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ISSUER IN-DEPTH
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Government of United States

FAQ on potential impact of student loan debt forgiveness on US economy and government finances

Student loan debt in the US (Aaa stable) has more than doubled over the last 10 years, reaching $1.5 trillion (6.9% of GDP) as of June 2019. These loans are now the second largest liability for households after mortgages, and their delinquency rates are the highest among all forms of household debt. This has raised concerns among policymakers about the potential negative economic and social implications of higher student debt burdens, prompting some to propose policies of student loan debt forgiveness. In this report, we address questions related to the size and growth of student loan debt, and explain how debt forgiveness would likely impact the US economy and the federal government's fiscal position.

» **What is driving the rise in student loan debt and why does it matter?** Over the last twenty years, the rapid rise in student loan debt has largely been driven by higher college enrollment rates, rising undergraduate costs (tuition plus room and board), and increased borrowing to meet those financial needs. Since 2012, slower student loan repayment rates have also driven the debt stock higher. Rising student debt matters because it has coincided with broader concerns about rising income inequality in the US and diminished economic prospects for younger Americans who are carrying relatively higher student loan burdens than in the past.[1]

» **What impact would student loan debt forgiveness have on the US economy?** The ultimate impact would depend on the details of any legislative action that is taken. In the near term, we would expect student loan debt cancellation to yield a tax-cut-like stimulus to economic activity, contributing to a modest increase in household consumption and investment. The magnitude of the stimulus would depend on the size of the debt relief and income level of the beneficiaries. Over the longer term, debt forgiveness could lead to an improvement in small business and household formation, as well as increased homeownership. However, it could also increase the risk of moral hazard and the accumulation of even higher student debt burdens.

» **How would student loan debt forgiveness impact the government's fiscal position?** The fiscal cost would depend on the size and scope of debt relief, and the way in which it is financed. Universal student debt cancellation would only marginally increase the sovereign's debt burden, because the bulk of these loans is held by the federal government in the form of direct loans that have already been funded by the issuance of US Treasuries. However, it would also detract from revenues, as the government foregoes student loan repayment collections (about 0.4% of GDP in 2018). Without offsets for the lost revenue, the government's fiscal deficit would widen, pushing government debt and interest burdens higher, further weakening the sovereign's fiscal strength.[2]

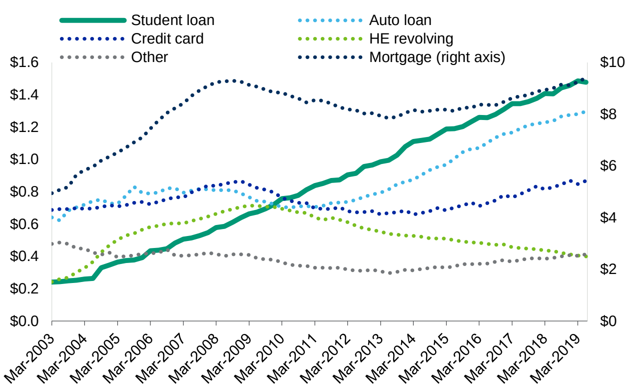
What is driving the rise in student loan debt and why does it matter?

Student loan debt has increased significantly over the past 15 years in the US, growing at a faster rate than any other category of household debt. Its sharp rise has driven increased public and political debate over the negative implications of rising student debt burdens on household finances, the economy and income inequality.[3] Given the federal government's outsized role in the student loan market, with over 90% of outstanding student debt having been either issued or guaranteed by the federal government, growing public concern has prompted a variety of policy proposals from lawmakers and politicians to address the issue, including student loan debt forgiveness.[4]

According to the Federal Reserve Bank of New York[5], about 45 million US citizens (14% of the population) owed $1.5 trillion (6.9% of GDP) in student loan debt as of June 2019, a more than fivefold increase from 15 years ago. As a result, student loans are now the largest component of household debt after mortgages (see Exhibit 1). At the same time, a steep uptick in student loan delinquency rates since 2000 and the failure to reverse that trend during the post-financial crisis economic recovery contrasts sharply with the experience of other categories of household debt, suggesting that the student loan debt burden on households is significant (see Exhibit 2).

