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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

REBUTTAL TESTIMONY

OF

DAVID MURRAY

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2010-0131

Jefferson City, Missouri
April 2010

**** Denotes Highly Confidential Information ****

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Q. Please state your name.

A. My name is David Murray.

Q. Are you the same David Murray who prepared the Rate of Return Section of the Staff's Cost of Service Report?

A. Yes, I am.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to the Direct Testimony of Ms. Pauline M. Ahern, who sponsored rate-of-return (ROR) testimony on behalf of Missouri-American Water Company (MAWC or Company). I will address the issues of appropriate capital structure, embedded cost of long-term debt, embedded cost of preferred stock, and the cost of common equity to be applied to MAWC for ratemaking purposes in this proceeding.

EXECUTIVE SUMMARY

Q. Please provide an executive summary of your rebuttal testimony.

A. First, I will provide corrections to the Staff's recommended capital structure in this case. During its analysis of possible changes in American Water's capital structure between the September 30, 2009 and December 31, 2009, Staff discovered that it had

deducted an unamortized debt expense of $714,482,540 rather than the correct amount of $71,448,254. In Staff's conversion to thousands of dollars, it mistakenly divided the unamortized debt expense by one hundred rather than one thousand.

Next, I will address Ms. Ahern's capital structure recommendation. Ms. Ahern's proposed use of MAWC's capital structure for ratemaking purposes in this case is inappropriate. It does not reflect the reality of how MAWC is, and will be, financed. MAWC does not have a stand-alone credit rating, has centralized most of its financing functions through its affiliate, American Water Capital Corporation (AWCC), can receive equity infusions through debt raised at American Water, and the debt provided by AWCC is based on American Water's creditworthiness. Because American Water is predominately a regulated water utility, it is appropriate to use the parent company's capital structure in this case because it is consistent with the way in which American Water believes its regulated water utility operations should be capitalized.

I will then address certain areas about Ms. Ahern's specific cost of common equity methodologies that I believe need to be addressed. Ms. Ahern suggests that a small size risk premium adjustment needs to be made to her final results. I will provide support from a third party used by American Water for valuation purposes that did not believe a small size adjustment was appropriate due to the regulated nature of American Water's water utility operations.

Ms. Ahern uses projected yields to estimate the cost of common equity using the risk premium method and CAPM methodologies. This use is inappropriate for much the same reason that using projected stock prices in the DCF is inappropriate. The current yields reflected in bond prices reflect investors' expectations of the future. I do not believe it is

appropriate to substitute projected interest rates for those of yields currently required by investors.

Ms. Ahern's risk premium estimates for both her risk premium methodology and CAPM methodologies are beyond those that would be considered reasonable by certain institutional investors and also by equity analysts that provided EPS projections and overall purchase and sale recommendations for utility stocks. Being that risk premium estimates used by investors and equity analysts influence investment decisions, Staff believes these are the risk premiums that are embedded in stock prices.

Additionally, Ms. Ahern uses arithmetic averages rather than geometric averages to measure historical equity risk premiums, which under normal capital market conditions will tend to cause an upward bias in estimating the costs of common equity for both her risk premium analysis and CAPM analysis. I will explain and provide academic support as to why it is more appropriate to use geometric averages when evaluating long-term asset classes, such as utility stocks.

I will also provide support for a lower cost of capital estimate for American Water's regulated water utility operations by including information from analyses done by third-parties which were hired by American Water for purposes other than a rate case and also from equity analysts that publish research on the water utility industry.

Finally, Ms. Ahern supplements her water utility cost of equity estimates by using a natural gas proxy group. Staff notes that absent Ms. Ahern's inclusion of the natural gas utility proxy group, her estimated cost of common equity would have been approximately 12.50 percent. I believe the fact that Ms. Ahern's cost of equity estimates for two regulated utility proxy groups are so widely disparate illustrates the skepticism that should be given to

the reasonableness of the inputs and assumptions Ms. Ahern uses in her various cost of capital methodologies. While Staff does object per se to the use of natural gas utility companies as proxies for water utility companies, Staff does not believe that the cost of equity for water utility companies and gas utility companies is as different as Ms. Ahern's cost of equity analysis would imply. Staff believes that the upward bias in Ms. Ahern's cost of equity estimates for her water utility proxy group is due to her questionable assumption that these companies can grow into perpetuity based on equity analysts' 5-year EPS growth projections. The reason her gas utility proxy group cost of common equity estimates using the constant-growth DCF is more in line with equity analysts' cost of equity estimates is because the constant-growth rate she uses for this proxy group is more consistent with a reasonable expectation of a sustainable, perpetual growth rate.

CORRECTIONS

Q. Do you have any corrections you need to make to the ROR Section of Staff's Cost of Service Report?

A. Yes. In preparing rebuttal testimony Staff discovered an error it had made in deducting unamortized issuance expenses. When Staff converted the unamortized issuance expenses to thousands of dollars it divided by one hundred rather than one thousand.

Q. What impact does this have on the appropriate debt balance to include in the capital structure?

A. The debt balance should be higher. The debt balance (in thousands) should have been $5,180,587 instead of $4,537,552.

Q. How does this impact the common equity ratio embedded in your capital structure recommendation?

A. Instead of a common equity ratio of 46.21 percent, the common equity ratio should be 43.00 percent. Please see Corrected Schedule 7, attached hereto, for the specific capital ratios for each component.

Q. How does this impact your weighted average cost of capital range of estimates?

A. It lowers the range to 7.33 percent to 7.59 percent from the original range of 7.42 percent to 7.70 percent. Please see Corrected Schedule 22, attached hereto, for the weighted averages of each capital component.

Q. Do you believe you should revise your recommended return on equity (ROE) as a result of the additional leverage that is contained in your revised capital structure?

A. No. Although Staff's incorrect capital structure contained less leverage than Staff's corrected capital structure, Staff had already made an adjustment to its cost of common equity estimate based on the credit rating differential between American Water and the average credit rating of the proxy group. If the capital structure change had been due to an actual increase in leverage, then Staff would consider making an upward adjustment assuming business risk and market risk remained the same.

COST OF COMMON EQUITY, CAPITAL STRUCTURE, EMBEDDED COST OF LONG-TERM DEBT, EMBEDDED COST OF PREFERRED STOCK AND AVERAGE COST OF SHORT-TERM DEBT

Q. Have you updated your recommended capital structure, embedded cost of debt, embedded cost of preferred stock and average cost of short-term debt?

A. No. Staff's ROR recommendation provided in Staff's Cost of Service Report was based on financial statements as of September 30, 2009. Because this was proximate to the update period of October 31, 2009, Staff considered this information to fairly approximate

the capital structure and embedded costs that were in effect as of October 31, 2009. However, as already discussed, I did make corrections to my capital structure and resulting recommended ROR.

Q. Is there agreement between Staff and MAWC on the embedded cost of preferred stock, the embedded cost of long-term debt and the average cost of short-term debt?

A. No. Ms. Ahern used MAWC's capital structure, which consists of allocated debt and parent company equity infusions, whereas I utilized American Water's consolidated capital structure. Because I utilized a consolidated capital structure, I also matched the corresponding consolidated embedded cost of long-term debt (based on debt issued by American Water, American Water Capital Corporation and MAWC), embedded cost of preferred stock (based on preferred stock issued by American Water and MAWC) and average cost of short-term debt for the consolidated entity to this capital structure. Ms. Ahern's determination of MAWC's embedded cost of long-term debt and embedded cost of preferred stock was based on the costs of issuances American Water associates with MAWC. Therefore, the costs used by MAWC do not match those calculated by Staff.

Q. Is there an agreement between Staff and MAWC on capital structure?

A. No. Ms. Ahern used MAWC's capital structure rather than American Water's capital structure.

Q. Is there an agreement between Staff and MAWC on a reasonable ROE in this case?

A. No. Ms. Ahern recommends an ROE of 11.60 percent based on her cost of common equity estimates, whereas I recommend an ROE of 9.25 percent, which is the mid-point of my estimated cost of common equity range of 8.95 percent to 9.55 percent.

MS. AHERN'S RECOMMENDED CAPITAL STRUCTURE FOR MAWC AND WEIGHTED AVERAGE COST OF CAPITAL ESTIMATES

Q. Please summarize Ms. Ahern's capital structure recommendations for MAWC.

A. Ms. Ahern recommends the use of MAWC's capital structure. Ms. Ahern used MAWC's estimated capital structure as of April 30, 2010, as developed by Company Witness Michi Chao. As shown in Table 1 on page 4 of Ms. Ahern's Direct Testimony, this capital structure is expected to consist of 48.94 percent common equity, 0.32 percent preferred stock, 0.68 percent short-term debt and 50.06 percent long-term debt.

Q. Why is it inappropriate to use MAWC's capital structure for ratemaking purposes in this case?

A. MAWC does not issue all of its own debt, though it does issue some. This change occurred when American Water created its financing subsidiary American Water Capital Corporation (AWCC). Although there are internal loan documents between MAWC and AWCC, AWCC is the entity that is actually issuing the debt to third parties on a consolidated basis on behalf of American Water's subsidiaries. Additionally, AWCC is acting as the corporate treasury for American Water, in that it also aggregates all of the cash receipts and disbursement functions for its subsidiaries.

Q. Please describe MAWC's financing arrangement with AWCC.

A. As stated in Paragraph 13 of Missouri-American's Application filed in Case No. WF-2002-1096:

> Applicant [MAWC] proposes to implement some or all of the long-term debt portion of its financing program primarily through an affiliate, American Water Capital Corp. ("AWCC"). AWCC is a wholly-owned subsidiary of American Water Works Company, Inc., ("AWW") established for the purpose of providing financial services to AWW and its water and wastewater utility subsidiaries (including Applicant) by pooling the financing requirements of such companies (the "Participants"), thereby creating larger and more cost efficient debt issues at more attractive interest rates and lower transaction costs than would otherwise be available.

The Application goes on further to state in Paragraph 14:

> In the past, Applicant, and its constituent predecessors in interest, provided for debt financing needs primarily through short-term bank borrowings and the sale by private placement of long-term bonds issued pursuant to mortgages on plant and property in this State including the Indenture of Mortgage and, when available, tax exempt bond issues. Changes in financial markets and federal securities regulation have made the public securities market an attractive alternative to the traditional, secured privately placed bonds and bank borrowings upon which Applicant has traditionally relied. However, borrowers can derive the benefits of the public market only if the amounts they borrow are large enough, and their credit rating high enough, to meet that market's significant entry level requirements. Standing alone, Applicant does not have the borrowing requirements large enough to finance in the public markets. However, by financing through AWCC, Applicant and its sister companies in other states have sufficient borrowing power to finance in the public market and thereby obtain the advantageous terms available therein.

Paragraph 15. goes on further to state:

> Generally, each year the Participants provide AWCC with an estimate of the borrowing requirements which they propose to finance through AWCC for the coming year and for one (1) to three (3) years in advance. On the basis of this information, AWCC arranges borrowing commitments and programs to provide the funds necessary to meet these requirements. All long-term debt incurred by AWCC and the corresponding long-term indebtedness of each Participant will be match-funded. That is to say, AWCC borrows long term funds only to meet specific borrowing needs of one or more participants.

Q. How does Standard & Poor's (S&P) evaluate the creditworthiness of American Water and MAWC?

A. S&P does not issue a credit rating for MAWC, but it does issue a credit rating on American Water. The credit analysis performed by S&P is based on the consolidated credit risk profile of American Water, which is primarily based on its regulated subsidiaries, but also includes some non-regulated operations. Staff believes that if S&P did assign a credit rating to MAWC, it would be based on the consolidated operations of American Water. As long as the risk associated with the consolidated operations is consistent with MAWC's risk, then it is appropriate to not only use the consolidated capital structure, but also the cost of capital associated with this capital structure for ratemaking purposes.

Q. Does the consolidation of financing needs through AWCC make MAWC's capital structure inappropriate for purposes of recommending a fair and reasonable ROR for MAWC?

A. Yes, because AWCC is more or less acting like the treasury for American Water, the inflows and outflows of funds at AWCC become commingled with those funds that are being used for all sorts of purposes by American Water and its subsidiaries.

For example, American Water receives debt from AWCC just as its subsidiaries do. American Water uses this debt to make equity contributions to its subsidiaries. As such, these transactions result in the appearance of less leveraged capital structures for the subsidiaries.

Alternatively, American Water's subsidiaries could have received this capital by executing internal loan documents with AWCC. If the capital had been infused in the subsidiaries in this manner, then the subsidiary's capital structures would be more consistent with the amount of financial risk that American Water's subsidiaries could optimally incur. Because American Water's capital structure directly affects the cost of capital that is available to its subsidiaries because this is a market-driven capital structure, it is unlikely that American

Water would manage this capital structure in an imprudent manner, whether it is with too much leverage or not enough. Consequently, the use of the consolidated capital structure for ratemaking purposes is most likely to produce a ROR that is consistent with the cost of capital associated with MAWC's risk profile.

Q. What other reasons do you believe support the use of American Water's consolidated capital structure rather than MAWC's capital structure?

A. American Water's operations are largely confined to regulated water utility operations. According to a December 21, 2009 S&P research report (Attachment A) published on American Water, the company's regulated water utility subsidiaries represent almost 90 percent of total revenues and 100 percent of adjusted earnings before interest and taxes (EBIT) for the past three years. S&P has assigned American Water an "excellent" business risk profile based in large part on the stability of its regulated operations. If S&P believed American Water had a significant amount of riskier non-regulated operations, then this would most likely result in a lower business risk profile being assigned to American Water for purposes of assigning a corporate credit rating.

Q. Even if American Water had significant non-regulated operations, what would most likely be the impact on the capital structure to offset the higher business risk that is usually associated with non-regulated operations?

A. If American Water has higher-risk, non-regulated business ventures, then commonly understood financial theory dictates the need for more common equity in order to maintain a certain credit rating versus a company that does not have higher-risk, non-regulated business ventures. Therefore, utilizing American Water's consolidated capital structure for ratemaking purposes in this case is appropriate because even though American

Water's non-regulated operations are limited, the inclusion of these non-regulated operations would require American Water to maintain a higher level of common equity than if American Water's operations were confined to regulated water utility operations.

