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LONG-RANGE ESTIMATES OF SOCIAL SECURITY TRUST FUND OPERATIONS IN DOLLARS

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This note presents long-range estimates of the operations of the combined Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI) Trust Funds.

Long-range trust fund operations typically are not shown in dollar amounts because inflation makes such amounts noncomparable over time. Instead, relative measures which are comparable over time have been developed. Two examples of such measures are cost rates and income rates, which express the cost and income of the program as percentages of taxable payroll. Another is the trust fund ratio, which expresses the assets of the trust funds as a proportion of the outgo during a specific period of time, usually the next year. These measures are discussed fully in the "1985 Annual Report of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds"¹ (1985 OASDI Trustees Report). They are the ones that have been used by Social Security program planners and legislators to evaluate the long-range actuarial status of the program and the long-range financial effect of proposed changes to the program.

Nonetheless, in view of the interest that continues to be expressed in long-range dollar values, this note presents long-range OASDI estimates in current dollars, together with several indices which can be used to convert current dollars into constant (1985) dollars. In addition, the Appendix to this note presents current-dollar estimates of a more limited nature for the HI program and for the combined OASDI and HI programs. It should be emphasized that any comparison of recent or near-term trust fund operations to longer term current-dollar estimates which do not reflect the very considerable effects of inflation—especially for a period extending 75 years into the future—would be very misleading.

Table 1 shows estimated operations of the combined OASI and DI Trust Funds—that is, assets at the beginning of the year, total income, income excluding interest, outgo, and assets at the end of the year. These items are defined in footnotes to the table. The estimates are based on four sets of economic and demographic assumptions identified as alternatives I, II-A, II-B, and III, which are described in detail in the 1985 OASDI Trustees Report. The estimates of all these financial items are shown in current dollars.

A major consideration in converting current dollars to constant dollars is the selection of the index of conversion. Price indices adjust for the effects of price inflation. The price index used in this note is the

Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), which is published by the Bureau of Labor Statistics, Department of Labor. The CPI-W was chosen mainly because it is used to determine automatic increases in OASDI benefits.

Wage indices adjust for the combined effects of price inflation and real-wage growth. The particular wage index presented in this note is the average annual amount of total wages. This wage series is used to adjust many of the Social Security program amounts that are subject to automatic adjustment (such as the contribution and benefit base).

Payroll indices adjust for the effects of changes in the number of workers as well as for the effect of price inflation and real-wage growth. This note presents the OASDI taxable payroll, which consists of all earnings subject to OASDI contribution rates, adjusted to include deemed wages based on military service and to reflect the lower effective contribution rates (compared to the combined employee-employer rate) which apply to tips and multiple-employer "excess wages."

Also shown are values of the gross national product (GNP). In addition to reflecting all of the effects reflected by the three types of indices discussed above—price, wage, and payroll indices—the GNP values also reflect the effects of other changes in the national economy. The values of the Implicit Price Deflator for the Gross National Product, based on the projected values shown for the GNP, are equal to the values shown for the CPI-W.

The application of an interest rate is another way of converting dollar values through time. The selection of an interest rate can be based on many types of investments, such as those by individuals, groups, or the Social Security trust funds. The particular series of interest-rate factors presented in this note is based on the effective semiannual interest rates which yield the net interest income estimated on the basis of each of the alternatives.

The CPI-W, after several years of varying increases, is assumed to increase annually at rates of 2.0, 3.0, 4.0, and 5.0 percent for alternatives I, II-A, II-B, and III, respectively. Similarly, the average annual wage is assumed to increase by 4.5, 5.0, 5.5, and 6.0 percent. After the first few years, no specific assumption is made about GNP growth; rather, estimates thereof are based on the complex interaction of many economic and demographic variables. Similarly, the estimates of payroll growth are based on the interaction of many economic and demographic variables. Appendix A of

¹House Document No. 99-46, dated April 1, 1985.

the 1985 OASDI Trustees Report includes a more complete discussion of the payroll estimates. The ultimate interest rate assumed is 5.0, 5.5, 6.0, and 6.5 percent, compounded semiannually, for alternatives I, II-A, II-B, and III, respectively. These assumptions are

the result of the compound effect of the ultimate annual increases assumed for the CPI-W (2.0, 3.0, 4.0, and 5.0 percent) with the respective ultimate real interest rates assumed (effective annual rates of 3.0, 2.5, 2.0, and 1.5 percent).

Table 1.—Estimated Operations of OASI and DI Trust Funds for 1985-2060 by Alternative

