



LABOUR SHARE SCENARIO BASED ON REAL WAGE GROWTH RATES IN INDIAN MANUFACTURING INDUSTRIES FOR THE PERIOD OF 1973-2020

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ABSTRACT

This paper bears its justification on the ground of wage productivity gap measurement in Indian manufacturing industries at disaggregate level with the impact of variable: real wage growth. The analysis has been carried out taking the period from 1973-74 to 2019-20 under consideration. The categories of industries depict their different classified ranges and characteristics of their trends over time. The resultant curves show that the labour share curve for all the categories of industry groups is downward sloping throughout the period under study. The category of industries with lower wage growth shows the highest LS and medium category of industries suggest the lower LS whereas high category of industries possess their trend in between the LS curves of low medium wage growth category of industry groups.

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INTRODUCTION

Here, an analysis has been done at disaggregate level based on real wage growth. We have classified industry groups (3-digit NIC) for the high, medium, and low categories of industry groups by measuring AAGRi of wage growth. We measure the labour share and the labour share growth at the 3-digit level of the NIC classification of industry groups by calculating AAGRi of wage growth for different categories of industry groups, such as High, Medium, and Low. We have not observed any positive trend of labour share for any category of industry groups. Several attempts have been made to assess labour share and its relationship with real wages in organized manufacturing industries. Our present study helps to understand the overall real scenario of labour share and labour share growth both at total and per worker level for India's manufacturing industries based on wage growth as disaggregate level macroeconomic variable.

Our study draws its most encouragement from the Sharpe, Assenault and Harrison (2008). This paper insights how real wage growth affects the labour productivity and cost of living. The Canadian workers have experienced a stagnated lower wage growth whereas the labour productivity rose by 37% in different sectors at an average.

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The study of real wages trends from 1979- 2017 by Donovan and Bradley (2018) has dealt with the scenario of real wages and its growth and how it affects the standard of living.

Apart from these studies there are several studies which have brought lights to our research work on this area. Few among these are Karanassou and Sala (2008); Sen and Dasgupta (2009); Basu and Veeramani (2021); Mehra and Kaur (2018); Debroy (2013) and Mishra (2001).

METHODOLOGY OF THE STUDY

As mentioned in the beginning, the Annual Survey of Industries provided the data (3-digit NIC categorization for all India level). Panel data makes up the secondary data source. All data values have been translated into real terms using the consumer price index for industrial workers (CPI-IW) and the wholesale pricing index for manufacturing products (WPI-MP), once the study's key data variables have been taken into account. WPI-MP was used to convert the value of the outputs into real values, while CPI-IW was used to convert the worker earnings into real values. The Labour Bureau provided the CPI-IW data with 2016 as its base year, and the Office of Economic Advisor provided the WPI-MP data with the base year of 2011-2012.

The detailed methodology of the study is provided step by step as follows:

STEP 1: We have arranged the panel data of real value of output for each manufacturing industry group by deflating the nominal value of output by WPI-MP.

STEP 2: Then we have calculated the real wage growth separately for each industry group for the period under consideration as a whole:

Real Wage growth rates=

$$Wg = \frac{RW_t - RW_{(t-1)}}{RW_{(t-1)}}$$

where the notations have their usual meaning and Wage Rate (W)= RWW/N and g= growth and t stands for time period, here each year.

STEP 3: Here, we have categorized high, medium and low group of industries on the basis of the value of real wage growth rates.

where,

- (i) high growth industries group is with wage elasticity of labour productivity greater than 10%,
- (ii) medium growth industries group with wage elasticity of labour productivity lying between 5% and 10%,
- (iii) low growth industries group with wage elasticity of labour productivity less than 5%.

STEP 4: Finally, for each category (high or medium or low), we have calculated the labour share and drawn the labour share trend and labour share growth trend respectively.

$$LS = \frac{RWW}{RNVA}$$

where LS stands for labour share and RWW and RNVA stand for real wages to workers and real net value added respectively.

$$LSG = \frac{Lst - LS(t-1)}{LS(t-1)}$$

where LSG stands for labour share growth and t denotes each time period under consideration and (t-1) denotes each time period preceding the t-th time period under consideration.