MS. AHERN'S RECOMMENDED COST OF COMMON EQUITY FOR MAWC

Q. Please summarize Ms. Ahern's recommended cost of common equity for MAWC.

A. Ms. Ahern utilized the Discounted Cash Flow (DCF) model, the Capital Asset Pricing Model (CAPM), the Risk Premium Model (RPM), and the Comparable Earnings Model (CEM) to estimate the cost of common equity for MAWC. Ms. Ahern applied the DCF, CAPM and RPM to two proxy groups, a water utility proxy group and a natural gas utility proxy group. Ms. Ahern applied the CEM to two proxy groups of non-price-regulated companies. Ms. Ahern selected each non-price-regulated proxy group in an effort to make these groups comparable to each of her utility proxy groups. Ms. Ahern summarizes her results on pages 4 through 7 of her Direct Testimony. The results range from a low of 8.68 percent based on her constant-growth DCF analysis of the natural gas proxy group to a high of 13.50 percent based on her CEM analysis of the non-regulated proxy group she considered comparable to her water utility proxy group.

Ms. Ahern calculated a simple average of the cost of equity estimation methodologies she applied to her water utility proxy group to arrive at an estimated 12.15 percent cost of common equity. Ms. Ahern calculated a simple average of three of her four cost of equity estimation methodologies to arrive at an estimated 10.35 percent cost of common equity for her natural gas utility proxy group. Because of the significant difference between these two cost of equity estimates for a natural gas utility group compared to a water utility proxy group,

one might question the appropriateness of applying the natural gas proxy group cost of equity estimate to a water utility such as MAWC. However, Staff will demonstrate why it believes this wide difference is not because the cost of equity for water utility companies is truly higher than it is for gas utilities. If anything, based on costs of equity used by equity analysts to discount water utility dividends and the costs of equity used to test American Water's assets for impairment, Staff believes the opposite may be true. Staff believes Ms. Ahern's indicated differences are a function of inappropriate inputs to her methodologies rather than actual cost of equity differences in the capital markets.

In order to arrive at her final cost of equity estimate for MAWC, Ms. Ahern makes two upward adjustments to both of her proxy groups. Ms. Ahern believes that an upward adjustment should be made (1) in order to consider MAWC's smaller size and (2) due to credit risk differentials between MAWC and her proxy groups. While I do not agree with Ms. Ahern's position that an upward adjustment should be made for MAWC's smaller size, I accept Ms. Ahern's argument regarding the need for an adjustment due to credit risk differentials. However, Staff and the Company disagree on the process for estimating MAWC's credit rating. Ms. Ahern bases her estimate of MAWC's credit rating on S&P's published benchmarks, whereas my estimate is based on the actual methodologies S&P uses to rate subsidiaries that are not considered to be separate from their parent companies due to lack of sufficient regulatory and legal restrictions at the subsidiary level.

After making the aforementioned adjustments to her initial cost of equity inputs for her proxy groups, Ms. Ahern recommends an 11.60 percent ROE based on the mid-point of her natural gas utility cost of equity estimate of 10.71 percent and the water utility proxy group cost of equity estimate of 12.52 percent.

Q. What is the most glaring issue that should cause the Commission concern about Ms. Ahern's cost of equity estimate in this case?

A. The fact that her cost of equity estimation models and inputs result in significantly different cost of equity estimates for two predominately regulated utility proxy groups. While Staff believes that it is logical to expect some difference in an average cost of equity indication for water, electric and gas utility companies, Staff does not believe this difference would reasonably be expected to be close to 200 basis points as is suggested by Ms. Ahern's analysis.

Q. What cost of equity methodology shows the widest discrepancy of the costs of equity Ms. Ahern uses to estimate the average cost of equity for her gas and water utility proxy groups?

A. The DCF methodology. Ms. Ahern estimates a cost of common equity of 11.73 percent for her water utility group, while she estimates an 8.68 percent cost of equity for her natural gas utility proxy group.

Q. What do you believe is the primary cause of this wide discrepancy in the estimated cost of equity applying the same methodology to two regulated utility proxy groups?

A. Input error. I do not believe the problem lies with the DCF methodology. I believe the assumptions made by Ms. Ahern in her application of the DCF methodology to the water utility proxy group are flawed.

Q. Why?

A. Ms. Ahern makes the simplistic assumption that her water utility proxy group's dividends will grow into perpetuity at an average annual growth rate of 8.33 percent. This

compares to her assumed perpetual growth rate of 4.38 percent for her natural gas utility proxy group. It is highly questionable to assume that water utility companies can grow into perpetuity at a rate which is almost twice that of the expected growth in the U.S. domestic economy over the long-term and also almost twice that of the expected growth of the natural gas utility proxy group.

Q. What is your understanding of the characteristics of investor-owned publicly-traded water utility industry in the United States?

A. It is my understanding that the water utility industry is undergoing significant capital expenditures due to replacing aging infrastructure. Additionally, due to little organic growth of existing systems, the industry has been consolidating and is expected to continue to consolidate in the future. While larger acquisitions have not occurred recently, water utility companies continue to make smaller acquisitions throughout the country.

Q. What is your understanding of the reason for near-term higher expected growth rates in both EPS and DPS for water utility companies?

A. I believe it is due to a combination of expected rate base growth and continued consolidation of the industry. The extent of the expected growth due to these issues will depend in part on the value creation that management can create by making these investments.

Q. Do you believe selecting comparable companies that are involved in continuous acquisitions is ideal for estimating the cost of common equity for captive water utility operations?

A. No. However, because this appears to be the state of the water utility industry, it becomes a matter of practicality to use the publicly-traded water utility companies that are available to perform a water utility cost of equity study.

Q. Would this not lend some support for Ms. Ahern's decision to use a natural gas utility proxy group to estimate the cost of common equity for a regulated water utility company?

A. Yes. Because the expected growth of gas utility companies is not driven by expected consolidation within the industry to the extent it is in the water utility industry, this could possibly allow for a more "natural" estimate of the cost of common equity for regulated water utility operations.

Q. Is it still possible to reliably estimate the cost of common equity using the DCF methodology for water utility operations from a proxy group of water utility companies considering some of the characteristics of the industry?

A. Yes, but doing so requires the use of reasonable inputs for the assumed growth rate, whether included in a single-stage DCF or a multiple-stage DCF.

Q. How can one determine if the assumed growth rates are reasonable?

A. This can be evaluated by comparing the level of the growth rate against the expected long-term economic growth rate and to the extent reliable information is available, long-term expected industry growth rates based on industry fundamentals.

Q. What are expected long-term economic growth rates for that of the U.S. economy?

A. Expected long-term U.S. nominal GDP growth rates range from 4.0 percent to 4.8 percent according to the Congressional Budget Office (CBO)[1] and the Federal Reserve.[2] Staff considered an estimate of approximately 4.50 percent to be reasonable. This long-term

[1] "The Budget and Economic Outlook: Fiscal Years 2010 to 2020" January 2010, *Congressional Budget Office.*
[2] http://www.federalreserve.gov/monetarypolicy/files/fomcminutes20100127.pdf

economic growth rate is consistent with the mid-point of the Federal Reserve's central tendency estimates for long-term economic growth.

Q. What is your understanding of long-term expected sustainable growth rates for investments in regulated water utility companies?

A. Staff researched various investment research reports provided by MAWC in response to Staff Data Request No. 0107 to determine if there was any consistent factor analyzed by equity analysts to project long-term sustainable growth rates. Although Staff could not find information that shows how these equity analysts specifically estimated the long-term perpetual growth rate in their analysis, Staff did discover perpetual growth rates that support the reasonableness Staff's perpetual growth rate of 4.5 percent.

As Staff already discussed in the Staff Cost of Service Report, Goldman Sachs uses a perpetual growth rate of 5 percent when estimating the price to pay for water utility stocks using the dividend discount model, i.e. the DCF model in utility rate case terminology. Staff discovered that Macquarie Research used a perpetual growth rate of 4 percent when estimating the value for American Water, which followed seven years of dividend growth in the 5 to 8 percent range. The same Macquarie report used a long-term dividend growth rate of 4.5 percent when estimating the value of Aqua America's stock, which followed seven years of 5 to 7 percent dividend growth.[3] Staff solved for the cost of equity used by Macquarie to estimate the fair value of the American Water stock and determined this cost of equity was approximately 7.36 percent. This was similar to the cost of equity Macquarie directly provided in a June 3, 2009 research report on American Water of 7.22 percent.[4]

[3] Water Utilities, *Water for Growth?*, May 11, 2009, Angie Storozynski (see Attachment B).
[4] American Water Works, *Better Safe than Sorry*, June 3, 2009, Angie Storozynski (see Attachment C).

Q. Did you discover any other cost of common equity estimates in these reports that support the reasonableness of your cost of equity estimate?

A. Yes. A November 24, 2008 equity research report published by Societe Generale used a cost of equity of 7.5 percent to estimate the value of American Water's stock.[5]

Q. Are you aware of any information from sources other than equity analysts that would support the opinion that the cost of equity for water utility companies is firmly in the single digits?

A. Yes. In response to Staff Data Request No. 109, MAWC provided certain valuation analyses performed by ** _____

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[5] American Water Works, *A unique opportunity to enter American water*, November 24, 2008, John Honore and Didier Laurens (see Attachment D).

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Q. ** _____

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A. ** _____ _____ _____ _____ _____ **

Q. Does this confirm the reasonableness of your cost of common equity estimate in this case?

A. Yes. My cost of common equity estimate is 8.95 to 9.55 percent based on a similar capital structure.

Q. On page 14, line 27 through page 17, line 13, of her Direct Testimony, Ms. Ahern explains why she believes a small size risk adjustment needs to be made to her initial proxy group cost of common equity. What has been Staff's position in the past regarding the need for an adjustment to the cost of common equity to consider a utility company's smaller size relative to the proxy group?

A. Staff has consistently recommended to the Commission that it reject any adjustments to the cost of common equity because of a utility company's smaller size. Staff has maintained that the studies cited by company ROR witnesses were not based on an analysis of the regulated utility industry, but on all of the stocks in the New York Stock Exchange, the American Stock Exchange and the Nasdaq National Market.

Q. Are you aware of any information from the asset impairment tests performed on American Water's assets that support the Staff's longstanding position?

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A. Yes. The asset impairment tests discussed whether it was appropriate to apply a small size risk premium to the initial estimated cost of common equity. **

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Q. On page 25, line 19 through page 27, line 31 of her Direct Testimony, Ms. Ahern explains why she believes it is better to rely on more than one cost of common equity model to estimate the cost of common equity. She also implies that it is improper to give primary reliance to the DCF model. How do you respond?

A. I believe it is important to consider other available financial information to test the reasonableness of a recommendation, regardless of the model or models used. I believe one can do this by evaluating expected returns in the market and comparing this to the results obtained from performing a cost of common equity analysis. For example, in the ROR Section of the Staff Cost of Service Report, I compared my recommendation to Missouri State Employees' Retirement System's (MOSERS) expected returns for large cap domestic stocks. I also reviewed a "rule of thumb" test to determine if my cost of equity estimate was within reason.

In preparing this rebuttal testimony I performed additional research on equity analysts' research reports and have found that their estimates of water utility industry costs of equity are well *below* my estimated cost of equity. The equity analysts' cost of equity estimates are especially informative considering that Ms. Ahern used equity analysts' 5-year EPS growth estimates for her assumed constant growth rate in her DCF estimated costs of equity. It should be obvious from the fact that these analysts' themselves do not assume that a water utility company can grow its DPS in perpetuity at a growth rate above 8 percent that this type of assumption is not made in the practice of investment analysis.

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Q. Do you have any concerns with Ms. Ahern's analysis using the Risk Premium Model (RPM)?

A. Yes. I believe it is more appropriate to use a recent average yield on utility bonds as the starting point in a risk premium analysis because investors' expectations of changes in interest rates are already reflected in current bond prices. It is logical to use current yields for the same reason it is logical to use current stock prices in the DCF model. As with current stock prices, current yields reflect investors' required rates of return for future uncertainties. If an investor requires a yield of 6 percent on her investment in a bond today, she has done so based on her assessment of not only company-specific factors, such as credit risk, but also due to other macro risk factors such as the possibility of interest rate increases and decreases in the future. Using projected bond yields is akin to using projected stock prices when estimating the cost of equity using the DCF methodology. This violates the premise underlying the efficient market hypothesis, which is that asset prices reflect all known information.

Q. Do you have any concerns with Ms. Ahern's risk premium estimate using historical data?

A. Yes. I do not agree with Ms. Ahern's position that arithmetic means should be used when estimating the risk premium going forward. For the most part, it is assumed that investors in utility stocks are buying for the long-term. Investors are not buying and selling shares every year. Consequently, the investor should not be assumed to be realizing any of the gains and losses that occur year-to-year.

Q. Please provide a simple example to illustrate why you do not believe investors use arithmetic means when determining the amount of risk premium they will require on a given stock or a portfolio of stocks.

A. Suppose that an investor makes a $1 stock investment over a three-year period. If an investor pays $1 for a stock in year 1 and then in year 2 the stock increases to $1.50, then the investor would have a 50 percent growth rate. Let us also assume that in year three, the price of the stock decreases by 50 percent to $.75. If an investor performed a simple arithmetic average of these two returns, then he would think that he received 0 percent [(50 percent + -50 percent)/2] growth in his investment over the three-year period. However, in reality the investor actually had a 25 percent decline in his investment over this three-year period. This is why using the arithmetic mean to measure risk premiums is questionable.

Q. You have given an intuitive reason as to why you believe that geometric means are more realistic in measuring equity risk premiums, but Ms. Ahern cited Ibbotson Associates to support her claim that the arithmetic average should be used. Do you have any academic support for your use of the geometric mean?

A. Yes. The first is *Investment Analysis & Portfolio Management*, seventh edition, 2003, written by Frank K. Reilly and Keith C. Brown. Reilly and Brown stated the following:

> The geometric mean is appropriate for long-run asset class comparisons, whereas the arithmetic mean is what you would use to estimate the premium for a given year (e.g. the *expected* performance next year).

