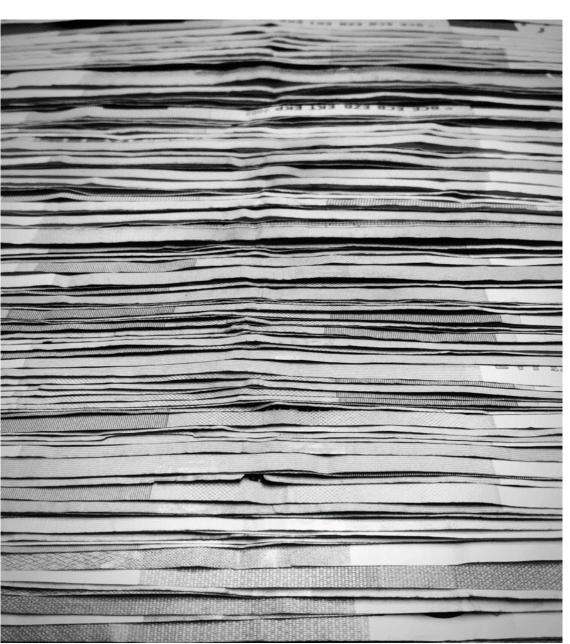
Global Debt Leverage

How Heavy Is The World's **Debt Burden?**

For some, it will be hard to avoid write-downs or defaults

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This report does not constitute a rating action



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Key takeaways

- Global leverage is at a historic high of 349% based upon global debt-to-GDP--more than 25% higher than the 278% in the pre-2008 financial crisis era.
- Specifically, rated sovereigns took advantage of the protracted period of low interest rates that central banks had maintained, to expand their debt-to-GDP ratio by more than one-third, to a projected 87% in 2022, from 62% in 2008.
- Resolving the debt overhang, amid slower growth and higher interest rates, could be painful--with governments cutting expenditures and borrowers defaulting.

1. Overview

With global debt leverage higher than before the Global Financial Crisis (GFC) of 2008, and with interest rates rising and economies slowing, S&P Global Ratings sees painful times ahead for corporate borrowers at the lower end of the credit spectrum--and some governments--that are loaded down with debt they built up during better times.

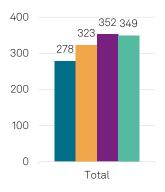
Rising global debt-to-GDP means the economic value-add from every additional dollar of debt has decreased. As we see in the global debt-to-GDP ratios over the past 15 years (see chart 1), productivity from debt has declined. The global ratio for the total of government, household, financial institution, and nonfinancial corporate sectors was 349% at June 2022, more than onefourth higher than the 278% in June 2007. In particular, the debt leverage of governments has grown very aggressively over the same period--it's up three-fourths, to 102% (note: this figure differs from that of rated sovereigns). Nonfinancial corporates are up by almost one-third, to 98%. Debt leverage for households, which are more conservative, grew just one-15th, to 64%. Financial institutions were even better, flat at 85%. There is no easy way to keep global leverage down. Policymakers and societies' acceptance of curbed spending and more debt write-downs are among the many difficult tradeoffs.

Chart 1

Global Leverage Higher Than Pre-GFC Despite Recent Easing

Debt-to-GDP (%)





Data source: Institute of International Finance. Source: S&P Global Ratings.

Weighted average debt-to-GDP (%)

2. Sovereigns

What has been the leverage trend for global rated sovereigns?

Since the GFC, the overall creditworthiness of rated sovereigns globally has slowly but steadily deteriorated. During this period, governments resorted to looser fiscal policies buoyed by "low for long" interest rates, which allowed them to support their economies through the different economic downturns of the last 15 years.

In that context, global general government debt-to-GDP, on a weighted average basis, for rated sovereigns increased to almost 93% by 2020, from 62% in 2008 (see chart 2). Over the post-pandemic period of late-2021 and 2022, this ratio improved to 87% as markets emerged from the lockdowns and inflation rose to record levels.

(Note: figures cited here may differ from those of the Institute of International Finance. We are examining the pool of rated sovereigns. Debt numbers may be adjusted for analytical purposes).

Chart 2

Global General Government Leverage Up By Half To 93% In 2020, From 62% In 2008

% 2021 2022p 2023p 2024p 2025p

p--Projection. Debt refers to gross debt incurred by national, regional, and local governments, either for governmental purposes or for lending to a government-owned or private sector entity. Internal holdings, including social security and pension fund investments in government debt, are netted out. Source: S&P Global Ratings.

Over the next few years we expect debt levels will stay at current levels. However, the worsening of geopolitical tensions and their possible effects on the world economy present significant headwinds to this scenario.

With a higher interest-rate environment and global slowdown, how are sovereigns placed to service and repay debt?

