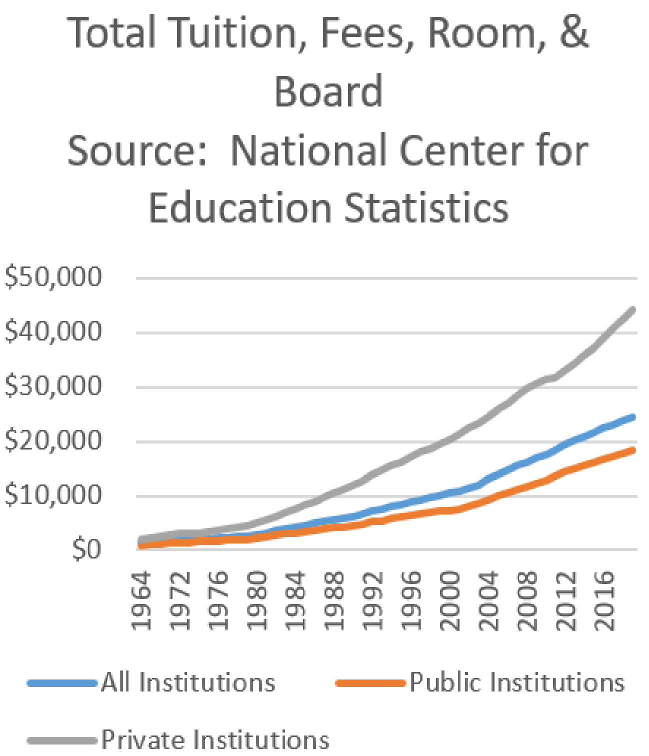
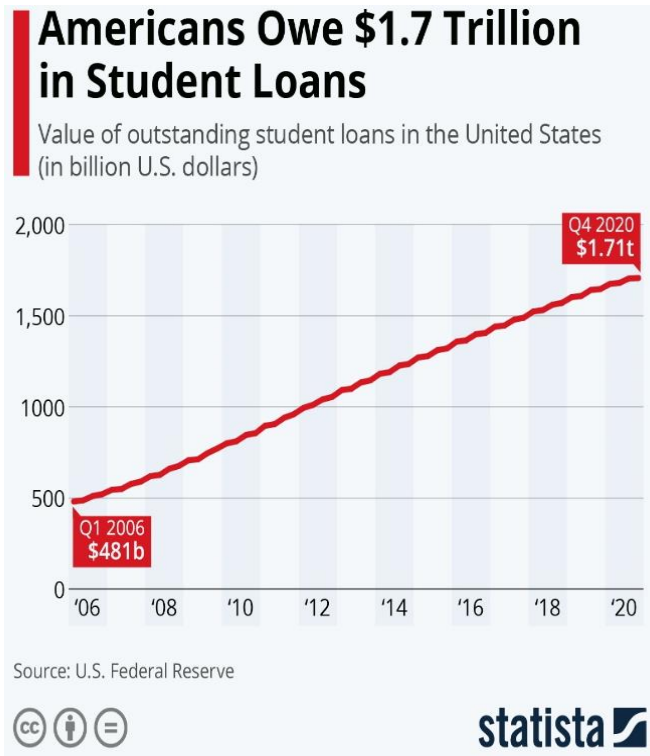
The Depth Report – Online Education – The Institutional Problem

Overview:

Last month Deep Knowledge Investing released a comprehensive report on online education. In it, we wrote that "We are experiencing a crisis in higher education in the US," noting that the price of higher education has been increasing rapidly for decades, and total student loan debt in the US is now around $1.7 trillion dollars. The piece included the following graphs with the opinion that the current situation is unsustainable.





We wrote about the opportunity for online education to provide another choice for students who couldn't afford four years on a college campus, or whose life circumstances prohibited that option. We also wrote about the way companies like Coursera (ticker: COUR), 2U (ticker: TWOU), and EdX (being acquired by 2U) were enabling free, discounted, and full price options including employment-based certificates, bachelor's degrees, and advanced degrees. Most importantly, we identified Coursera as one of the best investment ideas we've had for the next 5-10 years.

