation industries (Tea Plantation, Coffee Plantation and Rubber Plantation).The OWS also had four service industries which have not been included in computations of the WRI since data was inconsistent and considering the scope of the service industries it was decided not to include the same. According to the OWS, 80% share of the employment belongs to the 37 industries chosen to construct the WRI, in overall employment of the three sectors.

The estimated employment in the 30 manufacturing industries as per the OWS is given in Figure 1 below:

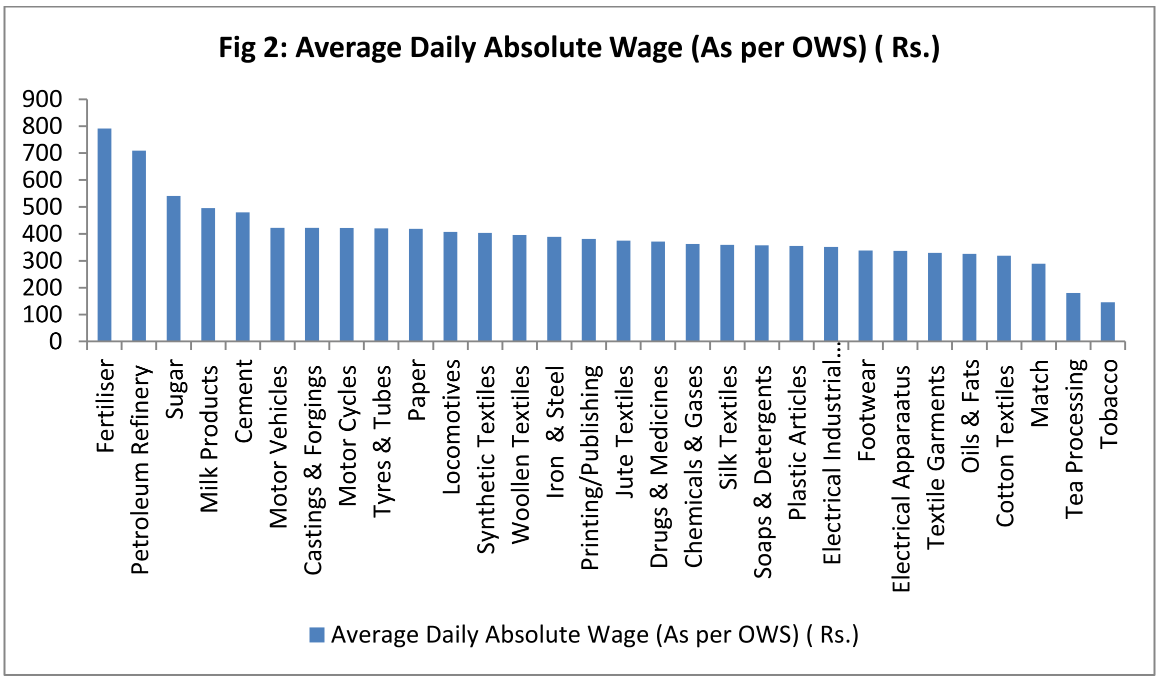


Source: Wage Rate Index (Series 2016=100), Labour Bureau

Within the other two sectors covered under the WRI (2016=100), Mining sector provided employment for 3.14 Lakh workers while Plantation provided employment for

