

TECHNICAL NOTE: LEVERAGED VERSUS NON-LEVERAGED WATER REVOLVING FUNDS

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The purpose of this technical note is to comment on leveraged versus unleveraged revolving funds, and to outline the case for unleveraged funds in countries that are in the early stages of water sector reform and transition to bankability.

We all know that there are both leveraged and unleveraged funds operational around the world. For example, out of the 51 US wastewater revolving funds, 21 are unleveraged, and 30 are leveraged. And out of the same number of water revolving funds, 31 are unleveraged. Even in the US, with creditworthy local utilities and local governments, and with sophisticated capital markets, unleveraged funds have their place.

Unleveraged water funds can also be found in developing countries. Cote d'Ivoire has an excellent example of an unleveraged water revolving fund that finances new water connections for poor customers.

In many countries – such as Armenia, Montenegro, Nepal, Uganda, and Zambia – it is premature to try to establish bond pools or leveraged revolving funds. The borrowers – both utilities and local governments – are not very creditworthy. In addition, the capital markets offer little beyond one or two year bank loans, and these are generally at interest rates that are not feasible for capital projects. The fact that banks throughout Asia generally require collateral of 100% to 150% is another challenge for financially weak utilities.¹

There are several reasons why we establish revolving funds, and that reasons go well beyond just providing water and sewerage utilities access to local capital markets. What are the other purposes of revolving funds? Among others, they include

- helping utilities transition from reliance on capital grants to using loans;
- providing a prudent mechanism for channeling public sector resources into water and sanitation investments (yes, these are sometimes technically subsidies...);
- lowering the cost of service for water and wastewater services that are considered to be in the public interest;
- providing technical support and supervision to local utilities, as is done under the U.S. model.

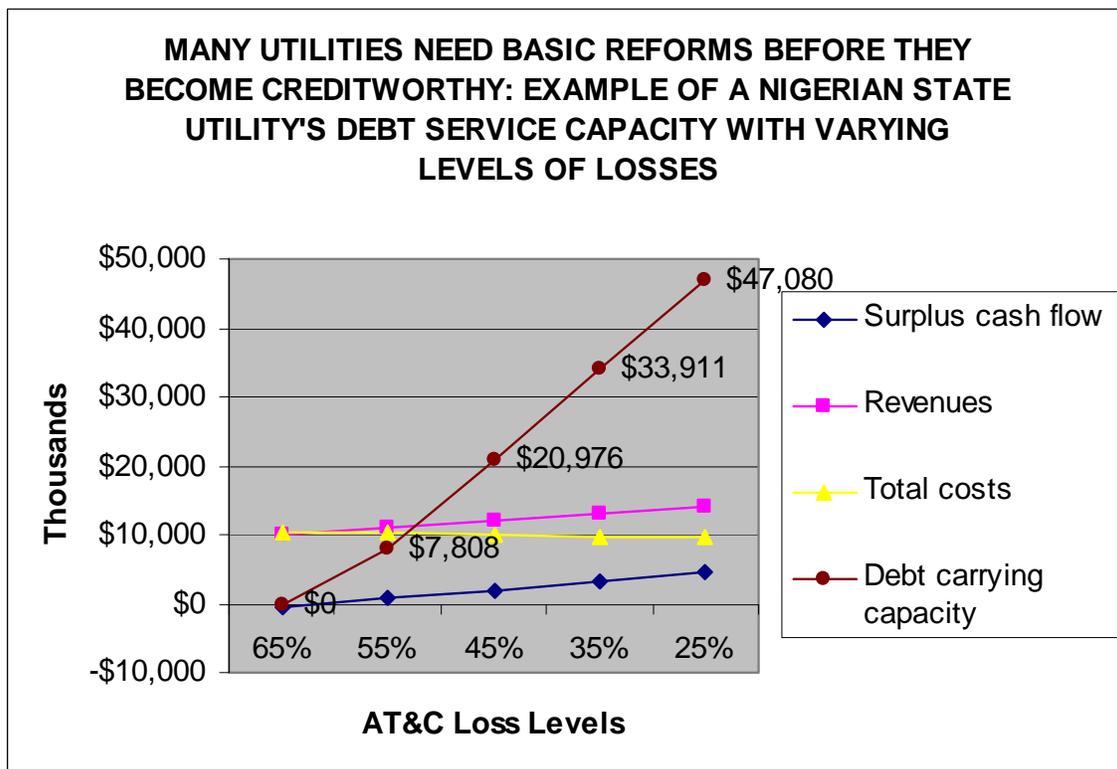
All of these are reasons that can justify either leveraged or unleveraged funds. The choice between leveraged and unleveraged has to do with a combination of factors, including

