



OFFICE OF  
THE CHIEF ACCOUNTANT

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

July 14, 1992

By Facsimile: (415) 956-2866

Mr. William J. Texido  
Chairman, President, and Chief  
Executive Officer  
Providential Corporation  
3 Embarcadero Center  
Suite 2250  
San Francisco, California 94111

Dear Mr. Texido:

This letter is a follow on to our discussions with you in a meeting on July 8, 1992.

The staff recognizes that the lifetime reverse mortgages ("LRMs") being originated by Providential Corporation (the "Company") are unique new products that are not contemplated by existing accounting literature. Although an LRM is structured like a loan, it also has attributes of a life annuity, and an investment in proceeds from sale of real estate. Application of customary loan accounting to this product results in an increase in the carrying amount of the loan asset, and consequent income recognition, using the contractual interest rate, which may have to be reversed if the "borrower" lives longer than expected. The staff believes that customary loan accounting is inappropriate because: (1) laying aside the "borrower's" ability to prepay the "loan," return of and return on the Company's investment will come solely from proceeds of sale of the borrower's residence; (2) the Company has an open-ended commitment to make payments to the mortgagor until his or her death; and (3) the absence of a fixed and certain maturity date and amount are a material risk to realization.

The Company's method of accounting for post-1991 contracts recognizes the risks associated with the open-ended commitment to make payments to the mortgagor by adjusting the accounting yield on a group or "pool" of contracts on the basis of actuarial

estimates of contract terminations. This method incorporates a notion of insurance accounting and reflects the Company's underwriting practices. In recognition of the absence of accounting literature applicable to this unique product, the staff will not object to accounting for LRMs on the basis of pools of contracts subject to certain constraints, discussed below, which will entail changes in the Company's present method of accounting for both pre- and post-1991 contracts. The registrant and its accountants should be aware, however, that in the absence of a sufficiently large number of contracts to justify the pool approach, the staff believes that such contracts should be accounted for as an investment in proceeds to be received on sale of real estate.

#### **ACCOUNTING FOR POOLS OF REVERSE MORTGAGE CONTRACTS**

Accounting for LRMs based on "pools" of contracts is described in the Appendix to this letter.

The staff's conclusions, as described in the Appendix, are predicated upon the following constraints:

1. **The law of large numbers must apply.**
  - The Company must be able to demonstrate that the law of large numbers applies, and that cash flows can be reliably estimated based on those numbers.
  - Investments in a single LRM or small number of LRMs would be accounted for as an investment in the right to participate in the proceeds from the sale of real estate.
2. **The Company should not assume future changes in property value when projecting cash flows.**

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When projecting estimated cash flows, the Company may incorporate actual increases (and must incorporate actual decreases) in property values that have occurred to date, but should not project future increases. Actual increases to date must be supported by specific evidence, such as an appraisal, on specific pieces of property. A statistically valid sampling method may be used.

3. **Expected contract terminations projected in the model should be based on a combination of life expectancy and the Company's actual prepayment experience. Life expectancy should be based on actuarial techniques and tables as deemed appropriate in the circumstances. Early termination for reasons other than death may be incorporated into the cash flow model only if reasonably estimable.**

Included in the actuarially estimated future cash flows and, thus, in the estimated effective yield of the pool, are the estimated cash outflows for advances to mortgagors.

4. **The model should be applied to the "pre-1991" contracts, as well as the new "post-1991" contracts. Future increases in value of underlying properties should not be assumed; actual increases in value to date may be incorporated in the model when they occur.**

Similar to post-1991 contracts, the actual and expected cash flows at each reporting date must be re-estimated. The Company may incorporate actual increases (and must incorporate actual decreases) in property values that have occurred to date but should not project future increases for purposes of estimating cash flows. Such increases must be supported by specific evidence, such as an appraisal, on specific pieces of property. A statistically valid sampling method



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may be used. The staff will object to income recognition that includes assumptions about future increases in the value of real estate.

### **BALANCE SHEET PRESENTATION**

In the balance sheet, cash advanced to mortgagors should be distinguished from the amount of accrued income recognized under the effective yield method described above. This would involve presenting two separate items on the face of the balance sheet, which may be captioned "Investment in Advances to Mortgagors" and "Accrued Investment Income, Net of Actuarial Valuation Allowance" or some other similarly captioned titles that distinguish the cash advances from the accrued investment income and do not characterize the investments as loans. The staff would object to a characterization of the accrued element as representing "interest."

