

Contact:

Mary Williams

Managing Director

1201 Elm Street

Suite 3500

Dallas, Texas 75270

Telephone: 214.953.4021

mary.williams@hilltopsecurities.com



Credit Agencies Reform Act

- In 2006, Congress passed the Credit Rating Agency Reform Act
 - This law requires SEC to establish clear guidelines for determining which credit agencies qualify as Nationally Recognized Statistical Rating Organizations (NRSRO's)
 - This law gave SEC the power to regulate NRSRO's internal process reporting and record keeping and how to guard against conflicts of interest
 - This law specifically makes NRSO determination subject to Congressional vote
 - This law prohibits the SEC from regulating on NRSO rating methodology
- Dobb-Frank Wall Street Reform and Consumer Protection Act July 2010
 - This law adds number of requirements on NRSRO's that were immediately effective (do not depend on SEC rulemaking)
 - Primary Goal of this law is to hold agencies accountable for quality of rating transparency
 - Also required SEC to adopt a number of new rules concerning
 - Annual reports on internal control
 - Conflicts of interest with respect to sales and marketing practices
 - “Look-Backs” when credit analysts leave the NRSO
 - Fines and Penalties
 - Disclosure of data and assumptions underlying credit rating
 - Disclosure about 3rd part due diligence
 - Analyst training and testing
 - Consistent application of rating symbols and definitions

Rating Process



Factors Considered in Assigning a Rating

Overview of Rating Criteria

Quantitative Metrics

The rating agencies evaluate a number of qualitative metrics, including:

- Management ability and reporting structures
- Governance
- Government relations
- Risk management
 - Exposure to risky sectors such as health care
- Risks in the debt portfolio
- Strategic planning, benchmarking, stress testing

Qualitative Metrics

The rating agencies evaluate many factors, including strategic assessment and evaluation of governance and management, in assigning ratings

- Total size / revenues of an institution
- Revenue growth
- Student demand as measured by selectivity, matriculation, and retention
- Operating results as measured by margin and cash flow margin
- Diversity of revenue mix

Moody's and S&P each have new rating methodologies for the higher education sector that incorporates the use of a scorecard matrix

- Additionally, Moody's and S&P evaluate historical trends, expected future performance and peer analysis

Fitch does not publish a scorecard, though uses similar quantitative, qualitative, trend analysis, and peer review metrics

Moody's Rating Methodology Update

Higher Education Rating Methodology Changes

Select Highlights

- Moody's new Global Higher Education Rating Methodology started on November 23, 2015
- Moody's has consolidated its U.S. and non-U.S. higher education methodologies into one single rating approach - adjustments made to certain ratio calculations to enable global comparability and trend analysis
- A major component of the changes is moving away from a net asset-based measure to a cash-based wealth metric:
 - Considers permanently restricted assets to account for the spendable component
 - Accounts for pension, OPEB, and swap liabilities, as well as deferred revenues, which would otherwise depress net assets
- The new "Spendable Cash" definition and metric is now in Moody's reports and calculated historically for each rated institution
- Moody's data for new metrics and ratios is shown in Moody's Municipal Financial Ratio Analysis (MFRA) back to 2004; however, Moody's has only reviewed data for accuracy back to 2009
- Qualitative factors will continue to enable adjustments
- According to Moody's, approximately 95% of ratings will remain unchanged

Modifications to the Scorecard

- Included with the methodology changes are updates to the Moody's Higher Education Scorecard, which result in a single scorecard for public and private universities
- Additions:
 - Reputation and Pricing Power (measured as the % Annual Change in Operating Revenues)
 - Strategic Positioning (measured somewhat qualitatively)
- Deletions:
 - Student Demand data: Primary Selectivity, Primary Matriculation, Net Tuition per Student, Average Gifts per Student, and Average Debt Service Coverage
 - Monthly Liquidity to Demand Debt
- Revisions:
 - Expendable Financial Resources to Direct Debt → Financial Leverage (Spendable Cash & Investments to Total Debt)
 - Debt to Operating Revenues → Debt Affordability (Total Debt to Cash Flow)

Moody's New Higher Education Scorecard

Moody's global higher education methodology provides a new scorecard which differs from the previous version

- Market Profile factor focuses on operating revenues and “strategic positioning” sub-factor included as a qualitative factors
 - Eliminates specific admission and tuition factors
- Operating Performance factor largely unchanged
 - Eliminates coverage ratio
- Wealth and Liquidity factor focuses more broadly on the institution's ability to cover expenses
- Leverage factor encompasses and institution's ability to afford debt
 - New factor which was always a major influence in the Moody's final rating outcome but previously not memorialized in the scorecard
 - Eliminates the focus on variable rate and puttable debt

Moody's Global Higher Education Scorecard

	Sub-Factor Weights
Factor 1: Market Profile (30%)	
Scope of Operations:	
Operating Revenue (\$000)	15%
Reputation and Pricing Power:	
Annual Change in Operating Revenue (%)	5%
Strategic Positioning	10%
Factor 2: Operating Performance (25%)	
Operating Results:	
Operating Cash Flow Margin (%)	10%
Revenue Diversity:	
Max Single Contribution (%)	15%
Factor 3: Operating Wealth and Liquidity (25%)	
Total Wealth:	
Total Cash and Investments (\$000)	10%
Operating Reserve:	
Spendable Cash & Investments to Operating Expenses (x)	10%
Liquidity:	
Monthly Days Cash on Hand (x)	5%
Factor 4: Leverage (20%)	
Financial Leverage:	
Spendable Cash & Investments to Total Debt (x)	10%
Debt Affordability:	
Total Debt to Cash Flow (x)	10%

