

The Dominoes of Default in 2021



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Takeaways

- If Republican brinksmanship forces the United States to default on its debt, it will have wide-ranging consequences on the US economy.
- The United States has never defaulted, so projections of the consequences are a foray into the unknown. However, data from macroeconomic forecasters and previous near-default events help give us clear estimates.
- The United States could shed as many as 3 million jobs—undoing five months of employment growth—as a result of GDP contraction.

- A typical worker near retirement with 401(k) savings could lose \$19,000 from stock market volatility caused by default.
- The average new 30-year mortgage would cost an additional \$97,000 due to higher mortgage interest rates.
- It will become harder to borrow for everything from small business loans to student loans.
- The dollar could lose its position as the world's preeminent currency, and goods could become more expensive for US consumers.
- Just from the interest rates the government would have to pay on bonds, the national debt would increase by \$850 billion.

In October, Senate Republicans repeatedly blocked attempts to pass a debt limit increase. In the end, they relented for a small, short-term increase, ensuring the United States would not default. But with the new debt limit deadline approaching, there is no guarantee that Republicans will put country before politics and work to raise the country's borrowing limit.

The debt limit isn't just an academic concept. Breaching the debt limit would be more harmful to the US economy than the 2008 Lehman Brothers collapse, according to S&P Global's chief economist.¹ It would be a self-inflicted economic catastrophe.

The consequences of default would reach every corner of the US economy. In fact, it could be enough to push the US back into a recession, as Treasury Secretary Janet Yellen has warned.² The closer we get to default, the greater the consequences on federal spending, consumer confidence, and private sector activity.

Below, we explore six tangible effects of default for middle-class families and Main Street businesses in the United States. Because we have never defaulted, these effects are projections based on a series of macroeconomic factors noted below. Some effects would begin before an actual default as markets get nervous. All effects would be worse the longer the default drags on, and the damage could vastly exceed the numbers projected in this report.

Domino Effects: Six Consequences of Default

1. Treasury bond rates rise.

The US government does not collect enough in taxes to directly pay for its spending with cash on hand, so it must take on debt and sell bonds. Typical buyers of bonds are institutional investors

(like pension funds), foreign countries (often sovereign wealth funds or financial institutions serving foreign nationals), and individuals (usually through mutual funds and 401(k) accounts).

US government debt is the most relied upon asset in the world given its enormous size, liquidity, and transparency. Treasury securities are one of the lowest cost and widely-used forms of collateral for financial transactions. Investors believe that US debt is “safe” because historically there’s been virtually no chance that the United States government would ever default on these loans, and because the US economy is large and dynamic. In fact, Treasury bonds are considered to be as safe as cash throughout the financial sector. As a result, Treasury bonds pay a very low rate of return, commonly referred to as the “risk-free rate.” Low risk means low interest rates.

If the government defaults or comes close to defaulting, credit rating agencies would likely downgrade the rating of Treasury bonds. In 2011, the mere threat of default prompted the credit rating agency Standard & Poor’s to downgrade the United States from its AAA rating to AA+ for the first time in 70 years.³ A downgrade by all of the big three rating agencies—S&P, Fitch, and Moody’s—would likely indicate the United States would have to raise the interest rate it offers for these bonds in order to get investors to continue buying them. This is because their #1 draw—a risk-free investment—would now be a fallacy.

Default would mean the cost of borrowing for the US government would increase, perhaps dramatically. And when its more expensive for the government to borrow, it will be more expensive for individuals to borrow.

There are multiple credible estimates of the impact of default on interest rates in the United States:

- In 2011, J.P. Morgan and PIMCO estimated that a technical default would lift the rate on Treasuries by half a percentage point (0.5%).⁴
- Additionally, the 2013 debt limit scare showed that Treasury rates could rapidly rise by that amount even without an actual default. A Government Accountability Office report concluded that the threat of default in 2013 catapulted market yields on US Treasuries from 0.01% to 0.5%.⁵
- This year, Moody’s Analytics estimated that more prolonged debt limit standoff (of up to a month) would be disastrous and would increase interest rates by 1.46 percentage points in the short run and have permanently higher rates to the tune of 0.27%.⁶
- If interest rates went up on par with Moody’s Analytics’ estimate, it would mean perversely that a default would actually increase the national debt by \$850 billion, on top of growing projected debt within a decade.⁷

2. The economy takes a hit, shedding 3 million jobs.

Between the interest rate effects above and the limitations the federal government will have on sending out payments to everyone from social security recipients to federal contractors, the US economy will take a hit. And while GDP growth is more often thought of as a Wall Street thing than a Main Street thing, slower growth or an economic contraction can have serious implications for families and workers across this country.

