## SSS GROUP MORTGAGE REDEMPTION INSURANCE

By

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In the past five years, the number of SSS home mortgagors who inguired about life insurance to cover their mortgages have increased considerably. To a very large extent these inquiries were requests that the System afford its mortgagors eronomical group life insurance not dissimilar to the GSIS plan. In answer to insistent requests and to fill a need of its home mortgagors, the System, after a number of studies and long consideration, designed the SSS Oroup Mortgage Redemption Insurance Plan.

## Plan of Insurance

## Insurance Benefit

The amount of insurance is written on a reducing term basis and is equal at any time to a predetermined balance due on the morgage loan. Upon proof of death, the insurers are to pay the creditor, for the account of the deceased debtor, the lesser of his insured or debit balance, and to his estate, any excess of the insured over the debit balance. If the debtor lives to pay the mortgage and survives the term of insurance, his coverage is terminated and no payment is made either to him or his creditor.

Term of Insurance
Compulsory insurance protection begins as soon as the mortgage loan is amortized. Voluntary insurance protection begins after receipt of the application on a day designated by the System. Either protection terminates at the end of the term of the loan or the prior death of the insured debtor.

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## Premium Payment

A single premium to pay in full the cost of insurance is remitted by the System to the insurers as an additional loan to the mortgagor. This is added to the mortgage loan and the sum is amortized in the usual way for the remaining term of the loan.

## Non-forfeiture Option

The insurance protection is fully paid-up by a single premium advanced by the System to the insurers. No other non-forfeiture option is available. Therefore, if for any reason the mortgage is later paid, transferred. sold or foreclosed before the end of the term, the insurance on the life of the original debtor is not affected and the same provisions as of the beginning date of insurance are binding.

Eligegibility Requirement
A member who has his home mortgaged to the System is eligible for coverage under the Plan. This coverage is compulsory prospectively from the effectivity of the Policy for a mortgagor who is not over age 60 on his nearest birthday at the time of approval of the mortgage loan, and voluntary otherwise. Only one person is insured under each loan and where there is more than one signer of the loan instrument, as is the usual case of husband and wife or children and parent co-signers, the Insured is designated by the applicants.

## Evidence of Insurability

No evidence of insurability is required of a mortgagor who voluntarily enrolls for coverage within 90 days from the effective date of the Policy or of a compulsorily covered mortgagor. A mortgagor who is over age 60 on his nearest birthday at the time of approval of his loan or who voluntarily applies for coverage after 90 days from the effectivity of the Policy is required to submit evidence of insurability satifactory to the

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insurers. Such proof of insurability may be a statement of health with the insurers retaining the right to require a full medical examination if it is considered necessary.

Reserves for Future Obligations
To guarantee the payment of future obligations the insurers are required to set up each year the necessary reserves to guarantee the payment of future obligations. The appropriate share of these reserves are recorded in the respective Annual Statements of the insurers for submission to the Office of the Insurance Commissioner. Because the computations are carried out by the System without costs, the insurers are relieved of much work and the insured mortgagor is given the benefit of the savings.

## Actuarial Basis

## Premium

The single premium to pay in full the cost of insurance is based on the 1941 CSO Mcrtality Table at 3-1/2 interest and a loading of $10 \%$ of the gross premium. As an additional loan, the single premium is payable by equal monthly installments for the unexpired term of the mortgage loan. Schedules of these single premiums per P 1000 of mortgage loan are shown in Table 1 for a $6 \%$ loan and Table 2 for an $8 \%$ loan.

Benefit
The amount of insurance at risk is equal to the outstanding indebtedness of the loan assuming that the monthly amortizations are paid regularly on time. Schedules of decreasing insurance per $\mathbf{P} 1000$ of initial amount of insurance for terms of 5,10 and 15 years are shown respectively in Tables 1 -a, 1-b and 1 -c for a $6 \%$ loan and Tables 2-a, 2-b and $2-\mathrm{c}$ for an $8 \%$ loan.

Reserves
The reserves to be set up annually by the insuress to guarantee the payment of future obligations are based on the 1941 CSO Table of Mortality with annual interest at the effective rate of $3-1 / 2 \%$.

## Formulae

The formulas used to compute the single premium, insurance at risk and reserve are not included in this paper. However, they are available to interested parties upon request.

