

## FEATURE STORY

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## hospital capital spending shifting and slowing even before the financial meltdown

A study has found that prior to the past year's financial crisis, hospitals had begun shifting their capital funds toward shoring up infrastructure and cutting back on capital spending, overall. This trend will be important for hospitals to recall as they develop their post-crisis strategies.

### AT A GLANCE

A recent study of changes in U.S. hospitals' capital spending and financing disclosed that between 2001 and 2007:

- > Annual capital spending rose from \$25.1 billion to \$34.7 billion.
- > Hospitals shifted capital spending toward physical infrastructure and away from equipment.
- > Not-for-profit hospitals spent a significantly lower percentage of available funds on capital improvements in 2007 compared with 2001.

The recent banking and financial meltdown of the economy will make it increasingly more difficult and expensive for hospitals to finance capital expenditures. Interest and lease rates have already begun to rise, and the availability of debt is becoming more restricted as lenders seek to avoid risk. Yet even before the global financial meltdown hit in 2008, many hospitals had already begun to shift their annual capital spending toward infrastructure and to slow the annual rate of growth in spending of available funds before financing costs began to rise.

A recent study using Medicare cost report data examined patterns in capital spending and financing by the nation's hospitals. The study employed a unique new approach to assessing hospital capital spending trends that should prove useful both now and in the future. It reveals patterns over the seven years leading up to the recent financial meltdown and provides a baseline for examining industry reactions as newer data become available. The analytics and findings should prove a valuable tool for financial executives intent on managing their operations in concert with environmental change. The industry faces an uncertain economy today and the likelihood of dramatic health financing reforms in the future. By understanding where we've been, we're better equipped to navigate both where we are and where we are going.

The following were among this study's key findings:

- > Annual capital spending increased from \$25.1 billion in 2001 to \$34.7 billion in 2007.
- > The percentage of capital dollars spent by hospitals shifted toward physical infrastructure and away from equipment.
- > The percentage of available funds spent on capital by not-for-profit hospitals decreased significantly.
- > Although hospital debt leverage is high, the cost of capital remained low for most hospitals before the financial meltdown.

### Capital Spending

The study looked at three main categories of capital assets purchased by all of the hospitals studied:

- > Land and land improvements
- > Buildings, fixtures, and building improvements
- > Fixed and movable equipment

Overall spending increased significantly in every category. However, hospitals shifted more of their annual capital spending toward buildings, fixtures, and building improvements and away from fixed and movable equipment.

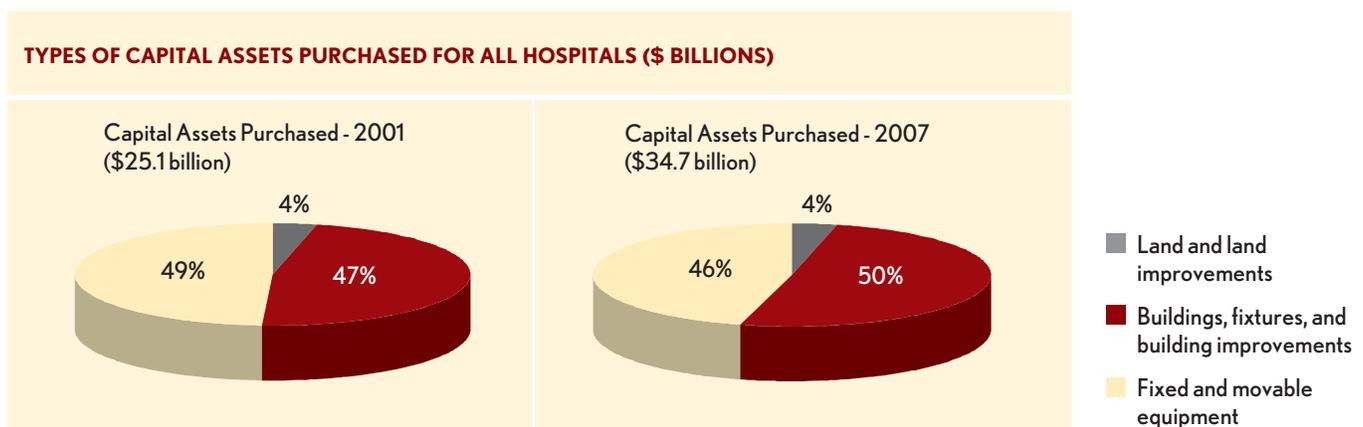
**Analysis—all hospitals.** In 2001, U.S. hospitals included in the study (n = 3,141) spent \$0.9 billion on land and land improvements, which represented 4 percent of total dollars spent. By 2007, the expenditures of U.S. hospitals (n = 3,301) in this area had increased to \$1.3 billion, while the percentage of dollars spent remained constant at 4 percent.

