The Importance of Balance Sheet Strength

Bradley C. Bond  CPA, CFA, MBA

May 23, 2018
Today’s Discussion

1. The need for external capital funding
2. Forms of external capital, financial covenants, Bond Rating
3. Access to capital markets
4. Risk management
5. Working capital management
The Need for External Capital Sources
Sophisticated equipment
Skilled medical professionals
Opening new treatment facilities
IT infrastructure

$300k
$200k

$767m
Fund Working Capital

Growth in Patient Accounts Receivable

• Hospital with $4.0 billion in annual revenue = $11 million per day

• Growth in days of Patient A/R of 9 days requires $99 million of cash

Faster payment of Accounts Payable – reduction in A/P

• Hospital with $4.0 billion in annual cash expenses = $11 million per day

• Reducing A/P by 9 days consumes $99 million of cash
Pension Funding

![Graph showing state pension deficits](image)

*Source: Pew Charitable Trusts*
Valuation at 60-70% Revenue
June 11, 2017 12:00 PM

Cleveland Clinic continues its march south

LYDIA COUTrÉ – CRAIN’S
Summa Health looking for health system partner
Posted Sep 27, 2018
Contingent Cash Requirements

- Retirement plan funding (ERISA funding requirements)
- Accelerated debt service (certain variable rate debt structures)
- Unexpected capital spending
- Posting margin on interest rate swaps
U.S. to Take Over AIG in $85 Billion Bailout; Central Banks Inject Cash as Credit Dries Up

Emergency Loan Effectively Gives Government Control of Insurer; Historic Move Would Cap 10 Days That Reshaped U.S. Finance

By Matthew Karnitschnig, Deborah Solomon and Liam Pleven

The U.S. government seized control of American International Group Inc.—one of the world’s biggest insurers—in an $85 billion deal that signaled the intensity of its concerns about the danger a collapse could pose to the financial system.

The step marks a dramatic turnaround for the federal government, which had been strongly resisting overtures from AIG for an emergency loan or some intervention that would prevent the insurer from falling into bankruptcy. Just last weekend, the government essentially pulled the plug on Lehman Brothers Holdings Inc., allowing the big investment bank to go under instead of giving it financial support. This time, the government decided AIG was too big to fail.

Insurance businesses, giving the Fed some protection even if markets continue to sink. And if AIG rebounds, taxpayers could reap a big profit through the government’s equity stake.

“This loan will facilitate a process under which AIG will sell certain of its businesses in an orderly manner, with the least possible disruption to the overall economy,” the Fed said in a statement.

It put the government in control of a private insurer—a historic development, particularly considering that AIG isn’t directly regulated by the federal government. The Fed took the highly unusual step using legal authority granted in the Federal Reserve Act, which allows it to lend to non-banks under “unusual and exigent” circumstances, something it invoked when Bear Stearns Cos. was rescued in March.

As part of the deal, Treasury Secretary Henry Paulson in-
Forms of External Capital, Covenants, Bond Rating
Sources of Capital

1. Traditional bond financing – public finance
2. Private bank financing – direct purchases
3. Revolving credit facilities (banks)
4. Public-Private-Partnerships (P3’s)
5. Eb5 Immigration financing
6. New markets tax credits
7. Property leasing
8. Equipment leasing
9. Joint ventures / M&A
Different Types of Public Debt

1. Fixed rate bonds
2. Variable rate demand bonds (often require bank letter of credit)
3. Self-liquidity variable rate bonds
4. Floating rate notes
5. Variable rate – “auction style”

Credit enhancement

• Bank letters of credit
• Bond insurance
Traditional Bond Financing – Public Offering

PRELIMINARY OFFICIAL STATEMENT DATED OCTOBER 3, 2018

NEW ISSUE
BOOK-ENTRY ONLY

Ratings:
S&P: AA+
Moody’s: Aa2/VMIG1**
Fitch: AA+

In the opinion of Dinsmore & Shohl LLP, Bond Counsel, under existing law, (i) interest on the Series 2018A-B Bonds is excludable from gross income of the holders thereof for purposes of federal income taxation, (ii) interest on the Series 2018A-B Bonds will not be a specific item of tax preference for purposes of the alternative minimum tax imposed on individuals and corporations, and (iii) interest on the Series 2018A-B Bonds is exempt from taxation, including personal income taxation, imposed by the State of Ohio and its political subdivisions and will be excludable from the net income base used in calculating the Ohio corporate franchise tax, all subject to the qualifications described herein under the heading “Tax Matters”.

