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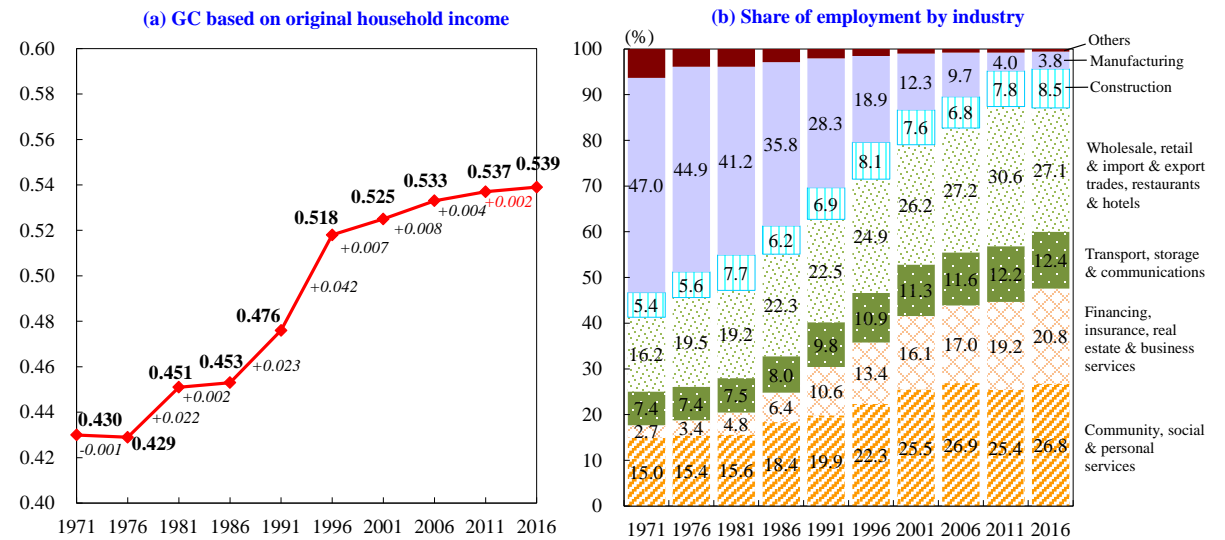
The Gini Coefficients of Hong Kong in 2016 : trends and interpretations

The latest set of Gini Coefficients⁽¹⁾ (GCs) of Hong Kong, a common measure of income disparity, was recently released by the Census and Statistics Department (C&SD) based on household income data from the 2016 Population By-census. This box article analyses the trend of GC in the light of past socio-economic and demographic developments⁽²⁾.

Trend of GC (based on original household income) in longer-term perspective

The longest series of GC available (1971 - 2016) is compiled based on original household income. Although the series does not reflect the total impact from Government's various income redistributive measures, it still provides valuable information on how the situation has evolved over a longer period of time (*Chart 1a*).

Chart 1: Income disparity of Hong Kong widened more appreciably during the 80s and 90s



Notes: Figures in italics denote the absolute period-to-period change of GC. Figures on employment by industry for 2011-16 are compiled based on the Hong Kong Standard Industrial Classification (HSIC) Version 2.0 while figures for 2006 and before are compiled based on the industry classification modeled on HSIC Version 1.1. As such, figures for 2011 and onwards may not be strictly comparable with those for previous years.
Sources: Census / By-Census 1971 - 2016 and various issues of the Thematic Report on Household Income Distribution in Hong Kong, C&SD.

Specifically, the GC stood at around 0.430 in the 1970s, and went up since the 80s, with a marked acceleration between 1986 and 1996. On entering the millennium, the increase of GC moderated considerably. Corresponding to the rapid rise in GC during the 80s and 90s, two concurrent developments are noteworthy:

- **Inflow of immigrants:** the huge inflow of immigrants from the Mainland before 1980s brought about an abrupt increase in total population. Despite being a fresh source of manpower supporting the fast economic growth of Hong Kong, the group of arrivals, usually confined to low-paying jobs given their relatively low education / skill levels, inevitably increased the number of low-income households. This plausibly explains the jump of GC during 1976 - 81, as well as the acceleration during the 80s and 90s.
- **Economic restructuring:** starting from the 80s, Hong Kong underwent rapid transformation towards a high value-added and knowledge-based economy, in tandem with the Mainland's open-door policy and economic reforms as well as the worldwide developments in globalisation. This process was manifested in a visible reduction in manufacturing jobs and an even more marked rise in services employment. The profound structural change was particularly noticeable during the 80s and 90s. As shown in *Chart 1b*, the share of employment in manufacturing shrank from 35.8% in 1986 to 18.9% in 1996, while that of financing, insurance, real estate and business services surged from 6.4% to 13.4%.