An actuarial valuation allowance account shall be used to record cash inflows on the termination of individual contracts that exceed the net investment in those contracts. The balance of the actuarial valuation allowance account shall be reduced by the amount that the net investment in a contract exceeds the cash inflow on the termination of the contract. The amount of the actuarial valuation allowance should be disclosed parenthetically on the face of the balance sheet. If the amount of the actuarial valuation allowance exceeds the amount of the accrued investment income, the net balance should be reported as a deduction from Investment in Advances to Mortgagors with parenthetical disclosure of the actuarial valuation allowance.

### **INCOME STATEMENT PRESENTATION**

Investment income of a pool, calculated as described above, should be reported as "Investment Income" (or Loss as applicable) on the face of the income statement, but should not be described as "interest income."

## **DISCLOSURES**

The following should be disclosed in the notes to the Company's financial statements:

1. A description of the Company's accounting policy and methods, including disclosures about the nature and source of significant assumptions inherent in the pooling model;
2. The actuarially estimated future cash payments to mortgagors by year for the next twenty years and a lump-sum for years twenty-one and thereafter;
3. The actuarial assumptions used to estimate future cash flows and calculate effective yields, including the use of the company's actual experience, annuity tables, and any changes in actuarial assumptions;
4. The income or loss recognized in the period as a result of re-estimated cash flows due to changes in actuarial assumptions or actual appreciation or depreciation in property values; and
5. The current contract value (cash advances, points, and accumulated interest and premium charges) as of the date of the balance sheet and the amount of that contract value that would be forfeited if the Company were not to make cash payments to mortgagors in the future.

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Providential's change to the application of the effective yield method as described in this letter should be accounted for as a change in accounting principle as of the beginning of the most recent fiscal year.

Yours truly,



Walter P. Schuetze  
Chief Accountant



## APPENDIX

### Accounting for Pools of Reverse Mortgage Contracts

1. Reverse mortgage contracts shall be grouped into "pools." The pools shall be of sufficient size and shall have characteristics that provide an actuarially sound basis for making the estimates of life expectancy required to project future cash outflows.
2. A projection shall be made, on an actuarial basis, of the timing and amount of all periodic cash payments to be made to the borrowers in each pool as well as the incremental direct costs<sup>1/</sup> of originating contracts. The projection shall incorporate actuarial estimates of contract terminations, including assumptions about life expectancy.
3. A projection shall be made of the amount and timing of cash inflows to be received from borrowers or their estates. The projected cash inflow at the estimated date of contract termination shall be the projected contractual balance<sup>2/</sup> or the current value of the collateral property, whichever is less. Future changes in collateral property values shall not be assumed.
4. Using the projections of cash inflows and cash outflows from 2 and 3 above, an effective yield shall be computed. Investment income shall be recognized by applying the effective yield to the net investment in the contracts. The net investment in the contracts is the sum of (a) cumulative total cash payments to borrowers, (b) incremental direct costs of origination<sup>1/</sup>, and (c) accumulated investment income for accounting purposes.<sup>2/</sup>
5. At each reporting date, the cash flows in 2 and 3 shall be re-estimated and the effective yield shall be recomputed. The re-estimation shall include actual cash flows to date for the pool and a revised estimate of future cash flows determined in accordance with 2 and 3 above. Accumulated investment income shall be adjusted at the close of each period to the amount that would have been recognized to date had the revised effective yield been applied since the inception of the pool.
6. Accumulated investment income in 4 and 5 above is to be allocated to individual contracts based on the relationship of total cash advanced to all borrowers to date to the cash advanced to the individual borrower.
7. An "actuarial valuation allowance" account shall be used to record cash inflows on the termination of individual contracts that exceed the net investment in those contracts. The balance of the actuarial valuation allowance account shall be reduced by the amount that the net investment in a contract exceeds the cash inflow on the termination of an individual contract.

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<sup>1/</sup> The term "incremental direct cost" of originating contracts shall have the same meaning as the definition in Appendix C, paragraph 80, of FASB Statement 91.

<sup>2/</sup> The amount contractually owed to the lender includes cumulative total cash payments to the borrower, accrued contractual "interest" and premium, if any, and other amounts, such as origination charges, added to the borrower's contractual balance. Accrued contractual interest differs from accumulated investment income for accounting purposes. For accounting purposes, investment income shall be measured and recognized pursuant to the provisions of 4 and 5 above.

