Will Rising Student Debt Trigger the Next Economic Crisis?

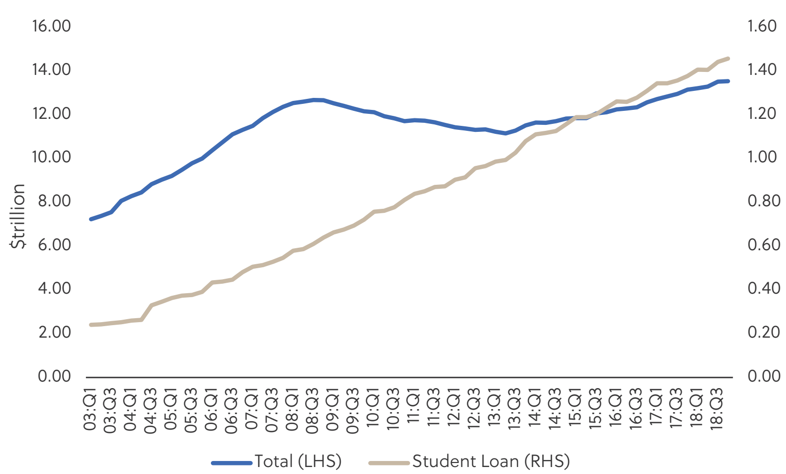
Perspectives | **June 2019**

Introduction

In an earlier InvestEd, we examined the issue of rising debt among governments, corporations and households (Exhibit 1). One driver of growing debt among households is student loans. Debt taken on by college students and graduates has grown significantly faster than overall household debt and is currently $1.5 trillion.[1] Since 2003, student debt has grown at an annual rate of 13% vs. 4% for overall household debt and currently represents 11% of household debt up from 3% in 2003.

The significant growth in student debt is drawing attention from economists and investors due to the concern that future economic growth will be negatively impacted. The servicing of student debt may crowd out aggregate consumption, adversely impact the ability to purchase a house, start a new business, etc. The impact of student debt on future economic growth is an important topic for us to consider since it has implications for our investment strategy and our long term capital market assumptions. In this report, we examine the issue and conclude that while rising student debt is something for us to monitor, the negative impact on future economic growth is likely to be modest. The average student debt balance is manageable and as more jobs require a college education, one source of growth in student debt is that more people are going to college, which on balance is positive for future economic growth as a more educated population is more productive. College graduates enjoy higher income and lower unemployment and leverage ratios for households headed by a college graduate are lower than those without a college degree. Average student debt, compared to average starting salaries, remains at a manageable level for many graduates and increases in tuition, which is a driver of higher student debt, is moderating and a large proportion of outstanding student debt is held by only a small percentage of borrowers. We then discuss the impact of rising student debt on various measures of economic growth, including homeownership, future labor force demographics and aggregate consumption, and find that overall student debt levels are unlikely to have a large negative economic impact. Our conclusion does not negate the fact that certain segments of those with student debt will struggle to repay their loans and a growing portion of those loans are likely to default.

Exhibit 1: Growth in Student Debt vs. Total Household Debt



Source: New York Fed Consumer Credit Panel/Equifax.

1 Source: New York Federal Reserve.

Growing Student Debt

As exhibit 1 on the previous page shows, student debt has been increasing faster than overall household debt. Higher student debt is not limited to the younger population, but impacting all age groups, even those close to retirement (Exhibit 2).

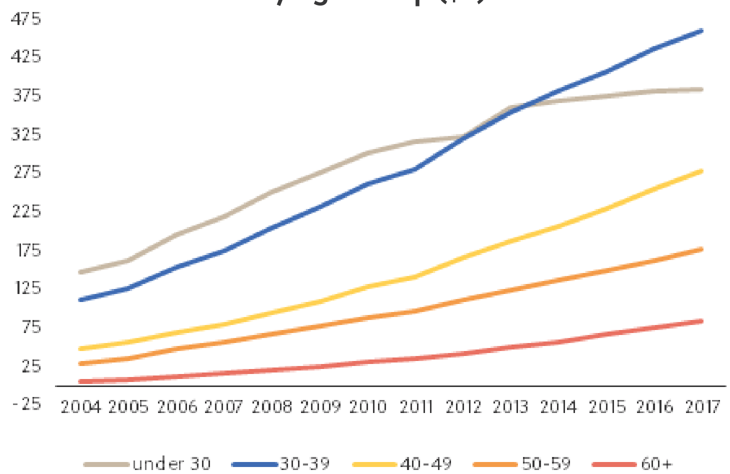
Default rates among student debt borrowers are also rising which is concerning because it is at odds with the trend in declining default rates for other types of debt (Exhibit 3). While delinquencies among borrowers have been declining since the financial crisis (Exhibit 4), they remain stubbornly high for student loans.