$175,000,000*
COUNTY OF FRANKLIN, OHIO
$125,000,000* Hospital Facilities Revenue Bonds, Series 2018A
$50,000,000* Hospital Facilities Revenue Bonds, Series 2018B
(OHIOHEALTH CORPORATION)

Dated: Date of Issuance

Due: As shown on the Inside Cover

Barclays Capital¹

Citigroup²

The date of this Official Statement is October __, 2018.

* Preliminary; subject to change.
** VMIG1 rating relates to the Series 2018B Bonds only.
1 Senior Manager for the Series 2018A Bonds.
2 Senior Manager for the Series 2018B Bonds.
The Series 2018A Bonds will bear interest at the Long-Term Interest Rate(s) per annum indicated on the inside cover hereof commencing on the date of issuance of the Series 2018A Bonds and ending on their respective maturity dates shown on the inside cover hereof.

The Series 2018B Bonds will initially bear interest at an Index Interest Rate* (equal to the sum of (i) SIFMA (the “Index”) multiplied by (100%) (the “Applicable Factor”) plus (ii) (___%) (the “Applicable Spread”)) for the Index Interest Rate Period ending on ______________, ______.
UH Debt Profile $1.3 Billion

Debt Composition
December 31, 2017
$ in thousands

- Revolving Bank Lines (Current Balance), $40,000, 3%
- Floating Rate Debt w/Seif Liquidity, $170,000, 13%
- Bank Direct Purchase - Fully Amortizing, $27,935, 2%
- Bank Direct Purchase - Requires Renewal, $274,445, 21%
- Uninsured fixed-rate bonds, $708,200, 55%
- Public VRDO with Bank L/C, $75,000, 6%

Note: The above chart does not include unamortized premium $13.0 million, new markets tax credits financing $7.1 million, and capital leases/other of $0.5 million.
Financial Covenants

1. Payment of debt service
2. No bankruptcy
3. ERISA compliance
4. Transfers of assets
5. Financial reporting
6. Financial ratio covenants
   • Debt service coverage test
   • Days of cash on hand
   • Leverage: debt-to-unrestricted capitalization
Finance 201

Balance Sheet Ratios
Key Metrics – Days of Cash on Hand “DCOH”

\[
\text{DCOH} = \frac{\text{Cash & unrestricted investments} \times 365}{\text{Annual Operating Expense}}
\]

### Liquidity Position - Consolidated System

*Dollars in Thousands*

<table>
<thead>
<tr>
<th></th>
<th>Actual 31-Dec-17</th>
<th>Actual 31-Dec-16</th>
<th>Actual 31-Dec-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents</td>
<td>201,782</td>
<td>264,527</td>
<td>201,457</td>
</tr>
<tr>
<td>Unrestricted investments</td>
<td>1,475,567</td>
<td>1,290,173</td>
<td>1,262,873</td>
</tr>
<tr>
<td>Total cash and unrestricted investments</td>
<td>1,677,349</td>
<td>1,554,700</td>
<td>1,464,330</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>3,752,433</td>
<td>3,660,972</td>
<td>3,161,324</td>
</tr>
<tr>
<td>Less: Depreciation and amortization</td>
<td>151,722</td>
<td>140,616</td>
<td>121,460</td>
</tr>
<tr>
<td>Cash expenses (a)</td>
<td>3,600,711</td>
<td>3,520,356</td>
<td>3,039,864</td>
</tr>
<tr>
<td>Days of cash on hand</td>
<td>170</td>
<td>161</td>
<td>176</td>
</tr>
</tbody>
</table>

Increase in cash expenses – reduces cash, reduces DCOH (both numerator and denominator)
## Key Metrics – Leverage Ratio

Leverage = \[
\frac{\text{Total Debt}}{\text{Total Debt + Unrestricted Net Assets}}
\]

### Leverage Position - Consolidated System

*Dollars in Thousands*

<table>
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<th>Actual 31-Dec-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current installments of long-term debt</td>
<td>23,736</td>
<td>23,190</td>
<td>24,827</td>
</tr>
<tr>
<td>Revolving credit borrowing</td>
<td>40,000</td>
<td>40,000</td>
<td>-</td>
</tr>
<tr>
<td>Long-term debt, less current installments</td>
<td>1,252,444</td>
<td>1,272,085</td>
<td>1,283,215</td>
</tr>
<tr>
<td><strong>Total debt</strong></td>
<td>1,316,180</td>
<td>1,335,275</td>
<td>1,308,042</td>
</tr>
<tr>
<td><strong>Unrestricted net assets</strong></td>
<td>1,738,444</td>
<td>1,508,451</td>
<td>1,372,564</td>
</tr>
<tr>
<td><strong>Total unrestricted capitalization</strong></td>
<td>3,054,624</td>
<td>2,843,726</td>
<td>2,680,606</td>
</tr>
<tr>
<td><strong>Debt-to-unrestricted capitalization</strong></td>
<td>43.1%</td>
<td>47.0%</td>
<td>48.8%</td>
</tr>
</tbody>
</table>

