e-Labor News No. 159
Issue paper

Labor Income Share in Korea: Measuring Issues and Trends*

Byung-Hee Lee **

I. Introduction

There is no consensus on how to measure the labor share of national income. The level and trend depends on the methodology used. One good example is the difference between the labor shares published by the Bank of Korea (BOK) and the OECD. BOK's number for Korea is lower than most major countries, and the drop since the Asian financial crisis is minimal. But the OECD's number for Korea is quite high, and has declined steeply in the past 20 years. Recent studies in Korea have attempted to address this discrepancy (Hong, 2013; Kim, 2013; Joo & Jeon, 2014). Given the high portion of self-employment in Korea as well as large variations in jobs and income levels of the self-employed, it is necessary to separate labor income from self-employment income in order to get an accurate picture of the current labor share and trend. Section II reviews the issues related to measuring the labor share and presents outcomes and trends for each methodology. It then suggests an adjustment method suited to the Korean reality.

Meanwhile, if the labor share fell because of an increase in the output share of industries having a low labor share, it would be an misunderstanding to interpret the trend as indicating a growing imbalance between labor income and capital income (de Serres, Scarpetta, & Maisonneuve, 2002; Arpaia, Pérez, & Pichelmann, 2009). The inherent differences in labor share between industries can cause aggregation bias or composition bias when the industrial composition changes. Section III shows through shift-share analysis that most of the decline in the labor share since the Asian financial crisis occurred within each industry.

Although the argument is no longer accepted that correcting the differences in self-employment share eliminates most of the country differences in labor share, the OECD method of dividing the mixed income sources of the self-employed leads to overestimation of Korea's labor share of income. Section IV thus shows that when the adjusting method suggested in this study is applied, Korea's labor share of income is lower than the OECD average.

---

* This paper is a translated version of a paper published in the *Monthly Labor Review* (KLI, January 2015). It is an excerpt from *Labor Income Share and Economic Inequality* (Korea Labor Institute, 2014).

** Senior research fellow, Korea Labor Institute (lbh@kli.re.kr).

The drop in labor income share will be closely related to the increasing income inequality. Section V estimates the trends in capital income share and labor income share by income group, using adjusted labor share. The results show a decline in the labor's share of income for self-employed and the lower 90% wage income group, and a growth in the labor's share of income for the top 10% wage income group. The share of capital income has risen significantly.

II. Measuring the Labor share: Issues and Trends

1. Measuring Issues

From the point of view of distribution, the labor share is defined as the share of labor income out of the national income. But two issues remain unresolved in terms of how to measure it.

First is the question of what type of income to use as the national income that serves as the denominator—a critical question, because it changes the resulting calculation of the labor share. Most commonly used are gross domestic product (GDP), gross value-added (GVA), and national income at factor cost (NI).

The differences between them are as follows. GDP, the sum of all value-added resulting from the output activities of all domestic economic entities, is made up of compensation of employees, operating surplus, consumption of fixed capital, and taxes less subsidies on production and imports. If GDP is used as the denominator, consumption of fixed capital, and taxes less subsidies on production and imports are treated as capital income. But the problem with the components of taxes less subsidies on production and imports is that it is hard to determine who actually bears the costs or to whom they are distributed. This is why the OECD uses GVA, which is GDP less net tax on production and imports. In this case, consumption of fixed capital is regarded as factor income on capital.[1] In comparison, the BOK uses the narrowest concept, national income at factor cost (NI). It is GDP less net tax on production and imports, and consumption of fixed capital.

[1] Ryner (2012) argues that given that pension and social insurance contributions included in the numerator are reproduction costs for labor, consumption of fixed capital (which is the cost of substituting capital) should be included in the denominator..

Table 1. *Definitions of National Income*

Account	Items				
Gross domestic product (GDP)	Compensation of employees (COE)	Operating surplus (OS)	Consumption of fixed capital (CFC)	Net tax on production and imports	—
Gross value-added (GVA)	COE	OS	CFC	—	—
Gross national income (GNI)	COE	OS	CFC	Net tax on production and imports	Net factor income from abroad (NFIA)
Net national income (NNI) = National income at market prices	COE	OS	—	Net tax on production and imports	NFIA
National income (NI) = National income at factor cost	COE	OS	—	—	NFIA

Thus the more components of national income are included in the denominator (i.e., in the order of GDP, GVA, NI), the smaller the labor share. In addition, because the share of consumption of fixed capital out of GNI has been growing, the labor share can differ significantly depending on the choice of national income.

Second is the question of the range of labor income to be used as the numerator. The BOK uses compensation of employees (COE). COE consists of cash or value-in-kind received by workers in exchange for labor and the social contributions borne by the employer. If it is strictly limited to COE, income of self-employees, or operating surplus of unincorporated enterprises (OSPUE), it is regarded entirely as capital income. Because self-employment income is a mixture of capital income and labor income, BOK's measurement would underestimate the labor share.[2]

2. Trends in Adjusted Labor Share

The levels of and trends in labor share by different methodologies for measuring the share are reviewed in this section. To allow comparison with BOK's equation, national income at factor cost is used as the denominator.

The BOK definition does not account for the decline in the share of self-employment

[2] The 1993 SNA recommends the use of *mixed income* rather than operating surplus of private unincorporated enterprises. This reflects the fact that income resulting from production activities of non-corporate businesses owned by family members includes a mixture of compensation of employees and operating surplus (BOK, 2010, pp. 62, 230).

over time, as it sees self-employment income entirely as capital income.[3] To differentiate from the labor share adjusted with estimation of the self-employment labor income, hereinafter BOK's statistic is called the wage share(WS).

Gollin (2002) observed that unless self-employment labor income is taken into account, the labor share in countries having a high self-employment rate is bound to be underestimated and offered three options for adjustment.

The first option is to regard OSPUE entirely as labor income (LS1 in Figure 1). But this option could overestimate the labor share because it does not consider the fact that the self-employed own capital.[4]

The second option is to assume that the shares of labor income and capital income in self-employment are identical to the shares in other economic sectors (LS2 in Figure 1). These can be calculated using the COE share out of national income excluding OSPUE.[5] This method assumes that individual businesses in self-employment have levels of functional income distribution identical to those in other sectors such as corporations or the government sector. However, it can result in underestimating the labor share given that self-employment tends to have more labor-intensive production activities.

The third option is to assume that the average wage income is identical for self-employed and wage earners (LS3 in Figure 1). This is a method of obtaining the average wage of wage earners from the data on the number of wage earners, then applying it as the labor income of the self-employed.[6, 7]This option assumes that unpaid family workers receive the same labor income as wage earners, because they contribute to production.

