

ESG Developments

- According to the Rhodium Group¹, US greenhouse gas emissions increased by 1.3% in 2022, likely driven by the global energy crisis as a result of the Russia-Ukraine conflict.
 - The US remained the second largest emitter behind China, although the Inflation Reduction Act is expected to help the US get back on track to reduce its emissions.
- The National Oceanic and Atmospheric Administration (NOAA) reported that the US had 18 separate billion-dollar climate and weather disasters in 2022, with over \$165 billion in total damages.
- Over 200 nations at the UN Biodiversity Conference (COP 15) reached an agreement on the Kunming-Montreal Global Biodiversity Framework, aiming to end biodiversity loss, protect natural ecosystems, and increase biodiversity-related financing to developing nations.
 - The agreement contains 2030 targets to halt biodiversity loss and protect at least 30% of terrestrial, inland water, coastal, and marine areas.
 - There are four long-term goals for 2050 and 23 goals for 2030.

Characteristics	Bloomberg US Aggregate (Agg) & MSCI Focused Sub-Indices			
	Standard	ESG-Weighted	SRI	Sustainability
Yield to Worst (%)	4.81	4.83	4.78	4.78
Duration (Years)	6.26	6.31	6.18	6.21
Spread (bp)	48	50	45	44
Convexity	0.59	0.67	0.57	0.57
1-Yr Return (%)	-9.72	-9.70	-9.65	-9.61

As of February 28, 2023

ESG-Labeled Bonds

- 2022 corporate ESG bond issuance declined 21% year-over-year, totaling \$362 billion. Similarly, investment-grade issuance was down 12% in 2022.
- Banking, Utilities, and REITs led ESG-labeled bond issuance in 2022, while Technology, Energy, and Media had the lowest issuance levels.
- ESG bond issuance is expected to rebound in 2023, led by green bonds and sustainability-linked bonds (SLBs).
- PKN Orlen SA, a petroleum refiner in Poland, was the first company to experience a SLB coupon step-up.
 - PKN Orlen issued a SLB tied to its MSCI ESG Rating, a rare KPI to utilize. PKN experienced a downgrade from MSCI, triggering the coupon step-up.

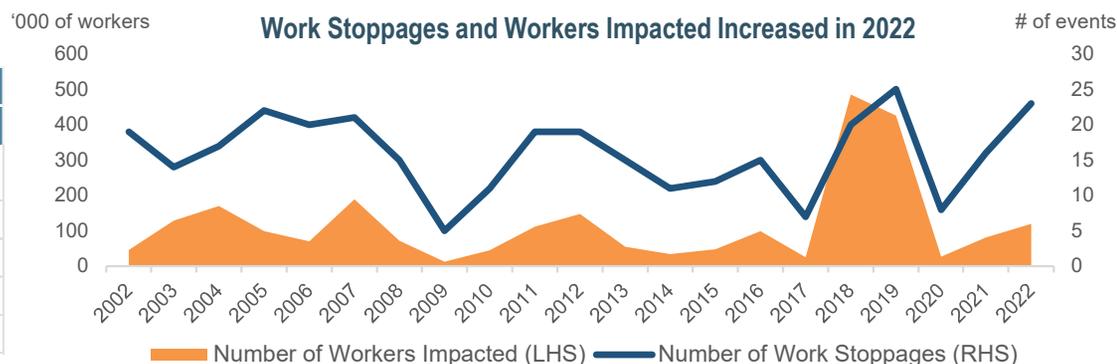
Source: Bloomberg as of March 1, 2023.

1: Preliminary US Greenhouse Gas Emissions Estimates for 2022 | Rhodium Group (rhg.com)

*This is not a recommendation to purchase or sell any specific security listed above. The issuers listed are those IR+M deems to be most meaningful during the quarter.

ESG in Focus: Labor Unrest in the US

- The Bureau of Labor Statistics tracked 23 work stoppages in 2022 involving 1,000 or more workers, which impacted 120,600 US workers. The sectors predominately effected by the stoppages included healthcare and social assistance, educational services, and health services. 2022 marked the second-highest total of work stoppages in 20 years, a close second to the 25 work stoppages in 2019.
- Contributing factors that led to the work stoppages included the need for higher pay, improved work schedules, healthcare, and retirement benefits. Healthcare and educational professionals called for better staff-patient ratios and smaller class sizes, respectively.
- Outside of the large-scale work stoppages, the US labor market saw high-profile labor strike campaigns at companies like Amazon, Starbucks, Uber, and Trader Joe's.
- Work stoppages can impact a company's financials. Considering factors such as labor relations, compensation, employee health and safety, and working conditions helps assess the likelihood of such stoppages and can provide a more holistic credit assessment.



Source: U.S. Bureau of Labor Statistics – Number of work stoppages involving 1,000 workers or more beginning in the period (2023). <https://www.bls.gov/web/wkstp/annual-listing.htm>

Issuer Headline Events*

- ESG factors influence headlines and can impact credit performance.
 - + Verizon revealed it is on track to source renewable energy for 50% of its energy consumption by 2025 and set a target of 100% by 2030. The company stated its green bonds facilitated investments in increasing wind and solar energy capacity.
 - Wells Fargo was ordered to pay a \$3.7 billion fine due to widespread mismanagement related to auto loans, mortgages, and deposit accounts. The company is ordered to pay a \$1.7 billion civic penalty and \$2 billion to over 16 million customer accounts.

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