## Mechanics of the Plan

Working Arrangement
The arrangement is a three-party scheme between the SSS home mortgagors, Philippine life insurance industry and Social Security System. It calls for a pool of accredited life insurance comparies (insurers) to provide group remsurance protection on the lives of SSS housing loan mortgagors (insureds) to guarantee payment to the Social Security System (creditor) of a predetermined balance due on the morgage loan (insurance at risk) in the event of the debtor's death (covered risk) for the account of the deceased debtor (beneficiary).

Distribution of Business
The single premium and insurance at risk are distributed among the insurers in the pool such that one-half of the business is apportioned equally and the other half proportionately to the past calendar vear's social security payments of the insurers. It should be noted that the liability of the pool is several and not joint. This means that an accredited insurer in the pool is liable only for its share of the insurance at risk and, therefore, pays only its individual share of each loss. But as svery loss represents the sum total of the individual liabilities
held for the account of the deceased mortgagor, it is very important that each member of the pool fulfill faithfully its ubligation. As "the strength of the chain depends upon its weakest link", so upon the performance of each member in the pool rest tie confidence of the System and the honor and prestige of the Philippine life insurance industry.

## Reporting of Business

The Systen: is to report to each accredited insurer the insured loans and claims in each calendar qauarter, showing with respect to each mortgagor the data necessary for the effic:ent administration of the Plan. This report is to be submitted within sixty days after the end of each calendar quarter.

## Observations and Discussions

Monthly Amortization and Cost of Insurance
Table 3 shows tor quinquennial ages the monthly amortization and cost of insurance on a $6 \%$ SSS housing mortgage loan of P1000 for a term of 5,10 or 15 years.

Equivalent Interest on Insured Loan
Table 4 shows for quinquennial ages the rate of interest equivalent to a $6 \%$ mortgage loan insured under the SSS plan. From Table 4, it is shown that a 30 year old mortgagor with a $6 \% 15$-year insured loan is in effect paying $8 \%$ interest on his total loan. Furthermore, at ages lower than 50 the equivalent rate of interest on an insured loan is lower than $8 \%$. It is as low as $6.5 \%$ or even less. This shows that the SSS Plan is a low-cost mortgage insurance plan which affords protection to an eligible mortgagor which is comfortably well within his means to pay.

TABLE 3
COMPARATIVE MONTHLY AMORTIZATION AND COST OF INSURANCE PER P1000 OF A $6 \%$ SSS HOUSING MORTGAGE LOAN

| Age | w/ MRI | w/o MRI | Cost of Insurance |
| :---: | :---: | :---: | :---: |
|  | 5 Years to Pay |  |  |
| 25 | P19.49 | P19.33 | P0.16 |
| 30 | 19.54 | 19.33 | 0.21 |
| 35 | 19.60 | 19.33 | 0.27 |
| 40 | 19.70 | 19.33 | 0.37 |
| 45 | 19.85 | 19.33 | 0.52 |
| 50 | 20.08 | 19.33 | 0.75 |
| 5 E | 20.44 | 19.33 | 1.11 |
| 60 | 20.99 | 19.33 | 1.66 |
|  | 10 Years to Pay |  |  |
| 25 | P11.30 | P11.10 | P0.20 |
| 30 | 11.10 | 11.10 | 0.26 |
| 35 | 11.43 | 11.10 | 0.33 |
| 40 | 11.57 | 11.10 | 0.47 |
| 45 | 11.77 | 11.10 | 0.67 |
| 50 | 12.08 | 11.10 | 0.98 |
| 55 | 12.57 | 11.10 | 1.47 |
| 60 | 13.35 | 11.10 | 2.24 |
|  | 15 Years to Pay |  |  |
| 25 | P 8.68 | P 8.44 | P0.24 |
| 30 | 8.75 | 8.44 | 0.31 |
| 35 | 8.87 | 8.44 | 0.43 |
| 40 | 9.04 | 8.44 | 0.60 |
| 45 | 9.31 | 8.44 | 0.87 |
| 50 | 9.73 | 8.44 | 1.29 |
| 55 | 10.39 | 8.44 | 1.95 |
| 60 | 11.45 | 8.44 | 3.01 |

