## 3. The Method Used for Projecting Population

Assumptions for population process components, birth, death and international migration, are established, and the cohort component method is used for Population Projections. Assumptions are made based on actual statistics of each component through the demographic- projective method.
(1) Summary of Assumptions for Future Fertility

Assumptions for marriage and birth index of cohorts of women born in 1990 (reference cohorts) were made. The transition made from the actual figures of aging cohorts or statistically assumed figure to the assumptions of the reference cohorts, and gradual changes to the cohorts born in 2005, and remaining thereafter are presupposed.

|  | Fetility Assumption Index | Presupposition |  |  | Total Fertility Rate |  |  | Projected in January 2002 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current Actual Figure Generation born in 1955 |  | Assumption <br> Generations born <br> in 1990 <br> (Reference cohort) | $2005$ <br> Actual Figure | 2030 | 2055 | 2050 |
|  | 1) Mean Age of First Marriage <br> 2) Proportion of Never Married <br> 3) Completed Number of Birth from Married Couple <br> 4) Effects of Divorce, Bereavement, and Remarriage | 24.9 year <br> 5.8\% <br> 2.16 people <br> 0.952 | Increase <br> $\rightarrow$ <br> Increase <br> $\rightarrow$ <br> Decrease <br> $\rightarrow$ | 28.2 year <br> 23.5 \% <br> 1.70 people <br> 0.925 | 1.26 | 1.24 | 1.26 | 1.39 |
|  | 1) Mean Age of First Marriage <br> 2) Proportion of Never Married <br> 3) Completed Number of Birth from Married Couple <br> 4) Effects of Divorce, Bereavement, and Remarriage | As Above | Increase <br> $\rightarrow$ Increase <br> $\rightarrow$ <br> 'Decreasé <br> $\rightarrow$ <br> Decrease | 27.8 year <br> 17.9\% <br> 1.91 people <br> 0.938 | 1.26 | 1.53 | 1.55 | 1.63 |
|  | 1) Mean Age of First Marriage <br> 2) Proportion of Never Married <br> 3) Completed Number of Birth from Married Couple <br> 4) Effects of Divorce, Bereavement, and Remarriage | As Above | Increase <br> Increase <br> Decreasé <br> Decrease | 28.7 year <br> 27.0\% <br> 1.52 people <br> 0.918 | 1.26 | 1.04 | 1.06 | 1.10 |

SourcesNational Institute of Population and Social Security Research "Population Projection for Japan (estimated in December 2006)
[Note] Proportion of never married in this projection is calculated from the proportion of cumulated first marriage at the age of 50 of the Japanese female cohorts extracted from Vital Statistics.Assumption of the proportion of never married for reference cohorts are, if using the same definition as the previous projection, medium-variant $20.4 \%$, high-variant $14.6 \%$, and low-variant $24.1 \%$. Sex ration at birth: Sex ratio at birth from 2001 to 2005 (105.4) remains constant.
(2) Summary of Assumption for Mortality

According to the actual mortality figures from 1970 to 2005, "low variant of death" assumption (Male 83.67 years, Female 90.34 years) was made, and following the confidence interval of mortality index parameters, "high-variant death" assumption (Male 82.41 years, Female 89.17 years) and "low-variant death" assumption (Male 84.93 years, Female 91.51 years) were set. (Brackets are the average life expectancy of FY 2055)

|  | Actual Figures in 2005 | Medium-Variant Death Assumption <br> in 2055 | Projected in January 2002 <br> in 2050 |
| :---: | :---: | :---: | :---: |
| Male | 78.53 year | $\longrightarrow$ | 83.67 year |

References: National Institute of Population and Social Security Research "Population Projection for Japan (estimated in December 2006)
(3) Summary of assumptions in regards to the International Migration

The average rate of age- and sex-specific annual net migration for the Japanese during the period of October 1st 1998 and September 30, 2005 remains constant. (Years affected by September 11 terrorist attacks and SARS) As for the foreigners, the assumptions for the number of net migration were made, and they show that the numbers changed from 25,000 males and 26,000 females in 2006 to 33,000 males and 42,000 females, and they remain unchanged thereafter.

