



CHAPTER 30

Financial Management in Not-for-Profit Businesses

Thus far, we have focused exclusively on the financial management of investor-owned, profit-oriented firms. However, financial management is also important in not-for-profit businesses, defined as corporations that charge a fee for their services and are expected to generate enough revenues to cover costs, but that have neither outstanding stock nor stockholders. Examples of not-for-profit businesses include thousands of municipal utilities ranging from Los Angeles Power & Light and the New York Power Authority to tiny rural electric authority (REA) cooperatives; all private colleges and universities; about 85 percent of all U.S. hospitals, nursing homes, and other health care facilities; and even tourist attractions such as the Baltimore and Tampa aquariums.

These tens of thousands of not-for-profit firms employ millions of people and provide vital services, so it is important that they be operated efficiently. To maintain efficiency, the not-for-profits require financial management skills similar to those of investor-owned firms, but with an important difference: the not-for-profits do not have stockholders, hence their goal is not shareholder wealth maximization. As we discuss in the chapter, this difference in goals between profit and not-for-profit businesses leads to some interesting contrasts in the financial management of the two types of organizations.

FOR-PROFIT (INVESTOR-OWNED) VERSUS NOT-FOR-PROFIT BUSINESSES

When the average person thinks of a business, he or she thinks of an **investor-owned**, or **for-profit**, firm. The IBMs and General Motors of this world are investor-owned firms. Investors become owners of such companies by buying the firms' common stock, either when the company first sells its shares to the public, in an initial public offering (IPO); when it issues additional shares, in the primary market; or in the secondary market.

Investor-owned firms have three key characteristics: (1) The owners (stockholders) are well-defined, and they exercise control by voting for the firm's board of directors. (2) The firm's residual earnings belong to its stockholders, so management is responsible to this single, well-defined group of people for the firm's profitability. (3) The firm is subject to taxation at the federal, state, and local levels. However, if an organization meets a set of stringent requirements, it can qualify as a **tax-exempt**,

or **not-for-profit, corporation**.¹ Tax-exempt status is granted to corporations that fit the definition of a charitable organization and hence qualify under Internal Revenue Service (IRS) Tax Code Section 501(c)(3). Thus, such corporations are also known as **501(c)(3) corporations**.²

The Tax Code defines a charitable organization as any corporation, community chest, fund, or foundation that is organized and operated exclusively for religious, charitable, scientific, public safety, literary, or educational purposes. Because the promotion of health is commonly considered a charitable activity, a corporation that provides health care services, provided it meets other requirements, can qualify for tax-exempt status. In addition to being organized for a charitable purpose, a not-for-profit corporation must be administered so that (1) it operates exclusively for the public, rather than private, interest; (2) none of the profits are used for private inurement; (3) no political activity is conducted; and (4) if liquidation occurs, the assets will continue to be used for a charitable purpose.³

For example, hospital corporations that qualify for tax-exempt status exhibit the following characteristics: (1) Control rests in a **board of trustees** composed mostly of community leaders who have no direct economic interest in the organization. (2) The organization maintains an open medical staff, with privileges available to all qualified physicians. (3) If the hospital leases office space to physicians, such space can be leased by any member of the medical staff. (4) The hospital operates an emergency room accessible to the general public. (5) The hospital is engaged in medical research and education. (6) The hospital undertakes various programs to improve the health of the community.

Conversely, any of the following activities may disqualify a hospital from tax-exempt status: (1) The hospital is controlled by members of the medical staff. (2) The hospital restricts staff privileges to controlling physicians. (3) The hospital leases office space to some physicians at less than fair market value. (4) The hospital limits the use of its facilities. (5) The hospital has contractual agreements that provide direct economic benefit to controlling physicians. (6) The hospital provides only a negligible amount of charity care.

Not-for-profit corporations differ significantly from investor-owned corporations. Because not-for-profit businesses have no shareholders, no group of individuals has ownership rights to the firm's residual earnings. Similarly, no outside group exercises control of the firm; rather, control is exercised by a board of trustees that is not constrained by outside oversight. As we noted earlier, not-for-profit corporations are generally exempt from taxation, including both property and income taxes, and they have the right to issue tax-exempt debt. Finally, individual contributions to not-for-profit organizations can be deducted from taxable income by the donor, so not-for-profit businesses have access to tax-advantaged contributed capital.

Whether a firm is investor-owned or not-for-profit, there are an almost unlimited number of ways of organizing within the corporate structure. At the most basic level,

¹In the past, tax-exempt corporations were commonly called *nonprofit corporations*, but today the term *not-for-profit corporation* is more common. For more information on financial management in not-for-profit health care corporations, see Louis C. Gapenski, *Understanding Health Care Financial Management: Text, Cases, and Models* (Ann Arbor, MI: AUPHA Press/Health Administration Press, 1996).

²For additional information on obtaining and maintaining tax-exempt status, see the summer 1988 issue of *Topics in Health Care Financing*, titled "Tax Management for Exempt Providers."

³*Private inurement* means personal benefit from the profits (net income) of the corporation. Since individuals cannot benefit from not-for-profit corporations' profits, such organizations cannot pay dividends. Note, however, that prohibition of private inurement does not prevent parties to not-for-profit corporations, such as managers, from benefiting through salaries, perquisites, and the like. For example, in 1992 it was disclosed that the national chairman of the United Way received an annual salary plus perquisites that exceeded \$400,000 in value. He was forced to resign in part because this level of compensation was considered too high for an employee of a not-for-profit charity.

a not-for-profit business can be a single entity with one operating unit. In this situation, all the financial management decisions are performed by a single set of managers who must raise the needed capital and decide how to allocate it within the organization. Alternatively, corporations can be set up with separate operating divisions or as holding companies, with wholly owned or partially owned subsidiary corporations, in which the different management layers have different responsibilities.

The holding company structure, which we discussed in Chapter 25, is particularly useful when a corporation is engaged in both for-profit and not-for-profit activities. For example, a typical not-for-profit hospital corporation is organized along the lines presented in Figure 30-1. This organization facilitates expansion into both tax-exempt and taxable activities well beyond patient care. However, the tax-exempt holding company must ensure that all transactions between taxable and tax-exempt subsidiaries are conducted at arm's length; if business is not transacted in this way, the tax-exempt status of the parent holding company and its not-for-profit subsidiaries could be challenged.

The inherent differences between investor-owned and not-for-profit organizations have profound implications for many elements of financial management, including defining the goals of the firm and making financing and capital budgeting decisions. The remainder of this chapter will be devoted to these issues.