While elevated default rates for student debt are a cause for concern, it is important to point out the different experiences among borrowers. This has implications for policy prescriptions as well as investment decisions. Not all types of borrowers are defaulting at the same rate. Default rates are much higher among those who attended for-profit and two-year public institutions vs those who attended private non-profit and four-year public universities.

In addition to the type of institution attended, whether one graduated from college or left without a degree is also an important distinguishing factor. Non-graduates, whether from a two-year or four-year program, are much more likely to default vs graduates.

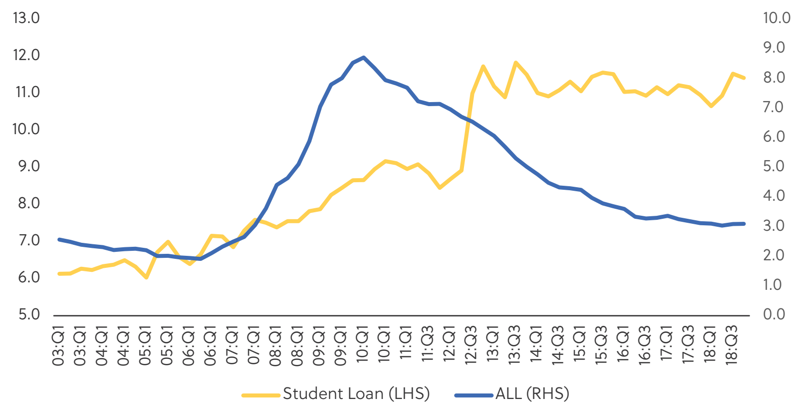
It is also important to appreciate that the trend toward rising default among student loan borrowers seems to be stabilizing after increasing for an extended period of time following the financial crisis. Newly seriously delinquent student loans as a percentage of the balances has declined from 10.5% in the first quarter of 2013 to 9.1% in the fourth quarter of 2018.

Exhibit 2: Total Student Loan Balance by Age Group ($B)



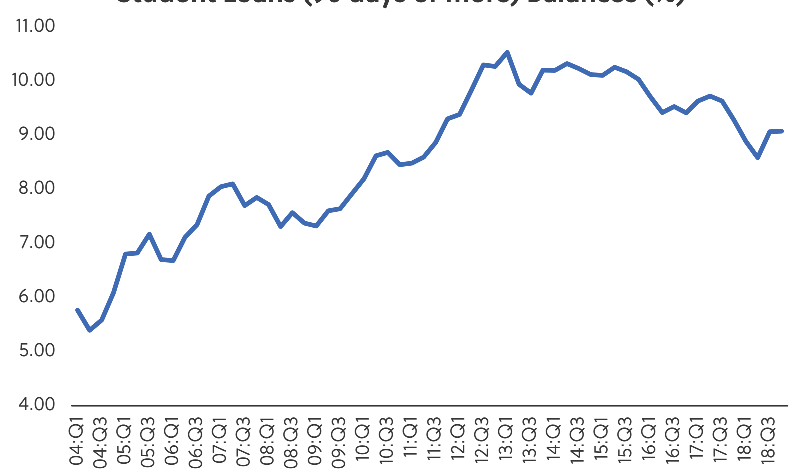
Source: Federal Reserve Board.

Exhibit 3: Percent of Balance 90+ Days Delinquent by Loan Type (%)



Source: New York Fed Consumer Credit Panel/Equifax.

Exhibit 4: New Seriously Delinquent Student Loans (90 days or more) Balances (%)



Source: New York Fed Consumer Credit Panel/Equifax.