Exhibit 1

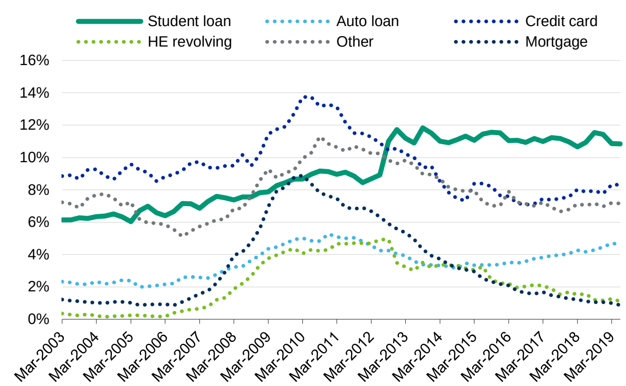
Student loan debt has grown significantly over the past 15 years...
(Household debt by type, $ trillions)



Sources: Federal Reserve Bank of New York and Moody's Investors Service

Exhibit 2

...and loan delinquency rates are higher than for all other categories of debt
(90+ days delinquent by type of household debt, % of total balance)



Sources: Federal Reserve Bank of New York and Moody's Investors Service

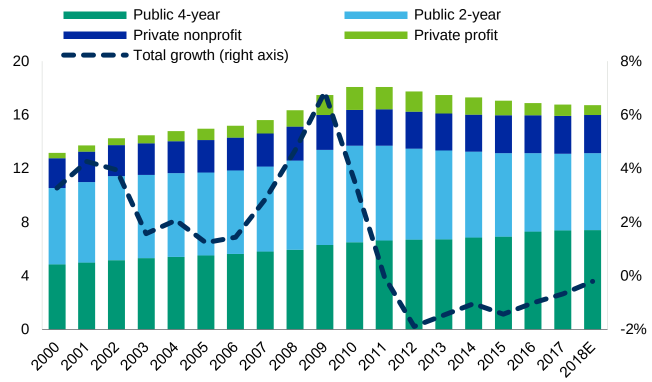
The student loan debt stock's rapid growth is largely the result of higher college enrollment rates, rising undergraduate costs, and increased borrowing to meet those financial needs. although enrollment and borrowing have moderated since 2012, federal loan disbursements continue to outpace the slow repayment of existing student loan debt, growing the student loan debt stock further.

Undergraduate enrollment grew by 27% between 2000 and 2018, with more than two-thirds of that growth driven by 4-year public colleges and universities, which educated almost 45% of the US's 16.7 million college students as of 2018 (see Exhibit 3). Graduate enrollment also increased markedly during the same period (see Exhibit 4). However, graduate schools only educate about 3 million students and annual federal loan disbursements have favored undergraduates over graduates by a ratio of 2 to 1, on average, since 2000.

The increase in enrollment has coincided with rising education costs, particularly at 4-year public institutions, which underwent reductions in state funding. This change in state funding resulted in an increase in schools' reliance on tuition paid directly by individual consumers. Rising education costs combined with a period of relatively weak US household income growth contributed to heavier reliance on household debt-based education financing.

Exhibit 3

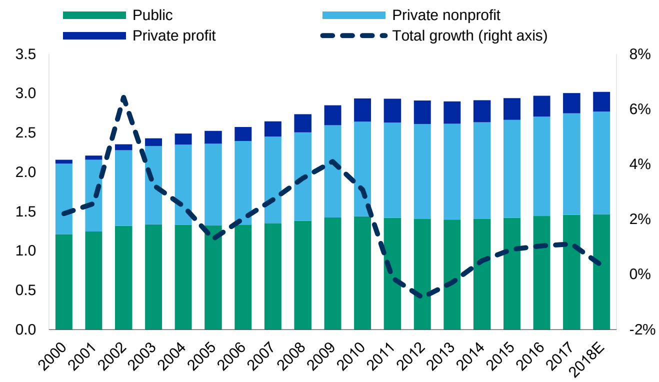
College enrollment growth largely driven by public 4-years
(Undergraduate enrollment by institution, millions and % annual change)