In 2001, the hospitals spent \$11.8 billion on buildings, fixtures, and building improvements, or about 47 percent of total dollars spent. By 2007, the total amount spent on buildings, fixtures, and building improvements had grown to \$17.5 billion, and the percentage of total dollars spent had increased to 50 percent.

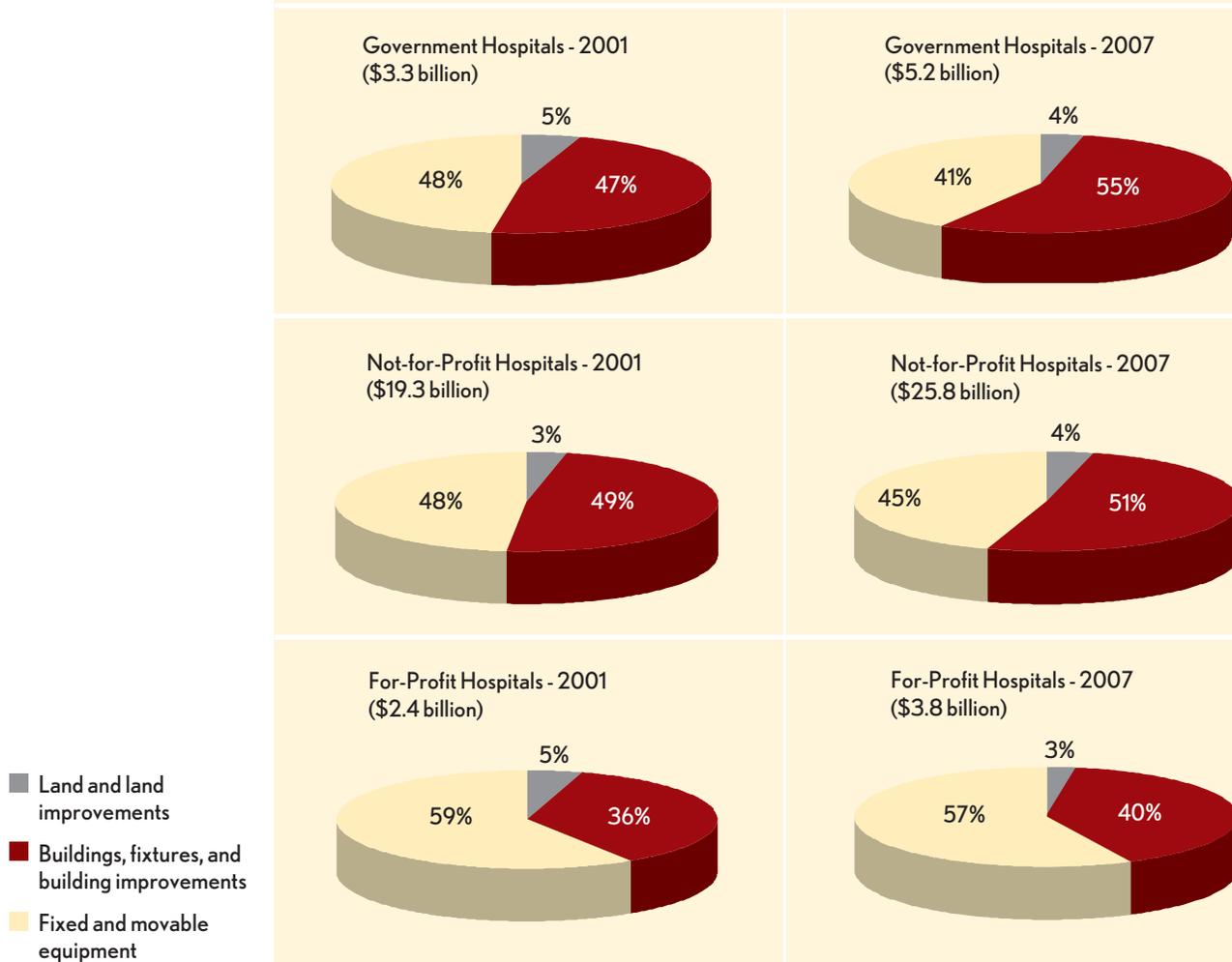
Conversely, even though the annual spending for fixed and movable equipment increased from \$12.4 billion in 2001 to \$15.9 billion in 2007, the percentage of spending for fixed and movable equipment declined from 49 percent to 46 percent between the two years.

