Using Metrics to Analyze Hospital Performance

Hospitals and Health System
Improving Profitability and Business and Legal Issues Conference

Chicago, Illinois / April 14, 2010
Introduction to Kaufman Hall
At a Glance

**DEBT-RELATED FINANCIAL ADVISORY**
Since 1985, Kaufman Hall has acted as financial advisor to more than 830 healthcare debt transactions. Total debt and swaps issued on behalf of our clients is almost $84 billion and exceeds $42 billion, respectively.

**FINANCIAL AND CAPITAL PLANNING**
Introduced concept of strategic financial planning to healthcare field in 1983. Kaufman Hall has prepared financial and capital plans for over 800 hospitals and healthcare systems.

**ENUFF SOFTWARE SUITE®**
Over 1,300 software licenses are in place nationwide. The ENUFF Software Suite uses corporate finance principles to directly support the financial management cycle.

**STRATEGIC SERVICES**
Kaufman Hall provides a broad range of strategy-related services to support organizational management and decision making. Kaufman Hall pioneered the development of the integrated strategic financial plan.

**CAPITAL ALLOCATION**
Kaufman Hall helps organizations design and implement capital allocation processes which provide consistent and rigorous methodologies to guide the capital decision-making process.

**MERGERS, ACQUISITIONS, AND DIVESTITURES**
Kaufman Hall has advised clients on hundreds of M&A-related engagements including analyzing, structuring, negotiating and executing mergers, acquisitions, divestitures, joint ventures, strategic partnerships and affiliations.
Agenda for Today’s Discussion

• Industry and Capital Markets Update
• Planning Context
• Measuring and Monitoring Performance
• Discussion
Industry and Capital Markets Update
A Whole Host of Pressures Facing the Healthcare Industry Today

- Reimbursement Pressures and RAC/Short Stay Issues
- Bond covenants
- Investment losses
- Capital access/ cost and the need to fund growth strategies
- Pension funding
- Payor mix deterioration with rising bad debt and charity
- Equipment replacement/new technology
- Information technology needs
- Aging Infrastructure
- Increasingly competitive markets
- Physician shortages/recruitment/retention/employment
- Specialty hospital/ambulatory niche competition

Impact on operating cash flow and balance sheet stability?
Deteriorating Industry Metrics Beginning in 2008

Pre-healthcare reform the industry has already experienced:

- Strained operating performance (volume decline, reimbursement, bad debt/charity, etc.)
- Considerable pressure on liquidity (investments, pension, etc.)
- Capital needs to address aging facilities, IT, physician integration and strategic investment out weighing available resources
- Negative industry outlook by all three rating agencies
- More downgrades expected

Note: Based on overall median information published by Fitch Ratings, Moody’s Investors Service and Standard & Poor’s. Some differences in ratio definitions and in credits are included.
Ratio of Downgrades to Upgrades Shows Volatile Industry Dynamics

- Medicare DRG, Tax Reform Act of '86; early 90s recession
- Relative stability (pre-BBA, Hillary-care fails)
- Volatility post-BBA/managed care
- Stabilization returns
- Deep recession
- Too Soon to Tell

Source: Moody’s Investors Service
Negative Industry Outlooks by All Three Rating Agencies

Rationale

• Impaired access to capital
  – Severely restricted access to bond insurance
  – Collapse of the auction rate market
  – Loss of liquidity support from local banks
• Greater-than-anticipated erosion in performance and liquidity
  – Increasing charity care and bad debt
  – Investment losses weakening balance sheets
  – Softening volumes, particularly in surgical cases

What to Expect

• Likely higher cost of borrowing in the future (access may be non-existent for lower-rated hospitals)
• Increased risk from variable rate debt structures
• Higher demands on hospital cash for pension funding and physician employment/practices
• Pressure on growth in reimbursement-based revenues; increasing divergence from growth in costs

• Importance of sound management decisions about operating costs and capital investment
• Skilled oversight and direction from hospital Boards is a must
• Budget to actual analysis key
• Maintain strong cash reserves
• Budget for higher interest expense

• Re-evaluate debt structure
  – Likely move to a more conservative approach
• Re-assessments and delays in major capital projects
  – However, most organizations cannot afford to delay plans indefinitely
• Likely increase in merger and acquisition activity

Sources: “Not-for-Profit Healthcare Sector Outlook Revised to Negative from Stable,” November 2008 and “Diagnosing Not-for-Profit Hospital Downgrades,” December 2008; Moody’s U.S. Public Finance Special Comments.
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Why Do Credit Ratings Matter?