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Accounting for Pools of Uninsured Residential Reverse Mortgage Contracts

1. Uninsured<sup>1/</sup> residential reverse mortgage contracts shall be grouped into "pools." The pools shall be of sufficient size (i.e., number of contracts) and shall have characteristics that provide an actuarially and statistically sound basis for estimating life expectancy and changes in collateral values required to project future cash flows.
2. A projection shall be made, on an actuarial basis, of the timing and amount of all periodic cash payments to be made to the borrowers in each pool as well as the incremental direct costs<sup>2/</sup> of originating contracts. Incremental direct costs shall be allocated to individual contracts. The projection shall incorporate actuarial estimates of contract terminations, including assumptions about life expectancy, prepayments, and borrower relocation.
3. A projection shall be made of the amount and timing of cash inflows to be received from borrowers or their estates. The projected cash inflow at the estimated date of contract termination shall be either the projected contractual balance<sup>3/</sup> or the expected proceeds from sale of the collateral property less refurbishing and selling costs, whichever is less.
4. The expected value of collateral properties at the estimated dates of contract terminations shall be based on the current market value<sup>4/</sup> of the collateral properties at the reporting date adjusted for the expected change in the value of that collateral property to the time of contract termination. In estimating the expected value, it may be appropriate to use an index, such as the consumer price index, that historically has been correlated with residential property prices. The estimates of expected property values shall include provision for the risk of deviation from these expected values.<sup>5/</sup>

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1/ The term "uninsured," as used herein, means that the contract balance is not guaranteed by the Federal Housing Administration, the Department of Housing and Urban Development, or another creditworthy third party. Thus, mortality risk and collateral risk are retained by the investor.

2/ The term "incremental direct cost" of originating contracts shall have the same meaning as the definition in Appendix C, paragraph 80, of FASB Statement 91.

3/ The amount contractually owed to the lender includes cumulative total cash payments to the borrower, accrued contractual "interest" and premium, if any, and other amounts, such as origination charges, added to the borrower's contractual balance. Accrued contractual interest differs from accumulated investment income for accounting purposes. For accounting purposes, investment income shall be measured and recognized pursuant to the provisions of paragraphs 5 and 6.

4/ The current market value of the collateral at the reporting date must be supported by statistically valid evidence. Such evidence could include actual sales of collateral resulting from contract terminations and/or a sample of appraisals performed by a professionally qualified independent third party.

5/ Deviations may be estimated by using statistical methods. Statistical methods are needed because frequently the value of collateral properties will depart from expected values. To estimate the value of collateral properties over the life of a pool of loans, statistical methods (for example, a Monte Carlo simulation) should be used to generate potential collateral value paths for collateral with a given value at the reporting date. Such methods should assume that collateral property values will follow a normal probability distribution over a given year, consistent with the assumed expected changes in collateral property values and likely variations of such values around the mean. See Appendix A.



5. Using the projections of cash inflows and cash outflows from 2 and 3 above, an effective yield shall be computed. Investment income shall be recognized by applying the effective yield to the net investment in the contracts. The net investment in the contracts is the sum of (a) cumulative total cash payments to borrowers, (b) incremental direct costs of origination<sup>2/</sup>, and (c) accumulated investment income for accounting purposes.<sup>3/</sup>
6. At each reporting date, the cash flows in 2 and 3 shall be re-estimated and the effective yield shall be recomputed. The re-estimation shall include actual cash flows to date for the pool and a revised estimate of future cash flows determined in accordance with 2 and 3 above. Accumulated investment income shall be adjusted at the close of each period to the amount that would have been recognized to date had the revised effective yield been applied since the inception of the pool.
7. Accumulated investment income in 5 and 6 above is to be allocated to individual contracts based on the relationship of total cash advanced to all borrowers to date to the cash advanced to the individual borrower.
8. An "actuarial valuation allowance" account shall be used to record cash inflows on the termination of individual contracts that exceed the net investment in those contracts. The balance of the actuarial valuation allowance account shall be reduced by the amount that the net investment in a contract exceeds the cash inflow on the termination of an individual contract.
9. The following shall be disclosed in the notes to the financial statements:
  - a. A description of the Company's accounting policy and methods, including disclosures about the nature and source of significant assumptions and statistical methods inherent in the pooling model.
  - b. The actuarially estimated future cash payments to mortgagors for each of the next five years, and lump-sum aggregates of actuarially estimated future cash payments to mortgagors for years six through ten, eleven through fifteen, sixteen through twenty, and the remainder after year twenty.
  - c. The significant actuarial and statistical assumptions used to estimate future cash flows and calculate effective yields, including the use of annuity or other tables, the assumed rate of changes in collateral values, and any changes in those assumptions.
  - d. The income or loss recognized in the period as a result of re-estimated cash flows due to changes in actuarial assumptions or actual or expected appreciation or depreciation in property values.

