Box 6.1

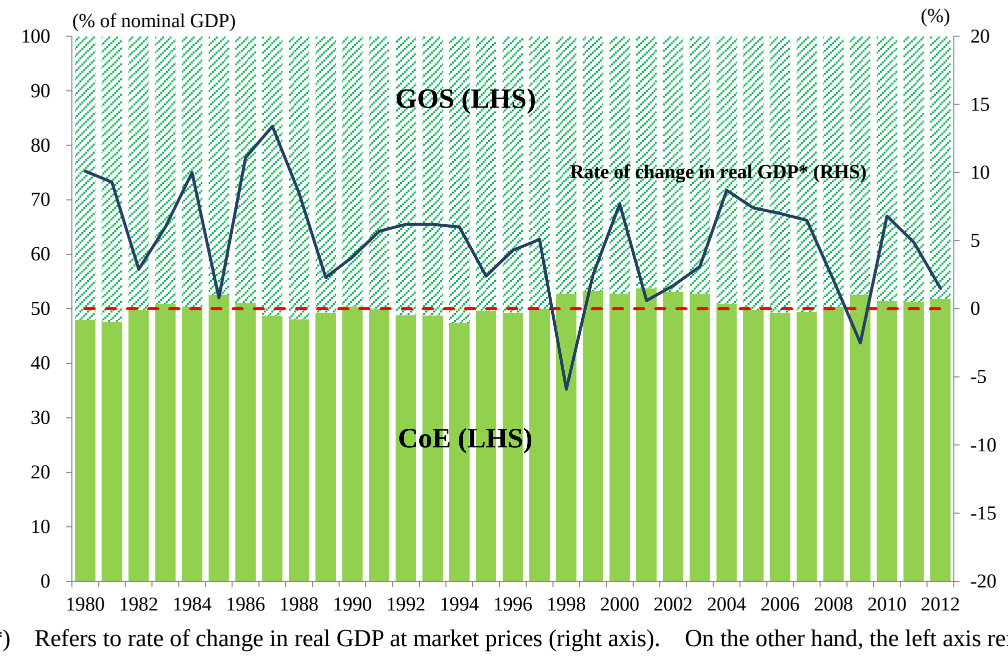
Labour's share of national income in Hong Kong

Gross Domestic Product (GDP) is a measure of the total value of production of all resident producing units of an economy in a specified period. Viewing from the income side, it represents the total incomes for various factors of production (viz. labour, capital and entrepreneurship) distributed by the resident producing units in an economy, as rewards to their production of goods and provision of services. Factor incomes[1] include "compensation of employees" (CoE) and "gross operating surplus" (GOS) of resident producers[2]. Labour's share of national income, measured in terms of the ratio of CoE to GDP, is commonly used as a crude indicator of income distribution among labour and capital in an economy. While the long-run stability of this ratio was once a "stylised fact" about economic growth, recent empirical studies revealed that many economies witnessed a notable decline in this ratio during the past two decades[3]. Through analysing past data back to the 1980s, this article tries to identify the key features and determinants of labour's share of national income in Hong Kong.

Characteristics of labour's share of national income in Hong Kong

Unlike many other developed economies, labour's share of national income in Hong Kong, while experiencing some ups and downs in the past two to three decades, did not exhibit any visible directional change ***(Chart 1)***. The ratio of CoE to GDP averaged at 50.5% during 1980 – 2012, pointing to a more or less equal share of national income among labour and capital. In fact, CoE and GOS grew at about the same average annual rates of 9.0% and 8.4% respectively between 1980 and 2012. By and large, labour and capital enjoyed proportionate income growth alongside economic expansion in Hong Kong.

Chart 1 : Labour's share of national income remained broadly stable in overall terms



Notes : (*) Refers to rate of change in real GDP at market prices (right axis). On the other hand, the left axis refers to percentage shares of GOS and CoE in nominal GDP at basic prices (see footnote 1 for more details). Figures for 2012 are subject to revision later on when more data are available.

Source : National income statistics, Census and Statistics Department.

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(1) Figures on income components of GDP can be obtained from the GDP estimates compiled by the production approach. In Hong Kong, GDP by production approach is measured at basic prices which include "taxes on production". Nevertheless, for analytical purpose, "taxes on production" has been removed from the series of GDP at basic prices discussed in this article.