12.17 Lakh workers as compared to a total employment of 71 lakh workers in the Manufacturing sector.

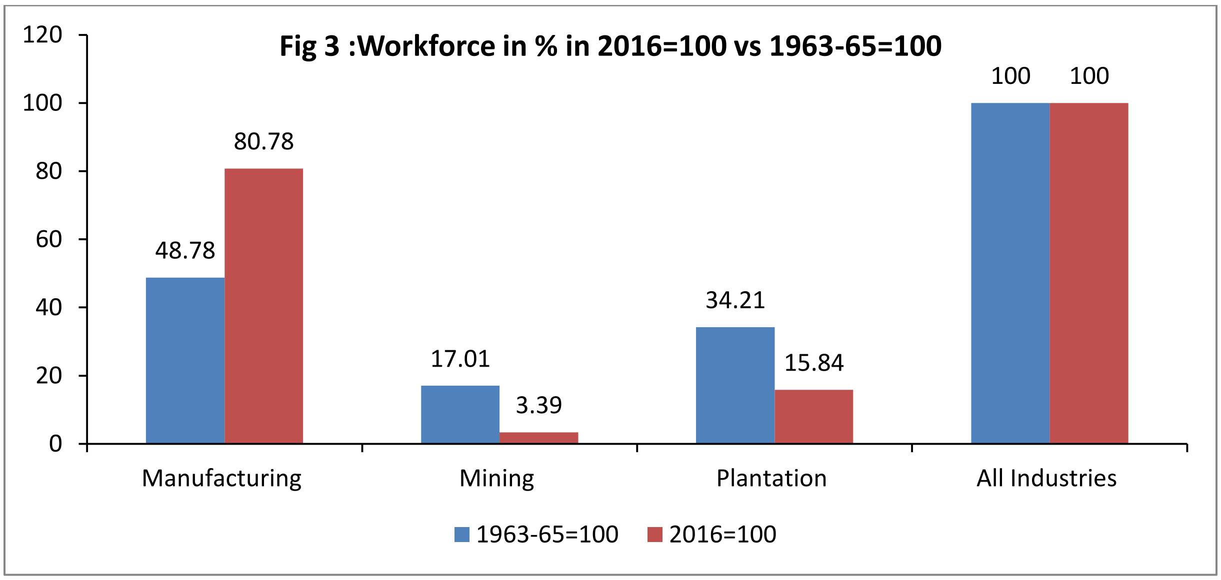
The definition of what constitutes wages and the wage rate in particular is central to the idea of any Wage index. According to the explanatory document of the Wage Rate Index published by the Ministry, wage rate may be defined as the price of working energy spent by a worker either for a specified period of time or for a specified measure of performance. On a more practical note the report states that the basic wage and the dearness allowance are taken to be reliable as indicators of the prevailing wage rates in the industrial units in the country. The wages for the Manufacturing sector are given below for reference, and within the Manufacturing sector Tobacco is the industry which has the lowest Average daily absolute wage of Rs. 145.01.Although in the WRI overall, the highest daily wage as per the OWS is furnished under coal mines at Rs.1338.2 while the lowest average daily wage of Rs.142 is under Tea Plantations which employ the largest number of workers across the industry.