Moody's Public University Quantitative Grid Ranges

Public University Quantitative Scorecard Ranges

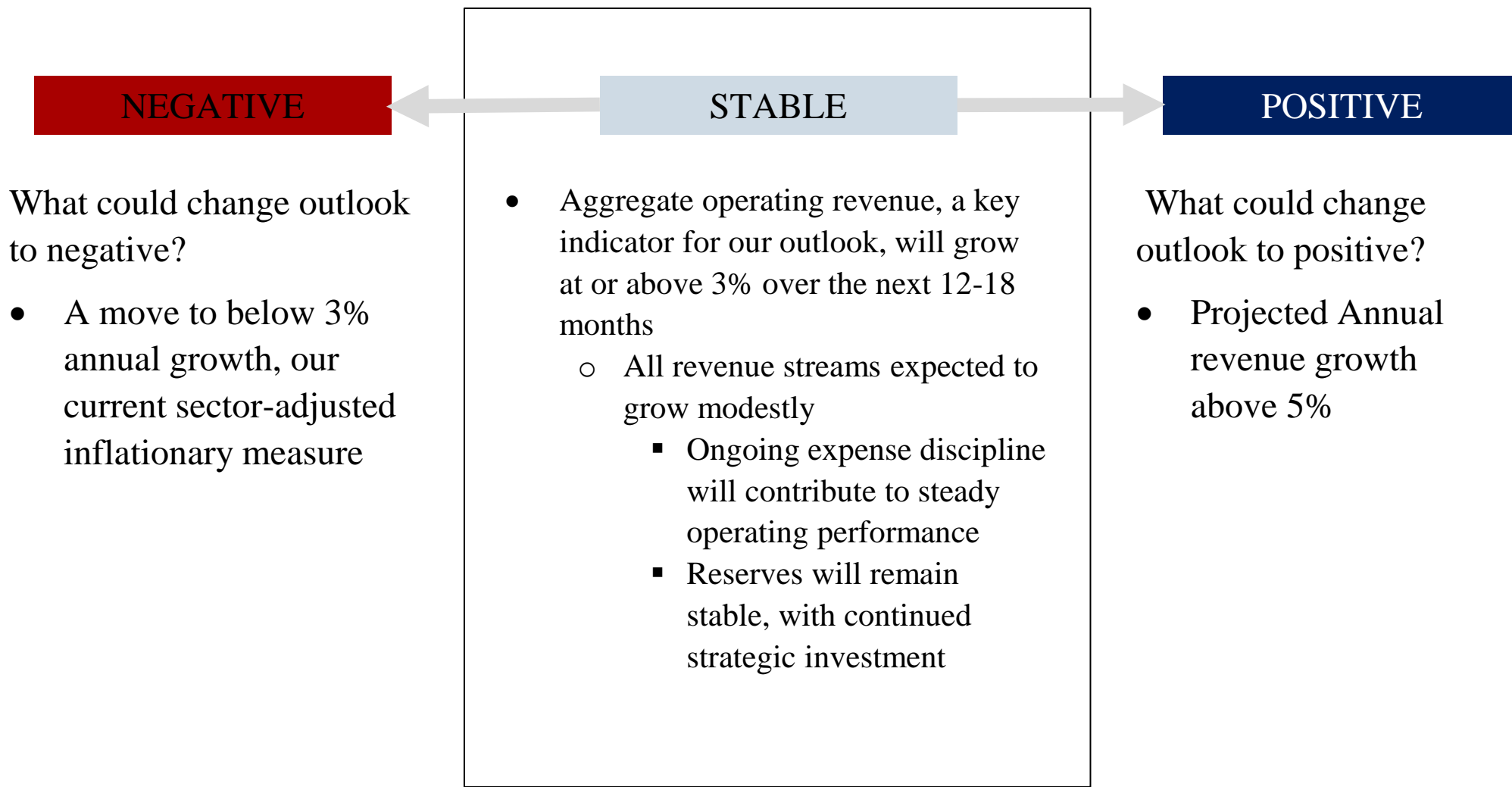
Market Profile	Aaa	Aa	A	Baa	SG
Operating Revenue (\$000)	2,700,000 +	2,700,000 - 400,000	400,000 - 75,000	75,000 - 40,000	< 40,000
Annual Change in Operating Revenue (%)	8 +	8 - 6	6 - 4	4 - 2	< 2
Strategic Positioning	Exceptional	Excellent	Very Good	Good	Fair - Very Poor
Operating Performance	Aaa	Aa	A	Baa	SG
Operating Cash Flow Margin (%)	20 +	20 - 11	11 - 4.5	4.5 - 1	< 1
Revenue Diversity (Max Single Contribution) (%)	< 35	35 - 50	50 - 67	67 - 75	75 +
Wealth and Liquidity	Aaa	Aa	A	Baa	SG
Total Cash & Investments (\$000)	2,500,000 +	2,500,000 - 100,000	100,000 - 25,000	25,000 - 10,000	< 10,000
Spendable Cash & Investments to Operating Expenses (x)	1.00 +	1.00 - 0.50	0.50 - 0.15	0.15 - 0.05	< 0.05
Monthly Days Cash on Hand (x)	260 +	260 - 140	140 - 50	50 - 25	< 25
Leverage	Aaa	Aa	A	Baa	SG
Spendable Cash & Investments to Total Debt (x)	> 3.00	3.00 - 0.75	0.75 - 0.20	0.20 - 0.12	< 0.12
Total Debt to Cash Flow (x)	0 - 4	4 - 10	10 - 16	16 - 22	22 +

The sub-factor ranges by rating category are based on the distribution of values from Moody's current rated portfolio.

Numeric Values

Aaa	Aa	A	Baa	Ba	B	Caa	Ca
1	3	6	9	12	15	18	20

US Higher Education 2015 Outlook is Stable



What could change outlook to negative?

- A move to below 3% annual growth, our current sector-adjusted inflationary measure

What could change outlook to positive?

- Projected Annual revenue growth above 5%

Moody's Rates Nearly 700 Colleges & Universities

Public Universities	Private Colleges	Community Colleges	Non-US Universities
<ul style="list-style-type: none">• Over 230• \$15B of outstanding debt• Median rating of Aa2 by number of institutions	<ul style="list-style-type: none">• Over 270• \$85B of outstanding debt• Median rating of A2 by # of institutions• Aa2 weighted by rated debt	<ul style="list-style-type: none">• More than 65• \$3B of outstanding debt• Median Rating of A2 by # of institutions, A1 by weighted by rated debt	<ul style="list-style-type: none">• 20 in UK, Australia, Canada, Mexico and Singapore

- In addition, Moody's rates:
 - Around 90 **not-or-profit institutions**, \$13 billion of rated debt, median rating of A1 by # of institutions and Aa3 weighted by rated debt
 - Approximately **35 independent K-12 schools**, \$1 billion of debt, median rating of A1 by # of institutions and Aa3 weighted by rated debt

Source: Moody's US Higher Education and Not-for Profits Update January 2016

Moody's Expects Revenue Streams will grow, over next 12-18 months

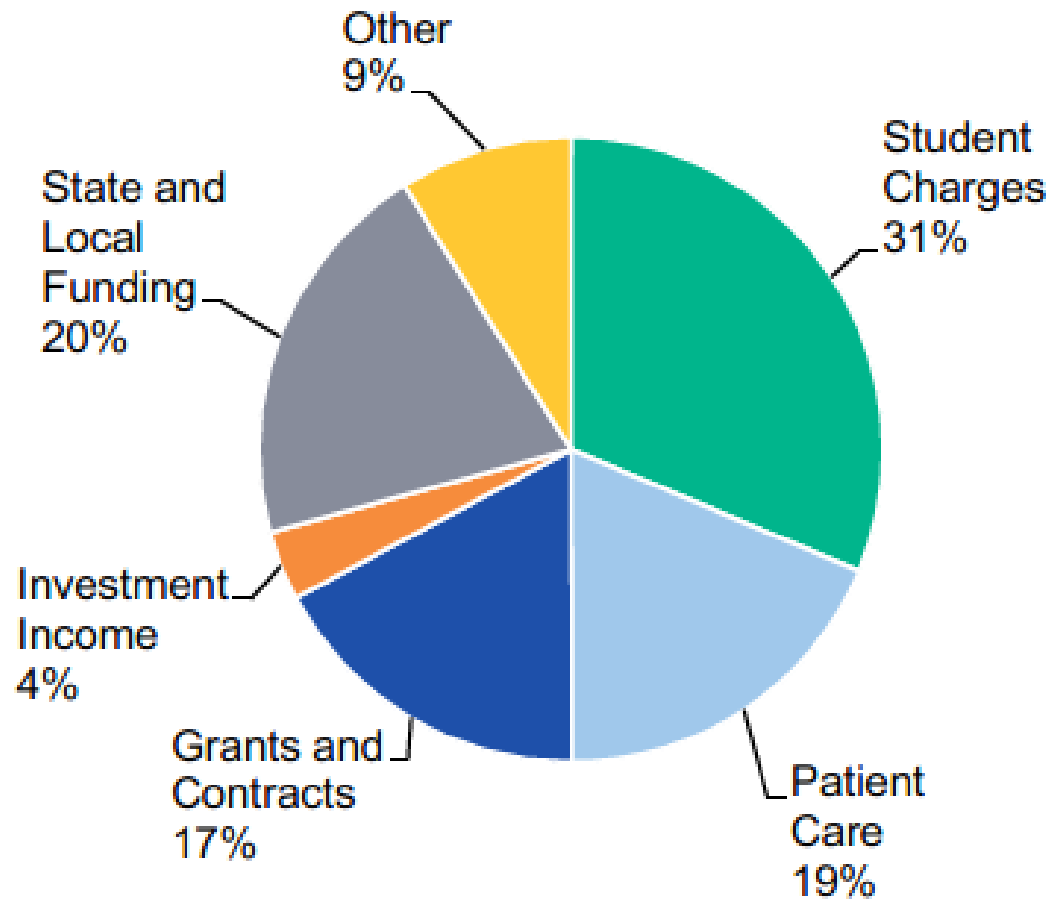
Revenue Stream	Expected Growth Fiscal Year 2016-2017
Student Charges	2-3%
State Funding	2-4%
Patient Care	4-6%
Research	2-4%
Endowment Income	4-5%
Gifts	3-4%