- J.P. Morgan in 2011 estimated that higher Treasury rates (in the magnitude of 0.5% as a result of a technical default) would cause our GDP growth to slow by 1 percentage point.⁸
- In 2021, Moody Analytics estimated that a month-long default could result in a swift economic drop of 6.6% compared to baseline.⁹
- For every 1% decrease in GDP growth, there is roughly an 0.5% increase in the unemployment rate, according to an economic concept known as Okun's Law. Using this estimation, if one assumed an economic hit in the middle of those 2 estimates, the **United States would shed approximately 3 million jobs**—the equivalent of the last five months of employment growth.¹⁰

And, unlike at nearly all other times during the pandemic, it would be difficult to expect forthcoming fiscal stimulus to counteract this effect.

3. The stock market drops, and 401(k)s take a dive.

A Treasury report on the macroeconomic effects of approaching the debt limit found that the 2011 debt limit debacle led to a 17% decline in the S&P 500 index.¹¹ A recent report from Moody's has an even more calamitous prediction, forecasting that just a short-term debt default could lead to a 27% drop. What might a loss somewhere in the middle of these two predictions mean for the average personal investor?

According to the Employee Benefit Research Institute's analysis of 2018 balances, the typical 401(k) of an individual investor in their 50s contains \$224,143.¹² US equities, like those in the S&P 500, represent 39% of an example lifecycle fund targeting retirement in 2030.¹³ Because of that, **a 22% loss in the S&P 500 would cost the typical retirement portfolio about \$19,000.**

With approximately 60 million US workers invested in 401(k) plans, these losses would hurt households in every American community.¹⁴ And that's not all. If the country defaults, investors could start selling assets—leading to prices death spiraling down on all types of securities, including stocks, bonds, and real estate. We last experienced mass liquidation during the financial crisis. From July 2008 to March 2009, the United States lost \$7.4 trillion in stock wealth—nearly \$66,200 per household.¹⁵

4. Mortgage rates rise, and new home costs increase by \$97,000.

The rate that Americans pay for a mortgage is generally tied to the interest rate on Treasury bonds. Since the end of the 2007–2009 recession, 30-year mortgage rates have been 0.9% higher than 30-year Treasury bonds, on average.¹⁶ The difference between these two rates is known as a “spread.” The Moody’s report predicts that a default could lead Treasury bond rates to surge by 1.46%. This means mortgage rates could shoot up by a similar amount.

What would this mean for the average homebuyer at this time?

- At the end of November 2021, the average 30-year mortgage interest rate was 3.1%.¹⁷
- A 1.46% interest rate increase from 3.1% to 4.56% for a 30-year fixed mortgage would **add approximately \$97,000 to the lifetime cost on a median new home loan** of \$323,760 (assuming a 20% down payment on a home valued at \$404,700, the median U.S. home sale price from Q3 of 2021).¹⁸

Considering today’s tight housing market, any increase in mortgage rates might price out buyers even more.

5. Small business and consumer credit tightens.

Once the dominoes of default—rising Treasury bond rates, declining stock markets, rising mortgage rates—begin to fall, lending to small businesses and consumers will constrict.

Why would lending tighten? In short, **there would be less money made available to people and businesses to borrow.** This liquidity shortage would be a direct result of uncertainty and volatility in the markets. When there is economic uncertainty and volatility, credit gets squeezed because banks want to keep as much money in reserve as they can.

What credit is still available would be more costly because banks would increase their interest rates on loans. Small business owners would have a difficult time getting a loan from their bank for start-up costs or business expansion—or they would have to pay increased rates.

Consumers would have trouble securing a car, student, or personal loan. Credit card rates—which are also tied to Treasury rates—would rise, making purchases more expensive and resulting in depressed retail sales. Less spending by consumers and small businesses could help send the economy into a recession.

6. The dollar loses its “special status.”

In many ways, the US dollar is just like any other commodity that is bought and sold. When there are more sellers than borrowers, its price and status drops.

Foreign holdings of US dollars are enormous because the dollar is the world’s “reserve currency.” Countries keep trillions of American dollars in reserve in case of economic or national security emergencies. For example, China has \$1.05 trillion and Japan has \$1.30 trillion of US Treasury

securities in reserves.¹⁹ If a foreign government undergoes an economic upheaval, it can dig into its reserve of American dollars and weather the storm. According to the International Monetary Fund, the US dollar's share of other countries' official foreign exchange reserves has held steady around 60–65% since the financial crisis.²⁰

But political and economic volatility in the form of a US default would compel investors to sell some of their holdings. According to *The Economist*, “The defeat of proposed legislation, the election of a particular politician or the release of an unexpected bit of economic data may all cause a currency to strengthen or weaken against the currencies of other countries.”²¹

A US default may cause institutional investors and sovereign wealth funds to hedge what currency their reserves should be held in. Special status can be revoked; the British pound was formerly the dominant currency for trade, but the dollar became the currency of choice after the UK amassed a huge debt due to the costs of World War I.