Source: Wage Rate Index (Series 2016=100), Labour Bureau

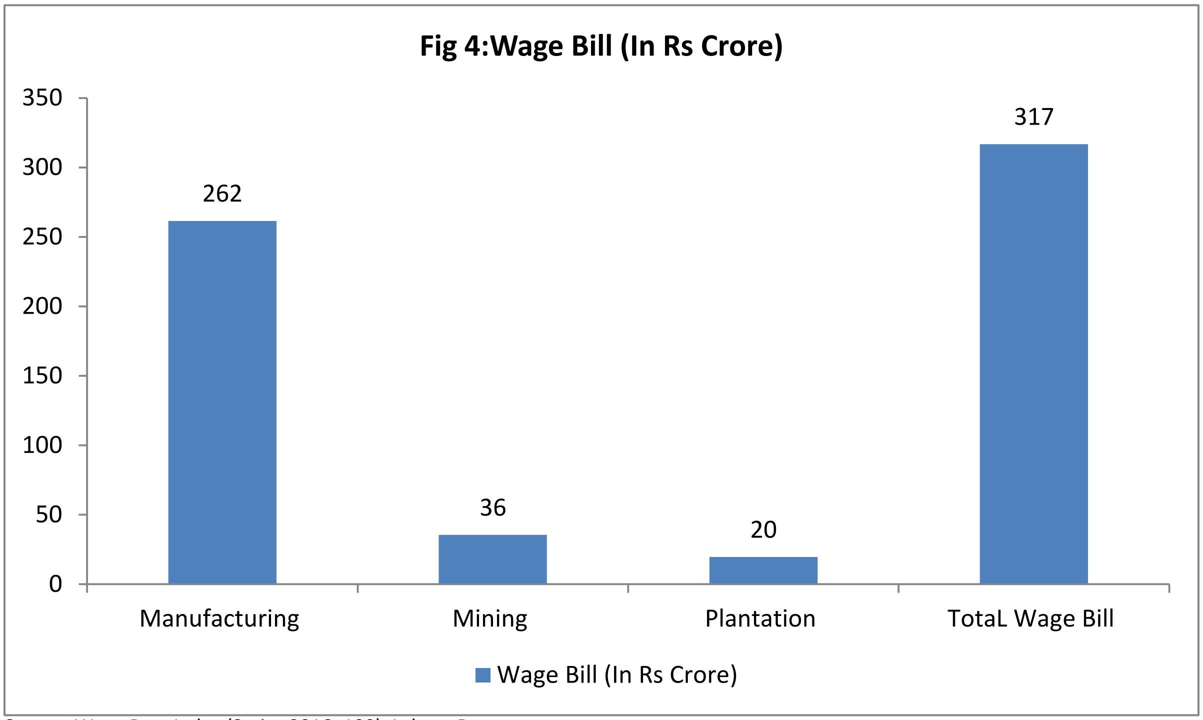
A comparison of weights: The major difference between the old (1963-65=100) and the new series (2016=100) is that the weights adopted for the construction of wage rate index numbers at occupation level are in proportion to the base year estimated employment figures in the respective occupations in each selected industry same as the old series, but further, the weights approved at Industry/Sector/All-India level for the new WRI series are in proportion to the base year estimated total wage bill figures in the respective categories with total weight as 100.

As far as the actual weights of the two indices i.e. 1963-65=100 and 2016=100 are concerned the share of the three sectors has been given in Figure 3. The weights used for the construction of the WRI are in proportion to the base year estimated employment figures in the respective categories with total weight of 100. In the earlier series the highest share was held by Tea Plantation at 30.1% in the total manual workforce, followed by Cotton Textiles (21.6%) and Coal Mines (14.36 %). These three industries accounted for 66.12% of the total weights in the WRI basket of 1963-65 series.



Source: Wage Rate Index (Series 2016=100), Labour Bureau

The new WRI provides the wage levels on the basis of the index constructed on these parameters on a half yearly basis, that is biennial point to point readings of the wage levels are provided. Unchanged from the previous series of nearly six decades vintage, Tea Plantation still holds the highest share as far as manual workforce is concerned at 15.11% , though the share has declined due to expansion in the base estimate of workers and number of industries. The seven industries of Textile Garments (11.33%), Motor Vehicles (8.51%), Iron & Steel (7.98%), Cotton Textiles (7.72%), Tobacco (5.97%) and Paper (5%) amount to ~61.63% of total weights in the WRI basket. In the new series, Manufacturing has the highest share in the total workforce, followed by plantation sector and lastly the mining sector.



