Higher Education Credit Commentary

March 30, 2017

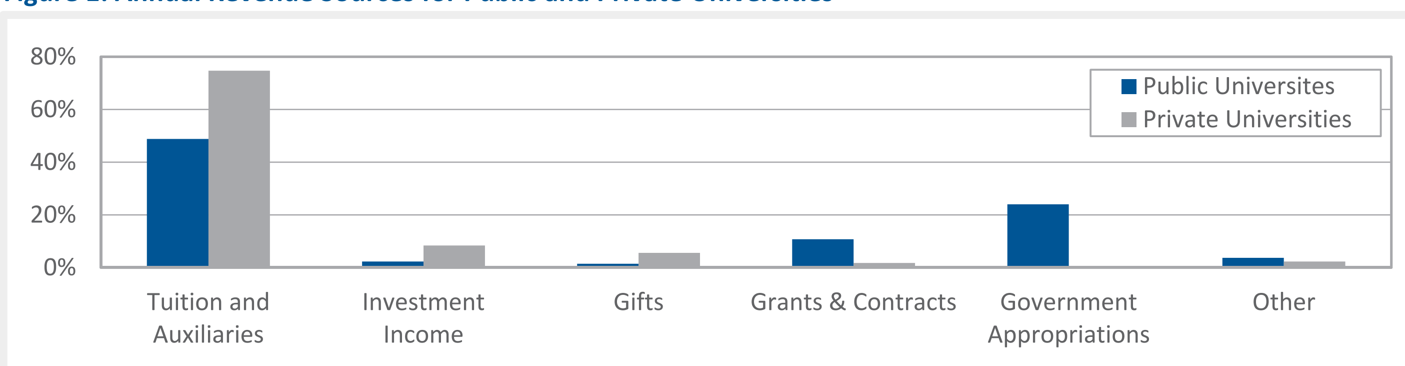
Kelly Puls
Fixed Income Credit Research

In 2016, bonds for higher education comprised 7% of total new issuance in the municipal market, making it a significant portion in the asset class. Although higher education institutions have always had challenges, we believe that, currently, four key factors are particularly important to consider the health of individual credits, as well as the sector as a whole. These are a low tuition growth environment, decreased state support, federal policy changes, and a high level of student debt. Institutions' abilities to withstand these pressures will continue to reshape the higher education landscape.

ABILITY TO MAINTAIN ANNUAL TUITION GROWTH IS A KEY DIFFERENTIATOR AMONG INSTITUTIONS

Figure 1 shows the various revenue sources for public and private universities. Both depend heavily on tuition revenues, with public universities receiving nearly half of their revenues from tuition and private universities receiving nearly three quarters. Therefore, the ability to increase tuition is a key factor when analyzing the creditworthiness of specific colleges and universities. In general, larger universities, defined as private institutions that enroll over 10,000 students and public institutions that enroll over 25,000 students, have maintained the ability to raise tuition. These schools typically offer a wider variety of programs, and are more likely to generate demand from students across the country. Additionally, they benefit from a more diverse stream of revenues including endowment spending, gifts, and grants. Revenue diversity combined with pricing flexibility creates a positive growth environment for larger universities.

Figure 1: Annual Revenue Sources for Public and Private Universities



Source: Moody's as of January 31, 2017

Alternatively, universities that are less able to support tuition growth will struggle to maintain balanced budgets. These schools are often small and lack the reputation to attract students from outside their geographic reach. As a result, they are forced to discount tuition and attract students based on price, as opposed to reputation. They also have less diversity in revenues, and depend heavily on tuition to fund operations. Therefore, the decreased ability to raise tuition prices makes them increasingly susceptible to fiscal uncertainty. However, there are also some small colleges that will continue to be strong credits, as the result of robust student demand, large endowments, and tuition raising flexibility.

PUBLIC HIGHER EDUCATION FUNDING REMAINS A TARGET FOR STATE LEGISLATURES

On average, states have increased spending on higher education a total of 16% since 2012[1], reversing prior years' trends. This positive trend continues to be a source of fiscal strength for many public universities. However, public universities are still vulnerable to diminished state funding, because many states cut back on higher education spending during periods of economic distress. This is because colleges and universities can generate their own revenues by charging tuition, unlike other state funding recipients. As a result, public universities are forced to either raise tuition or cut expenses.

Figure 2 shows the eight states that have cut back on higher education funding in the past five years. For many of these states, decreased support for higher education can be linked to low energy prices and increased spending on pensions. For example, Illinois' massive unfunded pension liability and political gridlock has resulted in slashed budgets for higher education, causing the downgrade of three Illinois universities from investment grade to speculative grade by S&P[2].