What might that mean on Main Street? On the one hand, if the US dollar loses its “special status” and the value of the dollar decreases, exports like commercial airplanes and cars become cheaper to the rest of the world. The downside is more significant. **Not only would imports like electronics become more expensive, but there would also be additional upward pressure on borrowing costs,** making it even more expensive to take out a mortgage or a business loan.

Conclusion

Before Minority Leader Mitch McConnell relented on October 7 by allowing a \$480 billion increase in the debt limit to avert the debt limit deadline, we were less than two weeks away from default.²² But there's no guarantee that Congressional Republicans won't again try to play a game of chicken when the limit again threatens in December or January. If the United States defaults, it will have effectively invited an economic crisis. And if markets have lost faith in the US government, it could be too late. Even a brief default could throw so much sand in the gears of our economy that another much worse scenario might play out—including financial crisis or recession.

Everything from missed Social Security payments to increased costs of mortgages to losses in 401(k)s would mean average Americans will eventually have to deal with the consequences. Policymakers must come to the table and figure out a solution before the dominoes of default begin to fall.

This paper is an updated version of the previous reports “The Dominoes of Default” and “The Dominoes of Default, 2013,” authored by Jim Kessler and Lauren Oppenheimer, and “The Dominoes of Default, 2015,” authored by David Brown and Tanner Daniel, and “The Dominoes of Default” authored by David Brown and Emily Liner.

ENDNOTES

1. Tankersley, Jim. "America's Need to Pay Its Bills Has Spawned a Political Game." *The New York Times*, 25 Sept. 2021, <https://www.nytimes.com/2021/09/26/business/economy/america-debt-limit-political-game.html>. Accessed 9 Nov. 2021.
2. Lane, Sylvan. "Yellen warns default on national debt would cause recession." *The Hill*, 5 Oct. 2021, <https://thehill.com/policy/finance/575343-yellen-warns-default-on-national-debt-would-cause-recession>. Accessed 9 Nov. 2021.
3. Paletta, Damian and Matt Phillips. "S&P Strips U.S. of Top Credit Rating." *The Wall Street Journal*, 6 Aug. 2011, <https://www.wsj.com/articles/SB10001424053111903366504576490841235575386>. Accessed 9 Nov. 2021.
4. Belton, Terry et al. "The Domino Effect of a US Treasury Technical Default." Research Note, J.P. Morgan, 19 Apr. 2011, p. 5, <https://valkayec.files.wordpress.com/2011/04/morgan.pdf>. Accessed 9 Nov 2021. See also: Montgomery, Lori and Brady Dennis. "Treasury quietly plans for failure to raise debt ceiling." *The Washington Post*, 26 Apr. 2011, http://www.washingtonpost.com/business/economy/treasury-quietly-plans-for-failure-to-raise-debtceiling/2011/04/21/AFmo5PtE_story.html. Accessed 9 Nov. 2021.
5. United States, Government Accountability Office. "Debt Limit: Market Responses to Recent Impasses Underscores Need to Consider Alternative Approaches." Report, July 2015, p. 16. <http://www.gao.gov/assets/680/671286.pdf>. Accessed 9 Nov. 2021.
6. Zandi, Mark and Bernard Yaros. "Playing a Dangerous Game With the Debt Limit." *Moody's Analytics*, 21 Sept. 2021, <https://www.moodyanalytics.com/-/media/article/2021/playing-a-dangerous-game-with-the-debt-limit.pdf>. Accessed 9 Nov. 2021.
7. Authors' Calculation based on Zandi, Mark and Bernard Yaros. "Playing a Dangerous Game With the Debt Limit." *Moody's Analytics*, 21 Sept. 2021, <https://www.moodyanalytics.com/-/media/article/2021/playing-a-dangerous-game-with-the-debt-limit.pdf>. Accessed 9 Nov. 2021; Congressional Budget Office. "Additional Information About the Updated Budget and Economic Outlook: 2021 to 2031." CBO, 21 July 2021, <https://www.cbo.gov/publication/57263>. Accessed 9 Nov. 2021; and Congressional Budget Office. "Workbook for How Changes in Economic Conditions Might Affect the Federal Budget, June 2021." CBO, 4 June 2021. <https://www.cbo.gov/publication/57191>. Accessed 9 Nov. 2021.
8. Belton, Terry et al. "The Domino Effect of a US Treasury Technical Default." Research Note, J.P. Morgan, 19 Apr. 2011, p. 5. <https://valkayec.files.wordpress.com/2011/04/morgan.pdf>. Accessed 9 Nov. 2021.
9. Zandi, Mark and Bernard Yaros. "Playing a Dangerous Game With the Debt Limit." *Moody's Analytics*, 21 Sept. 2021, <https://www.moodyanalytics.com/-/media/article/2021/playing-a-dangerous-game-with-the-debt-limit.pdf>. Accessed 3 Dec. 2021.