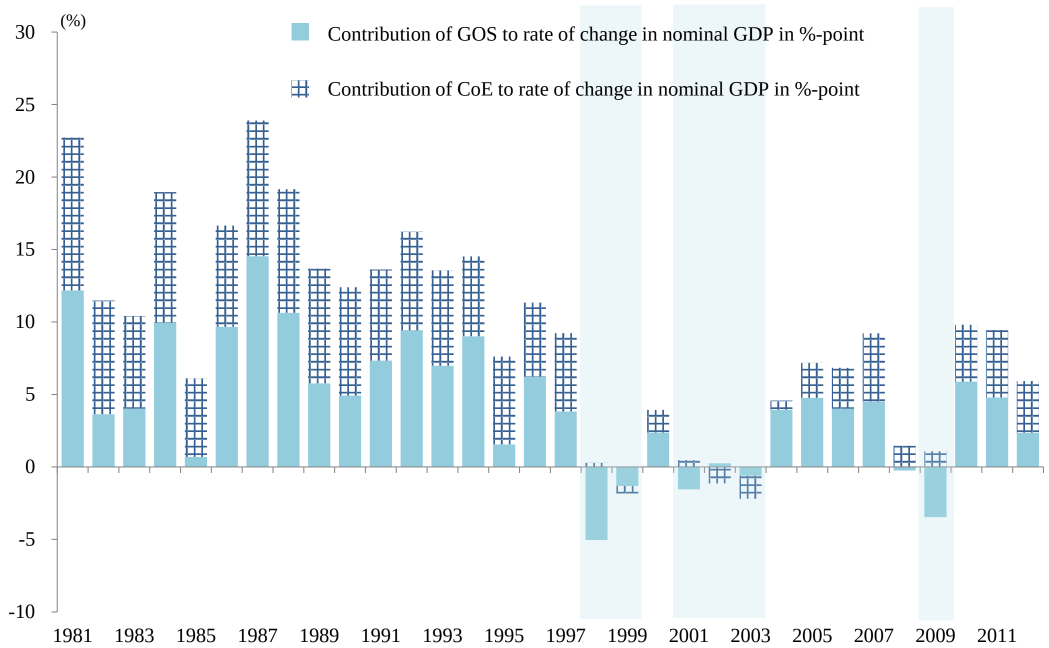
(2) CoE refers to total wages and salaries, payment in kind and employer's social security expenditure. GOS measures the return to capital and entrepreneurship as a result of engaging in production.

(3) According to *OECD Employment Outlook 2012*, the median labour's share of national income in OECD countries, for instance, went down from 66.1% to 61.7% between the early 1990s and the late 2000s.

Box 6.1 (Cont'd)

As depicted in ***Chart 1***, labour's share of national income in Hong Kong tended to increase during economic downswings and vice versa. This phenomenon can be largely explained by the higher sensitivity of capital income, as captured by GOS, to changes in economic situation. For instance, GOS often plunged immediately in response to slowdown in economic activities and weakening demand, though likewise tended to bounce back swiftly along with recovery. In contrast, movements in CoE were much less volatile and somewhat lagging throughout business cycles along with other labour market indicators. Indeed, most of the past incidences of shrinking nominal GDP were associated with a noticeable dip in GOS, except 2002 and 2003 when the unemployment rate hit successive record highs ***(Chart 2)***.

Chart 2 : CoE was less sensitive to economic swings as compared to GOS



Notes : Years with negative nominal GDP growth are highlighted in shades for reference.
Figures for 2012 are subject to revision later on when more data are available.

Source : National income statistics, Census and Statistics Department.

Determinants of labour's share of national income

Some frequently discussed determinants of labour's share in literature include globalisation which is often measured by trade openness of an economy, the relative size of the financial sector which reflects the importance of the industry in overall economic activity, technological progress, size of public sector, and labour market institutions such as the presence of a minimum wage.