Source: Moody's Investors Service

Aggregate Operating Revenue Will Grow at or Above 3%

Sector-Wide Revenues are Diversified

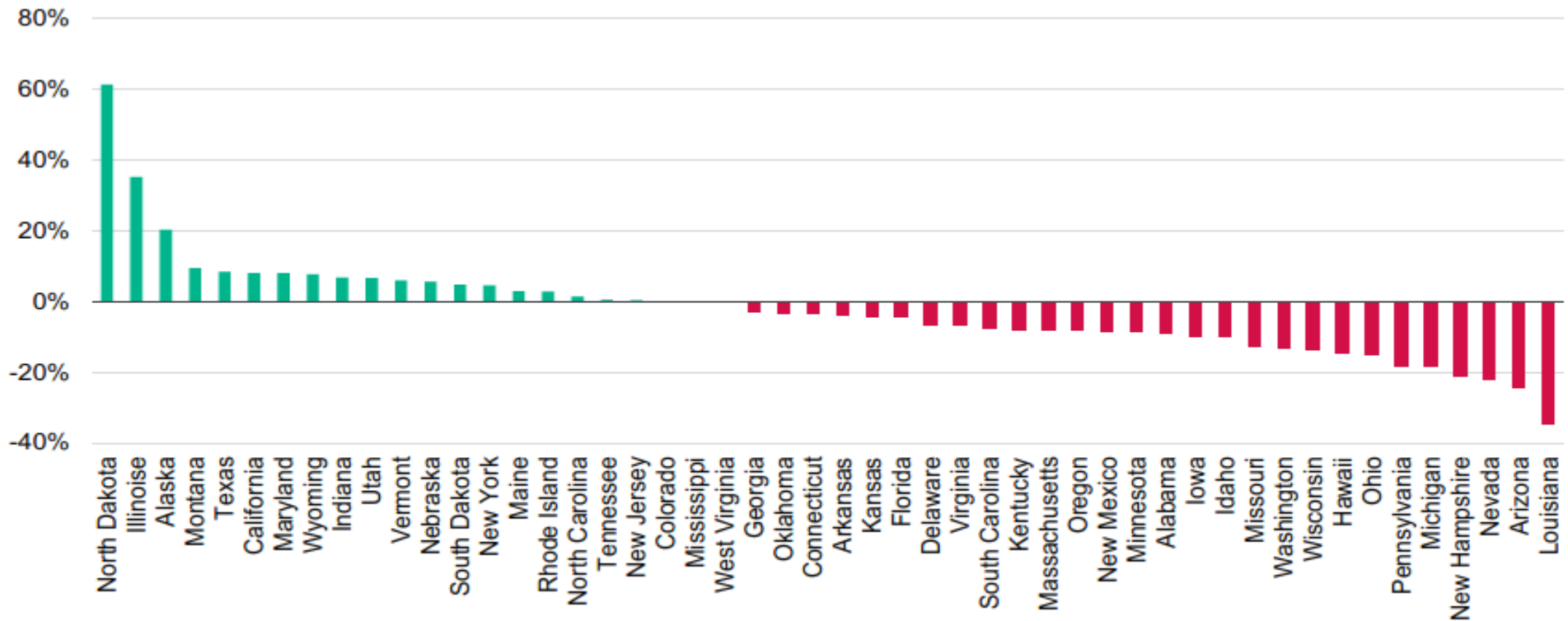
Public Universities Derived an Aggregate 20% of Funding from their states



Source: Moody's Investor Service; Moody's Investors Service estimate

Wide Disparity in Funding Levels from State to State

% Increase in State Funding, 2009-2015

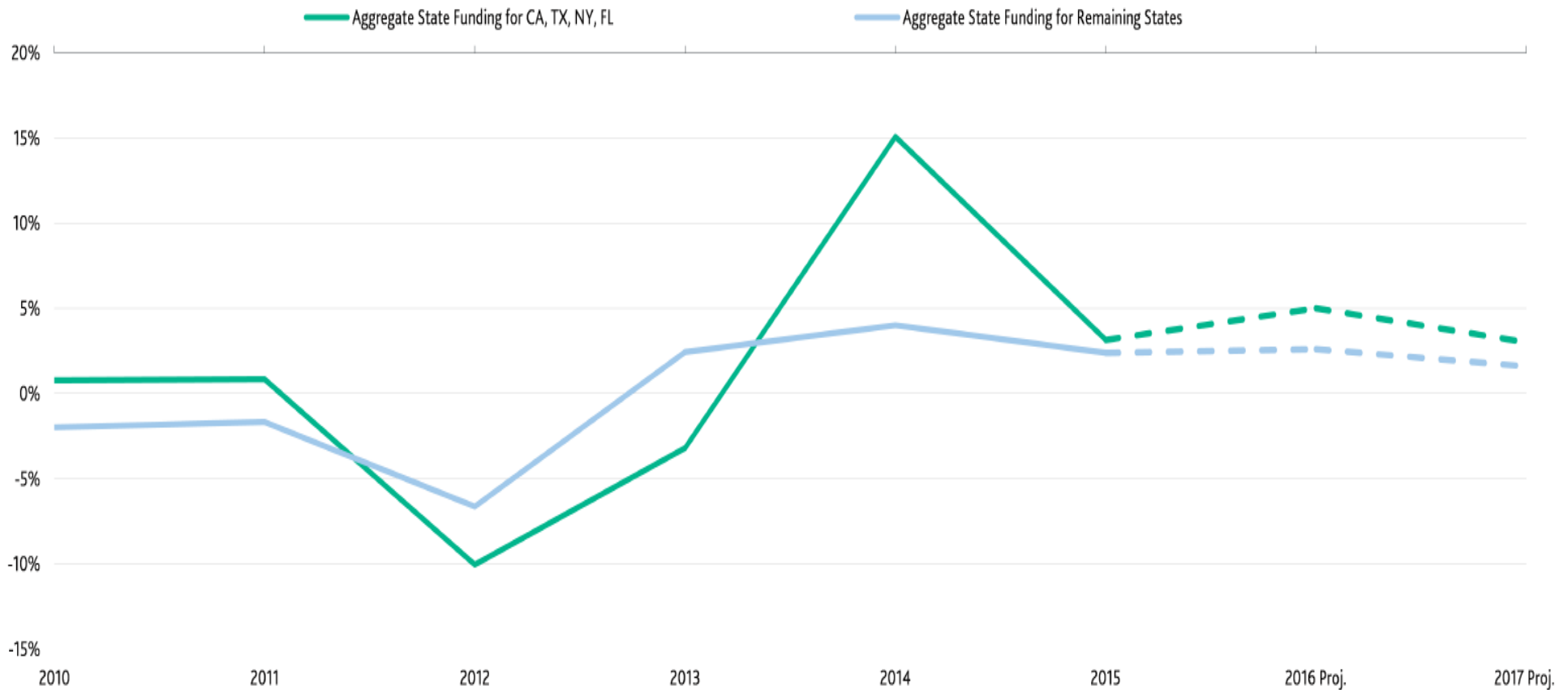


Source: Illinois State University-Grapevine Data

Aggregate State Funding

- Large States with Economic Diversity Will Drive Aggregate State funding Growth

Data Based on historical aggregate state funding for Moody's rated public universities