10. Authors' Calculations based on United States, Department of Labor, Bureau of Labor Statistics. "Table A-1: Employment status of the civilian population by sex and age." Economic News Release, Oct. 2021, <http://www.bls.gov/news.release/empsit.t01.htm>. Accessed 3 Dec. 2021.
11. United States, Department of the Treasury. "The Potential Macroeconomic Effect of Debt Ceiling Brinkmanship." Oct. 2013, p. 4-5.
<https://www.treasury.gov/initiatives/Documents/POTENTIAL%20MACROECONOMIC%20IMPACT%20OF%20DEBT%20CEILING%20BRINKMANSHIP.pdf>. Accessed 9 Nov. 2021.
12. United States, Department of the Treasury. "The Potential Macroeconomic Effect of Debt Ceiling Brinkmanship." Oct. 2013, p. 4-5.
<https://www.treasury.gov/initiatives/Documents/POTENTIAL%20MACROECONOMIC%20IMPACT%20OF%20DEBT%20CEILING%20BRINKMANSHIP.pdf>. Accessed 9 Nov. 2021.
13. "Vanguard Target Retirement Funds." *The Vanguard Group*. <https://investor.vanguard.com/mutual-funds/profile/VTHRX>. Accessed 9 Nov. 2021.
14. "Frequently Asked Questions About 401(k) Plan Research." *Investment Company Institute*, 11. Oct. 2021.
https://www.ici.org/faqs/faq/401k/faqs_401k. Accessed 9 Nov. 2021.
15. Swagel, Phillip. "The Cost of the Financial Crisis: The Impact of the September 2008 Economic Collapse." Briefing Paper No.18, *Pew Economic Policy Group*, 28 Apr. 2010, p. 14,
http://www.pewtrusts.org/our_work_report_detail.aspx?id=58695. Accessed 9 Nov. 2021.
16. Authors' Calculations based on Federal Reserve Bank of St. Louis Economic Research (FRED). "Market Yield on U.S. Treasury Securities at 30-Year Constant Maturity [DGS30]," and "30-Year Fixed Rate Mortgage Average in the United States [MORTGAGE30US]." <https://fred.stlouisfed.org/series/MORTGAGE30US>. Accessed 2 Dec. 2021.
17. Federal Reserve Bank of St. Louis Economic Research (FRED). "30-Year Fixed Rate Mortgage Average in the United States [MORTGAGE30US]." <https://fred.stlouisfed.org/series/MORTGAGE30US>. Accessed 2 Dec. 2021.
18. Authors' Calculations based on Federal Reserve Bank of St. Louis Economic Research (FRED). "Median Sales Price of Houses Sold for the United States." <https://fred.stlouisfed.org/series/MSPUS>. Accessed 2 Dec. 2021.
19. United States, Treasury Department. "Major Foreign Holders of Treasury Securities." <http://ticdata.treasury.gov/Publish/mfh.txt>. Accessed 2 Dec. 2021.
20. "Currency Composition of Official Foreign Exchange Reserves (COFER)." *International Monetary Fund*, <http://data.imf.org/?sk=E6A5F467-C14B-4AA8-9F6D-5A09EC4E62A4>. Accessed 9 Nov. 2021. See also Prasad, Eswar. "The Dollar Reigns Supreme, by Default." *International Monetary Fund*, March 2014, Vol. 51, No. 1. Mar. 2014, <http://www.imf.org/external/pubs/ft/fandd/2014/03/prasad.htm>. Accessed 9. Nov. 2021.

- 21.** Levinson, Marc. "Guide to Financial Markets." *The Economist*, 2005, 4th ed., p. 24.
https://docs.google.com/file/d/0B_Qxj5U7eaJTZTJkODYzN2ItZjE3Yy00Y2MoLTk2ZmUtZGU0NzA3NGI4Y2Y5/edit?usp=drive_web&pli=1&hl=en. Accessed 9 Nov. 2021.
- 22.** Romm, Tony. "Senate passes bill to raise debt ceiling into early December." *The Washington Post*, 7 Oct. 2021. <https://www.washingtonpost.com/us-policy/2021/10/07/senate-deal-debt-ceiling/>. Accessed 9 Nov. 2021.