• Virtually no hospital organization is able to fund its long-term capital requirements from operating cash flow and/or cash reserves
  – Access to outside capital, over the long-term, is an imperative

• Creditworthy organizations have improved capital market opportunities
  – Less restrictive bond document/insurer requested covenants
  – Access to commercial banks (direct loans/letters of credit)
  – Access to credit enhancement
  – Taxable or tax-exempt debt
  – Access to derivative options (e.g., swaps and synthetic interest rates)
  – Avoidance of debt service reserve fund and/or mortgage

• Creditworthy organizations have a lower cost of capital
  – Credit spreads are high: “AA” to “A” = 50+ bps; “A” to “BBB” = 290 bps!
  – Access to low cost variable rate debt
  – Lower issuance costs: insurance premium, letter/line of credit, underwriting/remarketing

• Creditworthy organizations are market winners
  – There are market winners and losers; nationwide, organizations with the highest credit rating have been the most attractive partners, have excess capital capacity and the lowest cost of capital to remain successful in the market
'AA', 'A', and 'BBB' Healthcare Credit Spreads over MMD 'AAA' Index

Though benchmark rates are trending lower, credit spreads remain wide but are tightening for “A” or better credits.
Credit Ratings Are Largely a Function of …

- **Financial trends and expectations**
  - Ratio analysis: consistent operating performance and stable liquidity are key
- **Market position**
  - Location, market share, competition and population demographics
- **Governance/management**
  - Effective and accountable leadership
- **Strategic and financial planning**
  - Effective market strategy, quality planning process, organizational culture of achieving targeted results (show five years of budget vs. actual)
- **Payor mix**
  - Reimbursement: price maker vs. price taker in the market
- **Physician relations**
  - Loyalty, average age, growth and specialties represented
- **Debt position**
  - High debt levels increase risk and lead to lower ratings
- **Size**
  - Critical mass
- **Industry trends and external perception of risk**
The Credit Markets Are Expecting Long-Term Market Winners to Have Good Answers to These Questions

**Strategic Planning**

How do you maintain or improve your market position in your service area? How much will it realistically cost? Are you prepared to do what’s necessary to compete aggressively? How will competitors react? Then what? How do the physicians fit into your long-term strategy?

**Financial Planning**

Can you afford your strategic plan within an acceptable credit and execution risk context? What if you're wrong? Then what? Is it too risky?

**Capital Allocation**

How much should you spend? Is spending directed at the right strategies? What is the risk adjusted discounted cash flow return of the capital project portfolio? How has actual versus projected performance measured up?

**Capital Structure**

What is the right amount, mix, structure, and cost of debt and equity? How risky is the capital structure?

**Budgeting/ Reporting**

Do you have the tools and process to deliver a credible budget tied to your strategic financial plan? Is it achievable? Is there accountability for results? What if you fall short? Then what?

**Exit Rules/ Options**

Which services or facilities? Under what conditions? How?
Performance Context
The Corridor of Control

The corridor of control is the balancing point between two opposing goals:

1. Compete as effectively as you can, which requires aggressive investment of capital and commitment of operating dollars, BUT

2. Respect the fiduciary role of the Board and management to protect the long-term financial integrity of a community asset.

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The Critical Relationship Between Strategy and Financial Capability
Striking a Long-Term Balance Between Sources and Uses of Capital

Capital scale

Sources
- New debt
- Asset sale
- Philanthropy
- Current cash
- Operating cash flow

Uses
- Debt payments
- Cash payments
- Minimum cash balance
- Working capital
- Capital spending

Balancing sources and uses
What Levers Do We Have to Work With?

How much cash?
Cash

How much capital?
Capital

How much debt?
Debt

How much profitability?
Operations

Philanthropy and Other Sources?

How should these tradeoffs be optimized within an appropriate credit and risk context?
Measuring and Monitoring Performance
The Challenge

"Tis not knowing much, but what is useful, that makes a wise man."

