Private Equity, Public Inequity

THE PUBLIC COST OF PRIVATE EQUITY TAKEOVERS OF U.S. WATER INFRASTRUCTURE

food&waterwatch

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Executive Summary

Investment bankers and other major financial players are increasingly interested in taking control of water and sewer services across the United States. Private equity vehicles are armed with more than $100 billion for infrastructure worldwide. Although most deals in the U.S. water utility market have involved existing private sector companies, a number of fund managers anticipate that the ongoing fiscal crisis will drive some governments to privatize their water infrastructure. To make that prediction a reality, major financial interests are backing various government proposals that facilitate privatization and private financing of public infrastructure.

This is an alarming development. Private equity players typically focus on short-term profits and may seek to flip assets after driving down service quality and driving up prices. Households and businesses could end up paying more for inferior service.

Key findings:

- There have been only half a dozen sizable private equity takeovers of water and sewer services in the United States, but four new deals were nearing consummation or awaiting regulatory approval in 2012. (See Table 1, page 4.)
- Major financial firms are promoting large, complex and risky privatization deals, which essentially act as high-interest credit cards to finance budget shortfalls and infrastructure projects. Cash-strapped governments lack the bargaining power and know-how to properly negotiate these deals.
- Private equity players have targeted annual returns of at least 12–15 percent.
- Private equity players usually flip assets within a decade.
- Private equity takeovers tend to be highly leveraged and risky.
- Private equity players are notorious tax avoiders and evaders. In the last five years, for example, the Carlyle Group made more than $4 billion in profit but paid an effective income tax rate of only 2 percent.
- Private equity takeovers restrict transparency and accountability.

Given the risks and costs associated with privatization, governments should not transfer control of their water and sewer services to investment bankers or other private interests. Cash-strapped communities can instead explore public-public partnerships to reduce the cost and enhance the performance of their public water and sewer services. The federal government can support public sector utilities by providing a dedicated source of funding for the Drinking Water and Clean Water State Revolving Funds and by reauthorizing the Build America Bonds program. A renewed federal commitment and responsible public management of our nation's water and sewer systems are the best ways to ensure safe and affordable service for all.

Private Equity Targets U.S. Water and Sewer Systems

Private equity firms, investment banks and other major financial institutions are targeting U.S. water and sewer services for takeover. Since the mid-2000s, investment funds managed by financial behemoths including JPMorgan Chase, Australian bank Macquarie and the Carlyle Group have assumed control of water and sewer systems across the country. (See Table 1 on page 4 for a list of major transactions.) These deals are part of a larger private equity push for infrastructure worldwide.

Although private equity firms and banks can invest their own equity in infrastructure projects, it is more common for them to use capital pooled from other wealthy individuals and institutions into infrastructure funds and similar vehicles that they manage.[1] (See Table 2 on page 5 for the 10 largest infrastructure fund managers.) As of January 2012, private equity players had raised $186 billion through 276 different infrastructure funds and were seeking another $93 billion through 144 infrastructure funds.[2]

The private equity craze for global infrastructure began around 2005.[3] After plummeting because of the late-2000s recession,[4] investor appetite picked up again in 2010.[5] (See Figure 1, page 5.) The economic downturn reputedly boosted the appeal of lower-risk projects like infrastructure. Investing in infrastructure is considered a defensive strategy that can protect against market fluctuations. Utilities, in particular, tend to have relatively stable earnings because they are natural monopolies with strong government protections.[6] Perhaps for those reasons, one survey of private equity firms in 2011 found that water was the top area of interest for investment managers,[7] and in another survey, institutional investors ranked water and waste management as the second leading area of interest in the infrastructure arena.[8]

Rate Hikes Follow Private Equity Deals: "Social Dynamite"

Although private equity players have raised a substantial amount of money for infrastructure projects, this capital is not cheap. Private sector financing — especially equity investment — is much more expensive than government borrowing.[71] Private equity investors expect to be well compensated, and the public will pay that price through rate hikes. The ability to increase user fees forms one crux of private equity's interest in taking over public infrastructure.[72] But, as Thomas Putter, former chief executive of Allianz Capital Partners, said during a 2011 conference about infrastructure investment, "This is social dynamite."[73]

Indeed, private equity takeovers are a bad deal for the public. A government audit of privately financed projects in the United Kingdom concluded, "Our findings suggest that the public sector may often be paying more than is necessary for using equity investment."[74]

"A terrible deal" in Santa Paula, California

In 2008, Santa Paula, Calif., privatized the design, construction, financing and operation of a new $65 million water reclamation plant. Alinda Capital Partners financed the facility, which PERC Water Corp. agreed to build and operate under a 30-year deal.[75] Although privatization advocates point to the arrangement as an example of how private capital can be deployed in the water sector,[76] the city's former finance director John Quinn called it

The Macquarie Model

In the mid-1990s, the Macquarie Group, an Australian bank, pioneered the model of using private equity from institutional investors to buy roads and utilities.[9] Since then, it has exported the model around the world.[10] As of 2011, the Macquarie Group managed 95 infrastructure businesses in 23 countries,[11] including companies that provided water services to more than 8 million households worldwide.[12]

Its first water acquisition was its 2003 purchase of South East Water in the United Kingdom.[13] Then, in 2006, it led the consortium that purchased Thames Water,[14] the largest water and sewer company in England and Wales.[15] Five years later, Macquarie began a piecemeal sell-off of its stake in Thames Water, selling 10 percent of the company to a United Arab Emirates sovereign wealth fund, 9 percent to China's sovereign wealth fund[16] and 13 percent to a U.K. pension fund.[17]