One of the key pillars of the higher debt levels was the very low interest rates maintained by central banks for the last several years. This allowed many sovereigns--most of them at the low end of the ratings scale--to access capital markets for the first time.





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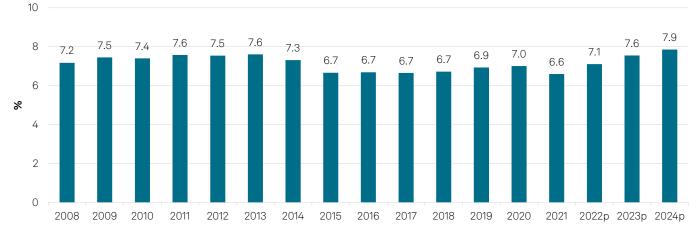
How Heavy Is The World's Debt Burden?

However, the recent sharp increases in global interest rates present serious challenges for the asset class. The weighted average interest burden has increased to close to 8% of general government revenues (see chart 3), which is higher than those before the GFC.

Chart 3

General Governments' Weighted-Average Interest Burden Is Coming Close To 8% Of Revenues

Weighted-average interest paid against revenues (%)



p--Projection. Source: S&P Global Ratings.

This situation is exacerbated when debt is denominated in a foreign currency. The recent Sri Lanka default is an example, as is the case for the eight sovereigns we currently rate on the 'CCC' category and most of those rated 'B-'. While the largest central banks in the world continue to point to even further rate hikes, more defaults or restructurings in the next 12 to 18 months are very likely.

Last but not least, this new funding dynamic also presents challenges for higher-rated sovereigns to maintain the current ratings we have on them, as it brings yet another strong headwind to public finances before they can recover from the strains imposed by the pandemic. The recent negative outlook we placed on the ratings of the U.K. is an example of that.

What challenges do sovereigns face in 2023?

The main challenge for the sector is the worsening of the geopolitical tensions. This continues to fuel inflation and rate hikes, adds pressures to weakened fiscal positions, while at the same time further increasing the conditions for political polarization and social tensions, and the likelihood of sudden destabilizing events--which, contrary to previous financial crises, can only marginally be resolved or influenced by public policy.

3. Corporates

What has been the leverage trend for global nonfinancial corporates?

In the decade through June 2022, global nonfinancial corporate leverage, as measured by debtto-GDP, rose 17% (see chart 4). This was driven primarily by China's 20% growth and emerging markets ex-China's 25%, while mature markets were relatively subdued at 8%. China's corporate debt merits special attention: Its debt of \$27 trillion as of June 2022 represents 31% of global corporate debt. Both mature and emerging markets suffered a leverage surge during COVID. But unlike almost all other economies, China's corporate leverage didn't decline much during the 2021 global economic recovery; rather it's rising again.

Chart 4

Among Major Economies, China's Corporate Leverage Is Most Worrying

Nonfinancial corporate debt-to-GDP (%)



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Chart 5

Percent of debt (%)

Rated Corporate Debt Is Two-Thirds Investment-Grade While Sample Debt Is Three-Quarters Moderately High Or Worse

Rated corporate debt Unrated sample debt 0% 20% 40% 60% 0% 20% 40% 60% 25% A and above Low 7% Moderately BBB 42% 15% low Moderatelv RR 15% 34% high B and below 44% 18% High

Source: S&P Global Ratings.

Ratings data as of Jan. 1, 2022. Unrated sample loss-makers are a subset of the 'high' category. Source: S&P Global Ratings.

With a higher interest-rate environment and global slowdown, how is the sector placed to service and repay debt?

We recently stress tested 20,000 mostly unrated corporates (see "<u>Global Debt Leverage: If</u> <u>Stagflation Strikes, Loss-Making Corporates Will Double Globally</u>," July 12, 2022) that were generally of lesser credit quality than our rated nonfinancial corporate portfolio. The rated portfolio's implied debt is two-thirds investment-grade (and two-fifths by issuer count) (see chart 5). Although not strictly a like-for-like comparison, the sample's debt-risk distribution is more pyramidal with three-quarters moderately high risk or worse.

For the sample, our base-case scenario sees corporate loss-makers (potential defaulters) rising to 10% by end-2022, from 7% in 2021 (see chart 6). In a severe stress test of lower global growth, higher inflation of 300 basis points (bps), and higher interest spreads of 300bps, loss-makers could more than double to 17% by 2023 (see chart 7). Among geographies, the China sample fared the worst under the stress test. There, loss-makers could triple to 22% under the severe stress test. With Chinese corporate debt accounting for nearly one-third of global corporate debt, this poses a contagion risk to the world.