Source: National Center for Education Statistics

Exhibit 4

Graduate school enrollment has grown strongly, but remains comparatively small
(Graduate enrollment by institution, millions and % annual change)



Source: National Center for Education Statistics

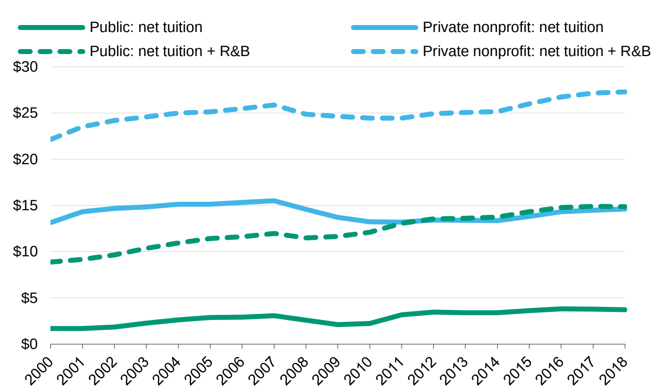
While the cost of education has indeed risen substantially, to assess the true overall cost of education for households, we account for the simultaneous rise in grant-based financial aid. Grant-based financial aid has provided a material offset to gross tuition costs through free and highly subsidized tuition for qualifying students, resulting in a significantly lower net cost of tuition. At the same time, we also factor in the cost of room and board, which is often not covered by financial aid, and has contributed to materially higher student loan debt.

After adjusting for grant-based financial aid and inflation, annual tuition at 4-year public colleges averaged $3,740 in 2018, up from $1,690 in 2000 (a 121% increase). When room and board is included, the total cost reached $14,880, up from $8,880 in 2000 (up 68%). While net tuition at private 4-year colleges remained relatively steady over the period, room and board rates drove the total annual cost to $27,290 in 2018, up 23% from the 2000 level (see Exhibit 5). For public 2-year colleges, which educate around 35% of all US undergraduates, tuition has remained virtually free since 2000, mainly due to the government's targeted increase in grant-based financial aid.

When compared to household income gains, education costs also increased materially over the past two decades. For instance, in 2000, one year of net tuition and fees at a 4-year public college averaged 2.8% of median household income, and 14.5% when room and board were included. In 2018, these figures increased significantly to 5.9% and 23.6%, respectively, as rising net college costs outpaced income gains (see Exhibit 6). However, since 2012, education costs have remained relatively stable as a share of income.

Exhibit 5

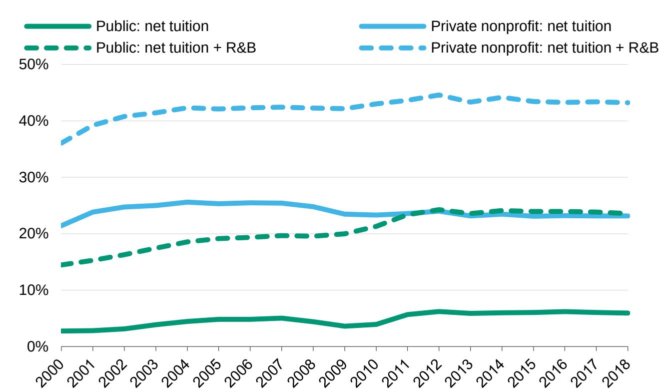
Higher education costs have increased faster than inflation...
(College costs by type and institution, 2018 dollars, thousands)



Note: Tuition is for 4-year colleges, net of grants and includes required fees.
Sources: College Board and Moody's Investors Service

Exhibit 6

...and have outpaced household income gains
(College costs by type and institution, % of median household income)



Note: Tuition is for 4-year colleges, net of grants and includes required fees.
Sources: College Board, US Census Bureau and Moody's Investors Service