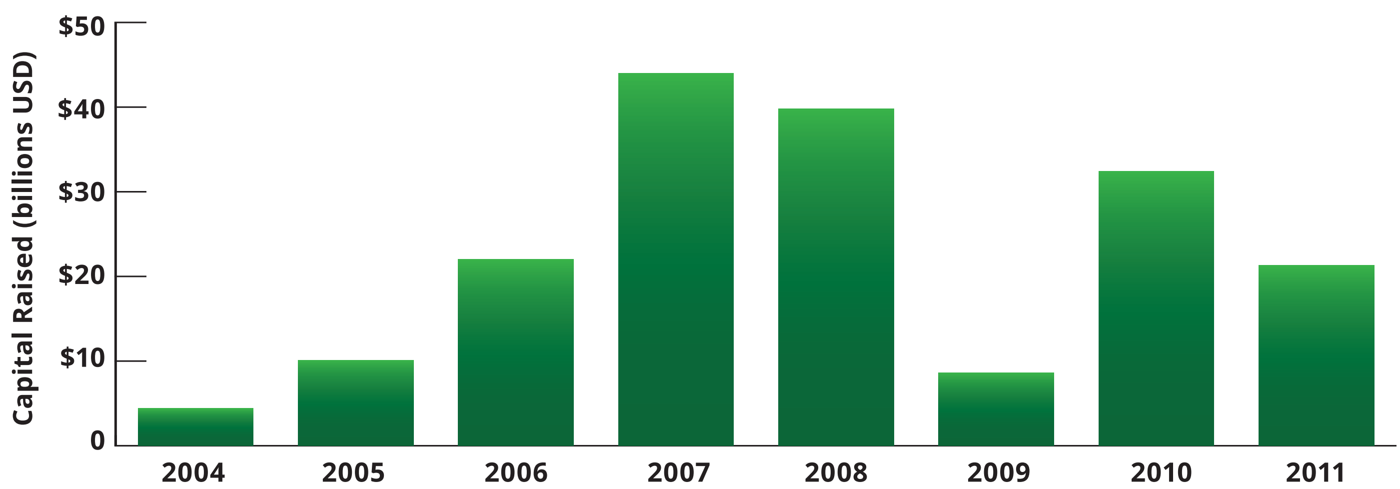
Macquarie entered the U.S. water market in 2007 with the purchase of Aquarion Water Company.[18] (See Table 1, page 4, and Figure 3, page 12.) It was the first investment of its $4 billion U.S. infrastructure fund.[19] At the time, Macquarie Infrastructure said that it also sought long-term concessions of public wastewater systems and planned to target cash-strapped cities and states.[20] Macquarie announced a new $2 billion North American infrastructure fund in 2012.[21]

Table 1. Large Private Equity Deals for U.S. Water and Sewer Services

YEAR	PRIVATE EQUITY PLAYER	DEAL TYPE	SELLER OR CONTRACTOR	VALUE	TARGET
2006[22]	AIG Highstar Capital II, LP via Hydro Star[23]	Acquisition of privately held water company	Nuon BV[24] (Dutch utility company)[25]	$192.5 million (purchase price)[26]	Utilities Inc., serving more than 300,000 water and sewer customers in 17 states[27]
2006[28]	BC Investment Management Corp. and CAI Capital Management Co.* via 0745848 B.C. Ltd.[29] (Corix)	Acquisition of privately held water company	Kinder Morgan Inc. (U.S. energy company)[30]	$111 million (purchase price)[31]	50% of Fairbanks Sewer & Water Inc. in Alaska;[32] via purchase of Terasen Water and Utility Services,[33] which was renamed Corix.[34] (Acquired the rest of Fairbanks Sewer & Water Company from private investors in 2009[35])
2007[36]	Macquarie Bank[37] via Macquarie Utilities Inc.[38] (see Figure 3 on page 12 for ownership structure)	Acquisition of privately held water company	Kelda Group (British water company)[39]	$578.25 million (purchase price)[40]	Aquarion Water Company (excluding NY assets),[41] serving about 200,000 customers in Connecticut, Massachusetts and New Hampshire[42]
2008[43]	Alinda Capital Partners (with PERC Water Corp.) via Santa Paula Water LLC[44]	Privatization; contract with local government	Santa Paula, California	$62 million (est. capital investment)[45]	Santa Paula Water Recycling Facility, serving 30,000 customers,[46] through a 30-year design-build-operate-finance contract[47]
2010[48]	J.P. Morgan Investment Management-managed IIF Subway Investment LP (90%) and Water Asset Management-managed USA Water Services LLC (10%) via SW Merger Acquisition Corp.[49]	Acquisition of publicly traded water company	Stockholders[50]	$275 million (purchase price)[51]	Southwest Water Company, serving more than 1 million people in nine states[52]
2011[53]	Carlyle Infrastructure Partners[54] via Western Water Holdings[55]	Acquisition of privately held water company	Individual private investors[56]	$102 million (purchase price)[57]	Park Water Company, serving more than 225,000 people in Montana and California[58]
Pending (2012)	Table Rock Capital via Rialto Water Services	Privatization; contract with local government	Rialto, California	$170 million (capital investment, including $25.5 million in equity)	Concession of water and sewer systems for 30 years[59]
Pending (2012)	BC Investment Management Corp. and CAI Capital Management Inc.* via Corix[60]	Acquisition of privately held water company	Highstar Capital Fund II, L.P.[61]	Undisclosed (as much as $500 million purchase price)[62]	Utilities Inc., serving 290,000 customers in 15 states[63]
Pending (2012)	KKR with United Water via Bayonne Water Joint Venture LLC	Privatization; contract with local government	Bayonne Municipal Utilities Authority, New Jersey	$150 million (upfront payment)	Concession of water and sewer systems for 40 years[64]
Pending (2013)[65]	BC Investment Management Corp. and CAI Capital Management Inc.* via Corix[66]	Privatization; acquisition of publicly owned systems	Lower Colorado River Authority, Texas[67]	$20 million (est. transaction value)[68]	18 water and sewer systems[69]

** As of July 2012, BC Investment Management owned 42 percent of Corix Infrastructure, CAI Capital Management owned 42 percent and other small private investors owned the remaining 16 percent. BC Investment Management was in the process of acquiring CAI Capital Management's stake.*[70]

Figure 1. Private Equity Appetite for Infrastructure:
Annual Capital Raised by Unlisted Infrastructure Funds



SOURCE: Bradbrook, Elliot. "Fundraising." *Preqin Infrastructure Spotlight*, vol. 4, iss. 5. May 2012 at 6.

