

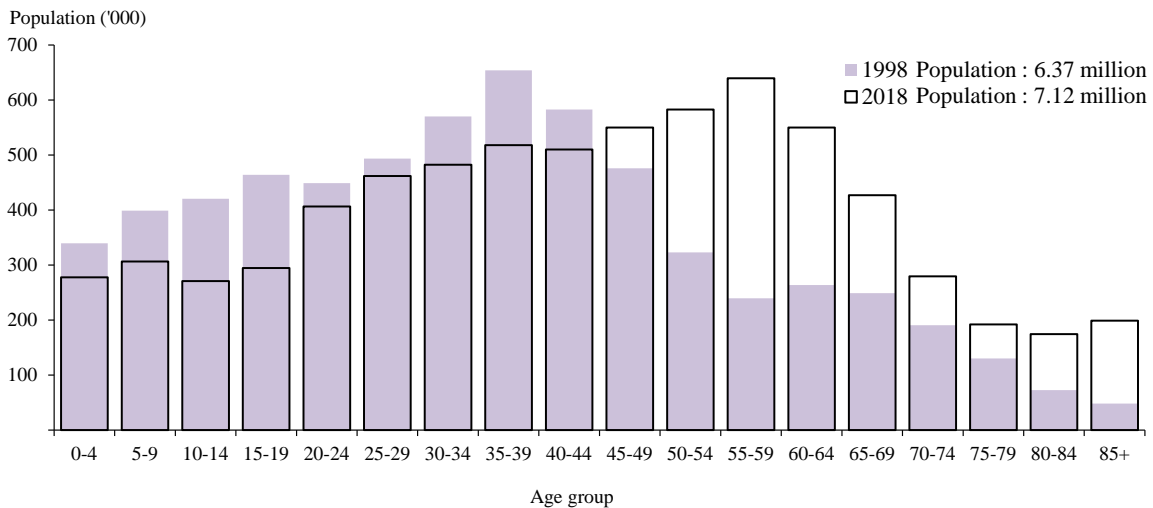
Box 5.1

Effect of population ageing on the overall labour force participation rate⁽¹⁾

Similar to many other developed economies, the population in Hong Kong showed a continued ageing trend over the past couple of decades as a result of low fertility rate and increasing longevity. According to the demographic statistics from the Census and Statistics Department (C&SD), persons aged 65 and above accounted for 17.8% of the total population in 2018, up visibly from 10.8% in 1998 and 13.2% in 2008.

After the rapid growth in the latter half of the 20th Century, Hong Kong’s total population increased at a more modest pace in the past two decades, cumulatively by around 0.8 million between 1998 and 2018. A considerable change in the age composition was also observed over the period. As seen in *Chart 1*, the population distribution in 1998 had a relatively long right tail, with younger age groups taking up a larger share of the population. Since then, the population distribution had moved rightwards due to the ageing trend. Post-war baby boomers who were entering their prime age during the 1990s (i.e. those in their thirties and forties then) represented the largest proportion of the total population (35.9%) in 1998. This cohort still contributes a sizable share of our population today (30.7% in 2018), but they are now much older (aged 50-69). Meanwhile, there were fewer younger persons in 2018 compared with 1998, with the proportion of persons aged 19 and below decreasing from 25.5% to 16.3%.

Chart 1: Population distributions in 1998 and 2018



Source: Demographic Statistics Section, C&SD.

Decomposing the changes in overall labour force participation rate (LFPR)⁽²⁾

The change in age composition discussed above has an effect on the overall LFPR. Since mature persons typically have lower LFPR, an increase in their proportion would exert downward pressure on the overall LFPR. In particular, as the baby boomers age, they would eventually retire and leave the labour market.

(1) Figures quoted in this article exclude foreign domestic helpers.

(2) LFPR refers to the proportion of land-based non-institutional population aged 15 and above participating in the labour market.