TABLE 4
EOUIVALENT RATES OF INTEREST* ON A 6\% MORTGAGE LOAN PROVIDING FOR AUTOMATIC MORTGAGE REDEMPTION INSURANCE

| Age | Number of Years to Pay |  |  |
| :---: | :---: | :---: | :---: |
|  | $\mathbf{5}$ | 10 | $\mathbf{1 5}$ |
| 30 | $6.35 \%$ | $6.39 \%$ | $6.45 \%$ |
| 35 | 6.44 | 6.50 | 6.57 |
| 40 | 6.58 | 6.63 | 6.75 |
| 45 | 6.76 | 6.88 | 7.02 |
| 50 | 7.06 | 7.24 | 7.43 |
| 55 | 7.52 | 7.75 | 8.00 |
| 60 | 8.21 | 8.50 | 8.81 |

* Compounded monthly


## Troup Reinsurance Principle

The Plan makes use of group reinsurance to enable the life insurance industry to spread the business locally and provide low-cost protection to the members of group. By issuing only one master policy which requires compulsory coverage prospectively, the economies of the group are fully availed of to the advantage of the insured mortgagor.

## Distribution of Business

The Plan precludes any area for graft and corruption by providing that each insurer in the pool shares in the single premium and insurance at risk by a predetermined percentage defined by formula. As a result, life insurance companies need not compete with one another for the favor of some employees of the System, each offering as good a bargain as it safely can for the bigger insurance or better risks.

## Conclusion

The SSS Plan is a Mortgage Term Insurance issued under a Creditor Group Life Insurance Policy. It is a plan whereby a pool of accredited life insurance companies guarantees prompt payment to the System of a predetermined balance due on the mortgage indebtedness of a deceased mortgagor in considerarion of a single premium remitted to the insurers by the System as a loan to the mortgagor.

It enables the mortgagor to secure low-cost insurance to guarantee that, if he does not live to pay the mortgage, he will not leave any obligation to burden his family. Furthermore, because of liberal age and health provisions, it affords a murtgagor who otherwise cannot buy insurance at standard rates the same low-cost insurance.

It creates for the life insurance industry a favorable climate growth that means more sales for itself, better service for SSS mortgagors and increased production for the Nation. For the small life insurance companies, it can even mean the difference between failure and success.

It means another opportunity for the System to serve its member beneficiaries-one that not only eliminates the difficulties and embarrassment involved in pressing a claim against an estate of limited means but also reasonably assures prompt payment of a loan in the event a borrower does not live to complete his installment payments. It is also one that is expected to give financial assistance to both the insured mortgagor and the life insurance industry.

The success of the SSS Mortgage Redemption Insurance Plan will benefit immediately all three parties of the Plan and, ultimately, the nation's economy and people.

## TABLE 1

SCHEDULE OF SINGLE PREMIUM PER Pl000 OF MORTGAGE LOAN
Initial Amount of Insurance: P1000 plus Single Premium
Interest on Investment: $6 \%$ annually, compounded monthly



[^1]
## TABLE 2

## SCHEDULE OF SINGLE PREMIUM PER P1000 OF MORTGAGE LOAN

Initial Amount of Insurance: P1000 plus Single Premium
Interest on Investment : $8 \%$ annually, compounded monthly

|  | Age* | Number of Years to Pay Insured Loan |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 5 | 10 | 15 | 20 | 52 |
|  | 21 | 7.30 | 15.71 | 25.30 | 36.40 | 49.53 |
|  | 22 | 7.58 | 16.30 | 26.34 | 38.12 | 52.03 |
|  | 23 | 7.79 | 27.53 | 27.53 | 39.94 | 54.76 |
| $\checkmark$ | 24 | 8.16 | 17.66 | 28.77 | 41.96 | 57.72 |
| $N$ | 25 | 8.48 | 18.48 | 30.18 | 44.14 | 60.95 |
|  | 26 | 8.90 | 19.27 | 31.65 | 46.50 | 64.50 |
|  | 27 | 9.26 | 20.16 | 33.30 | 49.10 | 68.35 |
|  | 28 | 9.74 | 21.23 | 35.10 | 51.93 | 72.55 |
|  | 29 | 10.18 | 22.31 | 37.37 | 55.02 | 77.09 |
|  | 30 | 10.72 | 23.55 | 39.17 | 58.39 | 82.10 |
|  | 31 | 11.32 | 24.84 | 41.51 | 62.05 | 87.56 |
|  | 32 | 11.87 | 26.24 | 44.06 | 66.04 | 93.48 |
|  | 33 | 12.46 | 27.77 | 46.74 | 70.42 | 100.02 |
|  | 34 | 13.23 | 29.49 | 49.77 | 75.19 | 107.08 |
|  | 35 | 14.04 | 31.28 | 53.04 | 80.39 | 114.83 |
|  | 36 | 14.80 | 33.39 | 56.63 | 86.07 | 123.28 |
|  | 37 | 15.78 | 35.58 | 60.55 | 92.32 | 132.53 |
|  | 38 | 16.81 | 37.97 | 64.81 | 99.08 | 142.61 |
|  | 39 | 17.95 | 40.61 | 69.49 | 106.49 | 153.62 |
|  | 40 | 19.11 | 43.41 | 74.58 | 114.59 | 165.70 |