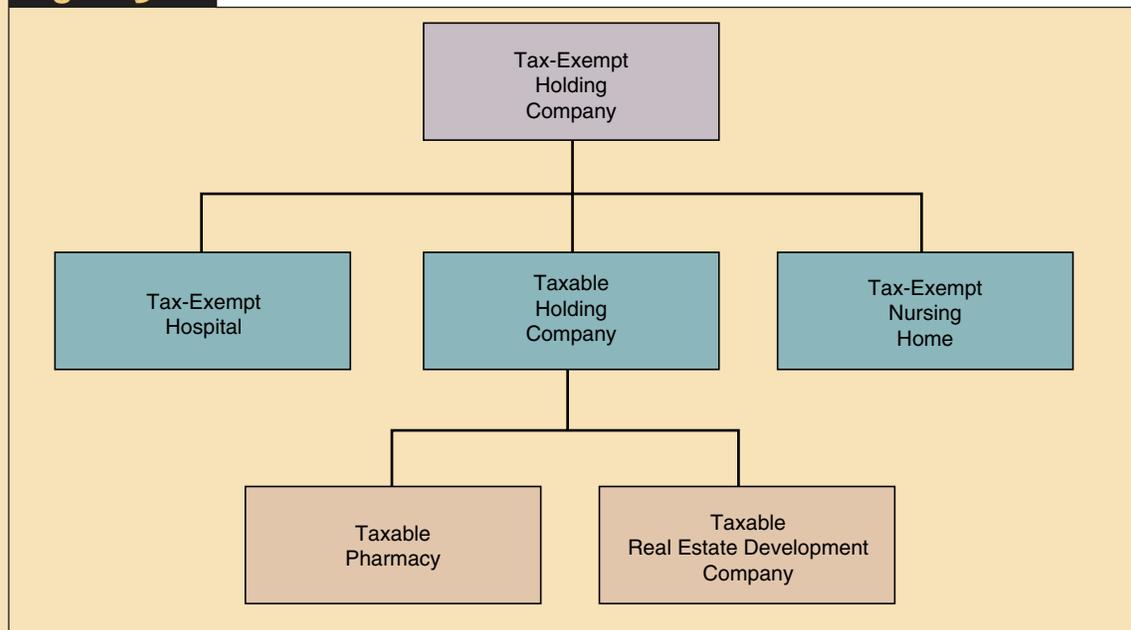
SELF-TEST QUESTIONS

Define the following terms:

- (1) Investor-owned firm
- (2) Not-for-profit business
- (3) 501(c)(3) corporation
- (4) Private inurement
- (5) Board of trustees

What are some major differences between investor-owned and not-for-profit businesses?

Figure 30-1 Typical Not-for-Profit Corporate Structure



GOALS OF THE FIRM

From a financial management perspective, the primary goal of investor-owned firms is shareholder wealth maximization, which translates to stock price maximization. Because not-for-profit businesses do not have stockholders, shareholder wealth maximization cannot be the goal of such organizations. Rather, not-for-profit businesses serve and are served by a number of **stakeholders**, which include all parties that have an interest (financial or otherwise) in the organization. For example, a not-for-profit hospital's stakeholders include its board of trustees, managers, employees, physicians, creditors, suppliers, patients, and even potential patients (i.e., the entire community). While managers of investor-owned companies can focus primarily on the interests of one class of stakeholders—the stockholders—managers of not-for-profit businesses face a different situation. They must try to please all the stakeholders because there is no single, well-defined group that exercises control.⁴

Typically, the goal of a not-for-profit business is stated in terms of some mission. For example, the mission statement of Ridgeway Community Hospital, a 300-bed, not-for-profit hospital, is as follows:

Ridgeway Community Hospital, along with its medical staff, is a recognized, innovative health care leader dedicated to meeting the needs of the community. We strive to be the best comprehensive health care provider possible through our commitment to excellence.

Although this mission statement provides Ridgeway's managers and employees with a framework for developing specific goals and objectives, it does not provide much insight about the goals of financial management. For Ridgeway to accomplish its mission, the hospital's managers have identified five specific financial management goals:

1. The hospital must maintain its financial viability.
2. The hospital must generate sufficient profits to permit it to expand along with the community and to replace plant and equipment as it wears out or becomes obsolete.⁵
3. The hospital must generate sufficient profits to invest in new medical technologies and services as they become available.
4. Although the hospital has an aggressive philanthropy program in place, it does not want to be overly dependent on this program, or on government grants, to fund its operations.
5. The hospital will strive to provide services to the community as inexpensively as possible, given the above financial requirements.

In effect, Ridgeway's managers are saying that to achieve the “commitment to excellence” mentioned in its mission statement, the hospital must remain financially strong and reasonably profitable. Financially weak organizations cannot continue to accomplish their stated missions over the long run. When talking among themselves, Ridgeway's managers summarize this requirement as “No margin, no mission.” Note that in many ways Ridgeway's five goals for financial management are

⁴Many people argue that managers of not-for-profit firms do not have to please anyone at all, because they tend to dominate the board of trustees that is supposed to exercise oversight. However, we would argue that managers of not-for-profit firms must please all the firms' stakeholders to a greater or lesser extent because all are necessary to the well-being of the business. Similarly, managers of investor-owned firms should not treat any of their other stakeholders unfairly, because such actions are ultimately detrimental to stockholders.

⁵Technically, not-for-profit firms earn an “excess of revenues over expenses” rather than “profits.” But to keep consistent terminology, we will generally use the term **profits** or **net income** for this excess, as do most people who work in not-for-profit firms.

not much different from the financial management goals of for-profit hospitals. In order to maximize shareholder wealth, the managers of for-profit hospitals must also maintain financial viability and obtain the financial resources necessary to provide new services and technologies.

SELF-TEST QUESTIONS

What is the primary goal of investor-owned firms? Of not-for-profit businesses? From a financial management perspective, what are the major similarities and differences between the objectives of investor-owned and not-for-profit firms?

COST OF CAPITAL ESTIMATION

As we discussed in Chapter 9, a firm's weighted average, or overall, cost of capital (WACC) is a blend of the costs of the various types of capital it uses. In general, cost of capital estimation for not-for-profit businesses parallels that for investor-owned firms, but there are two major differences. First, since not-for-profit businesses pay no taxes, there are no tax effects associated with debt financing.⁶ Second, investor-owned firms raise equity capital by selling new common stock and by retaining earnings rather than paying them out as dividends. Not-for-profit businesses raise the equivalent of equity capital, which is called **fund capital**, in three ways: (1) by earning profits, which by law must be retained within the business; (2) by receiving grants from governmental entities; and (3) by receiving contributions from individuals and companies. Since fund capital is fundamentally different from equity capital, this question arises: How do we measure the cost of fund capital?

Because the weighted average cost of capital is used primarily for capital budgeting decisions, it represents the opportunity cost of using capital to purchase fixed assets rather than for alternative uses. For investor-owned firms, the opportunity cost associated with equity capital is apparent—if available capital is not needed for investment in fixed assets, it can be returned to the stockholders by either paying dividends or repurchasing stock. For not-for-profit businesses, which do not have this option, the opportunity cost of fund capital is more controversial. Historically, at least four positions have been taken with regard to the cost of fund capital.⁷

1. It has been argued that fund capital has zero cost. The rationale here is (a) that contributors do not expect a monetary return on their contributions, and (b) that the firm's other suppliers of fund capital, especially the customers who pay more for services than is warranted by the firm's tangible costs, do not require an explicit return on the capital retained by the firm.
2. The second position also assumes a zero cost for fund capital, but here it is recognized that, when inflation exists, fund capital must earn a return sufficient to enable the organization to replace existing assets as they wear out. For example, assume that a not-for-profit firm buys a building that costs \$1,000,000. Over time, the cost of the building will be recovered by depreciation, so, at least in theory, \$1,000,000 will be available to replace the building when it becomes obsolete. However, because of inflation the new building now might cost \$1,500,000. If the firm has not increased its fund capital by retaining earnings, the only way to finance the additional \$500,000 will be

⁶However, most not-for-profit firms can issue tax-exempt bonds through municipal financing authorities. Thus, the cost of debt disadvantage of not being able to deduct interest expense from taxable income is offset for the most part by issuing lower-cost tax-exempt debt. We will discuss tax-exempt debt in detail in a later section.

⁷For one of the classic works on this topic, see Douglas A. Conrad, "Returns on Equity to Not-for-Profit Hospitals: Theory and Implementation," *Health Services Research*, April 1984, 41–63. Also, see the follow-up articles by Pauly; Conrad; and Silvers and Kauer in the April 1986 issue of *Health Services Research*.

through grants and contributions, which may not be available, or by increasing its debt and hence its debt ratio, which might not be desirable or even possible. Thus, just to maintain its existing asset base over time, a not-for-profit firm must earn a return on fund capital equal to the inflation rate, hence this rate must be built into the firm's cost of capital estimate. Of course, if the asset base must increase to provide additional services, retained earnings above those needed to keep up with inflation will be required.