[In billions]

| Calendar year | Assets at beginning of year ¹ | Total income ² | Income, excluding interest | Outgo ³ | Assets at end of year ¹ |
|--------------------------|--|---------------------------|----------------------------|--------------------|------------------------------------|
| Alternative I: | | | | | |
| 1985..... | \$46.4 | \$201.1 | \$198.8 | \$192.5 | \$37.8 |
| 1986..... | 52.9 | 216.9 | 213.2 | 196.7 | 49.7 |
| 1987..... | 65.8 | 237.1 | 231.4 | 214.5 | 70.0 |
| 1988..... | 88.5 | 271.9 | 263.2 | 227.2 | 114.8 |
| 1989..... | 134.9 | 297.0 | 284.1 | 240.3 | 171.5 |
| 1990..... | 193.4 | 327.2 | 309.8 | 254.2 | 244.5 |
| 1991..... | 267.6 | 346.0 | 324.1 | 260.3 | 330.3 |
| 1992..... | 354.4 | 370.2 | 344.1 | 279.4 | 421.1 |
| 1993..... | 446.2 | 390.9 | 360.2 | 286.5 | 525.5 |
| 1994..... | 552.1 | 418.8 | 383.0 | 304.9 | 639.3 |
| 1995..... | 667.6 | 445.8 | 404.5 | 309.1 | 776.0 |
| 2000..... | 1,562.3 | 622.0 | 541.3 | 371.5 | 1,774.9 |
| 2005..... | 3,120.2 | 872.4 | 711.7 | 467.2 | 3,475.5 |
| 2010..... | 5,493.6 | 1,195.5 | 914.4 | 622.7 | 6,002.4 |
| 2015..... | 8,703.1 | 1,606.4 | 1,164.2 | 869.0 | 9,359.4 |
| 2020..... | 12,737.1 | 2,119.2 | 1,475.5 | 1,218.1 | 13,535.9 |
| 2025..... | 17,648.1 | 2,761.4 | 1,872.4 | 1,681.1 | 18,619.0 |
| 2030..... | 23,743.5 | 3,581.8 | 2,386.9 | 2,168.4 | 24,992.4 |
| 2035..... | 31,800.8 | 4,657.0 | 3,054.8 | 2,725.4 | 33,522.0 |
| 2040..... | 42,996.0 | 6,082.2 | 3,911.7 | 3,348.8 | 45,459.8 |
| 2045..... | 58,837.0 | 7,990.5 | 5,016.0 | 4,149.0 | 62,332.7 |
| 2050..... | 80,920.1 | 10,533.1 | 6,439.2 | 5,215.9 | 85,793.1 |
| 2055..... | 111,391.1 | 13,921.2 | 8,282.9 | 6,607.9 | 118,132.6 |
| 2060..... | 153,189.9 | 18,418.2 | 10,661.8 | 8,409.9 | 162,461.9 |
| Alternative II-A: | | | | | |
| 1985..... | 46.4 | 200.7 | 198.4 | 193.2 | 36.8 |
| 1986..... | 51.9 | 218.5 | 215.2 | 204.0 | 45.1 |
| 1987..... | 61.3 | 237.0 | 232.0 | 217.8 | 59.8 |
| 1988..... | 78.2 | 271.5 | 263.7 | 232.2 | 99.1 |
| 1989..... | 119.2 | 296.0 | 284.4 | 247.2 | 147.9 |
| 1990..... | 169.8 | 325.6 | 309.9 | 263.2 | 210.3 |
| 1991..... | 233.4 | 347.9 | 328.1 | 278.0 | 280.3 |
| 1992..... | 304.6 | 371.7 | 347.9 | 293.4 | 358.6 |
| 1993..... | 384.1 | 395.3 | 368.1 | 309.7 | 445.2 |
| 1994..... | 472.4 | 424.5 | 391.5 | 326.8 | 542.9 |
| 1995..... | 571.8 | 452.4 | 414.5 | 341.4 | 653.9 |
| 2000..... | 1,324.8 | 634.2 | 559.5 | 422.9 | 1,497.2 |
| 2005..... | 2,636.6 | 893.6 | 745.3 | 555.1 | 2,923.3 |
| 2010..... | 4,605.0 | 1,229.7 | 972.4 | 764.3 | 5,002.9 |
| 2015..... | 7,147.2 | 1,649.1 | 1,253.1 | 1,093.7 | 7,616.1 |
| 2020..... | 10,033.8 | 2,154.9 | 1,603.6 | 1,570.0 | 10,508.7 |
| 2025..... | 12,957.8 | 2,755.9 | 2,049.4 | 2,197.5 | 13,376.4 |
| 2030..... | 15,710.6 | 3,476.9 | 2,625.2 | 2,947.6 | 16,061.5 |
| 2035..... | 18,435.2 | 4,366.1 | 3,370.1 | 3,810.9 | 18,761.7 |
| 2040..... | 21,455.7 | 5,477.0 | 4,319.6 | 4,814.7 | 21,825.2 |
| 2045..... | 25,097.9 | 6,888.3 | 5,537.1 | 6,115.2 | 25,496.0 |
| 2050..... | 29,185.0 | 8,663.7 | 7,098.1 | 7,839.2 | 29,528.8 |