"a terrible deal." Quinn told the trade publication *Public Works Financing* in 2009 that the city intended to refinance the project with municipal bonds in 2013, adding that until then, "we're going to be paying premium prices to fund their profits."[77]

Although Alinda had not received any water deal since Santa Paula,[78] in 2010, after closing a $4.1 billion infrastructure fund, Alinda's managing partner told *Reuters* that increased privatization of U.S. infrastructure was an "inevitable trend" as municipalities seek new funding sources.[79] Alinda, in collaboration with a Black & Veatch subsidiary, submitted a proposal in 2011 for a 30-year lease of the water, sewer and electric systems of Gardner, Kansas.[80]

Pushing Privatization

Private equity takeovers of water and sewer systems fall into two broad categories: (1) acquisitions of existing private sector water companies, and (2) privatizations of government utilities through public-private partnerships or asset sales. In general, private equity players have had more success taking over water and sewer systems that were already privately owned (see Table 1, page 4), but if government finances remain weak, private equity players believe that privatizations will become more rampant.[86]

"The infrastructure privatization bank"[87]

In an apparent attempt to exploit the lagging recovery of the public sector, various banks and private equity firms

Table 2. Ten Largest Infrastructure Fund Managers, as of January 2012

RANK	FUND MANAGER	NUMBER OF FUNDS (closed and in market)	TOTAL CAPITAL (raised and targeted)
1	Macquarie Infrastructure and Real Assets (part of the Macquarie Group)[81]	19	$26.1 billion
2	Global Infrastructure Partners (founded by Credit Suisse and General Electric)[82]	2	$10.6 billion
3	ArcLight Capital Partners	5	$10.1 billion
4	Alinda Capital Partners	3	$10.1 billion
5	GS Infrastructure Investment Group (part of Goldman Sachs)[83]	2	$9.6 billion
6	Highstar Capital (formerly affiliated with American International Group)[84]	4	$8.2 billion
7	Energy Capital Partners	3	$7.1 billion
8	RREEF Infrastructure (part of Deutsche Bank Group)[85]	2	$5.6 billion
9	Brookfield Asset Management	4	$4.8 billion
10	Innisfree	7	$4.5 billion

SOURCE: Davis, Emma. "Infrastructure GPs." *Preqin Infrastructure Spotlight*, vol. 4, iss. 1. January 2012 at 11.

IMAGE COURTESY OF J. BENOIST / COMMONS.WIKIMEDIA.ORG

worked with allied officials and groups to promote privatization and private investment as viable ways to address infrastructure needs and budget shortfalls.[88] For example, finance behemoths including the Carlyle Group,[89] Goldman Sachs[90] and Swiss bank UBS supported a national infrastructure bank,[91] which would promote private investment in U.S. infrastructure through public-private partnerships.[92] These investors foreseeably would benefit from such an institution.

Robert Wolf, chairman of UBS Group Americas and president of UBS Investment Bank,[93] has been a prominent proponent of a national infrastructure bank. According to a 2010 article in the *Wall Street Journal*, "Mr. Wolf's chief obsession, White House officials say, is pushing a national infrastructure bank that local governments and the private sector could use to fund big projects like bridges and water-treatment plants."[94]

Wolf, a golf buddy and campaign fundraiser for President Barack Obama,[95] has had ample opportunity to proselytize his ideas. Obama appointed Wolf to his Economic Recovery Advisory Board in 2009[96] — three months after UBS's asset management arm closed a $1.5 billion infrastructure fund[97] — and then to his Council on Jobs and Competitiveness in 2011.[98] Both committees recommended private capital investment in infrastructure, a national infrastructure bank and public-private partnerships.[99]

"An industry-backed deal" in Chicago, Illinois

Although the White House's infrastructure bank proposal was deemed "dead on arrival" in 2011,[100] Chicago decided to be the guinea pig for a smaller-scale version. Rahm Emanuel — Obama's former chief of staff and current mayor of Chicago — pushed through the "Chicago Infrastructure Trust" that will combine a small amount of city capital with capital from banks and other private investors (including Citibank NA, Citi Infrastructure Investors, Macquarie Infrastructure and Real Assets Inc., J.P. Morgan Asset Management Infrastructure Investment Group and Ullico) to finance more than $1 billion of public works projects.[101] *Infrastructure Investor*, a trade magazine, characterized the plan as "an industry-backed deal to establish PPPs [public-private partnerships] as a politically and financially viable business."[102]

The city's primary motivation appeared to be the desire to take debt off city books to give the illusion of reducing its liabilities.[103] "We have a tool here that takes some of the pressure off taxpayers," Emanuel claimed. "Use somebody else's money for a change, rather than theirs."[104] In the real world, however, banks do not provide free lunches. Chicagoans will have to repay the private capital investment with interest through user fees.[105] The city's chief financial officer admitted that private investment financing could be more expensive than traditional government borrowing.[106] Nonetheless, the city council signed off on Emanuel's plan in 2012.[107]