¹ There are exceptional cases where countries with undeveloped capital markets do innovative project financings on a private placement or commercial term lending basis. For example, IPPs in Nepal have been financed through both private bank loans and through private placement of project revenue bonds.

whether the local capital markets can support a leveraged fund, where a country is in its water sector reform program, and the financial capacity of the water and sewerage utility borrowers.

The Importance of Non-Leveraged Funds During Early Transition Stages

Non-leveraged revolving funds are particularly suitable to places where the water and sewerage utilities a sound utility reform program is underway, and where water utilities are moving toward creditworthiness. This is a common situation in the vast majority of countries where USAID works. By creditworthy, I mean that the utility has the free cash flow – enough cash – to pay its bills and to service its debt under a revolving fund.



When utilities are financially troubled, they usually have a fairly predictable combination of problems that include low billing and collection efficiency, lots of unregistered and illegal connections, and so forth. It is well known that many utilities can become financially viable reasonably quickly if they begin to issue bills, collect, and register all the consumers who are actually getting service. As Greg Houston, a water regulatory expert who advised us on the Good Practices in Water Utility Regulation study put it

“Many developing country water utilities will quickly reach a breakeven point on operating income if they can just bill and collect for the water that they already deliver to customers.”

Let me give an example of the potential for a real water utility to transition to financing its own capital needs over time. The chart above provides an analysis of the debt

servicing capacity of an African utility, Plateau State Water Corporation, in Nigeria. I developed this using PSWC's actual financial statements in 2003.

PSWC had revenues of about \$10,000,000 in 2001. Their aggregate technical and commercial losses, meaning total loss levels for all reasons, was about 65%. This is not an unusual loss level for utilities in countries where USAID works. With this level of revenues and losses, PSWC had no debt service capacity. In fact, they were actually operating at a cash loss, which they dealt with by not paying all their bills and not spending much on maintenance. However, if good management is in place – for example through a management contract, lease, or Ugandan style corporatization arrangement – these losses should come down to a 25% to 40%.

One can see from the chart that this would enable the utility to carry somewhere between \$20,000,000 and \$47,000,000 in debt, assuming concessional lending rates. The utility needs about \$20,000,000 to rehabilitate itself according to initial engineering estimates. Hence, this utility can basically finance its own capital development needs, IF IT IS REFORMED.

A similar situation is developing in Uganda, where the government formed a national water utility corporation a number of years back, and instituted an innovative “delegated management contracting” system. Under this system, town water supply networks are bid out for 2 or 3 year operating contracts, and the operator is incentivized to improve the performance of the system. This has worked quite well for 5 years, and at this point it is reported that the National Water and Sewerage Corporation pays for 40% of its capital investment needs out of internally generated earnings.

Getting back to the point about revolving funds, however, it is important to note that in the early years of “transition” to bankability, the utility has little or no debt service capacity. This is the point when a non-leveraged revolving fund makes sense. At this time, loans are needed to finance the early years of transition to bankability. During this period the utility is put under some kind of new management and governance arrangements designed specifically to support transition. You have to start somewhere, and starting with low cost loans from an unleveraged fund is often preferable to giving yet another capital grant. In these early years, the utility's bankability is enhanced through small, relatively low interest rate loans that go to rehabilitation of the utility, installing new commercial systems, basic leak detection and repair systems, metering, and other investments that have large effects on loss reduction.

Once the utility has brought its performance in billing, collection, and other key areas to a level that generates sufficient operating income, the revolving fund could be modified to allow it to borrow some of its capital from banks or other institutions. It is at this point that the fund will have a credible track record of repayments from bankable utilities. This is when leveraged funds may be the right approach. However, as we've seen from the U.S. case, even after we have bankable utilities, the unleveraged model may be preferable.