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Continuing Care Retirement Communities

An Empirical, Financial, and Legal Analysis

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Chapter Four
Financial Management of CCRCs

■ In terms of financial management, a CCRC is analogous to a pension plan in several respects. In both CCRCs and pension plans, revenues are received in advance of the cash payments required for meeting promised benefits. For a pension plan, funds are accumulated during a participant's working years in order to pay for benefits after retirement. Similarly, the payment of a CCRC entry fee plus recurring monthly fees is designed to advance-fund the cost of future health care for a CCRC resident.

There is a tontine element in the operation of both pension plans and CCRCs. For a pension plan, funds are set aside in respect of a participant for each year of service the participant renders to the plan sponsor; however, only those participants meeting certain eligibility requirements will receive benefits. A participant who works only a few years and then terminates employment may never receive benefits from the plan. The same phenomenon exists with respect to a CCRC in that all individuals contribute an entry fee plus monthly fees to fund the high costs of extended health care, even though only those who become ill benefit financially from such advance funding.

There are many ways to fund a pension plan, but one acceptable approach is to set employer contributions equal to a level percentage of payroll each year. In other words, the dollar costs of the plan will increase, but only by an amount equal to the increase in payroll, which typically equals the inflation exposure of the plan sponsor. Similarly, the monthly fees of a CCRC can, and should, be designed to increase by the inflation to which the community is exposed (not necessarily equal to published indices such as the CPI). In order to accomplish

this, a new CCRC *must* charge fees that will advance-fund the increase in health care costs that will occur during the first 10 to 15 years of its operation. If fees are established on a strict real estate approach, the effects of inflation plus the increased cost of higher health care utilization will almost assuredly force fees to be increased by more than inflation alone in order to maintain financial soundness.

In estimating the contributions needed to meet the obligations of a pension plan, the plan's actuary must make assumptions about the plan's experience for many years into the future—in some cases 20 to 40 years or more. Since the experience of the plan will inevitably deviate from these assumptions, the actuary calculates the financial consequences of such deviations and adjusts contributions accordingly. The same problem exists with CCRCs. Each year the experience of the community should be checked against the assumptions used to set fees, with the deviations being factored into the following year's fee adjustments. This is particularly important when dealing with small pension plans and, of course, with CCRCs, whose resident population typically totals only a few hundred individuals.

One of the ways in which a CCRC differs from a pension plan, however, is in the physical plant, or real estate, aspect. A CCRC must anticipate, financially, the cost of refurbishing its facility (and eventually replacing or making major renovation in the facility) and replacing other fixed assets. These items must be factored into the pricing structure of a CCRC. If they are not advance-funded in a manner similar to the advance funding of future health care costs, then there is little hope that the community's fee increases can be held down to the rate of inflation.

The real estate aspect of CCRCs complicates the financial arrangement and leads some managements to price (and market to prospective residents) the CCRC concept on the basis that entry fees are designed to cover the cost associated with the real estate portion of the transaction, while monthly fees (from all residents) are set to cover operating costs. Although this pricing approach may in fact be adequate, it is an oversimplification of the true nature of a CCRC and its financial obligation to residents.

There is a well-defined scientific approach to funding a pension system, based on actuarial mathematics, and this approach can, and should, be applied to establishing fees for a CCRC. Whereas the real estate approach may, by chance, establish fees that will maintain the long-term financial solvency of a CCRC, the actuarial approach attempts to achieve this goal by design.

Actuarial science, which has been applied to pension plans for many decades and is now required by law to be applied to most private pension plans, has seldom been applied to CCRCs. The purpose of the next several chapters is to set forth the fundamentals of actuarial science as applied to CCRCs so that both the actuarial community and the CCRC industry have a common basis to begin working together to help ensure the long-term financial viability of individual communities and the industry in general.