| Age* | Number of Years to Pay Insured Loan |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5 | 10 | 15 | 20 | 52 |
| 41 | 20.44 | 46.55 | 80.16 | 133.47 | 178.87 |
| 42 | 21.92 | 49.91 | 86.16 | 133.17 | 193.28 |
| 43 | 23.46 | 53.66 | 92.89 | 143.76 | 209.08 |
| 44 | 25.17 | 57.71 | 100.14 | 155.39 | 226.39 |
| 45 | 27.13 | 62.08 | 108.05 | 168.06 | 245.28 |
| 46 | 31.37 | 72.18 | 116.79 | 182.05 | 266.01 |
| 47 | 31.37 | 72.18 | 126.29 | 197.32 | 288.75 |
| 48 | 33.73 | 78.00 | 136.72 | 213.96 | 313.55 |
| 49 | 36.47 | 84.32 | 148.18 | 232.57 | 340.82 |
| 50 | 39.22 | 91.19 | 160.68 | 252.52 | 370.73 |
| 51 | 42.45 | 98.76 | 174.39 | 274.60 | 403.55 |
| 52 | 45.95 | 107.47 | 189.47 | 298.89 | 439.54 |
| 53 | 49.63 | 116.09 | 205.99 | 235.64 | 479.06 |
| 54 | 53.63 | 125.93 | 224.18 | 355.06 | 522.47 |
| 55 | 58.07 | 136.80 | 244.10 | 387.40 | 570.18 |
| 56 | 63.10 | 148.79 | 266.06 | 432.00 | 622.60 |
| 57 | 68.42 | 161.86 | 290.29 | 462.30 | 680.31 |
| 58 | 74.24 | 176.23 | 315.17 | 505.64 | 743.59 |
| 59 | 80.64 | 191.98 | 346.32 | 553.46 | 813.44 |
| 60 | 87.56 | 209.23 | 378.68 | 606.35 | 889.97 |
| 61 | 95.26 | 228.46 | 414.53 | 664.73 | 974.47 |
| 62 | 103.75 | 249.41 | 454.23 | 729.48 | 1067.40 |
| 63 | 112.83 | 272.60 | 498.06 | 801.08 | 1169.95 |
| 64 | 122.84 | 298.10 | 546.74 | 880.52 | 1282.84 |
| 65 | 133.96 | 326.32 | 600.65 | 968.43 | 1407.34 |

[^2]TABLE 1-a

## SCHEDULE OF DECREASING INSURANCE (OUTSTANDING INDEBTEDNESS) PER P1000 OF INITIAL AMOUNT OF INSURANCE <br> Monthly Amortization: P19.33 per P1000 of initial Amount of Insurance <br> Rate of Interest: $6 \%$ annually, compounded monthly <br> Number of Years to Pay Insured Loan: 5 ( 60 months)