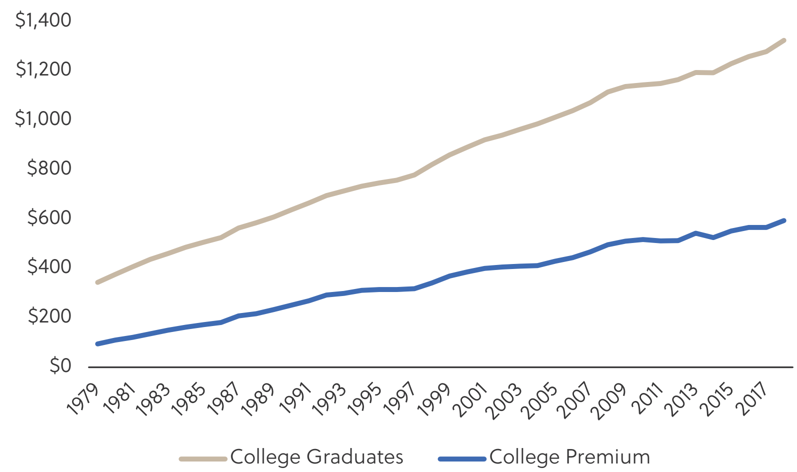
Current Student Debt is Manageable

Looking only at the level of student debt is misleading. Even more important than the absolute level of debt is the ability to service that debt. A college education pays in the sense that those with a college education earn meaningfully more than those with only a high school education (Exhibit 5). At the end of 2018, the median weekly earnings for those with a college education was $1,324, a premium of $594 vs those with only a high school education. And over time, the college premium has increased from 38% in 1979 to 81% in 2018.

In addition to earning more, the unemployment rate for college graduates is consistently lower than those with only a high school education.

It is also important to keep in mind that like all balance sheets, a household's balance sheet has two sides: assets and liabilities, with the difference being net worth. According to the 2016 Federal Reserve Board Survey of Consumer Finances (done every three years) leverage ratio (defined as the sum of all debt divided by the sum of all assets) for households headed by someone with a college degree is lower than for those with less education.

Exhibit 5: Median Weekly Earnings

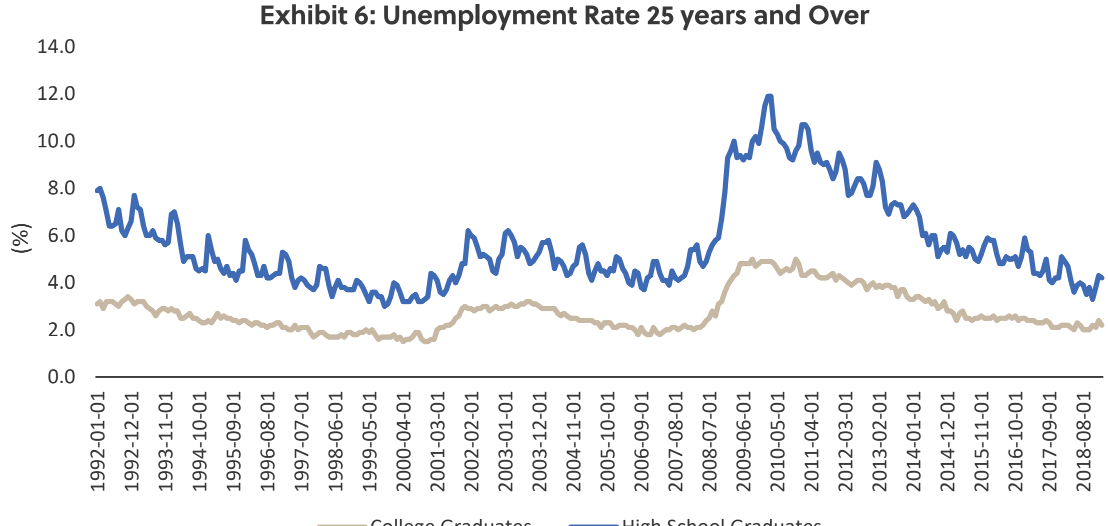


Source: Federal Reserve Economic Data.

The data show that taking on debt to attend and finish college is a good investment, resulting in higher income, lower unemployment and higher net worth. While the growth in aggregate student debt looks scary, it is important to keep in mind that the average student debt level is modest vs other debt that one may have.