CURRENT PRACTICE

It is a common belief within the CCRC industry that, although the goals and characteristics of a CCRC pricing structure are complex, the financial soundness of a given pricing policy can be adequately addressed by projecting the community's cash flow over a period of years. This belief hinges on the assumption that so long as fees generate revenues sufficient to service the community's debt and to cover operating expenses and so long as depreciation is funded, the community is financially sound. Communities employing this approach, particularly new communities, have not addressed some of the most important financial issues involved with CCRCs, such as assessing and funding the future health care obligation of current residents or defining reserve-level targets and setting fees that will generate liquid assets to meet such targets. In fact, cash flow analyses can promote a false sense of security inasmuch as they can mask serious long-term financial problems, whereas the actuarial methodology described in later chapters is designed to uncover such problems.

To illustrate the dangers of relying on cash flow analyses, four hypothetical cases have been constructed to represent different pricing policies that CCRCs might adopt. All four communities are assumed to be new, identical in size and construction costs, offer the same contracts (extensive health care guarantees), and have the same expense and health care utilization experience. The only difference among the communities is the initial (and subsequent) fees, and the first case is assumed to have a smaller debt ($12 million versus $15 million) since a larger portion of its entry fees were applied to construction costs.

The first-year fees for one-bedroom apartments for each case are given in Table 4–1. The fees for Case 1 were established so that ex-

TABLE 4–1
Base Year One-Bedroom Fees for a Single Entrant

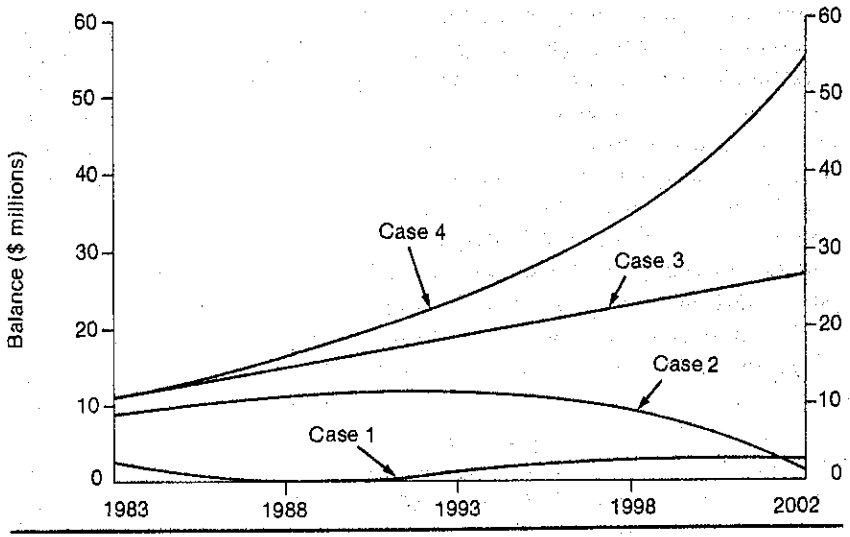
Case	Monthly fee	Entry fee
1	$468	$39,097
2	684	46,916
3	684	52,129
4	720	52,129

pected cash receipts would match expected cash disbursements. This implies, of course, that monthly fees must increase faster than the community's inflation rate in order to keep pace with expenses that are additionally affected by the increased health care utilization during the community's maturation.

The fees for Cases 2 through 4 were based on the policy that a significant portion of the initial entry fees for the first generation of residents would be held in reserve (the amount of the first-year reserve is the same in all cases). The fees for Case 2 were based on what appeared to be a favorable five-year cash flow projection. The Case 3 fees were based on the goal of maintaining a positive cash flow over 20 years. The Case 3 monthly fees are the same as the monthly fees for Case 2; however, the Case 3 entry fees are approximately 11 percent higher. The fees for Case 4 are actuarially based, with the monthly fees approximately 5 percent higher than those for Cases 2 and 3 and the entry fees approximately 11 percent higher than those for Case 2 (i.e., the same as those for Case 3). In all three cases, both monthly fees and entry fees are assumed to increase for inflation.[1]

The expected end-of-year cash balance for each pricing policy is presented in Figure 4–1.[2] Case 1 has a relatively small cash balance

FIGURE 4–1
Expected End-of-Year Cash Balances under Four Pricing Policies



[1] This rate varies, depending on the expenses that monthly fees and entry fees are designated to cover. The long-term inflation rate is assumed to be 10 percent for illustrative purposes.