Figure 1 shows the trends in labor share by measurement type. BOK's wage share(WS), which does not account for self-employment income, shows the lowest labor share of the four methods. In contrast, when self-employment labor income is reflected, the labor share ends up considerably higher.[8]

And BOK's wage share appears to have peaked in 1996, falling slightly thereafter. In contrast, no matter how self-employment income is adjusted, LS1 through LS3 show a dramatic fall since the Asian financial crisis, remaining 13 to 15 percentage points lower than the peak to

---

3 COE / National income at factor cost.

4 COE + OSPUE / National income at factor cost.

5 COE / (National income at factor cost – OSPUE).

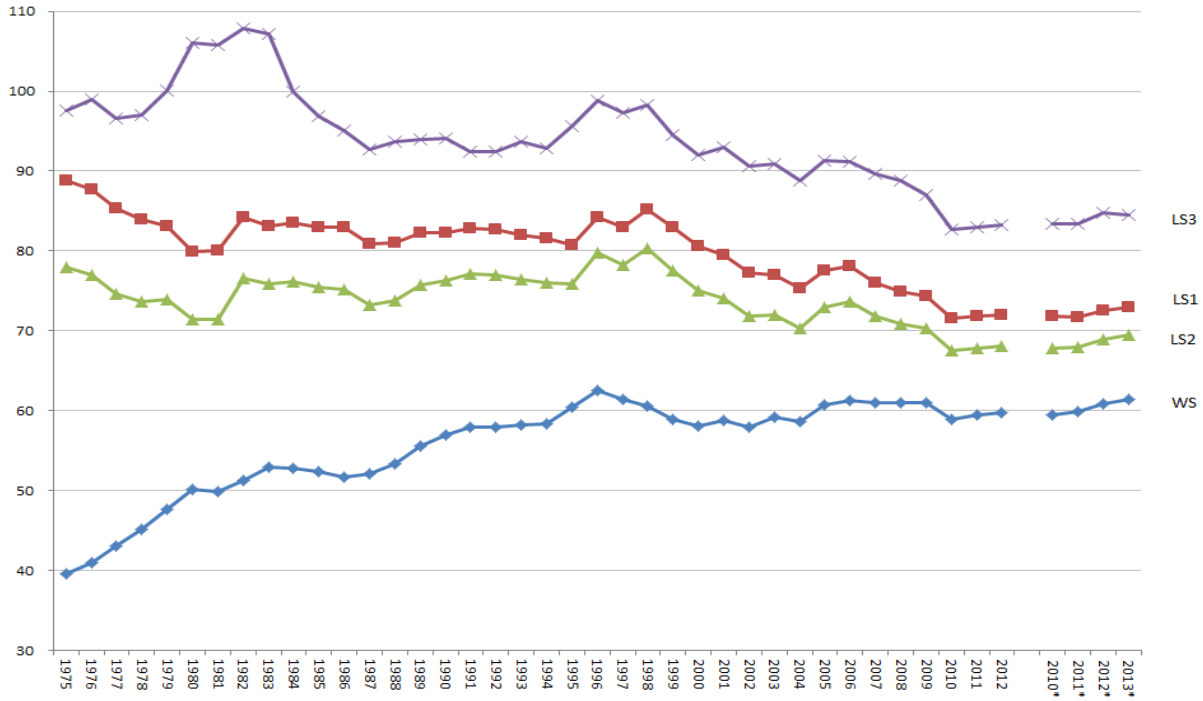
6 (COE + (COE/Wage earners × non-wage earners)) / National income at factor cost.

7 Or (COE / National income at factor cost) × (No. of employed / No. of wage earners).

8 Another methodology is to count 2/3 of self-employment income as labor income and the remaining 1/3 as capital income. It is a method used as common practice in the U.S. since being recommended by Johnson (1954, cited in Krueger, 1999). But this methodology is hardly acceptable today, especially given the statistics by Piketty demonstrating that labor share has not historically been constant.

this day.

Figure 1. *Trends in Adjusted Labor Share by Measurement* (%)



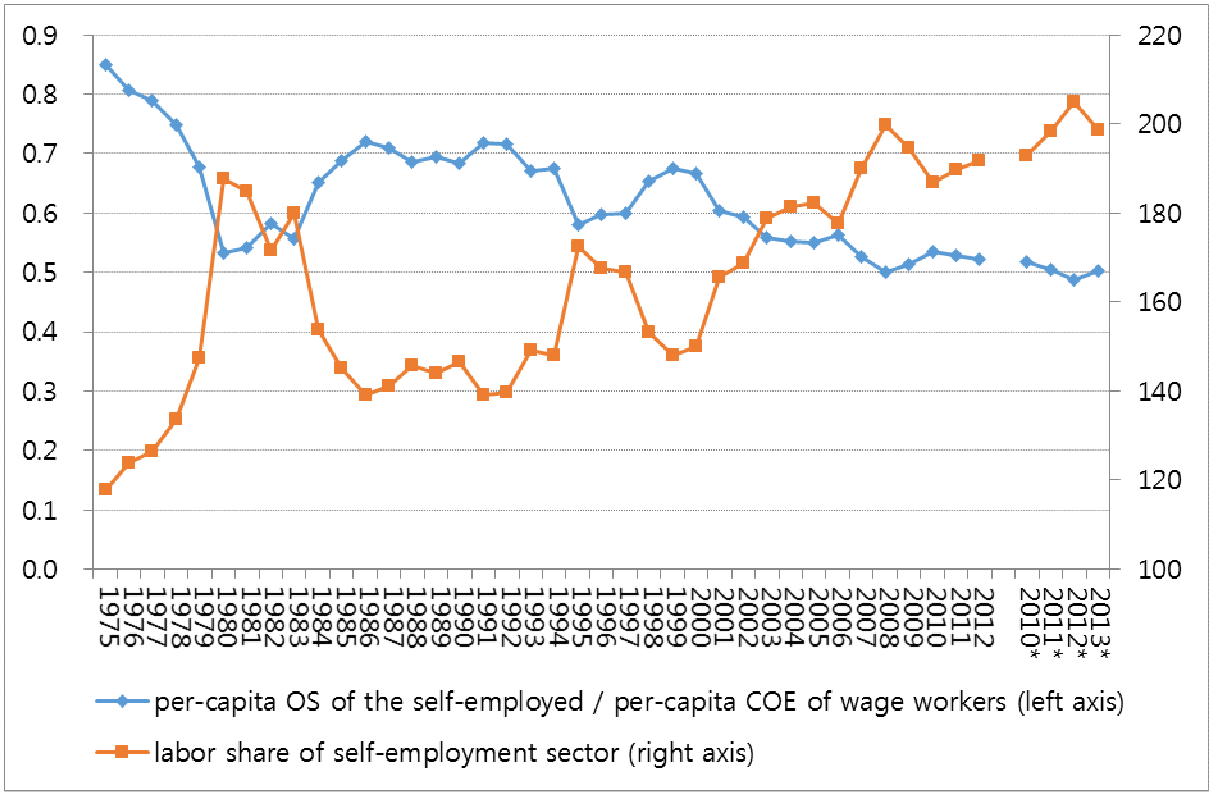
Note: Asterisks (*) indicate the set of statistics after switching to a new System of National Accounts (2008 SNA) and changing the reference year to 2010.