Box 5.1 (Cont'd)

In order to gauge the effect of population ageing on the overall LFPR, this article conducts a “shift-share” analysis to estimate the effect of changing age composition on the overall LFPR, holding the LFPRs of individual age group constant. Specifically, the following formula⁽³⁾ is used:

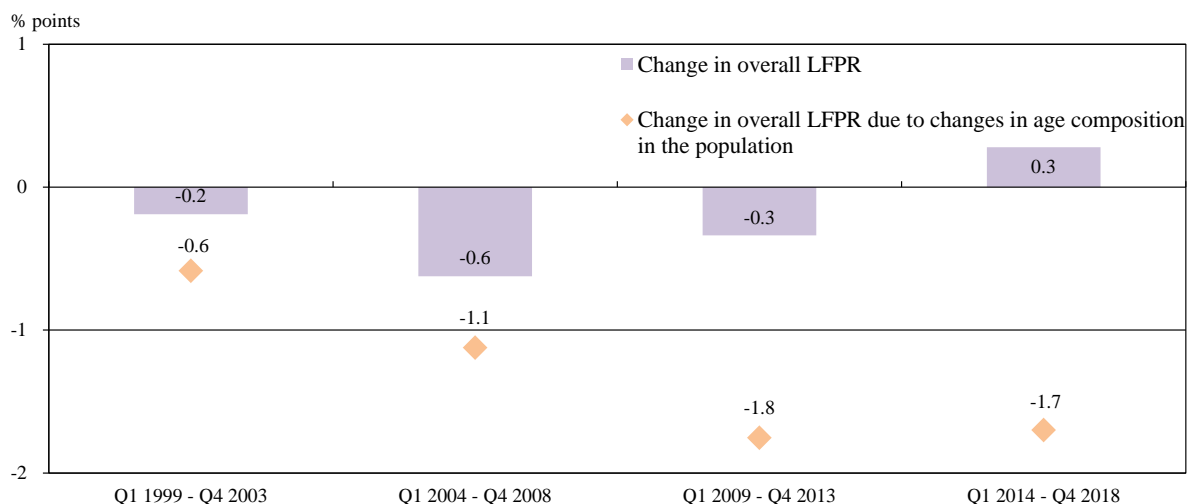
$$\sum_i \sum_{q=q_b}^{q_e} \frac{LFPR_{i,q+1} + LFPR_{i,q}}{2} \times (share_{i,q+1} - share_{i,q})$$

where $LFPR_{i,q}$ denotes the LFPR of age group i in quarter q , $share_{i,q}$ denotes the share of age group i in the land-based non-institutional population aged 15 and above in quarter q , and q_b and q_e denote the beginning and the end of the period under analysis respectively.

The term under summation in the formula measures the change in LFPR (in percentage point) as a result of a change in the share of a specific age group between two consecutive quarters. An estimate of the change in overall LFPR due to the changes in age composition in the population can then be found by adding up all of the terms over different age groups and quarters in the period under analysis.

The formula is applied for four consecutive 5-year periods during 1999 - 2018 to examine the changes in LFPR due to the shifting age profile of the population over time. The results are shown in *Chart 2* below.

Chart 2: Contribution of population ageing to change in overall LFPR



Source: Internal estimates using figures from General Household Survey (GHS), C&SD.

Salient observations

It is shown in *Chart 2* that changes in the age profile of the population had a negative effect on the overall LFPR during 1999-2018. This drag on LFPR actually worsened over time, from 0.6 percentage point in 1999-2003 to 1.7 to 1.8 percentage points in the recent decade (i.e. 2009-2018).