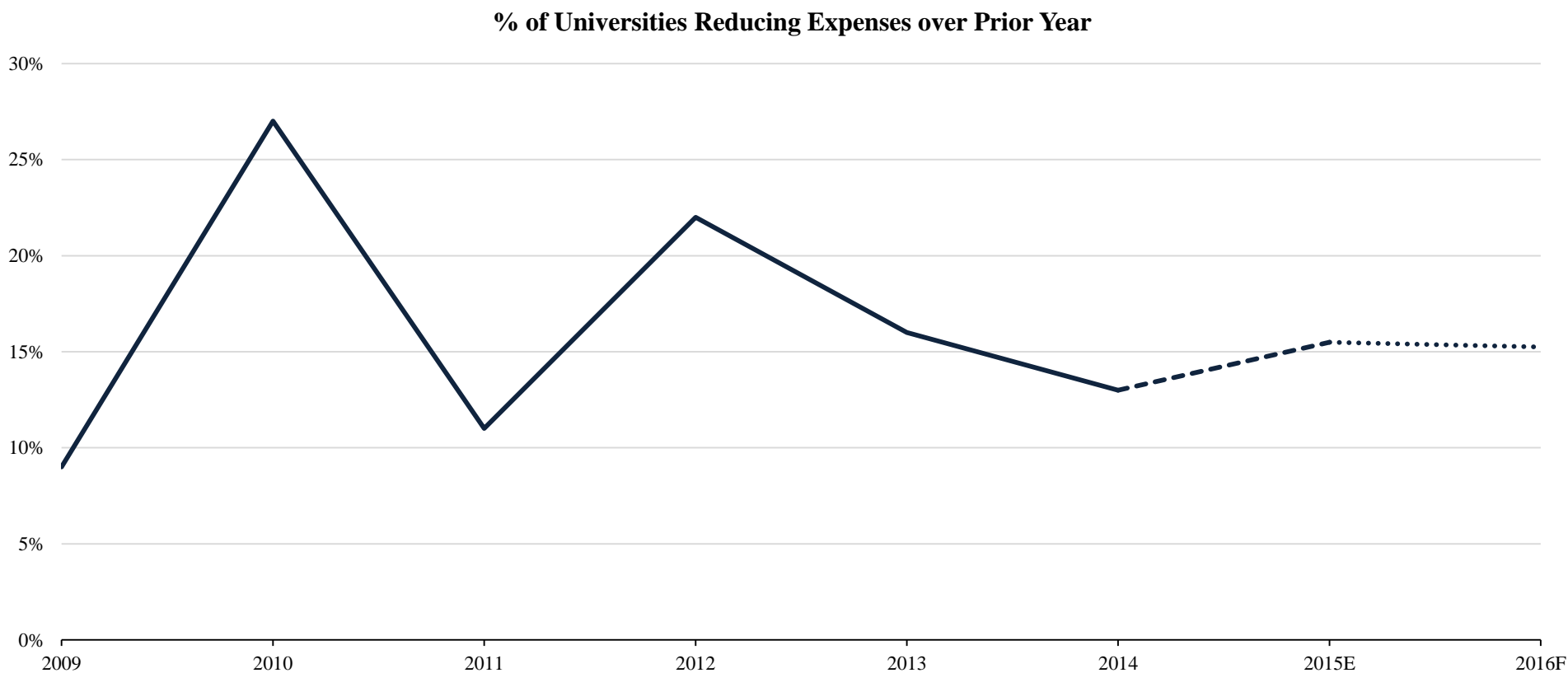


Funding Volatility from fiscal 2012-2014 on green line is partially a result of actions from the Florida Legislature to temporarily tap university reserves to help balance the state budget

Source: Moody's investors Service; Grapevine data from Illinois State University's center for the Study of Education Policy in cooperation with the State Higher Education Executive Officers

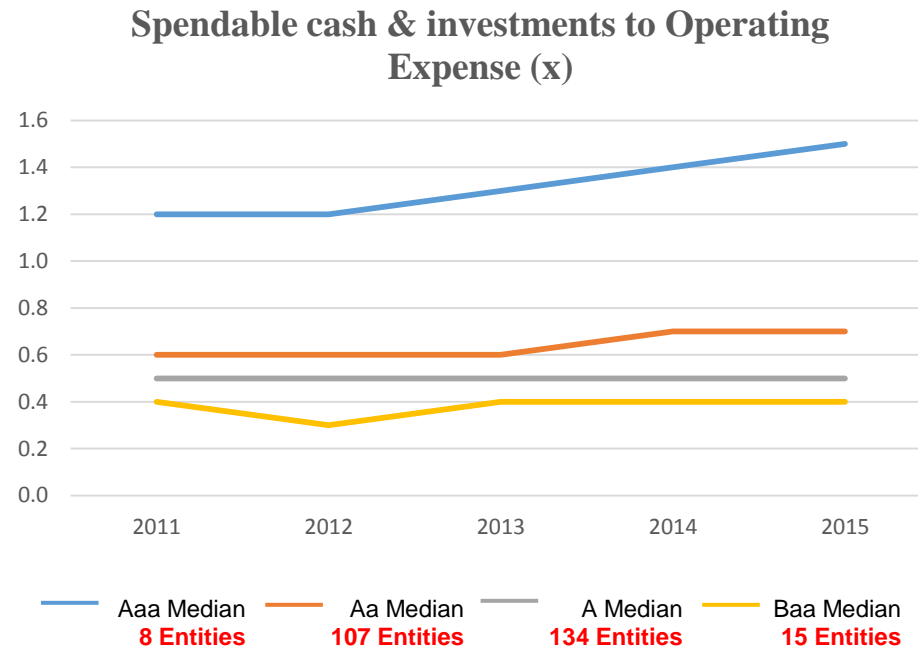
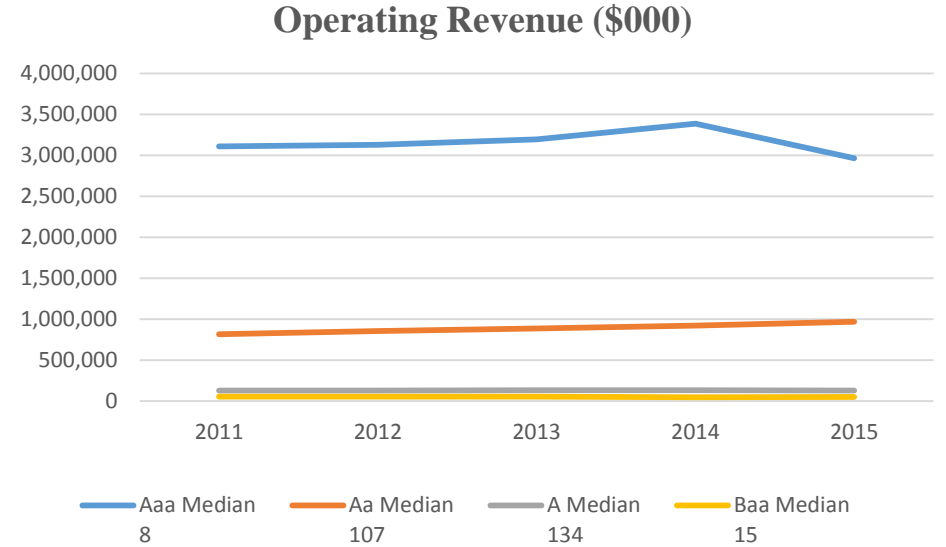
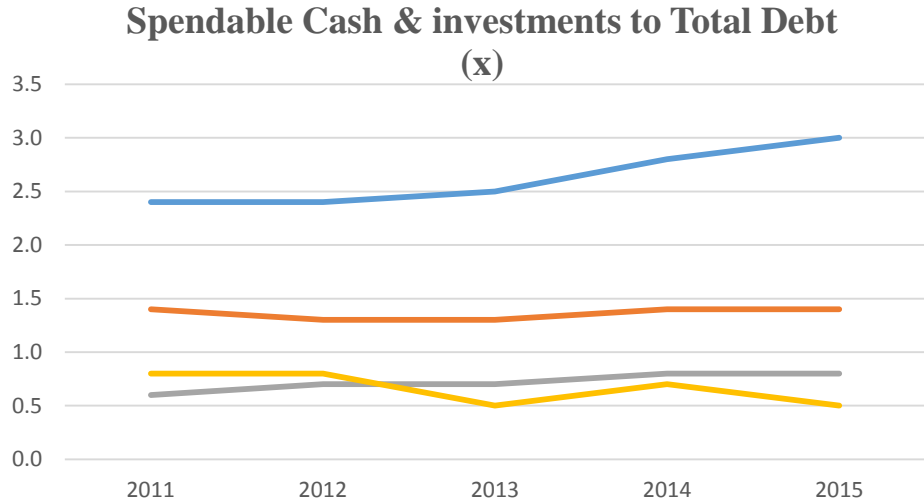
Moody's Expects Ongoing Expense Discipline Contributes to Stability