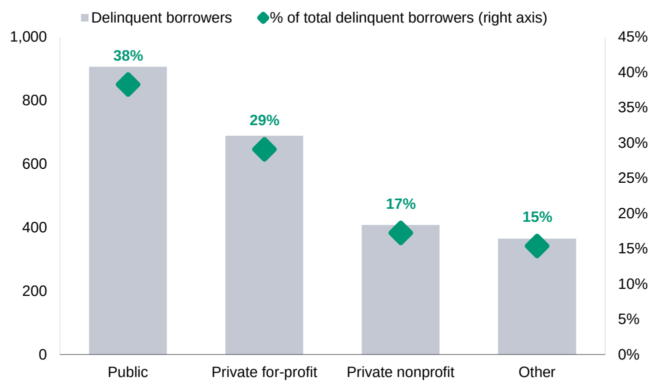
College Board data suggests that more students took on larger amounts of debt to fund these costs. The share of students graduating with debt from public 4-year institutions increased to 58% in the 2016-17 academic year, up from 52% in 2000-01, although their private nonprofit peers remained relatively static at just above 60% over the same period.[6] Among those that borrowed at public and private 4-year institutions, the average amount of debt incurred grew as well, to $28,500 from $23,000 (in 2017 dollars), an increase of 24%.[7]

While data availability is limited for for-profit institutions, they have also been an important driver of rising student debt and high delinquency rates, despite their lower enrollment rates. Students that earned bachelor's degrees at for-profit institutions were more likely to borrow and accumulate debt than those that graduated from public and private nonprofit peer institutions. For instance, in 2016, 32% of bachelor's degree recipients from for-profit institutions had debt loads of $50,000 or more, compared to just 7% and 12% of peers at 4-year public and private nonprofit institutions, respectively.[8] Although for-profit institutions educate less than 10% of US undergraduates and graduates, their students represent nearly one-third of delinquent federal loan borrowers and are twice as likely to have delinquent loans than their counterparts at public and private nonprofit peer institutions (see Exhibits 7 and 8).

Exhibit 7

Students from for-profit schools account for almost one-third of student loan delinquencies...

(Delinquent borrowers by school type, thousands and % of total)



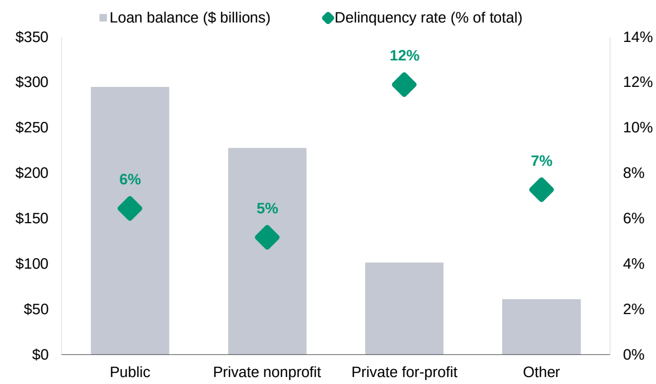
Note: "Other" includes pre-2004 consolidated loans that cannot be linked to a specific school.

Sources: DOE and Moody's Investors Service

Exhibit 8

...and their balances are more likely to be delinquent than nonprofit peers

(Loan balance and delinquency rate by school, thousands and % of total)



Note: Balances include principal and interest on federal loans in repayment status.

Sources: DOE and Moody's Investors Service

Looking ahead, we expect undergraduate enrollment to slow and rising college costs to moderate, which should help to slow the pace of student loan debt growth. For example, according to the National Center for Education Statistics (NCES), college enrollment is set to increase by only 3% between 2016-27, down from 19% in the 2002-16 period, driven by a slowdown in the number of projected high school graduates. Declining college affordability is also likely to limit the extent to which further tuition increases can be implemented without sacrificing enrollment. While a transition to income-based student loan repayment plans with longer repayment periods should help to prevent delinquency rates from rising further, they will likely remain comparatively high with risks tilted to the downside as US economic growth slows and wage growth continues to lag net tuition growth.

What impact would student loan debt forgiveness have on the US economy?

The significantly higher burden that student loan debt places on US households today has a variety of economic and social implications, including weaker creditworthiness of younger generations, reduced consumption and investment, and widening income and wealth inequality. In response to these issues, lawmakers and politicians have started to explore potential policy options to reduce student loan debt burdens, including through loan forgiveness.

