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## ESTIMATED AMOUNT OF LIFE INSURANCE IN FORCE AS SURVIVOR BENEFITS UNDER THE SOCIAL SECURITY PROGRAM

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This Actuarial Note presents a historical series of data in regard to the estimated amount of life insurance in force as survivor benefits under the Social Security system.

Such amount of life insurance in force as survivor benefits is defined as the total for all insured workers of (a) the lump-sum death payments and (b) the present value, at a specified interest rate, of the monthly survivor benefits available if death of the insured workers occurred at that particular time. In other words, the concept represents the total life insurance protection currently available to all insured workers, as distinct from the total liability that will be entered into, on their behalf, in any given year. This is similar to the concept in private life insurance of totaling up the face amounts of all policies in force, even though it is obviously recognized that by no means all insured persons will die at any one moment of time (or even within any particular year).

The estimates presented here are "net" estimates in the sense that the amounts of insurance are adjusted to allow for the effect of employment by survivor beneficiaries on the benefits payable to them and to allow for possible "forfeiture" of part or all of the benefits payable to widows in cases where they have earned old-age benefits in their own right (i.e., based on their own earnings credits). For further details on this subject, see *Actuarial Study No. 54*.

The accompanying table presents a historical series of figures as to the amount of life insurance in force as survivor benefits under the Social Security Act from 1940 up to the present time. The interest-rate basis was 3% for all valuation dates from 1940 through 1965 and 3½% subsequently. It will be noted that,

the higher the interest rate, the lower is the amount of insurance in force (because of the greater discounting of future payments). This difference of ½% has a relatively small effect—namely, a reduction of about 5%.

In an analysis such as this, it is quite proper to use an interest rate in the neighborhood of 3%, as representing a "real" interest rate—i.e., substantially on a net basis after taking into account the inflation element. Or, to put it another way, a relatively low interest rate (considering the high interest rates currently), in essence, takes into account, and counterbalances, any possible future benefit increases that may be made due to general price and wage inflation.

The amount of life insurance in force as survivor benefits under the Social Security program increased from only about \$40 billion in 1940 to about \$190 billion in 1951 and then to about \$680 billion in 1966. There was a sharp increase in the amount of such life insurance in force as a result of the 1967 Act, under which survivor benefits were made available to female insured workers on a much more liberal basis (by requiring only the same insured-status conditions as for men, instead of requiring either proof of dependency or recent attachment to covered employment). At present, the amount of such life insurance in force is about \$1,100 billion, or \$1.1 trillion.

It may be of interest to make a comparison of life insurance in force as survivor benefits under the Social Security program with life insurance in force in private insurance companies. Such a comparison is not entirely valid (because of the numerous variable factors affecting benefit receipt under the Social Security program) or meaningful (because

of the different natures of the types of insurance—e.g., most of the survivor insurance under the Social Security program is on young lives, who have relatively small probabilities of death, whereas under private insurance much of the protection is on middle-aged and older lives).

In any event, keeping in mind these differences and qualifications, it is interesting to note that, over the years, the amount of life insurance in force as survivor benefits under the Social Security program has closely paralleled the life insurance in force in private insurance companies in the United States.

For example, at the end of 1969, private insurance in force amounted to \$1.3 trillion, as compared with \$1.1 trillion of survivor insurance under Social Security. At the beginning of 1960, the corresponding figures were \$542 billion for private insurance and \$503 billion under Social Security, while at the beginning of 1951 (after the 1950 Act had updated the Social Security program), the corresponding figures were \$234 billion for private insurance and \$170 billion under Social Security. In 1940, the comparison was not quite as close—namely, about \$112 billion under private insurance and \$37 billion under Social Security.

ESTIMATED AMOUNT OF LIFE INSURANCE IN FORCE AS  
SURVIVOR BENEFITS UNDER THE SOCIAL SECURITY ACT,  
AS OF BEGINNING OF YEAR  
(in billions)

Year	Act Valued	Interest Rate	Amount of Insurance
1940	1939	3%	\$37
1946	1939	3%	54
1951	1950	3%	170
1953	1952	3%	298
1955	1954	3%	345
1957	1956	3%	416
1959	1958	3%	460
1960	1958	3%	503
1961	1958	3%	520
1961	1960	3%	547
1962	1960	3%	558
1962	1961	3%	585
1963	1961	3%	603
1964	1961	3%	618
1965	1961	3%	630
1966	1961	3%	685
1966	1961	3½%	655
1966	1965	3½%	700
1967	1965	3½%	720
1968	1965	3½%	740
1968	1967	3½%	930
1969	1967	3½%	950
1970	1967	3½%	980
1970	1969	3½%	1,100