The OECD produces international comparison data using LS3, which accounts for the share of self-employment. But the trend in LS3 measurements shows periods where the labor share is above 100%. This occurs when there is a large differential in the average wage between the self-employed and wage earners. Figure 2 shows that since 1975, when per-capita COE data became available, per-capita operating surplus of non-wage earners has always been lower than COE. Thus the assumption that the average earning of non-wage earners is identical to the average wage of wage earners causes overestimation of the labor share. In addition, non-wage earners' labor income calculated using LS3 is much larger than their operating surplus, leading to the error of calculating labor share in self-employment at 199% in 2013.

The result under LS3 where self-employment income treated as their labor income is bigger than their operating surplus is not acceptable, while LS1, which sees individual operating surplus entirely as labor income, overestimates the labor share. LS2, which assumes the same labor share for self-employment as in other sectors, appears to be most suitable to the reality today, when it is difficult to separate labor income from self-employment income, although it

does not reflect the labor-intensiveness of the self-employment sector.[9]

Figure 2. *Trends in Non-wage Earners' Relative Labor Income and Labor Share of the Self-employment Sector*



Note: Asterisks (*) indicate the set of statistics after switching to a new System of National Accounts (2008 SNA) and changing the reference year to 2010.

The labor share adjusted with LS2 is recorded at 69.5% in 2013 according to the SNA 2008 standard. Based on SNA 1993, which allows for long time-series observation, the adjusted labor share fell from 79.8% in 1996 to 68.1% in 2012, a drop of 11.7 percentage points.

III. Changes in Industrial Structure and Labor share

To control for the impact of changes in industrial structure on the labor share, I use shift-share decomposition method. Because there are large differences in the share of non-wage earners by industry, their labor income should also be adjusted when the labor share is estimated by industry. Because National Accounts does not provide OSPUE by industry, the above-described method LS2 is not applicable. Thus, labor share is calculated as follows using industry-specific

[9] Joo and Jeon (2014) also concluded that LS2 is the most appropriate methodology given the Korean employment structure. Bae (1984) estimated the labor income of private unincorporated e businesses in non-agriculture/fishery/forestry sectors using LS2.

value-added in each industry and employment statistics.[10]

$$LS_t = \frac{CE_t}{GVA_t}\frac{N_t}{E_t} = \sum_{n=1}^{k}\frac{GVA_{nt}}{GVA_t}\frac{CE_{nt}}{GVA_{nt}}\frac{N_{nt}}{E_{nt}} = \sum_{n=1}^{k} v_{nt} LS_{nt}$$

In this equation, n indicates the industry, t is the year, CE is the compensation of employees, GVA is gross value-added, N is the number of employed, and E is the number of wage earners. $v_{nt} = \frac{GVA_{nt}}{GVA_t}$ yields the share of value-added in industry n, while LS_{nt} is the labor share of industry n adjusted by the share of non-wage earners. In other words, the labor share in the overall economy is represented as the sum of all labor shares specific to each industry weighted with the share of production for each industry.

The labor share can be decomposed as follows:

$$\triangle LS_t = \sum_{n=1}^{k} \triangle v_{nt} LS_{nt} + \sum_{n=1}^{k} v_{nt} \triangle LS_{nt}$$

The changes in the labor share in the above equation consists of the effect of changes in the industrial structure (first term on the right-hand side of the equation) and the effect of changes in the labor share in the industry (second term on the right-hand side.

Conducting decomposition requires statistics on value-added in each industry, COE, and employment. The GVA and COE are used from *National Accounts* (NA). Meanwhile, employment statistics for each industry can be obtained from the *Economically Active Population Survey* (EAPS, Statistics Korea). But the industrial classifications are different between the NA and the EAPS. In this study, the Industrial Classification (16 industries) under the NA has been matched to the Standard Industrial Classification (SIC) used in the EAPS. Meanwhile, when calculating the labor share by industry that accounts for self-employment income, a ceiling was placed on the adjusted labor share at 1.[11]

[10] The U.S. Bureau of Labor Statistics also assumes labor income of the self-employed to be identical to the average compensation of employees in the same industry (BLS, 1997, p. 92). This is a methodology where LS3 is applied to each industry, the result of which is weighted with the share of production for each industry (to be indicated as "LS4" hereinafter). Using LS4, the labor income share in Korea is found to be lower than the result of LS3, but it does not eliminate the problem of the labor income part of self-employment income exceeding their operating surplus.

[11] Because the labor income share after adjusting for self-employment income exceeds 1 in agriculture/forestry/fishery, wholesale/retail (late 1990s), transport and insurance (since 2008), and education services and other services, a ceiling was put in place.

Table 2. *Decomposition of the Change in the Adjusted Labor Share*

1996 labor share (A)	0.738	
2011 labor share (B)	0.653	
Overall change (B−A)	−0.085	(100.0)
Change in distribution rate within industry	−0.076	(90.0)
Change in industrial structure	−0.008	(10.0)

Table 2 shows the result of decomposition of the 16 industries for the period 1996–2011. The labor share calculated by GVA and adjusted with LS4 fell from 73.8% in 1996 to 65.3% in 2011. This decline is 90% explained by the drop in labor share within each industry.

Meanwhile, Table 3 shows the results of decomposition by industry. First, it shows that the industries where the value-added share increased do not necessarily have a low labor share. Of those industries where the value-added share increased, finance/insurance and manufacturing have lower labor shares than the overall average, while health/social works, education services, and business services have higher shares. Second, manufacturing has seen the biggest increase in the share of value-added, but its labor share is lower than average and is on a decline.