| 2055..... | 33,514.6 | 10,906.8 | 9,116.9 | 10,052.9 | 33,751.2 |
| 2060..... | 37,970.0 | 13,736.9 | 11,720.3 | 12,894.5 | 38,018.7 |
| Alternative II-B: | | | | | |
| 1985..... | \$46.4 | \$199.5 | \$197.3 | \$193.2 | \$35.6 |
| 1986..... | 50.5 | 216.4 | 213.3 | 204.5 | 42.4 |
| 1987..... | 58.5 | 235.0 | 230.6 | 220.0 | 51.8 |
| 1988..... | 72.2 | 270.1 | 263.2 | 237.0 | 84.9 |
| 1989..... | 105.1 | 296.3 | 285.7 | 254.5 | 126.8 |
| 1990..... | 148.8 | 328.3 | 313.5 | 273.1 | 181.9 |
| 1991..... | 205.4 | 353.0 | 334.0 | 290.7 | 244.3 |
| 1992..... | 269.1 | 379.8 | 356.5 | 309.3 | 314.7 |
| 1993..... | 340.9 | 407.5 | 379.6 | 328.9 | 393.3 |
| 1994..... | 421.4 | 439.0 | 406.3 | 349.6 | 482.7 |
| 1995..... | 512.6 | 469.6 | 432.2 | 368.1 | 584.2 |
| 2000..... | 1,202.0 | 686.1 | 582.9 | 473.2 | 1,353.9 |
| 2005..... | 2,409.8 | 953.2 | 806.3 | 640.2 | 2,666.8 |
| 2010..... | 4,236.6 | 1,333.8 | 1,077.4 | 904.3 | 4,591.6 |
| 2015..... | 6,557.5 | 1,815.1 | 1,422.0 | 1,324.1 | 6,950.7 |
| 2020..... | 9,012.7 | 2,397.8 | 1,863.9 | 1,945.1 | 9,338.0 |
| 2025..... | 11,053.1 | 3,085.5 | 2,439.6 | 2,790.2 | 11,192.8 |
| 2030..... | 12,114.7 | 3,897.3 | 3,200.7 | 3,840.7 | 11,954.9 |
| 2035..... | 11,931.7 | 4,879.6 | 4,208.3 | 5,098.7 | 11,428.7 |
| 2040..... | 10,326.9 | 6,084.1 | 5,524.6 | 6,611.8 | 9,426.9 |
| 2045..... | 6,947.5 | 7,588.0 | 7,252.9 | 8,505.6 | 5,441.6 |
| 2050..... | 483.9 | 9,435.6 | 9,520.6 | 11,290.2 | -2,011.5 |
| 2055..... | -10,886.6 | 11,708.5 | 12,520.6 | 14,817.8 | -14,848.7 |
| 2060..... | -29,594.9 | 14,487.3 | 16,462.1 | 19,459.0 | -35,676.3 |
| Alternative III: | | | | | |
| 1985..... | 46.4 | 195.8 | 193.6 | 193.7 | 31.4 |
| 1986..... | 45.6 | 205.9 | 204.0 | 207.6 | 29.3 |
| 1987..... | 44.7 | 224.2 | 222.5 | 226.0 | 27.5 |
| 1988..... | 45.2 | 255.2 | 252.8 | 242.8 | 35.3 |
| 1989..... | 54.1 | 270.9 | 267.4 | 262.1 | 38.4 |
| 1990..... | 58.9 | 300.5 | 295.8 | 282.8 | 56.0 |
| 1991..... | 78.3 | 325.6 | 319.2 | 302.1 | 79.5 |
| 1992..... | 103.4 | 353.4 | 345.0 | 324.0 | 108.8 |
| 1993..... | 134.2 | 381.8 | 371.3 | 347.6 | 143.1 |
| 1994..... | 170.6 | 413.4 | 400.4 | 375.2 | 181.3 |
| 1995..... | 210.7 | 442.2 | 426.9 | 398.6 | 224.8 |
| 2000..... | 530.7 | 624.9 | 592.0 | 533.8 | 581.0 |
| 2005..... | 1,093.3 | 884.6 | 815.9 | 749.1 | 1,172.7 |
| 2010..... | 1,807.8 | 1,216.2 | 1,104.2 | 1,090.7 | 1,857.7 |
| 2015..... | 2,211.3 | 1,599.9 | 1,470.0 | 1,637.6 | 2,073.6 |
| 2020..... | 1,310.9 | 1,991.8 | 1,936.7 | 2,468.5 | 703.5 |
| 2025..... | -2,547.9 | 2,314.6 | 2,537.0 | 3,648.5 | -4,051.3 |
| 2030..... | -11,728.4 | 2,461.3 | 3,318.5 | 5,187.5 | -14,674.4 |
| 2035..... | -29,162.4 | 2,296.1 | 4,338.0 | 7,130.0 | -34,281.6 |
| 2040..... | -59,049.2 | 1,588.0 | 5,642.6 | 9,576.8 | -67,407.4 |
| 2045..... | -107,774.2 | -3.0 | 7,321.5 | 12,867.4 | -121,121.2 |
| 2050..... | -185,787.7 | -3,073.3 | 9,473.1 | 17,301.4 | -206,776.6 |
| 2055..... | -307,953.5 | -8,430.5 | 12,267.3 | 23,029.9 | -340,207.0 |
| 2060..... | -495,037.4 | -17,253.7 | 15,897.9 | 30,426.6 | -543,743.5 |