3. The third position is that fund capital has some cost but that it is not very high. When a not-for-profit firm either receives contributions or retains earnings, it can always invest those funds in marketable securities rather than purchase real assets. Thus, fund capital has an opportunity cost that should be acknowledged, and this cost is roughly equal to the return available on a portfolio of short-term, low-risk securities such as T-bills.
4. Finally, others have argued that fund capital to not-for-profit businesses has about the same cost as the cost of retained earnings to similar investor-owned firms. The rationale here also rests on the opportunity cost concept, but the opportunity cost is now defined as the return available from investing the fund capital in alternative investments of *similar risk*.

Which of the four positions is correct? Think about it this way: Suppose Ridgeway Community Hospital expects to receive \$500,000 in contributions in 2005 and also forecasts \$1,500,000 in earnings, so it expects to have \$2,000,000 of new fund capital available for investment. The \$2 million could be used to purchase assets related to its core business, such as an outpatient clinic or diagnostic equipment; the money could be temporarily invested in securities with the intent of purchasing real assets some time in the future; it could be used to retire debt; it could be used to pay management bonuses; it could be placed in a non-interest-bearing account at the bank; and so on. If it uses the capital to purchase real assets, Ridgeway is deprived of the opportunity to use this capital for other purposes, so an opportunity cost must be assigned.

The hospital's investment in real assets should return at least as much as the return available on securities investments of similar risk.⁸ What return is available on securities with similar risk to hospital assets? Generally, the best answer is the return that could be expected from investing in the stock of an investor-owned hospital company, such as HCA Inc. After all, instead of using fund capital to purchase real assets, Ridgeway could always use the funds to buy the stock of an investor-owned hospital and thus generate additional funds for future use. Therefore, the cost of fund capital for a not-for-profit corporation can be proxied by estimating the beta coefficient of a similar investor-owned corporation and then using Hamada's equation as discussed in Chapter 16 to adjust for leverage and tax differences.

In general, the opportunity cost principle applies to all fund capital—this capital has a cost that is equal to the cost of retained earnings to similar investor-owned firms. However, contributions that are designated for a specific purpose, such as a children's hospital wing, may indeed have a zero cost: since the funds are restricted to a particular project, the firm does not have the opportunity to invest them in other alternatives.

Although the opportunity cost concept is intuitively appealing, some fundamental problems are inherent in using a publicly held for-profit hospital corporation's cost of equity as a proxy for a not-for-profit hospital's cost of fund capital. First and

⁸We do not mean to imply here that not-for-profit firms should never invest in a project that will lose money. Not-for-profit firms do invest in negative-profit projects that benefit their stakeholders, but their managers must be aware of the financial opportunity costs inherent in such investments. We will have more to say about this issue when we discuss capital budgeting decisions.

foremost, the market risk to equity investors is probably less than the risk imbedded in fund capital because stockholders can eliminate a large portion of their investment risk by holding well-diversified portfolios. Stakeholders such as managers, patients, physicians, and employees, on the other hand, do not have the same opportunities to diversify their hospital-related activities. Furthermore, investor-owned companies tend to have wide geographic and patient diversification, while not-for-profit hospitals tend to be stand-alone concerns with little risk-reducing diversification. In spite of these concerns, it is reasonable to assign a cost of fund capital based on opportunity costs, and the best estimate is the cost of equity to a similar for-profit business.

SELF-TEST QUESTIONS

What is fund capital, and how does it differ from equity capital?
How does the cost of capital estimation process differ between investor-owned and not-for-profit businesses?

CAPITAL STRUCTURE DECISIONS

When making capital structure decisions within not-for-profit businesses, managers must be concerned with two issues: Is capital structure theory, particularly the tax-benefits-versus-financial-distress-costs trade-off theory, applicable to not-for-profit businesses? And are there any characteristics of not-for-profit businesses that prevent them from following the guidance prescribed by theory?

No rigorous research has been conducted into the optimal capital structures of not-for-profit businesses, but some loose analogies can be drawn. Although not-for-profit businesses do not pay taxes and hence cannot reduce the cost of debt by $(1 - T)$, many of these businesses have access to the tax-exempt debt market. As a result, not-for-profit businesses have about the same effective cost of debt as do investor-owned firms.

As discussed in the previous section, a not-for-profit firm's fund capital has an opportunity cost that is roughly equivalent to the cost of equity of an investor-owned firm of similar risk. Thus, we would expect the opportunity cost of fund capital to rise as more and more debt financing is used, just as it would for an investor-owned firm. Not-for-profit businesses are subject to the same types of financial distress and agency costs that are borne by investor-owned firms, so these costs are equally applicable. Therefore, we would expect the trade-off theory to be applicable to not-for-profit businesses, and such businesses should have optimal capital structures that are defined, at least at first blush, as a trade-off between the costs and benefits of debt financing. Note, however, that the asymmetric information theory is not applicable to not-for-profit businesses because such businesses do not issue common stock.

Although the trade-off theory may be conceptually correct for not-for-profit businesses, a problem arises when applying the theory. For-profit firms have relatively easy access to equity capital. Thus, if a for-profit firm has more capital investment opportunities than it can finance with retained earnings and debt financing, it can generally raise the needed funds by a new stock offering.⁹ Further, it is relatively easy for investor-owned firms to alter their capital structures. For example, if a firm is underleveraged it can simply issue more debt and use the proceeds to repurchase stock, or if it has too much debt it can issue additional shares and use the proceeds to retire debt.

Not-for-profit businesses do not have access to the equity markets—their sole source of “equity” capital is through government grants, private contributions, and

⁹According to the asymmetric information theory of capital structure, managers may not want to issue new stock, but the capability is there, and circumstances do arise in which managers issue new equity to obtain needed financing.

profits. Thus, managers of not-for-profit businesses do not have the same degree of flexibility in either capital investment or capital structure decisions as do their counterparts in for-profit firms. For this reason, it is often necessary for not-for-profit businesses (1) to delay new projects because of funding insufficiencies and (2) to use more than the theoretically optimal amount of debt because that is the only way that needed services can be financed. Although these actions may be unavoidable, managers must recognize that such strategies do increase costs. Project delays result in needed services not being provided on a timely basis, and using more debt than the optimal level pushes the firm beyond the point of the greatest net benefit of debt financing, which increases its capital costs. Therefore, if a not-for-profit firm is forced into a situation where it is using more than the optimal amount of debt financing, its managers should plan to reduce the level of debt as soon as the situation permits.

The ability of not-for-profit businesses to obtain government grants, to attract private contributions, and to generate excess revenues plays an important role in establishing the firm's competitive position. A firm that has an adequate amount of fund capital can operate at its optimal capital structure and thus minimize capital costs. If sufficient fund capital is not available, a not-for-profit firm may be forced to rely too heavily on debt financing, resulting in higher capital costs. Also, its weakened financial condition may prevent it from acquiring capital equipment that would increase its efficiency and improve its services, thus hampering its overall operating performance.

Imagine two not-for-profit businesses that are similar in all respects except that one has more fund capital and can operate at its optimal capital structure, while the other has insufficient fund capital and thus must use more debt than its optimum. The financially strong firm has a significant competitive advantage because it can either offer more services at the same cost or it can offer matching services at lower costs.

SELF-TEST QUESTIONS

Is the trade-off theory of capital structure applicable to not-for-profit businesses? Explain.

What impact does the inability to issue common stock have on capital structure decisions within not-for-profit businesses?

CAPITAL BUDGETING DECISIONS

In this section, we discuss the effect of not-for-profit status on three elements of capital budgeting: (1) appropriate goals for project analysis, (2) cash flow estimation/decision methods, and (3) risk analysis.