Table 3. *Decomposition of the Change in the Adjusted Labor Share by Industry*

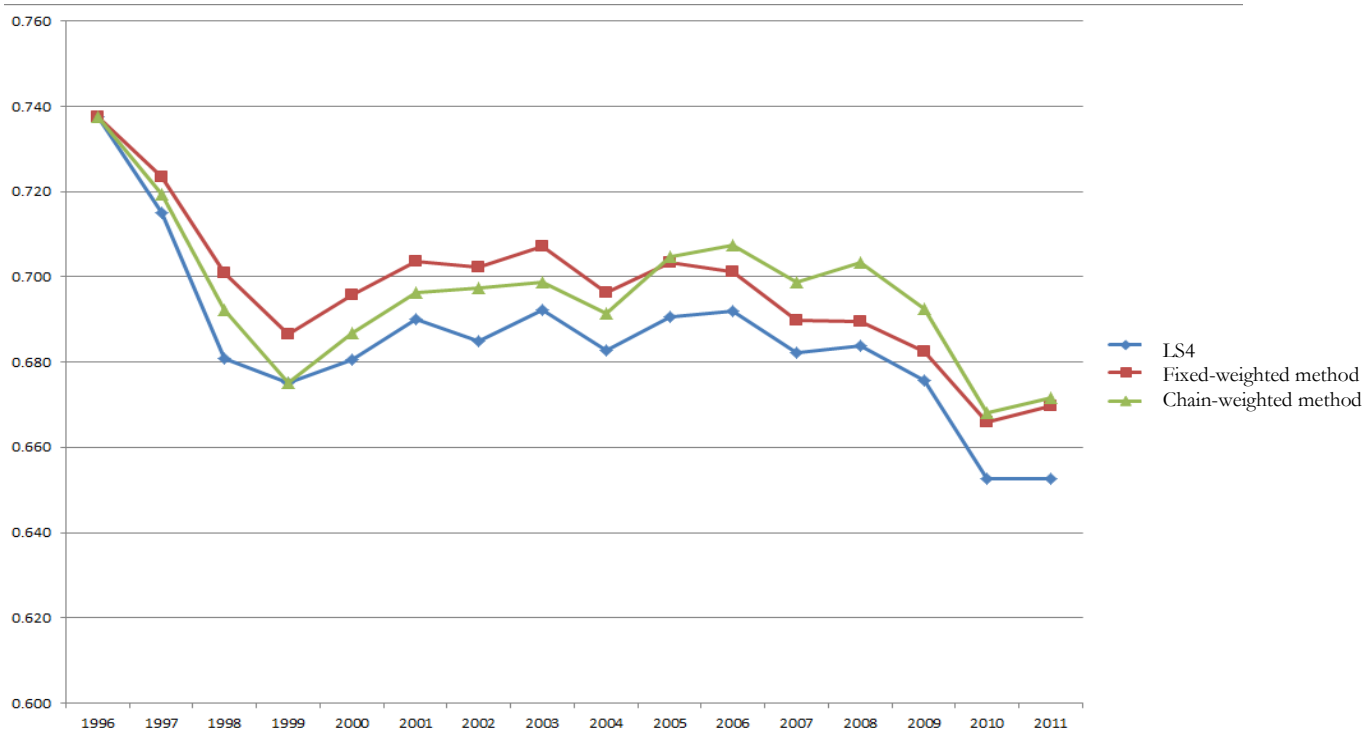
Industry	Labor share		GVA share		Shift-share decomposition	
	1996	2011	1996	2011	Shift in share within industry	Changes in industrial structure
Agriculture, forestry, fishery	1.000	1.000	0.058	0.026	0.000	**−0.031**
Mining & quarrying	0.398	0.389	0.004	0.002	0.000	−0.001
Manufacturing	0.688	0.550	0.259	0.314	**−0.039**	0.034
Electricity, gas, water supply	0.253	0.321	0.020	0.019	0.001	0.000
Construction	0.831	0.962	0.103	0.059	0.011	**−0.040**
Wholesale/retail, hotel/restaurant	1.000	0.760	0.118	0.111	**−0.027**	−0.007
Transportation, storage	0.804	1.000	0.044	0.037	0.008	−0.006
Finance/insurance	0.634	0.405	0.064	0.070	**−0.015**	0.003
Real estate/leasing	0.132	0.112	0.087	0.067	−0.002	−0.002
Information/communications	0.678	0.633	0.037	0.039	−0.002	0.001
Business services	0.793	0.735	0.043	0.053	−0.003	0.007
Public administration, defenses	0.766	0.653	0.056	0.063	−0.007	0.005
Education services	1.000	1.000	0.052	0.061	0.000	0.009
Health/social work	0.866	0.786	0.022	0.045	−0.003	0.019
Culture/entertainment services	0.796	0.927	0.011	0.013	0.002	0.002
Other services	1.000	1.000	0.021	0.019	0.000	−0.001
All industries	0.738	0.653	1.000	1.000	−0.076	−0.008

Now, I will show trends in the labor share in the overall economy, while controlling for the share of value-added per industry. First, a fixed-weighted method has been used to estimate the overall labor share by fixing the share of value-added in each industry. For the purposes of this study, the year 1996 is used as the reference year. As observed by Kim (2013), the fixed-weighted method has a limitation whereby the weights do not accurately reflect the economic reality when the comparison year is far away from the reference year. To compensate for this limitation, the chain-weighted method is used to additionally estimate the labor share. The previous year's share of production for each industry is used as the weight when calculating the rate of change in labor share from the previous year (link factor). Each year's link factor is then cumulatively multiplied to obtain the chain index for each period, which is then multiplied by the overall labor share of the baseline year to calculate the labor share for each period.