On the other hand, some states and cities have implemented or contemplated providing free higher education to residents. In the fall of 2017, San Francisco is expected to become the first city to offer all residents free community college[3]. In New York, Governor Andrew Cuomo proposed making all SUNY and CUNY schools free for families earning less than $125,000 a year[4]. Oregon, Minnesota, and Tennessee already offer free community college for recent high school graduates. Accessible college can serve as an economic engine for states looking to expand their educated workforce. However, the effect on enrollment in four year institutions remains to be seen. We expect smaller four year institutions with regional student demand to decline as a result of free higher education, as free community college offers a cost-effective alternative.

Figure 2: Decreased Higher Education Funding

	1YEAR CHANGE FY16-FY-17	2 YEAR CHANGE FY15-FY-17	5 YEAR CHANGE FY12-FY-17
Alaska	-6.90%	-12.80%	-6.70%
Arkansas	1.10%	0.80%	-1.80%
Illinois[8]	-83%	-80%	-77%
Kansas	0.30%	-4.20%	-1.80%
Kentucky	-0.50%	-0.40%	-5.20%
Louisiana	-7.20%	-2.30%	-11.50%
Oklahoma	-7.60%	-18.70%	-17.80%
West Virginia	-0.40%	-4.20%	-10.90%

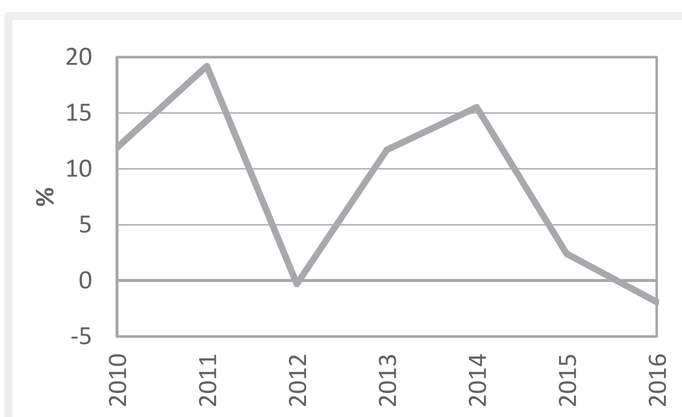
Source: College of Education Illinois State University as of January 31, 2017.

LOW ENDOWMENT RETURNS AND CHANGES IN FEDERAL POLICY WILL PUT PRESSURE ON THE SECTOR

Figure 3 shows the average returns on endowments from 2010 to 2016. Despite two consecutive years of low returns since 2014, nearly three-fourths of universities reported increasing endowment spending[5]. Universities often use endowments to supplement tuition revenues and provide financial aid for students. For many elite universities, large endowments enable them to support need-blind admission policies, which increases socioeconomic diversity on campus. These schools, however, possess the academic reputation to raise the price of tuition if they are forced to cut back on spending due to their endowments suffering low returns. Alternatively, schools that lack a national reputation often use endowments to attract students based on price. These institutions generally have smaller endowments, and do not have strong enough demand to increase tuition. Therefore, they will feel the most pressure under another year of low endowment returns.

In addition to low endowment returns, changes in federal policy create another concern for many universities. The Trump administration has proposed discouraging companies from employing H-1B or skilled international workers. If these policies discourage American companies from hiring international graduates, the flow of these students into U.S. universities may decline. Figure 4 shows the rise of international student enrollment since 2000. These students increase student body diversity and often pay full tuition prices, so they are actively recruited. Figure 5 lists universities with the

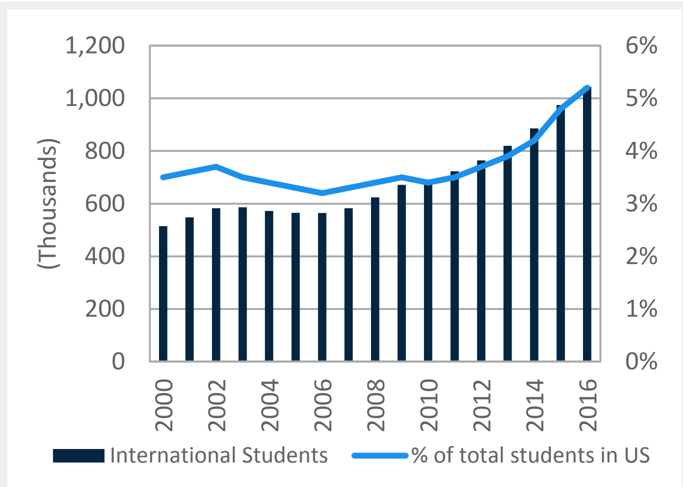
Figure 3: Average Annual Net Investment Rate Returns



Source: National Association of College and University Business Officers as of FYE June 30, 2016.

highest enrollment of international students in the United States. If the rising trend of international students is reversed, this may negatively impact universities with a high concentration of international students.

Figure 4: Intl. Students vs % of Total Students in the U.S.



Includes undergraduate and graduate students.
Source: Institute of International Education for the 2015-2016 school year as of June 30, 2016.

