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Water and sewer utilities - US

2018 outlook stable as strong rate management and liquidity support sector

Our stable outlook indicates our expectations for the fundamental credit conditions driving the water and sewer utility sector over the next 12-18 months.

Strong rate management and healthy liquidity support our stable outlook for the water and sewer utilities sector. Annual debt service coverage in 2018 will remain in the range of 1.8-2.2 times debt service requirements. We expect 2018 coverage and liquidity levels to remain in line with fiscal 2016 medians, but the ability to manage the interplay between system investment, financial health and rate affordability will be key to maintaining sector stability.

» **Stable debt service coverage represents strong rate management as utilities continue to proactively adjust rates accordingly.** Coverage will remain in line with the 2016 median of 2.1 times for combined systems and 1.9 times for single service systems. Our range for a stable outlook is 1.7-2.2 times coverage.

» **Liquidity levels remain pivotal to the sector's stability.** Liquidity exceeding 365 days cash on hand indicates the necessary flexibility to absorb unanticipated revenue declines or spending increases. Strong liquidity also provides resources to fund capital projects with cash mitigating reliance on issuing debt. Sewer utilities generally hold more cash on hand due to higher capital requirements related to environmental consent decrees and stringent environmental regulations. However, liquidity levels are still insufficient to fund major capital requirements and, therefore, we expect continued reliance on debt issuance for non-routine capital spending.

» **Balancing capital investment with financial stability and rate affordability will be key to the sector's credit quality.** Utilities will need to continue sufficiently funding capital investment while still maintaining historically strong debt service coverage, liquidity and debt ratios. Identifying alternative, low cost financing sources — such as low interest state loans — to fund capital investment will be key to maintaining this balance.

» **What could change our outlook.** An increase in median coverage to more than 2.2 times debt service requirements coupled with strong liquidity and maintenance of the current asset condition could drive a positive outlook. Any of the following trends could lead to a negative outlook: median coverage levels falling less than 1.7 times, significant declines in liquidity, or deterioration in the median asset condition to below 25 years of useful life.

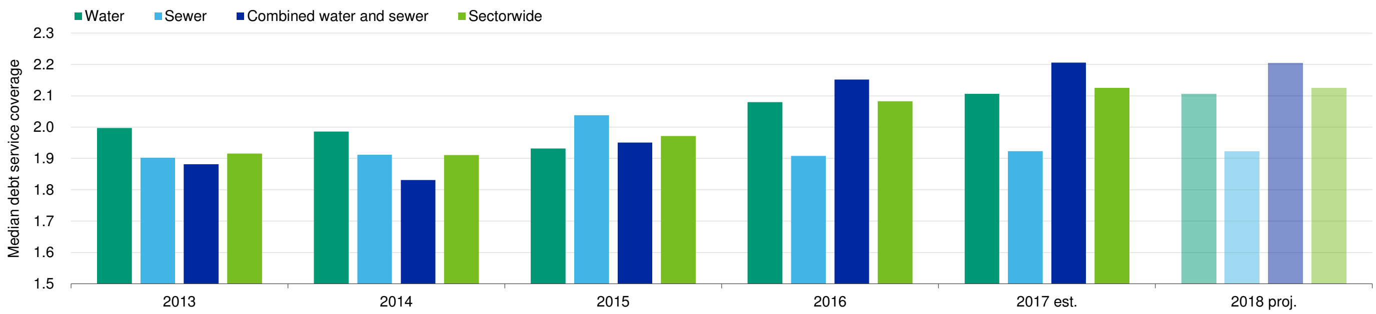
Stable debt service coverage represents strong rate management as utilities continue to proactively adjust rates accordingly

Annual debt service coverage will remain in the range of 1.8-2.2 times debt service requirements in 2018, which is in line with the 2016 median coverage of 1.9 times for single service systems and 2.1 times for combined systems (see Exhibit 1).[1] US water and sewer utilities have historically demonstrated a willingness to increase service rates to levels sufficient to support operations and debt service; a trend we expect to continue over our outlook period of the next 12-18 months.

Exhibit 1

Debt service coverage to remain healthy

Median total annual debt service coverage



Source: Moody's Investors Service

Median debt service coverage of approximately 2.1 times across the sector indicates that utilities' net revenues are roughly 60% greater than needed to provide for debt service; a key sign of financial strength that contributes to a stable operating environment.[2] Utilities typically use the revenues above the required coverage levels to further build reserves or fund capital improvements. Healthy margins also allow utilities to maintain affordable rates despite major debt issuances or capital projects. Individual issuers' coverage may decline over the outlook period, but issuers are typically quick to increase rates when needed.