¹Assets at the beginning of the calendar year are the total monies in the OASI and DI Trust Funds at that time, including advance tax transfers for January and amounts owed to the Hospital Insurance Trust Fund. Assets at the end of the calendar year include amounts owed to the HI Trust Fund. Both columns reflect interfund borrowing transfers which are not included in either total income or outgo. Such interfund borrowing transfers will not occur after all amounts owed are repaid. This is estimated to occur in 1987, based on alternatives I, II-A, and II-B, and in 1989, based on alternative III.

²Total income consists of contributions, income from taxation of benefits, reimbursements from the general fund of the Treasury for the costs associated with the special

payments to certain uninsured persons who attained age 72 before 1968 and also have fewer than three quarters of coverage, and interest income.

³Outgo consists of benefit payments, administrative expenses, net transfers from the OASI and DI Trust Funds to the Railroad Retirement Account under the financial-interchange provisions, payments for vocational rehabilitation services for disabled beneficiaries, and special monthly payments to certain uninsured persons who either attained age 72 before 1968 or who attained age 72 after 1967 and have at least three quarters of coverage for each year after 1966 and before the year of attainment of age 72.

Table 2 shows these economic variables or functions thereof. The form of these tables is similar to that of the tables on trust fund operations, in order to facilitate constant-dollar calculations that may be of interest to

economists and financial analysts. It is left to the individual analyst to decide which index to use to accomplish his or her particular purpose.

Table 2.—Selected Economic Variables for 1984-2060 by Alternative
[GNP and taxable payroll in billions]