The second textbook is *INVESTMENT VALUATION: Tools and Techniques for Determining the Value of Any Asset*, 1996, written by Aswath Damodaran. Dr. Damodaran stated the following in his textbook:

> The geometric mean generally yields lower premium estimates than the arithmetic mean. In the context of valuation, where cash flows over a long time horizon are discounted back to the present, the geometric mean provides a better estimate of the risk premium. Thus, the premium of 5.50% (the geometric mean of the premium over Treasury bonds) is used throughout this book for calculating expected returns.

The third textbook is *Analysis of Equity Investments: Valuation*, 2002, written by John D. Stowe, Thomas R. Robinson, Jerald E. Pinto and Dennis W. McLeavey. The text states the following:

> In taking a historical approach, we face a choice between using arithmetic mean return (typically, the average of one-year rates of return) and using the geometric mean return (the compound rate of growth of the index over the study period). The arithmetic mean more accurately measures average one-period returns; the geometric mean more accurately measures multiperiod growth. The dilemma is that the CAPM (as well as the APT) is a single-period model, suggesting the use of the arithmetic mean; but common stock investment often has a long time horizon, and valuation involves discounting cash flows over many periods, suggesting the use of geometric mean…
>
> …Although the debate is inconclusive, this book uses geometric means, not only for the previously given reasons but also because geometric means produce estimates of the equity risk premium that are more consistent with the predictions of economic theory.

The above-mentioned textbooks were or are used in the Chartered Financial Analyst (CFA) Program sponsored by the CFA Institute. Although some concern was expressed in the recent MGE rate case, Case No. GR-2009-0219, as to whether the CFA Program curriculum may have had some inconsistency regarding advocating the use of arithmetic rather than geometric means to project risk premiums, Staff believes that the research it performed and explained in the recent Union Electric Company, dba AmerenUE (AmerenUE) electric rate case, Case No. ER-2010-0036, confirmed the use of geometric means at least for long-term investments. Staff does believe it could be argued that arithmetic means should be used for one year investments, but Staff continues to believe the estimation of utility

companies' costs of equity more appropriately assumes investment periods longer than one year.

Q. Do you have any concerns about the estimated risk premiums Ms. Ahern uses as inputs into her risk premium analysis?

A. Yes. Ms. Ahern's estimated risk premiums are not consistent with those that are used by investors to make investment decisions or to advise investors on utility company stocks. Although I do not agree with Ms. Ahern's use of arithmetic means of the historical earned return spreads to estimate a long-term prospective equity risk premium, the most material impact that causes Ms. Ahern's estimated equity risk premiums to be upwardly biased are her forecasted risk premiums of 9.31 percent based on a 3-5 year expected total return of 14.84 percent for the broader U.S. stock market. This estimated risk premium over corporate bond yields is much higher than the *total* expected return for large cap domestic stocks of 8.50 percent assumed by MOSERS for purposes of making asset allocation decisions for the management of state employees' retirement assets. Additionally, MOSERS' expected return is for a ten-year period compared to the 3-5 year period used by Ms. Ahern, which is more consistent with estimating long-term risk premium requirements.

Q. Are you aware of any academic sources that contradict the reasonableness of applying a 4.50 to 5.06 percent risk premium to utility-specific bond yields to estimate the cost of common equity for a company?

A. Yes. According to the textbook *Analysis of Equity Investments: Valuation* (2002) by John D. Stowe, Thomas R. Robinson, Jerald E. Pinto and Dennis W. McLeavey (used as part of the curriculum in the Chartered Financial Analyst Program), a typical risk premium added to the yield-to-maturity (YTM) of a company's long-term debt is in the 3 to

4 percent range. Because utility stocks behave much like bonds, I would not add more than a 3 percent risk premium to arrive at a rough estimate of the cost of common equity.

Because MAWC's S&P credit rating would be the same as its parent credit rating due to the fact the MAWC is not considered substantially separate from American Water at least from a financial perspective, the appropriate yield to apply this risk premium to would be that of a recent average yield for "BBB" rated bonds. This would indicate an approximate cost of common equity of 9.22 percent based on a recent 3 month average yield of 6.22 percent. This is approximately at the mid-point of my recommended cost of common equity range for this case.

Q. The methodology suggested by the above-mentioned source seems very simplistic. Do you recommend that the cost of common equity be set based on this approach?

A. No, but I certainly believe this approach provides an element of common sense as to determining the reasonableness of a ROR witness' estimate of the cost of common equity. It is easy to complicate the estimation of the cost of common equity by compiling massive amounts of data and using many different methodologies, but sometimes it is important to perform simplifying tests of reasonableness to determine if an estimated cost of equity can be judged to be sound and reasonable. Staff has provided several sources of information that, if anything, seem to imply that Staff's estimated cost of equity is too high.

Q. Do you have concerns with Mr. Ahern's CAPM analysis?

A. Yes. My concerns about her CAPM analysis are much the same as my concerns regarding her risk premium analysis due to the fact that she uses projected risk-free rates rather than current risk-free rates and most importantly, because her estimated risk premiums are nowhere close to those used by investors or investment analysts. Because ROR

witnesses are attempting to determine investors' required rates of return, the type of evidence I have provided on equity analysts' discount rates and institutional investor's expected returns is informative for purposes of testing the reasonableness of cost of equity estimates. Because the Commission has also used average authorized ROEs from other states to determine a zone of reasonableness, I also provided this information in the Staff's Cost of Service Report. I urge the Commission to consider all of the data I have provided in determining the allowed ROE in this case. I believe that the data that I provided that is used for purposes of actual investment decisions and also for financial statement reporting purposes is the data that should receive the most consideration.

Q. What equity risk premium did Ms. Ahern propose to use for her CAPM analysis?

A. 8.31 percent.

Q. Why is this equity risk premium higher than what she used in her risk premium analysis?

A. Because this risk premium is based on the Ms. Ahern's projected stock market returns over the yields on 30-year Treasury bonds (T-bonds) rather than over public utility bond yields, which are higher due to the inclusion of default risk.

Q. How much higher is Ms. Ahern's estimated equity risk premium than that used by Macquarie Research in the previously mentioned research report when it estimated the cost of common equity for American Water?

A. 381 basis points higher.

Q. How much higher are Ms. Ahern's estimated equity risk premiums than those implied by MOSERS' expectations?

A. Based on the most recent three months, 30-Treasury bonds have been yielding approximately 4.60 percent. This translates into a current equity risk premium for U.S. market of approximately 390 basis points, less than half of that used by Ms. Ahern.

Q. What concern do you have about Ms. Ahern's risk-free rate component?

A. Although her inflated risk premium estimates are by far the most glaring issues that should cause one to question the credibility of her recommendation, Ms. Ahern also uses projected risk-free rates in her analysis. As I discussed previously, this is akin to using projected stock prices to determine a DCF cost of equity. However, because we are trying to determine investors' expectations, the more relevant data are current yields because this data already captures these expectations.

Q. Does the Comparable Earnings Model (CEM) analysis performed by Ms. Ahern necessarily reflect the cost of common equity capital to the companies in her study?

A. No. Ms. Ahern's CEM analysis is an assessment of the future expected ROEs for her two proxy groups. First, there is an inherent problem with using expected returns on common equity from Value Line because while investors use Value Line to evaluate their investment opportunities, Value Line's predictions may not be consistent with that of investors. Second, expected ROEs over the next five years are not necessarily synonymous with the cost of common equity; i.e., required ROE.

If the allowed returns are set based on expected returns, then it is possible that these returns will be based on returns that are not consistent with the long-term required returns on common equity, i.e. the cost of equity. This can result in providing support for current market valuation levels rather than setting the ROE equivalent or close to the cost of common equity.

If a company is earning more than its cost of capital, then the company is recovering more than its cost of service. The intent of ROR/rate base regulation is to allow the utility to recover its cost of service. While reviewing what other non-regulated companies may be expected to earn over the next five years may be informative in testing the reasonableness of a witness's DCF results, it should not be relied upon for a cost of common equity recommendation because of the above explanation.

Q. Have any other commissions rejected the CEM for basically the same reason that you cited above?

A. Yes. In a case involving AmerenUE, Docket Nos. 02-0798, 03-0008 and 03-0009, the Illinois Commerce Commission stated the following:

> Staff objects to Ameren's comparable earnings analysis because Staff believes the comparable earnings methodology is based on the erroneous assumption that earned returns on book equity are acceptable substitutes for investor-required returns. Staff claims there is no basis for this implication, since investor-required returns are only loosely related to accounting returns; they are not interchangeable. Staff asserts that the return on book value of common equity is unaffected by changes in the investor-required rate of return. Staff claims that in some circumstances investors could bid up the price of a stock, thereby reducing the implied required rate of return, but the anticipated return on book equity would not change.
>
> As Staff notes, the Commission has consistently and repeatedly rejected the comparable earnings methodology. In the Commission's view, Ameren has provided no new argument in favor of this flawed methodology. Stated simply, the Commission does not believe it is appropriate to estimate CIPS' and UE's forward looking cost of common equity by looking to historical earned returns on common equity earned by competitive industrial firms of similar risk. The constantly changing economic environment alone, which is well documented in the record, prevents the Commission from relying on historical earned returns to establish a forward looking return on common equity.
>
> As stated above, the objective of this proceeding is to establish a net original cost rate base and provide common equity investors the opportunity to earn the market required rate of return on the proportion

> of net original cost rate base financed by common equity investors. The comparable earnings test proposed by Ameren is inconsistent with this object[ive] and is rejected.

Q. Is there any other logical reason to dismiss the estimated cost of common equity using the CEM?

A. Yes. Ms. Ahern rejected the CEM estimated cost of equity analysis on the companies she considered to be comparable to her natural gas utility proxy group. Ms. Ahern's CEM analysis on these companies resulted in an indicated cost of common equity of 21.00 percent. Considering that this indicated cost of equity is far above what would be considered logical in the current capital market environment, the CEM methodology should be completely disregarded by the Commission.

SUMMARY AND CONCLUSIONS

Q. Please summarize the conclusions of your rebuttal testimony.

A. My conclusions regarding the capital structure and cost of common equity are listed below:

1. The use of MAWC's capital structure as proposed by MAWC is inappropriate. It does not reflect the mix of capital that American Water considers optimal for purposes of investing in its regulated water utility subsidiaries. The estimated cost of capital for MAWC should be based on American Water's actual consolidated capital structure as of September 30, 2009;

2. Ms. Ahern's cost of common equity estimate for her regulated water utility proxy group is significantly higher than that of her natural gas utility proxy group. There is no logical reason for this significant

difference. Additionally, this is not corroborated by other cost of equity estimates used by investment analysts;

3. Ms. Ahern's risk premium estimates are based in part on 3-5 year projected broader market returns of 14.84 percent. This causes an upward bias in her estimated equity risk premium and is not consistent with Staff's understanding of long-term expected returns assumed by those in the investment field;

4. Ms. Ahern's use of projected yields is inconsistent with the premise that current asset prices reflect all known information about interest rate risk;

5. Ms. Ahern's cost of equity estimates are much higher than a consultant American Water hired to estimate the value of its regulated assets for purposes performing asset impairment tests; and,

6. Staff's cost of common equity estimate of 8.95 percent to 9.55 percent is reasonable and fair when compared to other estimates and projections provided by others outside the utility ratemaking setting. Staff's cost of equity estimate range would produce a fair and reasonable ROR of 7.33 percent to 7.59 percent on the Missouri jurisdictional water utility rate base of MAWC.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water Company's Request for Authority to Implement a General Rate Increase for Water and Sewer Services Provided in Missouri Service Areas	))))	Case No. WR-2010-0131

AFFIDAVIT OF DAVID MURRAY

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

David Murray, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Rebuttal Testimony in question and answer form, consisting of 31 pages to be presented in the above case; that the answers in the foregoing Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

David Murray

Subscribed and sworn to before me this 15th day of April, 2010.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 08, 2012
Commission Number: 08412071

Notary Public

Missouri-American Water Company
Case No. WR-2010-0131

Capital Structure as of September 30, 2009 for American Water

Capital Component	Amount (*in thousands*)		Percentage of Capital
Common Stock Equity	$3,987,252	[1]	43.00%
Preferred Stock	27,619	[2]	0.30%
Long-Term Debt	5,180,587	[3]	55.87%
Short-Term Debt	76,556	[4]	0.83%
Total Capitalization	**$9,272,014**		**100.00%**

Notes:
1. Based on common equity shown on American Water's September 30, 2009 balance sheet.
2. Based on total preferred stock shown on American Water's Sepetmber 30, 2009 balance sheet less unamortized preferred stock expenses.
3. Based on total long-term debt shown on American Water's September 30, 2009 balance sheet less unamortized long-term debt expenses.
4. Based on short-term debt shown on American Water's September 30, 2009 balance sheet.

Source: MAWC's response to Staff Data Request Nos. 0103 and 0104.

CORRECTED SCHEDULE 7

Missouri-American Water Company
Case No. WR-2010-0131

Weighted Cost of Capital as of September 30, 2009 for Missouri-American Water Company

Capital Component	Percentage of Capital	Embedded Cost	Weighted Cost of Capital Using Common Equity Return of: 8.95%	9.25%	9.55%
Common Stock Equity	43.00%	-----	3.85%	3.98%	4.11%
Preferred Stock	0.30%	9.19%	0.03%	0.03%	0.03%
Long-Term Debt	55.87%	6.18%	3.45%	3.45%	3.45%
Short-Term Debt	0.83%	0.81%	0.01%	0.01%	0.01%
Total	**100.00%**		**7.33%**	**7.46%**	**7.59%**

Sources:

See Schedule 7 for the Capital Structure Ratios.

CORRECTED SCHEDULE 22

STANDARD &POOR'S

Global Credit Portal
RatingsDirect®

December 21, 2009

Summary:

American Water Works Co. Inc.

Primary Credit Analyst:
Jonathan Blankenheim, CFA, New York (1) 212-438-3119; jonathan_blankenheim@standardandpoors.com

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Attachment A-1

Summary:

American Water Works Co. Inc.