The Goal of Project Analysis

The primary goal of a not-for-profit business is to provide some service to society, not to maximize shareholder wealth. In this situation, capital budgeting decisions must incorporate many factors besides the project's profitability. For example, noneconomic factors such as the well-being of the community must also be taken into account, and these factors may outweigh financial considerations.

Nevertheless, good decision making, designed to ensure the future viability of the organization, requires that the financial impact of each capital investment be fully recognized. Indeed, if a not-for-profit business takes on unprofitable projects that are not offset by profitable projects, the firm's financial condition will deteriorate, and if this situation persists over time it could lead to bankruptcy and closure. Obviously, bankrupt businesses cannot meet community needs.

Cash Flow Estimation/Decision Methods

In general, the same project analysis techniques that are applicable to investor-owned firms are also applicable to not-for-profit businesses. However, two differences do exist. First, since some projects of not-for-profit businesses are expected to provide a **social value** in addition to a purely economic value, project analysis should consider social value along with financial, or cash flow, value. When social value is considered, the total net present value (TNPV) of a project can be expressed as follows:¹⁰

$$\text{TNPV} = \text{NPV} + \text{NPSV}. \quad (30-1)$$

Here, NPV is the standard net present value of the project's cash flow stream, and NPSV is the net present social value of the project. The NPSV term clearly differentiates capital budgeting in not-for-profit businesses from that in investor-owned firms, and it represents the firm's assessment of the project's social value as opposed to its pure financial value as measured by NPV.

A project is deemed to be acceptable if its TNPV ≥ 0 . Not all projects have social value, but if a project does, this value should be recognized in the decision process. Note that to ensure the financial viability of the firm, the sum of the NPVs of all projects initiated in a planning period, plus the value of the unrestricted contributions received, must equal or exceed zero. If this restriction were not imposed, social value could displace financial value over time, but this would not be a sustainable situation because a firm cannot continue to provide social value unless its financial integrity is maintained.

NPSV can be defined as follows:

$$\text{NPSV} = \sum_{t=1}^n \frac{\text{Social value}_t}{(1 + r_s)^t}. \quad (30-2)$$

Here, the social values of a project in every Year t , quantified in some manner, are discounted back to Year 0 and then summed. In essence, the suppliers of fund capital to a not-for-profit firm never receive a cash return on their investment. Instead, they receive a return on investment in the form of social dividends, such as charity care, medical research and education, and myriad other community services that for various reasons do not pay their own way. Services provided to patients at a price equal to or greater than the full cost of production are assumed not to create social value. Similarly, if governmental entities purchase care directly for beneficiaries of a program or support research, the resulting social value is attributed to the governmental entity, not to the provider of the services.

In estimating a project's NPSV (that is, in evaluating Equation 30-2), it is necessary (1) to quantify the social value of the services provided by the project in each year and (2) to determine the discount rate that is to be applied to those services. First, consider how we might quantify the social value of services provided in the health care industry. When a project produces services to individuals who are willing and able to pay for those services, the value of those services is captured by the amount the individuals actually pay. Thus, one approach to valuing the services provided to those who cannot pay, or to those who cannot pay the full amount, is to

¹⁰For more information on the social value model, see John R. C. Wheeler and Jan P. Clement, "Capital Expenditure Decisions and the Role of the Not-For-Profit Hospital: An Application of the Social Goods Model," *Medical Care Review*, Winter 1990, 467-486.

use the average net price paid by individuals who do pay. This approach has intuitive appeal, but there are four points that merit further discussion:

1. Price is a fair measure of value only if the payer has the capacity to judge the true value of the services provided. Many who are knowledgeable about the health care industry would argue that information asymmetries between the provider and the purchaser reduce the ability of the purchaser to judge true value.
2. Because most payments for health care services are made by third parties, price distortions may occur. For example, insurers might be willing to pay more for services than an individual would pay in the absence of insurance. Or the existence of monopsony power, say, by Medicare, might result in a net price that is less than individuals would actually be willing to pay.
3. The amount that an individual is willing to pay might be more or less than the amount a contributor or other fund supplier would be willing to pay for the same service.
4. Finally, there is a great deal of controversy over the true value of treatment in many health care situations. If we are entitled to whatever health care is available regardless of its cost, and if we are not individually required to pay for the care (even though society, as a whole, is), then we may demand a level of care that is of questionable value. For example, should \$100,000 be spent to keep a comatose 87-year-old person alive for 15 more days? If the true social value of such an effort is zero, then it makes little sense to assign a \$100,000 value to the care just because that is its cost.

In spite of potential problems mentioned here, it still seems reasonable to assign a social value to many (but not all) health care services on the basis of the price that others are willing to pay for those services.¹¹

The second element required to estimate a project's NPSV is the discount rate that is to be applied to its annual social value stream. As with the required rate of return on equity for not-for-profit businesses, there has been considerable controversy over the proper discount rate to apply to future social values. One way of looking at the issue is to recognize that fund capital can generate social value in two ways: The not-for-profit can use it to provide services itself, or it can invest the money and use the proceeds to purchase the services on the open market. For example, suppose one of the goals of a not-for-profit organization is to provide indigent medical care. First, the organization could use the funds to provide the services itself, using the money to build a hospital and provide indigent care, as well as provide care for which it receives payment. Alternatively, the not-for-profit organization could invest the funds in a portfolio of marketable securities and use the proceeds to purchase care from an existing hospital for those who cannot afford it. Because the second alternative exists, it is reasonable to argue that providers should require a return on the social value stream that approximates the return available on the equity investment in for-profit firms offering the same services.

The net present social value model formalizes the capital budgeting decision process applicable to not-for-profit businesses. Although few organizations attempt

¹¹The issue of interpersonal values also arises—is the value of a heart transplant the same to a 75-year-old in poor health as to a 16-year-old in otherwise good health? An even more controversial issue has to do with the ability to pay—if someone can afford a Rolls Royce and he or she wants to buy one, he or she can, even though someone else may think the car is not worth the cost. To what extent is health care different from cars—or food, shelter, and clothes? Hence, to what extent should the health care industry be insulated from the kinds of economic incentives that operate in other industries? To date, our society has not come to grips with this issue, but with health care costs rising at a rate that would make it exceed the gross national product in less than 50 years, something must be done, and fairly soon.

to quantify NPSV for all projects, not-for-profit businesses should at least subjectively consider the social value inherent in projects under consideration.

Another important difference between investor-owned and not-for-profit businesses involves the amount of capital available for investment. Standard capital budgeting procedures assume that firms can raise virtually unlimited amounts of capital to meet investment requirements. Presumably, as long as a firm is investing the funds in profitable (positive NPV) projects, it should raise the debt and equity needed to fund the projects. However, not-for-profit businesses have limited access to capital—their fund capital is limited to retentions, contributions, and grants, and their debt capital is limited to the amount that can be supported by their fund capital and revenue base. Thus, not-for-profit businesses are likely to face periods in which the cost of desirable new projects will exceed the amount that can be financed, so not-for-profit businesses are often subject to capital rationing, a topic we discussed in Chapter 10.

If capital rationing exists, then, from a financial perspective, the firm should accept that set of capital projects that maximizes aggregate NPV without violating the capital constraint. This amounts to “getting the most bang from the buck,” and it involves selecting projects that have the greatest positive impact on the firm’s financial condition. However, in a not-for-profit setting, priority may be assigned to some low-profit or even negative NPV projects. This is acceptable as long as these projects are offset by the selection of positive NPV projects, which would prevent the low-profit, priority projects from eroding the firm’s financial integrity.