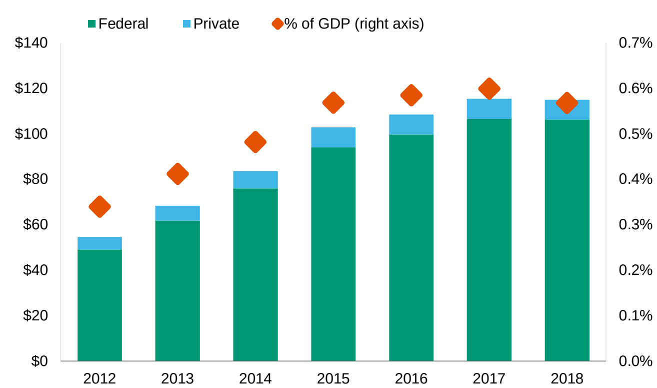
The ultimate economic impact of student loan debt forgiveness would depend on the details of any legislative action that is taken and how it is funded (e.g., a wealth tax, other taxes, etc.). For instance, a 2018 study estimates that a policy of debt cancellation could ultimately boost US real GDP by an average of $86 billion to $108 billion per year over a 10-year period.[9] Another study estimates that more moderate loan forgiveness and a restructuring of the terms of repayments, which reduces monthly debt service payments, would add a total of about $120 billion (about 0.35% of GDP) to the US economy over a period of 10 years.[10]

In the near term, we would expect student loan debt cancellation to yield a tax-cut-like stimulus to economic activity, contributing to a modest increase in household consumption and investment. The magnitude of the stimulus would depend on the size of the debt relief and income level of the beneficiaries.

A partial or total student debt cancellation would increase households' disposable income by the amount of debt service saved. Economic activity would in turn be boosted by the portion of these debt service savings channeled into other current and investment spending. At the same time, some households could potentially increase spending beyond their debt service savings if their improved net financial wealth entices them to save less and spend more overall, yielding even greater stimulus to the economy.

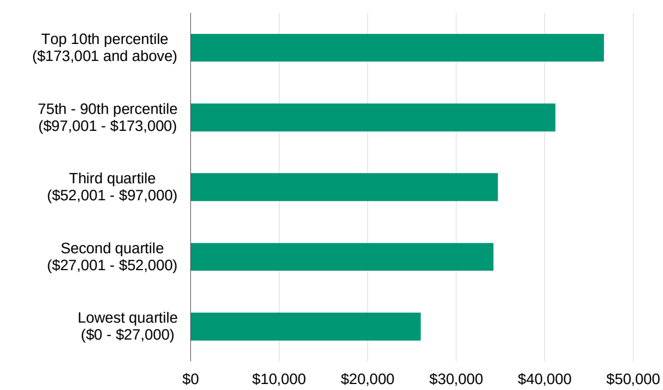
The Federal Reserve Bank of New York estimates that the typical monthly payment on student loan debt was between $200 and $299 in 2018.[11] However, monthly debt service costs likely exhibit significant variability, with the size of principal and interest payments positively correlated with household income and loan balances. Using Department of Education data, we estimate that student loan borrowers paid around $115 billion (0.6% of GDP) in principal and interest on their loans last year, the majority of which went to servicing loans issued or guaranteed directly by the federal government (see Exhibit 9).

Exhibit 9
Student loan debt service has increased significantly in recent years
(Debt service on student loans by type, $ billions and % of GDP)



Note: Debt service is for all student loans outstanding (undergraduate and graduate).
Sources: Department of Education, MeasureOne and Moody's Investors Service

Exhibit 10
Higher-income households hold higher levels of student debt
(Average education debt by household income, $)



Note: Debt levels are for all student loans outstanding (undergraduate and graduate).
Source: Urban Institute and Survey of Consumer Finances

The stimulative effect of a total student debt cancellation on the economy will be partially diluted by the relatively high-income levels of the majority of beneficiaries. An Urban Institute analysis of 2016 Survey of Consumer Finance data found that student loan balances are positively correlated with household income (see Exhibit 10), as higher-income households are able to afford more expensive and more years of higher education, including graduate degrees with substantially higher limits on federal student loan balances.[12] Nearly two-thirds (63%) of outstanding education debt is held by households in the upper half of the US household income distribution,[13] whose balance sheets are relatively healthy and whose propensity to consume savings from debt relief is lower than for earners on lower rungs of the income distribution. As a result, these higher-income households are more likely to save a larger portion of the increased disposable income than spend it, which would partially dilute the economic stimulus from loan forgiveness. Nonetheless, we would expect most household spending patterns to shift, with higher-income households potentially trading one balance sheet investment item (higher education) for another (car or home loan), and lower income households either increasing their current spending, paying down other debt or saving.