Privatization as a "Mega-Credit Card" and "Budget Gimmickry"

The finance industry seemed to be encouraging cash-strapped governments to use privatization as a "mega-credit card" to finance infrastructure projects.[108] As researchers said in a report for the Association of Chartered Certified Accountants, "Just as with a credit card, however, the interest rates have been relatively high and at some point the debts have to be paid off."[109]

Some localities have even sought to use privatization as a one-shot trick to fill a budget gap. These arrangements are fiscally irresponsible and would likely increase long-term costs for households and local businesses.[110] The New York State Comptroller's Office called this type of deal "budget gimmickry" because it "provides a short-term cash benefit while pushing costs to the future and potentially increasing public debt."[111] Reliance on one-shot revenue increases long-term borrowing costs and can hurt taxpayers.[112]

In a report about wastewater privatization, the U.S. Environmental Protection Agency explained that the payment that a government receives for privatizing a sewer system is "a loan from the private entity which must be repaid with interest by the wastewater treatment users in the form of additional user fees."[113] It also characterized the government proceeds from such a transaction as "additional debt the wastewater treatment users must repay."[114] It continued, "If a local or state government wants to recoup all of its investment in a facility and sets a concession fee or sales price to reflect that amount, the resulting annual costs to the private entity could be very large and may result in *significant increases in user fees* for all the wastewater users" (emphasis added).[115]

"Sheer folly" in Nassau County, New York

In 2012, Nassau County, N.Y., proposed leasing its sewer system as part of what the county executive called a "debt reduction and sewer stabilization plan."[116] The county selected United Water to run the sewers and Morgan Stanley to serve as a financial advisor. For its part, Morgan Stanley would receive at least $5 million to help select the private investor that would supposedly pay the county upward of $750 million for the lease.[117]

Credit rating agencies viewed the privatization plan unfavorably because it was a one-shot ploy that failed to address the county's underlying fiscal problems.[118] For similar reasons, the Nassau County Interim Finance Authority, a state-appointed oversight board, rejected the county's contract with Morgan Stanley in hopes of killing the lease altogether.[119]

In a prepared statement, the authority's director George Marlin lambasted the proposed lease: "As for the County's so-called 'Debt-Reduction Plan,' in my 35 years as an investment banker, I have never come across such an ill-conceived plan."[120] Marlin called the privatization an "ill-conceived backdoor borrowing scheme" that was akin to using a credit card with a 15 percent annual interest rate to pay off a home mortgage loan that had a 4 percent annual interest rate.[121] In short, he said the plan was "sheer folly."[122]

Financial Consultants' Conflict of Interest

In addition to managing privatization businesses, private equity players may also have divisions that act as financial advisors to local governments on privatization deals.[123] For example, with the financial advice of Morgan Stanley, Akron, Ohio, pursued a long-term lease of its sewers until residents voted down the scheme in 2008.[124] Morgan Stanley was no stranger to infrastructure privatization,[125] and it has since entered the water sector. In 2012, Morgan Stanley Infrastructure Partners and a Prudential-managed infrastructure fund purchased a controlling stake in a U.K. water company.[126]

Occasionally, these financial firms even approach public officials with unsolicited offers to advise them on needlessly complex stopgap measures for budget shortfalls. An article in *Governing* magazine said about alternative financing schemes for fiscal gaps, "Some of these solutions may be brought to their attention by investment bankers who come to the table armed with an array of exotic — and often difficult-to-understand — financing tools."[127]

These advisors are not impartial judges. Even when they cannot bid on the privatization project itself, they still have a strong incentive to push through a big deal because their compensation often depends on it. Their payment typically includes a "success-based" fee that they receive only if the privatization goes through. Because this fee is usually a percent of the transaction value,[128] the advisors have a strong financial incentive to recommend the biggest deal possible, even if it were a terrible deal for the community.

A rejected gamble in Reno, Nevada

In July 2008, Goldman Sachs approached the city of Reno, Nev., with an offer to act as a financial advisor on a long-term lease of the Truckee Meadows Water Authority, the water provider for the area.[129] The city was led to believe that a 50-year deal could have fetched as much as $165 million in cash.[130] Goldman Sachs would have charged a transaction fee equaling a percentage of total transaction value plus the amount of any required capital expenditures during the first 10 years of the deal. That percentage increased with the transaction value.[131] If the transaction did not go through, the investment bank would have received no payment.[132] This would have given the company a strong financial incentive to push through the largest deal possible.

After the water board voted to explore this idea, the utility's general manager resigned in protest.[133] The following week, after considerable public opposition to the lease idea, the board unanimously voted to rescind its earlier vote, keeping the system in public hands.[134] As resident Fred Thalke told the utility board, "Gambling with what is inarguably the most important asset in this community is not something that should be endorsed."[135]

A month earlier, Mark Florian, who was head of Goldman Sachs's Infrastructure Banking Group at the time, testified at a congressional hearing in support of a national infrastructure bank and privatization, among other things. "Public-private partnerships are also an opportunity," Florian said. "We should encourage these structures since our own U.S. pension plans are now interested in investing in them."[136] As of March 2012, Goldman Sachs's infrastructure fund had raised more than $10 billion.[137]

Public's Lack of Bargaining Power

When local governments explore water privatization under fiscal duress, they are especially vulnerable to being misled by private interests. A cash-strapped municipality can have difficulty affording adequate legal and other assistance necessary to evaluate and negotiate a deal.[138] Even without fiscal pressure, municipalities usually lack the skills necessary to effectively negotiate a privatization contract for water and sewer utilities. According to John Zielger in the *Public Contract Law Journal*, "Local governments around the country, however, are legally ill-equipped to enter into high-value, long-term concession contracts."[139]