Figure 3 shows that when the value-added share of each industry is controlled for, the labor share still shows a declining trend, although the extent of decline is slightly narrowed. When the composition effect is controlled for using the chain-weighted method, the labor share

in 2011 is found to have fallen by 6.6 percentage points from 1996. This result implies that changes in the industrial structure cannot be seen as the main cause of decline in the labor share.[12]

Figure 3. *Trends in Adjusted Labor Share Controlling for Changes in Industrial Structure*

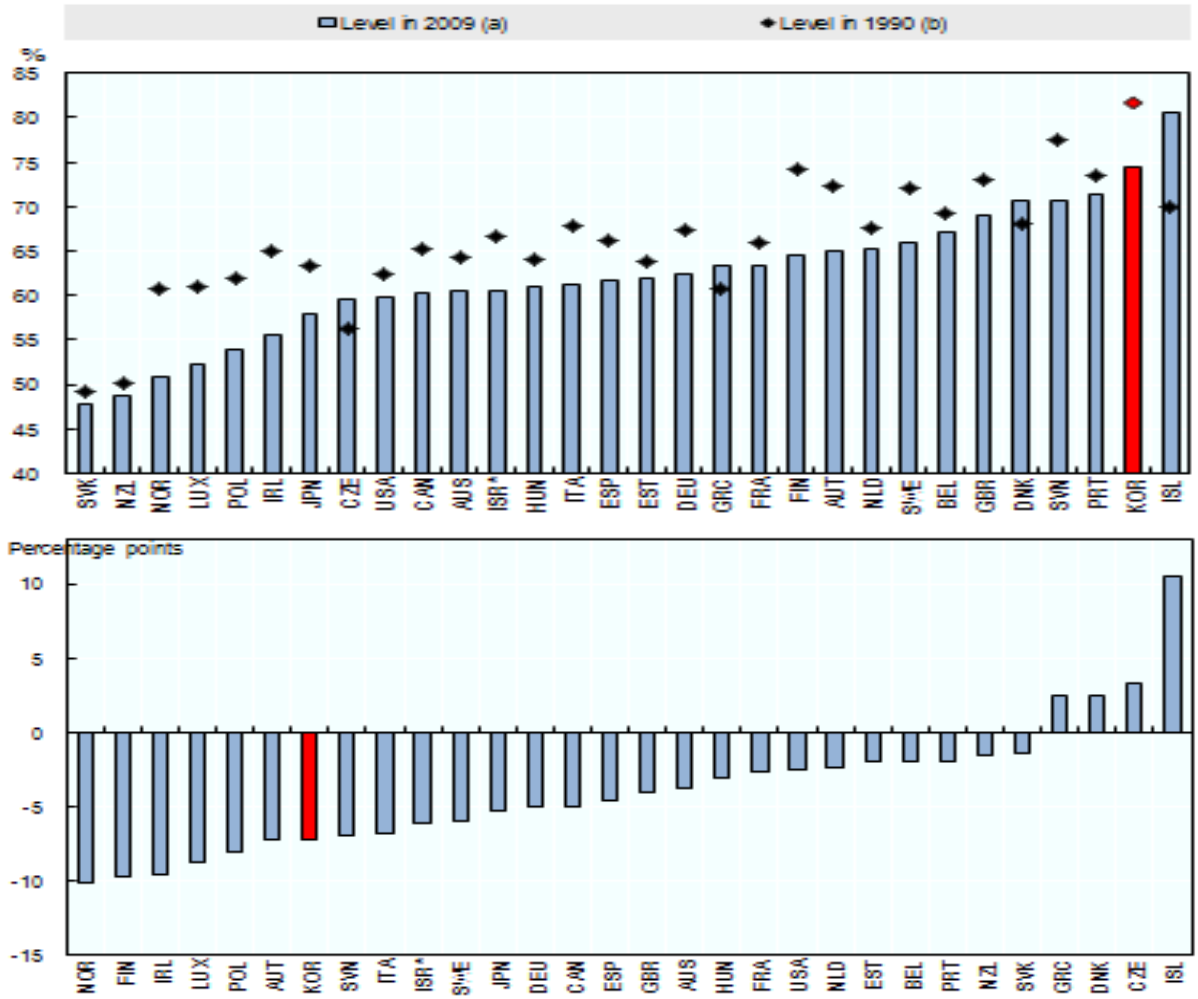


IV. International Comparison of Labor shares

The OECD's statistics on labor share rank Korea very high. As seen in Figure 4, Korea ranks second out of the 30 countries in comparison. Meanwhile, the labor share as fallen in most countries over the past 20 years, and Korea ranked seventh in terms of the extent of the decline.

[12] In comparison, the OECD analysis (2012) of the changes in labor income share for the period 1990–2007 in 26 countries shows that although in most countries the decline in labor income share is due to the falling labor share within industries, in Korea and Denmark changes in industrial structure is the more important cause. But the OECD analysis appears to have yielded a different result, because its analysis data from EUKLEMS gives the same value for wage earner share for all service industries in Korea without differentiating by industry.

Figure 4. *OECD International Comparison of Labor Share: 1990–2009*



Note: Data from OECD, 2012.

The OECD's calculation of labor share uses the LS3 method, where GVA is the denominator and per-capita labor income of the self-employed is assumed to be identical to that of wage earners. Given that Korea is in the mid-level in terms of the share of *taxes less subsidies on products* out of GDP (Table 4), it cannot be concluded that the use of GVA has led to overestimation of Korea's labor share. But Korea's share of hiring non-wage earners is the second highest. And the relative income of non-wage earners (i.e., their per-capita operating surplus compared with the per-capita COE of wage earners) is the lowest after Japan and Luxembourg. Because of the high share of non-wage earners and their low relative income, if the labor income of the self-employed is estimated using the LS3 method, Korea's labor share ends up very high.

Table 4. *Employment Share of Non-wage Earners and Relative Income in OECD Members*

	Share of GDP					Non-wage earners	
Country	COE	Corporate operating surplus	Operating surplus of unincorporate business	Consumption of fixed capital	Taxes less subsidies on production	Employment share	Relative income
AUS	0.487	0.175	0.079	0.160	0.099	0.109	1.37
AUT	0.502	0.129	0.098	0.161	0.109	0.158	1.04
BEL	0.526	0.127	0.062	0.180	0.105	0.161	0.62
CAN	0.507	0.223		0.168	0.101	0.090	
CHL	0.372	0.400		0.123	0.105	0.238	
CZE	0.431	0.167	0.114	0.194	0.094	0.181	1.20
DNK	0.552	0.144		0.166	0.139	0.060	
EST	0.463	0.230	0.037	0.147	0.122	0.085	0.86
FIN	0.519	0.133	0.056	0.163	0.128	0.121	0.79
FRA	0.534	0.126	0.061	0.142	0.138	0.096	1.08
DEU	0.516	0.141	0.089	0.151	0.103	0.109	1.40
GRC	0.330	0.145	0.195	0.218	0.112	0.347	0.97
HUN	0.448	0.146	0.083	0.167	0.155	0.079	2.17
ISL	0.546	0.171		0.154	0.130		
IRL	0.421	0.319	0.059	0.100	0.093	0.165	0.71
ISR	0.456	0.274		0.132	0.138		
ITA	0.427	0.122	0.134	0.178	0.139	0.234	1.03
JPN	0.519	0.157	0.034	0.212	0.079	0.135	0.42
KOR	0.458	0.208	0.094	0.129	0.110	0.282	0.52
LUX	0.482	0.254	0.026	0.126	0.112	0.095	0.52
MEX	0.270	0.497	0.082	0.115	0.036	0.275	0.80
NLD	0.516	0.132	0.100	0.149	0.104	0.147	1.13
NZL	0.445	0.294		0.141	0.120	0.162	
NOR	0.449	0.283	0.033	0.139	0.096	0.059	1.17
POL	0.361	0.193	0.215	0.106	0.125	0.224	2.07
PRT	0.481	0.107	0.102	0.190	0.121	0.143	1.27
SVK	0.379	0.149	0.199	0.191	0.082	0.154	2.88
SVN	0.524	0.085	0.095	0.167	0.128	0.184	0.80
ESP	0.469	0.125	0.151	0.164	0.091	0.141	1.96
SWE	0.538	0.127	0.033	0.133	0.169	0.052	1.13
CHE	0.603	0.090	0.095	0.179	0.032	0.111	1.24
GBR	0.538	0.164	0.057	0.112	0.128	0.151	0.60
USA	0.531	0.145	0.103	0.157	0.066	0.066	2.76