Strong coverage levels mean there is extra revenue that utilities can use to manage rate increases, grow liquidity or complete pay-go capital projects. By using cash on hand for capital projects, utilities reduce their reliance on debt issuance for more affordable small projects. Cash funding routine annual maintenance or small scale projects provides a buffer for utilities to issue debt to fund expensive projects without dramatically affecting coverage levels.

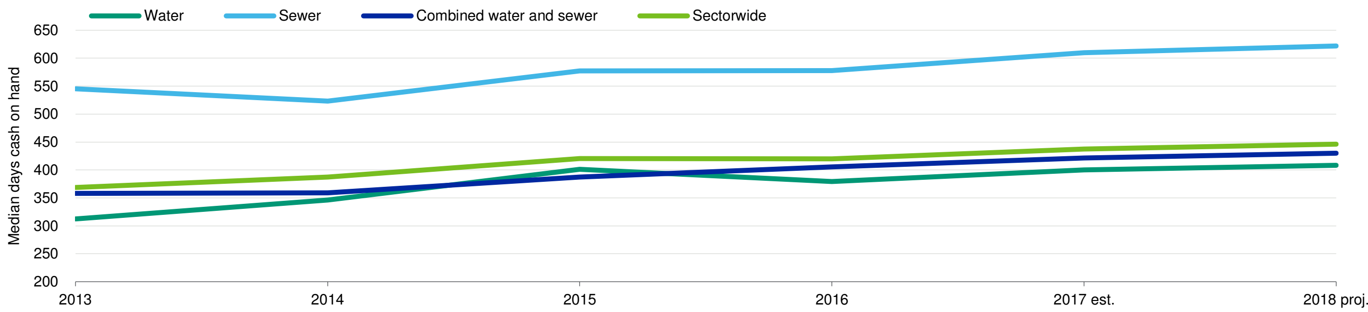
Because our outlooks represent our forward-looking view on credit conditions that factor into our ratings, a negative (positive) outlook suggests that negative (positive) rating actions are more likely on average. However, the outlook does not represent a sum of upgrades, downgrades or ratings under review, or an average of the rating outlooks of issuers in the country or sector, but rather our assessment of the main direction of credit fundamentals within the country, region or sector.

Our Macroeconomic Board forecasts US economic expansion of 2.0%-2.5% over the next 18-24 months with moderate inflation and a strong employment market. Broader employment and wage growth increases utilities' capacity for increased service charges, which we expect utilities to take advantage of. However, corresponding inflation will likely absorb these nominal rate increases resulting in little improvement in operating flexibility. In fact, inflation significantly exceeding the 2% target could actually threaten financial stability in the medium or long term if construction costs increase in tandem and greater rate increases become unpalatable to consumers. This threat is especially significant for sewer systems with large consent decrees, which require greater capital spending to comply with the decrees. Additionally, the Macroeconomic Board forecasts four federal funds rate increases through 2018, which will increase financing costs, but not sufficiently to alter our coverage expectations over the outlook period.

Liquidity is pivotal to the sector's stability

Liquidity will remain healthy as utilities accumulate reserves for future rate stabilization, unexpected system shocks and capital needs. We project median liquidity of 379 days cash on hand for water systems, 578 days for sewer systems and 406 days for combined systems to increase slightly though fiscal 2018 (see Exhibit 2).

Exhibit 2
Liquidity has steadily improved across the sector
Median unrestricted cash to operating expenses



Source: Moody's Investors Service

Sewer utilities hold more cash on hand than water utilities because sewer utilities have above average capital requirements related to the mechanical systems required to provide services, environmental consent decrees and more stringent environmental regulations. Consent decrees are enforceable long-term agreements typically issued for sanitary sewer overflows (SSOs) or combined sewer overflows (CSOs), both of which can require high dollar corrective projects to meet benchmarks of a consent decree. Deferred maintenance can be a direct correlation to the issuance of a consent decree because line breakage or improper operation and maintenance causes the system to violate environmental regulations. Consent decrees also somewhat limit operational flexibility because compliance requires the completion of projects within a specific period of time thereby diverting resources from other projects. While we project liquidity levels to continue to rise throughout fiscal 2018, levels are still insufficient to fund major capital requirements and therefore we expect continued reliance on debt issuance for projects outside the course of regular maintenance, including consent decrees.