Local governments, especially fiscally stressed ones, have less bargaining power than national or multinational companies. This problem is exacerbated when the privatization deals involve large private finance players.[140] "I would never bet on the city manager in that case," a city advising firm told *Governing* magazine.[141] For example, after Chicago privatized its parking meters to a Morgan Stanley-led consortium, meter rates quadrupled in some areas and changes in policy outraged consumers. "Putting us against the investment banks in a deal like that is like having little leaguers play the New York Yankees," Chicago Alderman Thomas Allen told *Business Week*.[142]

"Eye-Wateringly High" Profits

Private equity players may use their greater bargaining power to get lucrative deals. Many privatizations include government guarantees for private investors or allow renegotiations after the government selects the winning bid. Because of these provisions, a firm may low-ball its bid for a privatization project by using, for example, overly optimistic water use and demand projections.[143] In this situation, the government selects a firm expecting substantial savings but ends up paying more to compensate the firm when actual revenues do not meet the firm's rosy projections.

Private equity players may also try to inflate their returns by convincing governments that their costs are higher than they actually are by using pessimistic financial projections.[144] The firms may use the semblance of risk assumption to exaggerate capital costs and demand higher fees from the public.[145] In practice, private operators and investors tend to be risk-averse and expect to be well compensated for any risk they do assume.[146] They could seek to pass on extra costs to consumers by increasing rates or reducing service level.[147]

With targeted returns of at least 12 to 15 percent,[148] private equity funds expect profit levels that are too high to be practical and useful for most water and sewer utilities.[149] This is apparent in countries with more experience with privately financed infrastructure. For example, a U.K. Parliament investigation of equity investment in privatized infrastructure projects concluded in 2012 that private investors were making "excessively high returns," indicating the country's private finance model was "inappropriate" for future public works projects.[150] Upon releasing these findings, Margaret Hodge, who chaired the committee that conducted the study, called for an end to "the era of investors receiving eye-wateringly high rewards while taking ever decreasing risks."[151]

Squeezing Dry and Running

Private equity investors often sell their stake in privatized infrastructure projects before the end of a contract with government. In the United Kingdom, typical returns of these sales have averaged between 15 percent and 30 percent and reached as much as 60 percent in some cases.[152] A European Services Strategy Unit report on equity sales in U.K. public-private partnership projects concluded, "[T]he very high level of profits earned by construction companies and banks provides further evidence that PPP [public-private partnership] projects are little more than money-making mechanisms for the private sector."[153]

Indeed, many private equity funds have short investment horizons, investing in individual projects for less than a decade before resale.[154] For example, Alinda Infrastructure Fund II had a 10-year fund horizon and a target internal rate of return of 20 percent.[155] Highstar Capital decided to sell off Utilities, Inc., a large U.S. water company, six years after acquiring it.[156] (See Table 1, page 4.)

This short-term focus can conflict with the public interest, especially when investors own water utilities.[157] As credit rating agency Standard & Poor's warned, "Regulated infrastructure assets do not typically lend themselves to operational turnaround or financial restructuring within the three-to-five-year investment period typically adopted by such [private equity] players."[158]

Private investors use a variety of tactics to achieve these rapid earnings. After a private equity takeover, a water utility may undergo "dramatic restructuring,"[159] and the holding company may issue a special dividend declaration to the equity partners, returning the equity investment to the investors.[160] The debt necessary to pay premiums to stockholders of the target company could "weaken the post-acquisition company," according to a report for the National Regulatory Research Institute.[161]

Leveraging Risks and Costs

Private equity players typically pay for water systems and other projects by leveraging a small amount of equity raised from private investors with a large amount of loans and other debt.[162] Leveraging — borrowing money to

How Leveraging Can Increase Investor Returns While Minimizing Income Tax Responsibility

Consider a $100 million acquisition of a water utility that has an annual operating income of $10 million. The finances of this deal can vary substantially depending on the buyer.

The average publicly traded U.S. water utility company has a capital structure of around 50 percent debt to 50 percent equity,[175] and thus could borrow money to finance half of the purchase price and invest its own equity to pay for the other half. A private equity vehicle, on the other hand, could leverage its equity investment by using debt to pay for 90 percent of the acquisition. Such leveraging would likely increase the interest rate on bonds and other loans.[176]

Assuming that the interest rate on debt would increase from 5 percent to 6 percent, and with everything else equal, leveraging triples the acquiring company's rate of return on equity, while reducing its income tax burden by more than a third. (See Table 3.)

Table 3. Simplified balance sheet comparison of a $100 million acquisition by a publicly traded water company and a private equity holding company

(IN MILLIONS OF DOLLARS)	PUBLICLY TRADED WATER COMPANY	PRIVATE EQUITY HOLDING COMPANY	INCREASE (DECREASE) WITH LEVERAGING	
			DIFFERENCE	PERCENT
(a) Cost of debt	5%	6%		
Capital Structure				
(b) Debt	$50.00	$90.00		
(c) Equity	+ $50.00	+ $10.00		
(d) Total purchase price	$100.00	$100.00		
Income Statement				
(e) Operating income	$10.00	$10.00		
(f) Debt expense[a]	– $2.50	– $5.40		
(g) Income tax expense[b]	– $2.93	– $1.79	($1.13)	(39%)
(h) Net income	$4.58	$2.81		
(i) Rate of return on equity[c]	9%[d]	28%	19%	207%

NOTES:
- **a** Debt expense = cost of debt * debt. [line f = line a * line b]
- **b** Income tax expense = (operating income – debt expense) * average income tax rate in the water utility industry.[177] [line g = (line e – line f) * 39%]
- **c** Rate of return on equity = net income/ equity. [line i = line h/line c]
- **d** This conforms with industry statistics. The water utility industry as a whole has an expected rate of return on equity of 8.5 percent to 9.5 percent from 2012 to 2017.[178]

Adapted from an example in Hill, Stephen G. National Regulatory Research Institute. "Private Equity Buyouts of Public Utilities: Preparation for Regulations." (07-11). December 2007 at 12 to 14.

finance deals and stretch equity capital — is an integral aspect of private equity deals; it can boost investor returns while lowering the effective income tax rate.[163] (See box on page 9 for an example.)