Note: Data from 2012 or the closest year.

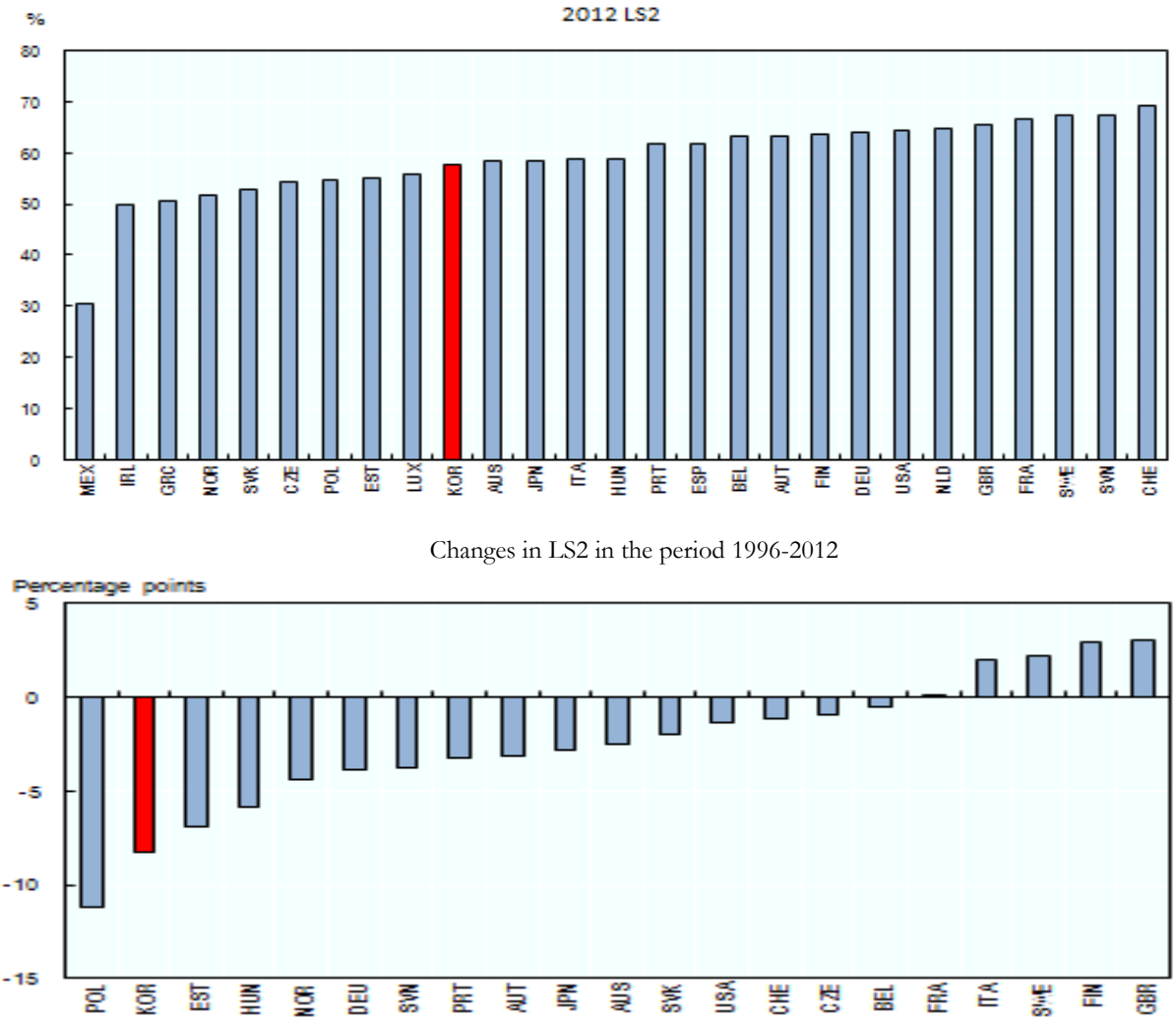
Source: Author's analysis based on OECD.StatExtracts.

In this paper, international comparison of labor shares has been undertaken using the LS2 method, where the labor income of the self-employed is estimated under the assumption that

the labor share in self-employment is identical to that in other sectors. To apply LS2, data on OSPUE is required. The adjusted labor share is estimated for the year 2012 for the countries where the data is made available through the OECD National Accounts DB.

Figure 5 shows Korea's labor share to be lower than the simple average of the 27 countries, namely the 10th lowest. As for the extent of change in the labor share during the period 1996–2012, Korea witnessed the second-largest drop of the 21 countries being compared.