With reference to the above factors, a simple time-series econometric model is constructed to test the significance of these determinants in explaining the movement in labour's share of national income in Hong Kong from 1980 to 2012[4]. Year-on-year growth in real GDP is also included as an explanatory variable to account for the changes in economic situation. Among the potential determinants discussed above, the relative size of the financial sector was not found to bear a statistically significant relationship with labour's share of national income in Hong Kong from this regression analysis. The impact of other explanatory variables is summarised below in ***Table 1.***

(4) Labour's share of the national income is adopted as dependent variable. Explanatory variables include trade openness (sum of imports and exports as a share of GDP), relative size of the financial sector (total value added of financing and insurance sector as a share of GDP), technological progress (as proxied by the annual rate of change in total factor productivity), size of public sector (government consumption expenditure as a share of GDP) and the presence of Statutory Minimum Wage (dummy variable). All of the above statistics are sourced from Census and Statistics Department, except total factor productivity which is extracted from internal staff estimates.

Box 6.1 (Cont'd)

Table 1: Determinants of labour's share of national income in Hong Kong

Explanatory variable	**Coefficient *(t-statistics)***
Trade openness	-0.01** *(-3.4)*
Size of public sector	1.10** *(6.4)*
Statutory Minimum Wage	2.12** *(2.5)*
Year-on-year growth in real GDP	-0.14** *(-2.9)*
Technological progress	0.39** *(3.4)*
Diagnostics	
Number of observations	33 (1980 – 2012)
Adjusted R-square	0.71

Notes : (**) Indicates significance at 5% level.
Coefficient represents the impact of 1 percentage point change in the explanatory variable (except dummy variable) on labour's share of national income which is also presented in percentage point. The coefficient for dummy variable indicates the change in labour's share of national income in the presence of the variable.

The above results broadly conform to the findings of other researches done across economies. In brief, trade openness was negatively correlated to labour's share of national income, possibly because globalisation facilitated relocation of production to places where cheaper land and labour are available, which had in turn added to the competition faced by local labour from their overseas counterparts. On the other hand, the size of public sector and the presence of Statutory Minimum Wage had positive impacts on the ratio of CoE to GDP. Conceivably, increase in government spending for the provision of non-profit-making services such as public healthcare and education would generate mainly labour income instead of capital income, thus boding well for labour's share of national income. Likewise, the presence of Statutory Minimum Wage, when appropriately set without unduly jeopardising competitiveness or causing significant negative impact on employment, also tended to boost the total earnings of the employees by protecting the lesser-skilled segment from excessively low wages.

Interestingly, unlike other developed economies, the above regression analysis indicated a positive relationship between technological progress and labour's share of national income in Hong Kong. Literature generally shows that technological progress enables machines to replace human in routine tasks, thus depressing the income share going to lower-skilled workers. In contrast, higher-skilled workers often benefit from improvements in technology, particularly those in the form of innovations in information and communication technologies and production processes, as these workers know how to leverage on new technology for productivity enhancement. In this connection, the markedly increased share of higher-skilled employees in Hong Kong from 20.8% in 1993 to 36.1% in 2012[5] should suffice to speak for the positive correlation between technological progress and the labour's share of national income observed in Hong Kong.

(5) Higher-skilled occupations include managers, administrators, professionals and associate professionals. Before 1993, the breakdown of associate professionals was not available in the occupation classification. That said, jobs upgrading was already apparent in the years prior to 1993, with the share of managers, administrators and professionals in all employees up visibly from 9.1% in 1985 (the earliest figure available) to 17.3% in 1992.

Box 6.1 (Cont'd)

Concluding remarks

Hong Kong's flexible and adaptive workforce has always been the cornerstone and precious resources of our economic development. Labour's share of national income in Hong Kong, albeit lagging behind changes in economic conditions, has stayed relatively stable over time, suggesting a rather balanced income growth among labour and capital in the past few decades. As for the determinants of labour's share, while Hong Kong largely shared a similar set of factors with other developed economies, the growing pool of well-educated local talents underpinned by the Government's huge investment in education over the past decades appeared to have helped mitigate the commonly observed downward pressure inflicted by technological progress on the ratio of CoE to GDP. With an even more fierce competition among different economies under the wave of globalisation, the Hong Kong economy must continue with its restructuring towards a high value-added and knowledge-based economy. In this regard, continuous training and skills upgrading are essential for the local workforce so as to better fit the needs for Hong Kong's future economic development.