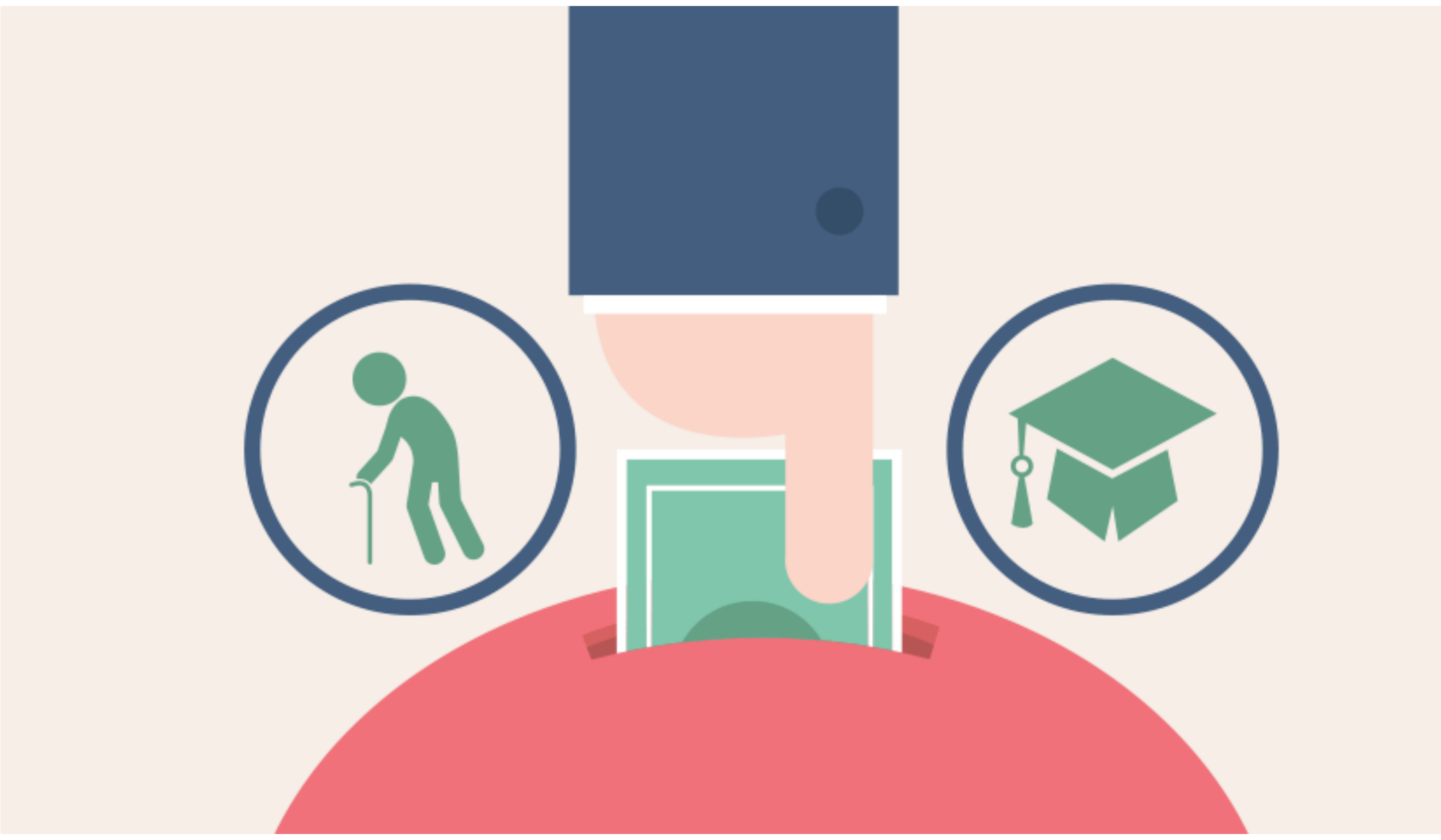
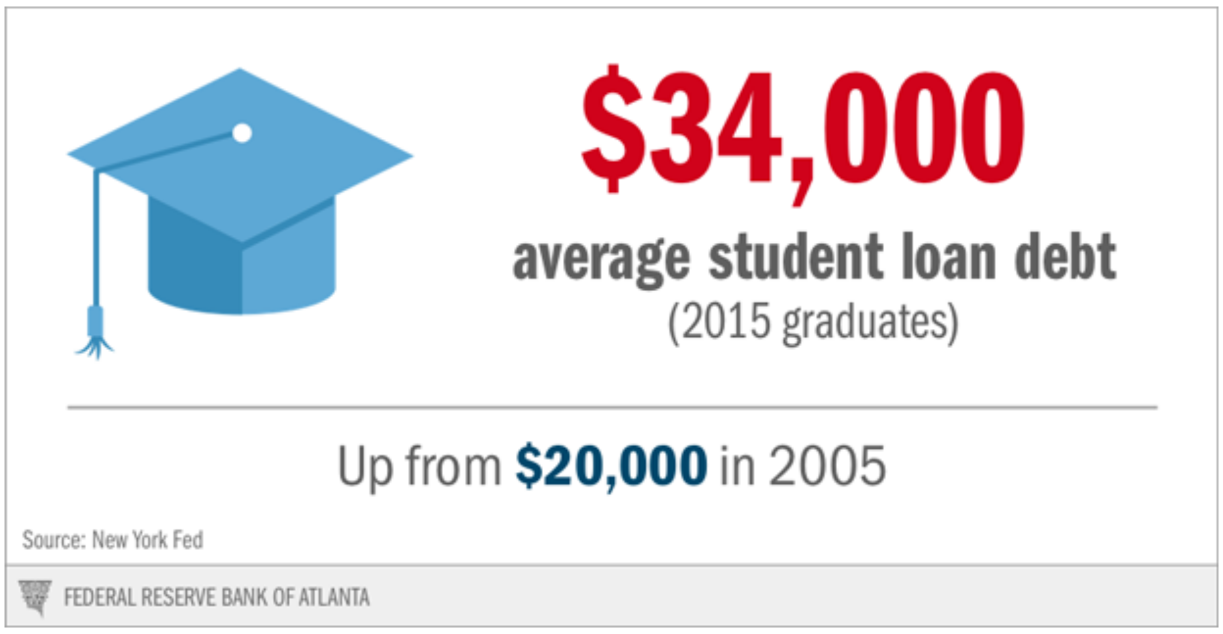
ECONOMIC RESEARCH