Figure 5. *International Comparison of the Adjusted Labor Shares*



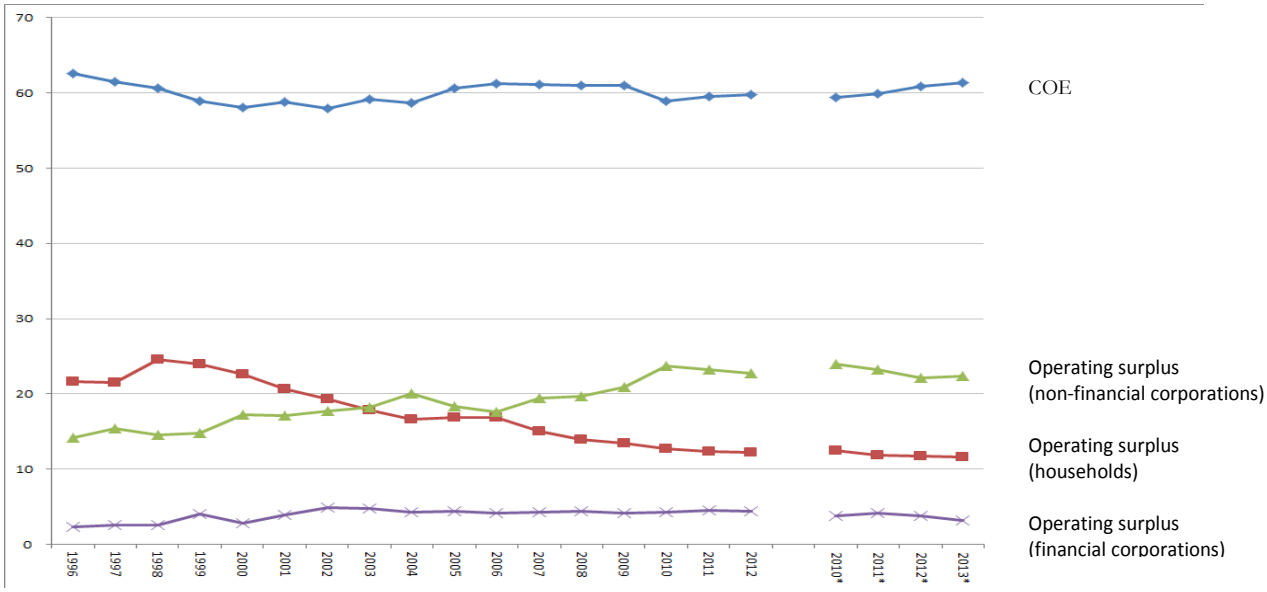
Note: Data from 2012 or the closest year.
Source: Author's analysis based on OECD.StatExtracts.

V. Labor share and Income Inequality

The decline in labor share appears to be primarily attributable to the shrinking of the self-employed population and decline in their income. Figure 6 shows the share of COE and operating surplus per institutional sector out of national income at factor cost. Despite the

increase in the number of wage earners,[13] the share of COE has declined dramatically. Operating surplus in households and non-profit institutions serving household plummeted from 21.6% in 1996 to 12.3% in 2012. In comparison, operating surplus in the non-financial corporate sector jumped from 14.2% to 22.7%, and in the financial corporate sector grew from 2.3% to 4.4%. This indicates that the decline in the labor share was accompanied by an increase in corporate income.

Figure 6. *Share of Each Component in National Income at Factor Cost* (%)



Note: Asterisks indicate the statistics after switching to a new System of National Accounts (2008 SNA) and changing the reference year to 2010.

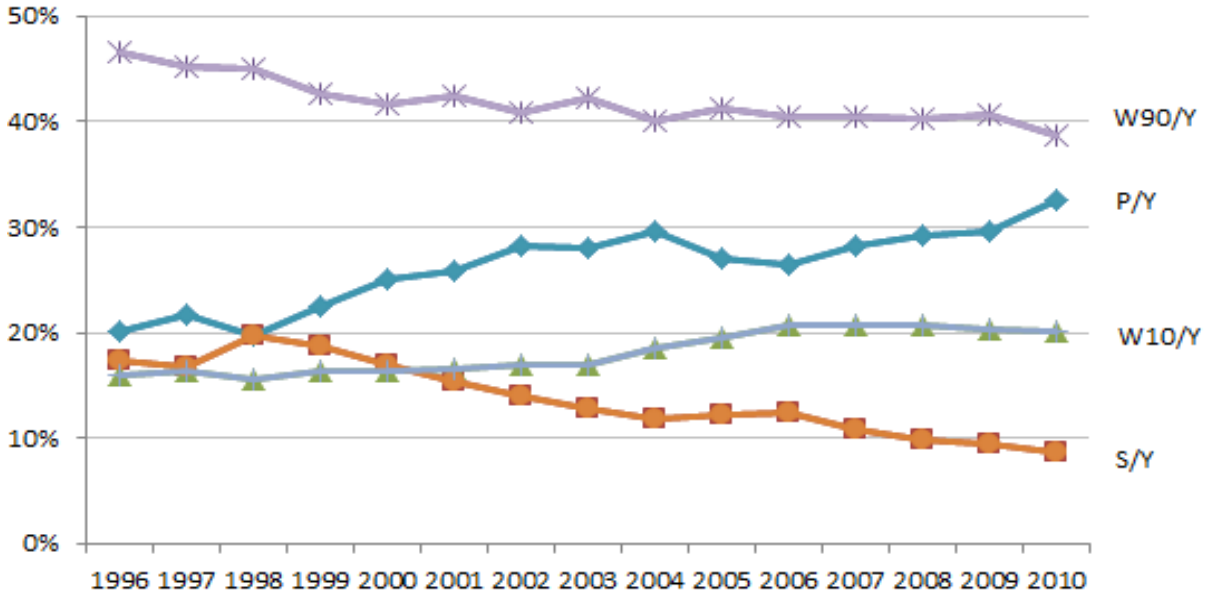
National income consists of capital income, P, and the labor income of each income class (top 10% wage group's earning, W_{10}, and the lower 90% wage group's wage earning, W_{90}, non-wage earners' labor income, S). $Y = P + S + W_{10} + W_{90}$. This equation can also be converted to the following: $\frac{W_{90}}{Y} = 1 - \frac{P}{Y} - \frac{S}{Y} - \frac{W_{10}}{Y}$. P/Y is the share of capital out of the national income. The share of the top 10% wage group out of total income can be replaced by the value gained by multiplying the share of the top 10% group's wage income out of total wage income by the wage share. $\frac{W_{10}}{Y} = \frac{W_{10}}{W}\frac{W}{Y}$. For this equation, the share of labor income by the top 10% ($\frac{W_{10}}{W}$) can be obtained from Nak-Nyeon Kim (2012).[14]

[13] The share of wage earners out of the employed grew from 63.3% in 1996 to 71.8% in 2012.

[14] COE consists of not only cash pay but also value-in-kind and employer's social insurance contributions. In this

The results of the calculation using this equation, that is, the share of capital income and labor income by income class, are presented in Figure 7. The share of labor income by non-wage earners fell from 17.3% to 8.6%. And the share of the lower 90% of the wage income class dropped from 46.6% in 1996 to 38.8% in 2010, by 7.8 percentage points. In contrast, the share of the top 10% wage income group increased from 16.0% to 20.1%, by 4.1 percentage points, while the share of capital income went up from 20.2% to 32.5%, an increase of 12.3 percentage points. This indicates that there is a bigger imbalance between labor income and capital income than within the labor market.