While the average balance upon leaving college has been increasing, it remains at a manageable level. Those who graduated in 2015 had on average $35,000 in student debt. According to The National Association of Colleges and Employers, the average starting salary for 2015 college graduates was $50,219, up 4.3% from the previous year. Someone making approximately $50,000 per year should be able to service a debt of $35,000. In addition, over the recent past, the growth in college tuition and fees has been moderating, which should help to moderate the growth in student debt going forward.

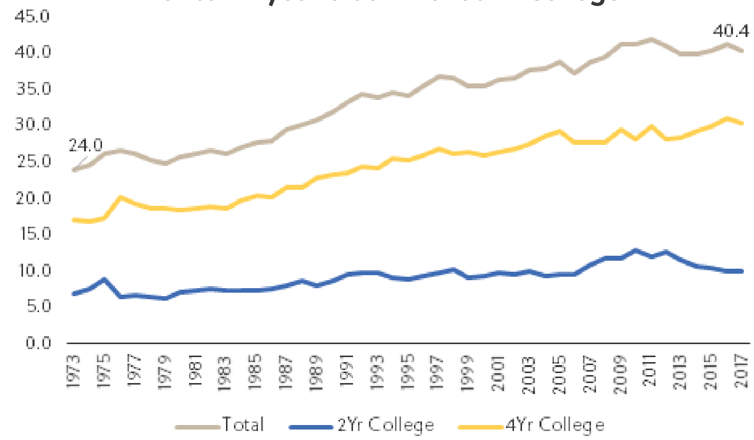
Exhibit 6: Unemployment Rate 25 years and Over



Source: Federal Reserve Economic Data.

It is also important to keep in mind that while tuition has been increasing at a faster rate than overall inflation, one of the drivers of higher student debt is that more people are going to college given the importance of higher education in a post-industrial economy. Jobs increasingly require at least some education beyond high school.

Exhibit 7: Percentage of 18- to 24-year olds Enrolled in College



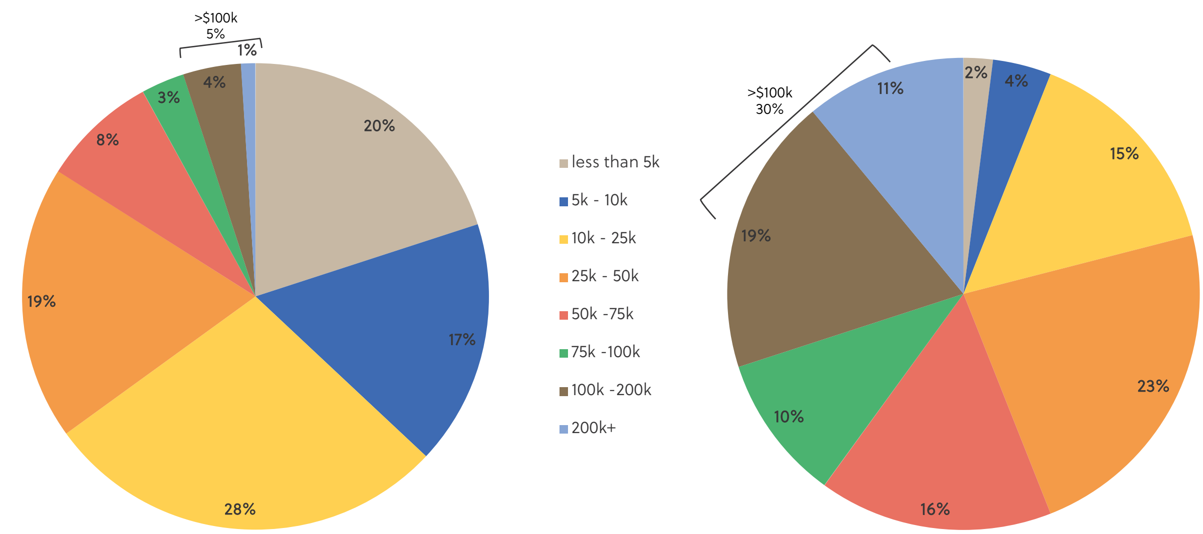
Source: National Center for Education Statistics.

Focusing on the aggregate level of student debt obscures details about the distribution of that debt that are important in understanding the likely impact. According to analysis by economists at the New York Federal Reserve, 5% of borrowers had more than $100K in debt in 2016 and accounted for 30% of total student debt.[2] While 84% of borrowers had $50,000 or less in student debt, which accounted for 44% of the student debt outstanding, with an average balance of $15,476.