Private equity deals in infrastructure are often highly leveraged. In the United Kingdom, about 90 percent of the funding for a typical privately financed infrastructure project was from debt.[164] Similarly, one investment management firm recommended leveraging investments in water infrastructure with 60 percent to 90 percent debt.[165]

Highly leveraged deals are risky and can increase long-term borrowing costs.[166] In fact, Standard & Poor's warned in 2006 that privatizing assets to global infrastructure funds could result in a downgraded credit rating because infrastructure funds were "increasingly highly leveraged."[167] As risk increases, the company must pay higher interest rates to debtors and higher returns to investors,[168] and the debt used to finance the acquisition could impair the utility's ability to finance future improvement projects, especially if its bond rating is downgraded.[169]

According to KPMG International, "Excessive or poorly structured debt could cause the private entity financial stress, increasing the need for a government takeover should the operator default."[170] If capital markets change and long-term federal interest rates rise, the private equity firm could have problems refinancing its short-term acquisition debt, increasing the risk of default.[171]

Leveraging generally does not occur on the books of a regulated utility but at a higher corporate level. When the debt is held at the holding company level, it gives the false appearance that the equity buyout does not change the utility's financial risk and that the parent holds all the additional risk.[172] This is inaccurate. The utility remains the source of cash flows to repay that debt,[173] and ratepayers ultimately pay for the associated risks and costs.[174]

Gilding Infrastructure

When private equity players acquire water and sewer systems, it makes more financial sense to keep the debt on the books of the holding company instead of the acquired utility company because a regulated water utility's profit depends on the amount of equity it has invested in infrastructure. (See Figure 2.)

State public utility commissions regulate the rates of investor-owned water and sewer utilities. The regulators allow the companies to charge rates to recoup debt costs, taxes and operating expenses and to earn a return on their equity investment.[179] "Overcompensating stockholders

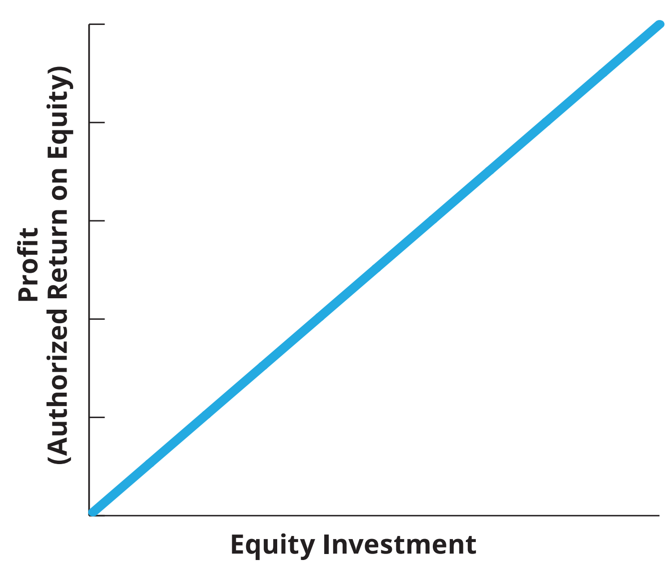
The Carlyle Group's Water Strategy

The Carlyle Group took its first foray into the U.S. water utility industry in 2011 with the purchase of Park Water Company.[186] Park Water Company, which had been a closely held private company owned almost exclusively by Henry Wheeler and his family,[187] served 245,000 people in California and Montana.[188]

At the time of the purchase, Carlyle intended to resell Park Water Company within five years.[189] Carlyle's Western Water Holdings — the financial vehicle it created to make the purchase — was in fact a "limited life entity"[190] that expired before 2021.[191] According to a consultant for the Montana Consumer Counsel, Carlyle's plan was to sell off the company "after building up the Company's rate base and enterprise market value."[192] This would lead to rate increases for consumers.[193] By investing in infrastructure, Carlyle intended to realize a "substantial capital gain" when it resold the company in 2016, expecting an internal rate of return of 16.9 percent a year.[194]

As of 2011, Carlyle was also targeting seven water utilities in California (including one with more than 300,000 customers and another with about 100,000 customers) as possible add-on or tuck-in acquisitions by Park Water Company.[195] Carlyle's infrastructure fund had an asset value of $1.1 billion,[196] and about 40 percent of the total capital in the firm's managed funds comes from public pensions and agencies,[197] including the California Public Employees' Retirement System (CalPERS).[198]

Figure 2. Regulated Utilites Make Money by Investing in Infrastructure



A regulated investor-owned water utility's profit depends on its equity investment and its authorized rate of return on equity.

encourages overinvestment and higher-than-necessary prices," according to the National Regulatory Research Institute.[180] Unfortunately, authorized returns on equity typically exceed the actual cost of equity.

Consequently, investor-owned water utilities have a financial incentive to overbuild, or gold plate, infrastructure projects. This is a well-known phenomenon called the Averch-Johnson Effect, named for the economists who first modeled it in the 1960s.[181] A privately controlled utility may, for example, build an unnecessarily large treatment plant or choose a more capital-intensive treatment process, such as desalination.