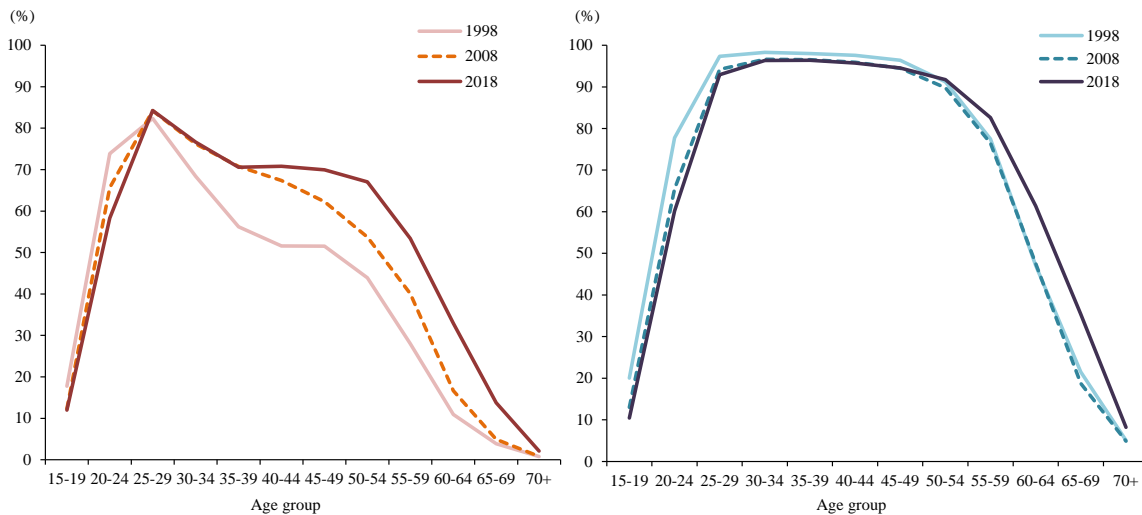
Despite the downward pressure posed by population ageing, the overall LFPR decreased only slightly during the first three 5-year periods and even increased in the last 5-year period (i.e. 2014-2018). This suggested that, besides age composition, other factors have also been in play.

(3) In this specification, the age-specific LFPRs are held constant only quarter to quarter, in order to avoid the potential sensitivity to the choice of baseline.

Box 5.1 (Cont'd)

The increase in LFPR of female and that of mature workers over the past two decades have been the major factors that helped mitigate the fall in overall LFPR caused by the changing age profile of the population (*Chart 3*). Specifically, the LFPR of female increased from 45.6% in 1998 to 49.7% in 2008, and further to 50.8% in 2018, with rises seen across age groups except those aged 15-24 (*Chart 3(a)*). Meanwhile, the LFPR of male aged 50 and above went up from 47.8% and 51.1% in 1998 and 2008 respectively to 54.3% in 2018 (*Chart 3(b)*). While such increases were driven in part by the evolving socio-characteristics of the specific groups (such as higher educational attainment and longer life expectancy compared with twenty years ago), the largely stable macroeconomic environment since the recovery from the 2008-2009 Global Financial Tsunami and the implementation of the Statutory Minimum Wage in 2011 also played a part in enticing women and mature workers to stay in the labour force longer or to re-enter the labour market through providing job opportunities and better income prospects. On the other hand, with ample and more diverse higher education opportunities available, many youngsters delayed work to pursue further education, resulting in lower youth LFPR.

Chart 3: LFPR by age group in 1998, 2008 and 2018
(a) Female **(b) Male**



Source: GHS, C&SD.

Final remarks

According to C&SD’s projection, Hong Kong’s population will age at a more rapid pace in the years to come. For instance, the share of working age population (i.e. those aged 15-64) hovered at around 70% in the past 20 years. However, with the baby boomers approaching their retirement age, this share is projected to fall to about 62% in 2028 and 58% in 2038. At the same time, the share of persons aged 65 and above, having risen from about 11% in 1998 to around 18% in 2018, is projected to increase visibly further to about 26% and 32% in 2028 and 2038 respectively. As a result of population ageing, the labour force is expected to shrink. These trends, if not properly addressed, may pose a cap on our economic growth potential, particularly so in view of the already tight manpower situation in recent years. While encouraging more people, especially female home-makers and mature persons to participate in the labour market will to some extent help mitigate the negative effect of population ageing, continued productivity enhancement will be an ever more important driver for future economic growth. In this regard, apart from promoting innovation and technology, the Government will continue to invest vigorously in education and training, and to attract foreign talent to Hong Kong, in order to strengthen our human capital pool.