Thomas Fuller, 1608-1661

The challenge is translating a huge amount of data into meaningful information in order to support organizational decision making.
# Introduction to the Three Key Financial Statements

<table>
<thead>
<tr>
<th>What Does it Tell Us?</th>
<th><strong>Income Statement</strong></th>
<th><strong>Balance Sheet</strong></th>
<th><strong>Statement of Cash Flow</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td><strong>Income Statement</strong></td>
<td><strong>Balance Sheet</strong></td>
<td><strong>Statement of Cash Flow</strong></td>
</tr>
<tr>
<td><strong>Statement</strong></td>
<td><strong>Revenue</strong></td>
<td><strong>Balance Sheet</strong></td>
<td><strong>Statement of Cash Flow</strong></td>
</tr>
<tr>
<td><strong>Statement of</strong></td>
<td><strong>Statement</strong></td>
<td><strong>Balance Sheet</strong></td>
<td><strong>Statement of Cash Flow</strong></td>
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<tr>
<td><strong>Cash Flow</strong></td>
<td><strong>Statement of</strong></td>
<td><strong>Balance Sheet</strong></td>
<td><strong>Statement of Cash Flow</strong></td>
</tr>
</tbody>
</table>

## Things You Might/Might Not Already Know

- Also called P&L
- Most intuitive of the statements
- Only illustrates performance over a defined period of time
- Not all items shown reflect cash in/outflow

- Where you find info on cash balances, debt
- Statement that tells us the most about an organization’s financial health
- Snapshot of a point in time

- Divides cash flows into 3 groupings: Operating, Investing, and Financing
- Provides context for Income Stmt and Bal Sheet

## Analogy to Personal Finance

- Paycheck - Monthly Exp = Savings
- Home mortgage, equity, car&loan, checking, stocks retirement acct
- Checkbook register
A Closer Look at the P&L (Income Statement)

Net Patient Revenue + Other Operating Revenue = Total Operating Revenue

Salaries, Wages and Benefits + NonSalary Cash Op. Expenses + Depreciation + Interest = Total Operating Expenses

Total Operating Revenues - Total Operating Expenses = Income from Operations + Non Operating Income = Net Income

• What does this tell us?
  – Revenue generated from Ops.
  – Cash operating expenses (salaries, supplies, etc.)
  – Accounting profitability

• What DOESN’T this tell us?
  – Capital spending
  – Debt service
    ✓ Notice: includes interest but not principal payments
  – New borrowing
  – Cash generated from Ops.
    ✓ Depreciation is a non-cash item… but WHAT DOES THIS MEAN?
A Few Things About the Balance Sheet...

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
<th>Net Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cash</td>
<td>• Debt</td>
<td>• What We Own</td>
</tr>
<tr>
<td>• Receivables</td>
<td>• Payables</td>
<td></td>
</tr>
<tr>
<td>• Inventory</td>
<td>• L.T. Liabilities</td>
<td></td>
</tr>
<tr>
<td>• Property</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• L.T. Assets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Assets - Liabilities = Net Assets

Key Questions

How much cash does an organization need?
How much debt can it afford?
## Community Hospital Historical Income Statement

<table>
<thead>
<tr>
<th>$ in Millions</th>
<th>Fiscal Year Ended</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004</td>
</tr>
<tr>
<td><strong>Statement of Revenue and Expenses</strong></td>
<td></td>
</tr>
<tr>
<td>Net Patient Service Revenue</td>
<td>56,527</td>
</tr>
<tr>
<td>Contracts and Other Operating Revenue</td>
<td>814</td>
</tr>
<tr>
<td><strong>TOTAL REVENUES</strong></td>
<td>57,341</td>
</tr>
<tr>
<td>Salaries and wages</td>
<td>24,509</td>
</tr>
<tr>
<td>Benefits and payroll taxes</td>
<td>5,762</td>
</tr>
<tr>
<td>Supplies and Other Expenses</td>
<td>19,872</td>
</tr>
<tr>
<td>Depreciation</td>
<td>3,080</td>
</tr>
<tr>
<td>Bad Debt</td>
<td>2,484</td>
</tr>
<tr>
<td>Interest</td>
<td>239</td>
</tr>
<tr>
<td><strong>TOTAL EXPENSES</strong></td>
<td>55,946</td>
</tr>
<tr>
<td><strong>INCOME FROM OPERATIONS</strong></td>
<td>1,396</td>
</tr>
<tr>
<td>Investment Income</td>
<td>128</td>
</tr>
<tr>
<td>Unrestricted Gifts and Bequests</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
</tr>
<tr>
<td><strong>EXCESS OF REVENUE OVER EXPENSES</strong></td>
<td>1,523</td>
</tr>
</tbody>
</table>
Community Hospital Historical Balance Sheet