Credit Rating: BBB+/Stable/A-2

Rationale

The ratings on American Water Works Co. Inc. (AWW) and its funding subsidiary American Water Capital Corp. (AWCC) reflect the consolidated credit quality of AWW. A favorable competitive position, a diverse and supportive regulatory environment, and a stable, above-average service territory support AWW's 'excellent' business risk profile. AWW's regulatory framework includes reasonably allowed returns on equity and various cost-recovery mechanisms, including incentives for infrastructure improvements. The company's geographic diversity provides it with some market, cash flow, and regulatory diversification. We view AWW's operating risks associated with its nonregulated operations as fairly low. AWW's aggressive financial profile, elevated capital-spending requirements for infrastructure replacement, increased compliance costs with water-quality standards, and the company's reliance on acquisitions to provide growth partly offset these strengths.

AWW provides regulated water and wastewater services to more than 3.3 million customers in 20 states. The company's regulated utility subsidiaries represent almost 90% of total revenues, but have provided almost 100% of adjusted EBIT for the past three years. The company's nonregulated subsidiaries engage in water and wastewater facility management and maintenance, as well as design and construction consulting services related to water and wastewater plants. We view these nonregulated segments as having modest incremental risk for AWW due to their lack of cash flow contribution and modest expected capital requirements.

A state commission regulates each of AWW's regulated subsidiaries, which supports revenue and cash flow stability. The average allowed return on equity (ROE) in AWW's six largest jurisdictions, which account for about 75% of consolidated revenues, is about 10.3%. This is about the average allowed ROE in the water sector. In a number of jurisdictions, which represent about 50% of consolidated revenues, the utility recovers replacement capital spending between rate cases up to a stated percentage. The importance of infrastructure surcharge mechanisms has increased given AWW's capital program of up to $1 billion per year. Certain states also allow for surcharges related to the cost of power, chemicals, and purchased water. For the next few years, we expect AWW to file additional rate cases and request additional recovery mechanisms to cover rising operating costs, capital expenditures, and pension and other postretirement obligations.

Consolidated financial metrics are improving, and are acceptable for the 'BBB+' rating. RWE AG's agreements to not file rate cases for up to three years following its acquisition of AWW in 2003, as well as significant goodwill impairments, resulted in a deterioration of the financial profile. In 2008, regulatory commissions granted AWW $200 million of rate increases and the company currently has filed requests for an additional $280 million. The company asked for the rate increases to cover rising operating costs, capital expenditures, and pension and other postretirement obligations. In November 2009, RWE announced an offering to sell its remaining holdings of AWW. None of the proceeds from the sale will benefit AWW, and the announcement is consistent with our expectation and RWE's previously stated plan to fully divest its ownership of AWW.

For the 12 months ended Sept. 30, 2009, AWW's adjusted funds from operations (FFO) totaled $690 million. FFO

to debt was 11.3%, which is acceptable for the rating. Total debt to capital also improved to 60% as of Sept. 30, 2009, compared with the 63% as at March 31, 2009, with the completion of $250 million equity issuance in June 2009. The uncertainties associated with the timing of the company's rate cases and the substantially higher capital plans are significant risks that may prevent adequate improvements to the company's financial profile. We expect FFO to benefit from additional rate increases, although a sustained improvement in consolidated FFO to debt may not materialize given the company's financing needs.

Short-term credit factors

The 'A-2' short-term ratings on AWW and AWCC reflect sizable borrowing capacity under the company's revolving credit facility and stable cash flows from regulated subsidiaries. However, AWW's cash uses include high levels of capital spending, substantial upcoming debt maturities, and expectations that the company will institute a common stock dividend. Capital expenditures are projected at around $5 billion during the next five years for infrastructure replacements, new facility construction, maintenance of water-quality and environmental standards, and system reliability.

For the 12 months ended Sept. 30, 2009, AWW generated $680 million of cash from operations. AWW's internal cash generation is insufficient to meet its ongoing operating and capital needs, and therefore requires periodic access to the capital markets. Scheduled debt maturities of $45 million in 2010 and $35 million in 2011 should be manageable given the company's good access to the markets. AWW's annual dividends total about $130 million. AWW issued about $250 million of equity and about $400 million of debt in 2009. The company uses the proceeds to fund some of its capital expenditure plans, as well as to reduce short-term debt. We expect AWW to continue to fund its capital expenditures through a prudent mix of debt and equity.

As of Nov. 5, 2009, AWW had $803 million available under its $840 million revolving credit facilities. A small portion (15%) of the revolving credit facilities matures on Sept. 15, 2012, with the balance due Sept. 15, 2013. The company also has access to a $10 million short-term working-capital line of credit. The company is in compliance with its various financial covenants, which include a maximum debt to capital (with adjustments) of 70% and restrictions on liens, distributions, debt incurred at AWW, and asset sales.

Outlook

The stable outlook on AWW and AWCC reflects our expectation that the company will receive supportive rate increases over the next three years to address rising costs and increased capital spending plans. The current rating can accommodate some acquisitions, assuming management funds the acquisitions in a balanced manner. We could lower the rating if financial performance stalls or deteriorates, which could result from substantial debt-financing of capital expenditures or acquisitions, such that FFO to debt falls below 9% and debt to capital rises above 65%. We could also lower the rating if rate increases or allowed returns are set at levels substantially below the requested figures and rate case filings take significantly longer to be resolved than currently expected. We could raise the rating if higher-than-expected rate increases or favorable cost recovery mechanisms allow for a sustained adjusted FFO to total debt ratio of 12% and adjusted leverage between 50% and 55%.

Macquarie Research
Equities (USA)

UNITED STATES

Water utilities

11 May 2009

Inside

Analyst
Angie Storozynski
1 212 231 2569 angie.storozynski@macquarie.com

Water for growth?

Valuation premium to electric utilities is hard to justify

We are expanding our coverage of US utilities to water utilities. High capital intensity, earnings regulations and reliable dividends make regulated electric and water utilities very similar. Yet, on average, the water utilities have traded at a 52% PER premium to electric utilities since 2000. The premium can be partly explained by the lack of commodity risk, lower cyclical capex and higher growth in earnings for water utilities. Since 2003, earnings of water utilities have been largely flattish, although we believe that an 8–10% EPS CAGR is achievable longer term.

Capex needs will lead to sector consolidation . . . gradually

The water utility industry is the most capital intensive of the US utility industries and requires large capital investments to repair and build water and wastewater systems. As water investments are biased toward maintenance, capex is theoretically less cyclical for water utilities than for electrics. The large capex needs and high fragmentation of the water utility sector should naturally lead to consolidation. However, we have not yet seen the long-anticipated acceleration in consolidation, with large acquisitions largely offsetting EPS growth.

Water utilities = rate case machines

The high capital intensity of the sector requires almost continuous rate case filings, more frequent than for electric utilities. While a general perception is that water rate cases are more successful and less contested than electric utility rate cases, we have seen some aggressive opposition to increases in water rates, which tend to be larger on a percentage basis.

Initiating coverage of AWK (Outperform) and WTR (Neutral)

American Water Works (AWK, US$18.34, Outperform, TP: US$25): The acquisition of American Water by RWE in 2003 led to three-year rate stay-outs and a significant deterioration in AWK's regulatory relationships. With the expiration of the rate caps and RWE's decision to exit the company, AWK is in recovery mode, addressing ROE under-earnings across its 20 regulatory jurisdictions, which should translate into a 14% EPS CAGR through 2012. AWK is trading at a 24% 2010E PER discount to its peers, with a 4.4% dividend yield, and we believe that it offers an attractive and liquid opportunity to build a position in the US water utility sector. An upcoming sale of AWK's shares by RWE, which we expect in the near future, could offer an even better entry point into this water recovery story.

Aqua America (WTR, US$18.43, Neutral, TP US$20): We see Aqua America as a leading publicly traded water utility in the United States, based on its large geographical footprint, strong regulatory relationships, highly respected management, track record of conservative acquisitions, lean cost structure and strong balance sheet. These superior qualities, however, are largely priced in, with the stock trading at 20.2x versus the Macquarie US Water Utilities index at 16.7x, which constitutes a 21% premium versus 13% historically.

Water for growth?

Valuation premium to electric utilities is tough to swallow

We are expanding our coverage of US utilities to include water utilities. High capital intensity, earnings regulations and reliable dividends make regulated electric and water utilities very similar, in our opinion. Yet, on average, the water utilities have traded at a 52% forward-year PER premium to electric utilities since 2000: 20x PER versus 13x PER, respectively. The premium can be partly explained by the lack of commodity risk, lower cyclical capex, higher retail investor base and higher growth in earnings for water utilities in the United States. The latter is more perception than reality; however, over the last five years, water utilities have failed to deliver the premium EPS growth due to regulatory lag in recovery of acquisitions and higher capex. However, with a regulatory catch-up and large capital investments, we expect water utilities to grow their EPS at an 8–10% CAGR longer term.

Having said that, we recognize that flattish earnings for water utilities over the last decade relate to regulatory lag in recovery for acquisitions and associated large capital investments into newly acquired water systems. As water utilities have recently refocused their efforts on addressing the growing gap between their realized and allowed regulatory ROEs, away from large acquisitions, we are hopeful that the regulatory catch-up will enable them to grow EPS at an 8–10% CAGR, on average, with American Water growing EPS at a 14% CAGR through 2012.

Despite the high premium, we believe the valuation of water utilities should be linked to that of electric utilities. Our valuation of regulated electric utilities is linked to credit spreads and Treasury yields, and given our expectations for these valuations, we believe that a fair forward-year PER multiple for regulated electric utilities should be 12.5x. Applying the historical 52% premium for water versus electric utilities, we arrive at an anchor PER multiple for an average water utility of 19x.

Capex needs will lead to further sector consolidation . . . gradually

The water utility industry is the most capital intensive of the US utility industries and requires large capital investments to repair and build water and wastewater systems. The US Environmental Protection Agency (EPA) estimates that the sector needs US$335bn in capital investments over the next 20 years. The large capex needs and high fragmentation of the water utility sector should lead to consolidation. However, we have yet to see the long-anticipated acceleration in the consolidation. Most water systems in the United States continue to be owned by municipalities. Although those struggle financially, President Obama's stimulus bill provides them with low-cost financing, which, in turn, should relieve the pressure to sell water assets, thus delaying consolidation in the water sector in the United States.

Instead, we expect smaller acquisitions (tuck-ins) and maintenance capital investments in existing rate bases to drive earnings growth for water utilities. For those who hope for large-scale acquisitions, we say "be careful what you wish for." Indeed, Aqua America's large acquisitions in 2002–03 kept the company's EPS flat through 1H08, as the company struggled to recover additional investments in a timely manner.

Water utilities = rate case machines

The high capital intensity of the sector requires almost continuous rate case filings, more frequent than for electric utilities. While a general perception is that water rate cases are less contested than electric utility cases given a low absolute level of water utility bills, we have seen some aggressive opposition to increases in water rates, which tend to be large on a percentage basis and can attract negative publicity.

The outcome of water rate cases depend on the state of operations (with Pennsylvania being the most water-friendly regulatory environment) and on the quality of service, a factor much more important for water utilities than electrics. On average, a water and electric rate case in the United States lasts eight months and results in an allowed ROE of 10.5%, and 55%–60% of originally requested revenues are approved. We emphasize the similarity of outcomes because we recognize the general perception that water rate cases are easier and more lucrative.

Initiating coverage of AWK (Outperform) and WTR (Neutral)

American Water Works (AWK, US$18.34, Outperform, TP: US$25): The 2003 acquisition of American Water by RWE led to three-year rate stay-outs, a significant deterioration of AWK's regulatory relationships and an increase in balance sheet goodwill. With the expiration of the rate caps and RWE's decision to exit the company, AWK is in recovery mode, going through the second round of rate cases aimed at addressing its ROE under-earnings across its 20 jurisdictions. The regulatory catch-up should translate into higher EPS growth through 2012 at a 14% CAGR. We do not expect the company to restart its 'growth through acquisitions' strategy any time soon.

We estimate American Water will generate EPS of US$1.32, US$1.47 and US$1.65 in 2009, 2010 and 2011, respectively.

AWK is trading at a 2010E PER discount to its peers of 24% (versus 19% since its April 2008 IPO) and current dividend yield of 4.4%, and we believe that it offers an attractive and liquid opportunity to build a position in the US water utility sector. An upcoming sale of AWK's shares by RWE, which we expect in the near future, could offer an even better entry point into this recovery story, and we think the stock is already discounting the offering.

Aqua America (WTR, US$18.43, Neutral, TP: US$20): We view Aqua America as the leading publicly traded water utility in the United States, based on its large geographical footprint, strong regulatory relationships, highly respected management, track record of conservative acquisitions, lean cost structure and strong balance sheet. These superior qualities are, however, largely priced in, with the stock trading at 20.2x vs the Macquarie US Water index of 16.7x, which constitutes a 21% premium vs 13% historically. Aqua's growth strategy relies heavily on acquisitions and, so far, has not translated into a superior growth in earnings, which could then justify premium multiples. In fact, from 2003 through 1H08, when higher rates finally kicked in, Aqua's EPS was flat.

We estimate Aqua will generate EPS of US$0.82, US$0.90 and US$0.99 in 2009, 2010 and 2011, respectively.

The upcoming sale of AWK's shares by RWE could potentially depress WTR's share price, as investors may choose AWK on lower relative valuation and greater liquidity.