To grow and compete, hospitals must continually evaluate their capital needs. The shifts in spending between 2001 and 2007 may be due to any number of reasons that infrastructure is favored over equipment as a focus for investment, including the need to improve aging facilities, increase operating efficiencies, expand product lines, and/or maximize the highest and best use of the premises. These shifts may also indicate a competitive pressure to expand treatment settings outside of the hospital, including outpatient surgical centers, diagnostic facilities, clinics, and other alternative settings.

**Analysis—by type of hospital.** An analysis of hospital spending by type of hospital—i.e., government, not-for-profit, and for-profit—highlighted some notable differences among the three types. (The numbers of hospitals included in each category



**TYPES OF CAPITAL ASSETS PURCHASED BY TYPE OF CONTROL (\$ BILLIONS)**



for 2001 and 2007, respectively, were as follows: government 5 526 and 632; not-for-profit 5 1,970 and 1,892; for-profit 5 645 and 777.) All three hospital types followed the overall shift of annual capital spending toward buildings, fixtures, and building improvements and away from fixed and movable equipment, but the shift in spending by government hospitals was more pronounced.

Government hospital spending for buildings, fixtures, and building improvements increased 8 percent from 47 percent in 2001 to 55 percent in 2007. At the same time, spending for fixed and movable equipment decreased 7 percent from 48 percent in 2001 to 41 percent in 2007. This shift in spending was more than twice as much as

the overall shift in spending by the for-profit and not-for-profit hospitals.

It is also interesting to note that government and not-for-profit hospitals spent more than half of their annual capital spending on land and buildings in both periods, while the for-profit hospitals spent a much lower percentage on land and building and much more on equipment. In 2007, government and not-for-profit hospitals spent 59 percent and 55 percent of their capital dollars, respectively, on land and buildings and only 41 percent and 45 percent, respectively, on equipment. By contrast, in 2007, for-profit hospitals spent only 43 percent on land and buildings and 57 percent on equipment.

**AVERAGE AGE OF PLANT BY TYPE OF CONTROL (YEARS)**

	2001	2007
Government	9.5	10.7
Not-for-profit	9.7	11.1
For-profit	5.6	6.5
All hospitals	9.2	10.4

Part of the reason for this difference in spending percentages may be that the average age of plant for government and not-for-profit hospitals is much higher than it is for-profit hospitals—and older hospitals tend to require more maintenance than newer ones. Indeed, the study found that, in 2007, the average age of plant for government and not-for-profit hospitals had reached a point where it was almost twice that of for-profit hospitals.

**Capital Funding**

Hospitals, like all businesses, can fund the purchase of capital assets in a number of ways. The most common ways are to use cash from net income, take on more debt, rent or lease, or use a combination of these and other ways. Capital financing can be complicated, and the exact details of a hospital’s capital financing situation are not always available through publicly available data. However, two important means of capital financing can be measured and compared using Medicare cost reports, which hospitals are required to file annually.

First, hospitals must report net income from all sources on worksheet G-3 (income statement). Total depreciation expense (a noncash expense) must be reported on worksheet A-7 (reconciliation of capitals costs). Depreciation expense can be added back to net income to get “net income before depreciation” (an approximation of the cash available from all operations and activities).