<table>
<thead>
<tr>
<th>$ in Millions</th>
<th>Fiscal Year Ended</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004</td>
</tr>
<tr>
<td><strong>Assets</strong></td>
<td></td>
</tr>
<tr>
<td>Cash &amp; Equivalents</td>
<td>6,255</td>
</tr>
<tr>
<td>Short Term Investments</td>
<td>5,179</td>
</tr>
<tr>
<td>Net Patient A/R</td>
<td>5,269</td>
</tr>
<tr>
<td>Assets whose use is limited for current liabilities</td>
<td>403</td>
</tr>
<tr>
<td>Prepaid, Inventories &amp; Other Assets</td>
<td>2,273</td>
</tr>
<tr>
<td><strong>TOTAL CURRENT ASSETS</strong></td>
<td>19,380</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS WHOSE USE IS LIMITED</strong></td>
<td>1,059</td>
</tr>
<tr>
<td><strong>NET PP&amp;E</strong></td>
<td>36,315</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>56,754</td>
</tr>
<tr>
<td><strong>Liabilities</strong></td>
<td></td>
</tr>
<tr>
<td>Current Maturities</td>
<td>515</td>
</tr>
<tr>
<td>Third Party Payables and Other Current Liabilities</td>
<td>5,251</td>
</tr>
<tr>
<td><strong>TOTAL CURRENT LIABILITIES</strong></td>
<td>5,766</td>
</tr>
<tr>
<td>Long Term-Debt</td>
<td>8,925</td>
</tr>
<tr>
<td>Other LT Liabilities</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td>14,691</td>
</tr>
<tr>
<td>Unrestricted Net Assets</td>
<td>41,298</td>
</tr>
<tr>
<td>Temporarily and Permanently Restricted Net Assets</td>
<td>765</td>
</tr>
<tr>
<td><strong>TOTAL NET ASSETS</strong></td>
<td>42,063</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES AND FUND BALANCE</strong></td>
<td>56,754</td>
</tr>
</tbody>
</table>
### Definitions of Key Financial Ratios

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Margin:</strong></td>
<td>Operating Income / Total Operating Revenue</td>
</tr>
<tr>
<td><strong>Operating EBIDA Margin:</strong></td>
<td>(Operating Income + Depreciation, Amortization and Interest) / Total Operating Revenue</td>
</tr>
<tr>
<td><strong>Days Cash on Hand:</strong></td>
<td>(Cash and Marketable Securities + Board Desig. Funds) / 365 (Total Operating Expense - Depreciation)</td>
</tr>
<tr>
<td><strong>Cash to Debt:</strong></td>
<td>Unrestricted Cash / Long-term Debt + Short-term Debt</td>
</tr>
<tr>
<td><strong>MADS Coverage:</strong></td>
<td>(Net Income + Depreciation + Interest Expense) / Maximum Annual Debt Service</td>
</tr>
<tr>
<td><strong>Capital Spending Ratio:</strong></td>
<td>(Additions to Plant, Property and Equipment + Depreciation Expense) / Total Operating Revenue</td>
</tr>
<tr>
<td><strong>Excess Margin:</strong></td>
<td>Excess of Revenues Over Expenses / Total Operating and Non-operating Revenue</td>
</tr>
<tr>
<td><strong>Compensation Ratio:</strong></td>
<td>(Salaries, Wages and Benefits, Contract Labor) / Net Patient Revenue</td>
</tr>
<tr>
<td><strong>Debt to Capitalization:</strong></td>
<td>Long-term Debt / (Long-term Debt + Unrestricted Net Assets)</td>
</tr>
<tr>
<td><strong>Days in Accounts Receivable:</strong></td>
<td>Accounts Receivable x 365 / Net Patient Revenue</td>
</tr>
<tr>
<td><strong>Average Age of Plant:</strong></td>
<td>Accumulated Depreciation / Annual Depreciation Expense</td>
</tr>
<tr>
<td><strong>Capital Spending to Revenue:</strong></td>
<td>Annual Capital Spending / Total Operating Revenue</td>
</tr>
</tbody>
</table>
Financial Ratio Explanations

**Operating Profitability**
- **Operating margin** – reflects the profitability of an organization from its active patient care and related operations
- **Operating EBIDA margin** – provides a good look at an organization’s ability to generate enough cash to meet interest and principal payments on debt
- **Excess margin** – reflects profitability from operations and includes revenue and expenses from non-operating activities such as investment earnings and philanthropy

**Debt Indicators**
- **Debt service coverage ratio** – measures the ability of an organization’s cash flow to meet its debt-service requirements
- **Debt to capitalization ratio** – indicates how highly leveraged, or debt financed, the organization is – the higher the capitalization ratio, the higher the risk

