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Century Bonds Create Opportunities and Challenges for US Public Infrastructure Issuers

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US public sector infrastructure agencies create near-term opportunities and long-term credit challenges when issuing bonds with maturities as long as 100 years, known as "century bonds". These issuers oversee substantial long-lived infrastructure assets such as water/sewer systems, bridges and roads and generate predictable cash flow but typically have modest balance sheets. Century bonds can provide near-term operating flexibility by pushing out debt repayment costs but in the long-term increase overall debt costs and weaken other debt metrics. Only a few infrastructure issuers have borrowed at such long maturities, but historically low long-term interest rates provide opportunity for more to do so. Other types of issuers with different credit profiles, such as universities and global corporations, more regularly issue century bonds.

» **A few infrastructure issuers have used century bonds and others may be attracted to the concept of matching long-lived assets with similarly long-dated debt.** The District of Columbia Water and Sewer Authority (DC Water, Aa2/stable) and the Port Authority of New York and New Jersey (Aa3/stable) have issued century bonds. Other infrastructure issuers financing large capital projects, perhaps resulting from regulatory mandates, may find spreading the costs over as long as 100 years especially appealing.

» **Infrastructure issuers using century bonds defer user fee increases and delay recovery of capital costs compared to traditional debt structures,** These issuers face public scrutiny when raising user fees, so they may be challenged to generate sufficient revenue to sustain debt service coverage and recoup costs for large capital programs within traditional recovery periods. By issuing century bonds they can spread the cost of long-lived assets over a much longer period compared to traditional 30 year bonds. This has near-term benefits for debt service coverage but increases overall debt costs and skews other credit measures such as debt to revenue and debt payout ratio. The credit impact on an infrastructure issuer will likely be modest when century bonds are a small share of total debt.

» **Century bonds issuance has been greater among universities and corporations.** Universities with substantial endowments have issued the most century bonds in recent years, taking advantage of their ultra-long investing horizon and ability to service debt from balance sheet earnings without resorting to operating cash flow. Large corporations with global brands and perceived staying power, have also issued century bonds.

Mandated projects make ultra long-term debt attractive to some infrastructure issuers

The capital spending needs of certain infrastructure sectors, especially the water/sewer sector, can be driven by regulatory mandates. The long-term capital spending plans of these issuers may include projects agreed to as part of consent decrees reached with a regulatory body to settle environmental regulatory disputes. These legal settlements resolve litigation between a regulated entity and a regulator seeking to enforce environmental rules. Depending on their size and scope, mandated projects can reflect the majority of an issuer's capital spending; this is sometimes true for a period of years because consent decrees often require that projects be completed within a certain timeframe.

The added costs of these projects and in some cases their unique nature has led some issuers to seek innovative ways to finance them to mitigate their financial impact. One recent example is DC Water. In July, it sold a $350 million century bond to help finance a part of the $2.6 billion consent decree mandated Clean Rivers Project, a series of tunnels designed to capture combined sewer overflows (CSOs) during storms or other periods of flooding and hold them until DC Water's Blue Plains Advanced Wastewater Treatment Plant has the capacity to treat them. Storing the CSOs will help reach the goal of the consent decree: preventing them from being discharged into the Potomac and Anacostia rivers during times when the Blue Plains plant is above capacity.

Mandated projects reflect 41% of DC Water's capital plan, and the tunnel project is different from DC Water's typical repair and replacement capital needs. The authority's engineers and an independent engineering study showed the tunnels are designed for at least a 100-year useful life. DC Water sought to both match the useful life of the asset with the debt and to reduce its near-term financing costs by issuing the century bonds, which pay interest only for 90 years and then sinking fund deposits in the final ten years. Ample, investor demand allowed DC Water to both increase the deal's size from the planned $300 million and reduce the bonds' yield from its original assumptions.

Century bonds trade near-term deferral of rate increases and recovery of capital investment costs for greater long-term debt costs

The issuance of ultra long-dated debt such as century bonds by infrastructure issuers defers rate increases or cost reductions in the near to medium term, which runs counter to a key credit strength of infrastructure enterprises: the ability and willingness to raise rates to recover costs of operating and investing in the system. From an operating perspective, a century bond issuer gains flexibility by deferring debt service costs far into the future. Delaying or reducing the size of rate increases also provides political relief from rate payers weary of consecutive years of higher charges.

From a longer-term perspective, adding century bonds to a debt portfolio can weaken an issuer's flexibility and raise long-run costs. Compared to a traditional 30-35 year amortization for an infrastructure issuer, a 100-year structure more than triples the total debt service costs. Depending on the amount of ultra-long dated debt issued, the impact on annual coverage ratios can be minimal. However, the adverse affect on other flexibility metrics such as debt to revenue and debt payout ratio is more significant since century bonds generally are issued as interest only until late in the debt service schedule.

Our analysis includes comparison of existing debt service coverage and estimated coverage if the proposed century bond was issued with a traditional amortization. Borrowers with larger proportions of their outstanding debt issued as century bonds gain more debt service relief (see Exhibit). Examining the impact on coverage if that debt was issued with a shorter maturity indicates the extent to which the issuer's near-term financial position is strained by their capital needs. Because management will turn over many times during the life of a century bond, we also consider the issuer's overall management and governance, its debt polices and how they address long-dated debt. Broader use of century bonds by an infrastructure issuer could indicate decreased ability and willingness to raise rates to meet expenditure needs, even with good debt management policies in place.

EXHIBIT 1

Century Bonds Create Opportunities and Challenges for US Public Infrastructure Issuers

	90% Amortizing/10% Century Bonds	100% Amortizing/0% Century Bonds	70% Amortizing/30% Century Bonds
Debt Service Coverage	1.20x	1.12x	1.52x

Century bonds issuance rare among infrastructure issuers but has seen greater use in corporate and higher education sectors

Only two US infrastructure enterprises have issued century bonds to date: DC Water this year and the Port Authority of New York and New Jersey in 1994. The US higher education sector has issued century bonds more frequently, with approximately $3.8 billion sold since 1996. Leading institutions in the higher education sector, such as Yale University (Aaa/stable) and the Massachusetts Institute of Technology (Aaa/stable), possess large endowments far in excess of their debt obligations. The investment horizon of these large endowment is ultra long-term, effectively seeking to maintain their balance sheets and services in perpetuity. They are also perceived to have strong national and global reputations that will maintain demand for their services over the long-term. Their strong balance sheets are not a typical feature of infrastructure issuers. Recently, the Cleveland Clinic Health System (Aa2/stable) issued a $400 million century bond, the first one for a US not-for-profit healthcare issuer.

Century bonds have also been issued in the US by the Coca-Cola Company (Aa3/stable), the Walt Disney Company (A2/stable), Norfolk Southern Corp. (Baa1/stable) and a number of other corporate issuers. The relatively broader use of century bonds by these issuers demonstrates strong appetite among institutional investors for ultra-long term bonds for well-known industry leaders perceived as strong and stable credits.

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