| Calendar year | Adjusted CPI ¹ | Average wage ² | Taxable payroll ³ | Gross national product | Compound interest-rate factor ⁴ |
|--------------------------|---------------------------|---------------------------|------------------------------|------------------------|--|
| Alternative I: | | | | | |
| 1984..... | 96.86 | \$16,064 | \$1,604 | \$3,661 | 0.8857 |
| 1985..... | 100.00 | 16,649 | 1,719 | 3,919 | 1.0000 |
| 1986..... | 103.50 | 17,505 | 1,843 | 4,225 | 1.1158 |
| 1987..... | 107.29 | 18,464 | 2,001 | 4,556 | 1.2407 |
| 1988..... | 111.02 | 19,455 | 2,148 | 4,903 | 1.3732 |
| 1989..... | 114.46 | 20,538 | 2,302 | 5,251 | 1.5107 |
| 1990..... | 117.55 | 21,534 | 2,440 | 5,567 | 1.6509 |
| 1991..... | 120.25 | 22,470 | 2,555 | 5,871 | 1.7904 |
| 1992..... | 122.69 | 23,428 | 2,714 | 6,176 | 1.9270 |
| 1993..... | 125.14 | 24,436 | 2,836 | 6,494 | 2.0619 |
| 1994..... | 127.64 | 25,519 | 3,005 | 6,830 | 2.1969 |
| 1995..... | 130.19 | 26,667 | 3,185 | 7,226 | 2.3325 |
| 2000..... | 143.75 | 33,216 | 4,269 | 9,648 | 3.0449 |
| 2005..... | 158.71 | 41,374 | 5,613 | 12,663 | 3.8973 |
| 2010..... | 175.23 | 51,534 | 7,195 | 16,245 | 4.9882 |
| 2015..... | 193.46 | 64,191 | 9,124 | 20,662 | 6.3846 |
| 2020..... | 213.60 | 79,955 | 11,509 | 26,189 | 8.1719 |
| 2025..... | 235.83 | 99,591 | 14,546 | 33,260 | 10.4594 |
| 2030..... | 260.38 | 124,049 | 18,502 | 42,509 | 13.3874 |
| 2035..... | 287.48 | 154,513 | 23,670 | 54,644 | 17.1349 |
| 2040..... | 317.40 | 192,459 | 30,327 | 70,349 | 21.9315 |
| 2045..... | 350.43 | 239,725 | 38,902 | 90,671 | 28.0709 |
| 2050..... | 386.90 | 298,598 | 49,984 | 117,056 | 35.9288 |
| 2055..... | 427.17 | 371,929 | 64,337 | 151,388 | 45.9864 |
| 2060..... | 471.63 | 463,270 | 82,853 | 195,886 | 58.8595 |
| Alternative II-A: | | | | | |
| 1984..... | 96.52 | 16,031 | 1,601 | 3,661 | .8857 |
| 1985..... | 100.00 | 16,643 | 1,718 | 3,925 | 1.0000 |
| 1986..... | 104.09 | 17,542 | 1,861 | 4,240 | 1.1167 |
| 1987..... | 108.43 | 18,529 | 2,003 | 4,573 | 1.2448 |
| 1988..... | 112.74 | 19,548 | 2,152 | 4,920 | 1.3829 |
| 1989..... | 116.80 | 20,640 | 2,304 | 5,254 | 1.5276 |
| 1990..... | 120.54 | 21,681 | 2,440 | 5,577 | 1.6767 |
| 1991..... | 124.16 | 22,713 | 2,588 | 5,907 | 1.8271 |
| 1992..... | 127.89 | 23,833 | 2,739 | 6,254 | 1.9765 |
| 1993..... | 131.73 | 25,006 | 2,898 | 6,622 | 2.1262 |
| 1994..... | 135.68 | 26,232 | 3,065 | 7,012 | 2.2780 |
| 1995..... | 139.75 | 27,557 | 3,255 | 7,456 | 2.4316 |
| 2000..... | 162.01 | 35,153 | 4,400 | 10,086 | 3.2558 |
| 2005..... | 187.81 | 44,844 | 5,856 | 13,464 | 4.2703 |
| 2010..... | 217.72 | 57,206 | 7,617 | 17,609 | 5.6010 |
| 2015..... | 252.40 | 72,977 | 9,766 | 22,753 | 7.3463 |
| 2020..... | 292.60 | 93,094 | 12,421 | 29,217 | 9.6355 |
| 2025..... | 339.20 | 118,758 | 15,781 | 37,478 | 12.6381 |
| 2030..... | 393.23 | 151,497 | 20,136 | 48,277 | 16.5783 |
| 2035..... | 455.86 | 193,260 | 25,799 | 62,446 | 21.7416 |
| 2040..... | 528.47 | 246,537 | 33,041 | 80,740 | 28.5166 |
| 2045..... | 612.64 | 314,501 | 42,310 | 104,375 | 37.4027 |
| 2050..... | 710.22 | 401,201 | 54,236 | 135,073 | 49.0579 |
| 2055..... | 823.34 | 511,801 | 69,668 | 175,156 | 64.3449 |
| 2060..... | 954.47 | 652,891 | 89,572 | 227,339 | 84.3956 |
| Alternative II-B: | | | | | |
| 1984..... | 96.28 | \$15,993 | \$1,597 | \$3,661 | 0.8857 |
| 1985..... | 100.00 | 16,595 | 1,711 | 3,910 | 1.0000 |
| 1986..... | 104.75 | 17,491 | 1,844 | 4,206 | 1.1176 |
| 1987..... | 110.31 | 18,591 | 1,991 | 4,561 | 1.2475 |
| 1988..... | 115.83 | 19,715 | 2,147 | 4,933 | 1.3905 |
| 1989..... | 121.15 | 20,942 | 2,314 | 5,307 | 1.5449 |
| 1990..... | 126.25 | 22,135 | 2,467 | 5,669 | 1.7089 |
| 1991..... | 131.30 | 23,336 | 2,633 | 6,044 | 1.8786 |
| 1992..... | 136.55 | 24,653 | 2,805 | 6,443 | 2.0506 |
| 1993..... | 142.02 | 26,038 | 2,986 | 6,868 | 2.2260 |
| 1994..... | 147.70 | 27,497 | 3,179 | 7,321 | 2.4052 |
| 1995..... | 153.60 | 29,007 | 3,390 | 7,816 | 2.5871 |
| 2000..... | 186.88 | 37,875 | 4,655 | 10,791 | 3.5668 |
| 2005..... | 227.37 | 49,454 | 6,323 | 14,773 | 4.7913 |
| 2010..... | 276.63 | 64,573 | 8,421 | 19,878 | 6.4360 |
| 2015..... | 336.57 | 84,315 | 11,055 | 26,423 | 8.6454 |
| 2020..... | 409.48 | 110,091 | 14,396 | 34,904 | 11.6132 |
| 2025..... | 498.20 | 143,749 | 18,725 | 46,053 | 15.5999 |
| 2030..... | 606.14 | 187,696 | 24,600 | 61,021 | 20.9550 |
| 2035..... | 737.46 | 245,078 | 32,088 | 81,198 | 28.1485 |
| 2040..... | 897.23 | 320,004 | 42,085 | 108,017 | 37.8115 |
| 2045..... | 1,091.62 | 417,836 | 55,187 | 143,669 | 50.7915 |
| 2050..... | 1,328.12 | 545,578 | 72,443 | 191,283 | 68.2274 |
| 2055..... | 1,615.86 | 712,373 | 95,282 | 255,174 | 91.6487 |
| 2060..... | 1,965.94 | 930,160 | 125,446 | 340,738 | 123.1101 |
| Alternative III: | | | | | |
| 1984..... | 95.46 | 15,918 | 1,591 | 3,661 | .8857 |
| 1985..... | 100.00 | 16,427 | 1,681 | 3,849 | 1.0000 |
| 1986..... | 105.88 | 17,141 | 1,761 | 4,074 | 1.1186 |
| 1987..... | 111.30 | 18,325 | 1,923 | 4,466 | 1.2522 |
| 1988..... | 117.32 | 19,266 | 2,056 | 4,780 | 1.4059 |
| 1989..... | 124.29 | 20,179 | 2,158 | 5,029 | 1.5851 |
| 1990..... | 130.05 | 21,632 | 2,328 | 5,472 | 1.7949 |
| 1991..... | 136.31 | 22,937 | 2,509 | 5,888 | 2.0141 |
| 1992..... | 143.12 | 24,408 | 2,710 | 6,336 | 2.2362 |
| 1993..... | 150.28 | 25,948 | 2,914 | 6,801 | 2.4604 |
| 1994..... | 157.79 | 27,552 | 3,124 | 7,277 | 2.6867 |
| 1995..... | 165.68 | 29,207 | 3,338 | 7,792 | 2.9155 |
| 2000..... | 211.45 | 39,049 | 4,629 | 10,916 | 4.1467 |
| 2005..... | 269.87 | 52,207 | 6,367 | 15,202 | 5.7014 |
| 2010..... | 344.43 | 69,799 | 8,578 | 20,794 | 7.8390 |
| 2015..... | 439.59 | 93,319 | 11,338 | 27,961 | 10.7780 |
| 2020..... | 561.05 | 124,765 | 14,801 | 37,202 | 14.8188 |
| 2025..... | 716.05 | 166,727 | 19,203 | 49,189 | 20.3746 |
| 2030..... | 913.89 | 222,803 | 24,910 | 65,030 | 28.0134 |
| 2035..... | 1,166.38 | 297,739 | 32,356 | 86,081 | 38.5162 |
| 2040..... | 1,488.62 | 397,878 | 41,866 | 113,504 | 52.9566 |
| 2045..... | 1,899.90 | 531,697 | 54,008 | 149,211 | 72.8109 |
| 2050..... | 2,424.81 | 710,525 | 69,612 | 195,974 | 100.1090 |
| 2055..... | 3,094.74 | 949,498 | 89,889 | 257,864 | 137.6416 |
| 2060..... | 3,949.76 | 1,268,845 | 116,255 | 339,819 | 189.2459 |