Second, hospitals must report long-term debt at the end of the cost reporting period on worksheet G (balance sheet). Changes in long-term debt during the period can be determined by subtracting the ending balance of long-term debt reported in the previous period from the balance reported at the end of the current period.

When added together, net income before depreciation and the change in long-term debt can approximate the total funds available to the hospital to spend during the period. This study compared hospitals’ total funds available to spend with their actual amounts of capital spending.

**Analysis—all hospitals.** Results of this analysis disclosed that total funds available for spending on capital assets increased dramatically for U.S. hospitals overall between 2001 and 2007, while the percentage of available funds U.S. hospitals actually spent on capital assets declined—although in 2007, hospitals were still spending a high percentage of available funds on capital purchases.

Total net income before depreciation increased by \$12.2 billion (37.6 percent) between 2001 and

**CAPITAL FINANCING TRENDS FOR ALL HOSPITALS (\$ BILLIONS)**

	2001	2007	% Change
Total net income from all sources	\$14.8	\$25.5	71.6%
Total depreciation expense	\$17.8	\$19.4	9.2%
Total net income before depreciation	\$32.6	\$44.8	37.6%
Change in long-term debt	\$2.1	\$9.9	373.9%
Total funds available to spend	\$34.7	\$54.7	57.8%
Total capital assets purchased	\$25.1	\$34.7	38.4%
Percentage of available funds spent on capital	72.3%	63.4%	48.0%

2007, while hospitals long-term debt increased by \$7.8 billion (373.9 percent). This combined to increase the total funds available to spend by \$20.0 billion (or 57.8 percent) from \$34.7 billion in 2001 to \$54.7 billion in 2007. However, the capital asset purchases increased by only \$9.6 billion (or 38.4 percent) from \$25.1 billion in 2001 to \$34.7 billion in 2007. As a result, the percentage of available funds spent on capital assets declined from 72.3 percent in 2001 to 63.4 percent in 2007.

Despite a 57.8 percent increase in total funds available from 2001 to 2007, hospitals applied a

lesser percentage toward capital and more toward other purposes even before the economic meltdown in 2008 and 2009. It is possible they did so in response to significant declines in Medicare margins from 2001 to 2007 and the overall negative margins from patient care services that hospitals have experienced during the period studied (see Schuhmann, T., "How Long Can Hospitals Survive with Negative Margins?," *hfm*, August 2009). Hospitals may have acted to protect endowment funds and cash from charitable donations in the wake of negative patient care margins even before the stock market crashed. Hospitals may also have reacted to increasing costs

**SUMMARY OF CAPITAL PURCHASING TRENDS BY TYPE OF CONTROL (\$ BILLIONS)**

	2001	2007	% Change
<b>Government hospitals:</b>			
Total net income from all sources	\$1.7	\$2.3	39.3%
Total depreciation expense	\$2.2	\$2.3	1.8%
Total net income before depreciation	\$3.9	\$4.6	17.8%
Change in long-term debt	\$1.5	(\$3.6)	2335.1%
Total funds available to spend	\$5.4	\$1.0	280.8%
Total capital assets purchased	\$3.3	\$5.2	56.0%
Percentage of available funds spent on capital	60.9%	496.4%	242.2%
<b>Not-for-profit hospitals:</b>			
Total net income from all sources	\$8.0	\$19.0	137.5%
Total depreciation expense	\$13.6	\$14.3	5.8%
Total net income before depreciation	\$21.6	\$33.4	54.7%
Change in long-term debt	\$1.8	\$14.7	734.4%
Total funds available to spend	\$23.3	\$48.1	106.0%
Total capital assets purchased	\$19.3	\$25.8	33.3%
Percentage of available funds spent on capital	82.9%	53.6%	26.0%
<b>For-profit hospitals:</b>			
Total net income from all sources	\$5.2	\$4.1	220.4%
Total depreciation expense	\$2.0	\$2.8	41.0%
Total net income before depreciation	\$7.1	\$6.9	23.5%
Change in long-term debt	(\$1.2)	(\$1.2)	3.0%
Total funds available to spend	\$5.9	\$5.6	24.8%
Total capital assets purchased	\$2.4	\$3.8	54.3%
Percentage of available funds spent on capital	41.3%	66.9%	2469.5%

of uncompensated care as a result of the growing number of uninsured patients even before unemployment rates spiked in 2008 and 2009.

