NUS National University of Singapore

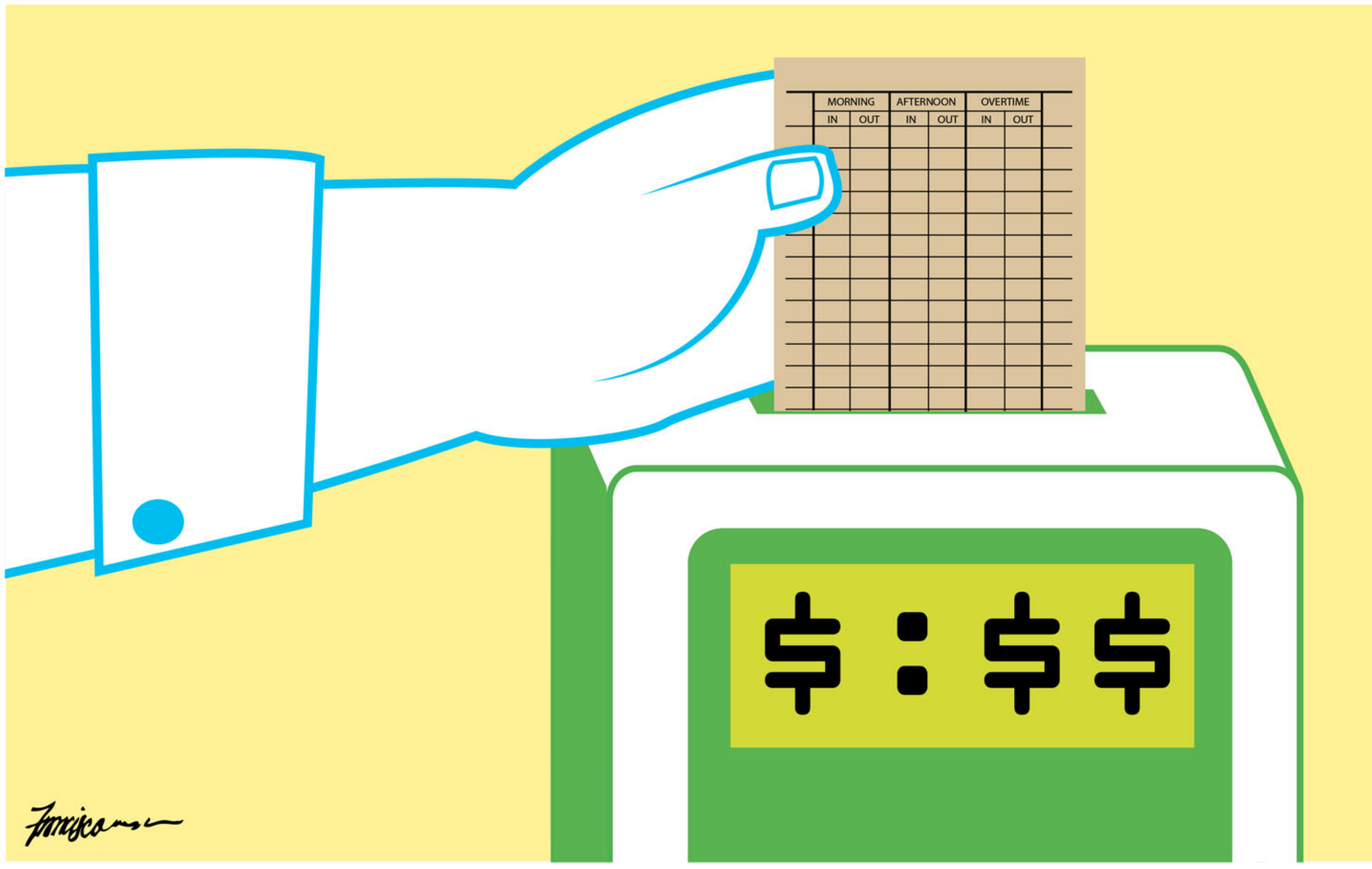
Source: *The Straits Times*, pA24
Date: 11 January 2019

Measuring the economy: Look to human capital

The wage bill as a proportion of GDP is becoming outdated amid structural changes. A more nuanced approach is needed as the line between labour and capital blurs.