- Between 15-20% of Universities will need to cut costs to maintain operating stability



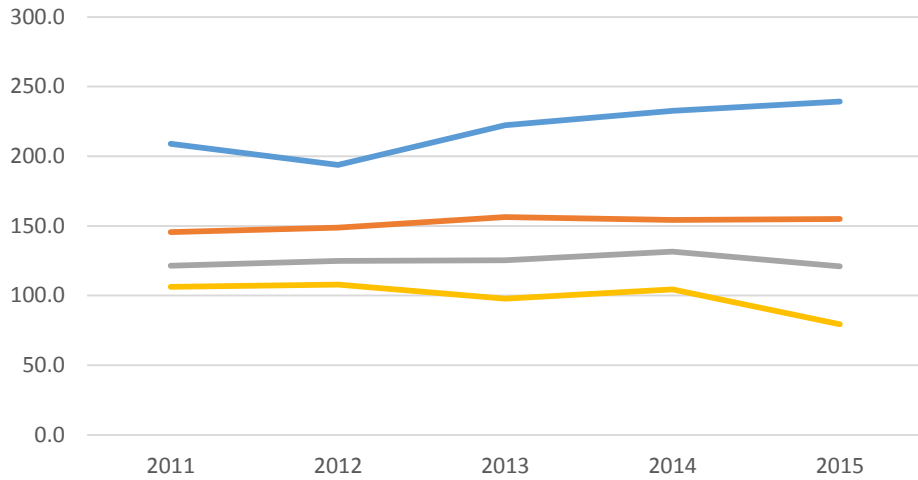
Source: Moody's Investors Service; Moody's Investors Service estimate

Moody's Key Ratios by Rating Category

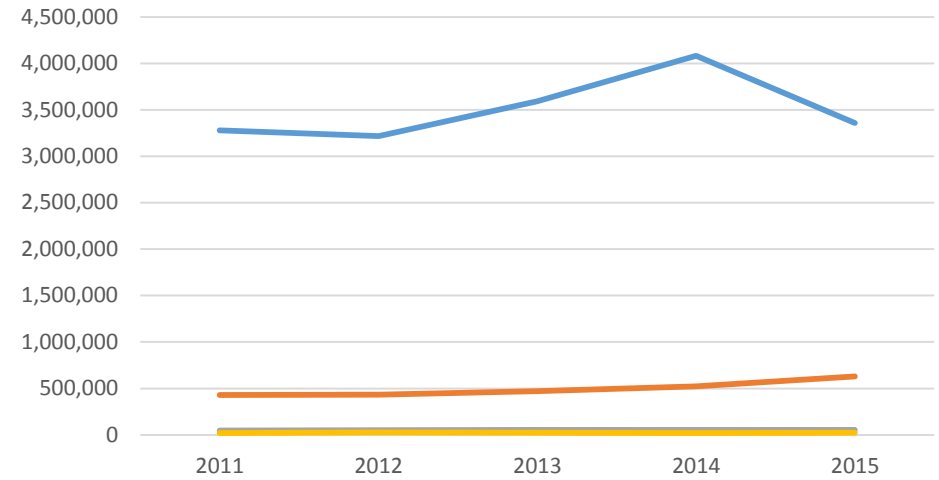


Moody's Key Ratios by Rating Category

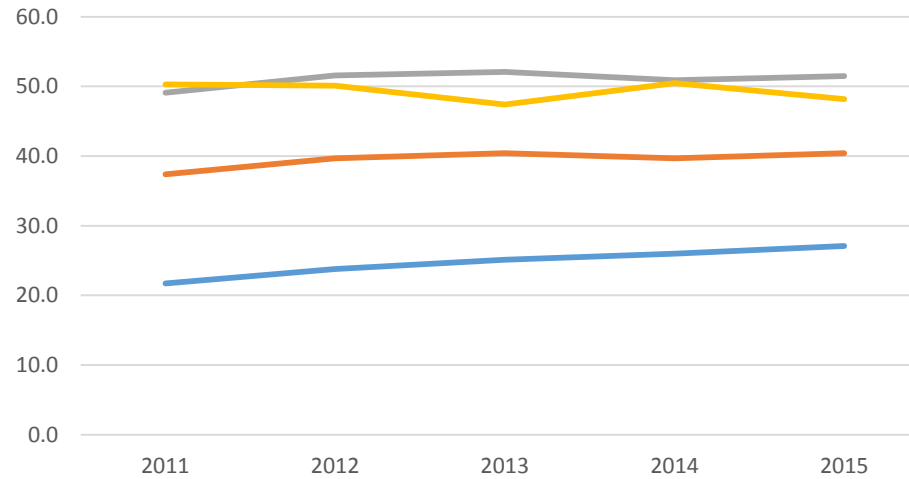
Monthly Days Cash On Hand (x)



Cash and Investments (\$000)



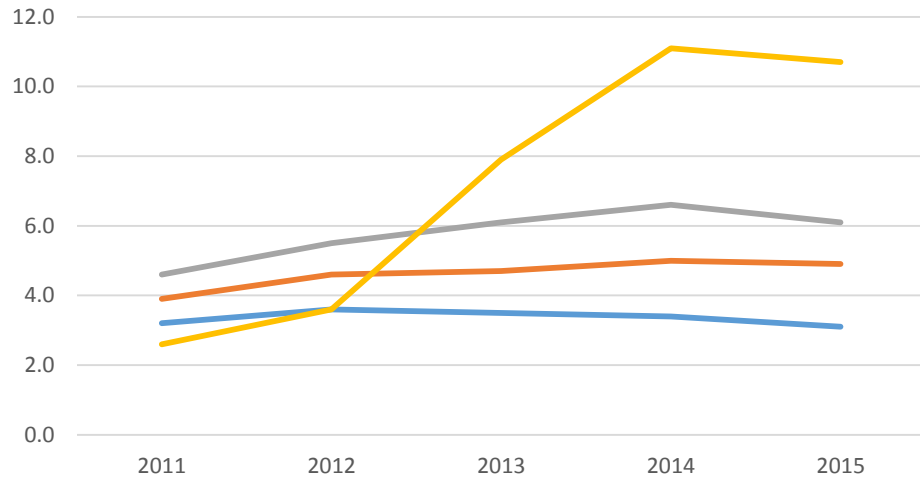
Max Contribution (%)



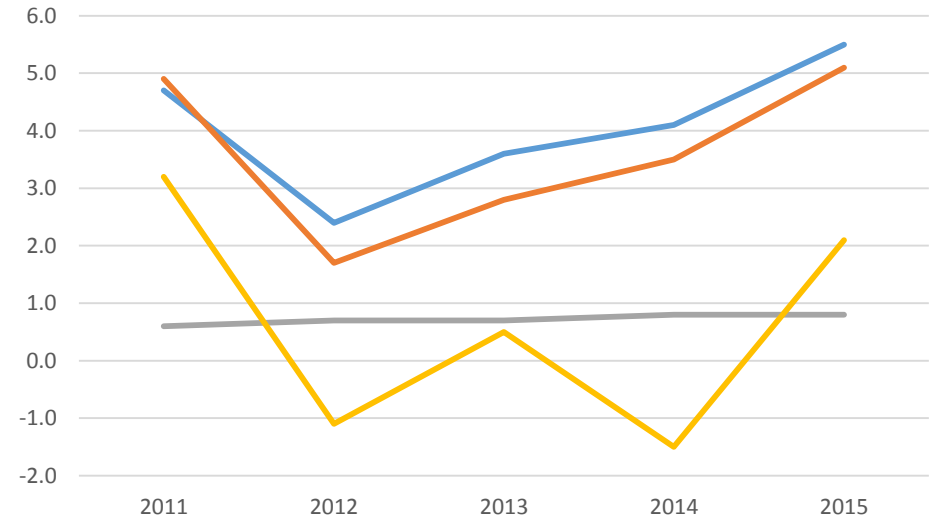
— Aaa Median **8 Entities**
 — Aa Median **107 Entities**
 — A Median **134 Entities**
 — Baa Median **15 Entities**