[2] The methodology for developing revenues, expenses, apartment turnover, and health care utilization is discussed in subsequent chapters.

throughout the forecast. At the end of the first five years, Cases 2 through 4 hold $11 million to $16 million in cash. However, extending the projection for another 15 years shows that the pricing policy underlying Case 2 is seriously inadequate. Its cash balance increases for the next four years and then decreases to under $1 million by the end of 20 years (in today's dollars, adjusting for inflation, the cash balance declines continuously from $9,069,000 to $136,009). Although management may not continue the same underpricing policy in light of declining cash balances, this example illustrates the potential problems of using short-term cash flow analyses.[3]

Even if a long-term cash flow projection is made, management may still not have enough information to select among competing pricing policies. For example, consider the expected cash flows associated with Cases 3 and 4. Although both cases generate large cash balances by the end of 20 years, a cash flow analysis itself does not provide a justification for the $54 million ($8 million in today's dollars) accumulated under the so-called actuarial policy. Nor does it provide a justification for the accumulation of $27 million ($4 million in today's dollars) associated with Case 3. Such justifications, however, can be provided by additional actuarial analyses described in later chapters.

Another deficiency of using projected cash flows alone for management decision making is that a long-term projection might show positive *expected* cash balances, while the probability of a negative cash balance due to random deviations from the underlying assumptions might be extremely high. Table 4–2 shows the implications of random deviations in two key assumptions used to project future cash flows: apartment turnover and health care utilization. The pricing policy selected by management should minimize the probability of having to borrow money to cover negative cash balances. Case 1 shows a high probability of a negative cash balance, ranging from 15 percent to 45 percent after the third year. Case 2 also shows a positive probability of a negative cash balance after 16 years. The probability of a negative cash balance due to random deviations is zero for Cases 3 and 4. This table illustrates a flaw in the use of cash flow analysis based on expected values, since management does not have information on the risks associated with random deviations.

Even if a cash flow analysis involves a long-term projection (20 years or more) and generates information on the risks associated with random deviations, it is still not a sufficient tool to help management select among various pricing policies. In order to select a prudent pricing policy for a CCRC, management must not only look at cash flows, and at the potential variability in cash flows, but must also

[3] Although the values projected 20 years from now are different from the ones that will actually occur, long-term projections serve the purpose of providing the community with ample time to make modest fee adjustments currently in order to avoid undesirable trends instead of having to make more severe adjustments at as later point.

TABLE 4–2
Probability of Short-Term Cash Deficits Due to Random Deviations under Four Pricing Policies

Fiscal year	Pricing policy			
	Case 1	Case 2	Case 3	Case 4
1983	0%	0%	0%	0%
1984	0	0	0	0
1985	0	0	0	0
1986	15	0	0	0
1987	45	0	0	0
1988	40	0	0	0
1989	30	0	0	0
1990	25	0	0	0
1991	20	0	0	0
1992	20	0	0	0
1993	15	0	0	0
1994	15	0	0	0
1995	20	0	0	0
1996	30	0	0	0
1997	30	0	0	0
1998	30	0	0	0
1999	30	15	0	0
2000	30	20	0	0
2001	35	30	0	0
2002	45	40	0	0

identify the size of the deferred obligations to continuing care contractholders and establish a pricing policy to fund those obligations (or some financially acceptable portion thereof).

Unfortunately, the existing literature on CCRCs does not contain a set of financial guidelines, or a pricing and financial evaluation methodology, that allows management to address these pertinent issues. Such a methodology will be developed in subsequent chapters.