Student Loan Borrowers Face Tough Choices

January 26, 2018



As more people enroll in college and tuition continues to climb, students are borrowing more and loan balances are quickly growing. This may no longer be news, but the numbers are still alarming. Recent college graduates with student loans leave school with an average of $34,000 in debt, up from $20,000 just 10 years ago, according to the Federal Reserve Bank of New York. Indeed, student loan debt topped credit card debt in 2010, becoming the second largest category of consumer debt in the United States. By the end of 2016, student debt nationwide had reached $1.3 trillion.



Of equal concern is the downward trend in saving for retirement, especially among young adults. According to a 2016 Wells Fargo survey, at least 40 percent of millennials are not saving for retirement at all.

While repaying student debt necessarily means less money to invest for retirement, these issues are rarely discussed together—perhaps because they seem as life-stage-specific as acne and wrinkles. Still, some research has investigated the link between student debt and low or no retirement savings. For example, an American Institute of CPAs survey found that half of the respondents with student loan debt are delaying contributions to their retirement accounts. A survey from Washington University's Center for Social Development found that among similar households with a college degree, those with outstanding student debt have almost $42,000 less in retirement savings than households without.

Paying student loans versus investing in retirement

Borrowers incur no penalties for prepaying federal or private student loans, so repaying student debt ahead of schedule lowers the total amount of interest paid.

Given young borrowers' usually limited resources, when does aggressively paying down debt make more sense than investing for retirement? The borrower should consider several factors before making that decision.

What is the expected rate of return on investments? The table below shows the annual return for the S&P 500 and the interest rates for federal direct student loans issued from 2008 through 2017. The interest rates for the loans are fixed throughout the year, with the new rates starting July 1. (The interest rate information for 2016, for example, applies to loans issued between July 1, 2016, and June 30, 2017.) Since 2008, the S&P 500's annual return has exceeded 11 percent in all but three years, while the interest rates for federal direct loans issued since then have never exceeded 8 percent.