Empirical Findings

From Table 1 we can observe the classified ranges of industry groups based on real wage growth that have been set to undertake the following analysis.

Table 2 represents the obtained values of labour share (ls) and labour share growth (lsg) from AAGRi in high real wage growth, medium real wage growth and low real wage growth industry groups at 3-digit NIC (1973-74 to 2019-20).

Table 1 Classified Ranges of Industry Groups Based on Wage Growth

HIGH AAGR (wg) it	MEDIUM AAGR (wg) it	LOW AAGR (wg) it
INDUSTRY GROUP	INDUSTRY GROUP	INDUSTRY GROUP
AAGR (wg) it > 10%	5% < AAGR (wg) it ≤ 10%	AAGR (wg) it ≤ 5%

Table 2 Labour Share (LS) and Labour Share Growth (LSG) in High Wage Growth, Medium Wage Growth and Low Wage

Growth Industry Groups at 3-Digit NIC(1973-74 to 2019-20)

Source: ASI Database of Government of India. Authors' own calculation.

Figures 1 and 2 below provide the comparative assessment of the three wage-growth category-wise industry groups in terms of their respective labour shares for the period 1973-74 to 2020-21 which indicate downward trend in all the categories under consideration.

Figure 3 and 4 below shows the trends for labour share and labour share growth which indicate downward trend for each category of industry groups. Continuing over the years the trends for each category have been converged, especially since 2008-09.

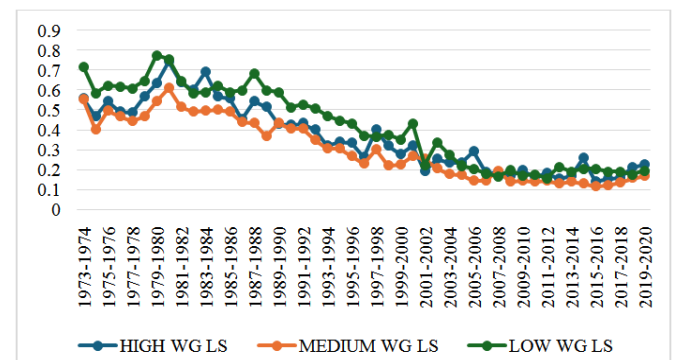


Figure 1 Trends in Labour Share in Terms of Wage Growth Source: ASI Database of Government of India. Authors' own calculation.

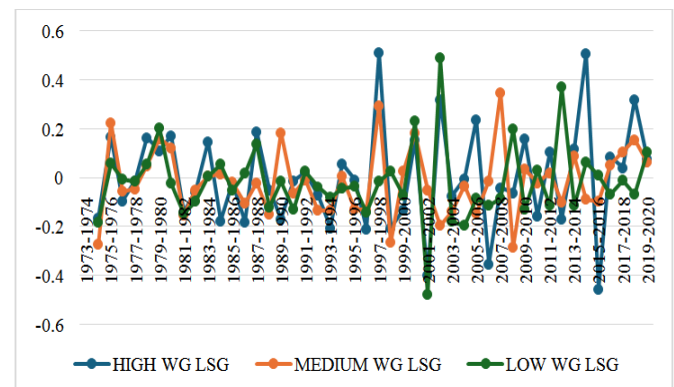


Figure 2 Trends in Labour Share Growth in Terms of Wage Growth Source: ASI Database of Government of India. Authors' own calculation.

Source: ASI Database of Government of India. Authors' own calculation.

Below figure 3 and Figure 4 presents the trends in labour share per worker and labour share growth per worker in terms of wage growth. Here also the obtained trends are downward sloping that have converged at the e

The analysis is based on wage growth depicts the fact that the labour share curve for all the categories of industry groups is downward sloping throughout the period under study. The category of industries with lower wage growth shows the highest LS and the medium category of industries suggests the lower LS whereas high category of industries poses their trend in between the LS curves of low and medium wage growth category of industry groups.