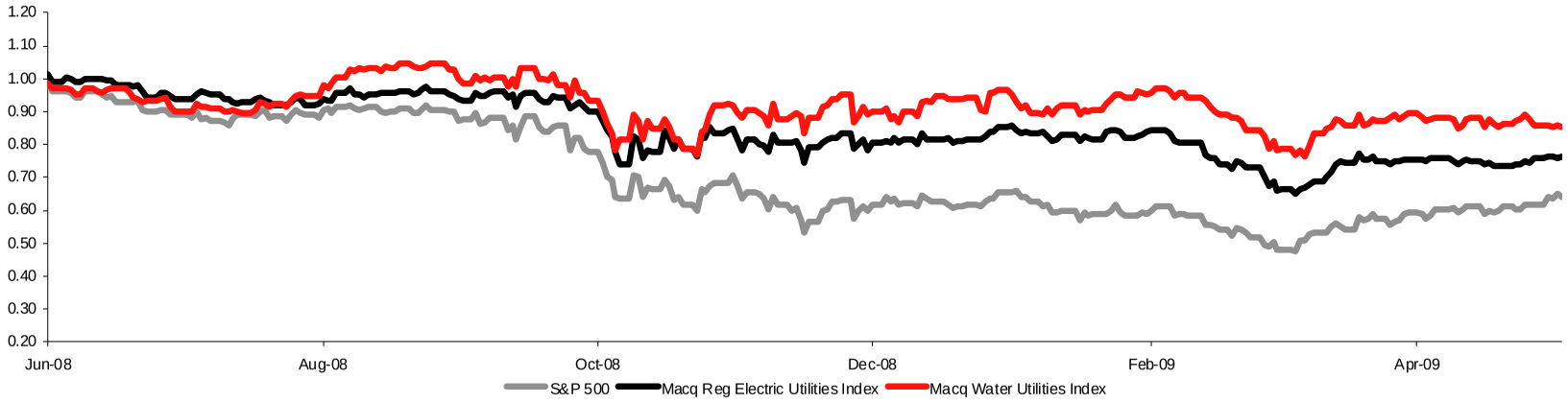
Fig 1 Publicly traded water utilities in the United States

	Ticker	Market cap (US$m)	Rating	Prices (US$)		Dividend yield	EPS (US$)						PER			Tangible BV (US$m)	P/BV
				5/7/09	Target		2009E		2010E		2011E		2009E	2010E	2011E		
							Macq.	Cons.	Macq.	Cons.	Macq.	Cons.					
American Water Works	***AWK***	***$2,906***	***Outperform***	***$18.34***	***$25.00***	***4.4%***	***$1.32***	***$1.35***	***$1.47***	***$1.44***	***$1.65***	***$1.45***	***13.9x***	***12.5x***	***11.1x***	***$15.02***	***1.2x***
Aqua America	***WTR***	***2,474***	***Neutral***	***18.43***	***20.00***	***2.9%***	***0.82***	***0.85***	***0.90***	***0.92***	***0.99***	***1.06***	***22.5x***	***20.5x***	***18.5x***	***7.86***	***2.3x***
California Water Service*	CWT	763	NR	37.09	NA	3.2%	NA	2.07	NA	2.14	NA	2.45	17.9x	17.3x	15.1x	18.36	2.0x
American States Water*	AWR	585	NR	33.70	NA	3.0%	NA	1.70	NA	1.92	NA	NA	19.9x	17.6x	NA	15.95	2.1x
SJW Corp.*	SJW	441	NR	23.54	NA	2.8%	NA	1.10	NA	1.45	NA	NA	21.4x	16.2x	NA	13.78	1.7x
Consolidated Water*	CWCO	189	NR	12.41	NA	2.1%	NA	0.61	NA	0.80	NA	NA	20.3x	15.6x	NA	8.02	1.5x
Middlesex Water*	MSEX	191	NR	14.08	NA	5.0%	NA	0.91	NA	0.97	NA	NA	15.5x	14.5x	NA	10.28	1.4x
Connecticut Water Service*	CTWS	173	NR	19.98	NA	4.5%	NA	1.19	NA	1.22	NA	NA	16.8x	16.4x	NA	11.80	1.7x
York Water*	YORW	160	NR	13.55	NA	3.7%	NA	0.65	NA	0.66	NA	NA	20.9x	20.6x	NA	6.14	2.2x
Artesian Resources*	ARTNA	106	NR	14.25	NA	5.0%	NA	0.93	NA	1.00	NA	NA	15.4x	14.3x	NA	11.81	1.2x
Total/Average		**$7,988**				**3.7%**							**18.5x**	**16.7x**	**14.9x**		**1.7x**

* FactSet consensus estimates.

Source: FactSet, Macquarie Capital (USA), May 2009

Fig 2 Macquarie Water Utilities index outperformed the Macquarie Regulated Electric Utilities index and the S&P 500 in the last 12 months



Source: FactSet, Macquarie Capital (USA), May 2009

An industry in need of investment

EPA regulations set the stage

We believe that tighter regulations and future water legislation could provide the impetus for municipalities to outsource their water and wastewater activities. Municipalities are becoming increasingly resource-constrained, from both technical and financial perspectives, and this could represent an opportunity for the private sector, including American Water and Aqua America. For example, Aqua America recently acquired a troubled water and wastewater system in Pennsylvania to aid state regulators in resolving ongoing service issues. The company paid US$185,000 and will invest US$2.1m initially to replace and rehabilitate assets.

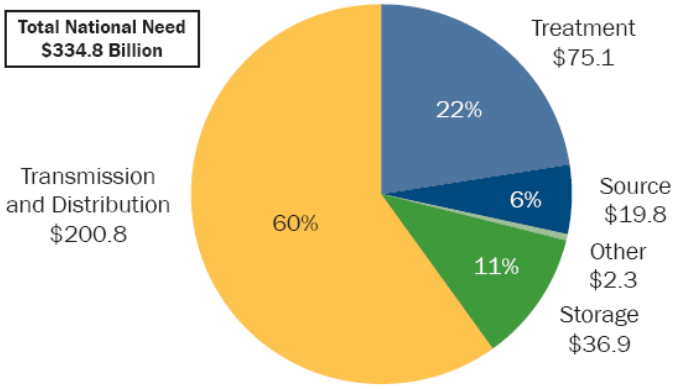
The quality of US water is regulated by the US EPA. The key piece of legislation is the Clean Water Act introduced in 1972, which introduced the concept of water discharge permits and quality standards. The Water Quality Standards Regulation was enacted in 1983 and is still in effect. This piece defines the process of water regulation, as well as how states interact with the EPA and submit data for scrutiny. In 1987, the Water Quality Act defined toxic pollutants. The Safe Drinking Water Act, last amended in 1996, sets standards for maximum levels of contaminants in drinking water and monitors water quality compliance.

EPA Drinking Water Infrastructure Needs Survey and Assessment

In 2007, the EPA conducted its 4th Drinking Water Infrastructure Needs Survey and Assessment. Its purpose was to document the 20-year capital investment needs of public water systems – approximately 52,000 community water systems and 21,400 nonprofit, noncommunity water systems. The survey found that the total nationwide infrastructure need is US$334.8bn over 20 years from January 2007 through December 2026. The 2007 total assessment was in line with the previous 2003 assessment after adjusting for inflation. The scope of the survey is limited to those needs eligible to receive drinking water system assistance, and thus excludes capital projects solely related to dams, raw water reservoirs, future growth and fire protection. The large scale of the national need reflects the challenges confronting water systems as they address an infrastructure network that has aged considerably since these systems were constructed – in many cases, 50 to 100 years ago.

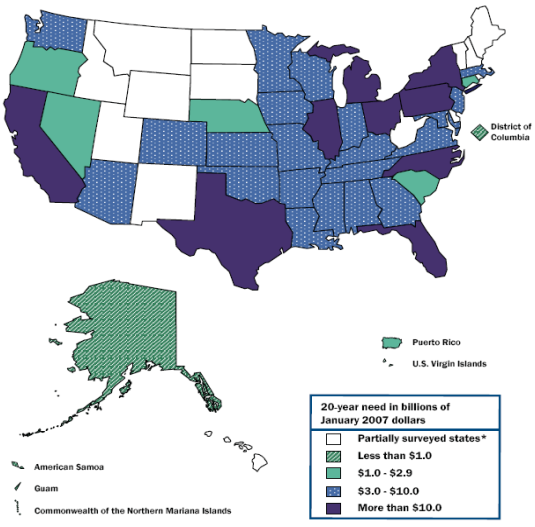
Transmission and distribution projects represent the largest category of need at US$200.8bn (60%). This result is consistent with the fact that transmission and distribution mains account for most of the nation's water infrastructure. The other categories are treatment at US$75bn (22%), storage at US$37bn (11%), source at US$20bn (6%) and miscellaneous at US$2bn (1%).

Fig 3 T&D is 60% of total water capex needs



Source: US Environmental Protection Agency, May 2009

Fig 4 CA, NY, TX and FL require highest water capex



Source: US Environmental Protection Agency, May 2009

2009 Stimulus Plan – President Obama recently signed a US$787bn stimulus package with approximately US$6bn allocated for water and wastewater programs. While the US$6bn allocation appears small relative to the EPA's national need assessment, it does increase funds available to water projects.

Proposed Sustainable Water Infrastructure Investment Act – Representative Bill Pascrell (D-NJ) reintroduced H.R. 537, the Sustainable Water Infrastructure Investment Act, in January 2009. This bill would remove volume caps on private activity bond water and wastewater projects. This could significantly increase private sector capital available for water infrastructure investment. The bill is in the initial stages of the legislative process.

Consolidation makes sense, but activity remains modest

As municipalities continue to struggle to meet budgets, we think an increasing number of them will question how much they really want to be in the water business, and acquisition activity from private sector water utilities could stimulate opportunistic sales of assets. American Water and Aqua America could benefit from this trend, as acquisitions play a role in their growth strategies.

Having said that, most of us have awaited an explosive consolidation of the water sector in the United States, and we are yet to see it realized. The stimulus package does offer some assistance to water utilities in the form of improved access to low interest financing, expanded tax-free debt issuances and the continuation of accelerated depreciation. However, the bill also provides municipalities with financial support for water systems, thus partially relieving their financial constraints and their need to divest water assets. That is why we cannot give Aqua an additional consolidation premium, which one day may turn out to be deserved.

Consolidation and value destruction

While we can be wrong about the pace of future consolidation of the US water and wastewater sector, we warn that historically large acquisitions proved detrimental to earnings growth and realized ROEs of US water utilities. While all depends on the state and thus the regulatory environment, large acquisitions tend to be completed as follows:

- At a premium to the book value/rate base of the water systems being acquired, with acquirers struggling to incorporate the goodwill in their rate bases, despite initial regulatory approvals.
- At or below book value for troubled water systems, which require large capital investments, with water regulators then delaying the recovery of those investments, shielding rate payers from large increases in water rates.

In the latter situation, if the acquisition takes place in a new state, where the acquiring water utility does not have presence and no state-based rate base, the initial rate case and recovery of invested capital may take years. Often, the acquired water system is in serious breach of regulatory compliance, with a poor customer service track record, and the regulatory recovery of costs may be initiated only once these issues are fully addressed, which may take years and billions of dollars in investments. This regulatory lag serves as a serious drag on earnings, negating the purpose of such acquisitions, in our opinion.

Water utilities = rate case machines

A general way of life for water utilities

Water utilities are the most capital intensive of the major utility industries, with high capital requirements for construction and maintenance of water and wastewater assets. Water utilities typically invest capital upfront and file rate cases. As a result, the timing and outcome of rate cases have financing and profitability implications. Water utilities tend to file rate cases more frequently than electric utilities, usually at least every two years but often more frequently. Over the past several years, PUCs have granted ROEs between 8% and 12%. Authorized ROEs are highly correlated with interest rates, particularly 10-year Treasuries.

Given the length of a typical rate case and historical test years used, in the environment of rising O&M expenses and continuing capital investments, regulated utilities tend to under-earn their allowed ROEs. The extent of the regulatory lag depends on the jurisdiction, but we estimate that realized ROE is, on average, 100–150bp below approved ROE.

Are water rate cases less contentious? Yes and No

There is a perception that water utility rate cases are less contested than electric utility cases. In general, we would agree based on the lower relative cost of water utility bills to consumers and the more frequent rate filings. However, the rate case process is similar to that for other utility industries, and different interests groups (interveners) are involved. There have been some cases where strong opposition has arisen. For example, in Aqua America's Florida rate case in 2008, the company was granted a 9.8% ROE, which was below the 10.8% recommended by the commission staff, as a result of customer complaints regarding water quality. Prior to that, Aqua America voluntarily withdrew a Florida rate case in 2007 after reaching a settlement with the Florida Public Service Commission (FPSC).

Regulatory state overview

The outcome of water rate cases depends on the state of operations (with Pennsylvania being the most water-friendly regulatory environment) and on the quality of service, a factor much more important for water utilities than electrics. On average, a water and electric rate case in the United States lasts eight months and results in an allowed ROE of 10.5%, and 55%–60% of originally requested revenue increases are approved. We emphasize the similarity of outcomes because we recognize the general perception that water rate cases are easier and more lucrative.

We consider Pennsylvania, Indiana, Ohio, California, Illinois and New Jersey to be the most constructive regulatory PUCs, with Arizona and Florida on the opposite side. A number of state public utility commissions have adopted constructive rate policies, including some form of single tariff pricing (uniform rates across a service territory); forward-looking test years; and pass-through provisions or infrastructure surcharges, including quarterly distribution improvement charges, acquisition adjustments, balancing account mechanisms, or other automatic adjustment mechanisms.

Below, we highlight the main regulatory benefits of water utilities in selected states.

Pennsylvania: surcharges (DISC) to recover infrastructure investments without a formal rate case, forward test year, construction work in progress (CWIP).

New Jersey: surcharges for purchased water costs, updates to the historical test year, DISC likely by summer 2009.

New York: surcharges to recover infrastructure investments without a formal rate case, surcharges for power and chemical costs, forward test year allowed.

Illinois: surcharges for purchased water costs, forward test year allowed, CWIP.

Missouri: surcharges to recover infrastructure investments without formal rate case proceedings, updates to the historical test year.

Indiana: surcharges to recover infrastructure investments without formal rate case proceedings, forward test year.

California: surcharges for purchased water costs, power purchases, CWIP.

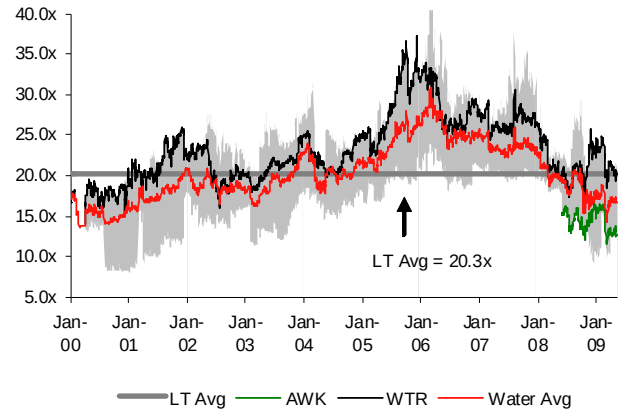
Virginia: surcharges for purchased water costs, updates to the historical test year, CWIP.