Toh Mun Heng

For The Straits Times



An important indicator that policymakers must keep track of is that of wage share in gross domestic product (GDP). Wage share is the ratio of workers' compensation to GDP. It is a useful guide to an economy's complexities and long-term trends.

The use of wage share as an indicator was recently examined by former NTUC secretary-general Lim Boon Heng ("Getting the picture right on wage share in Singapore"; Dec 12), in a Straits Times article adapted from a memo he wrote for NTUC staff. It said that the wage component of GDP offers a useful indication of the overall structure of an economy, but he cautioned that one has to understand the local attributes and longer-term trends.

Indeed, local factors and the part they play can be seen in this example from the 1985 recession: An aggressive increase in Central Provident Fund contribution rates in years before that caused Singapore's wage share of GDP to soar. The wage share of Singapore's economy and manufacturing sector had registered 46.3 per cent and 53.5 per cent respectively in 1985, up from 37.4 per cent and 39.9 per cent in 1980.

However, this had the effect of squeezing profits and resulted in reduced competitiveness among export-oriented manufacturers in 1985. Some even contemplated quitting Singapore.

The usual explanations for changes in wage share include technological change, globalisation, financial markets, product and labour market institutions, the bargaining power of labour and unemployment. In recent years, a decline in wage share has been recorded for many countries, especially those in the Organisation for Economic Cooperation and Development.

In an era when robots are gaining greater use and displacing jobs done by humans, it is interesting to look at how wage share is defined and how that might have room for improvement. It is especially interesting, considering that Singapore's wage share is the lowest among the developed economies.

REASONS FOR LOW WAGE SHARE

There are several possible reasons why this might be so:

Measurement issue: Measuring the wage bill is not so simple in practice. Compensation of employees excludes income from self-employment. So if there are more entrepreneurs and self-employed people, the labour share will decline. Besides, in modern corporations workers can be paid partly with stock options and profit-sharing schemes.

It is an economic necessity for a foreign direct investment (FDI)-dependent economy: A low wage-share economy simply translates into a high profit-share economy. Capital share in developed economies is around 30 per cent. The presence of foreign capital is due to higher return on capital in Singapore. (Or else the investors would have stayed at home.) Thus, with Singapore remunerating foreign capital at a higher return than the places they came from, it means a lower wage share for Singapore. It may be perceived as a premium Singaporeans pay to retain FDI in the economy to secure employment and spillover benefits to local enterprises.

Wage share is simply the ratio of the total wage bill to nominal GDP: It can also be expressed as the ratio of the real wage rate to the labour productivity of a worker. The real wage is the nominal wage rate adjusted for price changes, while labour productivity is the output per worker.

If the wage share is constant, it implies that relative change in the real wage is matched by the relative change in labour productivity or vice versa. In the past, wage share has been kept low and stable by the influx of foreign workers despite low productivity growth. In more recent times, when productivity is inching up with the introduction of more technologies, real wages are also rising to maintain a stable wage share.

If Singapore is successful in getting productivity growing faster than the real wage rate, then a declining labour share is not a surprising outcome. However, it is also important to note that a rising wage share resulting from real wage growing faster than productivity improvement will soon lead to loss of competitiveness. A judicious balance is necessary.

As noted by Mr Lim, the wage share varies across industries: In fact, the aggregate national wage share is a weighted average of the wage share of industries in the economy. The weights are the proportions of value-added contributed by each industry in the overall GDP.

As such, the changes in wage share over time can be understood as the sum of the changes in the industrial structure of the economy and changes of wage share in different industries.

So, as the economy restructures and shifts to high value-added (VA) activities, we will expect workers to earn higher wages, boosting the wage share. However, high VA activities often have less labour content and low wage share. Overall, the restructuring of the economy resulted in a relatively constant wage share in the aggregate.

