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Water Scarcity And Its Credit Implications Across The Value Chain

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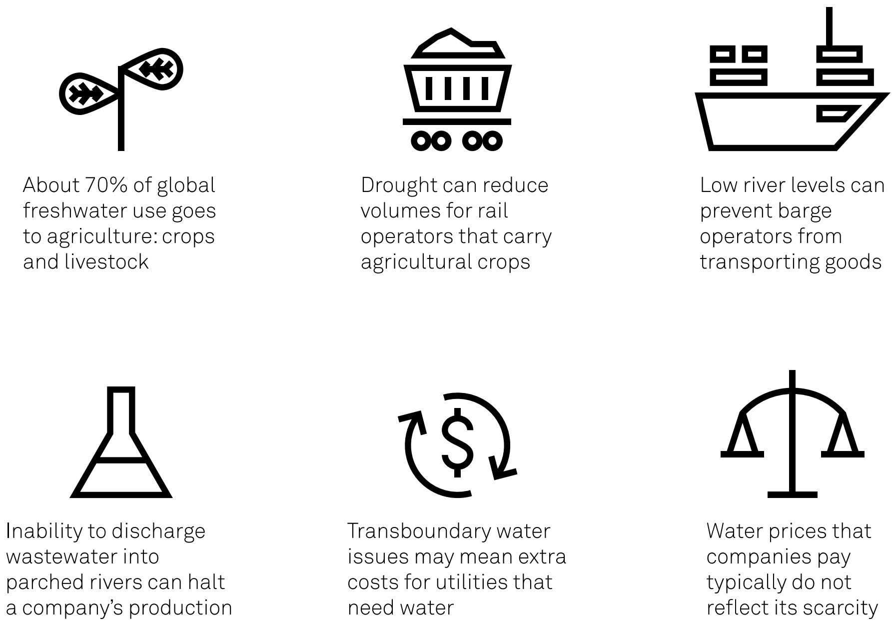
Key Takeaways

- While water scarcity is rarely material for creditworthiness outside the agriculture sector, we have seen impacts on businesses throughout the value chain. Falling water levels are negatively affecting credit ratings for logistics firms, for example.
- Regulated utilities face increasing regulatory pressure to update old systems and meet leakage targets. Although utilities aim to ensure that water prices remain low, levels rarely reflect scarcity. The low cost of water is one possible reason we rarely see credit impacts related to water.
- Currently, a lack of on-the-ground data is an obstacle for certain industries in tracking water scarcity. In the future, satellite technology and information about ecosystems could supplement existing data we use in assessing credit ratings and lead to important findings.

Water scarcity has a bearing on credit ratings in more ways than immediate meets the eye. Agriculture accounts for about 70% of global freshwater use and often captures the most attention when it comes to water scarcity. However, there are many more sectors whose creditworthiness may depend on access to water, according to a presentation, summarized here, by S&P Global Ratings credit analyst Beth Burks at the U.K. Sustainable Investments and Finance Association's annual Spring Conference that took place virtually on May 27, 2021.

We have taken several credit actions following incidents of drought, affecting various different parts of the value chain over the past several years. In Brazil, for instance, sugarcane processor Coruripe was downgraded in 2018 partly due to a lack of availability of crops for processing because of drought, which increased idle capacity at its facilities. Not all producers were affected at the time as other additional factors led to Coruripe's downgrade: worsening operating efficiency, lower sugar prices, and intrinsically high capex that undermined the company's generation of free operating cash flow. Since then, the ratings on Coruripe were withdrawn at the issuer's request. Droughts do not always lead to credit impacts for agricultural processors, for instance, when commodity prices are high enough to absorb production declines.

The Implications Of Water Scarcity Across Sectors



Source: S&P Global Ratings.

When agricultural commodities are affected by drought, this can have a knock-on effect further up the value chain. For instance, drought-related supply issues are an element of our credit analysis of Pacific National (BBB-/Stable/--), an Australian rail freight business responsible for transporting much of the country's grain.

Elsewhere, water scarcity is having an impact on the logistics chain. In Germany, cargo barges on the Rhine River, a petrochemicals waterway in Europe, face loading and transportation issues as a result of critically low water levels. This has implications for a number of different companies in the region – not only for credit ratings, but also how they manage climate-related risk. Such changes will likely lead to adaptations of traditional logistics supply chains.

The effects of water scarcity on operations

In 2018, we revised the outlook to negative from stable on the 'BB' rating on potash producer K+S (B/Negative/B), which experienced production issues at its German mines that lowered earnings. During that year, potash production was disrupted at the company's Werra plant when drought reduced surface waters of the Werra River below saline wastewater limits. As a result, the company's Wintershall, Hattorf, and Unterbreizbach sites (which form the integrated Werra plant) were forced to cut production for 38, 23, and three days, respectively, reducing daily earnings per site by €1.5 million.

These issues have not recurred since 2018 thanks to management actions. Already in 2018, the commissioning of the kainite crystallization and floatation (KCF) facility at the Werra plant allowed for a reduction of about 20% in the volume of saline wastewater from the plant. In addition, the company increased its temporary on-site storage capacity, and intends to dispose saline water underground in suitable cavities near the Werra site.

The Geopolitical Risks Of Water Disagreements

In instances where water crosses boundaries, water disputes can escalate into political issues, having a knock-on effect on utilities. Last year, for instance, territorial issues slowed progress on the Diamer-Bhasha Dam project in Pakistan. The dam, which is being constructed for hydroelectricity production, is central to the region's decarbonization strategy, but the surrounding territory is characterized by historical disputes. Similarly, the construction of the Grand Ethiopian Renaissance Dam, which Ethiopia is building on the Blue Nile – the Nile River's main tributary – has created increasing tensions between Ethiopia and Egypt.

Despite disputes of this type, there are instances where financial compensation has settled cross-boundary water issues. South Africa-based Rand Water (BB-/Stable/--), for instance, pays Lesotho on an annual basis to gain access to the country's rich water reserves, which in turn had positive implications for the utility's creditworthiness when first introduced.

Utilities Face Regulatory Pressure To Reduce Leakage

For utilities, leakage rates are grabbing increasing attention from regulators. In 2018, for instance, Thames Water was ordered to pay £120 million in fines as a result of poor management of leakage rates, which were found to be caused by old systems that had not been repaired. Utilities must ensure their capital expenditure is aligned, that is, that the necessary costs of repairs are being met without significantly increasing the bills of water users. Indeed, regulated utilities are often focused on ensuring water prices remain low, and as such, the price of water often does not at all reflect its scarcity.

New Technology And The Impact On Utilities

For sectors other than the agriculture sector, such as utilities, a lack of on-the-ground data makes tracking water usage and the effects of scarcity a significant challenge. Satellite technology and information about ecosystems can complement our use of financial ratios in assigning and monitoring credit ratings. This kind of data has already led to important findings. In the U.S., for instance, where we rate over 1,600 water utilities, we uncovered how evergreen forests and perennial ice and snowcapped mountains correlated with stronger credit ratios. What's more, green forests in the Northern Hemisphere improve water quality, while snow-capped mountains act as a natural storage for water. Both ecosystems are threatened by climate change.

Companies May Need To Brace For Disruptions

The availability of water underpins many parts of the economy, yet its use is often at very low cost or free. As such, it may not capture much attention until resources become scarce. By that time, it can have negative consequences for the creditworthiness of issuers in a variety of sectors, which can move through value chains. With climate change set to worsen droughts and floods, even companies with comparatively low water use may need to prepare for potential disruptions to wastewater treatment, logistics, or the sourcing of raw materials.

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