Risk Analysis

As we discussed in Chapter 11, three separate and distinct types of project risk can be defined: (1) stand-alone risk, which ignores portfolio effects and views the risk of a project as if it were held in isolation; (2) corporate risk, which views the risk of a project within the context of the firm’s portfolio of projects; and (3) market risk, which views a project’s risk from the perspective of a shareholder who holds a well-diversified portfolio of stocks. For investor-owned firms, market risk is the most relevant, although corporate risk should not be totally ignored.

For not-for-profit businesses, stand-alone risk would be relevant if a firm had only one project. In this situation, there would be no portfolio consequences, either at the firm or individual investor level, so risk could be measured by the variability of forecasted returns. However, most not-for-profit businesses offer a myriad of different products or services; thus, they can be thought of as having a large number (hundreds or even thousands) of individual projects. For example, most not-for-profit health maintenance organizations (HMOs) offer health care services to a large number of diverse employee groups in numerous service areas. In this situation, the stand-alone risk of a project under consideration is not relevant because the project will not be held in isolation. Rather, the relevant risk of a new project is its corporate risk, which is the contribution of the project to the firm’s overall risk as measured by the impact of the project on the variability of the firm’s overall profitability.

To illustrate corporate risk in a not-for-profit setting, assume that Project P represents the expansion into a new service area by a not-for-profit HMO that has many existing projects. Table 30-1 lists the distributions of IRR for Project P and for the HMO as a whole.¹² The HMO’s profitability (IRR), like that of Project P, is uncertain, and it depends on future economic events. Overall, the HMO’s expected IRR is

¹²In practice, it is impossible to obtain the firm’s IRR on its aggregate assets. However, a reasonable proxy is the firm’s cash flow return on assets as measured by $(\text{Net income} + \text{Depreciation} + \text{Interest}) / \text{Total assets}$.

TABLE 30-1 Estimated Return Distributions for Project P and the HMO

State of Economy	Probability of Occurrence	IRR FOR EACH ECONOMIC STATE	
		Project P	HMO
Very poor	5%	2.5%	1.0%
Poor	20	5.0	6.0
Average	50	10.0	7.0
Good	20	15.0	8.0
Very good	5	17.5	13.0
Expected return		10.0%	7.0%
Standard deviation		4.0%	2.0%
Coefficient of variation		0.4	0.3
Correlation coefficient		0.8	

7.0 percent, with a standard deviation of 2.0 percent and a coefficient of variation of 0.3. Thus, looking at either the standard deviation or the coefficient of variation (stand-alone risk measures), Project P is riskier than the HMO in the aggregate; that is, Project P is riskier than the HMO's average project.

However, the relevant risk of Project P is not its stand-alone risk but rather its contribution to the overall riskiness of the HMO, which is the project's corporate risk. Project P's corporate risk depends not only on its standard deviation but also on the correlation between the returns on Project P (the project's IRR distribution) and the returns on the HMO's average project (the firm's IRR distribution). If Project P's returns were negatively correlated with the returns on the HMO's other projects, then accepting it would reduce the riskiness of the HMO's aggregate returns, and the larger Project P's standard deviation, the greater the risk reduction. (An economic state resulting in a low return on the average project would produce a high return on Project P, and vice versa, so taking on the project would reduce the HMO's overall risk.) In this situation, Project P should be viewed as having low risk relative to the HMO's average project, in spite of its higher stand-alone risk.

In our actual case, however, Project P's returns are positively correlated with the HMO's aggregate returns, and the project has twice the standard deviation and a 33 percent larger coefficient of variation, so accepting it would increase the risk of the HMO's aggregate returns. The quantitative measure of corporate risk is a project's **corporate beta (b)**. The corporate beta is the slope of the **corporate characteristic line**, which is the regression line that results when the project's returns are plotted on the Y axis and the returns on the firm's total operations are plotted on the X axis.

The slope (rise over run) of Project P's corporate characteristic line is 1.62, and it can be found algebraically as follows:

$$\text{Corporate } b_P = (\sigma_P / \sigma_F) \rho_{PF}$$

(30-3)

where

σ_P = standard deviation of Project P's returns.

σ_F = standard deviation of the firm's returns.

ρ_{PF} = correlation coefficient between the returns on Project P and the firm's returns.

Thus,

$$\text{Corporate } b_p = (3.95\%/2.00\%)0.82 = 1.62.$$

A project's corporate beta measures the volatility of returns on the project relative to the firm as a whole (or relative to the firm's average project, which has a corporate beta of 1.0).¹³ If a project's corporate beta is 2.0, its returns are twice as volatile as the firm's overall returns; a corporate beta of 1.0 indicates that the project's returns have the same volatility as the firm's overall returns, and a corporate beta of 0 indicates that the project's returns are not related at all to the returns of the firm—that is, they are independent. A negative corporate beta, which occurs if a project's returns are negatively correlated with the firm's overall returns, indicates that the returns on the project move countercyclically to most of the firm's other projects. The addition of a negative beta project to the firm's portfolio of projects would tend to reduce the firm's riskiness. However, negative beta projects are hard to find because most projects are related to the firm's core line of business, so their returns are highly positively correlated. With a corporate beta of 1.62, Project P has significantly more corporate risk than the HMO's average project, and the HMO's WACC should be increased to reflect the differential risk prior to evaluating the project.

As with investor-owned firms, in most situations it is very difficult, if not impossible, to develop accurate quantitative assessments of projects' corporate risk. Therefore, managers are often left with only an assessment of a project's stand-alone risk plus a subjective notion about how it fits into the firm's other operations. Generally, the project under consideration will be in the same line of business as the firm's (or division's) other projects; in this situation, stand-alone and corporate risk are highly correlated, and hence a project's stand-alone risk will be a good measure of its corporate risk. This suggests that managers of not-for-profit businesses can get a feel for the relevant risk of most projects by conducting scenario, simulation, and/or decision tree analyses.

Ultimately, capital budgeting decisions in not-for-profit organizations require the blending of objective and subjective factors to reach a conclusion about a project's risk, social value, effects on debt capacity, profitability, and overall acceptability. The process is not precise, and often there is a temptation to ignore risk considerations because they are so nebulous. Nevertheless, a project's riskiness should be assessed and incorporated into the decision-making process.¹⁴

SELF-TEST QUESTIONS

- Why is it necessary for not-for-profit businesses to worry about the profitability of proposed projects?
- Describe the net present social value model for making capital budgeting decisions. How might social value be measured?
- Which are more likely to experience capital rationing: investor-owned businesses or not-for-profit businesses? Why?
- What project risk measure is most relevant for investor-owned businesses? For not-for-profit businesses?
- What is a corporate beta? How does a corporate beta differ from a market beta?

¹³The corporate beta of the firm's average project is 1.0 by definition, but it could be estimated by plotting the returns on each of the firm's existing projects against the firm's aggregate returns. Some individual projects would have relatively high betas and some would have relatively low betas, but the weighted average of all the individual projects' corporate betas would be 1.0.

¹⁴Risk considerations are generally much more important than debt capacity considerations because a project's cost of capital is affected to a much greater degree by differential risk than by differential debt capacity.

LONG-TERM FINANCING DECISIONS

Not-for-profit businesses have access to many of the same types of capital as do investor-owned firms, but there are two major differences: (1) not-for-profit firms can issue tax-exempt debt, but (2) they cannot issue equity, although they can solicit tax-exempt contributions, and their earnings are not taxable and must be retained.