Recent economic research suggests that student debt forgiveness could also provide longer-term benefits by supporting household and small business formation. However, there are also potential costs, including moral hazard and the accumulation of even higher student debt burdens.

For example, a variety of research suggests that increased reliance on student debt crowds out an individual's access to other forms of household credit, which likely delays business formation and homeownership, important drivers of economic growth and wealth creation. In particular, research from the Federal Reserve Bank of Philadelphia has found that increases in student loan burdens are associated with lower rates of small business formation, as larger student debt loads preclude entrepreneurs from accessing other lines of credit to finance new businesses.[14] Other research suggests that, while not the central cause of the decline, increased student debt can explain about 20% of the reduction in homeownership rates among young adults between 2005 and 2014[15], likely a reflection of a student loan borrower's reduced ability to save for a down payment on a home or qualify for a mortgage. Limited savings can also delay the pace of household formation, as the costs of starting a family can be prohibitive without sufficient savings. Meanwhile, high delinquency among student loan borrowers also impairs credit scores, which can further weigh on an individual's ability to access the credit necessary to start a business or purchase a home.

At the same time, there are potential costs that could contribute to future generational inequality and moral hazard. For example, the economic benefit would likely only be transitory if debt forgiveness was a one-time windfall for current borrowers, as future generations of student loan borrowers would ultimately return to debt-based financing to meet rising college costs. Meanwhile, these future borrowers could also grow to expect student loan debt forgiveness, based on the precedent set by previous debt cancellation, and take out larger amounts of debt as a result. The moral hazard created by debt forgiveness could ultimately exacerbate the accumulation of higher student debt burdens in the future.

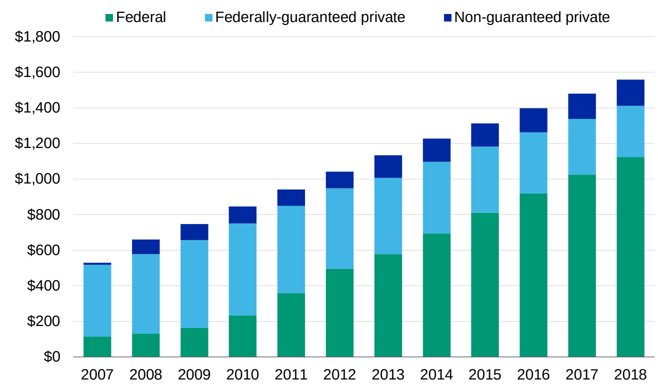
How would student loan debt forgiveness impact the US government's fiscal position?

The ultimate fiscal cost of student loan debt forgiveness would depend on the size and scope of debt relief, and the way in which it was financed. Universal student debt cancellation would only marginally increase the US government's debt burden, but it would also lead to about 0.4% of GDP in annual forfeited revenue as the government foregoes debt service collection on forgiven loans. Without offsets for the lost revenue, the federal government's fiscal deficit would widen, pushing its debt and interest burdens higher and further diminishing the sovereign's fiscal strength over time.

The majority of outstanding student debt is held by the federal government, which substantially increased the size of its direct lending operations after ending its federal guarantee program for private loans in 2010. According to the DOE, there was approximately $1.2 trillion (5.6% of 2019 GDP) outstanding in federal loans as of June 2019, accounting for about 75% of total student debt, up from $225 billion (1.5% of GDP) in 2010. We estimate that there is an additional $402 billion (1.9%) outstanding in privately held student loans, including $272 billion in government-guaranteed loans and $130 billion in non-guaranteed privately issued loans (see Exhibits 11 and 12).