¹The CPI used to adjust OASDI benefits is the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), as defined by the Bureau of Labor Statistics (BLS), Department of Labor. The values shown are adjusted by dividing the average of the twelve monthly values of the CPI-W by the analogous value for 1985, and multiplying the result by 100, thereby initializing the CPI-W at 100 for 1985.

²Average wage is the average annual amount of total wages; it is used in the calculations of initial benefits and the automatic adjustment of the contribution and benefit base and other wage-indexed program amounts.

³Taxable payroll consists of total earnings subject to OASDI contribution rates, adjusted to include deemed wages based on military service and to reflect the lower effective contribution rates (compared to the combined employee-employer rate) which apply to tips and multiple-employer "excess wages."

⁴The compound interest-rate factor is based on the effective semiannual interest rates which yield the net interest income estimated on the basis of each alternative. Each can be used to convert dollar values between July 1, 1985, and July 1 of the year shown.

Appendix

This appendix presents OASDI and HI tax income and outgo as estimated based on the four alternatives. The estimates shown are more limited than the OASDI estimates shown in the main part of this note because more detailed 75-year HI estimates are not available. One reason for this unavailability of long-range HI estimates is that, for most parameters, the standard HI projection period is 25 years. In addition, negative assets are not estimated for the HI program. Therefore, for example, because the HI Trust Fund is estimated to be exhausted in 1998 based on alternative II-B, estimated combined assets for OASDI and HI thereafter are unavailable. Consequently, because estimates of assets

are available for only such a limited number of years, they have been omitted from this presentation. Similarly, because estimates of negative income are unavailable, estimates of net interest income have been omitted.

The following table shows the tax income and outgo estimated based on the four alternatives for the OASDI, HI, and combined OASDI and HI programs. These items are defined in the footnotes to the table. The form of this table is similar to that of table 2 in the main part of this note in order to facilitate constant-dollar calculations that may be of interest to economists and financial analysts.

Appendix Table.—Estimated OASDI, HI, and Combined OASDI and HI Tax Income and Outgo by Alternative, Calendar Years 1985-2055

[In billions]