Exhibit 8 and 9:

Borrower Distribution by Outstanding Balance
out of 44 million borrowers in 2016

Debt Distribution by Outstanding Balance
out of $1.3 trillion in 2016



Source: New York Federal Reserve.

Source: New York Federal Reserve.

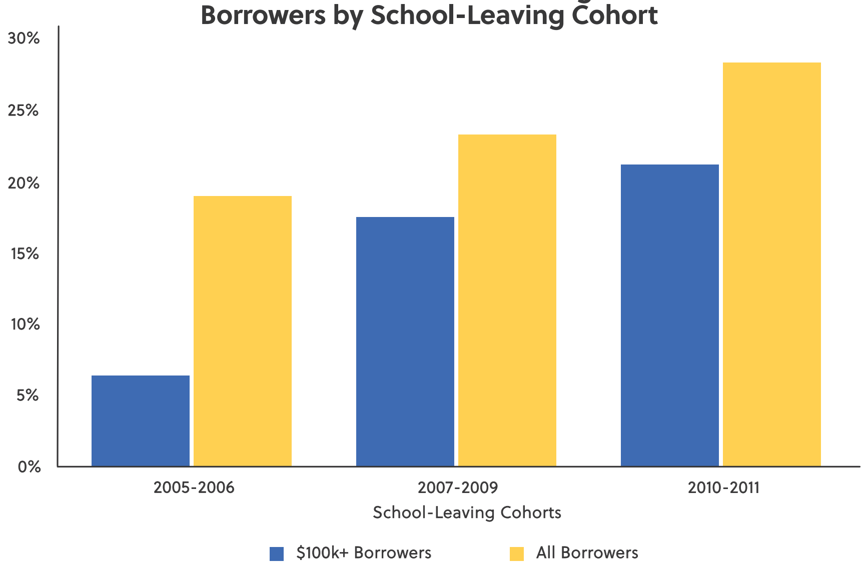
As exhibits 8 and 9 above show, a small percentage of borrowers have a significant amount of student debt. On the surface, this would appear to be a major concern and in some cases, it is. But again, it is important to examine this group in more detail. One reasonable hypothesis is that higher debt levels are a greater burden to service and should result in higher default rates. But this hypothesis is not supported by the data. Breaking down default rates by debt balances, in exhibit 10 on the following page, shows that the highest default rate is among those with the smallest debt balance.[3] In 2015, half of those that defaulted owed less than $10,000. These borrowers were not able to service their debt, because they had dropped out of college, failed to get a decent paying job upon leaving college or could not pay back the loan due to some other reason. But the trend among large balance holders is worrying. While the default rate has risen for student loan borrowers in general, the increase has been greater among those with large balances.

2 Press Briefing on Household Debt, with Focus on Student Debt, April 2017.

3 Echoes of Rising Tuition in Students' Borrowing, Education Attainment, and Homeownership in Post-Recession America, Zachary Bleemer, Meta Brown, Donghoon Lee, Katherine Strair and Wilbertt van der Klaauw, Federal Reserve Bank of New York, 2017.

What is driving higher default rates among those with large balances is students who borrow to attend for-profit institutions? In 2000, less than 5% of borrowers starting to repay their loans with balances greater than $50, 000 had borrowed to attend a for-profit school; in 2014, that share had increased to 20%.[4] Focusing only on rising defaults misses the larger picture. As discussed earlier, borrowers who attend for-profit institutions or public two-year community colleges default at significantly higher rates than those who attend public four-year or private not-for-profit institutions. In addition to defaulting at higher rates, those who attend for-profit institutions are more likely to borrow than those who attend public or private not-for-profit institutions. The increase in the number of new borrowers at for-profit and public two year community colleges is driving rising default rates. The conclusion is that rather than being a systemic issue, the rising default rate among student debt borrowers is largely due to borrowers who attended for-profit or public two-year colleges. This conclusion is supported by a Brookings Institution study from 2015 that found that to the extent there is a student debt crisis, it is among the non-traditional borrowers who are older, less educated, less affluent, attend for-profit schools and community colleges and are less likely to complete the program.