Moody's Key Ratios by Rating Category

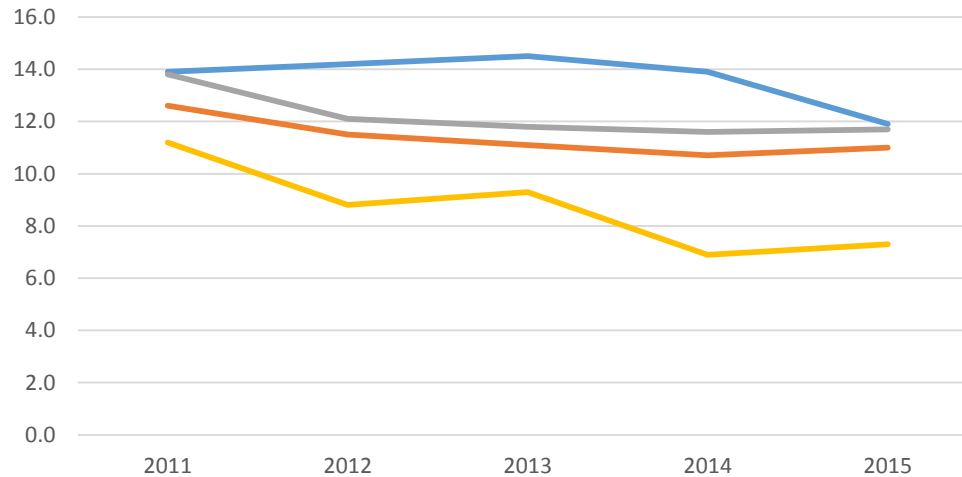
Total Debt to Cash Flow (x)



Annual Change in Operating Revenue (%)



Operating Cash Flow Margin (%)



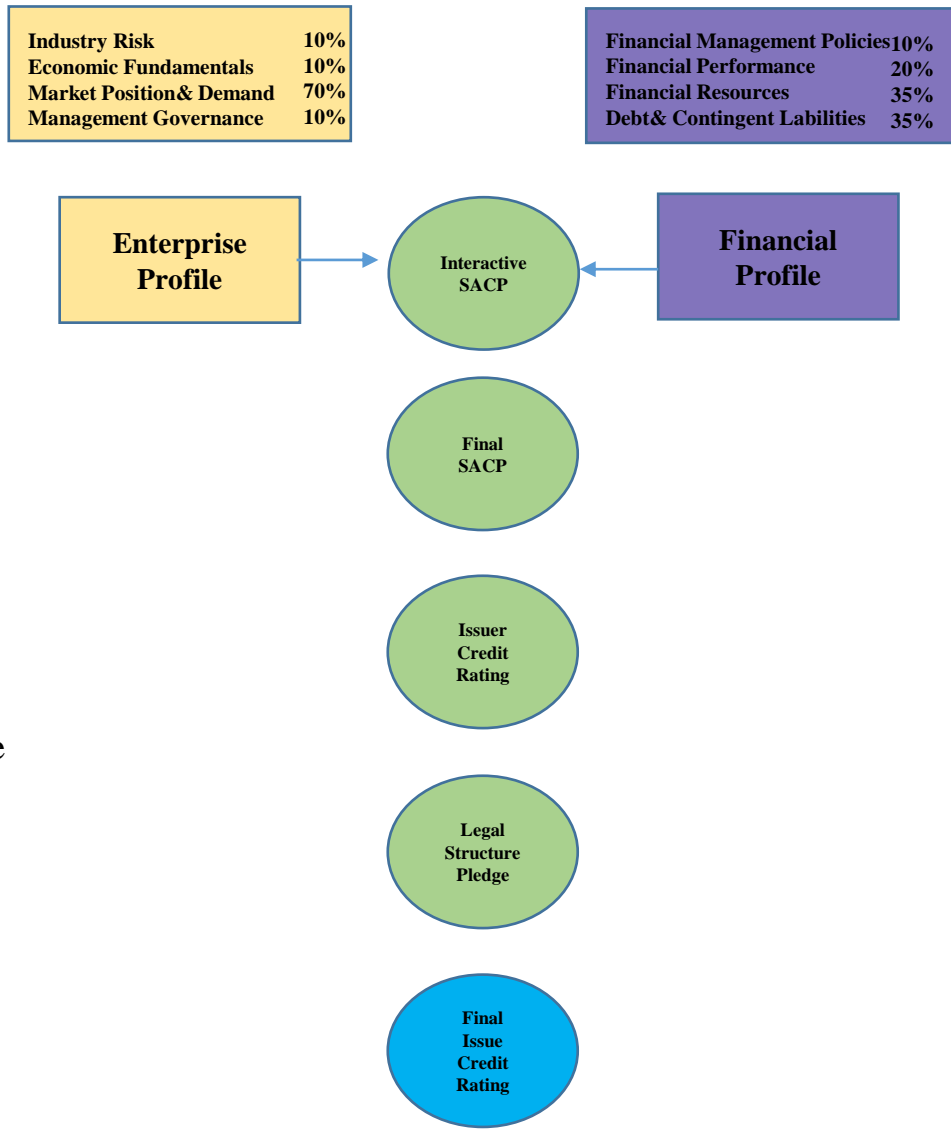
— Aaa Median **8 Entities**
 — Aa Median **107 Entities**
 — A Median **134 Entities**
 — Baa Median **15 Entities**

S&P Higher Education Rating Methodology Changes

Select Highlights

- On January 6, 2016, S&P's revised criteria became effective
 - All credits must be reviewed by January 6, 2017
- S&P aims to improve transparency as to approach, to enhance the forward-looking nature of ratings, and to enable better comparison across other sectors and asset classes
- A major element of new methodology is the quantitative framework for scoring the Enterprise and Financial Profiles
- S&P determines an indicative Stand-alone Credit Profile (SACP), as shown in the diagram to the right
 - Based on a complex structure of pre-determined qualitative factors and caps, peer adjustments, and other relevant scoring criteria (e.g. government support), the SACP would be modified to determine Issuer Credit Rating
- S&P initially predicted 85% of ratings would have no impact, 10% of ratings could be raised, and 5% of ratings could be lowered
- Combination of revised criteria and changes to credit fundamentals could impact those credits with non-stable outlooks (~ 17%)

Overall Framework for Assessing a Universities SACP, ICR, and Issue Credit Rating



Source: Standard & Poor's

S&P Higher Education Illustrative Scoring Matrix

Enterprise Profile				
Item	Description	Weight	Value	Score
Industry risk	<i>Reflects S&P's opinion of the risk for the sector as compared to other industries</i>	10%		2
	<i>- S&P currently assesses this as a "2" globally (low risk)</i>			
Cyclicality	<i>Combination of sub-assessments: industry revenues, enrollment results</i>			1
Industry revenues	<i>Considered strong during a recession (i.e. more people turn to education)</i>			1
Enrollment results	<i>Considered strong during a recession (i.e. more people turn to education)</i>			1
Competitive risk and growth environment	<i>Based on degree of the effectiveness of barriers to entry, levels and trends of profitability, substitution risk, and growth trends observed in the industry</i>			2
Economic fundamentals	<i>Focuses on how the economic and wider sociopolitical conditions influence university credit profile, including government's ability to provide services, such as higher education</i>	10%	46,405	1
	<i>- Refer to "GDP Per Capita Thresholds for Sovereign Rating Criteria" to derive initial economic assessment</i>			
	<i>- U.S. GDP per capital is approx. \$53k</i>			
Market position and demand (Privates)	<i>Reflects the university's competitive strength within the sector</i>	70%		N/A
Selectivity				
Matriculation				
First Year Retention rate				
Other Demand Factors	<i>Refer to S&P methodology</i>			
(Publics) 70% 2				
Selectivity			53%	2
Enrollment (FTE)			43,739	2
First Year Retention rate			83%	1
Other Demand Factors	<i>Refer to S&P methodology</i>		3-4	3
Management and governance	<i>Based on S&P's assessment of strategic planning, risk management and operational effectiveness, management expertise, depth and breadth, and internal controls</i>	10%		2
	<i>- Refer to "S&P Management and Governance Credit Factors for Corporate Entities and Insurers"</i>			
				2

