

Box 1.1**Have the demographic and education factors affected the unemployment rate?**

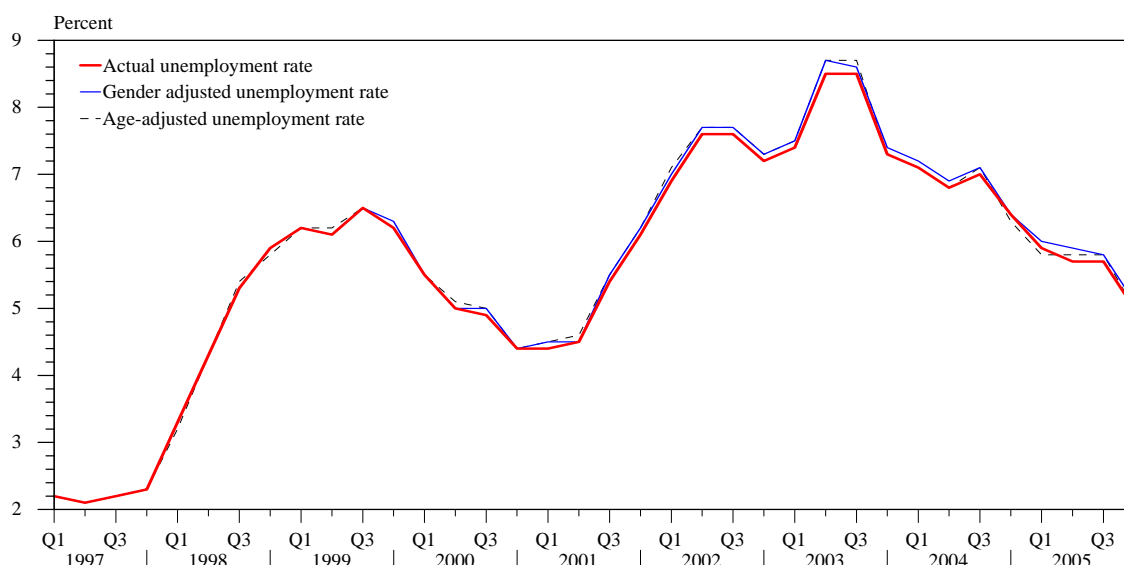
The Hong Kong economy returned to above trend growth in the past two years, yet the unemployment rate still stood at a relatively high level compared with the historical experience. Some people are concerned that an ageing population might have led to a higher unemployment rate amid the shift of the economy towards knowledge-based activity. Thus it is worth examining whether changes in the demographic structure over time can indeed help explain the “high unemployment rate” phenomenon.

Similar to the ageing phenomenon on-going in many developed economies, Hong Kong has also experienced gradual ageing of its population. The proportion of workers aged at 50 or above in total labour force increased steadily from 15.8% in 2000 to 19.4% in 2005. The proportion of the middle-age group, i.e. those aged 40-49, also rose, from 26.4% in 2000 to 29.9% in 2005. By contrast, the proportions of the younger age groups, namely those aged 15-24, 25-29 and 30-39, all fell. As to the gender composition of the labour-force, there has been a moderate increase in the proportion of female workers, from 41.8% in 2000 to 44.8% in 2005. The changes in the age and gender composition of the labour force largely follow the corresponding changes in Hong Kong’s overall population,

<u>Age group</u>	<u>% share in labour force</u>				<u>Unemployment rate</u>			
	<u>1997</u>	<u>2000</u>	<u>2003</u>	<u>2005</u>	<u>1997</u>	<u>2000</u>	<u>2003</u>	<u>2005</u>
15-24	13.9	12.7	11.2	11.0	5.0	10.7	15.0	10.8
25-29	14.7	14.3	12.7	12.0	2.0	4.3	6.7	4.4
30-39	32.7	30.8	29.2	27.8	1.6	3.2	6.0	3.8
40-49	24.3	26.4	29.2	29.9	1.7	4.3	7.3	5.2
50-59	10.5	12.4	14.6	16.2	2.2	6.0	9.4	7.0
60 and above	3.9	3.8	3.2	3.2	1.0	2.9	4.5	3.8
Total	100.0	100.0	100.0	100.0	2.2	4.9	7.9	5.6
<u>Gender group</u>								
Male	60.4	58.2	56.1	55.2	2.3	5.6	9.3	6.5
Female	39.6	41.8	43.9	44.8	2.0	4.1	6.2	4.4

The impact of demographic factors on the unemployment rate can be analysed by re-constructing the unemployment rate series based on a fixed age or gender structure in a base year, and then comparing them with the actual unemployment rate series to delineate the changes in unemployment rate arising from changes in demographic factors. The first series, “gender-adjusted unemployment rate”, is constructed by standardising the unemployment rate to the gender profile in a fixed base year (1997 used as the base year in the present exercise). The second series, “age-adjusted unemployment rate”, is constructed by standardising the unemployment rate to the age profile in 1997.

The movements of the gender-adjusted and age-adjusted unemployment rates, together with the actual unemployment rate, are shown in following chart. The changing composition of the population by sex and age over the past decade or so had only a modest effect on the unemployment rate. For example, the gender-adjusted unemployment rate and the age-adjusted unemployment rate were 5.1% and 5.0% respectively in the fourth quarter of 2005, little different from the actual unemployment rate of 5.0%. In other words, changes in the gender and age composition of the labour force since 1997 were not the cause of the high unemployment rate in Hong Kong in recent years. This runs contrary to the common perception that the unemployment rate will tend to rise as the population ages.