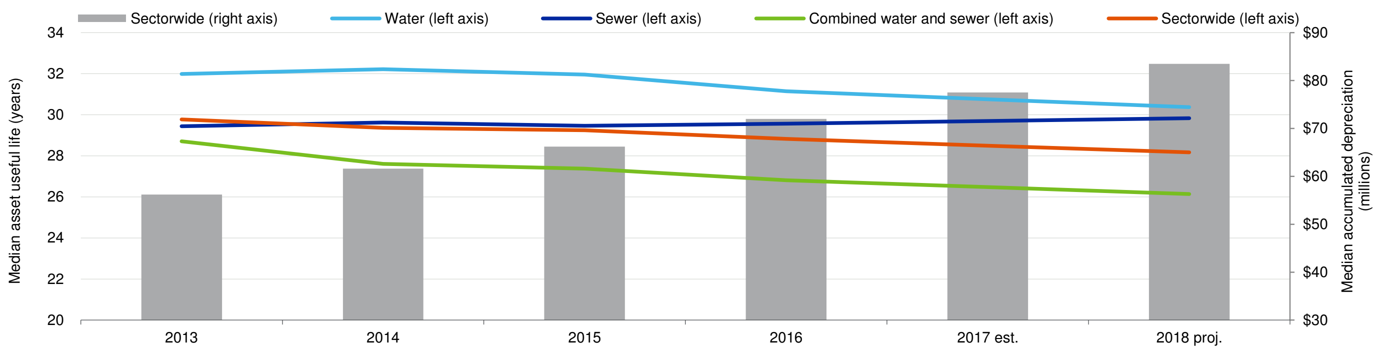
Managing the relationship between system investment, financial stability and rate affordability will be key to the sector's credit quality

When deciding service charges, water and sewer utilities must consider three factors: providing adequate debt service coverage, maintaining healthy liquidity levels, and funding system operations and investment. Successfully balancing these three factors while keeping rates at a publicly acceptable level is vital to sector stability; if any one factor takes precedence or rate increases become unsustainable, the sector's credit quality could suffer. Positively, some systems are implementing fixed maintenance fees, which are not exposed to varying levels of usage, tied to weather conditions. We expect utilities to balance these factors throughout the outlook period provided stable operations continue.

While we do not expect asset condition — the relationship between net fixed assets and depreciation — to worsen dramatically during the next 12-18 months, sufficient funding of system investment is becoming an increasingly important trend within the sector. If routine maintenance and necessary development is not funded and does not take place, it could affect credit quality. Incremental investment continues to lag system depreciation, evidenced by a declining trend in the median useful life of all systems. Declining asset condition increases the risk of operating inefficiencies, as well as malfunctions that could lead to system interruptions and regulatory or compliance issues.

Utilities tend to make large scale investments to upgrade their systems cyclically and therefore limited useful life deterioration is to be expected in years when only regular maintenance occurs. The median remaining useful life of combined systems will decline to 26.1 years in 2018 if current trends persist, a 2.1 year decline since 2012 (see Exhibit 3). Sewer systems are expected to remain essentially flat relative to 2012 and water systems are on track to decline to 30.4 years, a 2.4 year decline since 2012. Sectorwide, the median useful life is on pace to fall to 28.2 years by 2018, a 2.0 year decline from 2012. However, these levels remain within a range consistent with our stable outlook.

Exhibit 3
Asset useful life declining; depreciation outpaces system investment



Source: Moody's Investors Service

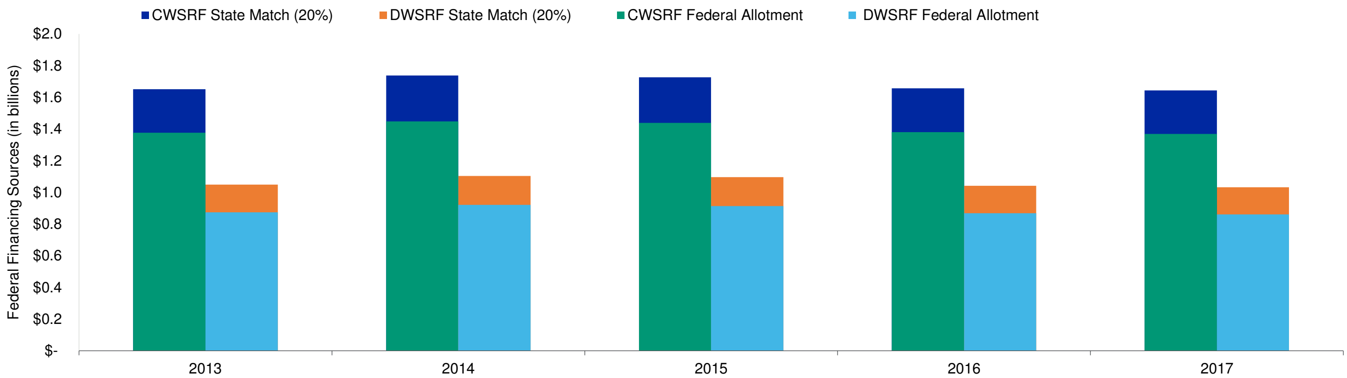
Autonomous rate setting aids in maintaining coverage and liquidity, and systems will seek to balance rate affordability against system investment. Manageable debt burdens across the sector act as a mitigant so that systems can still integrate modest debt issuances and maintain current coverage levels. However, failure to charge rates sufficient to provide for operations and regular system maintenance could threaten the efficiency of the very service that supports the system and mounting inefficiencies and malfunctions could eat into the credit positive effects of strong rate management and liquidity growth.