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- e. A sensitivity analysis showing the effect on the effective yield, net income, and retained earnings assuming (1) that property values do not change and (2) that the rate of change in collateral property values is one-percentage-point less than the rate assumed in calculating the effective yield at the reporting date.
- f. The current contract value (cash advances, points, incremental direct origination costs, and accumulated interest and premium charges) as of the date of the balance sheet and the amount of that contract value that would be forfeited if the Company were not to make cash payments to mortgagors in the future.
- g. The current fair value of reverse mortgage contracts as of the reporting date in accordance with FASB Statement 107.

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## Appendix A

Incorporating Statistical Methods into Accounting For Pools of  
Uninsured Residential Reverse Mortgage Contracts

1. Investors in sophisticated financial products that are expected to deliver uneven or lumpy streams of cash over time appropriately use the pooling method for recognizing income. Statistical (or "Monte Carlo" simulation) methods, already used in many risk assessment applications, are a natural tool to enhance the pooling method. Statistical methods are an especially relevant accounting tool for products whose value can vary significantly when components of income or expense deviate from their expected values. A product's sensitivity to these variations can then be incorporated into the expected cash flows to which the pooling method is then applied. Incorporating projected losses using a statistical method is a form of "reserving" when a rule-of-thumb approximation would likely provide a poor estimate of future cash flows.
2. A reverse mortgage that extends payments contingent on a borrower's life in return for a claim on the borrower's home equity exhibits features of life annuities as well as features of real estate lending. Thus there are at least two relevant random variables that control the value of a reverse mortgage product -- borrower lifetimes and house values. (Others may be relevant; for example, if the interest rate on the loan is adjustable, it also is a random variable.) The pooling method applied to reverse mortgages provides that the lender project expected cash flows on the pool of contracts until all contracts are terminated. Then an internal rate of return is computed for this stream of cash flows, and income is recognized at the internal rate.
3. Thus, accounting for reverse mortgages requires forecasts not only of life expectancy but also of house value changes. With a sufficiently large pool of contracts, life tables provide the lender with a reasonably accurate prediction of contract terminations based on borrower lifetimes, so that the variation around expected borrower lifetimes will typically be sufficiently small as to be ignored. But the variation around the mean percentage change in house values is substantial and cannot be ignored. Studies suggest that, on average, houses stay about even with the price level, or depreciate slightly in real terms (perhaps 1/2 of 1% per year in real terms). Future inflation (which may be inferred from the term structure of interest rates) may thus provide a reasonable estimate of future house price appreciation. However, the standard deviation for individual houses around this average is estimated to be between .10 and .14 per year (see for example, "The FHA Home Equity Conversion Mortgage Insurance Demonstration," U.S. Department of Housing and Urban Development, October 1990, and K. Case and R. Schiller, "The Efficiency of the Market for Single Family Homes", American Economic Review, March 1989). Thus, roughly 68 percent of homes in any given year might be expected to change in price by more than negative 12 percent but less than 12 percent in real terms (negative 8 to 16 percent in nominal terms at four percent inflation).
4. To incorporate this phenomenon into estimation of the cash flows on reverse mortgages, the lender can assume that percentage changes in home prices follow a normal probability distribution each year, consistent with the mean and standard deviations specified above. The lender then uses a simulation model to statistically estimate the value of houses in the pool one year into the contract. Assuming that the termination of the loan and the home value are uncorrelated, the life tables for the borrowers are then used to randomly assign terminations and to calculate the amount collected on the



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then used to randomly assign terminations and to calculate the amount collected on the pool of loans. The value of houses for the remaining loans can then be projected into the second year of the contract, and some contracts are assumed to terminate. Home values may then be generated for the third year, fourth year, and so on, until all contracts have terminated. Thus, the simulation model generates time paths for the prices of all individual homes in the pool until each contract is terminated. A single run of the model is characterized by a cash flow projection for the pool resulting from the time path generated. The simulation model should then be re-run many times (in other applications, 100 replications are common), with each run characterized by a different, randomly determined housing inflation path. The expected cash flows from the pool can then be represented by averages of the cash flows over all replications of the model, and from this average cash flow the expected internal rate of return can be calculated.

5. Each period, the actual value of houses "sold" through terminations is observed directly, and the value of those remaining in the pool can be observed through appraisals. This information can then be used to "mark to market" the portfolio. Each income reporting period, the simulation model will be re-run using the new market values for the houses. A new internal rate of return can then be computed and income recognized at that rate, with a catch-up addition to income if houses rose in value by more than the rate previously projected, or a charge against income if houses failed to rise as much as was projected.

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