Note: All Values are based on a weighted calculation of the past 3 years (45% for 2015, 35% for 2014 and 20% for 2013)

S&P Higher Education Illustrative Scoring Matrix

Financial Profile			
Item Description	Weight	Value	Score
Financial management policies <i>Measures how the quality of a university's financial management policies and practices may affect its financial profile</i> - Scoring provided across five policy focus areas from 1 (strong) to 5 (weak) - Refer to proposed methodology for a more detailed description of this assessment	10%		1
Transparency and disclosure			2
Reserve and liquidity			1
Investment management			1
Long-term planning			1
Debt management			1
Financial performance <i>Measures how a university's current and future operating earnings could affect its debt servicing capabilities; initial assessment based on operating margin</i>	20%		1
Operating margin		5.90%	1
Financial resources <i>Measures overall leverage and the institution's available resources to assist in times of financial stress</i>	35%		1
Available resources to annual operating expenses		50%	1
Debt and contingent liabilities <i>Measures the extent to which current, proposed, contingent, and off-balance-sheet liabilities may affect a university's debt servicing capability</i>	35%		2
MADS burden		3.0%	2
Available resources to total debt		146%	2
			1

Determining the Indicative SACP

	Financial Profile					
	1	2	3	4	5	6
	Extremely strong	Very strong	Strong	Adequate	Vulnerable	Highly vulnerable
Enterprise Profile						
1. Extremely strong	aaa	aa+	aa-	a	bbb+/bbb	bb+/bb
1. Very strong	aa+	aa/aa-	a+	a-	bbb/bbb-	bb/bb-
1. Strong	aa-	a+	a	bbb+/bbb	bbb-/bb+	bb-
1. Adequate	a	a/a-	a-/bbb+	bbb/bbb-	bb	b+
1. Vulnerable	bbb+	bbb/bbb-	bbb-/bb+	bb	bb-	b
1. Highly vulnerable	bbb-	bbb/bbb-	bb-	b+	b	b-

Note: All Values are based on a weighted calculation of the past 3 years (45% for 2015, 35% for 2014 and 20% for 2013)

Select Public University Ratings and their Recent Rating Actions

- These tables reflect current ratings and recent rating actions for certain public universities since implementation of the ratings methodologies⁽¹⁾

Three Ratings Institution	Moody's	S&P	Fitch
University of North Carolina at Chapel Hill	Aaa	AAA	AAA
University of Virginia	Aaa	AAA	AAA
University of Texas System	Aaa	AAA	AAA
Texas A&M University System	Aaa	AAA	AAA
University System of Maryland	Aa1	AA+	AA+
Ohio State University	Aa1	AA	AA
Texas Tech University System	Aa1	AA+	AA+
University of California	Aa2	AA	AA
University of Alabama at Birmingham	Aa2	AA-	AA+
Florida State University	Aa2	AA-	AA
University of Massachusetts	Aa2	AA-	AA
University of Hawaii	Aa2	A+	AA
University of Connecticut	Aa2	AA	AA-
Oklahoma State University	Aa3	AA-	AA
Rutgers, The State University of New Jersey	Aa3	A+	AA-

Rating Outlook Color-coding Legend:

On Stable outlook currently	■
On negative Outlook currently	■
On positive outlook currently	■

Source: Moody's, S&P, and Fitch, as of May 17, 2016

⁽¹⁾Moody's Methodology implemented 11/23/2015; S&P Methodology implemented 01/06/2016.

Two Ratings Institution	Moody's	S&P	Fitch
University of Michigan	Aaa	AAA	NR
Purdue University	Aaa	AAA	NR
Indiana University	Aaa	AAA	NR
University of Washington	Aaa	AA+	NR
Michigan State University	Aa1	AA+	NR
University of Delaware	Aa1	AA+	NR
University of Missouri System	Aa1	AA+	NR
University of Utah	Aa1	AA+	NR
North Carolina State University at Raleigh	Aa1	AA	NR
State University of Iowa	Aa1	AA	NR
University of Minnesota	Aa1	AA	NR
University of Nebraska	Aa1	AA	NR
Virginia Tech	Aa1	AA-	NR
Pennsylvania State University	Aa1	AA	NR
University of Colorado	Aa2	NR	AA+
University of Wyoming	Aa2	AA+	NR
Iowa State University of Science & Technology	Aa2	AA	NR
Florida State University	Aa2	AA-	NR
University of Houston System	Aa2	AA	NR
University of Kansas	Aa2	AA	NR
University of Kentucky	Aa2	AA	NR
University of New Mexico	Aa2	AA	NR
University of North Texas System	Aa2	NR	AA
Texas State University System	Aa2	NR	AA
University of South Carolina	Aa2	NR	AA
Nevada System of Higher Education	Aa2	AA-	NR
State University of New York	Aa2	AA-	NR
University of Arizona	Aa2	AA-	NR
University of Oregon	Aa2	AA-	NR
Washington State University	Aa2	AA-	NR
University of Oklahoma	NR	A+	AA-
Arizona State University	Aa3	AA-	NR
University of Illinois	Aa3	AA-	NR
University of Louisville	Aa3	AA-	NR
University of North Dakota	Aa3	AA-	NR
University of Alaska	Aa3	AA-	NR

Strategies to Address Rating Concerns

- Verify ratios computed by rating agencies
 - Need to understand the definition of the components of the ratio, some adjustments may be necessary
- Factors that can impact ratios on a comparative basis
 - **Amortization** – Rapid amortization and bullet maturities. If college amortizes debt rapidly, then annual debt service will be higher than debt that amortizes over 30 or 40 years. Bullet maturities impact Maximum Annual Debt Service calculation. Impacts two ratios: 1) Debt Service to Expenses and 2) Operating Margin
 - **Depreciation** – If college uses method other than “straight line over useful life”, it should be noted.
- Notify rating agencies as soon as possible when changes/events occur:
 - Enrollment declines
 - Significant variances to budget
 - Approval or changes to plans – Strategic Plan, Capital improvement Plan, Fundraising Campaign
 - Key administrator resignations
 - Impact of natural disaster
- Best Practices
 - Keep a list of rating agency contacts so they can be notified when changes occur
 - Maintain debt, swap and investment policies
 - Invite rating analysts for site visits

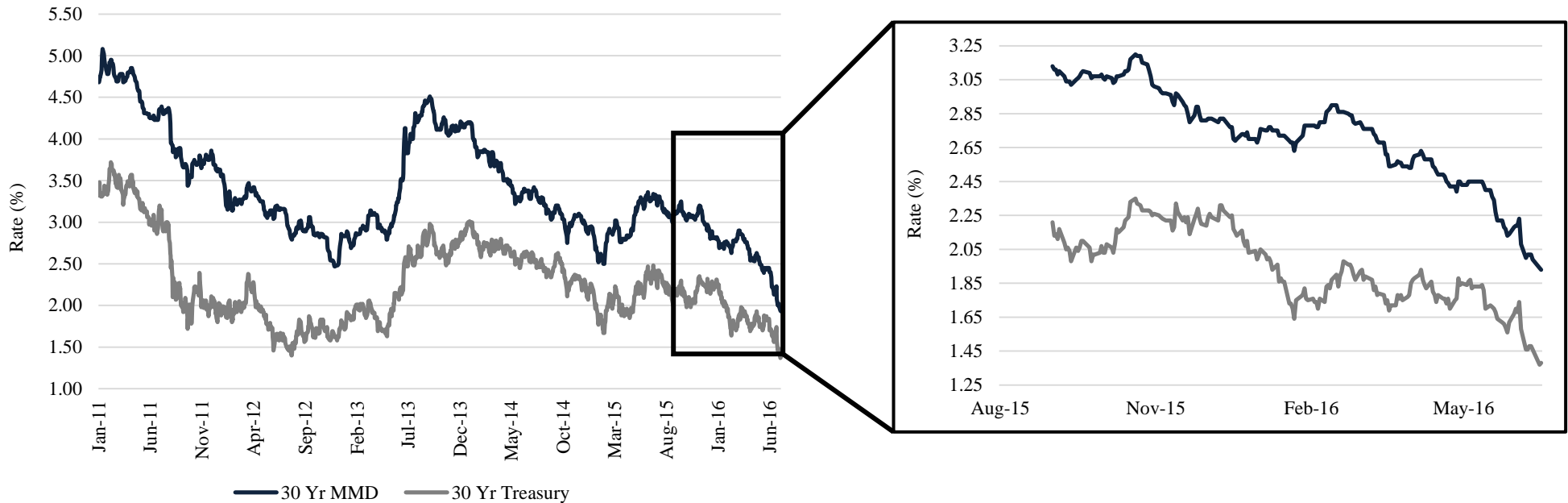
How Do Ratings Effect Interest Rates?