Acquiring existing water and sewer systems is another way that investor-owned water utilities can expand their investment base and drive up their returns. For example, Aquarion Water Company — a private water utility in the Northeast that Macquarie financial vehicles bought in 2007[182] — had a business model that focused on acquisitions and rate hikes.[183]

Interestingly, a 2005 study found that a higher corporate income tax rate on utility companies could help counter this incentive to overinvest in infrastructure.[184] Leveraged buyouts, however, reduce a firm's income tax responsibility,[185] so they may compel even greater overinvestment.

Circumventing Income Taxes

Private equity firms also are notorious tax avoiders and evaders.[199] Infrastructure funds are often located in tax havens, and a 2011 report by the European Services Strategy Unit found that this was a growing phenomenon.[200] Because of tax havens, tax treatment of debt and capital gains, and other legal loopholes and practices, private equity firms often pay very low income tax rates.[201] For example, between 2007 and 2011, the Carlyle Group made $4.2 billion in profit but paid an effective income tax rate of only 2 percent.[202] In comparison, publicly traded U.S. water utility companies have an average income tax rate of 39 percent.[203] By not paying the standard 39 percent income tax rate, the Carlyle Group avoided $1.6 billion of income taxes over that five-year period.[204]

Lacking Transparency

Private equity takeovers usually involve complex corporate structures, which can obscure ultimate ownership and responsibility. Transactions typically occur through a series of holding companies and financial vehicles.[205] (See Figure 3 on page 12 for an example of how complex these structures can be.) For a privatization deal, a private equity player will likely form a new special-purpose vehicle with an existing private sector water company. The private equity player will finance the transaction and the water company will operate the privatized system.[206] (See Figure 4 on page 13 for an example of how this arrangement could be structured.)

To make matters worse, these private equity-owned businesses, as privately held companies, do not have to comply with most financial disclosure requirements of the U.S. Securities and Exchange Commission.[207] A private equity buyout also often lacks disclosure requirements regarding financial covenants or an amortization schedule for the transaction debt,[208] and the special-purpose company set up by investors may refuse to disclose information about capital costs.[209] This presents difficulties for bond-rating agencies, and can result in downgraded credit ratings and increased debt costs.[210]

State public utility commissions also may have insufficient information about the financial structure of a buyout deal, making it "difficult for a regulator to gauge the risk to the utility arising from the buyout," according to a report by the National Regulatory Research Institute.[211] The report noted that a private equity firm may conceal its investment portfolio, adding: "The parent company's/private equity firm's interest in keeping this information private is not consistent with the public interest in effective regulation, which requires full information of all factors affecting the utility's financial health."[212]