**Liquidity Indicators**
- **Days cash on hand** – among the most important credit ratios in use today, reflects the number of days cash set aside by the organization to support operating expenses if revenue stream were to be reduced or eliminated
- **Cash to debt ratio** – measures the availability of an organization’s liquidity to pay off existing debt

**Other Ratios**
- **Capital spending ratio** – a relatively new metric, assesses capital spending as a percentage of depreciation
- **Compensation ratio** – measure how much personnel expenses are required to generate one dollar of revenues
# Community Hospital Historical Credit Profile

<table>
<thead>
<tr>
<th>$ in Millions</th>
<th>S&amp;P &quot;BBB-&quot; (1)</th>
<th>For the Fiscal Year Ended</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004</td>
<td>2005</td>
</tr>
<tr>
<td>Net Patient Service Revenue</td>
<td>$87.7</td>
<td>$56.5</td>
</tr>
<tr>
<td>Operating Income</td>
<td>---</td>
<td>$1.4</td>
</tr>
<tr>
<td>Operating EBIDA</td>
<td>---</td>
<td>$4.7</td>
</tr>
<tr>
<td>Excess Income</td>
<td>---</td>
<td>$1.5</td>
</tr>
<tr>
<td>Cash Flow (Net Inc + Depr)</td>
<td>---</td>
<td>$4.6</td>
</tr>
<tr>
<td>Unrestricted Cash</td>
<td>---</td>
<td>$11.4</td>
</tr>
<tr>
<td>Long-Term Debt</td>
<td>---</td>
<td>$8.9</td>
</tr>
</tbody>
</table>

### Profitability

<table>
<thead>
<tr>
<th>S&amp;P &quot;BBB-&quot; (1)</th>
<th>For the Fiscal Year Ended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Margin</td>
<td>1.8%</td>
</tr>
<tr>
<td>Operating EBIDA Margin (2)</td>
<td>11.2%</td>
</tr>
<tr>
<td>Excess Margin</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

### Leverage

| MADS Coverage (x) | 2.7 (x) | 6.4 (x) | 9.9 (x) | 6.1 (x) | 4.3 (x) |
| Debt to Capitalization | 46.1% | 18.6% | 25.1% | 46.5% | 44.8% |

### Liquidity

| Cash to Long Term Debt | 63.5% | 128.1% | 154.8% | 61.7% | 68.6% |
| Days Cash On Hand | 120.6 | 78.9 | 143.4 | 143.8 | 142.8 |
| Days in A/R, net | 48.8 | 34.0 | 23.1 | 27.1 | 26.0 |

### Other

| Average Age of Plant | 10.1 | 8.3 | 8.9 | 8.7 | 7.8 |
| Compensation Ratio (%) | 49.1% | 53.6% | 50.2% | 51.1% | 52.7% |
| Capital Spending Ratio (%) | 107.10% | 60.9% | 265.8% | 381.7% | 502.8% |

(1) S&P U.S. Not-for-Profit Health Care 2007 Stand-Alone Median Ratios
A CFO Imperative – Improving Capital Capacity

• Creditworthiness is the key
  – Improved access to external capital
  – Reduced cost of capital
  – Increased flexibility

• Focus on the balance sheet
  – Balance sheet strength = protection against short-term operating changes
  – A “broken” balance sheet takes years to mend
  – Don’t run out of cash

• Communication and education provide the foundation
  – Broad-based financial knowledge enhances acceptance of an integrated planning approach
  – Monitoring and communicating results underscores the importance of constant measurement
How to Address Shortfalls in Performance?

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
</table>
| **Capital reduction/deferral** | + Easiest area to control  
| | + Opportunity to prioritize cash generating projects first  
| | − May have a negative effect on strategic position, future cash flows, quality, etc. |
| **Volume growth** | + Creates excitement in organization  
| | + You cannot shrink yourself to success  
| | − Hard to achieve  
| | − Management has minimal control |
| **Expense reduction** | + Generates the most significant long-term result with cash flow improvements  
| | − Many hospitals have already tried this  
| | − Potential negative impact on physicians, employees, quality of care, etc. |
Always maintain sufficient cash

Relentless pursuit of lowest cost of capital

Maximize return on cash and investments

Use capital structure to create capital capacity

Continuous financial planning Scenario assessment; a live roadmap to navigate constant economic uncertainty

Assure the most careful and constrained expenditure of capital

Identify financial goals necessary for success under varied economic conditions

Assuring Financial Excellence

Improve operating processes achieve lower costs
Questions/ Comments?

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