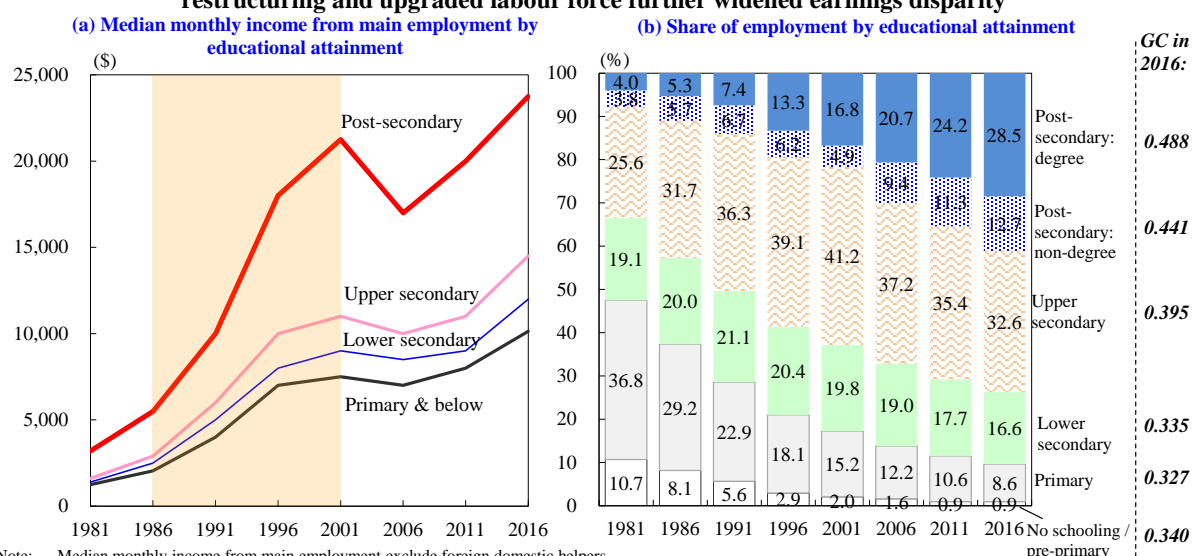
(1) GC is a summary indicator commonly used to analyse income disparity. Its value ranges from 0 to 1, and the higher the GC, the more the disparity it implies.
(2) This box article provides an update to the results reported in *Box 5.2 in Half-yearly Economic Report 2012*.

Box 5.2 (Cont'd)

As the economic transformation proceeded in full steam, higher-skilled jobs blossomed amid rapid developments of financial and other professional services. With acutely keen demand for better-educated and skilled workers, there were generally larger income increases for workers at the upper segment than those at the lower segment, as also evident by the widened income gap between groups of workers by educational attainment during the 80s and 90s (*Chart 2a*).

Moreover, the more acute demand / supply imbalance at the higher-skilled occupation level and the heterogeneity in skill demand amongst the high-pay jobs led to greater income disparity among the highly educated workers (i.e. higher GCs of earnings within these higher-educated groups) (*Chart 2b*), in contrast to the 1970s when the skill requirements were generally more homogenous in nature and their pay / rank hierarchy more simple. These trends have led to increased disparity in earnings over time.

Chart 2: Increasing demand for talents with better educational attainment in tandem with economic restructuring and upgraded labour force further widened earnings disparity



Note: Median monthly income from main employment exclude foreign domestic helpers.

Sources: Census / By-Census 1981 - 2016 and various issues of the Thematic Report on Household Income Distribution in Hong Kong, C&SD.

Despite the jump in GC during 1981 - 96 (from 0.451 to 0.518), it is worth mentioning that amidst the robust economic growth, all segments of the society were able to enjoy visible real improvement in incomes, albeit at different pace. Over 1981 - 96, the median income of households in the bottom 3 income deciles gained cumulatively by 76% in real terms after discounting inflation, while that of the top 3 income deciles rose by a more hefty 92%.

Recent trends and intervening factors of household income disparity in Hong Kong

From the above analysis, it is noted that: (i) the trend of income disparity should not be seen as a short-term phenomenon, but a continuous development over time; and (ii) the GC, as a condensed single measure of income disparity, has its limitations in delineating the underlying causes which are related to different socio-economic and demographic factors.