Long-Term Debt Financing

Regarding debt financing, the major difference between investor-owned and not-for-profit businesses is that not-for-profit businesses can issue **tax-exempt**, or **municipal bonds**, generally called **munis**.¹⁵ There are several types of munis. For example, **general obligation bonds** are secured by the full faith and credit of a government unit (that is, they are backed by the full taxing authority of the issuer), whereas **special tax bonds** are secured by a specified tax, such as a tax on utility services. Of specific interest to not-for-profit businesses are **revenue bonds**, where the revenues derived from such projects as roads and bridges, airports, water and sewage systems, and not-for-profit health care facilities are pledged as security for the bonds. Most municipal bonds are sold in **serial** form, which means that a portion of the issue comes due periodically, generally every six months or every year, over the life of the issue. The shorter maturities are essentially equivalent to sinking fund payments on corporate bonds, and they help to ensure that the bonds are retired before the revenue-producing asset has been fully depreciated. Munis are typically issued in denominations of \$5,000 or multiples of \$5,000, and although most are tax exempt, some that have been issued since 1986 are taxable to investors.

In contrast to corporate bonds, municipal issues are not required to be registered with the Securities and Exchange Commission (SEC). Information about municipal issues is found in each issue's **official statement**, which is prepared before the issue is brought to market. To assist buyers and sellers of municipal bonds in the secondary market, the SEC requires issuers of municipal bonds to provide an audited annual report on their current financial condition, and to release in a timely fashion information that is "material" to the credit quality of their outstanding debt.

Whereas the majority of federal government and corporate bonds are held by institutions, close to 50 percent of all municipal bonds outstanding are held by individual investors. The primary attraction of most municipal bonds is their exemption from federal and state (in the state of issue) taxes. For example, the interest rate on an AAA-rated long-term corporate bond in January 2004 was 6.4 percent, while the rate on a triple-A muni was 5.0 percent. To an individual investor in the 40 percent federal-plus-state tax bracket, the muni bond's equivalent taxable yield is $5.0\% / (1 - 0.40) = 5.0\% / 0.6 = 8.3\%$. It is easy to see why high-tax-bracket investors often prefer municipal bonds to corporates.¹⁶

To illustrate the use of municipal bonds by a not-for-profit hospital, consider the June 2003, \$56 million issue by the Orange County (Florida) Health Facilities Authority. The authority is a public body created under Florida's Health Facilities Authorities Law, and it issues health facilities municipal revenue bonds and then gives the proceeds to the qualifying health care provider. For this particular bond

¹⁵*Municipal bond* is the name given to long-term debt obligations issued by states and their political subdivisions, such as counties, cities, port authorities, toll road or hospital authorities, and so on. Short-term municipal notes are issued primarily to meet temporary cash needs, and long-term municipal bonds are usually used to finance capital projects.

¹⁶For more information on tax-exempt financing by not-for-profit firms, see Bradley M. Odegard, "Tax-Exempt Financing under the Tax Reform Act of 1986," *Topics in Health Care Financing*, Summer 1988. Also see Kenneth Kaufman and Mark L. Hall, *The Capital Management of Health Care Organizations* (Ann Arbor, MI: Health Administration Press, 1990), Chapter 5.

TABLE 30-2 South-Central Medical Center Municipal Bond Issue: Maturities, Amounts, and Interest Rates

Maturity ^a	Amount	Interest Rate
2005	\$ 705,000	3.35%
2006	740,000	3.45%
2007	785,000	3.60
2008	825,000	3.75
2009	880,000	3.90
2010	925,000	4.00
2011	985,000	4.10
2012	1,050,000	4.20
2013	1,115,000	4.30
2014	1,190,000	4.40
2018	5,590,000	4.80
2023	9,435,000	4.90
2033	31,775,000	5.00
	\$56,000,000	

^aAll serial issues mature on June 1 of the listed year.

issue, the provider was the South-Central Medical Center, a not-for-profit hospital, and the primary purpose of the issue was to raise funds to build and equip a children's hospital facility. The bonds were secured solely by the revenues of South-Central Medical Center, so the actual issuer—the Orange County Health Facilities Authority—had no responsibility regarding the interest or principal payments on the issue. The bonds were rated AAA, not on the basis of the financial strength of South-Central Medical Center but rather because the bonds were insured by the Municipal Bond Investors Assurance (MBIA) Corporation.¹⁷ Table 30-2 shows the maturities and interest rates associated with the issue.

Note the following points regarding the South-Central Medical Center municipal bond issue:

1. The issue is a serial issue; that is, the \$56,000,000 in bonds are composed of 13 series, or individual issues, with maturities ranging from about 2 years to 30 years.
2. Because the yield curve was normal, or upward sloping, at the time of issue, the interest rates increase as the series' maturities increase.
3. The bonds that mature in 2018, 2023, and 2033 are called "term bonds," and they have sinking fund provisions that require the hospital to place a specified dollar amount with a trustee each year to ensure that funds are available to retire the issues as they become due. The trustee may either buy up the relevant bonds in the open market or call the bonds at par for redemption. If interest rates have fallen, and the bonds sell at a premium, the trustee will call the bonds, but if rates have risen, the trustee will make open market purchases.
4. Although it is not shown in the table, South-Central's **debt service requirements**—the total amount of principal and interest that it has to pay on the issue—are

¹⁷Municipal bond insurance, which is called **credit enhancement**, will be discussed in more detail later in the section.

relatively constant over time, at about \$3.5 million per year. In effect, the debt payments are spread relatively evenly over time. The purpose of structuring the series in this way is to match the maturity of the asset with the maturities of the bonds. Think about it this way: The children's hospital has a life of about 30 years. During this time, it will be generating revenues more or less evenly, and its value will decline more or less evenly. Thus, the issuer has structured the debt series so that the debt service requirements can be met by the revenues associated with the children's hospital. At the end of 30 years, the debt will be paid off, and South-Central will probably be planning for a replacement facility that would be funded, at least in part, by a new bond issue.

One feature unique to municipal bonds is **credit enhancement**, or **bond insurance**, which is a relatively recent development used for upgrading an issue's rating to AAA. Credit enhancement is offered by several credit insurers; the two largest are the Municipal Bond Investors Assurance (MBIA) Corporation and AMBAC Indemnity Corporation. Currently, about 40 percent of all new municipal issues carry bond insurance.

Here is how credit enhancement works. Regardless of the inherent credit rating of the issuer, the bond insurance company guarantees that bondholders will receive the promised interest and principal payments. Thus, bond insurance protects investors against default by the issuer. Because the insurer gives its guarantee that payments will be made, the bond carries the credit rating of the insurance company, not of the issuer. For example, in our previous discussion on the bonds issued by the Orange County Health Facilities Authority on behalf of South-Central Medical Center, we noted that the bonds were rated AAA because of MBIA insurance. The hospital itself has an A rating; hence, bonds issued without credit enhancement would be rated A. The guarantee by MBIA resulted in the AAA rating.

Credit enhancement gives the issuer access to the lowest possible interest rate, but not without a cost—bond insurers typically charge an upfront fee of about 0.7 to 1.0 percent of the total debt service over the life of the bond. Of course, the lower the hospital's inherent credit rating, the higher the cost of bond insurance. Additionally, bond insurers typically will not insure issues that would have a rating below A if uninsured.

To illustrate credit enhancement, again consider the South-Central Medical Center bonds. The total debt service (principal and interest) on the bonds amounts to roughly \$120 million on the \$56 million issue (interest adds up quickly). Assuming an insurance cost of 1.0 percent, the fee for the insurance would be \$1.2 million. Is it worth it? South-Central Medical Center apparently thought so. To perform an analysis, simply discount the interest savings that result from the AAA rating (as opposed to the uninsured A rating) back to the present, and compare this present value with the insurance cost. If the present value of the savings exceeds the cost of the bond insurance, then insurance should be purchased.