Ohio: forward test year, CWIP.

Current valuations below LT average

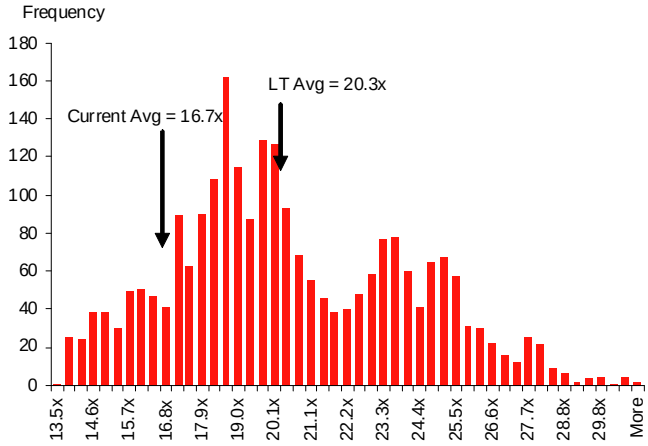
Water utilities currently trade at an average PER of 16.7x vs the long-term average of 20.3x since 2000. PERs have declined since 2006 and fell below the long-term average in 2008. Individually, WTR has typically traded at an average premium to the group of 13% (2.7x) since 2000. Conversely, AWK has traded at an average discount to the group of 19% (3.5x) since its IPO in April 2008.

Fig 5 PER is currently 16.7x vs 20.3x long term . . .



Source: FactSet, Macquarie Capital (USA), May 2009

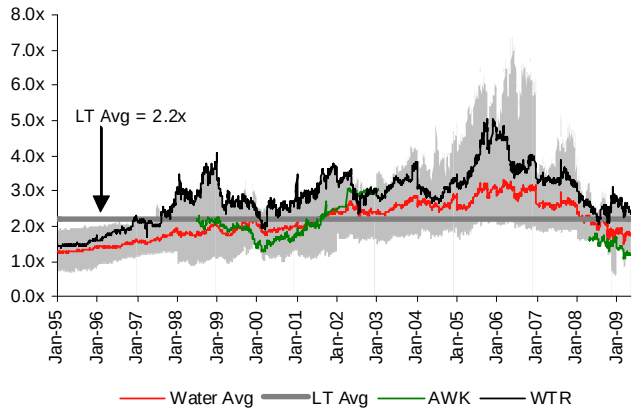
Fig 6 . . . 14% of observations are below 16.7x



Source: FactSet, Macquarie Capital (USA), May 2009

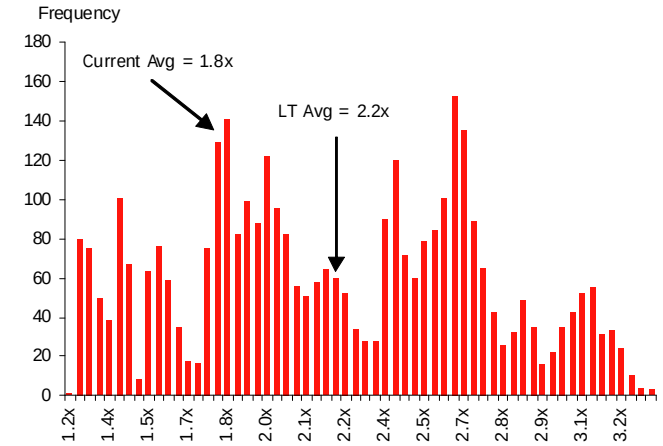
Price to book value also shows that the water utilities, at 1.8x, are trading below long-term average of 2.2x since 1995. We believe that P/BV is better at establishing a liquidation floor value for companies. Interestingly, AWK is trading below book value, which is historically uncommon for utilities, and had not been the case prior to the RWE acquisition in 2003. We discuss this in greater detail later in the report.

Fig 7 P/BV is currently 1.8x vs 2.2x long term . . .



Source: FactSet, Macquarie Capital (USA), May 2009

Fig 8 . . . 21% of observations are below 1.8x



Source: FactSet, Macquarie Capital (USA), May 2009

Water utilities: valuation methodology

Our valuations of water utilities are based on a combination of forward-year PER ratios and the dividend discount model. We believe the regulated electric utilities provide a good starting point for valuations.

19.0–19.5x anchor PER for water utilities

Our anchor forward-year PER multiple for water utilities is 19.0–19.5x, derived by applying a historical 52% PER premium to our Macquarie regulated electric anchor PER multiple of 12.0–12.5x. We use estimated annual EPS growth of 8–10% for water and 4–6% for electrics. These estimates differ from current implied consensus EPS growth of 9% for both industries, which may reflect a recovery in electric demand for 2010.

Electric utilities: a starting point for valuation of water utilities

We believe that regulated electric utilities provide an appropriate starting point for valuation of the water utilities. The fundamental similarities are high capital intensity, earnings regulation and income-like investment profile via stable dividends. Given that returns on equity and equity capitalization are regulated, we believe that the key differentiating factor is expected growth in rate base. There are other valuation factors, which we discuss as well.

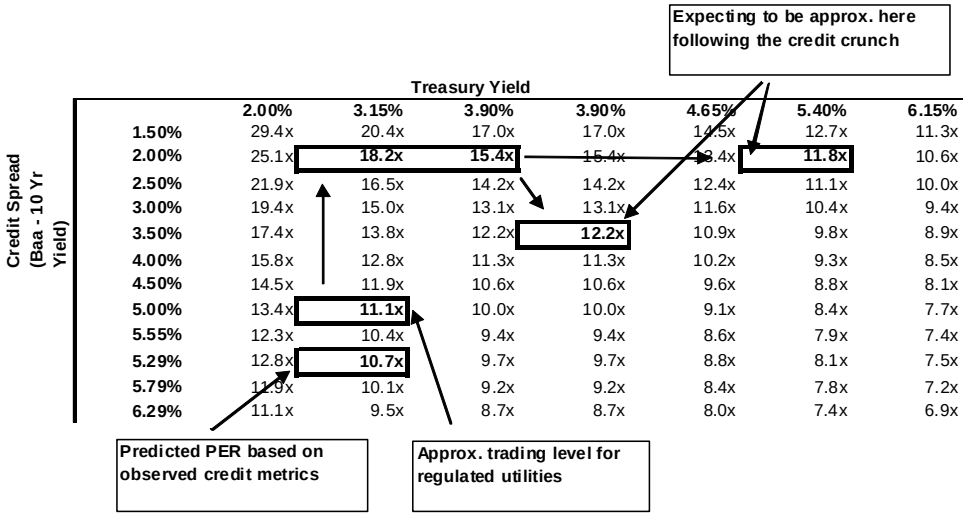
12.0–12.5x core PER multiple for electric utilities

Our valuation for electric utility methodology links PER multiples with 10-year Treasury yields but also incorporates a penalty for the credit crisis measured by Baa credit spreads. Our 12.0–12.5x regulated utility anchor PER multiple, which is equal to the long-term average for US electrics, assumes either the start of an inflationary environment by year-end (a 5.4% 10-year T-note and a 2% credit spread) or a modest improvement in credit conditions, which could temper inflationary pressures (a 3.9% 10-year T-note and a 3.5% credit spread).

Baa credit spreads have contracted by approximately 100bp since peaking in late 2008, which should bode well for regulated utility valuations in the next 12 months. At this stage, regulated electric utilities remain fully priced to credit, which we believe could set them up for near-term weakness should 1Q09 earnings disappoint. The high level of credit spreads and Baa bond yields (which remain 8–9%) simulates an inflationary environment, which tends to depress valuations of regulated names, in our view. This exacerbates a host of other concerns, including the possible deferral of proposed capital plans and the impact from declining electricity usage.

Based on the current level of 3.09% for the 10-year Treasury note yield and a credit spread of 5.5% for Baa investment grade bonds, we believe that utility PERs of about 10.7x and a dividend yield of roughly 6% can be justified. Utilities are trading at a dividend yield of about 6.0% and a forward PER of about 11.2x. We believe that they are fairly valued to our core valuation, which includes a penalty for the credit crisis, but appear cheap relative to their historical trading average of about 12.5x and to their historical relationship to the 10-year T-note. We believe that value will most likely be unlocked as credit spreads revert toward their historical norm.

Fig 9 Credit spreads and 10-year T-note support ~10.7x PER for regulated utilities



Credit Spread (Baa - 10 Yr Yield)	2.00%	3.15%	3.90%	3.90%	4.65%	5.40%	6.15%
1.50%	29.4x	20.4x	17.0x	17.0x	14.5x	12.7x	11.3x
2.00%	25.1x	**18.2x**	**15.4x**	15.4x	13.4x	**11.8x**	10.6x
2.50%	21.9x	16.5x	14.2x	14.2x	12.4x	11.1x	10.0x
3.00%	19.4x	15.0x	13.1x	13.1x	11.6x	10.4x	9.4x
3.50%	17.4x	13.8x	12.2x	**12.2x**	10.9x	9.8x	8.9x
4.00%	15.8x	12.8x	11.3x	11.3x	10.2x	9.3x	8.5x
4.50%	14.5x	11.9x	10.6x	10.6x	9.6x	8.8x	8.1x
5.00%	13.4x	**11.1x**	10.0x	10.0x	9.1x	8.4x	7.7x
5.55%	12.3x	10.4x	9.4x	9.4x	8.6x	7.9x	7.4x
5.29%	12.8x	**10.7x**	9.7x	9.7x	8.8x	8.1x	7.5x
5.79%	11.9x	10.1x	9.2x	9.2x	8.4x	7.8x	7.2x
6.29%	11.1x	9.5x	8.7x	8.7x	8.0x	7.4x	6.9x

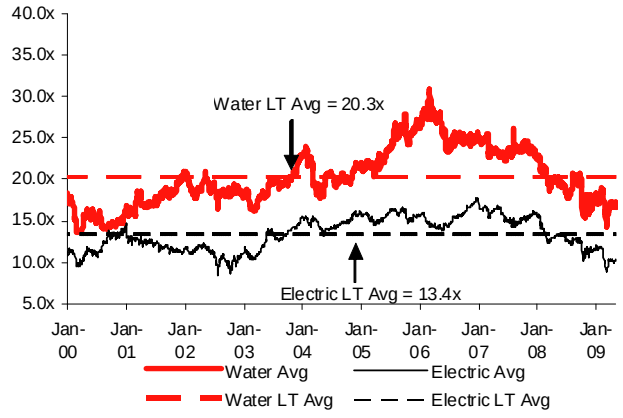
Source: FactSet, Macquarie Capital (USA), May 2009

Regulated utility multiples have contracted from approximately 16x in 4Q07 and are now trading at a level consistent with their average of 13.4x since 2000. At first glance, one might argue that utilities are cheap based on a 10-year US Treasury yield in the sub-4% area, which should support forward PERs of 15–16x. However, our analysis indicates that valuations are being depressed by high credit spreads and that utilities are fairly valued at about 12x based on the current environment. If the federal government bailout is implemented, credit conditions should improve, and we see regulated utilities trading at 13–14x 2010E earnings over the next 12 months as credit spreads tighten. While we view the bailout as a near-term positive, it is likely inflationary, and we expect the 10-year Treasury bond yield to increase over the next year.

Historical 52% PER premium for water vs electric

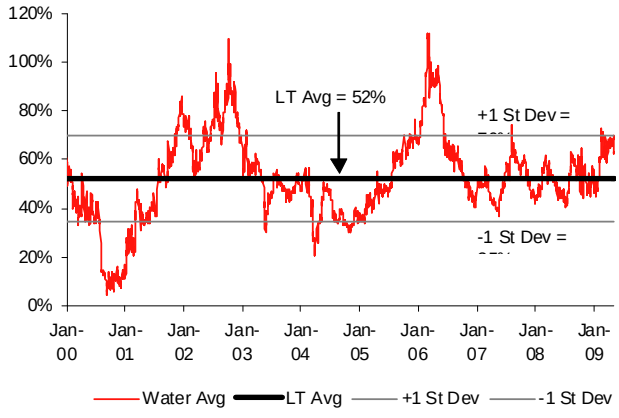
Water utility PERs have averaged 20.3x vs electrics at 13.4x since 2000. The average differential has been 52% (7x), fluctuating between 5% (0.6x, September 2000) and 112% (16.3x, March 2006). It is important to note that water **did not** trade at a discount to electrics at any time during this period.

Fig 10 Water PERs historically above electric PERs



Source: FactSet, Macquarie Capital (USA), May 2009

Fig 11 PER premium has averaged 52% since 2000



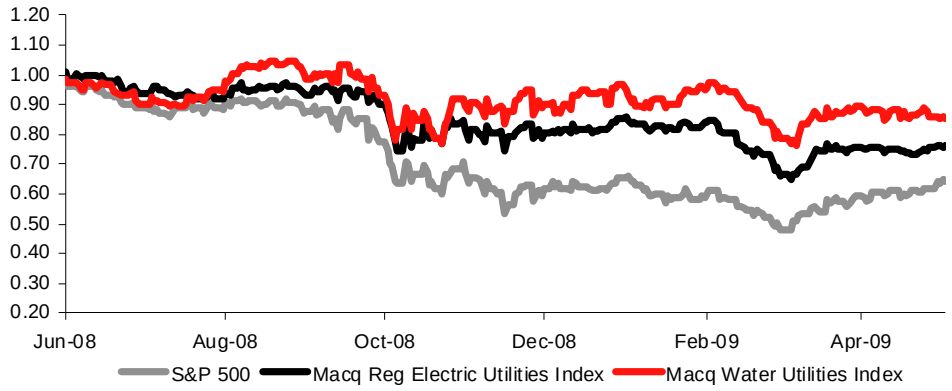
Source: FactSet, Macquarie Capital (USA), May 2009

Why pay 52% more for a water utility?

While we do not argue for a 52% PER premium, we do agree that water utilities should trade above electrics because of their stronger growth profile. This can be more easily quantified as long-term growth of 8–10% for water versus 4–6% for electrics. Other reasons for a premium include lower demand elasticity (commodity risk, relative cost), stability of capital expenditures (large backlog, predominantly maintenance) and lower-cost financing (tax-exempt). We believe that other factors, such as customer demographic, debt metrics, profitability and seasonality, are comparable.