Figure 7. *Trends in the Shares of Capital Income and Labor Income by Income Group*



VI. Conclusion

The issues of measuring labor share have been reviewed and the trends of labor share in Korea have been presented. Main findings are summarized below.

First, it is important to identify the portion of labor income for the self-employed out of total income to better understand the current level of and trends in the labor share of Korea because the share of self-employment is relatively high, and there are large changes in jobs and income for the self-employed. But in the absence of information that allows distinction between labor income and capital income out of self-employment income, this study concluded that a suitable alternative for the Korean reality is to assume that the labor share in self-employment is the same as in other sectors. The labor share calculated as such showed a decline from 79.8% in

study, it was assumed that the concentration of value-in-kind and employer's social insurance contributions are the same as the concentration of wage and salary.

1996 to 68.1% in 2012.

Second, this study analyzed whether the labor share fell as a result of the changes in industrial structure—that is, to more capital-intensive industries or to industries with an inherently lower labor share. The shift-share decomposition analysis revealed that most of the decline in the labor share occurred within each industry. And when changes in industrial structure are controlled for using the chain-weighted method, the labor share is still in decline. In addition, the largest decline was seen in manufacturing, which has a lower labor share than average due to its high capital-intensiveness. These results imply that changes in industrial structure (such as growth in the service industry) are not the main cause of the drop in labor share.

Third, OECD statistics calculated using the assumption that the per-capita labor income of non-wage earners is the same as that of wage earners appear to overestimate Korea's labor share. When instead the assumption is that the labor share in self-employment is the same as in other sectors, Korea's labor share emerges as lower than the OECD average, in contrast to the OECD statistics indicating a high level for Korea. In addition, the trend in the adjusted labor share for the period 1996–2012 shows that Korea experienced the second-largest drop of the countries being compared.

Fourth, the distribution of income since the Asian financial crisis is analyzed 3by breaking national income down into capital income, self-employment income, wage income of the top 10%, and wage income of the lower 90%. Although the share of self-employment income out of the national income decreased, so did the share of wage income for the lower 90%. In comparison, the share of the top 10% group's wage income increased, and the share of capital income increased even more. Thus, although the gap among wage earners has increased, the imbalance between labor income and capital income has grown on a much bigger scale.

References

References in Korean

Bae, Moo-Ki. (1984). Estimation of functional income distribution and share. *Economic Critique, 23*(4), 389–418.

Bank of Korea. (2010). *System of national accounts of Korea.* Seoul: Author.

Hong, Min-Ki. (2013). Labor income distribution: Trends and Impact. In Byeong-Hee Lee, Min-Ki Hong, Hyeon-Joo Lee, Shin-Wook Kang, & Ji-Yeon Jang, *Study on economic inequality and labor market*. Seoul: Korea Labor Institute.

Hong, Min-Ki. (2014). Changes in the industrial structure and labor income share. *KLI Labor Review, 109,* 50–62.

Joo, Sang-Young, & Jeon, Soo-Min. (2014). Measuring labor income share for Korea. *Review of Social and Economic Studies, 43,* 31–65.

Kim, Bae-Geun. (2013). What explains Movements in the Labor Income Share in the Korean Economy? *Economic Analysis, 19*(3), 1–48.

Kim, Nak-Nyeon. (2012). Income inequality in Korea, 1963–2010: With a focus on earnings. *Journal of Korea Economic Development, 18*(2), 125–158.

References in English

Arpaia, Alfonso, Pérez, Esther, & Pichelmann, Karl. (2009). *Understanding labour income share dynamics in Europe* (Economic Paper No. 379). Directorate General Economic and Monetary Affairs, European Commission.

Bureau of Labor Statistics. (1997). *BLS handbook of methods.* Washington, DC: U.S. Department of Labor.

de Serres, Alain, Scarpetta, Stefano, & de la Maisonneuve, Christine. (2002). *Sectoral shifts in Europe and the United States: How they affect aggregate labour shares and the properties of wage equations* (OECD Economics Department Working Paper No. 326). Paris, France: OECD.

Gollin, Douglas. (2002). Getting income shares right. *Journal of Political Economy, 110*(2), 458–474.

Johnson, D. Gale. (1954). The functional distribution of income in the United States, 1850–1952. *Review of Economics and Statistics, 35*(2), 175–182.

Krueger, Alan. (1999). Measuring labor's share. *American Economic Review Papers and Proceedings, 89*(2), 45–51.

OECD. (2012). Labour losing to capital: What explains the declining labour share? In *OECD employment outlook 2012* (pp. 109–161). Paris: OECD.

Picketty, Thomas. (2014). *Capital in the twenty-first century* (Arthur Goldhammer, Trans.). Cambridge, MA: Belknap Press of Harvard University Press.

Ryner, Magnus. (2012). *The (I)PE of falling wage-shares: Situating working class agency.* Paper prepared for presentation at the Inaugural Conference of the Sheffield Political Economy Research Institute, "The British Growth Crisis: The Search for a New Model," Sheffield, UK, July 17.

Appendix Table 1. Trends in Labor Income Share (%)

	Wage Share(WS)	Adjusted Labor Income Share(LS2)
1975	39.6	78.0
1976	41.0	77.0
1977	43.1	74.7
1978	45.1	73.7
1979	47.7	73.9
1980	50.1	71.4
1981	49.8	71.5
1982	51.3	76.5
1983	53.0	75.8
1984	52.9	76.2
1985	52.4	75.5
1986	51.7	75.2
1987	52.1	73.2
1988	53.4	73.8
1989	55.6	75.8
1990	57.0	76.3
1991	58.0	77.1
1992	57.9	77.0
1993	58.2	76.4
1994	58.4	76.1
1995	60.4	75.9
1996	62.6	79.8
1997	61.4	78.2
1998	60.6	80.4
1999	59.0	77.6
2000	58.1	75.0
2001	58.8	74.1
2002	58.0	71.9
2003	59.2	72.0
2004	58.7	70.4
2005	60.7	73.0
2006	61.3	73.7
2007	61.1	71.9
2008	61.0	70.9
2009	60.9	70.4
2010	58.9	67.5
2011	59.5	67.9
2012	59.7	68.1
2010*	59.4	67.9
2011*	59.9	67.9
2012*	60.9	68.9
2013*	61.4	69.5

Note: Asterisks (*) indicate the set of statistics after switching to a new System of National Accounts (2008 SNA) and changing the reference year to 2010.