Equity (Fund) Financing

Investor-owned firms have two sources of equity financing: retained earnings and proceeds from new stock offerings. Not-for-profit businesses can, and do, retain earnings, but they cannot sell stock to raise equity capital. They can, however, raise equity capital through **charitable contributions**. Individuals as well as firms are motivated to contribute to not-for-profit businesses for a variety of reasons, including concern for the well-being of others, the recognition that often accompanies large contributions, and tax deductibility.

To illustrate, consider not-for-profit hospitals, most of which received their initial, startup equity capital from religious, educational, or governmental entities (some

hospitals also receive ongoing funding from these sources). Since the 1970s, these sources have provided a much smaller proportion of hospital funding, forcing many not-for-profit hospitals to rely more on retained earnings and charitable contributions. Further, federal programs—such as the Hill-Burton Act, which provided large amounts of funds for hospital expansion following World War II—have been discontinued.

On the surface, it appears that investor-owned firms have a significant advantage in raising equity capital because new common stock can in theory be issued at any time and in any amount. Conversely, charitable contributions are much less reliable—pledges are not always collected, so funds that were counted on may not be available. Furthermore, the planning, solicitation, and collection periods can take years. Also, whereas the proceeds of new stock offerings may be used for any purpose, charitable contributions are often **restricted**, which means that they can be used only for a designated purpose. Note, however, that managers of investor-owned firms do not have complete freedom to raise capital in the equity markets—if market conditions are poor and the stock is selling at a low price, then a new stock issue can be harmful to the firm’s current stockholders. Also, as we discussed in Chapter 16, a new stock offering may be viewed by investors as a signal by management that the firm’s stock is overvalued, so new stock issues tend to have a negative effect on the firm’s stock price, which discourages their use.

SELF-TEST QUESTIONS

Define the following terms:

- (1) Municipal bonds
- (2) Revenue bonds
- (3) Serial bonds
- (4) Official statement
- (5) Debt service requirements
- (6) Credit enhancement

Do municipal financing authorities that issue revenue bonds generally have any obligations regarding the payment of interest and principal? Explain.

How could a not-for-profit firm’s financial manager evaluate whether or not to buy bond insurance?

FINANCIAL ANALYSIS, PLANNING, AND FORECASTING

The general procedures for financial analysis, planning, and forecasting discussed in Chapters 13 and 14 pertain to both investor-owned and not-for-profit businesses. The primary difference is the accounting procedures used, which affects the “look” of the financial statements.

For illustrative purposes, consider the health care industry again. As in all industries, financial reporting in health care follows a set of standards (established by the accounting profession) called **generally accepted accounting principles (GAAP)**.¹⁸ The two primary organizations that promulgate standards for the health care industry are the **Financial Accounting Standards Board (FASB)**, which deals with issues pertaining to private organizations, and the **Government Accounting Standards Board (GASB)**, which deals with issues related to governmental entities. Generally,

¹⁸For more information on the various organizations involved in setting accounting principles for the health care industry, see Woodrin Grossman and William Warshauer, Jr., “An Overview of the Standard Setting Process,” *Topics in Health Care Financing*, Summer 1990, 1–8.

the principles promulgated by FASB and GASB relate to issues that are relevant to most industries, while industry-specific issues are addressed by the various industry committees of the American Institute of Certified Public Accountants (AICPA). In 1972, the AICPA Health Care Institutions Committee issued the first of six editions of the *Hospital Audit Guide*, which became the bible for those preparing hospital financial statements. In 1990 the committee, which is now called the Health Care Committee, published an entirely new guide entitled *Audits of Providers of Health Care Services*, which superseded the old guides. Here are some of the more important provisions of the new guide:¹⁹

1. The new guide applies to all private organizations providing health care services to individuals. Thus, it applies to both investor-owned and private not-for-profit organizations such as hospitals, nursing homes, managed care plans, home health agencies, medical group practices, and clinics.²⁰
2. The new guide contains complete sets of sample financial statements, including footnote disclosures, for the major types of providers.
3. Prior to the issuance of the new guide, providers reported revenues on the income statement on the basis of charges (gross revenues), whether or not the charges were expected to be collected. Then, the various deductions from charges, such as contractual allowances (discounts), bad debt losses, and charity care, were subtracted from gross revenue. The new guide prescribes that only net revenue should be shown on the income statement, because charges not billed or not expected to be collected do not represent expected revenue to the provider. Bad debt losses constitute an operating expense and continue to be shown directly on the income statement, but contractual allowances and charity care are now reported in the footnotes.²¹
4. The new guide blurs the distinction between operating and nonoperating cash flows. Essentially, **operating revenues and expenses** occur because of an organization's central mission and operations. On the other hand, **nonoperating gains and losses** result from transactions that are incidental or peripheral to the organization's mission. Considerable latitude exists in what an organization defines as its central mission and operations, but most organizations classify most revenues and expenses as operating. In general, only contributions, investment income, and gains and losses on financial transactions such as bond refundings are classified as nonoperating.
5. The new guide validates cash flows as the best measure of transactions. Thus, the statement of cash flows has become a standard financial statement for not-for-profit health care providers.
6. Finally, the new guide contains detailed guidance on issues that are unique to the health care industry. Examples include the reporting of third-party payments from insurance companies such as Blue Cross/Blue Shield and malpractice insurance.

Tables 30-3 and 30-4 show the 2003 and 2004 income statements (also called statements of revenues and expenses) and balance sheets for a typical not-for-profit hospital. Three points about the statements are worth noting. First, the formats for

¹⁹For a more detailed review of the new audit guide, see Robert G. Colbert, "The New Health Care Audit and Accounting Guide," *Topics in Health Care Financing*, Summer 1990, 14–23; and J. William Tillett and William R. Titera, "What AICPA Audit Guide Revisions Mean for Providers," *Healthcare Financial Management*, July 1990, 52–62.

²⁰Most governmental providers will also have to follow the new guide, but GASB statements will have precedence over the guide when conflicts occur.

²¹If a provider does not expect to collect for services rendered, the care is classified as charity care and does not constitute revenue. However, if a provider expects to collect for services rendered but fails to do so, then the expected revenue becomes a bad debt loss.

TABLE 30-3 Income Statement for a Typical Not-for-Profit Hospital: Years Ended December 31 (Thousands of Dollars)

	2004	2003
Net patient services revenue	\$108,600	\$ 97,393
Other operating revenue	6,205	9,364
Total operating revenue	<u>\$114,805</u>	<u>\$106,757</u>
Operating expenses:		
Nursing services	\$ 58,285	\$ 56,752
Dietary services	5,424	4,718
General services	13,198	11,655
Administrative services	11,427	11,585
Employee health and welfare	10,250	10,705
Provision for uncollectibles	3,328	3,469
Provision for malpractice	1,320	1,204
Depreciation	4,130	4,025
Interest expense	1,542	1,521
Total operating expenses	<u>\$108,904</u>	<u>\$105,634</u>
Income from operations	\$ 5,901	\$ 1,123
Contributions and grants	\$ 2,253	\$ 874
Investment income	418	398
Nonoperating gain (loss)	<u>\$ 2,671</u>	<u>\$ 1,272</u>
Excess of revenues over expenses	<u>\$ 8,572</u>	<u>\$ 2,395</u>

TABLE 30-4 Balance Sheet for a Typical Not-for-Profit Hospital: Years Ended December 31 (Thousands of Dollars)