+ Net Income ➔ +Unrestricted Net Assets = Reduced Leverage

+ Cash Flow ➔ Less need to borrow = Reduced Debt / Leverage
AA Credits
Operating Margin

Operating Margin (%)

- 0.0
- 2.0
- 4.0
- 6.0
- 8.0
- 10.0
- 12.0
- 14.0

Baylor Scott & White
BWH Cardiovascular
Cleveland Clinic Health System
Duke University Health System
Johns Hopkins Hospital
Main Line Health System
Memorial Sloan-Kettering
Northwestern Memorial Hospital
Oregon Health & Science University
Partners Healthcare System
Stanford Health Care
Spectrum Health
New York Presbyterian
University of Chicago
University of Iowa Hospitals & Clinics
University of North Carolina Health System
University of Pennsylvania Hospitals & Clinics
University of Wisconsin Hospitals & Clinics
Virginia Commonwealth Health System
Yale-New Haven
AA Credits

Days of Cash on Hand

Cash on Hand (days)
AA Credits
Debt-to-Capitalization

Total Debt to Capitalization (%)
FAQ: Effect of investment market returns on hospital credit quality

Balance sheet strength, measured on both an absolute and relative basis, as well as liquidity, are key drivers of not-for-profit and public hospitals’ credit quality. Major prolonged market downturns that result in sustained investment losses can affect a hospital system’s liquidity and credit quality, relative to other credit factors. Short-term and temporary market
Diagnosing Not-for-Profit Hospital Downgrades:
Escalation in 4th Quarter 2008 Rating Downgrades Indicates Effects of Rapid Weakening in Economy and Investment Losses
The primary factors for the downgrades include a combination of the following issues:

- Softening clinical revenue caused by patients deferring elective procedures
- Intensifying competition for insured patients with other hospitals and physician groups
- Weaker financial performance as rising unemployment is causing increased charity care and bad debt expense
- Material declines in liquidity positions as many hospitals have suffered material losses in their investment portfolios
- Variable rate debt structures, combined with lower liquidity, have resulted in increased likelihood of violating liquidity covenants in letter of credit agreements which could lead to acceleration
- Large increases in leverage as some hospitals pursue aggressive capital investment strategies.
Prolonged Disruption of the Auction Rate Market Could Have Negative Impact on Some Ratings
Absence of Liquidity Jars Market's Orderly Functioning

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CONTENTS:
• Summary
• Auction rate securities
• Broker-dealers: No longer buyers of last resort
• U.S. Public Finance
Not-for-profit and public healthcare - US

2018 outlook changed to negative due to reimbursement and expense pressures

Our negative outlook indicates our expectations for the fundamental credit conditions driving the not-for-profit and public healthcare sector over the next 12-18 months.
Healthcare Industry Outlook – Moody’s

» Operating cash flow will contract by 2%-4% in 2018. Operating pressures are accelerating at hospitals because of low revenue growth and untamed expense growth.

» Low reimbursement rates drive slowed revenue growth despite consistent volumes. Hospitals are unable to translate volume increases into stronger revenue growth because of below inflationary growth of reimbursement rates and rising bad debt.

» Expense pressures further compress margins. Nursing shortages, continued physician and medical specialist hiring, as well as technological investments are accelerating expense growth. Bad debt will grow in 2018 with high deductibles, rising copays, and contracting exchange enrollment because of changes in federal marketing.
Not-for-profit and public healthcare - US

2019 outlook remains negative amid glimmers of stability

Our negative outlook indicates our expectations for the credit conditions driving the US not-for-profit and public healthcare sector over the next 12-18 months. We expect operating cash flow will be flat or decline by up to 1% during the outlook period. Revenue growth will
Changing demographics present credit risks and opportunities

Shifting demographics continue to drive economic and revenue growth, as well as spending priorities and policy changes for public finance and infrastructure entities. While the causes of these changes are myriad, the effects of certain trends present immediate and long-term credit risks and opportunities for each sector. In particular, population growth, aging, labor force participation, urbanization, income distribution and immigration trends will continue to heavily influence how each entity is able to grow and use its resources.
Cross-Sector - US

High healthcare costs strain governments, businesses and households, with ripple effects across the economy

Summary

Rising costs and rising population will continue to drive healthcare spending higher in...
Access to Capital
Capital Sources

**Banks & Bondholders**
- Risk of capital loss
- Credit assessment more rigorous
- Often a leading indicator
- Influenced by regulatory/market trends
- Can deny future credit

**Rating Agencies**
- Risk of reputation loss
- Credit assessment less rigorous
- Often a lagging indicator
- Not influenced by market trends
- Rating impacts cost of debt
University Hospitals Health System Inc., OH

Update - Moody's Affirms University Hospitals Health System Inc.'s (OH) A2; Stable Outlook

Summary Rating Rationale
Moody's Investors Service affirms University Hospitals Health System Inc.'s (OH) A2 rating, affecting $980 million of outstanding bonds. The outlook is stable.