One of the positive aspects of writing publicly is that people contact us with information and opinions on the subject matter. After the release of our online education report, we've heard from professors who are teaching online at multiple universities, from students who chose an online education in order to graduate without debt, from students who limited their choice of schools to lower-priced State universities, and from high-level university administrators. Robert Scott, the President Emeritus of Adelphi University, wrote a four-page letter to us with additional information and his views concerning online and on-campus higher education. After we obtained Mr. Scott's written permission, we spoke about his perspective in a segment on RealVision and in a podcast called Stocks for Beginners.

Mr. Scott then forwarded to us an article he had published in HigherEdJobs where he referenced our report and linked to the Deep Knowledge Investing website. He wrote:

> *There is great potential for online education in advancing the preparation and credentialing of people for economic mobility. We learned a great deal in the rapid shift to remote teaching and learning in 2020. However, the arguments in its favor should be convenience and accessibility, not tuition costs, poor return on investment, and student debt at traditional colleges and universities as some venture groups argue. See "The Depth Report - Online Education - Coursera (COUR) and 2U (TWOU)".*[1]

We are pleased that so many people have engaged with our work. Their engagement reinforces our well-supported conclusion that many Americans are acutely aware of the skyrocketing cost of higher education – and they are concerned about it. This vitally important subject deserves discussion and debate on a national level.

We are also pleased that Mr. Scott chose to engage with us. In the best traditions of academia, we welcome the debate. **We disagree with Mr. Scott's unsupported assertion that tuition costs, poor return on investment, and student debt resulting from education at many traditional**

[1] For the record, Deep Knowledge Investing is a research and advisory firm. We help portfolio managers and individuals earn better risk-adjusted returns in the equity portion of their portfolios.

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colleges are not valid, or even relevant, concerns for students and their parents. Indeed, when making important educational choices including the option to study online, why would these considerations not be highly relevant? We aim to show below that these are crucial considerations that students should evaluate prior to deciding which university to attend, whether on-campus or online is their best option, and selecting their chosen field of study.

Debt Levels:

The charts above show the incredible rise in the cost of a university education, and the resultant, alarmingly large debt that students are assuming. We spoke to Aaron Pisacane, the Founder of Einstein Higher Edu Solutions, and the former Chief Credit Officer of Sallie Mae. His current company is an innovator in evaluating student credit based on predicted future earnings enabling students to get appropriately-sized loans without a co-signer. His former employer represents the traditional establishment with the largest student loan portfolio in the world. We can think of few people who understand the student loan industry better. **Aaron reports that about 20% of US college students graduate with so much debt that they will never be able to repay it no matter how many times and ways that debt is restructured.**

Mr. Scott observes in his article that a disproportionate amount of student debt is owed by people with advanced degrees who will have higher earnings as a result. He also notes that students at a small number of for-profit schools account for a disproportionate amount of student loan defaults. These are fair points if they are not stretched too far. If Mr. Scott were asserting that some degree programs are worth a high tuition level and a proportionate debt load, and he also acknowledged that other degree programs do not provide such value and jeopardize students' futures by causing them to be overwhelmed for the rest of their lives by higher education debt, we would agree with him. He didn't.

Instead, Mr. Scott seems to imply that the cost of a traditional college education, and the student debt that education so frequently necessitates, isn't a problem at all, because many people with high levels of student loan debt will make a good living and others attended a limited number of schools that have been accused of abusive practices toward their own students. The conclusion Mr. Scott seems to want his readers to reach is that the $1.7 trillion of student loan debt pointed out by Deep Knowledge Investing is simply not a valid concern. We respectfully disagree. We believe that Mr. Pisacane's point and the data he cites above shine a bright light on Mr. Scott's exercise in denial. **Again, because of decisions they made when they were teenagers, 1 in 5 US college graduates will struggle to payback their student loans for the rest of their lives. Tuition costs matter as does the level of debt. Of course they matter. To us, it appears that, Mr. Scott is "whistling past the graveyard" and encouraging others to join him.**

Tuition Costs:

Unsurprisingly, Aaron isn't the only one focused on the issue. For the last 30 years, every occupant of the Oval Office addressed the issue of the unaffordability of higher education while a candidate.