| Calendar year | OASDI | | HI | | OASDI and HI | |
|--------------------------|-------------------------|--------------------|-------------------------|--------------------|--------------|----------|
| | Tax income ¹ | Outgo ² | Tax income ³ | Outgo ⁴ | Tax income | Outgo |
| Alternative I: | | | | | | |
| 1985..... | \$198.7 | \$192.5 | \$48.5 | \$47.7 | \$247.2 | \$240.2 |
| 1986..... | 213.2 | 196.7 | 55.5 | 49.9 | 268.7 | 246.6 |
| 1987..... | 231.3 | 214.5 | 60.1 | 54.2 | 291.4 | 268.7 |
| 1988..... | 263.1 | 227.2 | 64.4 | 59.1 | 327.5 | 286.3 |
| 1989..... | 284.0 | 240.3 | 68.9 | 63.8 | 352.9 | 304.1 |
| 1990..... | 309.8 | 254.2 | 72.9 | 68.8 | 382.7 | 323.0 |
| 1991..... | 324.0 | 260.3 | 76.2 | 73.5 | 400.2 | 333.8 |
| 1992..... | 344.1 | 279.4 | 80.8 | 78.6 | 424.9 | 358.0 |
| 1993..... | 360.2 | 286.5 | 84.3 | 83.4 | 444.5 | 369.9 |
| 1994..... | 383.0 | 304.9 | 89.2 | 88.8 | 472.2 | 393.7 |
| 1995..... | 404.5 | 309.1 | 94.3 | 94.5 | 498.8 | 403.6 |
| 2000..... | 541.3 | 371.5 | 126.0 | 126.6 | 667.3 | 498.1 |
| 2005..... | 711.7 | 467.2 | 165.2 | 163.5 | 876.9 | 630.7 |
| 2010..... | 914.4 | 622.7 | 211.5 | 206.6 | 1,125.9 | 829.3 |
| 2015..... | 1,164.2 | 869.0 | 268.0 | 265.6 | 1,432.2 | 1,134.6 |
| 2020..... | 1,475.5 | 1,218.1 | 338.1 | 353.0 | 1,813.6 | 1,571.1 |
| 2025..... | 1,872.4 | 1,661.1 | 427.3 | 483.6 | 2,299.7 | 2,144.7 |
| 2030..... | 2,386.9 | 2,168.4 | 543.6 | 663.7 | 2,930.5 | 2,832.1 |
| 2035..... | 3,054.8 | 2,725.4 | 695.4 | 894.2 | 3,750.2 | 3,619.6 |
| 2040..... | 3,911.7 | 3,348.8 | 891.0 | 1,176.4 | 4,802.7 | 4,525.2 |
| 2045..... | 5,016.0 | 4,149.0 | 1,142.9 | 1,520.5 | 6,158.9 | 5,669.5 |
| 2050..... | 6,439.2 | 5,215.9 | 1,468.5 | 1,956.1 | 7,907.7 | 7,172.0 |
| 2055..... | 8,282.9 | 6,607.9 | 1,890.2 | 2,508.7 | 10,173.1 | 9,116.6 |
| Alternative II-A: | | | | | | |
| 1985..... | 198.3 | 193.2 | 48.4 | 47.7 | 246.7 | 240.9 |
| 1986..... | 215.1 | 204.0 | 56.1 | 50.1 | 271.2 | 254.1 |
| 1987..... | 231.9 | 217.8 | 60.2 | 55.0 | 292.1 | 272.8 |
| 1988..... | 263.7 | 232.2 | 64.5 | 60.7 | 328.2 | 292.9 |
| 1989..... | 284.4 | 247.2 | 68.9 | 66.6 | 353.3 | 313.8 |
| 1990..... | 309.9 | 263.2 | 72.9 | 73.0 | 382.8 | 336.2 |
| 1991..... | 328.1 | 278.0 | 77.1 | 79.8 | 405.2 | 357.8 |
| 1992..... | 347.9 | 293.4 | 81.5 | 86.9 | 429.4 | 380.3 |
| 1993..... | 368.1 | 309.7 | 86.1 | 94.3 | 454.2 | 404.0 |
| 1994..... | 391.5 | 326.8 | 90.9 | 102.2 | 482.4 | 429.0 |
| 1995..... | 414.5 | 341.4 | 96.4 | 110.7 | 510.9 | 452.1 |
| 2000..... | 559.5 | 422.9 | 129.8 | 160.9 | 689.3 | 583.8 |
| 2005..... | 745.3 | 555.1 | 172.3 | 227.2 | 917.6 | 782.3 |
| 2010..... | 972.4 | 764.3 | 223.9 | 316.7 | 1,196.3 | 1,081.0 |
| 2015..... | 1,253.1 | 1,093.7 | 286.8 | 449.7 | 1,539.9 | 1,543.4 |
| 2020..... | 1,603.6 | 1,570.0 | 364.8 | 644.8 | 1,968.4 | 2,214.8 |
| 2025..... | 2,049.4 | 2,197.5 | 463.5 | 929.8 | 2,512.9 | 3,127.3 |
| 2030..... | 2,625.2 | 2,947.6 | 591.4 | 1,312.3 | 3,216.6 | 4,259.9 |
| 2035..... | 3,370.1 | 3,810.9 | 757.8 | 1,781.0 | 4,127.9 | 5,591.9 |
| 2040..... | 4,319.6 | 4,814.7 | 970.5 | 2,342.2 | 5,290.1 | 7,156.9 |
| 2045..... | 5,537.1 | 6,115.2 | 1,242.8 | 3,021.6 | 6,779.9 | 9,136.8 |
| 2050..... | 7,098.1 | 7,839.2 | 1,593.1 | 3,877.9 | 8,691.2 | 11,717.1 |
| 2055..... | 9,116.9 | 10,052.9 | 2,046.4 | 4,964.4 | 11,163.3 | 15,017.3 |
| Alternative II-B: | | | | | | |
| 1985..... | \$197.2 | \$193.2 | \$48.2 | \$47.7 | \$245.4 | \$240.9 |
| 1986..... | 213.2 | 204.5 | 55.6 | 50.2 | 268.8 | 254.7 |
| 1987..... | 230.5 | 220.0 | 59.8 | 55.5 | 290.3 | 275.5 |
| 1988..... | 263.2 | 237.0 | 64.4 | 61.7 | 327.6 | 298.7 |
| 1989..... | 285.6 | 254.5 | 69.2 | 68.2 | 354.8 | 322.7 |
| 1990..... | 313.5 | 273.1 | 73.7 | 75.4 | 387.2 | 348.5 |