Exhibit 10: 5-Year Default Rate of High-Balance Borrowers by School-Leaving Cohort



Source: Echoes of Rising Tuition in Students' Borrowing, Education Attainment, and Homeownership in Post-Recession America, 2017.

Will High Student Debt Levels Negatively Impact Economic Growth?

The discussion in the previous sections showed that current student debt levels are manageable given average debt levels and the higher income and lower unemployment of college graduates vs those with only a high school education. In addition, default rates are much higher among borrowers who attended for-profit and public two-year institutions vs those who attended public four-year or private not-for-profit institutions.

We now turn to whether the current level of student debt is having a negative impact on economic growth. Some claim that rising student debt is negatively impacting the economy.[5] One area of study looking at the relationship between student debt and economic growth has focused on homeownership. Some studies have shown that households with student debt have lower homeownership rates than households without student debt. One study conducted by economists at the New York Federal Reserve found that increases in student debt explained a significant portion of the decline in homeownership among recent college graduates. The authors found that the increase in per capita student debt from 2003 to 2011 explained 2.7 percentage points or 35% of the overall 7.7 percentage points decline in homeownership at ages 28 to 30.[6]

4 Borrowers with Large Balances: Rising Student Debt and Falling Repayment Rates, Adam Looney and Constantine Yannelis, Economic Studies at Brookings, 2018.

5 Student Loans are Starting to Bite the Economy, Danielle DiMartino-Booth, Bloomberg Economics, March 2019.

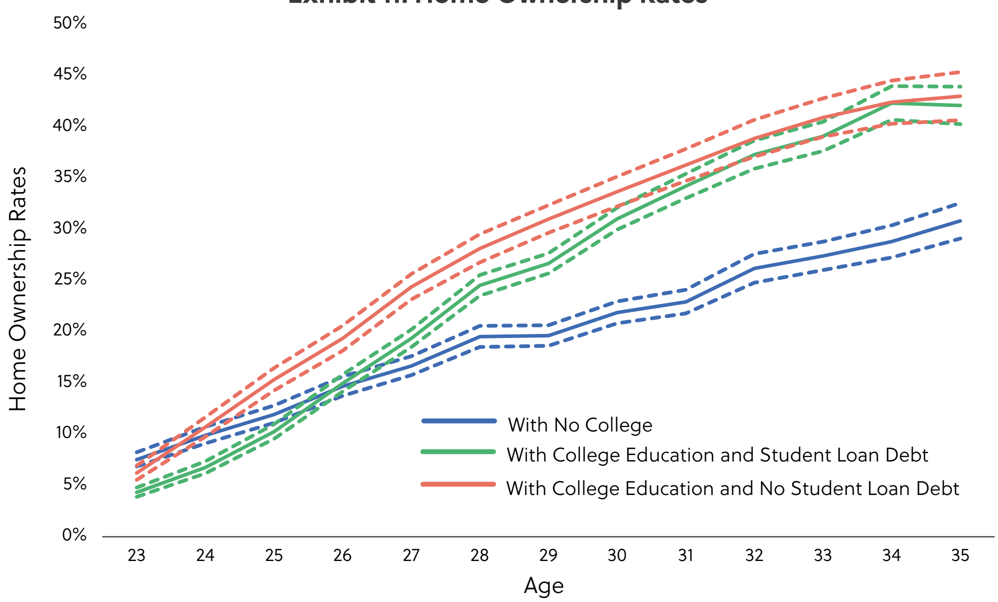
6 Echoes of Rising Tuition in Students' Borrowing, Education Attainment, and Homeownership in Post-Recession America, Zachary Bleemer, Meta Brown, Donghoon Lee, Katherine Strair and Wilbertt van der Klaauw, Federal Reserve Bank of New York, 2017.

Other studies have likewise found a relationship between student debt and homeownership.[7] The authors find that a 10 percent increase in student debt causes a 1 to 2 percentage points drop in homeownership rate during the first five years after exiting school. The authors do acknowledge that falling homeownership following the financial crisis is due to various causes, e.g., more restrictive mortgage lending, and statistically separating the impact from student debt from all of the other factors is complicated. In a more recent study, the authors find that 20% of the decline in homeownership among young adults is attributable to increased student loan debts since 2005.[8] But while student debt is one variable in explaining the decline in homeownership, it is not the central cause.