Chart 6

Even In Our Base-Case Scenario, Loss-Makers In The Unrated Sample Rise By Over A Half By 2023

Global corporate sample (% of debt)

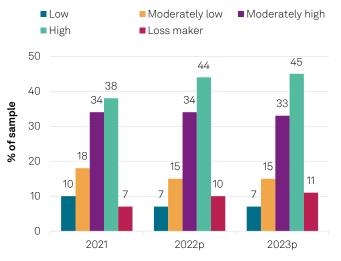
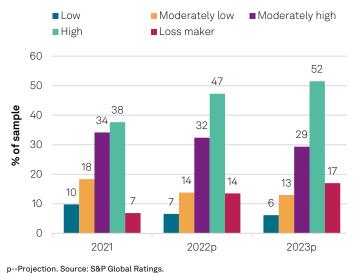


Chart 7

In Our Severe Scenario, Loss-Makers More Than Double By 2023

Global corporate sample (% of debt)



p--Projection. Source: S&P Global Ratings.

Industry sectors. In the mostly unrated corporate sample, we found that the consumer discretionary, industrials, and real estate sectors haven't fully recovered from the COVID crisis. Our stress test sees their loss-makers rise by more than half, reaching 23%, 27%, and 24%, respectively.

What challenges does the sector face in 2023?

As with other sectors, nonfinancial corporates face the risk that a sharp slowdown in the largest economies will lead to a global recession; rising margin pressures due to persistently high input costs and weaker demand; central banks further tightening monetary conditions, which causes restrictive financing conditions; and the Russia-Ukraine conflict and China-U.S. tensions exacerbating such risks (see "<u>Global Credit Conditions Q4 2022</u>: <u>Darkening Horizons</u>," Sept. 29, 2022).

4. Financial Institutions

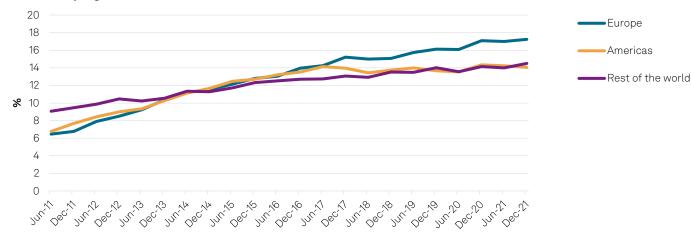
What has been the financial profile trend for global financial institutions?

Banks entered 2022 with strong capitalization (see chart 8) and liquidity, and we expect only a modest erosion by the end of 2023. This will support their ability to continue financing the economy through more difficult conditions. But banks are actively passing on higher base rates and market spreads to customers and are likely to exert greater caution in lending to more vulnerable customers.

Chart 8

Major Banks' Tier 1 Capital Ratios Have Risen Over The Past Decade

Tier 1 ratios by region (%)



Note: Group 1 banks. Data source: Bank of International Settlements. Source: S&P Global Ratings.

With a higher interest rate environment and global slowdown, how is the sector placed?

In many jurisdictions, excess savings by the private sector coming out of COVID have translated into strong deposit bases for banks. Banks' strong liquidity positions and deposit bases have substantially tempered their market needs. Also, rising rates in most cases are boosting net interest income, and while excess liquidity will gradually normalize, banks are able to pass on higher funding costs to borrowers.

What challenges do financial institutions face in 2023?

Banks and other financial institutions, like their corporate counterparts, will face materially tighter market conditions. For nonbank financial institutions (NBFIs), the picture is different than it is for banks. These entities tend to rely more on market funding and don't benefit from central bank access. For them, tighter market conditions may in some cases prove more challenging even if many have used the past years of abundant market liquidity to push out debt maturities. The default since mid-2021 of three Mexican NBFIs illustrates the possible challenges ahead if markets don't reopen rapidly enough in 2023.

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5. Households

What has been the leverage trend for global households?

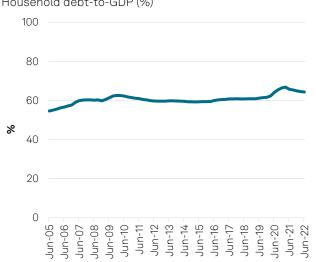
Global household debt leverage has stabilized in 2022, following a material reduction in 2021. Household debt-to-GDP declined to about 64% as of the second quarter, from a peak of 67% in the previous year, largely due to the sharp economic recovery (see chart 9). Households also benefited from the long period of low interest rates, the sharp price appreciation of financial and real estate assets, and savings accumulated during the pandemic.

With a higher interest-rate environment and global slowdown, how is the sector placed to service and repay debt?