Now keeping a closer eye on the LS curves where we can assess the following points.



YEAR	HIGH LS	MEDIUM LS	LOW LS	HIGH LSG	MEDIUM LSG	LOW LSG
1973-1974	0.5568	0.5564	0.7183			
1974-1975	0.4665	0.4040	0.5859	-0.1621	-0.2738	-0.1844
1975-1976	0.5454	0.4950	0.6212	0.1691	0.2252	0.0602
1976-1977	0.4943	0.4673	0.6188	-0.0937	-0.0560	-0.0038
1977-1978	0.4882	0.4465	0.6103	-0.0124	-0.0445	-0.0137
1978-1979	0.5693	0.4685	0.6441	0.1662	0.0492	0.0554
1979-1980	0.6333	0.5440	0.7743	0.1124	0.1611	0.2020
1980-1981	0.7433	0.6112	0.7571	0.1738	0.1237	-0.0222
1981-1982	0.6394	0.5167	0.6473	-0.1398	-0.1546	-0.1450
1982-1983	0.6023	0.4913	0.5840	-0.0581	-0.0491	-0.0979
1983-1984	0.6922	0.4948	0.5882	0.1494	0.0070	0.0073
1984-1985	0.5701	0.5029	0.6214	-0.1764	0.0164	0.0563
1985-1986	0.5580	0.4941	0.5900	-0.0211	-0.0175	-0.0505
1986-1987	0.4568	0.4423	0.6001	-0.1814	-0.1047	0.0172
1987-1988	0.5423	0.4330	0.6835	0.1871	-0.0212	0.1389
1988-1989	0.5152	0.3686	0.6007	-0.0501	-0.1486	-0.1210
1989-1990	0.4290	0.4363	0.5914	-0.1673	0.1835	-0.0156
1990-1991	0.4242	0.4088	0.5150	-0.0111	-0.0630	-0.1291
1991-1992	0.4332	0.4058	0.5297	0.0211	-0.0073	0.0285
1992-1993	0.4038	0.3513	0.5103	-0.0679	-0.1344	-0.0366
1993-1994	0.3214	0.3048	0.4688	-0.2040	-0.1324	-0.0814
1994-1995	0.3398	0.3068	0.4485	0.0574	0.0066	-0.0433
1995-1996	0.3376	0.2669	0.4323	-0.0067	-0.1299	-0.0361
1996-1997	0.2675	0.2319	0.3714	-0.2077	-0.1312	-0.1409
1997-1998	0.4047	0.2999	0.3664	0.5132	0.2931	-0.0136
1998-1999	0.3210	0.2204	0.3767	-0.2068	-0.2650	0.0281
1999-2000	0.2793	0.2263	0.3504	-0.1300	0.0268	-0.0699
2000-2001	0.3228	0.2674	0.4314	0.1557	0.1818	0.2313
2001-2002	0.1942	0.2545	0.2252	-0.3983	-0.0485	-0.4780
2002-2003	0.2567	0.2051	0.3358	0.3214	-0.1941	0.4910
2003-2004	0.2378	0.1773	0.2760	-0.0735	-0.1356	-0.1780
2004-2005	0.2370	0.1716	0.2219	-0.0032	-0.0321	-0.1962
2005-2006	0.2933	0.1467	0.2033	0.2373	-0.1452	-0.0838
2006-2007	0.1904	0.1448	0.1805	-0.3507	-0.0129	-0.1122
2007-2008	0.1826	0.1952	0.1653	-0.0409	0.3481	-0.0839
2008-2009	0.1712	0.1396	0.1982	-0.0625	-0.2845	0.1988
2009-2010	0.1989	0.1444	0.1726	0.1613	0.0342	-0.1290
2010-2011	0.1676	0.1416	0.1782	-0.1572	-0.0196	0.0321
2011-2012	0.1855	0.1445	0.1579	0.1068	0.0206	-0.1137
2012-2013	0.1541	0.1300	0.2169	-0.1692	-0.1002	0.3739
2013-2014	0.1726	0.1415	0.1924	0.1202	0.0884	-0.1133
2014-2015	0.2609	0.1292	0.2047	0.5110	-0.0870	0.0640
2015-2016	0.1421	0.1167	0.2067	-0.4552	-0.0967	0.0098
2016-2017	0.1545	0.1230	0.1923	0.0871	0.0539	-0.0694
2017-2018	0.1606	0.1360	0.1908	0.0395	0.1057	-0.0081
2018-2019	0.2120	0.1571	0.1776	0.3198	0.1554	-0.0689
2019-2020	0.2288	0.1672	0.1963	0.0792	0.0644	0.1050