| Death <br> Month | Sum Insured | Death <br> Month | Sum <br> Insured | Death <br> Month | $\begin{gathered} \text { Sum } \\ \text { Insured } \end{gathered}$ | Death Month | $\begin{gathered} \text { Sum } \\ \text { Insured } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1,002.50 | 16 | 779.26 | 31 | 538.68 | 46 | 279.41 |
| 2 | 988.13 | 17 | 763.78 | 32 | 521.99 | 47 | 261.43 |
| 3 | 973.69 | 18 | 748.21 | 33 | 505.22 | 48 | 243.35 |
| 4 | 959.18 | 19 | 732.57 | 34 | 488.37 | 49 | 225.19 |
| 5 | 944.59 | 20 | 716.86 | 35 | 471.43 | 50 | 206.93 |
| 6 | 929.93 | 21 | 701.06 | 36 | 454.40 | 51 | 188.59 |
| 7 | 915.20 | 22 | 685.18 | 37 | 437. 29 | 52 | 170.15 |
| 8 | 900.40 | 23 | 669.23 | 38 | 420.10 | 53 | 151.62 |
| 9 | 885.52 | 24 | 653.19 | 39 | 402.82 | 54 | 132.99 |
| 10 | 870.57 | 25 | 637.08 | 40 | 385.45 | 55 | 114.28 |
| 11 | 855.54 | 26 | 620.88 | 41 | 368.00 | 56 | 95.47 |
| 12 | 840.43 | 27 | 604.61 | 42 | 350.45 | 57 | 76.57 |
| 13 | 825.25 | 28 | 588.25 | 43 | 332.83 | 58 | 57.57 |
| 1.4 | 810.00 | 29 | 571.81 | 44 | 315.11 | 59 | 38.47 |
| 15 | 794.67 | 30 | 555.28 | 45 | 297.31 | 60 | 19.28 |

TABLE 2-a

Monthly Amortization: P20.28 per P1000 of Initial Amount of Insurance
Rate of Interest: $8 \%$ annually, compounded monthly
Number of Years to Pay Insured Loan: 5 ( 60 months)

| Death <br> Month | Sum <br> Insured | Death Month | Sum Insured | Death <br> Month | Sum Insured | Death Month | Sum Insured |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1,003.33 | 16 | 788.66 | 31 | 551.50 | 46 | 289.48 |
| 2 | $989.6{ }^{\prime}$ | 17 | 773.58 | 32 | 534.83 | 47 | 271.07 |
| 3 | 975.98 | 18 | 758.39 | 33 | 518.0:7 | 48 | 252.53 |
| 4 | $962.0{ }^{\text {S }}$ | 19 | 743.10 | 34 | 501.16 | 49 | 233.87 |
| 5 | 948.1 f | 20 | 727.71 | 35 | 484.15 | 50 | 215.08 |
| 6 | 934.14 | 21 | 712.22 | 36 | 467.06 | 51 | 196.17 |
| 7 | 920.02 | 22 | 696.62 | 37 | 449.82 | 52 | 177.14 |
| 8 | 905.81 | 23 | 680.93 | 38 | 432.47 | 53 | 157.98 |
| 9 | 891.51 | 24 | 665.12 | 39 | 415.01 | 54 | 138.68 |
| 10 | 877.1 ! | 25 | 649.21 | 40 | 397.43 | 55 | 119.27 |
| 11 | 862.61 | 26 | 633.20 | 41 | 379.74 | 56 | 99.72 |
| 12 | 848.02 | 27 | 617.07 | 42 | 361.93 | 57 | 80.04 |
| 13 | 833.33 | 28 | 600.84 | 43 | 343.99 | 58 | 60.23 |
| 14 | 818.54 | 29 | 584.50 | 44 | 325.94 | 59 | 40.28 |
| 15 | 803.65 | 30 | 568.06 | 45 | 307.77 | 60 | 20.21 |

TABLE 1-b
SCHEDULE OF DECREASING INSURANCE (OUTSTANDING INDEBTEDNESS)
PER P1000 OF INITIAL AMOUNT OF INSURANCE
Monthly Amortization: P11.10 per P1000 of Initial $\therefore \therefore$ Amount of Insurance
Rate of Interest: $6 \%$ annually, compounded monthly Number of Years to Pay Insured Loan: 10 ( 120 months)