An examination of the developments of structural factors over the recent two decades (1996 - 2016) indicates that, apart from the continued structural transformations of the economy and the labour market, demographic factors have emerged as a more prominent factor with increasing influence on the overall household income disparity in Hong Kong, including the accelerating population ageing and continued trend towards smaller-sized households:

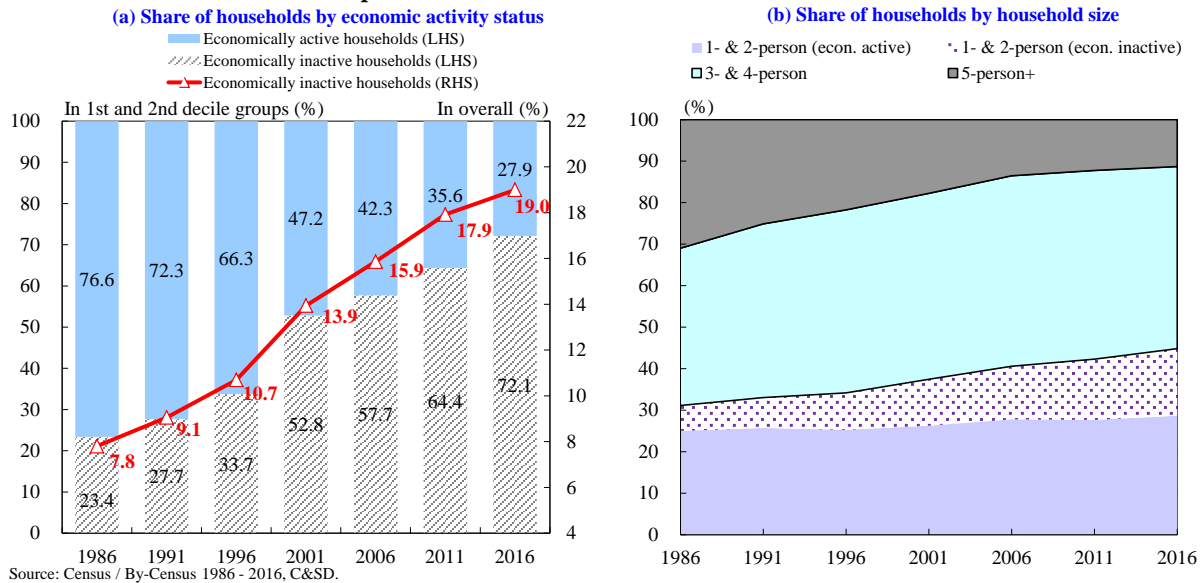
- **Population ageing:** the more rapid growth of retired elderly and economically inactive households with little or even no employment income has widened income disparity. Specifically, the share of economically inactive households increased notably to 19.0% in 2016 from 10.7% in 1996, which was largely attributable to the increase in economically inactive elderly households. Analysed by decile, it is observed that 72.1%

Box 5.2 (Cont'd)

of the households in the lowest two decile groups were economically inactive in 2016, up significantly from 33.7% in 1996 (*Chart 3a*).

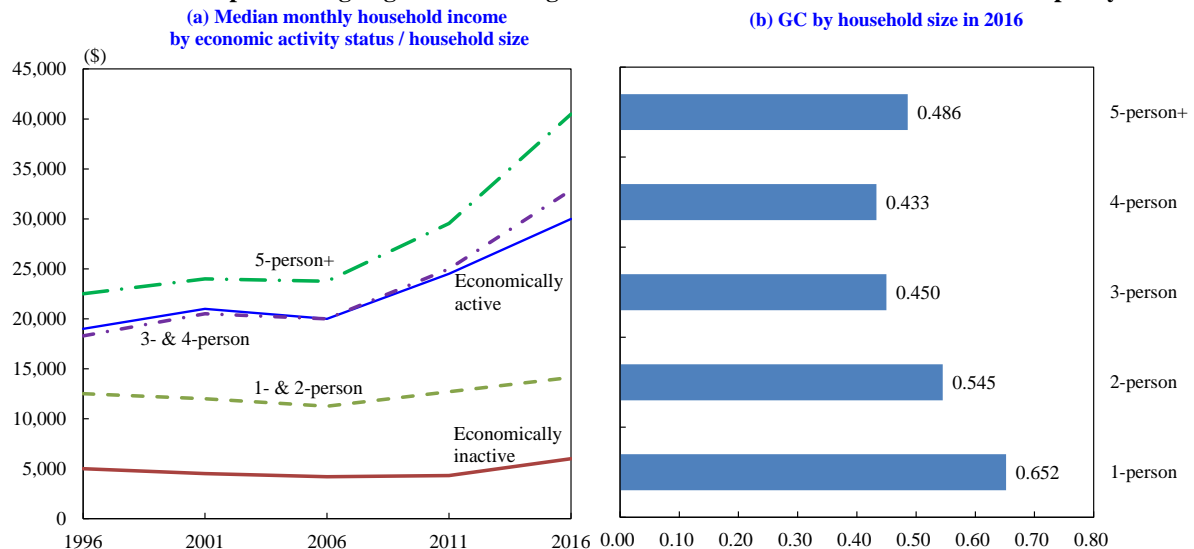
- Changing household composition towards smaller-sized families:** alongside population ageing, the tendency to remain single and a low fertility rate, family structure in our society has been shifting smaller in scale. From *Chart 3b*, the share of 1- and 2-person households rose to over 40% in 2016 from about 30% in the 80s and 90s, in tandem with the rise in economically inactive households among these smaller households. As household income depends partly on household size and in particular the number of working members, such trend would tend to pose a drag on household income in general.