	2004	2003
Cash and securities	\$ 6,263	\$ 5,095
Accounts receivable	21,840	20,738
Inventories	3,177	2,982
Total current assets	<u>\$ 31,280</u>	<u>\$ 28,815</u>
Gross plant and equipment	\$145,158	\$140,865
Accumulated depreciation	25,160	21,030
Net plant and equipment	<u>\$119,998</u>	<u>\$119,835</u>
Total assets	<u>\$151,278</u>	<u>\$148,650</u>
Accounts payable	\$ 4,707	\$ 5,145
Accrued expenses	5,650	5,421
Notes payable	825	4,237
Current portion of long-term debt	2,150	2,000
Total current liabilities	<u>\$ 13,332</u>	<u>\$ 16,803</u>
Long-term debt	\$ 28,750	\$ 30,900
Capital lease obligations	1,832	2,155
Total long-term liabilities	<u>\$ 30,582</u>	<u>\$ 33,055</u>
Fund capital	<u>\$107,364</u>	<u>\$ 98,792</u>
Total liabilities and funds	<u>\$151,278</u>	<u>\$148,650</u>

the statements are similar to those of investor-owned firms. Second, the hospital had an excess of revenues over expenses (or net income) of \$8,572,000 in 2004. Of course, being a not-for-profit firm, the hospital paid no taxes or dividends, so it retained all of its \$8,572,000 in net income. Third, the claims against assets are of two types: liabilities, or money the company owes, and fund capital. Fund capital is a residual. Thus, for 2004:

$$\begin{aligned} \text{Assets} & - \text{Liabilities} & = & \text{Fund capital.} \\ \$151,278,000 & - (\$13,332,000 + \$30,582,000) & = & \$107,364,000. \end{aligned}$$

Fund capital is the not-for-profit equivalent of equity capital and serves essentially the same function. A balance sheet fund account for a not-for-profit business is built up over time primarily by retentions and contributions but is reduced by operating losses.

SELF-TEST QUESTIONS

- What organizations prescribe standards for reporting by not-for-profit businesses?
How do the financial statements of investor-owned and not-for-profit businesses differ?

SUMMARY

This chapter focuses on financial management within not-for-profit businesses. The key concepts covered are listed below:

- Although most finance graduates will go to work for investor-owned firms, many financial management professionals work for or closely with **not-for-profit organizations**, which range from government agencies such as school districts and colleges to charities such as the United Way and the American Heart Association.
- If an organization meets a set of stringent requirements, it can qualify for **tax-exempt status**. Such organizations, which must be incorporated, are called **not-for-profit corporations**. One type of not-for-profit organization is the **not-for-profit business**, which sells goods and/or services to the public but which has not-for-profit status.
- The goal of a not-for-profit business is typically stated in terms of some **mission** rather than shareholder wealth maximization.
- Not-for-profit businesses raise the equivalent of equity capital, which is called **fund capital**, in three ways: (1) by earning profits, which by law are retained within the business, (2) by receiving grants from governmental entities, and (3) by receiving contributions from individuals and companies.
- In not-for-profit businesses, the **weighted average cost of capital** is developed in the same way as in investor-owned firms. Although there is no direct tax benefit to the issuer associated with debt financing, there is a benefit to investors because interest received is often tax exempt; thus, the net cost of debt is similar for investor-owned and not-for-profit businesses.
- For cost of capital purposes, fund capital has an **opportunity cost** that is roughly equal to the cost of equity of similar investor-owned firms.
- The **trade-off theory of capital structure** generally applies to not-for-profit firms, but such firms do not have as much financial flexibility as investor-owned firms because not-for-profit firms cannot issue new common stock.
- The **social value** version of the net present value model recognizes that not-for-profit businesses should value social contributions as well as cash flows.

- In general, the relevant capital budgeting risk for not-for-profit businesses is **corporate risk** rather than market risk. Corporate risk is measured by a project's **corporate beta**.
- Many not-for-profit organizations can raise funds in the **municipal bond** market.
- **Credit enhancement** upgrades the rating of a municipal bond issue to that of the insurer. However, issuers must pay a fee to obtain credit enhancement.
- With minor exceptions, the financial statement formats of investor-owned and not-for-profit businesses are the same.
- Short-term financial management is generally unaffected by the ownership type.

QUESTIONS

- (30-1) What is the major difference in ownership structure between investor-owned and not-for-profit businesses?
- (30-2) Does the asymmetric information theory of capital structure apply to not-for-profit businesses? Explain.
- (30-3) Does a not-for-profit firm's marginal cost of capital (MCC) schedule have a retained earnings break point? Explain.
- (30-4) Assume that a not-for-profit firm does not have access to tax-exempt (municipal) debt and thus gains no benefits from the use of debt financing.
- What would be the firm's optimal capital structure according to the cost-benefit trade-off theory?
 - Is it likely that the firm would be able to operate at its theoretically optimal structure?
- (30-5) Describe how social value can be incorporated into the NPV decision model. Do you think not-for-profit firms would normally try to quantify net present social value, or would they merely treat it as a qualitative factor?
- (30-6) Why is corporate risk the most relevant project risk measure for not-for-profit businesses?
- (30-7) If all markets were informationally efficient, meaning that buyers and sellers would have easy access to the same information, would firms gain any cost advantage by purchasing bond insurance (credit enhancement)?

MINI CASE

Sandra McCloud, a finance major in her last term of college, is currently scheduling her placement interviews through the university's career resource center. Her list of companies is typical of most finance majors: several commercial banks, a few industrial firms, and one brokerage house. However, she noticed that a representative of a not-for-profit hospital is scheduling interviews next week, and the position—that of financial analyst—appears to be exactly what Sandra has in mind. Sandra wants to sign up for an interview, but she is concerned that she knows nothing about not-for-profit organizations and how they differ from the investor-owned firms that she has learned about in her finance classes. In spite of her worries, Sandra scheduled an appointment with the hospital representative, and she now wants to learn more about not-for-profit businesses before the interview.

To begin the learning process, Sandra drew up the following set of questions. See if you can help her answer them.

- First, consider some basic background information concerning the differences between not-for-profit organizations and investor-owned firms.
 - What are the key features of investor-owned firms? How do a firm's owners exercise control?

- (2) What is a not-for-profit corporation? What are the major control differences between investor-owned and not-for-profit businesses?
- (3) How do goals differ between investor-owned and not-for-profit businesses?
- b. Now consider the cost of capital estimation process.
 - (1) Is the weighted average cost of capital (WACC) relevant to not-for-profit businesses?
 - (2) Is there any difference between the WACC formula for investor-owned firms and that for not-for-profit businesses?
 - (3) What is fund capital? How is the cost of fund capital estimated?
- c. Just as in investor-owned firms, not-for-profit businesses use a mix of debt and equity (fund) financing.
 - (1) Is the trade-off theory of capital structure applicable to not-for-profit businesses? What about the asymmetric information theory?
 - (2) What problems do not-for-profit businesses encounter when they attempt to implement the trade-off theory?
- d. Consider the following questions relating to capital budgeting decisions.
 - (1) Why is capital budgeting important to not-for-profit businesses?
 - (2) What is social value? How can the net present value method be modified to include the social value of proposed projects?
 - (3) Which of the three project risk measures—stand-alone, corporate, and market—is relevant to not-for-profit businesses?
 - (4) What is a corporate beta? How does it differ from a market beta?
 - (5) In general, how is project risk actually measured within not-for-profit businesses? How is project risk incorporated into the decision process?
- e. Not-for-profit businesses have access to many of the same long-term financing sources as do investor-owned firms.
 - (1) What are municipal bonds? How do not-for-profit health care businesses access the municipal bond market?
 - (2) What is credit enhancement, and what effect does it have on debt costs?
 - (3) What are a not-for-profit business's sources of fund capital?
 - (4) What effect does the inability to issue common stock have on a not-for-profit business's capital structure and capital budgeting decisions?
- f. What unique problems do not-for-profit businesses encounter in financial analysis and planning? What about short-term financial management?

SELECTED ADDITIONAL REFERENCES

Easley, David, and Maureen O'Hara, "The Economic Role of the Nonprofit Firm," *Bell Journal of Economics*, Autumn 1983, 531–538.

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