OBJECTIVES OF PRICING METHODOLOGY

As noted in the empirical analysis presented in Chapters 2 and 3, there is considerable variability among CCRCs. Communities do not fit one mold but retain their individual identity by offering variations that embody their own philosophy on serving the elderly. Just as each community's management has its own ideas about the services it should provide to residents and about the structuring of the physical plant, community managements also vary in their ideas for setting fees. At one extreme, management could set actuarially adequate fees, following a pure actuarial approach in which fees vary according to the resident's entry age, sex, apartment type, health status at entry, and so forth. At the other extreme, all residents could be charged the same fees.

Typically, the fees for CCRCs fall between these extremes. For example, fees tend to vary by the apartment type and by the number of apartment occupants. Some communities allow residents who have permanently transferred to the health care center to pay the same fees they did before permanent transfer. Other communities require that all health care residents pay a uniform fee. All of these variations in pricing structures are based on management's objectives. Therefore, one goal of the pricing methodology should be that the methodology not dictate such objectives but rather inform management whether or not its pricing structure as a whole, or in aggregate, is financially sound, leaving to management discretion decisions regarding equity among current residents and among successive generations of residents.

In the preceding section, the cash balances associated with the two acceptable pricing policies (Cases 3 and 4) might seem extremely large for a nonprofit operation. This could make it difficult to extract fee increases from residents, who might feel that such balances are unnecessary and inappropriate "profits." Therefore, a second objective of pricing methodology is that it provide a basis for justifying both to management and to residents the size of a community's assets and continued fee increases. This objective is closely related to the types of financial statements (both internal and external) that are developed by the community. Most communities prepare such statements according to generally accepted accounting principles (GAAP). As discussed more fully in later chapters, statements prepared in this way must be modified to present a financial picture consistent with the community's actuarial position, and the pricing methodology should provide guidance for such modifications.

Finally, any organization that offers a continuing care contract is committing itself to a long-term venture. Even though the typical resident is expected, on average, to survive 12 to 14 years in the community, a certain percentage will survive 20 years or more. This means that the methodology used to set fees must determine whether the fees set will support current residents over their potential (not just expected) lifetimes in the community. Moreover, the methodology should require that management establish policies to help ensure the continued operation of the community, such as setting aside funds to replace equipment and furnishings and to eventually replace the facility. Since new entrants are an important component of the success of the ongoing community, management will also need to set aside reserves for future refurbishment and/or modernization to maintain the facility's attractiveness to prospective residents.

ALTERNATIVE PRICING METHODOLOGIES

Three generic pricing methodologies used by actuaries in connection with pension plans are: (1) pay-as-you-go, (2) open-group, and (3) closed-group. These three methodologies, in fact, were used in the cash flow projections for Cases 1, 3, and 4, respectively. The pay-as-you-go method looks at one year at a time, setting current fees at a level sufficient to cover current expenses. The open-group method examines a fixed period of years, such as 20 years, and determines current and projected fees such that their present value equals the present value of current and projected expenses for *all* residents (current plus new entrants) during the period. Under this approach, current fees will generally be higher than current expenses in anticipation of increased health care utilization and future fixed-asset expenditures. The closed-group method is based on the goal of setting fees for a cohort group of residents (typically each group of new entrants) to cover their anticipated expenses over their remaining lifetimes in the community. This method differs from the open-group method since it examines each cohort separately and requires that fees be self-supporting without the benefit of new entrants' fees.

A comparison of the three pricing methodologies is given in Table 4–3, based on five characteristics: (1) relative fee levels, (2) simplicity of determining annual fees, (3) ability to maintain inflation-constrained increases in monthly fees, (4) ability to achieve group equity, and (5) size of contract termination reserves. The comparisons are presented for both a new (or maturing) community and a mature community.

Fee Levels

Since most communities are nonprofit, a common goal is to offer the maximum service at the lowest possible cost to residents. A constraint on this policy is that communities do not wish to set fees so low that their financial stability is jeopardized.

