

Viewpoint

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Pooling Water Projects to Move Beyond Project Finance

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Many commercial banks have had little interest in water and sanitation projects not only because of noncommercial political and regulatory risks, but also the small size, weak local government credit, and high transactions costs (the legal, consulting, and financial costs of structuring). Most projects have been financed on a limited recourse basis, that is, with project cash flows and assets as the main security for lenders. The move from project to corporate (balance sheet) financing is occurring in stages. Financing project debt from the sponsor company's balance sheet exposes that company to significant risk and thus requires a strong and large balance sheet. Designed in part to shield a company's balance sheet and improve a project's credit strength, innovative structures and financial instruments are emerging. Ultimately, the goal is for water utilities to raise debt and equity from capital markets on the basis of their own balance sheets, strengthened by a diversified and stable rate-paying customer base. This Note reviews the new trends.

In the transition from government to private financing, projects in the water and sanitation sector require a heavy focus on risk allocation and mitigation, which has often implied drawn-out negotiations before and sometimes after financial closure. To address noncommercial risk, many projects have required some form of ongoing government or third-party support (see Viewpoint 151). To transform themselves into economically viable enterprises, projects must mitigate commercial risks and gain credit strength (significant cash for investments and the ability to raise funds from capital markets). Risk pooling structures and asset aggregating instruments may be one way to achieve the funding objectives:

- Financing of project debt on the basis of the sponsor's balance sheet, or corporate finance (pooling risks with the corporation's other activities).
- Equity funds to leverage sponsors' equity and attract a larger group of investors.
- Bundling of water and sanitation projects to form economically viable entities that can be attractive to lenders.

- Integration of water and sanitation utilities with other utilities (such as natural gas distribution or power generation and distribution entities) to form holding companies with stronger balance sheets.

Corporate finance and capital markets

Corporate finance can simplify the transition to capital market financing because the risk of a project's debt is absorbed in part by other corporate activities. As in other sectors, projects in water and sanitation have been financed with some ("limited") recourse to a sponsor's balance sheet. This mechanism focuses project performance incentives but is generally costly in terms of time and resources.

Increasing balance sheet financing may require significant industry restructuring, such as consolidating the ownership and operation of water utilities in a region or encouraging the integration of different utility sectors (box 1). Such





restructuring is already happening. Malaysia has bundled its entire sewerage system under one concession, a case of project pooling. While this project has forgone the benefits of comparative competition achieved when systems operate side by side, it creates the potential for securing revenue streams to finance a large number of small investments that would not be commercially viable on their own.

In the long term, however, achieving financial and operational sustainability will require a utility to finance investments from internal cash and long-term bond issues. As the English and Welsh water companies demonstrate, water projects have the potential to do this. Once established, they can produce stable revenues that not only permit internal financing but also allow access to a much broader class of investors through bond issues. Among developing country projects, only Aguas Argentinas has moved significantly in this direction: internal cash generation accounted for 9 percent of fi-

ancing in the first three years and was expected to rise to 30 percent in the next three.

The use of bond financing by privately financed water projects and utilities is relatively new. Leading the way, the English and Welsh utilities have used bond financing based on their balance sheets. In most developing countries, however, the development both of bond markets and of economically viable water utilities is at an incipient stage. The United States has the most mature bond market for municipal infrastructure; its development has been aided by tax exemptions and credit enhancements (see the discussion below on state revolving funds). Although the funds are used primarily by utilities owned by local governments, this "municipal" bond market taps private financing.

Equity funds

Over the past few years infrastructure equity funds have provided a means by which developers can raise financing for infrastructure projects and investors can participate in this emerging market. Such funds can be particularly attractive to infrastructure developers because they allow them to leverage their contributions with those of other investors and thus to spread their capital. For investors, equity funds mitigate project and country risk by creating a portfolio of projects under one company.

The French water and sanitation company Lyonnaise des Eaux, for example, introduced an infrastructure equity fund in Asia in 1995, a US\$300 million water fund. Besides Lyonnaise, contributors to the fund include Allstate Insurance Company, the Employees Provident Fund Board of Malaysia, and the Lend Lease Corporation of Australia. Investors are expected to benefit from the water company's significant market position and deal flow in the region. The fund refinances the equity of the original sponsors. Thus it conserves sponsor equity for the riskier development phase; sponsors apply their expertise in the early phase to get projects started and can then move on to other projects. Investors in the fund expect to receive steady, utility-like re-

BOX 1 PROJECT FRAGMENTATION

New investments in the water and wastewater sector tend to be much smaller than those in other infrastructure sectors because of the market's fragmentation. Municipalities are in charge of water and sanitation, so investments in facilities reflect demand only within their jurisdictions. The Mexican wastewater program, for example, will build many small wastewater plants, with an average cost of about US\$25 million to US\$30 million. Even where large investments are expected, they are spread over time, keeping pace with growth in demand. The massive Buenos Aires concession is expected to make investments worth a few billion dollars over its lifetime, but the initial financing was for less than US\$200 million. Similarly, the Manila concessions are expected to invest about US\$5 billion over thirty years, but the initial round of financing probably will not exceed US\$350 million. This pattern of small, incremental investments contrasts with that of power and transportation projects, which typically require large investments over a short period and gain the attention, and often the support, of national governments.

turns and potentially stand to gain significantly if the fund or a portion of it is publicly listed.

Houston-based Enron Corporation used a similar strategy, though the fund took the form of a publicly listed company. In 1994 Enron packaged its emerging market power plants and natural gas pipelines in a new company that it floated on the New York Stock Exchange. Capitalized at about US\$165 million, Global Power and Pipelines (GPP) included the assets of two power plants in the Philippines, a power plant in Guatemala, and a natural gas pipeline system in Argentina. Enron retained a 50 percent share of the company and sold the rest to investors. GPP has the right to buy into projects developed by Enron at favorable prices, providing Enron an ensured exit mechanism to free up capital for high-risk, high-return development opportunities.