*Analysis—by type of hospital.* Study findings disclosed that total funds available to spend decreased for government and for-profit hospitals, even as these hospital types increased their capital spending significantly. Meanwhile, not-for-profit hospitals were able to double their total funds available to spend, yet they increased capital spending only moderately.

Net income before depreciation increased moderately for government hospitals from period to period. However, they increased debt in 2001 by \$1.5 billion and reduced debt in 2007 by \$3.6 billion. The significant changes in debt resulted in a rapid decline in the amount of funds available to spend from \$5.4 billion in 2001 to only \$1.0 billion in 2007. Yet government hospitals increased capital spending from \$3.3 billion in 2001 to \$5.2 billion in 2007. As a result, their percentage of available funds spent on capital rose from

60.9 percent in 2001 to 496.4 percent in 2007. This suggests that government hospitals had significant other means of capital financing in addition to those studied here.

Not-for-profit hospitals took on significantly more debt than government and for-profit hospitals from period to period and their net income before depreciation increased dramatically, yet they increased capital spending only moderately. In 2001, debt for not-for-profit hospitals increased by \$1.8 billion, compared with a debt increase of \$14.7 billion in 2007. Not-for-profit hospitals increased net income before depreciation from \$21.6 billion in 2001 to \$33.4 billion in 2007. As a result, their total funds available to spend more than doubled from \$23.3 billion in 2001 to \$48.1 billion in 2007. Yet they increased their capital spending by only about one third, from \$19.3 billion in 2001 to \$25.8 billion in 2007.

Not-for-profit hospitals shifted from spending the highest percentage of available funds on capital in 2001 (82.9 percent) to spending the lowest

### About the Study

The study of capital purchases and capital financing was conducted by Cost Report Data Resources, LLC, using available Medicare cost report data obtained from the Centers for Medicare & Medicaid Services (CMS) for all types of hospitals, including short-term acute care, critical access, rehabilitation, psychiatric, and long-term hospitals. The Healthcare Cost Report Information System (HCRIS) dataset contains the most recent version (i.e., as submitted, settled, and reopened) of each cost report filed with CMS since federal FY96. The most recent HCRIS dataset available at the time of this study was for the cutoff at June 30, 2009. All cost report data were assigned to each calendar year (CY) based on the cost report end date.

The study focused on more than 45,000 Medicare cost reports filed by hospitals from CY00 to CY08.

CY01 and CY07 were chosen to allow inclusion of at least a five-year period for analysis. CY07 is the most recent complete period available, but CY01 was the necessary starting point because important information was not available during reporting periods ending in 2002 through 2004. (Hospitals receiving 100 percent federal prospective payment for capital were not required to complete Parts III and IV of Worksheet A-7 for cost reports beginning on or after Oct. 1, 2001, and ending before Feb. 29, 2004. This worksheet is the source of depreciation, lease, and interest expense.)

Only 12-month reports were used in the study. Also, because changes in long-term debt (recorded on current year versus previous year balance sheets) were studied, only hospitals that reported consistently on a “same store” basis from CY00 to CY01 and from CY06 to CY07 were included. Reports were excluded if they contained missing or unreasonable data—for example, if a report did not include all of the data elements studied from the balance sheet (G), income statement (G-3), and capital reconciliation worksheets (A-7).

percentage in 2007 (53.6 percent), even though they took on a significant amount of debt when the other hospitals were reducing debt and they had significantly higher net income before depreciation.

The total funds for-profit hospitals had available to spend declined slightly from \$5.9 billion in 2001 to \$5.6 billion in 2007. However, during both periods, for-profits were able to reduce debt by \$1.2 billion. These hospitals also significantly increased their annual capital spending between 2001 and 2007, from \$2.4 billion (41.3 percent of available funds) to \$3.8 billion (66.9 percent of available funds).