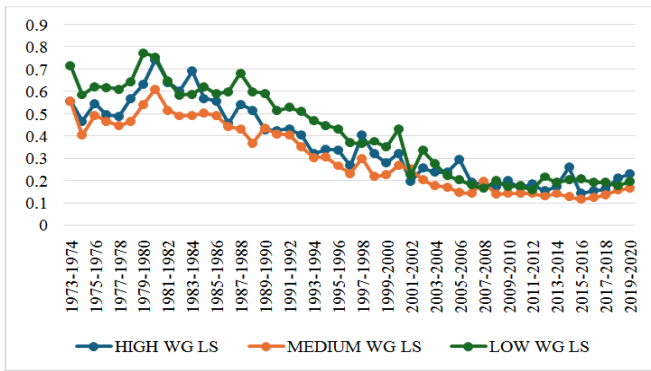


Figure 3 Trends in Labour Share per Worker in Terms of Wage Growth

Source: ASI Database of Government of India. Authors' own calculation.

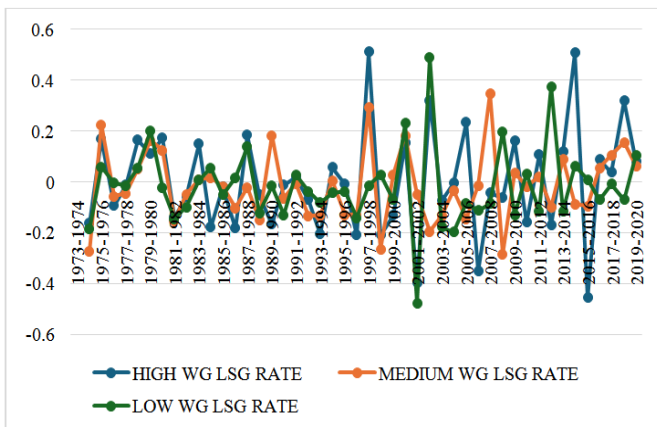


Figure 4 Trends in Labour Share Growth per Worker in Terms of Wage Growth

Source: ASI Database of Government of India. Authors' own calculation.

- A downward pattern graph is the resultant of high, medium and low wage growth categories.
- Low wage growth categories have the highest LS and highest wage growth categories have the lowest LS.
- From 1973-74 to 1979-80 low wage growth categories LS is greater than the LS of high and medium wage growth categories of industries
- after 1980-81 the LS of the low wage growth category has been continuing lower than before and it has been observed up to 1985
- after 1986 onwards the LS trend for the low wage growth categories is higher now and this uprising incident took place up to 1990
- after liberalization happened it had a downward fall, and this trend is relatively smoother than the pre-liberalization period
- this relatively smoother downward trend persists up to 2020
- In both the industries with the category of medium-high wage growth the LS curve is more or less of a similar pattern with their value per year though the high wage growth category LS is slightly higher than the LS value of medium wage growth category
- For labour share growth from 1974 to 2020 we have observed some fluctuations, and the overall trend is moderate.

Summary

Throughout the years under study the anti- labour wage

productivity gap has increased and thereby it results the fall in the labour share curves for each category of industry groups. The AAGRi of wage growth suggests that the main cause of this falling LS curve over time is the stagnation of real wages and the increasing productivity of labour. The policy imperatives here may be the increase in the wage rate and reinvestigate the labourers' conditions and unrest among them and also the structure of labour employment in the industrial sector in India.

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