| 1991..... | 334.0 | 290.7 | 78.5 | 83.2 | 412.5 | 373.9 |
| 1992..... | 356.4 | 309.3 | 83.4 | 91.3 | 439.8 | 400.6 |
| 1993..... | 379.6 | 328.9 | 88.7 | 99.9 | 468.3 | 428.8 |
| 1994..... | 406.3 | 349.6 | 94.3 | 109.2 | 500.6 | 458.8 |
| 1995..... | 432.2 | 368.1 | 100.4 | 119.1 | 532.6 | 487.2 |
| 2000..... | 592.9 | 473.2 | 137.3 | 179.5 | 730.2 | 652.7 |
| 2005..... | 806.3 | 640.2 | 186.1 | 262.3 | 992.4 | 902.5 |
| 2010..... | 1,077.4 | 904.3 | 247.5 | 377.4 | 1,324.9 | 1,281.7 |
| 2015..... | 1,422.0 | 1,324.1 | 324.7 | 548.9 | 1,746.7 | 1,873.0 |
| 2020..... | 1,863.9 | 1,945.1 | 422.8 | 805.9 | 2,286.7 | 2,751.0 |
| 2025..... | 2,439.6 | 2,790.2 | 550.0 | 1,189.8 | 2,989.6 | 3,980.0 |
| 2030..... | 3,200.7 | 3,840.7 | 718.5 | 1,720.1 | 3,919.2 | 5,560.8 |
| 2035..... | 4,208.3 | 5,098.7 | 942.6 | 2,390.5 | 5,150.9 | 7,489.2 |
| 2040..... | 5,524.6 | 6,611.8 | 1,236.2 | 3,219.8 | 6,760.8 | 9,831.6 |
| 2045..... | 7,252.9 | 8,605.6 | 1,621.2 | 4,253.6 | 8,874.1 | 12,859.2 |
| 2050..... | 9,520.6 | 11,290.2 | 2,128.2 | 5,590.5 | 11,648.8 | 16,880.7 |
| 2055..... | 12,520.6 | 14,817.8 | 2,799.2 | 7,328.1 | 15,319.8 | 22,145.9 |
| Alternative III: | | | | | | |
| 1985..... | 193.5 | 193.7 | 47.4 | 48.2 | 240.9 | 241.9 |
| 1986..... | 203.9 | 207.6 | 53.2 | 52.4 | 257.1 | 260.0 |
| 1987..... | 222.5 | 226.0 | 57.9 | 59.0 | 280.4 | 285.0 |
| 1988..... | 252.8 | 242.8 | 61.7 | 66.3 | 314.5 | 309.1 |
| 1989..... | 267.4 | 262.1 | 64.7 | 73.5 | 335.1 | 335.6 |
| 1990..... | 295.8 | 282.8 | 69.6 | 83.0 | 362.4 | 365.8 |
| 1991..... | 319.1 | 302.1 | 74.8 | 94.1 | 393.9 | 396.2 |
| 1992..... | 345.0 | 324.0 | 80.7 | 106.3 | 425.7 | 430.3 |
| 1993..... | 371.3 | 347.6 | 86.6 | 119.5 | 457.9 | 467.1 |
| 1994..... | 400.4 | 375.2 | 92.7 | 133.6 | 493.1 | 508.8 |
| 1995..... | 426.9 | 398.6 | 98.9 | 148.8 | 525.8 | 547.4 |
| 2000..... | 592.0 | 533.8 | 137.3 | 248.5 | 729.3 | 782.3 |
| 2005..... | 815.9 | 749.1 | 189.3 | 404.1 | 1,005.2 | 1,153.2 |
| 2010..... | 1,104.2 | 1,090.7 | 255.9 | 649.2 | 1,360.1 | 1,739.9 |
| 2015..... | 1,470.0 | 1,637.6 | 339.6 | 1,042.0 | 1,809.6 | 2,679.6 |
| 2020..... | 1,936.7 | 2,468.5 | 445.4 | 1,647.1 | 2,382.1 | 4,115.6 |
| 2025..... | 2,537.0 | 3,648.5 | 580.7 | 2,551.3 | 3,117.7 | 6,199.8 |
| 2030..... | 3,318.5 | 5,187.5 | 756.8 | 3,772.4 | 4,075.3 | 8,959.9 |
| 2035..... | 4,338.0 | 7,130.0 | 987.7 | 5,246.9 | 5,325.7 | 12,376.9 |
| 2040..... | 5,642.6 | 9,576.8 | 1,284.1 | 7,004.5 | 6,926.7 | 16,581.3 |
| 2045..... | 7,321.5 | 12,867.4 | 1,664.4 | 9,147.4 | 8,985.9 | 22,014.8 |
| 2050..... | 9,473.1 | 17,301.4 | 2,155.5 | 11,860.4 | 11,628.6 | 29,161.8 |
| 2055..... | 12,267.3 | 23,029.9 | 2,796.6 | 15,335.3 | 15,063.9 | 38,365.2 |

¹OASDI tax income consists of net OASDI contributions and income from taxation of benefits, on a cash basis.

²OASDI outgo consists of benefit payments, administrative expenses, net transfers from the OASI and DI Trust Funds to the Railroad Retirement Account under the financial-interchange provisions, payments for vocational rehabilitation services for disabled beneficiaries, and special monthly payments to certain uninsured persons who either attained age 72 before 1968 or who attained age 72 after 1967 and have at least three quarters of

coverage for each year after 1966 and before the year of attainment of age 72. The OASDI outgo is on a cash basis.

³HI tax income consists of HI contributions (including contributions from railroad employment) and payments from the general fund of the Treasury for contributions on deemed wage credits for military service. The HI income is on an incurred basis.

⁴HI outgo consists of HI outlays for insured beneficiaries and administrative expenses. The HI outgo is on an incurred basis.