| Death <br> Month: | Sum Insured | Death <br> Month | Sum. <br> Insured | Death <br> Month | Sum Insured | Death Month | Sum Insured |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\div$ |  |  |
| 1 | 1,002.50 | 31 | 805.03 | 61 | 575.70 | 91 | 309.34 |
| 2 | 996.38 | 32 | 797.93 | 62 | 567.70 | 92 | 299.76 |
| 3 | 990.23 | 33 | 790.79 | 63 | 559.15 | 93 | 290.13 |
| 4 | 984.06 | 34 | 783.61 | 34 | 550.82 | 94 | 280.45 |
| $\because \quad .5$ | 977.85 . | 35 | 776.40 | 65 | 542.44 | 95 | 270.72 |
| 6 | 971.61 | 36 | 769.15 | 66 | 534.02 | 96 | $260.95{ }^{\text { }}$ |
| 7 | 965.33 | 37 | 761.87 | 67 | 525.56 | 97 | 251.12 |
| 8 | 959.03 | 38 | 754.55 | 68 | 517.06 | 98 | 241.25 |
| 9 | 959.70 | 39 | 747.19 | 69 | 508.52 | 99 | 231.32 |
| 10 | 946.33: | 40 | 739.80 | 70 | 499:93 | 100 | 221.35 |
| 11 | 939.93 | 41 | 732.37 | 71 | 491:30 | 101 | 211.33 |
| 12 | 933.50 | 42 | 724.90 | 72 | 482.63 | 102 | 201.25 |
| 13 | 927.04 | 43 | 717.39 | 73 | 473.91 | 103 | 191.13 |
| 14 | 920.54 | 44 | 709.85 | 74 | 465.15 | 104 | 180.96 |
| 15 | 914.02 | 45 | 702.27 | 75 | 456,35 | 105 | 170.73 |
| 16 : | \%907.46 | $\because 46$ | 694.65 | 76. | 447.50 | 106 | 160.45 |
| 17 | 900.87 | 47 | 687.00 | 77 | 438.61 | 107 | 150.13 |
| 18 | 894.24 | 48 | 679.30 | 78 | 429.67 | 108 | 139.75 |
| 19 | 887.58 | 49 | 671.57 | 79 | 420.69 | 109 | 129.32 |
| 20 | 880.89 | 50 | 663.80 | 80 | 411.66 | 110 | 118.83 |
| 21 | ; 874.16 | 51. | 655.98 | 81. | 402.59 | 111 | 108.30 |
| 22 | $\because 867.41$ | 52 | 648.13 | 82 | $393.4{ }^{\circ}$ | 112 | 97.71 |
| 23 | $860.61{ }^{\text {a }}$ | $\cdots 53$ | 640.25 | 83 | 384.51 | 113 | 87.07 |
| 24 | 853.79 | 54 | 632.32 | 84 | 375.10 | 114 | 76.37 |
| 25 | 846.92 | 55 | 624.35 | 85 | 365.85 | 115 | 65.63 |
| 26 | 840.03 | 56 | 616.34 | 86 | 356.55 | 116 | 54.82 |
| 27 | 833.10 | 57 | 608.29 | 87 | 347.20 : | 117 | 43.97 |
| 28 | 82 S .14 | 58 | 600.20 | 88 | 337.20 | 118 | 33.06 |
| 29 | 819.14 | 59 | 592.08 | 89 | 328.37 | 119 | 22.09 |
| 30 | 812.10 | 60 | 583.91 | 90 | 318.88 | 120 | 11.07 |

TABLE 2-b
SCHEDULE OF DECREASING INSURANCE (OUTSTANDING INDEBTEDNESS)
PER P1000 OF INITIAL AMOUNT OF INSURANCE
Monthly Amortization: P12.13 per P1000 of Initial Amount of Insurance
Rate of Interest: $8 \%$ annually, compounded monthly Number of Years to Pay Insured Loan: 10 (120 months)