Another Fed study suggests that higher student debt may delay rather than defer buying a home.[9] The authors found that 10 percent higher student debt leads to a 0.1 percentage points lower likelihood of homeownership. The study found that among those who had some college, the homeownership rate was lower for households with student debt vs those without student debt. The biggest difference was among households headed by someone in the 20 to 24 age group. The difference was narrower for older groups. These findings point to the conclusion that student debt may not defer but delay homeownership.

Another study done by economists at the Federal Reserve Board collaborated the finding that while student debt may delay buying a house, it does not lead to foregoing buying a house.[10] The chart below from the study shows that by age 30 the homeownership rate of those who attended college and with and without student debt is not different from each other; by age 34 the homeownership rate is basically the same. Therefore student debt likely impacts the timing of homeownership but not whether someone ever buys a house. The data also show that college education leads to higher homeownership rates vs those who do not attend college. Individuals with no college education buy a house earlier on average than those with college education whether they have student debt or not. However, by age 26, the homeownership rate of those with college education catches up with the homeownership rate of those with no college education and subsequently rises above it.

Exhibit 11: Home Ownership Rates*



Source: Student Loans and Homeownership Trends, Alvaro Mezza and Kamila Sommer, Federal Reserve Board, October 2014.
* Individuals with no college denote those with no post-secondary education. Individuals with college denote those with at least some post-secondary education. Dotted lines represent 95 percent confidence intervals.

7 On The Effect of Student Loans on Access to Homeownership, Alvaro Mezza, Daniel Ringo, Federal Reserve Board, 2016.
8 Can Student Debt Explain Low Homeownership Rates for Young Adults?, Alvaro Mezza and Daniel Ringo, Federal Reserve Board, January 2019.
9 Student Loan Debt and Economic Outcomes, Daniel Copper and Christina Wang, Federal Reserve Bank of Boston, 2014.
10 Student Loans and Homeownership Trends, Alvaro Mezza and Kamila Sommer, Federal Reserve Board, October 2014.

College education correlates positively with homeownership independent of other factors such as whether one comes from a family with above or below median income. It is important to point out that not all studies reached the conclusion that student debt lowers homeownership. Some studies did not find a relationship between student loans and homeownership.[11] One study found that the relationship between student debt and homeownership is not static over time.[12] Between 2003 and 2009, 30 year olds with student debt had higher homeownership rates than 30 year olds without student debt. But the relationship switched after the financial crisis. One possible explanation is that mortgage lenders are more cautious about the total debt held by borrowers following the financial crisis. Prior to the financial crisis, it was relatively easy to acquire a home mortgage. But since the financial crisis, underwriting standards are more stringent and anyone with debt, including student debt, would have a more difficult time getting a home mortgage.

While the studies that have been done do not all reach the same conclusion, survey data suggest that homeownership is delayed by student debt. Surveys have found that among the 23% of first time home buyers who reported difficulties with saving for a down payment, 57% cited student debt as a factor.[13] Other surveys have shown that some may be delaying contributing to their retirement accounts due to student debt.[14]

Whether student debt is a burden that is likely to negatively impact homeownership and economic growth depends on whether one received a quality education and graduated. A recent speech by the president of the Philadelphia Federal Reserve reminds us that over the long term, economic growth is driven by demographics and productivity.[15] A more educated population is more productive. And higher productivity should result in higher economic growth.

One segment of the population where higher student debt may adversely impact economic growth is those close to retirement. As pointed out above, student debt has been rising even among older people, who may have taken on student debt to help their kids pay for college. Spending during retirement years is likely to be negatively impacted since people in retirement are on fixed income. While paying back the debt taken on to help one's children get a college education will no doubt impact spending, there is another way to look at the issue, which may partly offset this drag. One reason that most economists expect economic growth in the future to be lower than in the past is demographics: the population is getting older and labor force growth will be slower in the future. It could be that having to pay off the student loans may cause more people to remain in the labor force longer, which would likely contribute to economic growth as the percentage of the overall population in the labor force would be higher than it otherwise would be.