Chart 3: The upsurge of economically inactive / elderly households amid population ageing would further impact on the lower end of the income distribution



The widening effects of the above factors on household income disparity could be illustrated in *Chart 4a*, which shows the widening income gap between the economically active and inactive households and that between the smaller and larger household groups. Besides, larger income dispersion with greater GC was generally seen within those smaller household groups, which registered higher shares of economic inactivity (e.g. in 2016, 48% and 28% of 1- and 2- person households were economically inactive respectively, much higher than the overall average at 19%) (*Chart 4b*). As such, the expected rising shares of these households amid population ageing would inevitably exert increasing upward pressure on overall income disparity down the road.

Chart 4: Population ageing and dwindling household size widened household income disparity



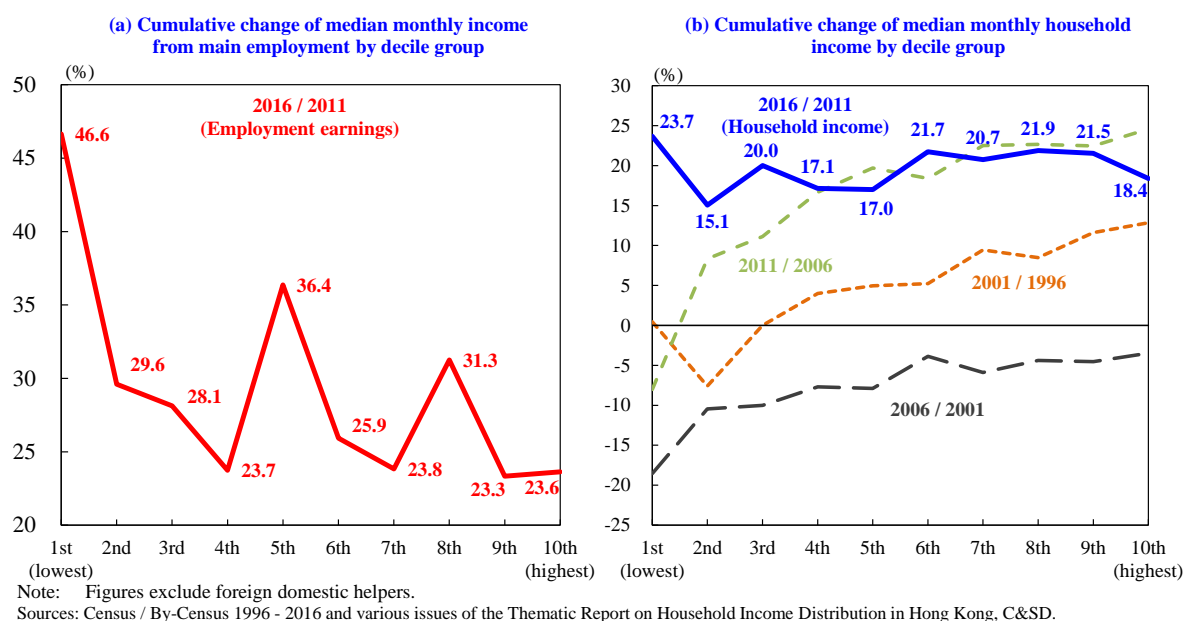
Box 5.2 (Cont'd)

In the more recent years, while structural factors such as population ageing and dwindling household size have exerted lifting effect on overall income disparity, favourable economic developments, a labour market in full employment, as well as the Government's cash policy interventions helped slow the widening income disparity trend to some extent. Indeed, the increase of GC based on original household income during 2011 - 16 (up 0.002 to 0.539) was the smallest over the past three decades. Specifically:

- **Narrowed employment earnings disparity:** thanks to the steady economic growth and a tight labour market with sturdy labour demand in lower-skilled jobs, together with the implementation of Statutory Minimum Wage (SMW) and subsequent up-ratings, the employment and income situations of grassroots workers enjoyed significant improvement. During 2011 - 16, the median employment earnings improved across all decile groups, with growth in the lowest two decile groups, at 46.6% and 29.6% respectively, significantly faster than the top two decile groups (*Chart 5a*).
- **Increased government cash benefits:** the cash social benefits by the Government to those in need, including the Old Age Living Allowance introduced in 2013 to support needy elders, further increased. The continued commitment by the Government is evidenced by the rise of recurrent expenditure on social welfare budgetted for 2017-18 to \$73.3 billion, up 71% in five years compared with that in 2012-13.

Summing up, the median household incomes of different decile groups all recorded double-digit cumulative increases, ranging from 15.1% to 23.7% over the past five years. As a result, the growth rates of household income during the latest 5-year period were less dispersed, in stark contrast to the trend seen in the previous rounds where income growth at the bottom deciles were persistently slower than those at the top (*Chart 5b*).

Chart 5: Improved earnings and increased government cash handouts helped narrow income disparity to some extent

**Compilation of other GCs in reflecting the underlying situation**

As the level and movement of the GC based on original household income are heavily affected by a host of socio-economic and demographic factors, C&SD has compiled different sets of GCs with a view to facilitating a more comprehensive analysis at different angles and for delineating the underlying income disparity situation (*Table 1*).

Box 5.2 (Cont'd)**Table 1: Different sets of GC for understanding the underlying situation of income disparity**

GC	1996	2001	2006	2011	2016
All households					
(1) Original household income	0.518	0.525	0.533	0.537	0.539
(2) Post-tax post-social transfer	0.466	0.470	0.475	0.475	0.473
<i>Difference (1-2)</i>	<i>0.052</i>	<i>0.055</i>	<i>0.058</i>	<i>0.062</i>	<i>0.066</i>
(3) Per capita	0.427	0.421	0.427	0.431	0.420
Economically active households					
(4) Original household income	-	0.488	0.490	0.489	0.482
(5) Post-tax post-social transfer	-	0.436	0.436	0.430	0.422
<i>Difference (4-5)</i>	-	<i>0.052</i>	<i>0.054</i>	<i>0.059</i>	<i>0.060</i>
(6) Per capita	-	0.412	0.412	0.413	0.401

Sources: Various issues of the Thematic Report on Household Income Distribution in Hong Kong, C&SD.

Taking into account the Government's income redistributive measures through taxation and in-kind social benefits (including education, housing and medical), the GC based on post-tax post-social transfer household income was 0.473 in 2016, improved moderately from 0.475 in 2011. It is worthy to note that it marked the first decline of this indicator since the series was compiled.

Comparing this GC with the original one provides a measure of the magnitude or effectiveness of the Government's policies in mitigating income disparity. In 2016, income redistribution by the Government reduced the GC based on original household income by 0.066. Comparing with past periods (e.g. 0.062 in 2011 and 0.058 in 2006), the greater reduction impact witnessed in 2016 reflected the increased strength and effectiveness of government policies in narrowing income disparity over time.

Discounting the effect of population ageing, the post-tax post-social transfer GC for the economically active households improved from 0.430 in 2011 to 0.422 in 2016. Also taking into account the change in household size, the corresponding per capita GC for economically active households improved more significantly, from 0.413 in 2011 to 0.401 in 2016.

Concluding remarks

Income disparity is a broad and complicated subject. The rise in GC based on original household income over the past four decades was attributable to various socio-economic and demographic factors at play. For example, the significant widening of household income disparity in the 80s and 90s was mainly due to the inflow of immigrants and the rapid transformation of our economy which brought about drastic changes in our labour market and earnings structures. Since the mid-90s, demographic factors such as an ageing population and a persistent decrease of household size have emerged with increasing drag on the lower end of the household income distribution up to 2016, thereby offsetting the favourable effects from reduced income disparity among the working households and from the Government's increased cash handouts in the latest 5-year period.

Analysed by different sets of GCs for a more thorough and meaningful comparison, it is worth noting that the income disparity situations have tended to stabilise or even improved slightly in 2016 after taking into account the Government's income redistributive measures as well as discounting the effects of population ageing and changing household size. The Government pays close attention to the income disparity situation and will continue the efforts to enable different strata of society to share the fruits of social and economic developments.