In addition to financing projects with reserves or rate increases, access to below market rate loans will enable greater system investment, provided federal and state assistance keeps pace with demand. Through the Drinking Water State Revolving Fund (DWSRF) and the Clean Water State Revolving Fund (CWSRF), the federal government allots grants to all 50 states and Puerto Rico. The states are required to provide a 20% match, but are free to determine how to allocate the funding of the respective program; most states allocate financing through low interest state loans. Together, the federal and state governments have allocated $13.7 billion since 2013 (see Exhibit 4). We expect funding levels to remain consistent, but federal budget constraints could affect their availability. Additionally, funding levels have not grown significantly since 2013, and as plants and equipment age, there is likely to be increased competition throughout the sector for these resources.

Exhibit 4

Federal and state funding support capital investment

Funding level 2013-17



Sources: Moody's Investors Service; Environmental Protection Agency

Federal funding via emergency legislation such as the Water Infrastructure Improvements for the Nation Act of 2016, which provided $100 million through the EPA for infrastructure upgrades in Flint, MI, is unlikely to become commonplace because most utilities do not face the extraordinary situation experienced in Flint. Therefore, it is imperative that annual capital expenditures provide for regularly scheduled maintenance to ensure large scale bonded projects do not ballon as a result of deferred maintenance. Additionally, a pragmatic approach to pay-go capital investment will allow limited low cost alternative financing sources to meet the needs of more systems throughout the sector.

Responding to extreme weather events

Extreme weather events — such as hurricanes Harvey, Irma and Maria this year — will continue to pose operating and capital challenges to water and sewer systems. However, the availability of federal funds that provide resources for recovery efforts largely mitigate these challenges.

For example, The Nassau County Sewer and Storm Water Authority's Bay Park Sewage Treatment Plant was severely damaged during Superstorm Sandy in October 2012. The cost of storm-related repairs and mitigation measures, totaling $810.7 million, are fully funded by FEMA and New York State.

Federal disaster aid is crucial because many state and local governments do not have the liquidity or financial wherewithal to cope with a major disaster without a serious deterioration in credit quality. Congress has shown a willingness to appropriate emergency funds for the truly large-scale disasters that would otherwise have the potential to financially devastate local governments. We expect that political support to continue.

For more information on FEMA and the relationship to state and local governments please see our report "FAQ: Proposed FEMA cuts would have modest impact on state/local governments."

What could change our outlook

Coverage levels exceeding 2.2 times debt service requirements coupled with strong liquidity and maintenance of the current asset condition could drive a positive outlook.

Any of the following trends could lead to a negative outlook:

» Median coverage levels falling below 1.7 times

» Significant liquidity declines

» Deterioration in the median asset condition across the sector to below 25 years of useful life

Additionally, given the linkage between utility enterprises and local governments, an outlook change for the US Local Government sector could lead to a similar change in outlook for water and sewer systems.

Moody's related publications

Outlooks:

- Cross-Sector - Global: 2018 Outlook: Credit conditions improve as healthy economic growth moderates financial stability and political risks, November 2017
- Global Macroeconomic Update (2018-19): Broadening emerging market recovery and stable growth in advanced economies, November 2017
- Sovereigns – Global: 2018 outlook stable as healthy growth tempers high debt, geopolitical tensions, November 2017
- Local Government - US: 2018 outlook stable as tax revenue grows slowly; pressures intensify for some issuers, December 2017

Sector In-Depth:

- Municipal Water and Sewer Utilities - US: Medians - Sound Financial Metrics Signal Continued Stability, March 2017

Methodology:

- US Municipal Utility Revenue Debt, December 2014

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

Endnotes

1 2016 is the most recent available because audit information for fiscal 2017 is not yet available.

2 The median rate covenant across the sector requires entities maintain coverage of at least 1.2 times debt service, measured at either maximum annual, current or average debt payments.

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