When all is considered, the impact of higher student debt on future economic growth is likely modest. A study by Federal Reserve Board economists in 2019 found only a small impact on economic growth. The authors find that the direct impact of higher student debt on aggregate consumption is small and the indirect effects such as access to credit are also small. They point out that college education leads to higher income and is, therefore, a positive for consumption. Their analysis shows that even if higher debt payments held back consumption dollar for dollar, the drag on real GDP growth would be less than 0.05 percentage points in any given year. While some studies have found a relationship between student debt and homeownership, the authors point out that homeownership by itself does not boost consumption if a household simply converts from rental to ownership in the same size and quality unit, e.g., even if homeownership is depressed by

11 Is Student Loan Debt Discouraging Home Buying Among Young Adults, Jason Houle and Lawrence Berger, 2014.

12 Young Student Loan Borrowers Retreat from Housing and Auto Markets, Meta Brown and Sydnee Caldwell, 2014, Liberty Street Economics.

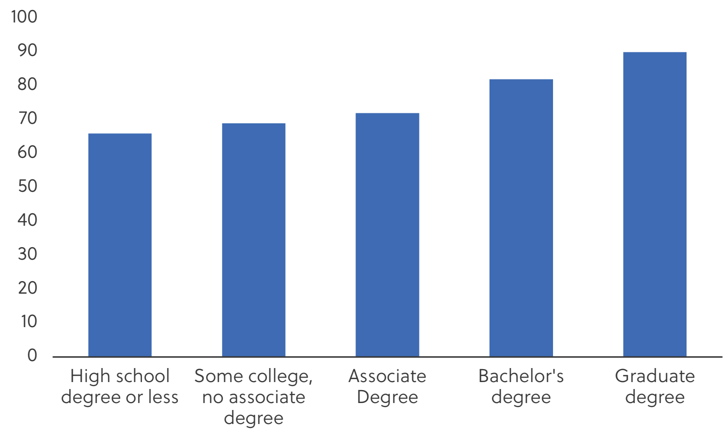
13 Student Loan Debt and the Housing Decisions of Young Households, Irene Lew, The Harvard Joint Center for Housing Studies, 2015.

14 Student Loan Borrowers Face Tough Choices, Federal Reserve Bank of Atlanta; March 2019.

15 The Economics of Equitable Education: How Today's Loans, Access and Training Affect Tomorrow's Economy, Patrick Harker, President of Philly Fed, April 2018.

higher student debt, this does not equate to lower aggregate consumption or economic growth. The authors do not find that other forms of consumption such as buying a vehicle is affected by student debt.[16] These findings are further reinforced by a March 2018 speech by Fed Chairman Jerome Powell who said that the effect on the economy from higher student debt was not yet showing up in the data.

Exhibit 12: Doing Okay Financially



Source: Report on the Economic Well Being of U.S. Households in 2017, May 2018, Federal Reserve board.

A general law of economics is that price affects demand and supply. For most products and services, as the price increases, consumption decreases. The degree of the relationship varies by what economists call the elasticity of demand. Some products or services are more impacted by changes in prices than others. In the case of a college education, as tuition has increased, Americans have not cut back on going to college but rather have taken on more debt. The fact that the demand for a college education has not dropped as the price as gone up must mean that people think a college education is worth the cost. While those with student debt no doubt believe they would be better off economically if they did not have that debt, surveys also show that education correlates positively with feeling economically better off.[17] Two-thirds of graduates from private not-for-profit and public institutions view the benefit of their own education as larger than the costs. Not only does a college education results in higher income and lower unemployment but college graduates tend to be healthier, live longer and smoke less.[17]

Conclusion

Student debt has risen significantly over the past ten years. In addition, default rates for student loans remain at elevated levels even as default rates for other loans have been coming down. Rising student debt has caught the attention of economists and investors. The concern is that high student debt will negatively impact economic growth in the future. Our investment strategies and long term capital market assumptions are based on economic and market fundamentals. And as such, the impact on economic growth by rising student debt is an important topic for us to consider. In this InvestEd, we have reviewed some of the research conducted on the relationship between student debt and homeownership and economic growth and examined the various issues surrounding rising student debt. Examining average debt levels, default rates among different types of borrowers and the relationship between a college education and economic wellbeing, we conclude that the current level of student debt is unlikely to negatively impact economic growth in the future.

16 Student Loan Debt and Aggregate Consumption Growth, Laura Feiveson and Alvaro Mezza, Federal Reserve Board, March 2019.
17 Report on the Economic Well Being of U.S. Households in 2017, May 2018, Federal Reserve Board.

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