While we struggle to fully justify the size of the valuation premium over electric utilities, we point out that despite the richer valuations, the Macquarie Water Utilities index outperformed the Macquarie Regulated Electric Utilities index by 9% over the last 12 months. Despite PER multiple compression for both sectors, the valuation premium over the electrics actually expanded over this period, validating it in our eyes.

Fig 12 Water has outperformed electric utilities by 9% over the last 12 months



Source: FactSet, Macquarie Capital (USA), May 2009

Implied growth higher for water versus electric utilities . . .

Investors have historically baked in higher growth expectations for water utilities than for electric utilities. Since 2000, implied growth in consensus EPS has averaged for water 9% for the current year and 12% for the forward year, compared with electrics at 3% for the current year and 7% for the forward year.

. . . despite actual earnings growth appearing more similar

Interestingly, expectations are not always the best indication of actual performance. The CAGR from 1998 to 2008 for realized earnings, as measured by EPS before extraordinary items, was 4% for water versus 1% for electric. Recognizing some electrics had diversified into noncore businesses, net income before extraordinary items at the regulated electric operating subsidiaries showed a CAGR of 4% from 1999 to 2008. Our analysis is based on a subset of regulated electric subsidiaries for Southern Company (SO US, US$29.27, Neutral, TP: US$32.75; covered by Marc de Croisset), Duke Energy (DUK US, US$14.19, Neutral, TP: US$16.50; covered by Marc de Croisset), Xcel Energy (XEL US, US$18.25, Neutral, TP: US$19), American Electric Power (AEP US, US$26.23, Not rated), Progress Energy (PGN US, US$35.58, Outperform, TP: US$43; covered by Marc de Croisset) and Consolidated Edison (ED US, US$37.31, Not rated).

Having said that, we do recognize that flattish earnings of water utilities over the last decade related to regulatory lag in recovery for acquisitions and subsequent large capital investments into the newly acquired water systems. As water utilities have recently refocused their efforts on addressing the growing gap between their realized and allowed regulatory ROEs, away from large acquisitions, we are hopeful that the regulatory catch-up should enable them to grow EPS at an 8–10% CAGR, on average, with American Water growing at a 14% CAGR through 2012.

UNITED STATES

American Water Works

11 May 2009

AWK US		**Outperform**
Stock price as of 07 May 09	US$	18.34
12-month target	US$	25.00
12-month TSR	%	+40.8
Valuation - PER	US$	22.58
GICS sector		utilities
Market cap	US$m	2,935
30-day avg turnover	US$m	0.0
Number shares on issue	m	160.0

Investment fundamentals

Year end 31 Dec		2008A	2009E	2010E	2011E
Sales revenue	m	2,336.9	2,487.7	2,676.3	2,869.1
EBITDA	m	834.0	926.2	1,008.9	1,096.8
EBITDA growth	%	6.3	11.1	8.9	8.7
Adjusted profit	m	176.1	215.6	242.0	275.6
Gross cashflow	m	442.3	496.9	539.2	588.0
CFPS	US$	2.76	3.06	3.27	3.52
CFPS growth	%	7.1	10.8	6.7	7.7
PGCFPS	x	6.6	6.0	5.6	5.2
EPS adj	US$	1.10	1.33	1.47	1.65
EPS adj growth	%	10.6	20.8	10.4	12.5
PE adj	x	16.7	13.8	12.5	11.1
Total DPS	US$	0.40	0.80	0.84	0.88
Total div yield	%	2.2	4.4	4.6	4.8
ROA	%	4.3	4.8	5.1	5.4
ROE	%	4.1	5.4	6.2	6.8
EV/EBITDA	x	9.9	8.9	8.2	7.6
Net debt/equity	%	128.9	147.9	149.6	148.9

AWK US vs S&P 500 - US, & rec history

Source: FactSet, Macquarie Capital (USA), May 2009
(all figures in USD unless noted)

Analyst
Angie Storozynski
1 212 231 2569 angie.storozynski@macquarie.com

Rising from the ashes

Initiating coverage with Outperform, target price US$25

We are initiating coverage of American Water (AWK) with a target price of US$25 and an Outperform rating. AWK is the largest publicly traded water utility in the United States, following its re-IPO in April 2008. Since 2006, its new management has been active addressing substantial under-earning of allowed ROEs due to rate stay-outs, deteriorated regulatory relationships and past acquisitions. The regulatory catch-up should translate into accelerated earnings growth through 2012, while capex should extend earnings and dividends growth longer term. RWE's upcoming share offerings could remove a key overhang and provide a good entry point, in our view.

Regulatory work in progress boosts earnings growth

Although new management has been active ramping up capital investment and rate activity since 2006, we believe that the 'spend first, recover later' rate case machine is just hitting its stride. Over the last three years, AWK's realized ROEs averaged just 6.5–7.0% vs 10.0–10.5% in allowed returns. The regulatory catch-up should translate into a 14% EPS CAGR through 2012. We believe that large continuous investments into water infrastructure should drive long-term EPS growth at 7–10% and dividends at 4%.

RWE divestiture imminent; caveat is "as soon as practicable"

After the April 2008 IPO of AWK, RWE owns 64% of AWK outstanding shares. With the expiration of the 180-day lock-up period in October 2008, RWE wants to fully divest its stake in AWK "as soon as reasonably practicable." On 1 May 2009, AWK filed a mixed shelf registration statement, which, among other terms, provides for sales by existing security holders. The divestiture should increase the liquidity of AWK's stock and remove some overhang on the stock associated with the anticipated equity transaction; however, the stock could experience temporary weakness, in our view.

Valuation based on PER and DDM

Our target price of US$25 is an average of the valuations below.

- **PER (US$23.50):** 16x 2010E PER based on a historical 18% discount to our regulated water utility base/anchor multiple of 19x.
- **Dividend discount model (US$27):** Our key assumptions are 5–8% dividend growth from 2009 to 2015, 4% long-term dividend growth and a payout ratio of 40–60%.

AWK: Investment thesis

Initiating coverage with a US$25 target price and an Outperform rating

We are initiating coverage of American Water (AWK) with a 12-month target price of US$25 and an Outperform rating. AWK is the largest publicly traded US water utility following its IPO in April 2008. We believe that the company is a regulatory work in progress but that it offers upside in earnings and dividends. Since 2006, new management has been active addressing substantial under-earning of its allowed returns on equity (ROEs) due to rate stay-outs, deteriorated regulatory relationships and past acquisitions. The regulatory catch-up should translate into a high earnings growth rate of 14% (CAGR) through 2012. Large continuous investments into water infrastructure should drive long-term growth of 7–10% for EPS and 4% for dividends. RWE's upcoming share offerings could remove a key overhang and provide a good entry point, in our view.

On 1 May 2009, AWK filed a mixed shelf registration statement, under which the company will be able to sell, among other terms, common stock and debt securities. The registration also provides for sales by existing security holders such as RWE.

RWE divestiture imminent, caveat is "as soon as reasonably practicable"

RWE is in the latter stages of divesting its remaining ownership (approximately 60%). RWE had previously indicated that it would further reduce its stake below 50% by year-end 2008, but the caveat was market conditions, which were not favorable in 2H08. The German multi-utility bought American Water in 2003 for US$7.6bn (US$46/sh) and agreed to rate stay-out provisions through 2006 with the Public Utility Commissions (PUCs). We are not concerned about the potential expiration of two regulatory state approvals in April 2010 and April 2011, or the appeal of the Illinois State PUC approval.

Playing catch-up for now, long-term outlook bright

Tick-up in rate activity under new management post stay-outs. For the past three years, we estimate that realized ROE has averaged 6.5–7.0% vs authorized ROE of about 10%. While rate case stay-outs expired by December 2007, AWK's base rates had fallen well behind capital expenditures and cost inflation. Under new management that aggressively ramped up rate case activities in 2006, rate case increases rose 521% to US$147m in 2007 and 28% to US$188m in 2008. The following round (second) of rate requests should partially close the gap between interim capex and regulatory lag.

Long-term growth outlook driven by capital spending. We believe that earnings drivers for American Water are new revenues from organic growth and rate increases, and operational efficiency. While the company will continue to pursue acquisitions mostly through tuck-ins of small water systems, we expect the impact to be more modest. Estimated capital spending is US$4.0–4.5bn for 2009–13, and we believe that there is plenty of room for capital spending to grow based on the US Environmental Protection Agency's (EPA) US$335bn assessment in 2007 of US water infrastructure needs for the next 20 years. This compares with AWK's current capex run rate of US$16–18bn over 20 years.

Regulatory lag constitutes a significant challenge to profitability

The period between 2003 and 2005 was characterized by minimal capital investment and few rate increases. In addition, deteriorating water and service quality soured relationships with state regulators. Although new management has been active ramping up capital investment and rate activity since 2006, we believe that the 'spend first, recover later' regulatory process is just now hitting its stride. Future rate cases should represent at least the second visit since 2006. For the past three years, estimated realized ROE has averaged 6.5–7.0% vs authorized ROE of about 10%. We estimate that realized ROE will dip below 7% in 2009–10, before recovering above 7% in 2011 and beyond. American was granted US$188m in annualized rate increases in 2008, including New Jersey, Missouri, Illinois, California, West Virginia, Arizona, New York and Pennsylvania, and we estimate approximately US$150m of annualized revenue approvals for 2009, including Pennsylvania, Indiana and California.

Earning expectations

We expect American Water to generate EPS of US$1.32, US$1.47 and US$1.65 in 2009, 2010 and 2011, respectively. Our 2009 estimate assumes the full impact of 2008 rate increases of US$188m and a 2.6% drop in water volumes, mainly industrial (down 10%). For 2010, we assume the impact of 2009 revenue requests of US$150m and no change in water volumes. We also assume O&M improvements, from 62.6% in 2008 to 61% in 2009, and 100bp declines annually thereafter. These estimates should translate into realized ROEs of 6.5% for 2009 and 2010, a decrease from 7.1% realized in 2008 and below the average allowed ROE of approximately 10%. Our long-term growth outlook for EPS is 7–10%, which is underpinned by US$4.0–$4.5bn in planned capital spending for 2009–13.

For dividends, we expect US$0.80, US$0.84 and US$0.88 in 2009, 2010 and 2011, respectively, which correspond to payout ratios of 60%, 57% and 53%, respectively. In the long run, we see dividends rising at a 4% CAGR; however, there is upside risk to our dividend estimates as our estimates imply that payout ratios fall below the company's target payout of 50–70%.

1Q09 beat expectations, but another goodwill impairment taken

American Water reported 1Q09 adjusted EPS of US$0.19, compared with US$0.04 in 1Q08 and consensus of US$0.14. Revenues increased 8.6% YoY, while O&M as a percentage of revenue declined to 57% from 61% YoY. Water sales volumes declined 3.5%, led by a 12.9% decline in industrials and 3.6% decline in commercial volumes. However, revenues dropped much less, as water rates have a large fixed component, more than 50%, we estimate. The company took a US$450m goodwill impairment but stated that it would not affect the timing or amount of future equity issuance. General rate cases have currently been filed in 10 states for US$237m of additional revenues. Management believes that municipal budgetary issues and private companies for sale will provide future acquisition opportunities, and it is currently evaluating several minor (tuck-ins) acquisitions.

Valuation and recommendation

We are initiating coverage of AWK with a 12-month target price is US$25 and Outperform rating. This represents total return potential of 42% based on the current share price of US$18.16 and a dividend yield of 4.4%. Our target price is an average of the valuations below.

- 16x 2010E PER of US$23.50. Our 16x multiple is based on a historical 18% discount to our regulated water utility base/anchor multiple of 19x.
- Dividend discount model of US$27. Our key assumptions are 5–8% dividend growth from 2009 to 2015, 4% long-term dividend growth and a payout ratio of 40–60%.

Risks to attaining our target price

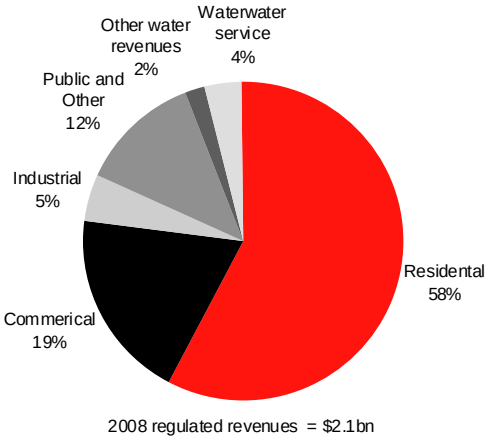
- RWE divestiture has share price implications.
- Adequate regulatory recovery is not assured.
- Capital intensity creates execution and financing risks.
- Weather and economic conditions affect demand.
- Goodwill impairment has negative credit implications.

Business overview

American Water Works Company is the largest US publicly traded water and wastewater company, serving 15m people across 32 states and Ontario, Canada. AWK has two reportable segments: regulated water and waste water utilities, and nonregulated water-related services. AWK's growth strategy comprises continuous investments in its regulated water assets, earning healthy returns on these investments, tuck-ins of smaller water systems and low-risk waste/wastewater service contracts with municipalities and military bases.

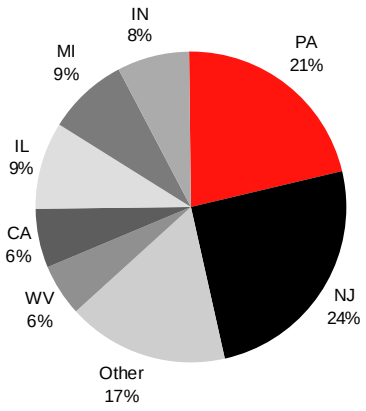
The regulated segment accounted for 89% of revenues in 2008. AWK's regulated water and wastewater utilities serve approximately 3.3m customers in 20 states, including Pennsylvania, New Jersey, Illinois, Missouri, Indiana, California, West Virginia, Arizona, Georgia, Hawaii, Iowa, Kentucky, Maryland, Michigan, New Mexico, New York, Ohio, Tennessee, Texas and Virginia. Residential customers accounted for 58% of 2008 regulated revenues, and its largest states – Pennsylvania and New Jersey – represented 45% of regulated revenues. For 2008, regulated EBITDA margins were 38%; this compares with 51% for Aqua America (WTR US, US$18.24, Neutral, TP: US$21). Overall water volumes declined 4% in 2008, led by 6% declines in Industrial and Public and Other usage. Residential volumes declined 4% in 2008, as a result of wet weather in California and the Midwest and drier weather in New Jersey and Pennsylvania in the prior year. Figures 1 and 2 provide a regulated revenue breakdown for 2008 by customer type and state.