Figure 5: Top 25 Institutions Hosting Intl. Students

	UNIVERSITY	ENROLL		UNIVERSITY	ENROLL
1	NYU	15,543	14	UM Ann Arbor	7,630
2	USC	13,340	15	UC San Diego	7,556
3	Arizona State	12,751	16	UC Berkeley	7,313
4	Columbia	12,740	17	Indiana U.	7,159
5	U. of Illinois	12,085	18	Ohio State	7,117
6	Northeastern	11,702	19	Carnegie Mellon	7,051
7	UCLA	11,513	20	U. of Minnesota	7,037
8	Purdue	10,563	21	SUNY Buffalo	7,026
9	Boston U.	8,455	22	Texas A&M	6,940
10	U. of Washington	8,259	23	U. of Florida	6,751
11	Michigan State	8,256	24	U. of Wisconsin	6,440
12	UT Dallas	8,145	25	U. Penn	6,221
13	Penn State	8,084			

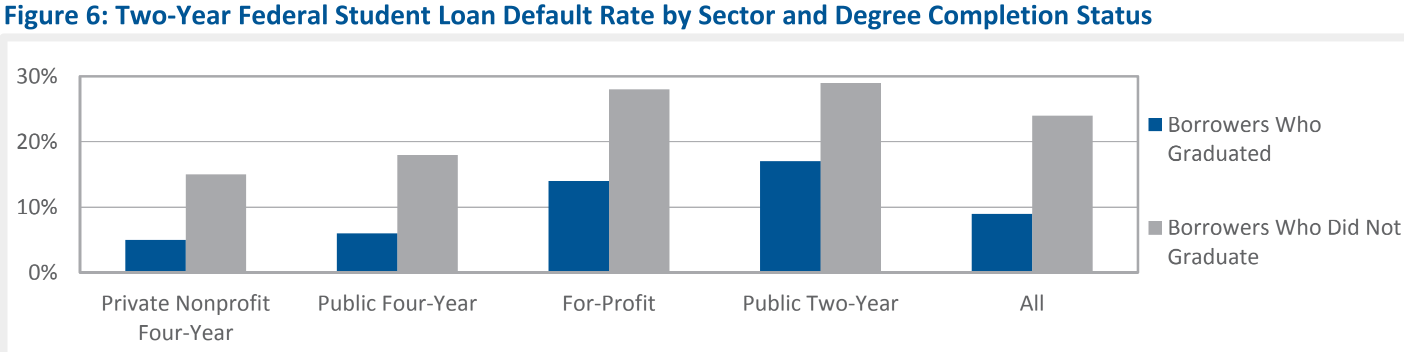
Includes undergraduate and graduate students.
Source: Institute of International Education for the 2015-2016 school year as of June 30, 2016.

STUDENT DEBT IS AT AN ALL-TIME HIGH, BUT DEFAULT RATES ARE DOWN

From 2004 to 2016, outstanding student debt rose nearly fourfold - from $260 million to $1.31 trillion[6]. Although headlines paint a troubling picture of student debt, default rates have actually declined annually since 2010, and are primarily a problem for students at for-profit and community colleges (see Figure 6). Additionally, the amount of student loans incurred annually has decreased in the past five years as students have become increasingly price-sensitive. This has limited schools' ability to raise tuition. In general, larger universities have the revenue diversity to withstand a low tuition growth environment. Alternatively, many smaller institutions that depend on tuition will be pressured by students wary of incurring debt to pay for school.

While there are many challenges facing higher education, we believe that demand will remain strong. Benefits of a college degree are important to note when considering headwinds facing the sector. A college degree has been linked to higher pay, a lower unemployment rate, decreased obesity, and greater civic involvement[7]. In 2017, we will continue to be positive on larger institutions and negative on smaller ones as we expect pressure to intensify for smaller schools, while we expect larger universities to maintain their market positions under this pressure.

Figure 6: Two-Year Federal Student Loan Default Rate by Sector and Degree Completion Status



Source: College Board as of October 31, 2016.

ENDNOTES

1. https://education.illinoisstate.edu/downloads/grapevine/tables/GPV_Table2_FY17.pdf
2. https://www.spratings.com/documents/20184/908554/US_PF_Webcast_heart4.pdf/c569b9df-0262-4e29-89cc-12344a37f746?sp_mid=75676&sp_rid=2143526
3. http://www.usatoday.com/story/news/nation-now/2017/02/07/san-francisco-announces-free-community-college-all-residents/97591606/
4. https://www.nytimes.com/2017/01/03/nyregion/free-tuition-new-york-colleges-plan.html?_r=0
5. http://www.nacubo.org/Documents/EndowmentFiles/2016-NCSE-Public-Tables_Average-One-Three-Five-and-Ten-Year-Returns.pdf
6. https://www.newyorkfed.org/microeconomics/hhdc.html
7. https://trends.collegeboard.org/sites/default/files/education-pays-2016-full-report.pdfz
8. Percent changes for Illinois are from 2011 to 2015, because FY17 funding for Illinois has not yet been finalized.