| Death Month | Insured Sum | Month Death | $\underset{\text { Insured }}{\text { Sum }}$ | Death <br> Month | Insured Sum | Death Month | $\begin{gathered} \text { Sum } \\ \text { Insured } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1,003.33 | 31 | 821.86 | 61 | ${ }_{600.36}$ | 91 | 330.00 |
| 2 | 997.85 | 32 | 815.17 | 62 | 592.19 | 92 | 320.03 |
| 3 | 992.32 | 33 | 808.43 | 63 | 583.97 | 93 | 309.99 |
| 4 | 986.77 | 34 | 801.64 | 64 | 575.69 | 94 | 299.88 |
| 5 | 981.17 | 35 | 794.82 | 65 | 567.35 | 95 | 289.71 |
| 6 | 975.54 | 36 | 787.94 | 66 | 558.96 | 96 | 279.47 |
| 7 | 969.87 | 37 | 781.02 | 67 | 550.51 | 97 | 269.16 |
| 8 | 964.16 | 38 | 774.05 | 68 | 542.01 | 98 | 258.78 |
| 9 | 958.42 | 39 | 767.04 | 69 | 533.45 | 99 | 248.33 |
| 10 | 952.63 | 40 | 759.98 | 70 | \%24.83 | 1.00 | 237.81 |
| 11 | 946.81 | 41 | 752.88 | 71 | ${ }_{516.16}$ | 101 | 227.22 |
| 12 | 940.95 | 42 | 745.72 | 72 | 507.43 | 102 | 216.56 |
| 13 | 935.05 | 43 | 738.52 | 73 | 498.64 | 103 | 205.84 |
| 14 | 929.11 | 44 | 731.27 | 74 | 489.79 | 104 | 195.03 |
| 15 | 923.13 | 45 | 723.97 | 75 | 480.88 | 105 | 184.16 |
| 16 | 917.11 | 46 | 716.63 | 76 | 471.91 | 106 | 173.22 |
| 17 | 911.05 | 47 | 709.23 | 77 | 462.88 | 107 | 162.20 |
| 18 | 904.95 | 48 | 701.79 | 78 | 45380 | 108 | 151.11 |
| 19 | 898.81 | 49 | 694.29 | 79 | 444.65 | 109 | 139.94 |
| 20 | 892.63 | 50 | 686.75 | 80 | 135.44 | 110 | 128.70 |
| 21 | 886.41 | 51 | 679.15 | 81 | 426.17 | 111 | 117.38 |
| 22 | 880.15 | 51 | 671.51 | 82 | 415.84 | 112 | 105.99 |
| 23 | 873.84 | 53 | 663.81 | 83 | 407.44 | 113 | 94.53 |
| 24 | 867.49 | 54 | 656.06 | 84 | 397.99 | 114 | 82.98 |
| 25 | 861.10 | 55 | 648.26 | 85 | 388.47 | 115 | 71.36 |
| 26 | 854.67 | 56 | 640.41 | 86 | 378.88 | 116 | 59.67 |
| 27 | 984.20 | 57 | 632.51 | 87 | 368.24 | 117 | 47.89 |
| 28 | 841.68 | 58 | 624.55 | 88 | 359.59 | 118 | 36.04 |
| 25 | 835.12 | 59 | 616.54 | 89 | 349.75 | 119 | 24.11 |
| 30 | 828.51 | 60 | 608.48 | 90 | 339.91 | 120 | 12.09 |

TABLE 1-c
SCHEDULE OF DECREASING INSURANCE (OUTSTANDING INDEBTEDNESS) Monthly Amortization: P8.44 per P1000 of Initial Amount of Insurance

Rate of Interest: $6 \%$ annually, compounded monthly
Number of Years to Pay Insured Loan: 15 ( 180 months)