Interest rates charged by private lenders are generally higher than federal rates, but few in recent years have been higher than the S&P 500 return. Thus, during a booming stock market, paying off student debt before starting to invest for retirement would make people financially worse off in the long run than if they paid the minimums on student debt while investing the remainder for retirement.

Year	Annual return for S&P 500	Direct subsidized undergraduate	Direct unsubsidized undergraduate	Direct unsubsidized graduate/professional	Direct PLUS loan for parents or graduate/professional students
2017	21.83	4.45	4.45	6.00	7.00
2016	11.96	3.76	3.76	5.31	6.31
2015	1.38	4.29	4.29	5.84	6.84
2014	13.69	4.66	4.66;	6.21	7.21
2013	32.39	3.86	3.86	5.41	6.41
2012	16.00	3.40	6.80	6.80	7.90
2011	2.11	4.50	6.80	6.80	7.90
2010	15.06	5.60	6.80	6.80	7.90
2009	26.46	6.00	6.80	6.80	7.90
2008	-37.00	6.80	6.80	6.80	7.90

Note: Figures are the interest rates in percent.
Sources: S&P returns from YCharts; loan data from Federal Student Aid, U.S. Department of Education

Of course, past performance is no guarantee of future results. We know the interest rates for fixed-rate loans, whereas the S&P 500 return over the last 10 years has fluctuated considerably. More risk-averse people may choose to chip away at student loans first because of the uncertainty in long-term investing. Borrowers with higher interest rates on their student loans receive less of a benefit from the market than those with lower interest rate loans. The smaller difference in return for a similar difference in risk means that individuals with high interest rates on student loans may be particularly inclined to prepay.

Does the borrower's employer offer retirement plan contributions? Defined-contribution retirement programs—like 401(k)s —enhance retirement investing. Among the 51 percent of workers who have these plans, 76 percent have savings and thrift plans, and 69 percent of those plans offer an employer match, according to a report from the U.S. Bureau of Labor Statistics. An employer match is a guaranteed return on the amount invested that increases the overall return.

Companies match employee contributions in many different ways, but few help prepay student loans. If an employer matches retirement funds but not loan prepayments, prioritizing retirement investing—to take full advantage of the match—might be the best course.

However, only half of workers under 30 enroll in their employers' 401(k) plans, and 43 percent of those who participate fail to invest enough to get the full match, according to data from the Consumer Financial Protection Bureau (CFPB).