The sector has entered a more difficult cycle. While we expect global household debt leverage to remain relatively stable in the next two years, rising interest rates mean households may have to spend a bigger share of disposable income on servicing debt. Food and energy inflation is raising vulnerabilities for lower-income households, especially in developing economies. In the U.S., lower-income households can be more vulnerable to liquidity and rate shocks as they have higher leverage and depend more on short-term debt (see chart 10). On the contrary, the energy price caps and subsidies that some governments have put in place are acting as financial support and will limit budget squeeze. Households are also exposed to the risk of real estate price correction, a trend that has already started in some countries (e.g., Australia, Canada, New Zealand, and Sweden).

Chart 9

Global Household Leverage Has Stabilized



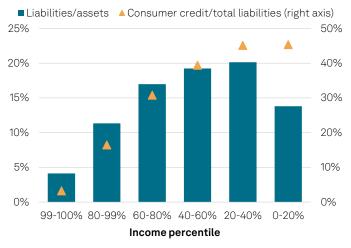
Household debt-to-GDP (%)

Data source: Institute of International Finance. Source: S&P Global Ratings.

Chart 10

Lower-Income Households Are More Vulnerable

U.S. households' liability ratio, consumer credit to total liabilities ratio by income cohort, Q2 2022



Data source: Board of Governors of the Federal Reserve System. Source: S&P Global Ratings.

What challenges does the sector face in 2023?

Despite these negative developments, we don't expect household delinquencies to rise dramatically in 2023. This reflects the still-benign situation in many job markets and our expectation of only a moderate uptick in unemployment and accumulated savings. Under a scenario with more severe stress--a full-blown recession with a sharp rise in unemployment--we would see delinquencies start to rise. As households typically prioritize mortgage and car loan repayments, asset quality would weaken faster in unsecured borrowings, including credit cards.

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6. Structured Finance

What has been the leverage trend for global structured finance?

Using U.S. and European historic issuance (see chart 11) as a proxy for the leverage trend in global structured finance, leverage in this space has grown in the past few years, but other than collateralized loan obligations (CLOs), each of the major asset classes' issuance hasn't exceeded prior peaks.

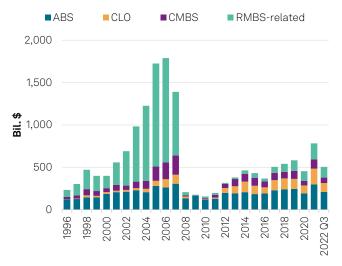
With a higher interest-rate environment and global slowdown, what is the capacity of the sector to service and repay debt?

Based on our global base-case macroeconomic forecast for 2023 (as of September 2022), in the U.S., Europe, and Australia, elevated inflation and rising interest rates will create affordability challenges for some consumers and corporations. In particular, consumer-related securitizations that are primarily exposed to lower-income consumers and CLO securitizations, which are composed of highly leveraged corporate loans, will both suffer the most negative effects to pool collateral performance. Also, commercial mortgage-backed securities (CMBS) with high exposure to certain office, retail, and lodging properties will continue to see weakness due not only to slower growth, but also to medium-/longer-term negative trends of remote/hybrid work, e-commerce, and weak group travel demand, respectively.

Chart 11

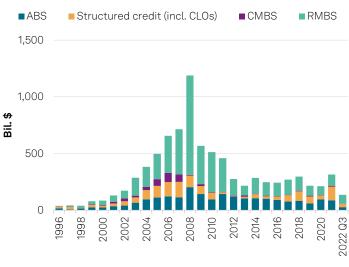
Historic Issuance In Structured Finance (1996-Q3 2022)

U.S. structured finance issuance*



*Does not include CRE CLO, agency RMBS or CMBS. Sources: S&P Global, SIFMA, Bloomberg, Commercial Mortgage Alert, Asset Backed Alert, Wells Fargo, J.P. Morgan.

European structured finance issuance§



§Includes issuance retained by originators. Structured credit prior to GFC includes collateralized debt obligations (CDOs), synthetic CDOs, and mixed products. Source: S&P Global Ratings.

What are the challenges for the sector in 2023? Obligors in structured finance collateral pools aren't immune to worsening economic conditions,

and we generally expect to see weakening of collateral pool asset quality; however, S&P Global structured finance ratings look set to generally remain resilient, with greater risk for negative effects on speculative-grade ratings. It should be noted that if macroeconomic conditions for 2023 significantly weaken, especially with regard to unemployment, that would result in greater deterioration in structured finance collateral and ratings trends.

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Related Research

- <u>Global Credit Conditions Q4 2022: Darkening Horizons</u>, Sept. 29, 2022
- <u>Global Debt Leverage: If Stagflation Strikes, Loss-Making Corporates Will Double Globally</u>, July 12, 2022

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