From Joe Biden's website while running for President:

> *But for too many, earning a degree or other credential after high school is unaffordable today. For others, their education saddles them with so much debt it prevents them from buying a home or saving for retirement, or their parents or grandparents take on some of the financial burden.*

Here's Donald Trump as candidate:

> *"If universities want access to all of these federal tax breaks and tax dollars paid for by you," Trump told a rally in a Philadelphia suburb, "they have to make good faith efforts to reduce the cost of college."*

Barack Obama campaigning in 2008:

> *"One of my primary interests and concerns as a presidential candidate and hopefully as president will be to make sure that we are opening access to a college education for everybody," Obama reported that college costs are up 40 percent and the average Texan leaves school more than $18,000 in debt.*

Candidate George W. Bush:

> *Overall college costs, however, continue to climb, usually far ahead of inflation. Whatever the reasons, these costs squeeze the budgets of the middle class. Many families feel they're on a treadmill, working harder to pay tuition bills that never stop rising. We call upon campus administrators to search for ways to hold down that price spiral.*

Bill Clinton campaigning:

> *In a speech delivered at a distressed public college in East Los Angeles, Mr. Clinton outlined an education plan that called for Federal college tuition assistance*

For three decades, in order to win the highest office in the country, 100% of candidates, Democrats and Republicans, addressed Americans' fears regarding the increasing cost of an education. Mr. Scott may profess that the cost of tuition is not a valid concern, but the American people definitely believe it is a serious concern.

Co-Founding Partner of Hoffman & Kessler LLP and member of the Deep Knowledge Investing Board of Advisors, Philip Kessler adds that a recent class action case, one of a number below, illustrates that tens of thousands of US college students are also focused on the cost and quality of education their institutions are providing. Kessler writes:

> *Concern about the cost of on campus university education is also reflected in a spate of class actions that have been brought against various US universities. One such case is Stellato v. Hofstra University filed in Federal District Court for the Eastern District of New York. The class action complains about the University's alleged failure to refund to on-campus students any portion of the tuition they paid for the Spring 2020 semester alone at an average cost of $25,000 after the University suspended all in-person classes due to Covid and provided an allegedly substandard video alternative. The complaint also cites the University's charges for its graduate and professional schools. While the case concerns the problem of paying for services the students didn't receive, its allegations*

about the University's charges for a single semester and the University's failure to refund any portion of those charges belies the notion that the cost of an on-campus education is irrelevant to students

Deep Knowledge Investing further notes that "the law firm representing the Hofstra University student has also brought similar lawsuits against Boston University, Brandeis University, Brown University, Duke University, Emory University, George Washington University, Georgetown University, Rutgers University, the University of Southern California, Vanderbilt University, and Washington University in St. Louis, and is investigating others."

Return on Investment:

Normally, at Deep Knowledge Investing, we make our own arguments, but in this case, we found someone better to make the point that Return on Investment (ROI) is a crucial consideration for students when making college decisions. We mentioned Aaron Pisacane earlier. He is uniquely well-qualified to comment on appropriate levels of student debt. Here are his comments on the importance of ROI calculations:

Introduction:

I researched impact of college choice and major on Return on Investment (ROI). Students need more information to make informed decisions on college due to high college costs and student loan borrowing. My research showed the dangers in making general statements about majors. For example, I found that an Art major at an elite college can surprisingly produce high income relative to the high costs of college over a 20-year period. However, this is the exception rather than the rule.

I can say that choice of major matters at the typical university given the high costs of college and related student loan borrowing. ROI is one tool that families should use in evaluating colleges, majors, and levels of student loan borrowing. The affordability of student loans hangs in the balance based on these critical decisions. Information is now available for students and lenders alike to increase the financial success of college students after college.

