

## SOCIETY OF ACTUARIES

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### OASDI Trust Fund:

### **Principal Economic and Demographic Assumptions**

Editor's Note: The following excerpt is taken from Section II.D, "Actuarial Analysis," in the 1998 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. Copies of the OASDI 1998 Annual Report are available from Cece Enders (410–965–3015).

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he future income and outgo of the OASDI program depend on many economic and demographic factors, including gross domestic product, labor force, unemployment, average earnings, productivity, inflation, fertility, mortality, net immigration, marriage, divorce, retirement patterns, and disability incidence and termination. The income will depend on how these factors affect the size and composition of the working population and the level and distribution of earnings. Similarly, the outgo will depend on how these factors affect the size and composition of the beneficiary population and the general level of benefits.

Because precise prediction of these various factors is impossible, estimates are shown in this report on the basis of three sets of assumptions, designated as intermediate (alternative II), low cost (alternative I), and high cost (alternative III). The intermediate set, alternative II, represents the Board's best estimate of the future course of the population and the economy. In terms of the net effect on the status of the OASDI program, the low cost alternative I is the most optimistic, and the high cost alternative III is the most pessimistic of the plausible economic and demographic conditions.

Although these sets of economic and demographic assumptions have been developed using the best available information, the resulting estimates should be interpreted with care. The resulting estimates are not intended to be precise predictions of the future status of the OASDI program, but rather, they are intended to be indicators of the trend and potential range of future income and outgo, under a variety of plausible economic and demographic conditions.

The economic and demographic assumptions used in this report are reexamined each year, in light of recent experience and new information about future trends, and are revised if warranted. This year, the need for such a review is illustrated by such factors as changes in the calculation of the CPI by the Bureau of Labor Statistics, and the potential long-term implications of our recent positive economic growth. As usual, this reexamination should be completed in ample time to make any needed adjustments in the next report.

### **Economic Assumptions**

The principal economic assumptions for the three alternatives are summarized in Table II.D1 (see page 6).

Alternatives I, II, and III represent a range of generally consistent sets of economic assumptions which have been designed to encompass most of the possibilities that might be encountered. The intermediate set of assumptions (alternative II) represents the Trustees' consensus expectation of moderate economic growth through the projection period. The low cost assumptions (alternative I) represent a more optimistic outlook, with relatively stronger economic growth. The high cost assumptions (alternative III) represent a relatively pessimistic forecast, with weaker economic growth and two recessions in the short-range period. Economic cycles are not included in assumptions beyond the first five to ten years of the projection period because they have little effect on the long-range estimates of financial status.

### **Demographic Assumptions**

The principal demographic assumptions for the three alternatives are shown in Table II.D2 (see page 7).

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|  | Life Expectancy*                     |                                      |  | Life Expectancy*                     |                                      |
|--|--------------------------------------|--------------------------------------|--|--------------------------------------|--------------------------------------|
| Calendar   | (At Ag                               | Female                               | Calendar   | (At A                                | ge 65)                               |
| Year   | Male                                 |                                      | Year   | Male                                 | Female                               |
| Historical Data:<br>1940<br>1945<br>1950<br>1955<br>1960 | 11.9<br>12.6<br>12.8<br>13.1<br>12.9 | 13.4<br>14.4<br>15.1<br>15.6<br>15.9 | Low Cost:<br>1998<br>2000<br>2005<br>2010<br>2015  | 15.6<br>15.7<br>15.7<br>15.7<br>15.7 | 19.1<br>19.1<br>18.9<br>18.8<br>18.8 |
| 1965   | 12.9                                 | 16.3                                 | 2020   | 15.8                                 | 18.9                                 |
| 1970   | 13.1                                 | 17.1                                 | 2025   | 15.9                                 | 19.0                                 |
| 1975   | 13.7                                 | 18.0                                 | 2030   | 16.0                                 | 19.0                                 |
| 1976   | 13.7                                 | 18.1                                 | 2035   | 16.1                                 | 19.1                                 |
| 1977   | 13.9                                 | 18.3                                 | 2040   | 16.1                                 | 19.2                                 |
| 1978   | 13.9                                 | 18.3                                 | 2045   | 16.2                                 | 19.3                                 |
| 1979   | 14.2                                 | 18.6                                 | 2050   | 16.3                                 | 19.4                                 |
| 1980   | 14.0                                 | 18.4                                 | 2055   | 16.3                                 | 19.4                                 |
| 1981   | 14.2                                 | 18.6                                 | 2060   | 16.4                                 | 19.5                                 |
| 1982   | 14.5                                 | 18.8                                 | 2065   | 16.5                                 | 19.6                                 |
| 1983<br>1984<br>1985<br>1986<br>1987                     | 14.3<br>14.4<br>14.4<br>14.5<br>14.6 | 18.6<br>18.7<br>18.6<br>18.7<br>18.7 | 2070<br>2075                                       | 16.6<br>16.6                         | 19.7<br>19.7                         |
| 1988<br>1989<br>1990<br>1991<br>1992                     | 14.6<br>14.8<br>15.0<br>15.1<br>15.2 | 18.7<br>18.9<br>19.0<br>19.1<br>19.2 |  |                                      |                                      |
| 1993<br>1994<br>1995<br>1996†<br>1997†                   | 15.1<br>15.3<br>15.3<br>15.8<br>15.6 | 19.0<br>19.0<br>19.0<br>19.1<br>19.2 |  |                                      |                                      |
| Intermediate:<br>1998<br>2000<br>2005<br>2010<br>2015    | 15.7<br>15.8<br>16.1<br>16.3<br>16.5 | 19.2<br>19.3<br>19.4<br>19.5<br>19.7 | High Cost:<br>1998<br>2000<br>2005<br>2010<br>2015 | 15.7<br>16.0<br>16.5<br>16.8<br>17.2 | 19.3<br>19.5<br>19.9<br>20.2<br>20.6 |
| 2020   | 16.7                                 | 19.9                                 | 2020   | 17.6                                 | 21.0                                 |
| 2025   | 16.9                                 | 20.1                                 | 2025   | 18.0                                 | 21.4                                 |
| 2030   | 17.1                                 | 20.4                                 | 2030   | 18.4                                 | 21.8                                 |
| 2035   | 17.3                                 | 20.6                                 | 2035   | 18.8                                 | 22.2                                 |
| 2040   | 17.5                                 | 20.8                                 | 2040   | 19.2                                 | 22.7                                 |
| 2045   | 17.7                                 | 21.0                                 | 2045   | 19.6                                 | 23.1                                 |
| 2050   | 17.9                                 | 21.2                                 | 2050   | 20.0                                 | 23.5                                 |
| 2055   | 18.1                                 | 21.4                                 | 2055   | 20.4                                 | 23.8                                 |
| 2060   | 18.3                                 | 21.6                                 | 2060   | 20.7                                 | 24.2                                 |
| 2065   | 18.5                                 | 21.8                                 | 2065   | 21.1                                 | 24.6                                 |
| 2070   | 18.7                                 | 22.0                                 | 2070   | 21.5                                 | 25.0                                 |
| 2075   | 18.8                                 | 22.2                                 | 2075   | 21.9                                 | 25.4                                 |

TABLE II.D2 Selected Demographic Assumptions by Alternative, Calendar Years 1940–2075

\*The life expectancy for any year is the average number of years of life remaining for a person if that person were to experience the death rates by age observed in, or assumed for, the selected year. †Preliminary or estimated.