**Debt Leverage**

As previously discussed, hospitals often use long-term debt to finance the purchase of capital assets. One way to measure the extent to which hospitals have used debt to finance capital spending is to compare the total amount of the hospital’s long-term debt with the net book value of all of the hospital’s capital assets (total fixed assets net of accumulated depreciation). Hospitals must report both of these amounts annually on worksheet G (balance sheet) of their Medicare cost reports. The ratio (expressed as a percentage) of debt to net assets is referred to in this study as “debt leverage.”

*Analysis—all hospitals.* For all U.S. hospitals, the level of debt and the level of net assets increased comparatively between 2001 and 2007, with the result that debt leverage remained virtually unchanged at 78.3 percent in 2001 and 78.2 percent in 2007.

DEBT LEVERAGE FOR ALL HOSPITALS (\$ BILLIONS)		
	2001	2007
Total long-term debt	\$124.3	\$146.5
Total fixed assets net of accumulated depreciation	\$158.8	\$187.3
Debt leverage percentage	78.3%	78.2%

*Analysis—by type of hospital.* By reducing debt, for-profit hospitals significantly lowered their debt leverage far below that of government and not-for-profit hospitals. Both government and not-for-profit hospitals increased their debt leverage between 2001 and 2007 to very high levels.

Government hospitals increased total debt levels from \$15.4 billion in 2001 to \$19.0 billion in 2007 in spite of reducing debt by \$3.6 billion for the year in 2007, as mentioned previously. At the same time, government hospitals increased net fixed assets from \$21.6 billion in 2001 to \$24.3 billion in 2007. As a result, their debt leverage increased from 71.3 percent to 78.4 percent from period to period.

Similarly, not-for-profit hospitals increased total debt levels from \$102.4 billion in 2001 to \$123.2 billion in 2007, including the increases in debt of \$1.8 billion in 2001 and \$14.7 billion in 2007 discussed previously. Not-for-profit hospitals also increased net fixed assets from \$119.7 billion in

DEBT LEVERAGE BY TYPE OF CONTROL		
	2001	2007
<b>Government hospitals:</b>		
Total long-term debt	\$15.4	\$19.0
Total fixed assets net of accumulated depreciation	\$21.6	\$24.3
Debt leverage percentage	71.3%	78.4%
<b>Not-for-profit hospitals:</b>		
Total long-term debt	\$102.4	\$123.2
Total fixed assets net of accumulated depreciation	\$119.7	\$138.9
Debt leverage percentage	85.5%	88.8%
<b>For-profit hospitals:</b>		
Total long-term debt	\$6.6	\$4.2
Total fixed assets net of accumulated depreciation	\$17.5	\$24.1
Debt leverage percentage	37.5%	17.3%

2001 to \$138.9 billion in 2007, resulting in an increase in debt leverage from a very high 85.5 percent in 2001 to an even higher 88.8 percent in 2007.

For-profit hospitals decreased total debt levels from \$6.6 billion in 2001 to \$4.2 billion in 2007, while increasing net fixed assets from \$17.5 billion to \$24.1 billion from period to period. By doing so, for-profit hospitals were able to cut debt leverage by more than half, from an already low 37.5 percent in 2001 to an even lower 17.3 percent in 2007.

**Cost of Capital Financing**

As hospitals use long-term debt to finance the purchase of capital assets and for other needs, it becomes important to measure the costs of financing with debt. One way to measure the cost of capital financing with Medicare cost reports is to compare the total amount of the hospital’s long-term debt with the total amount of lease and interest expense reported annually by the hospital. As mentioned previously, the total amount of long-term debt must be reported on worksheet G (balance sheet). The total lease and interest expense must be reported on worksheet A-7 (reconciliation of capital costs). The result of dividing the lease and interest expense by the total amount of long-term debt is referred to here as the “financing rate.”

It should be noted that lease financing can be complicated, and the details of a hospital’s lease arrangements cannot be determined from the Medicare cost report. Some leases are treated as “capital” leases and some are treated as “operating” leases, depending on a number of factors. In simple terms, the more a lease looks like a virtual

purchase of the asset, the more likely it will be treated as a purchase where the asset is “capitalized.”

With a capital lease, the asset is set up on the hospital’s balance sheet and its cost is depreciated over its estimated useful life. The lease is set up like debt, and interest expense is computed.