Exhibit 11

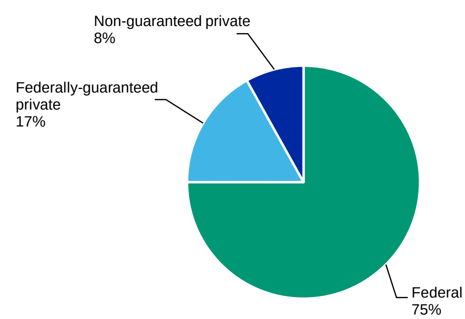
Federal student loans grew substantially after 2010
(Student debt outstanding by type of loan, $ billions)



Sources: NSLDS, Federal Reserve and Moody's Investors Service

Exhibit 12

Federal loans account for three-quarters of total outstanding student loans
(Student debt outstanding by type of loan, % of total, June 2019)



Sources: NSLDS, Federal Reserve and Moody's Investors Service

The vast majority of the approximately $1.2 trillion of outstanding federal student loan debt is held by the federal government in the form of direct loans, the cancellation of which would not add to the government's debt stock. Direct loans are funded by the issuance of US Treasury bonds, which are already incorporated into the government's debt stock at the time of origination. As such, the cancellation of this subgroup of loans would not add to the existing debt stock.

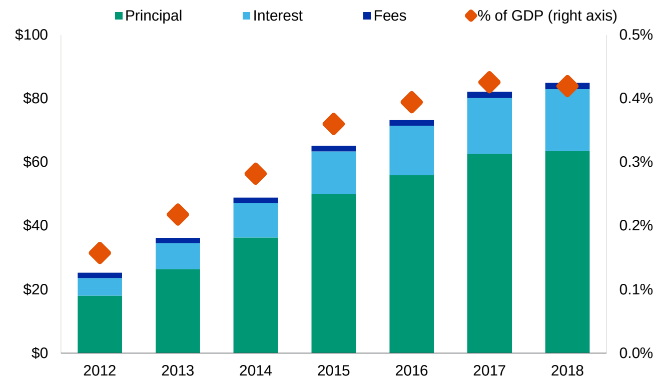
However, we assume that the government would likely purchase and subsequently cancel the roughly $402 billion in privately held student loans in the event of a universal debt forgiveness program, which would add about 2 percentage points of GDP to the sovereign's debt burden. We believe that a forced refinancing of privately held student debt would have a negative impact on the private lenders concentrated in the student loan market, because they would lose out on future net interest income on existing loans, which would significantly disrupt their business models. Overall, the fiscal cost to the government would increase with the amount of private loan debt that is subject to debt relief.

On an annual basis, debt forgiveness would result in net annual losses in revenue for the federal government as it forgoes income from debt service on outstanding federal loans. The US DOE collected about $85 billion (0.4% of GDP) in principal, interest and fees on federal loans in 2018, up steadily since the federal government expanded its student loan operations in 2010 (see Exhibit 13). If no additional policy measures are taken to offset the loss in revenue associated with federal student loan debt relief, we estimate that the fiscal deficit would widen to 6.7% of GDP by 2029, up from our current forecast of 6.3% of GDP (see Exhibit 14). Absent additional revenue increases or expenditure cuts, widening fiscal deficits would add to the government's debt and interest burdens, further weakening the sovereign's gradually diminishing fiscal strength.

Exhibit 13

Revenue collection from federal student loan debt service has increased

(Collections on direct federal loans, $ billions and % of GDP)

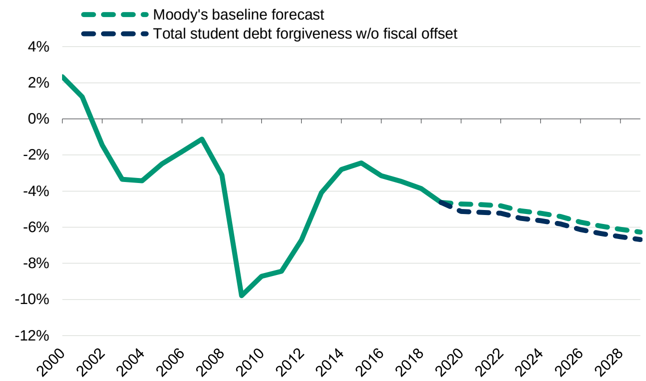


Sources: US Department of Education and Moody's Investors Service

Exhibit 14

Fiscal deficits would widen in absence of fiscal offsets to student debt relief

(Federal fiscal deficit forecasts, % of GDP)