EBRD's private multiproject financing facility

To mobilize private investment in Eastern Europe, the European Bank for Reconstruction and Development (EBRD) has developed a multiproject financing facility (MPF) that provides a framework for financing a series of projects that may be too small to be considered individually. The MPF is made available to a private company, which uses the facility to make equity investments in and loans to private water and sanitation projects. Under this arrangement the company largely takes on the task of due diligence, which helps to reduce the transactions costs for each project financed.

EBRD signed its first MPF in July 1995—a US\$90 million equity and loan facility with Lyonnaise des Eaux. The company was recently awarded a project that could be the first to access the facility, a US\$41 million, twenty-five-year BOT (build-operate-transfer) wastewater treatment project in Maribor, Slovenia (population 150,000). In 1996 the second MPF was signed, with three Austrian companies. The agreement involves a S 700 million (approximately US\$140 million) equity and loan facility to support an investment program of S 2 billion. The Austrian

companies will also receive financial support in the form of a guarantee from the East-West Fund of the Austrian Finanzierungsgarantie GmbH.

State revolving funds

In the United States the federal government has supported state and local governments in financing the construction of wastewater treatment plants since the 1950s. In 1987, in an effort to delegate more responsibility to state and local governments, the U.S. Congress replaced the existing grant funding with a program to capitalize state revolving funds (SRFs). States are required to contribute an amount equal to at least 20 percent of the federal capitalization funding. The program is aimed at leveraging federal resources and creating a renewable and perpetual source of financial assistance for wastewater infrastructure. Unlike with grant funding, the need to repay SRF loans introduces an important element of accountability, as well as a basis for new loans.

The structure of each state's revolving fund program depends primarily on the state's needs and circumstances (such as its borrowing limit and ability to repay loans). Some states use program funds to provide direct loans to local governments of up to 100 percent of a project's cost at below-market rates. Others provide excess reserves or excess debt payment coverage that helps secure bonds backed by the revenues of a wastewater facility. Program funds may be used as collateral to borrow new resources; because several jurisdictions borrow on the basis of the same collateral, spreading the risks, the overall costs of borrowing are lowered.

The large, diversified pools of municipal borrowers created under SRF programs are attractive to lenders because they spread the risks of debt payment interruption or default. Pooling projects for financing on a statewide basis also makes it more economical for credit rating agencies to evaluate credit risks. While a single project might not be large enough to justify a credit assessment, a large group of projects will be attractive. Credit rating agencies provide important information to prospective lenders about the creditworthiness



of SRF programs by, for example, assessing and monitoring reserve fund and debt coverage levels and evaluating the size and composition of the borrower pool. Size and diversity matter. Rating agencies have found that smaller pools (20–100 borrowers) generally face more stringent credit requirements from lenders than larger pools because the behavior of individual borrowers has an amplified effect. For pools with fewer than twenty borrowers the weakest borrower tends to determine the credit rating.

The revolving nature of the funds has had a significant effect on purchasing power. According to the U.S. Environmental Protection Agency, funds invested in the SRFs provide about four times the purchasing power over twenty years than funds used to make grants. Even so, the funds represent only a fraction of the investment needed to upgrade municipal plants. In 1997 states were expected to make SRF loans of US\$3 billion, compared with US\$11 billion in total capital investment in wastewater infrastructure from all sources (federal, state, and local).

Multiutilities

Deregulation and increasing competition in industrial countries are creating pressures for different utility sectors to combine. By combining, utilities hope to achieve not only economies of scope but also larger balance sheets and increased credit strength (through diversity) to attract long-term private financing. The trend has been most pronounced in the United Kingdom but is growing elsewhere. United Utilities and ScottishPower, two of the three U.K. multiutilities, provide utility services that run the gamut—principally electricity generation and distribution and water and sanitation, but also gas distribution and telecommunications services.

Multiutilities in developing countries may soon play a growing role. Argentina and Slovenia have combined gas and water utilities. In Côte d'Ivoire the project company developing the water supply concession went on to develop the electricity distribution system and a power generation project. This multiutility approach is being

adopted in the concessions recently awarded in Casablanca and Gabon and is being considered for water and power projects in the Republic of Congo. However, the implications for the concentration of monopoly power are a concern. Chile recently passed a law prohibiting owners of water utilities from simultaneously owning power distribution or telephone service in the same area.

Conclusion

As a utility matures and its revenues become increasingly predictable and secure, its financing structure can be expected to shift to corporate finance or greater balance sheet support. Internally generated revenues are an important source of funding for water projects that have achieved a stable and diversified customer base. And strong balance sheets permit utilities to obtain external financing by issuing long-term debt to a broader class of investors. As a result of high political risk and shallow or nonexistent capital markets, in developing countries the work of building stronger balance sheets and tapping capital markets generally takes time, however.

New financing techniques in other sectors and their early applications in water and sanitation suggest that pooling projects may be a way to move beyond project finance, particularly for the many small projects that need financing. Multiutilities, entities that deliver multiple infrastructure services such as water and electricity, offer another approach to attracting private capital. These multiutilities can gain credit strength through a diversified revenue base that enhances the prospects for corporate finance.

The Note is based on a longer paper by the authors, "Tapping the Private Sector: Approaches to Managing Risk in Water and Sanitation" (RMC Discussion Paper 122, World Bank, Resource Mobilization and Cofinancing Vice Presidency, Washington, D.C., 1998).

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