The A2 is based on University Hospitals’ (UH) position as a large system in the greater Cleveland region, strengthening and broadening market position, ability to respond quickly to operating challenges, and conservative asset allocation. The system is challenged by balance sheet and operating leverage, a modest unrestricted investment position, and the presence of a large competitor.
Factors that Could Lead to an Upgrade

» Reduced balance sheet and operating leverage, including improved cash-to-debt and debt-to-cashflow
» Growth in relative investment position
» Sustained improved operating cashflow margin

Factors that Could Lead to a Downgrade

» Prolonged decline in operating performance
» Meaningful dilution from acquisitions or mergers
» Material increase in leverage, resulting in weaker debt metrics
» Decline in liquidity from current levels
Risk Tolerance &
Risk Management
INTER-RELATED GOALS:

Asset Allocation (Investment Risk)

Balance Sheet Strength

Need for Liquidity

Access to Capital Markets
Sources of Balance Sheet Risk

- Investments
- Operating leverage
- Debt (leverage)
- Maturity mismatch
- Retirement plans – defined benefit pension plans
- Swaps
- Changes to operating cash flows
- Unexpected capital requirements
Risk Tolerance

Who has the higher risk tolerance?
“Markets can remain irrational longer than you can remain solvent”

John Maynard Keynes

Tolerance for Investment Risk:

• Even if an organization defines itself as a "long-term investor," short term volatility may bring a quick end

• At 300+ days of cash on hand, it is easy to take the view of "long-term"
• At 100 days of cash on hand, a "long-term" view may not be appropriate
  ✓ Financial covenants
  ✓ Ratings implications (access to capital)
Conservative vs Risky Investment

Growth of $100 Million

- S&P 500
- 10% Risk Budget
- Cash

$253 M

Crisis on Wall Street as Lehman Totters, Merrill Is Sold, AIG Seeks to Raise Cash

Fed Will Expand Its Lending Arsenal in a Bid to Calm Markets; Moves Cap a Momentous Weekend for American Finance

The American financial system was shaken to its core on Sunday. Lehman Brothers Holdings Inc. faced the prospect of liquidation, and Merrill Lynch & Co. agreed to be sold to Bank of America Corp., ending a lobbying battle for control. Lehman filed for Chapter 11 bankruptcy protection on September 15, 2008, becoming the largest U.S. bankruptcy in history.

The crisis on Wall Street marked a watershed moment for the financial system, with implications far beyond the United States. The collapse of Lehman Brothers sent shockwaves through global financial markets, leading to a worldwide recession. The crisis also raised questions about the adequacy of government oversight and the need for better regulation of financial institutions.

Merrill Lynch, on the other hand, was sold to Bank of America for $50 billion, a deal that was seen as a critical move to stabilize the banking sector and prevent a potential collapse.

AIG, one of the world's largest financial insurance companies, also faced severe challenges, leaking a record $40 billion in losses. The company pledged to raise $15 billion through asset sales and a new stock offering, and pledged to raise another $40 billion through loans from the Federal Reserve.

The crisis sparked a global economic downturn, leading to widespread job losses, business failures, and a decline in consumer confidence. It highlighted the interconnections between financial institutions and the broader economy, and underscored the need for robust financial regulation.
Conservative vs Risky Investment

2008

S&P 500
10% Risk Budget
Cash

2018
Investment Risk Budgeting at UH

Projected Cash $1.0B

Required Cash $400m

Allowed Investment Risk $150m

Capital Structure Risk $150m

Operations Risk $300m

Allowed investment risk $150
Projected investments $1,000

Investment risk budget = 15%
Working Capital Management
Tools for Working Capital Management

**Patient Accounts Receivable**

1. Electronic charge entry systems
2. Denial management systems
3. Outsourced specialist collection advisors
4. Optimized managed care agreements
Tools for Working Capital Management

Accounts Payable

1. Slow down payment at quarters (external financial reporting)
2. Key vendor contract negotiations (Group Purchasing Organization)
3. Bank credit card programs with rebates
4. Bank ACH programs with or without rebates
Questions?