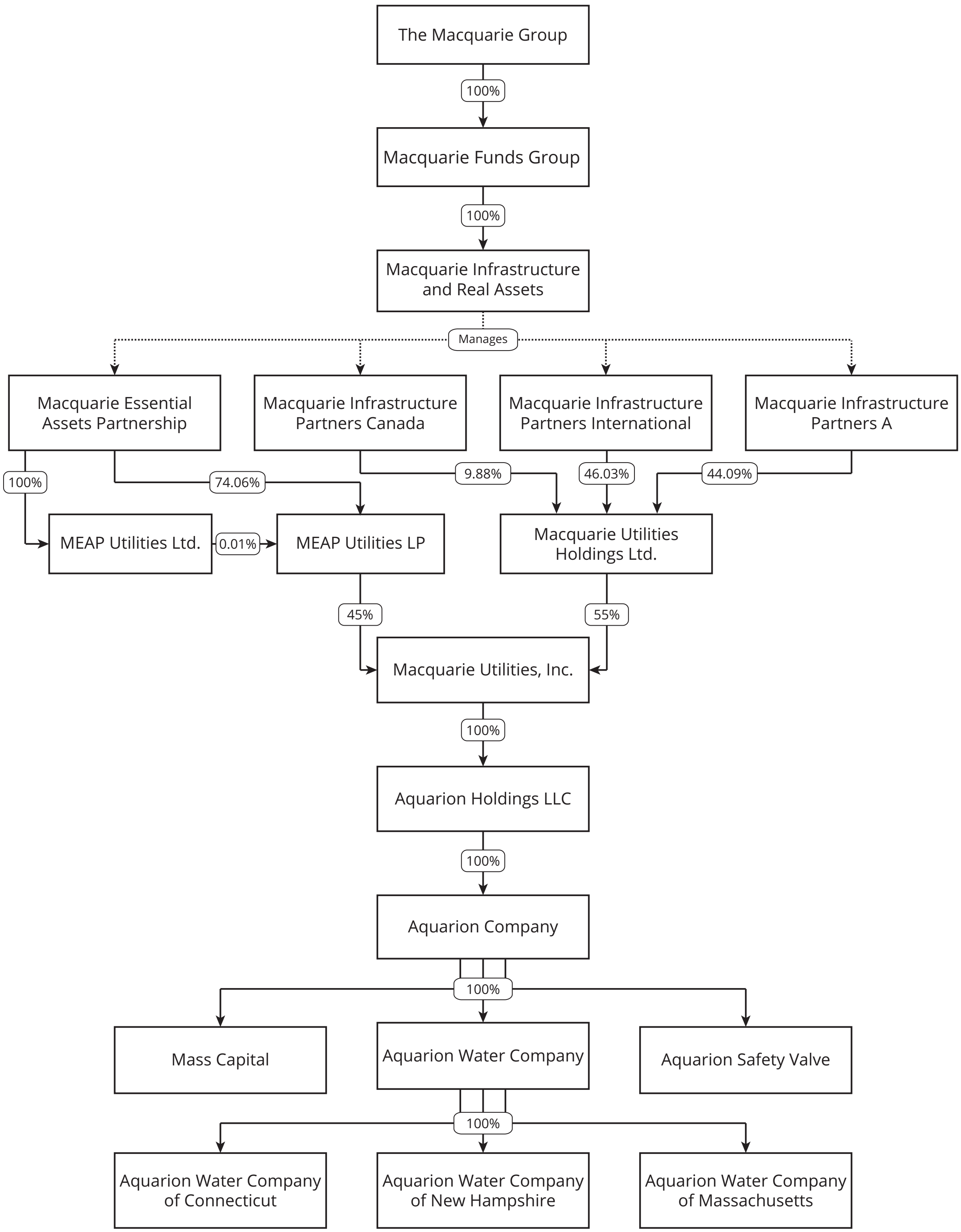
Pension Funds

Some pension funds are increasingly looking for direct investments in infrastructure,[217] but as of 2011, infrastructure remains a small portion of their overall portfolio. Less than 1 percent of pension funds worldwide invest in infrastructure projects.[218] Pension funds should be wary of investing equity in water and sewer privatization projects. Very little is known about pension fund investments in infrastructure.[219] There is only about five years of data to evaluate, and the period was "shaped by the boom-bust-environment" of recent years, according to Georg Inderst, an independent advisor to pension funds and other institutional investors, in an article in the journal *Pensions*.[220]

Instead of participating in privatization deals, pension funds could purchase government debt if they want to invest in infrastructure.[221] To facilitate this in the United States, the federal government needs to create attractive borrowing structures, such as reinstating the Build America Bonds program.

Figure 3. Ownership Structure of Aquarion Water Company, of which Macquarie-managed funds owned a controlling stake

(As of March 2011, prior to sale of Macquarie Essential Assets Partnership to British Columbia Investment Management Corporation)



SOURCE: Camerino, Steven V. "DW 11-0168; Aquarion Water Company of New Hampshire, Inc.—Corporate Restructuring." New Hampshire Public Utilities Commission. March 31, 2011 at 2; Macquarie. [Presentation]. "Macquarie Infrastructure and Real Assets." June 30, 2011 at 9, 10, 13 and 15.

Figure 4. Example Structure of a Privatization Involving Private Equity Entities

A U.K. government audit of privately financed projects similarly found, "The amount of financial information investors routinely provide is limited."[213] This lack of disclosure has interfered with the public's ability to monitor for excess profits and evaluate the role of private equity investments.[214] In addition, unlike government entities, privately controlled water utilities are usually not subject to "sunshine" laws requiring open meetings and public disclosure of certain documents.[215] Even if contract provisions require certain disclosures, "The public, however, is still an additional step removed from the entity controlling a public facility or infrastructure."[216]

Recommendations

Local Public Control

Cash-strapped cities and towns will not resolve their fiscal woes by turning water and sewer systems over to private interests. As public officials determine how to cut the growing budget deficits beleaguering many local governments, they must avoid superficial solutions, such as auctioning off water utilities, which can have lasting consequences. Privatization can result in greater long-term costs for the public, and it can saddle generations of consumers with debt that must be paid off through rate hikes.

Given the experiences of other communities, public officials should exercise the utmost caution when considering radical changes to water and sewer services. They should avoid privatization and other irresponsible budget gimmicks, which could price struggling households out of water service and jeopardize public access to safe water.

*Public-*Public *Partnerships*

Instead of privatizing water systems, municipalities can partner together through public-public partnerships. In a public-public partnership, two or more public water utilities, government entities or non-governmental organizations join forces on a not-for-profit basis and leverage their shared capacities to improve water and sewer services. The public partners pool resources, buying power and technical expertise to enhance public efficiencies and service quality. These partnerships promote public-service delivery through sharing best practices.[222]

Through purchasing cooperatives or agreements, utilities and other public entities can save time and money by purchasing chemicals, equipment, fuel and other supplies and materials in bulk.[223] Public water utilities can also save money when they work together through joint capital projects or shared service agreements.[224] By partnering with more-efficient public utilities or teaming up with non-governmental organizations or their own employees, public utilities can creatively address inefficiencies or make system improvements.[225] Compared to public-*private* partnerships, public-public partnerships are more effective, efficient and equitable.[226]

Increased Federal Funding

A dedicated source of federal funding for the Drinking Water and Clean Water State Revolving Funds (SRFs) can help communities make vital improvements to their water infrastructure without severe increases in water prices. These programs provide low-interest loans and grants for water infrastructure and are an important financing tool for public water systems. Unfortunately, federal funding for the SRFs has fallen since 2009.[227] With a dedicated source of federal funding, the SRFs would no longer be subject to the fickle annual appropriations cycle.

Reauthorization of Build America Bonds

In addition, the federal government can support water infrastructure by reauthorizing Build America Bonds (BABs) or a similar program. Under the previous BAB program, a state or local government issued a taxable bond and received a 35 percent direct subsidy from the federal government to offset borrowing costs.[228] Because BABs are taxable, they attracted new investors including pension funds and other long-term institutional investors that are tax-exempt and thus do not receive the tax benefit of buying regular municipal bonds.[229]

The Treasury Department called this program "highly successful at stimulating infrastructure investment."[230] Build America Bonds funded more than $180 billion of new public infrastructure projects in 2009 and 2010,[231] saving states and local governments a total of $20 billion in borrowing costs.[232] Institutional investors bought more than a quarter of the $165 billion of bonds issued.[233]

BABs are also an efficient way to subsidize public sector borrowing.[234] The Treasury Department reported, "Unlike traditional tax-exempt municipal bonds, BABs are *target efficient*, meaning that each dollar of revenue foregone by the federal government benefits state and local governments by a dollar."[235] Compared to tax-exempt municipal bonds, BABs were a cheaper source of money for local governments while appealing to a "broader set of investors … including pension funds and foreign investors."[236]

With responsible public management and a renewed federal commitment to our country's water resources, we can best ensure safe and affordable water service for all.

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