Box 1.1 (cont'd)**Changes in demographic patterns NOT the causes of higher unemployment rates**

Two notable changes in the age composition of the labour force between 1997 and 2005 help to explain the result. First, the negative effect of the increase in the share of those aged 50-59, who have a relatively higher unemployment rate, has been to a certain extent offset by the positive effect of the decrease in the share of younger age group those aged 15-24, who also have a relatively higher unemployment rate. Second, the negative effect of the decrease in the share of those aged 30-39, who have a relatively lower unemployment rate, has been to a certain extent offset by the positive effect of the increase in the share of those aged 40-49, who also have a relatively lower unemployment rate.

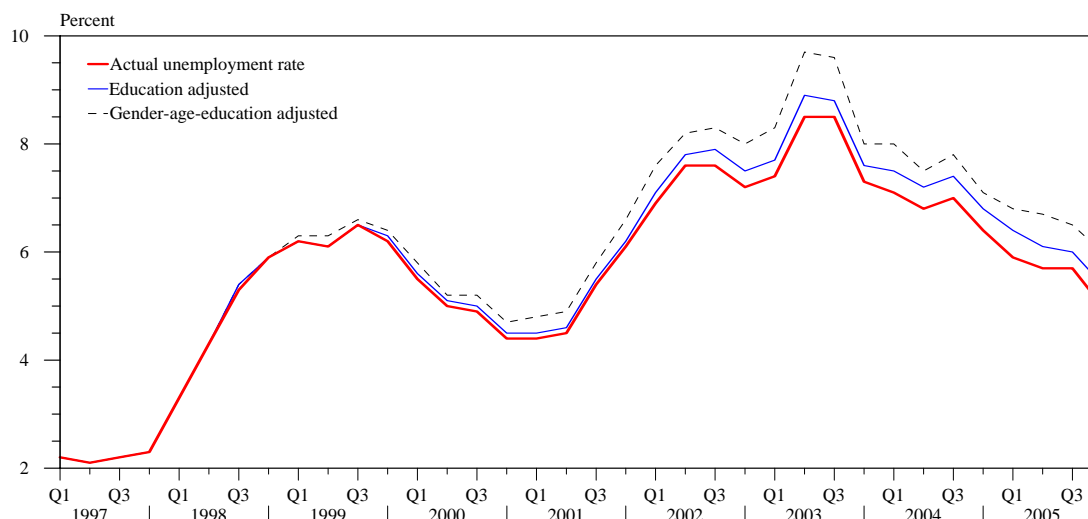
Apart from the demographic factors, it is also worth examining how changes in the profile of education attainment over the years have affected the unemployment rate in Hong Kong. There has been a remarkable upgrading of the quality of the labour force over the years. As an indication, the proportion of workers with tertiary education rose from 23.8% in 2000 to 28.4% in 2005, while the proportion of those with lower secondary education or below fell from 35.7% to 31.5%. Also of importance is the fact that higher educated workers have a lower unemployment rate than those lesser educated.

<u>Education attainment</u>	<u>% share in labour force</u>				<u>Unemployment rate</u>			
	<u>1997</u>	<u>2000</u>	<u>2003</u>	<u>2005</u>	<u>1997</u>	<u>2000</u>	<u>2003</u>	<u>2005</u>
Lower secondary and below	38.4	35.7	34.1	31.5	2.8	6.9	11.7	8.5
Upper secondary and Matriculation	39.5	40.5	39.1	40.1	2.0	4.6	7.1	5.0
Tertiary	22.1	23.8	26.9	28.4	1.6	2.6	4.4	3.2
Total	100.0	100.0	100.0	100.0	2.2	4.9	7.9	5.6

Box 1.1 (cont'd)

An education-adjusted unemployment rate is again constructed to delineate the effect of education on the unemployment rate. As an illustration, if the education profile of the labour force in the fourth quarter of 2005 had remained unchanged from that in 1997, i.e. without the substantial upgrading in education attainment of our workforce, the unemployment rate would have been 5.4% instead of 5.0%. That the effect of changes in the education profile of the labour force since 1997 has helped to lower the unemployment rate is easy to understand. This is because the increase in the share of workers with tertiary education, who have a relatively lower unemployment rate, coupled with the decrease in the share of workers with lower secondary education and below, who have a relatively higher unemployment rate, has resulted in a lower overall unemployment rate than otherwise. This also points to the importance of continuous investment in human capital as a means to improve the flexibility and vitality of the labour market. Indeed, if not with the substantial investment in education, Hong Kong's labour market would have faced even more difficulties in weathering the severe shocks from the 1998 Asian Financial Turmoil and the 911 incident.

Significant improvement in education attainment over the years actually helped to lower Hong Kong's unemployment rate



Also worthy to note is the joint effect of the gender, age and education factors on the unemployment rate, which is found to be much more pronounced than the summation of the three individually assessed effects. For instance, the gender-age-education adjusted unemployment rate in the fourth quarter of 2005 was 6.0%, one percentage point higher than the actual unemployment rate of 5.0%.

Although the age-gender compositional changes are not found to be the main cause of high unemployment in recent years, the impact of ageing as the economy continues to gear towards knowledge-based and service activities cannot be taken lightly over the longer run. Workers of older age and lesser educated usually experience greater difficulties in upgrading their skills and knowledge to meet the challenges from the changing economic environment. This makes it all the more important for the Government to continue to invest in higher education and in job training and retraining, so as to tackle the skill mismatch and also to raise productivity for a smoother transition to knowledge-based economy.