<u>ROI for an Arts Major will differ by choice of college</u>:

I turned to PayScale[2], a leading data firm that tracks compensation data, for more insight on ROI[3]. Let's take look at the same major at two colleges in Pennsylvania. An Art Major at Pennsylvania State University-Main Campus (in-state) is projected to produce a 20-year ROI of $318,000 with an average loan amount of $39,900. However, at Kutztown University of PA (in-state), the 20-year ROI is $92,200 with an average loan amount of $30,200. This shows the Art Major at Penn State can afford the higher debt while at Kutztown the student will be challenged.

Due to the co-signer requirement of private student loans, leading lenders would make the loan to both students with credit-worthy co-signers. However, based on ROI, the student with the low ROI will likely have difficulty paying back the student loans. Without the help of the co-signer, the student loan would likely receive hardship forbearance after school, maybe reduced payments thereafter, and most likely default down the line. ***College choice matters for the same major especially when borrowing.***

<u>ROI at the same college will differ by choice of major</u>:

Using my alma mater, University of Delaware (out-of-state) for the next illustration, we will look at an Art Major compared to an Engineering Major. The Engineering Major is projected to have a 20-year ROI of $779,000 with $37,800 of student loan debt. The Art Major is projected to have a $184,000 ROI with the same debt load. Clearly the Art Major will struggle to pay their student loans compared to the Engineering Major at the same school with the same debt load. ***For many colleges, major matters when borrowing to pay for college.***

<u>Conclusion</u>:

It is important to consider the combination of college and major when borrowing to pay for college. Some colleges can justify their costs for Art majors as well as Engineering majors. Stanford University fits this category. The Art Major at Stanford University surprisingly approaches the high ROI of an Engineering major at the University of Delaware (out-of-state) with similar student loan debt. Conversely, the ROI of an Art Major at the University of Delaware is low compared to the Engineering Major. These illustrations are meant to show that ROI can vary materially by college and within the same college by major.

When borrowing for college, a large factor in successful student loan debt repayment is the college choice and the choice of major. ROI is a powerful tool that can be used for students to make more informed decisions on college and major selection.

[2] https://www.payscale.com/college-roi/major

[3] Assumes the student is on-campus and doesn't receive financial aid.

Administrative Costs:

We also think it's important to address a specific claim made by Mr. Scott. In his article he offers criticism of Deep Knowledge Investing's description of rising administrative costs. We pointed out universities building "better living accommodations for students as well as spectacular workout and leisure facilities." Mr. Scott chose to refer to lazy rivers and climbing walls as examples of unnecessary administrative expense adding to student tuition costs[4]. Mr. Scott acknowledges that these things exist, but implies that DKI selected headline-grabbing examples to put into print. We accept the criticism and acknowledge that we occasionally try to make our writing entertaining – while staying accurate. We suggest that in his criticism, Mr. Scott is turning a blind eye to a serious national problem.

Mr. Scott asserts that much of the increase in university administrative expenses relate to deferred maintenance as well as compliance and regulatory requirements. He notes that "**many institutions reduced the number of full-time faculty to save money**, thus decreasing the percentage of money spent on instruction". **We think Mr. Scott is doing a little cherry-picking of his own.**

In 2012, as President of Adelphi University, Mr. Scott was highlighted by Newsday as one of the 20 highest-paid private-college leaders. Deep Knowledge Investing has reviewed the last 19 years of tax returns that Adelphi University has filed with the IRS[5] and can confirm that the compensation figure listed is accurate. The linked article notes that Mr. Scott's compensation was unusually high that year due to deferred compensation, and we confirm that is also accurate.

While we're not aware of any lazy rivers or climbing walls at Adelphi University, we thought it was worthwhile to take a look at some of the amenities Adelphi provided to Mr. Scott while he was President. Schedule J of Adelphi's 2017 Form 990 (tax return filed with the IRS) lists the following as part of Mr. Scott's compensation: First-class or charter travel, travel for companions, health or social club dues or initiation fees, and personal services (e g, maid, chauffeur, chef). Adelphi's

[4] These were not examples used by Deep Knowledge Investing in writing, but we were aware of them.
[5] Hat tip to the team of DKI analysts who found this on page 16 of a Google search. We applaud their dedication and tenacity!

decision to absorb these sorts of expenses for Mr. Scott seem to epitomize one facet of the problem. Mr. Scott and Adelphi University should ask themselves whether the students at Adelphi would have preferred the lazy river instead.

