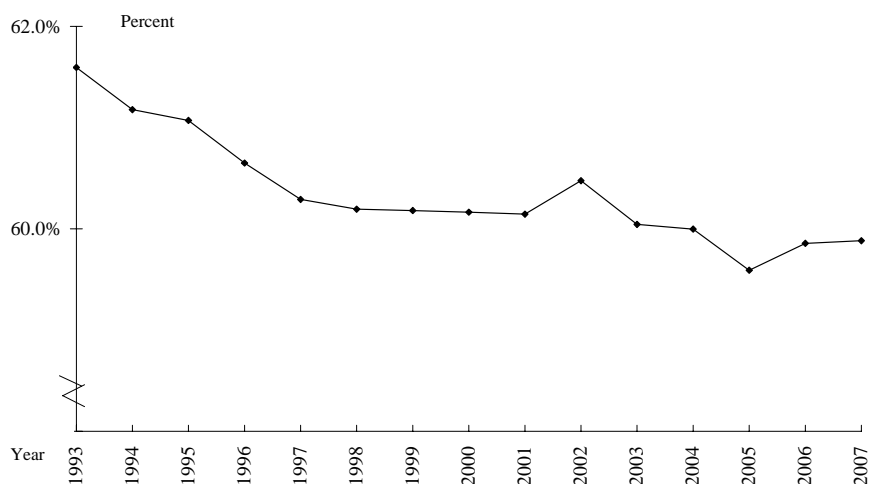**Box 5.1**

Analysis of the change in labour force participation rate from 1993 to 2007

Despite having a slight rebound in the recent two years, the overall labour force participation rate (LFPR)[1] showed a declining trend in general over the past 15 years (see Chart 1). It fell from 61.6% in 1993 to 59.9% in 2007, with a record low of 59.6% recorded in 2005. There were various factors affecting the underlying trend in the overall LFPR. They can be broadly classified into two components, namely (1) changes in LFPR in each of the age-sex specific groups, and (2) changes in the age-sex profile of the population.

Chart 1: Overall Labour Force Participation Rate, 1993-2007

A decomposition method is used in analysing the contributions of the two components as follows:

$$R^{2007} - \overline{R} = \sum_j \overline{S}_j \times (R_j^{2007} - \overline{R}_j) + \sum_j (R_j^{2007} - \overline{R}) \times (S_j^{2007} - \overline{S}_j)$$

where R denotes a LFPR, S denotes a population share, j indexes age-sex specific groups, the superscripts 2007 denote the figures in 2007, and overbars denote means over the period from 1993 to 2007.

Simply speaking, the first term in the decomposition equation measures the contributions of the changes in the age-sex specific LFPRs to the overall change in LFPR. As for the second term, it provides a measure for the contribution of the changes in population share[2].

The age-sex specific LFPRs and the population shares of individual age-sex groups in 2007 as well as the means over the period from 1993 to 2007 are given in Table 1. The results of the decomposition are shown in Table 2.

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(1) The labour force participation rate is defined as the proportion of the labour force in the land-based non-institutional population aged 15 and over. In this analysis, data on foreign domestic helpers are also excluded. Unless otherwise specified, figures are the annual averages of the four quarterly estimates obtained from the results of the General Household Survey conducted by the Census and Statistics Department.

(2) A positive value will be resulted if (a) the share of an age-sex group with LFPR higher than the overall increases or (b) the share of an age-sex group with LFPR lower than the overall decreases. Otherwise, the value will be negative.

Box 5.1

It is interesting to note that the overall contribution of the changes in population share is negative, more than offsetting the positive effect from the changes in age-sex specific LFPRs. The negative effect of the changes in population share was partly due to the ageing population where there were increases in the population shares of older women and men (aged 65+). The decreasing shares of men aged 25-34 and 35-44 (who had very high LFPRs relative to the overall) also put a very heavy downward pressure on the overall LFPR.

The contribution of the changes in age-sex specific LFPRs is positive, suggesting that the decline in the overall LFPR would be more rapid if the age-sex specific LFPRs remained at the same level as the means over the period 1993-2007. This positive effect was mainly due to the increases in LFPR for women particularly for those at prime working ages (25-54), more than offsetting the slight decreases in LFPR for men (except those aged 55-64). On the other hand, the contributions of the changes in LFPRs were both negative for young women and men (15-24), following the increased opportunities for them to attend upper secondary and tertiary education in the past years.

Table 1: LFPR and Population Share by Age and Sex

Sex	Age	LFPR (R)			Population Share (S)		
		2007 ($= R_j^{2007}$)	**1993-2007** ($= \overline{R}_j$)	**Difference (% points)**	**2007** ($= S_j^{2007}$)	**1993-2007** ($= \overline{S}_j$)	**Difference (% points)**
Male	15-24	41.0%	46.8%	-5.8	7.8%	8.5%	-0.7
	25-34	96.1%	97.2%	-1.1	8.0%	9.6%	-1.6
	35-44	96.7%	97.4%	-0.7	9.4%	11.3%	-1.9
	45-54	92.3%	93.4%	-1.2	10.5%	8.8%	1.7
	55-64	65.5%	63.4%	2.1	6.3%	5.5%	0.8
	65+	9.3%	11.4%	-2.1	6.8%	6.2%	0.6
	15+	70.6%	73.6%	-3.0	48.7%	49.9%	-1.2
Female	15-24	40.9%	43.9%	-3.0	7.5%	8.1%	-0.6
	25-34	79.7%	75.5%	4.2	8.6%	10.1%	-1.5
	35-44	68.4%	59.1%	9.3	11.1%	11.6%	-0.5
	45-54	57.8%	52.2%	5.7	10.5%	8.2%	2.3
	55-64	29.5%	22.7%	6.8	6.1%	4.9%	1.2
	65+	1.8%	2.1%	-0.2	7.5%	7.2%	0.4
	15+	49.7%	47.1%	2.7	51.3%	50.1%	+1.2
Overall		59.9%	60.3%	-0.4	100%	100%	0.0

Note: Figures may not add up to totals due to rounding.

Table 2: Contribution of Individual Components by Age and Sex to the Change in the Overall LFPR from 1993 to 2007 (% point)

Sex	Age	Change in age-sex specific LFPR	Changes in population share	Overall
Male	15-24	-0.49	0.14	-0.35
	25-34	-0.11	-0.57	-0.68
	35-44	-0.08	-0.71	-0.78
	45-54	-0.10	0.53	0.43
	55-64	0.12	0.04	0.16
	65+	-0.13	-0.29	-0.42
	15+	-0.80	-0.85	-1.64
Female	15-24	-0.24	0.12	-0.13
	25-34	0.43	-0.29	0.14
	35-44	1.08	-0.04	1.04
	45-54	0.46	-0.06	0.41
	55-64	0.34	-0.36	-0.02
	65+	-0.02	-0.21	-0.23
	15+	2.05	-0.84	1.21
Overall		**1.25**	**-1.69**	**-0.44**

Note: Figures may not add up to totals due to rounding.