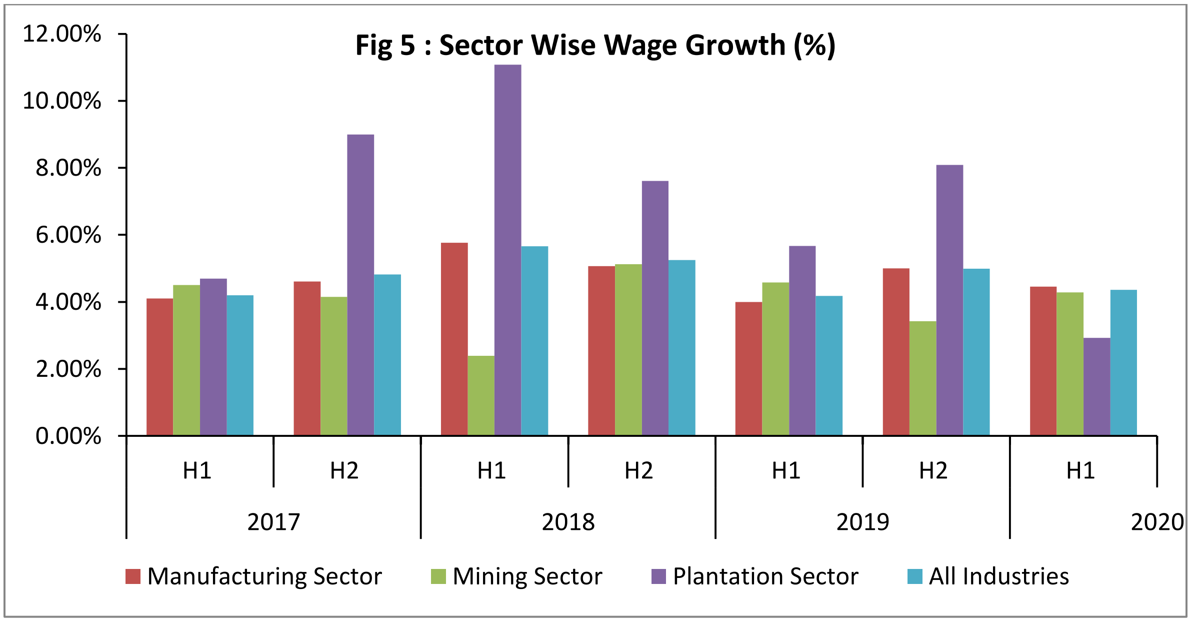
Source: Wage Rate Index (Series 2016=100), Labour Bureau

The weights are distributed accordingly with the industry indicating the highest wage bill having the highest weight. Accordingly, Manufacturing has an overall weight of 82.57%, Mining 11.23% and Plantations has weight of 6.2% in the New WRI basket.

Wage Growth: The most important facet of the wage-price dynamic is the relationship between the inflation and wages. Wages are said to exhibit wage rigidity downwards as is the normal experience that once adjusted higher for inflation, wages are not easily readjusted downwards even if inflation wears off to some lower level. This is witnessed in most economies and the difference, if any, is a difference of degree rather than of kind. The data available in the latest WRI series displays the adjustment of wages to increases in price levels.

The study of the wage price relationship also was in part responsible for the famous rule versus discretion debate for monetary policy. Further proof was provided that spontaneous responses to changes in inflation by policy makers lead to higher inflation while a rule-based approach leads to a stable inflation over a period of time which is the central idea of monetary policy targeting inflation.

The recent experience of the Reserve Bank of India (RBI) with regards to inflation targeting has been very positive with inflation remaining well behaved for the better part of the time period since 2016 when the inflation targeting framework was officially adopted, till the time the pandemic struck in early 2020. In that context it is interesting to see that wage growth for major sectors like Manufacturing and Mining have remained below 6% for the time period beginning 2016 as represented in the new WRI, and the only exception has been the wage growth in Plantation sector which has witnessed a higher growth in wage rates. This can also be attributed to the fact that wages in the Plantation sector are the lowest among the three sectors. This sluggish growth in overall wages must have been a significant factor which helped in keeping retail inflation broadly within the tolerance bands since 2016.



Source: Wage Rate Index (Series 2016=100), Labour Bureau

Conclusion: The Wage Rate Index (WRI) provides insight into a trajectory of wages which is aligned to the inflationary pressures in the economy. The new WRI is a welcome development and will let the policy makers take informed decisions regarding the wage and price setting which is usually very well documented in advanced economies but is less or not documented at all in the emerging market economies. Recent evidence points to inflation being sensitive to the output gap in India and also that the relationship between unemployment and inflation has existed but has been flat for the past six years. This has helped the monetary policy to support growth and as the output gap closes as the economy recovers the inflationary pressures might weigh more on the policy makers' minds. The Wage Rate index is, in this context, a very clear indicator of the trajectory of the output gap and consequently inflation.

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