- Ratings impact the pricing of a college or university’s bonds
- For tax-exempt bonds, the rating impacts the spread to the “AAA” MMD Yield Curve
- Spread to MMD reflects the extra yield that is required to sell the issuers bonds when compared to a “AAA” general obligation MMD scale
- For taxable bonds, the rating impacts the spread to Treasury Bonds
- Spread to the Treasury Bonds reflects the additional increase to the various coupons that is required to sell the issuers bonds

Consideration	Issuer	Muni vs. corporate buyer
Call Feature:	Par Calls Available	Make-whole call most common
Amortization:	Small Maturity Sizes ok	Large blocks/bullets most common; Potential pricing benefit of “benchmark”. Size > \$250MM; Pay liquidity premium for smaller sizes
Use of Proceeds:	Private Business Use	Private Business Use

Historical Interest Rates

Tax-exempt and taxable benchmarks have rallied to historical lows...
30Y UST (Taxable Benchmark), 30Y AAA MMD (Tax-exempt Benchmark)

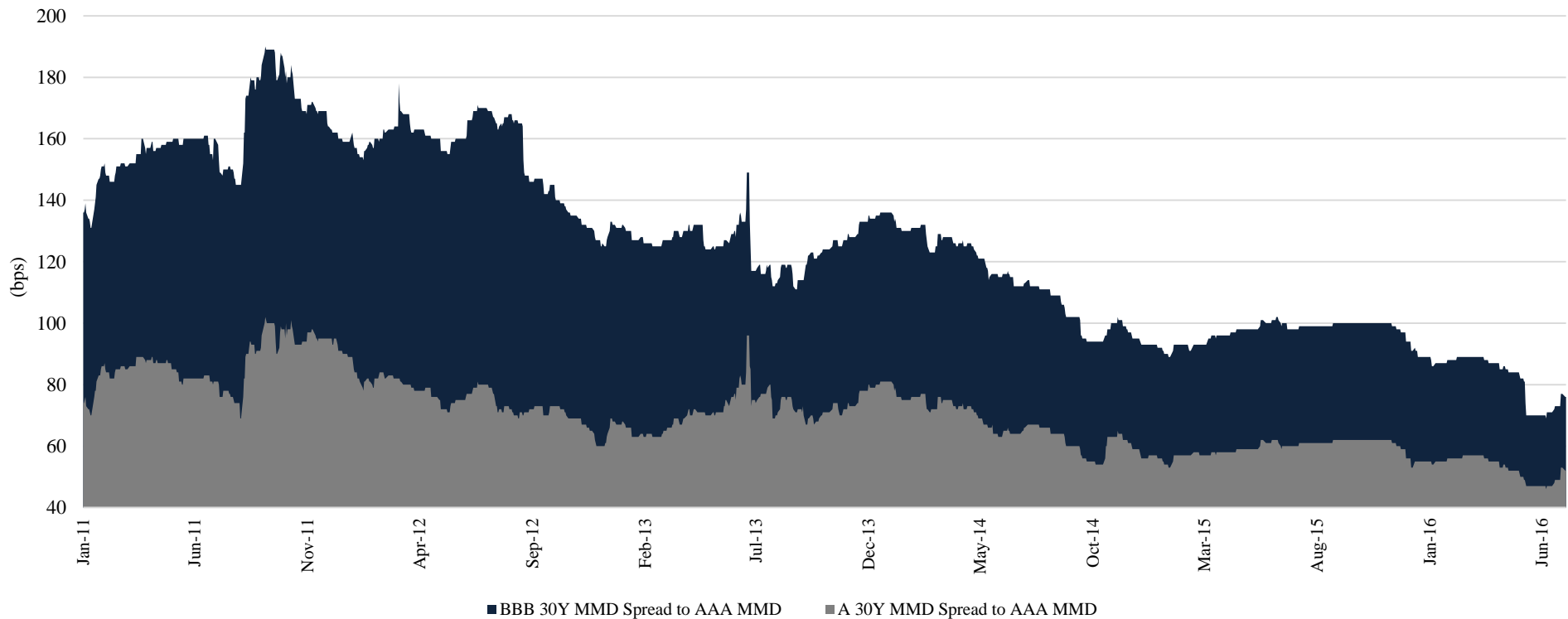


- The high grade benchmark index (AAA MMD) for tax-exempt bonds is at an all-time low for the 30Y part of the yield curve
- In the past year, 30Y AAA MMD rallied 109 bps, currently at a 2.27%; since January 2009 rallied 278 bps
- The 30Y UST is also near historic lows, now 2.45% and +20 bps from the all-time low
- The 30-year closed on December 31, 2015 at 3.01%. Pre-Brexit, on 6/23, it closed at 2.55%. During the last ten years, the 30-year Treasury averaged 3.76%. In the previous ten year period, it averaged 5.51%. Now – 2.15%
- The 10-year closed on December 31, 2015 at 2.27%. Pre-Brexit, on 6/23 it closed at 1.75%. During the last ten years, the 10-year Treasury averaged 2.95%. In the previous ten year period, it averaged 5.10%. Now – 1.39%

Benchmark Rates and Credit Spreads

Credit spreads are at their tightest for “A” and “BBB” Issuers

30Y “A” and “BBB” MMD vs. AAA MMD



- Rates are made up of the following components: benchmark rate + credit spread = borrowing rate
- Benchmark rates fell, but credit spreads also narrowed to historically tight levels as investors “move down the credit curve” to pick up yield
- Single-A and triple-B institutions are seeing record low yields
- Any bond rating will impact future borrowing costs, but not the performance of the existing debt portfolio

Credit Factors Unique to Texas Public Institutions

- Debt Service related to Tuition Revenue Bonds is included in operating expense
- Reimbursement for TRB debt service is not always included in the rating agencies operating revenue calculations
- Reimbursement for TRB debt service in some cases is reflected in Non-operating revenues, either legislative revenue (included in adjusted operating revenue) or other
- Reimbursement for TRB debt service in some cases is reflected in Other Revenues and Transfer as transfers from other state agencies – this is NOT included in operating revenues
- Track carefully FY17 HB100 TRB debt service reimbursement vs. outstanding TRB debt service
- HEAF appropriations is not normally included in rating agencies adjustments to operating revenues
- Provide detail of use of HEAF appropriations – used for operating expenses and debt service can be added back into operating revenues
- The increase in appropriations for both HEAF and TRB debt service can have a material impact on operating revenues
- Special Appropriations also need to be identified for rating agencies
- All Texas Public higher education institutions have the same pledge on their RFS Bonds
- Pledged Revenues under the universities Bond Resolution includes all the funds and BALANCES available from the operations of the university, excludes HEAF and TRB appropriations
- AFR Schedule 2D – Analysis of Funds Available for Debt Service only includes revenues, not related fund balances
- Securities laws require accuracy of the completeness of financial information related to the municipal security

Questions

Contact:

Mary Williams

Managing Director

1201 Elm Street

Suite 3500

Dallas, Texas 75270

Telephone: 214.953.4021

mary.williams@hilltopsecurities.com

Ester Flores

Vice President

1201 Elm Street

Suite 3500

Dallas, Texas 75270

Telephone: 214.953.8863

ester.flores@hilltopsecurities.com