The lease is considered an operating lease when the asset is not capitalized. In such an instance, no asset is recorded; the hospital simply records the lease payments as an expense, and there is no depreciation and/or interest expense. Even though the type of lease cannot be determined from the cost report, the “financing rate” defined above can be an important measure of the cost of debt financing for a hospital.

**Analysis—all hospitals.** As previously discussed, total long-term debt for all hospitals increased from \$124.3 billion in 2001 to \$146.5 billion in 2007. However, total lease and interest expense decreased from \$4.1 billion in 2001 to \$3.9 billion in 2007, suggesting that U.S. hospitals have been able to finance debt at very favorable rates, dropping from 3.3 percent in 2001 to only 2.7 percent in 2007.

**Analysis—by type of hospital.** The data disclosed that although government and not-for-profit hospitals carry much more debt than for-profit hospitals, their financing rates are much lower. Both government and not-for-profit hospitals were able to reduce lease and interest expenses while increasing debt, which reduced financing rates for both. The financing rate for government hospitals dropped from 3.7 percent in 2001 to 2.5 percent in 2007. The financing rate for not-for-profit hospitals declined from 2.8 percent in 2001 to 2.0 percent in 2007. These findings help explain why these types of hospitals increased debt during the period studied.

For-profit hospitals decreased debt between 2001 and 2007, as previously discussed. However, their lease and interest expenses rose significantly from period to period. As a result, their financing rate, which was already high in 2001 at 10.4 percent,

FINANCING RATES FOR ALL HOSPITALS (\$ BILLIONS)		
	2001	2007
Total long-term debt	\$124.3	\$146.5
Total lease and interest expense	\$4.1	\$3.9
Financing rate	3.3%	2.7%

rose to an even higher 22.8 percent in 2007. This finding helps explain why for-profit hospitals have been aggressively reducing debt during the periods studied. They also may be financing with operating leases more than with capital leases, but, as discussed above, such a trend cannot be determined from the data.

**What Should Hospitals Do?**

Hospitals should compare their own capital spending and financing histories with the trends identified in this study. It is important for hospitals to understand why their peers may be shifting capital spending toward infrastructure, whatever the reason might be (e.g., to improve aging facilities, to increase operating efficiencies, to expand product lines, or to react to competitive pressure to expand alternative treatment settings). Many hospitals may be reassured to find that their own trends have followed the national trends. Other hospitals may not.

All hospitals should continually reevaluate the capital they need to grow and compete, especially as debt financing becomes more difficult and

**Hospitals should not allow the financial crisis to distract them from important trends that were unfolding before it occurred.**

expensive and as alternative funding sources, such as income from endowments and donations, are squeezed by the failing economy. Hospitals should focus spending on mission-critical assets and consider postponing or canceling all other capital spending.

Now more than ever, U.S. hospitals need to understand and evaluate the impact future capital spending will have on their balance sheets and income statements. Especially during these hard economic times, the availability and cost of capital financing is directly related to the strength of a hospital's financial statements. Hospitals should assess exactly how every capital asset that they purchase or lease will improve financial performance. Only through strong performance and sound analysis can a hospital protect its access to capital funding and keep financing costs low.

And the current financial crisis is no time for hospitals to test the truth of this maxim. Indeed, hospitals should not allow the recent financial crisis to distract their attention from very real and important trends that were unfolding just before the crisis occurred. Rather, they should be cognizant of those trends as they deliberate on how best to proceed in a post-meltdown environment. ●

FINANCING RATES BY TYPE OF CONTROL (\$ BILLIONS)		
	2001	2007
<b>Government hospitals:</b>		
Total long-term debt	\$15.4	\$19.0
Total lease and interest expense	\$0.6	\$0.5
Financing rate	3.7%	2.5%
<b>Not-for-profit hospitals:</b>		
Total long-term debt	\$102.4	\$123.2
Total lease and interest expense	\$2.9	\$2.5
Financing rate	2.8%	2.0%
<b>For-profit hospitals:</b>		
Total long-term debt	\$6.6	\$4.2
Total lease and interest expense	\$0.7	\$1.0
Financing rate	10.4%	22.8%

**About the author**



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