Let's look at the impact on the students. The current direct costs of attendance at Adelphi University are $60,416 for the 2021-2022 year. The university lists an additional $4,250 of indirect costs for a total cost of attendance of $64,666. That comes to nearly $260,000 for a student who graduates in four years and assumes no increase in tuition and fees[6]. That last assumption isn't realistic as over the last ten years, the total cost of attendance at Adelphi has risen by 45%. While we don't think university rankings are always accurate and depend on the program and specific student experience, U.S. News has Adelphi ranked #170 nationally. For some of these students, the cost of their degree will be a good value. For others, it won't.

Either way, this is emblematic of an institutional problem where universities continually charge students more without providing better education for those students. Online education is one choice students can make to address this issue.

<u>This is the Key Point</u>:

Mr. Scott is free to make any argument he wishes about our research. **We can understand his desire to defend the status-quo and to deflect fully warranted attention from the distressingly rapid rise in the cost of higher education**. However, our key point is that online education platforms like Coursera, 2U, and EdX are using innovative technology to deliver high-quality education to millions of people all over the world at discounted prices. These platforms offer a choice to people who can't afford four years on a college campus, people who don't want their lives to be irreparably harmed by unmanageable debt, people who can't travel to a campus and live there, and people who don't have a need or desire for the on-campus "college experience". **The cost of tuition, the return on investment and ability to get a well-paying job, and the amount of debt a student will have upon completion are and must be part of the consideration for any**

[6] According to the National Center for Education Statistics, the average Adelphi student receives around $10,500 in financial aid meaning the four-year cost assuming no increase in tuition would be closer to $220k.

student deciding where and what to study. For Mr. Scott to claim otherwise is both insensitive and inaccurate.

Deep Knowledge Investing is not against a traditional on-campus education; but rather, applaud the innovative universities who have partnered with the online education platforms to offer students another choice. We continue to believe that the online education sector will be a high-growth area for many years to come. Furthermore, DKI thinks that the sector in general, and Coursera, in particular, represents a compelling investment opportunity over the next 5-10 years.

Acknowledgments

We wish to recognize the following people for their meaningful contributions to this report.

Analysts and Interns:

Jordan Canik (Hofstra University), Danny Pfeiffer (Hofstra University), Andrew Zhong (Rutgers University), and Justin Guerra (Hofstra University) all contributed to this report. Their intellect, strong work ethic, and positive attitude are assets to Deep Knowledge Investing.

The Board of Advisors:

Peter Costa, Howard Freedland, Phil Kessler, and Joe Jarabek, all provided invaluable counsel.

Aaron Pisacane and Einstein Higher Edu Solutions:

Aaron Pisacane is the Founder of Einstein Higher Edu Solutions, an education finance consulting firm and student risk scoring provider for lenders. Aaron has 26 years of in-depth credit experience in education finance, most recently as Chief Credit Officer of the largest private student loan lender. He also served as a Governor's appointee for the NYS college loan program during the Great Recession.

Aaron's primary passion is to 'crack the code' of underwriting student loans based on the risk profile of the student that is absent from credit reports at the ages of 18-22. Not all students have eligible co-signers to access private student loan credit. Aaron is developing a solution for lenders to underwrite student risk based on the Einstein Risk Score in the push to democratize credit for hardworking students.

Aaron has seen extensive private student loan data. This data has informed him that underwriting private student loans without consideration of the risk profile of the student leads to performance issues. About 1 in 5 students struggle to payback their debt based on forbearance, reduced payment programs, serious delinquency and default data taken together. Furthermore, less than 10% of the time, loan payments are made by the cosigner while 90% of private student loans are co-signed. Clearly lenders can do better by partnering with Einstein Higher Edu Solutions to include the Einstein Risk Score in their application decisioning and pricing platforms.

We value and appreciate all of their contributions.