A final reason for Singapore's low wage share is an enlightened union movement that is not solely concerned about raising workers' remuneration: In many situations, such as during financial crises, unions may appear more interested in maintaining job security and employment. The rationale, seldom understood by many, is that an unemployed worker not only loses his wage, but also suffers the erosion of skill and depreciation of human capital. Human capital refers to the knowledge, talent and experience accumulated over time in individual workers. This erosion makes it doubly hard for them to secure the next job.

So it may be advisable to engage workers on a part-time basis rather than retrench them, to accommodate the lower manpower requirements faced by companies in a business downturn. Such flexibility reduces firing costs and labour hoarding. This translates to lowering the share of wage in the overall value-added.

LABOUR, CAPITAL LINES BLUR

Changes in the economic and social structure of society mean that it is no longer accurate to associate labour income with the labour class, and capital income with members in the top echelons of society.

For example, since increasingly more people save for retirement, a part of the income of capital actually accrues to the ordinary working population.

As more citizens gain access to financial markets and invest in the shares of corporations, they stand to benefit from dividends and capital gains. According to Dr Alan Kruger, a former White House chief economist and a well-known scholar on labour economics, the rise of employee stock ownership and investments in pension funds, coupled with increases in compensation for top executives through stock options, all contribute to the blurring of lines between labour and capital income.

Furthermore, the expanding role of the state, which serves as an intermediary between the productive sector and households, means that sources of government transfers and taxation policies must be taken into consideration when relating the distribution of income among owners of capital, workers and landlords to personal distribution of income.

It is now common to recognise the contribution of different types of capital: traditional physical capital, IT capital, IT software, artificial intelligence robots, et cetera. Similarly, labour inputs are also disaggregated into a spectrum of skills which can be complementary or substitutes. This makes the simple measure of wage share based on headcount and average wage less useful, as the composition of the inputs – labour and capital – matters in the final measure of the labour share.

Substitution occurs not only between capital and labour. It occurs between workers of varying skill levels. Research has found that the substitution between capital and low-skilled workers is much higher than that between capital and highly skilled workers. Machines are likely to make lowly skilled workers superfluous, but companies require qualified workers who can operate and manage the machines.

Disaggregation into different categories of labour can allow for more nuanced policy advice.

For instance, considering only an aggregate labour force, greater wage regulation (such as through more extensive minimum wage legislation) seems to be a positive determinant of labour share and reducing income inequality.

However, with disaggregation of labour, we may arrive at more discerning policy conclusions: Wage regulation at the lower end of the skill spectrum may result in unemployment, as firms substitute capital for low-skilled labour and invest in automation, and the wage share of the low-skilled workers may suffer instead.

In addition, it is interesting to note that innovation leads to non-neutral technological progress among different types of labour. For instance, robotisation tends to increase the productivity of the least-skilled and middle-skilled workers, while computerisation increases the productivity of middle-skilled labour.

Workers who can cope with the introduction of technologies are able to secure their employment and are paid higher wages.

The role of human capital in the determination of wage share is crucial. Ultimately, it is the skill, experience and knowledge acquired and used in production that provide the worker with legitimate rewards and remuneration.

Workers are not to be remunerated for simply offering time and physical presence in overseeing production of goods and services.

Such tasks will increasingly be done by machines more cheaply and efficiently. For instance, a worker in the landscaping industry is increasingly valued, not for the tasks he performs on the ground, but for the ideas and patterns he can contribute to the final product.

A security guard's monitoring and surveillance job can be taken over by sensors and closed-circuit television on a 24/7 basis. His continued employment and remuneration are based on his expertise in handling the surveillance equipment, experience and his drafting schemes that can deter unauthorised and undesirable intrusion, ensuring the safety of the community and properties under his charge.

The share of the remuneration to human capital is perhaps a more pertinent indicator than simply the wage share to consider in the creation and distribution of wealth in the nation.

• Dr Toh Mun Heng is associate professor at the Department of Strategy & Policy, National University of Singapore Business School.