Sources: US Treasury, US Department of Education and Moody's Investors Service

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Issuer Comment:

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» Demographics – United States: Rising female labor force participation and employment supports US economy, but gender gaps remain, 10 September 2019

» Government of United States: US budget deal and debt limit suspension avert fiscal cliff, 2 August 2019

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» Government of the United States: Rising income inequality will likely weigh on credit profile, 8 October 2018

Rating Methodology:

» Sovereign Bond Rating, 27 November 2018

Contributor

Olivia DiRienz

Endnotes

1 See: **Government of the United States: Rising income inequality will likely weigh on credit profile**, October 2018.

2 See: **Issuer In-Depth: Government of the United States: Widening deficits will drive gradual decline in fiscal strength over medium term**, 12 December 2018.

3 See: **Government of the United States: Rising income inequality will likely weigh on credit profile**, October 2018.

4 For example, in July, Senator and presidential candidate Elizabeth Warren and House Majority Whip James E. Clyburn introduced the Student Loan Debt Relief Act of 2019, which proposes canceling approximately $640 billion of outstanding student loan debt. Senator and presidential candidate Bernie Sanders and Miramar, Florida Mayor and presidential candidate Wayne Messam have suggested that the government should pay off all $1.5 trillion of outstanding student loan debt. And presidential candidate Julian Castro has proposed capping student loan payments for those who earn less than 250% of the federal poverty line (for example, one-person households that earn less than $31,255 or two-person households that earn less than $42,275 based on the 2019 federal poverty lines) at $0 with no interest accrual until they earn 250% of the federal poverty line.

5 See: Federal Reserve Bank of New York quarterly **Household Debt and Credit Report**, August 2019.

6 See: College Board, "**Trends in Student Aid 2018**," Figure 15, page 22. Sixty-one percent of graduates from private, nonprofit 4-year institutions borrowed in the 2016-17 academic year, relatively unchanged from 63% in 2000-01.

7 Ibid.

8 Ibid.

9 Over the 10-year forecast, the study estimates that the policy generates between $861 billion and $1,083 billion in real GDP (2016 dollars). See: **"The Macroeconomic Effects of Student Debt Cancellation,"** Levy Economics Institute of Bard College, February 2018

10 See: "Vice President Biden's Student Loan Plan," Moody's Analytics, October 2019

11 See: "Report on the Economic Well-Being of U.S. Households in 2018 - May 2019" Board of Governors of the Federal Reserve System. See "Student Loans" section for further detail.

12 Federal financial aid policy sets aggregate loan limits for undergraduate students at up to $31,000 in federal loans if they are financially dependent on their parents and up to $57,500 if they are not. Graduate and professional students can borrow up to a total of $138,500, inclusive of federal loans already received for undergraduate study.

13 See: "Which Households Hold the Most Student Debt?" Urban Institute, 2 May 2019. Thirty-four percent of student debt is held by households in the highest quartile of the income distribution. Twenty-nine percent is held by those in the third quartile.

14 See: "The Impact of Student Loan Debt on Small Business Formation" Federal Reserve Bank of Philadelphia, July 2015.

15 See: Mezza, Alvaro A., Daniel R. Ringo, Shane M. Sherlund, and Kamila Sommer(2016). "Student Loans and Homeownership," Finance and Economics Discussion Series 2016-010. Washington: Board of Governors of the Federal Reserve System. The homeownership rate in the US fell to 65% in 2014, down from a peak of 69% in 2005. The fall was more than twice as pronounced for household heads ages 24 to 32, 36% of which owned their own home in 2014, down from 45% in 2005. Data through the first quarter of 2019 reveals that the national and under-35 homeownership rates halted their decline in mid-2016, but have only recovered marginally since.

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