For a new community, the pay-as-you-go method requires the lowest fees, while the closed-group method generates the highest. However, if a community adheres to these policies to maturity, the pay-as-you-go method will have the highest fees, while the closed-group method will have the lowest. The reason for this difference is that under the closed-group method, the initial fees will be higher than the initial expenses, generating reserves that produce interest income in later years. The interest income, in turn, covers a portion of the expenses and thus allows fees to be lower than the fees required by the pay-as-you-go method. This phenomenon also occurs with the open-group method, but generally to a lesser extent than with the closed-group method.

TABLE 4–3
Comparison of Alternative Pricing Methodologies

Community age	Pricing method	Characteristics					
		Fee levels	Simplicity of fees	Maintenance of inflation-constrained monthly fees	Group equity	Contract termination reserve
Maturing	Pay-as-you-go	Lowest	Easy	Difficult	Difficult	None
	Open-group	Intermediate	Complex	Possible	Possible	Partial to full funding
	Closed-group	Highest	Complex	By definition	By definition	Full funding
Mature	Pay-as-you-go	Highest	Easy	Difficult	Difficult	None
	Open-group	Intermediate	Complex	Possible	Possible	Partial to full funding
	Closed-group	Lowest	Complex	By definition	By definition	Full funding

Simplicity of Preparing Financial Projections

The second characteristic in Table 4–3 refers to the difficulty of developing projections to determine annual changes in fees. Pay-as-you-go is the easiest method to employ, since it requires that revenues equal expenses for only a one-year projection. Both the closed-group and the open-group approach are more complex, as explained in later chapters.

Maintenance of Inflation-Constrained Monthly Fees

Limiting increases in monthly fees to the internal inflation rate of the community is a desirable goal for a CCRC. The closed-group method, by definition, establishes fees to meet this objective. It is also possible to achieve this goal with open-group pricing. Fee increases under the pay-as-you-go method depend on the rate of increase in expenses, which typically increase by more than inflation because of increased health care costs.

Group Equity

Group equity, another desirable goal for CCRCs, implies that the fees for a cohort group of residents (typically a new entrant cohort) are set such that they cover all future expenses allocated to that group. Thus, the fees for each cohort are self-supporting and require no intergenerational transfer of funds. The only method that accomplishes this goal by definition is the closed-group approach. This objective is virtually impossible to achieve using pay-as-you-go and is difficult to achieve under the open-group approach, since these methods do not set fees to be adequate for a cohort group; instead, they rely on new entrants to maintain the community's financial soundness.

Contract Termination Reserves

Many communities state that it is their policy to offer continuing care contracts for the foreseeable future. However, recent experience shows that this has not been possible for some communities, even though they may have wished to continue doing so. Some of the discontinuations have been caused by fluctuations in the marketplace, and others have been caused by failure to set fees properly during the earlier years after start-up.

The contract termination reserves refer to the ability of the community to cover its future liabilities for continuing care contractholders in the event that the community decides to no longer offer such contracts.[4] Fees under the closed-group method will generate sufficient

[4] Alternatively, it can be viewed as the strength of the pricing methodology to withstand financial variations that might otherwise cause the community to change the contractual guarantee offered to prospective residents.

reserves to liquidate (close out) the liabilities associated with current residents while maintaining inflation-constrained monthly fees. The open-group method partially funds such reserves, and in some cases may result in full funding. The pay-as-you-go approach does no funding in this regard. Thus, if continuing care contracts were no longer offered to new entrants, management would have to increase the surviving continuing care contractholders' fees by more than inflation and/or subsidize a portion of the liability from other sources.

Summary

The pay-as-you-go method is an extremely risky approach for a new community, especially in an inflationary environment. Existing communities that have already reached a mature state may find this approach to be satisfactory; however, it does not provide the financial security that the authors believe is appropriate for CCRC residents.

The open-group method can provide a satisfactory approach to pricing a CCRC, but there may be a temptation to select a planning horizon and assumptions that postpone too large a portion of current expenses to future periods.

The closed-group method does not suffer from the above problems, but it may generate fees for some existing CCRCs that are simply too large to implement, in which case the open-group method would have to be employed. Because of the strengths of the closed-group method, the remaining chapters will describe this approach. However, many of the principles set forth apply to the open-group method as well. ■