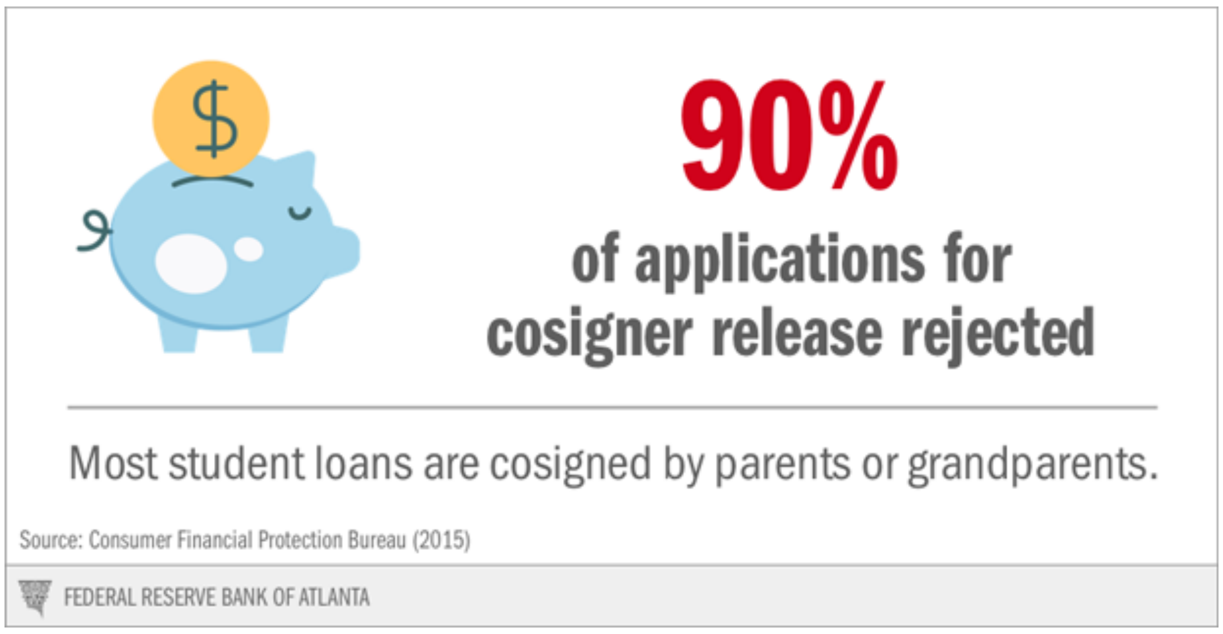
Is the loan's interest rate fixed or variable? Variable-rate loans tend to have lower initial interest rates than fixed-rate loans, but borrowers take the risk that the interest rate will rise. If the return on investment is less than the interest rate on the student loan, paying down student debt might be preferable to investing. By prepaying, borrowers reduce their exposure to interest-rate risk while benefiting from the lower rate. However, it's likelier that the return on investment will be higher than the interest rate on the student loans, in which case a choice between variable and fixed rates is not so simple. The borrower who uses extra money to invest rather than to prepay the loan incurs more exposure to interest-rate risk, which could outweigh the benefits of an initially lower interest rate.

Has the borrower considered the tax benefits of both options? Prepaying and investing both offer tax advantages. Under certain situations, the IRS allows the borrower to deduct interest paid on student loans up to a certain amount, even if the borrower does not itemize. On the retirement side, contributions to traditional IRAs and 401(k)s reduce taxable income, and funds are taxed upon withdrawal.

What is the borrower's debt-to-income ratio? Families preparing to purchase a house may need to reduce their debt-to-income level to qualify for a mortgage. In that case, paying down debt and focusing on immediate financial goals may be more of a priority.

Does the borrower have a cosigner? Most student loans are cosigned by parents or grandparents. Cosigners can present a couple of risks, which may make paying off the loans a greater priority than investing. The CFPB has noted that student loan contracts commonly contain “auto-default” clauses allowing lenders to put the loan in default if a cosigner dies or files for bankruptcy. Although many lenders say they do not plan to use these provisions, and the number of auto-default complaints has been decreasing, these clauses still appear and the lender can choose to exercise them. Additionally, releasing a cosigner from an existing loan is difficult. The CFPB reported in 2015 that lenders denied 90 percent of applications for cosigner release. Refinancing the loan with another lender is one way to release a cosigner, but paying off the loan releases both the cosigner and borrower.

Does the borrower face financial uncertainty? If an individual is facing financial challenges such as a job loss, locking away money in a retirement account may not be the best choice.



What about the personal aspects? The borrower should also take into account the emotional and behavioral elements of debt and investing. What if other expenses keep the borrower from investing or aggressively paying off debt? The first step would be to reduce these other expenses. For those people who tend to focus on the short term, reducing consumption to pay off student debt may be preferable to investing for retirement. And for many people, student loans exact a psychological toll, so for them, reducing debt might outweigh some lifetime earnings.

Sounding the alarm

Student debt and retirement savings are two important and interconnected financial decisions for young adults. As the cost of higher education and the amount of student debt soar, this generation is facing financial burdens that previous generations have not. The media, financial planners, and others have sounded the alarm on student borrowing for some time, but they may have paid inadequate attention to the implications of student debt for retirement savings, which have become even more important now that fewer employers offer defined-benefit pension plans. Because many variables are at work in making these decisions, borrowers might find it worthwhile to seek out professional advice.

Makayla Palmer
Research assistant at the Atlanta Fed's Americas Center

Stephen Kay
Director of the Atlanta Fed's Americas Center