| Death <br> Month | Sum <br> Insured | Death <br> Month | Sum <br> Insured | Month <br> Death | Insured <br> Sum | Death <br> Month | Sum <br> Insured |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $1,002.50$ | 46 | 829.02 | 91 | 611.90 | 136 | 340.14 |
| 2 | 999.05 | 47 | 824.71 | 92 | 606.50 | 137 | 333.38 |
| 3 | 995.59 | 48 | 820.37 | 93 | 601.07 | 138 | 326.59 |
| 4 | 992.11 | 49 | 816.02 | 94 | 595.62 | 139 | 319.76 |
| 5 | 988.61 | 50 | 811.64 | 95 | 590.14 | 140 | 312.90 |
| $\infty$ | 985.09 | 51 | 807.23 | 96 | 584.63 | 141 | 306.00 |
| 6 | 981.56 | 52 | 802.81 | 97 | 579.09 | 142 | 299.08 |
| 7 | 978.00 | 53 | 798.37 | 98 | 573.53 | 143 | 292.11 |
| 8 | 974.44 | 54 | 793.90 | 99 | 567.93 | 144 | 285.11 |
| 9 | 970.85 | 55 | 789.41 | 100 | 562.31 | 145 | 278.08 |
| 10 | 967.24 | 56 | 784.90 | 101 | 556.67 | 146 | 271.01 |
| 11 | 963.62 | 57 | 780.36 | 102 | 550.99 | 147 | 263.90 |
| 12 | 959.98 | 58 | 775.80 | 103 | 545.28 | 148 | 256.76 |
| 13 | 956.32 | 59 | 771.22 | 104 | 539.55 | 149 | 249.59 |
| 14 | 952.64 | 60 | 766.62 | 105 | 533.79 | 150 | 242.38 |
| 15 | 948.94 | 61 | 761.99 | 106 | 528.00 | 151 | 235.13 |
| 16 | 945.23 | 62 | 757.34 | 107 | 522.18 | 152 | 227.84 |
| 17 | 941.49 | 63 | 752.67 | 108 | 516.33 | 153 | 220.52 |
| 18 | 937.74 | 64 | 747.97 | 109 | 510.45 | 154 | 213.17 |
| 19 | 933.97 | 65 | 743.25 | 110 | 504.54 | 155 | 205.77 |



## TABLE 2-c

## SCHEDULE OF DECREASING INSURANCE (OUTSTANDING INDEBTEDNESS) PER P1000 OF INITIAL A MOUNT OF INSURANCE

Monthly Amortization: P9.56 per P1000 of Initial Amount of Insurance Rate of Interest: $8 \%$ annually, compounded monthly

Number of Years to Pay Insured Loan:

| Death Month | $\begin{gathered} \text { Sum } \\ \text { Insured } \\ \hline \end{gathered}$ | Death Month | $\begin{gathered} \text { Sum } \\ \text { Insured } \end{gathered}$ | Death Month | $\begin{gathered} \text { Sum } \\ \text { Insured } \end{gathered}$ | Death <br> Month | $\begin{gathered} \text { Sum } \\ \text { Insured } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1,003.33 | 46 | 851.75 | 91 | 647.35 | 136 | 371.71 |
| 2 | 1,000.43 | 47 | 847.84 | 92 | 642.08 | 137 | 364.60 |
| 3 | 997.51 | 18 | 843.91 | 93 | 636.77 | 138 | 357.44 |
| 4 | 994.57 | 49 | 839.94 | 94 | 631.43 | 139 | 350.23 |
| 5 | 991.62 | 50 | 835.96 | 95 | 626.05 | 140 | 342.98 |
| 6 | 988.64 | 51 | 831.94 | 96 | 620.63 | 141 | 335.68 |
| 7 | 985.64 | 52 | 827.90 | 97 | 615.18 | 142 | 328.33 |
| 8 | 982.62 | 53 | 823.83 | 98 | 609.69 | 143 | 320.93 |
| 9 | 979.59 | 54 | 819.73 | 99 | 604.17 | 144 | 313.48 |
| 10 | 976.53 | 55 | 815.61 | 100 | 598.61 | 145 | 305.98 |
| 11. | 973.45 | 56 | 811.46 | 101 | 593.01 | 146 | 298.43 |
| 12 | 970.35 | 57 | 807.28 | 102 | 587.38 | 147 | 290.83 |
| 13 | 967.23 | 58 | 803.07 | 103 | 581.70 | 148 | 283.18 |
| 14 | 964.09 | 59 | 798.84 | 104 | 575.99 | 149 | 275.48 |
| 15 | 960.93 | 60 | 794.58 | 105 | 570.25 | 150 | 267.73 |
| 16 | 957.75 | 61 | 790.29 | 106 | 564.46 | 151 | 259.93 |
| 17 | 954.55 | 62 | 785.97 | 107 | 558.63 | 152 | 252.07 |
| 18 | 951.32 | 63 | 781.62 | 108 | 552.77 | 153 | 244.17 |
| 19 | 948.07 | 64 | 777.24 | 109 | 546.87 | 154 | 236.21 |
| 20 | 944.81 | 65 | 772.83 | 110 | 540.92 | 155 | 228.19 |

TABLE 2-c (Continued)



[^0]:    *Associate Actuary, Social Security System.

[^1]:    *Age nearest brthday

[^2]:    *Age nearest birthday