Fig 1 Residential is 58% of regulated revenue



Source: Company data, Macquarie Capital (USA), May 2009

Fig 2 PA and NJ are 45% of regulated revenue



Source: Company data, Macquarie Capital (USA), May 2009

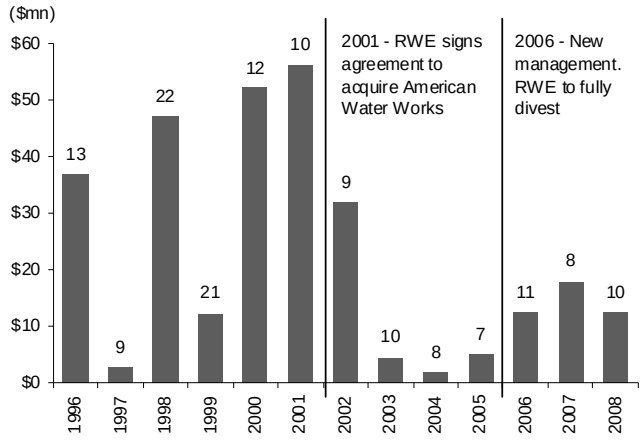
The nonregulated segment accounted for 11% of 2008 revenues. The four main businesses included are Contract Operations (62.5% of 2008 nonregulated revenues, public/private partnerships for municipalities and military); Applied Water Management (development of small water and wastewater treatment plants); Homeowner Services Group (17.5% of 2008 nonregulated revenues, protection against broken water pipes); and Terratec Environmental (municipal and industrial wastewater services in Ontario, Canada).

Although the business mix should continue to focus on regulated activities, the company plans to focus on public/private partnerships, including O&M and military contracts and services. AWK also intends to continue to expand its Homeowner Services business in areas within and beyond its existing regulated footprint.

Background – acquired by RWE in 2003

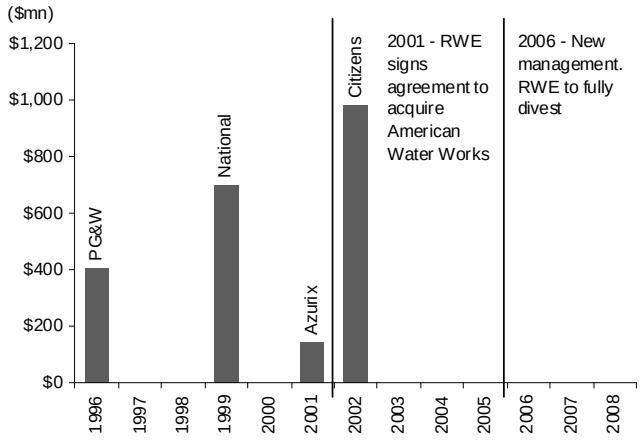
American Water Works Company was founded in 1886 as the American Water Works & Guarantee Company. The company has historically pursued a tuck-in acquisition strategy, completing 150 deals for approximately US$300m since 1996. In addition, larger opportunistic acquisitions include Pennsylvania Gas & Water for US$410m in 1996, National Enterprises for US$700m in 1999, Azurix for US$148m in 2001 and Citizens Communications Company water and wastewater assets for US$980m in 2002. In 2001, German multi-utility company RWE signed an agreement to acquire American Water for about US$7.6bn. In 2003, RWE acquired American Water for US$46/sh, or approximately US$7.6bn including US$3bn of debt. Subsequently, American Water became a wholly owned subsidiary of RWE. As a condition of the acquisition, the PUCs and RWE/ American Water agreed to rate stay-out provisions for a specified period of time.

Fig 3 c$300m for 150 tuck-in acquisitions since 1996



Source: Company data, Macquarie Capital (USA), May 2009

Fig 4 Large acquisitions for US$2.2bn since 1996



Source: Company data, Macquarie Capital (USA), May 2009

RWE wants to fully divest its stake "as soon as reasonably practicable"

RWE decided to divest American Water in 2005 and announced that it would divest American Water through one or more public offerings in March 2006. In April 2008, RWE sold 63.2m shares (approximately 40%) at US$21.50, and AWK was re-listed on the NYSE.

Following the expiration of the 180-day lock-up period on 23 October 2008, 102m shares still held by RWE in AWK are eligible for future sale. RWE had previously indicated that it would further reduce its stake below 50% by year-end 2008, but the caveat was market conditions, which were not favorable in 2H08.

We believe that the upcoming divestiture by RWE should increase the free float and stock liquidity, despite a likely temporary AWK's share price.

Other potential issues include two regulatory state approvals for the divestiture expire in April 2010 and April 2011, and the Illinois State PUC approval that has expired; however, we do not believe that either will impede the RWE sale.

RWE leaves, but goodwill stays

At 1Q09, balance sheet goodwill totaled US$1.7bn, primarily from the RWE acquisition and representing the excess of the purchase price over the tangible and intangible assets acquired. AWK performs annual reviews of asset impairment, including goodwill impairment, in the fourth quarter. The initial goodwill was US$3.59bn and shrank to the US$1.7bn following four impairment write-downs since 2006, we estimate.

Following the April 2008 IPO of AWK, the company recorded the last goodwill impairment charge of US$750m, as the market price of the company's common stock was less than the price anticipated at the completion of the 2007 annual impairment test. To maintain a 45% consolidated equity ratio required by AWK's regulators prior to the IPO, RWE transferred US$245m to the company.

Now that the IPO is completed, the 45% equity ratio requirement is no longer binding; thus, additional (gradual) impairments of AWK's goodwill should have limited impact on AWK. However, if AWK were to write down the entire goodwill on its books, its equity ratio could drop to 32%, leading to likely credit downgrades, we believe.

We view the goodwill on AWK's books as a distraction, rather than a signal of upcoming equity issuances. We exclude goodwill from our calculations of capitalization ratios, book value multiples and rate base.

Goodwill impairment in 1Q09 should make future impairments less likely

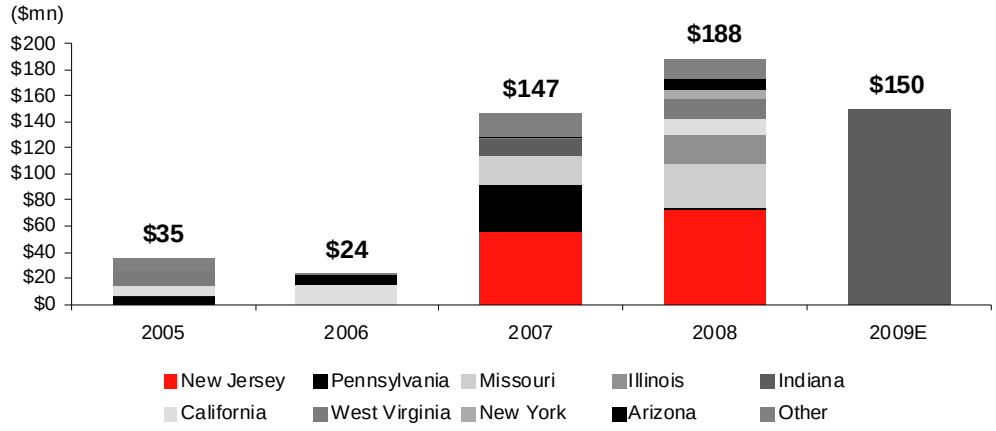
1Q09 results included a US$450m goodwill impairment based on average 1Q09 stock prices between US$17 and US$18. Notwithstanding a further dip in its equity price, additional impairments should be less likely.

Playing catch-up for now, long-term outlook bright

Tick-up in rate activity under new management post stay-outs

For the past three years, we estimate realized ROE has averaged 6.5–7.0% vs authorized ROE of about 10%. While rate case stay-outs expired by December 2007, AWK's base rates had fallen well behind capital expenditures and cost inflation. Management was revamped in 2006 with new President and CEO Donald Correll and the reinstallation of CFO Ellen Wolf. Under new management that aggressively ramped up rate case activities in 2006, annualized rate increases rose 521% to US$147m in 2007 and 28% to US$188m in 2008. The following round (second) of rate requests should close the gap between interim capex and stay-out lag. We estimate US$150m of annualized base rate increases for 2009. Figure 5 shows the general rate case activity for 2005–09E.

Fig 5 Rate increases rose fivefold in 2007, with the ramp-up in rate case activities



Source: Company data, Macquarie Capital (USA), May 2009

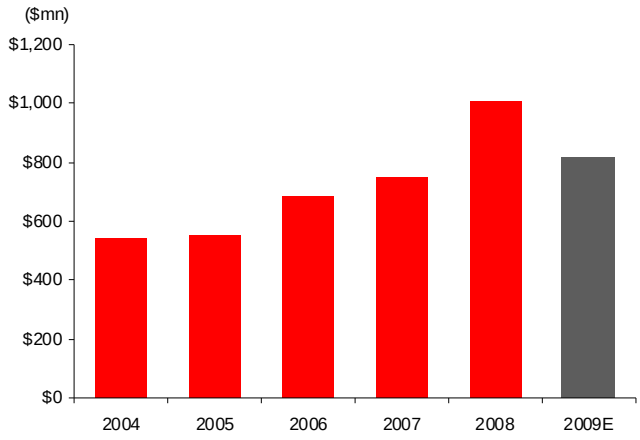
Long-term growth outlook driven by capital spending

We believe that earnings drivers for American Water are new revenues from organic growth and rate increases and operational efficiency. While the company will continue to pursue acquisitions mostly through tuck-ins of small water systems, we expect the impact to be more modest.

Customer growth in the regulated water businesses is driven by population growth within service territories. American Water's businesses seem more resilient to the current recession given its high reliance on residential customers, who account for 91% of its regulated accounts and close to 60% of its regulated revenues.

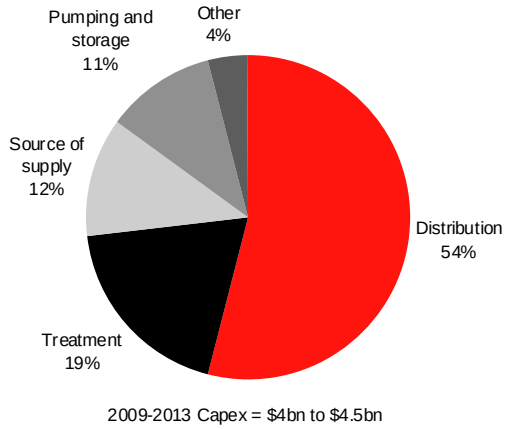
The underinvestment in US water infrastructure provides a large investment opportunity for AWK with good visibility. Estimated capital spending is US$4.0–4.5bn for 2009–13, and we believe that there is plenty of room for capital spending to grow based on the EPA's US$335bn assessment in 2007 of US water infrastructure needs over the next 20 years. This compares with AWK's current run rate of US$16–18bn over 20 years. In addition, infrastructure rehabilitation surcharges should allow for timely recovery of invested capital, as AWK can recover these costs between rate cases. The company expects 7–10% long-term EPS growth and a slightly lower dividend growth rate.

Fig 6 Regulated capex, 2004–09E



Source: Company data, Macquarie Capital (USA), May 2009

Fig 7 Capex breakdown, 2009E–13E



Source: Company data, Macquarie Capital (USA), May 2009

Tuck-ins more likely (and profitable) than large acquisitions

Throughout its history, American Water has executed numerous large acquisitions. Over the last 10 years, these acquisitions included the following.

- **1996:** The regulated water utility operations of Pennsylvania Gas and Water Company, a subsidiary of Pennsylvania Enterprises (US$409.4m)
- **1999:** Privately held National Enterprises Inc. (US$700m)
- **2002:** Water and wastewater facilities in six states from Citizens Communications Co. (US$980m)

The lengthy acquisition process, coupled with delays in obtaining higher water rates to recoup the initial investment and subsequent capex, should have discouraged AWK from pursuing large-scale acquisitions in the near term. For example, in December 2007, New Jersey American Water signed an agreement with the city of Trenton, New Jersey, to purchase the assets of the city's water system (which serves 39,000 customers) for US$100m. The purchase agreement awaits approvals by various regulatory bodies, including the New Jersey Board of Public Utilities.

Instead, we expect AWK to continue the consolidation of the water sector through acquisitions of smaller water systems (US$30–40m total per year), mainly in states where the company already operates. Historically, AWK's expansion to new states where the company did not have a rate base weighed on consolidated earnings. The company needed to invest large amounts to return the acquired systems into regulatory compliance, without an ability to raise water rates in the near term.

Regulatory overview

Regulatory lag constitutes a significant challenge to American Water's profitability. The period between 2003 and 2005 was characterized by minimal capital investment and few rate increases. In addition, deteriorating water and service quality soured relationships with state regulators. Although new management has been active ramping up capital investment and rate activity since 2006, we believe that the 'spend first, recover later' regulatory process is now just hitting its stride. Future rate cases should represent at least the second visit since 2006.

For the past three years, estimated realized ROE has averaged 6.5–7.0% vs authorized ROE of about 10%. We estimate that realized ROE will dip below 7% in 2009–10, before recovering above to 7% in 2011 and beyond. Regulated utilities tend to under-earn their allowed ROEs, given the length of a typical rate case, historical vs future test years, continuing capital investments and O&M expense inflation. The extent of the regulatory lag depends on the jurisdiction, but we estimate that realized ROE can be 100–150bps below allowed ROE.

American Water was granted US$188m in rate increases in 2008, including New Jersey, Missouri, Illinois, California, West Virginia, Arizona, New York and Pennsylvania, and we estimate US$150m of annualized revenue approvals for 2009, including Pennsylvania, Indiana and California. At 1Q09, general rate cases had been filed in 10 states for US$237m of additional revenues. The company has historically received 50–70% of revenue requested in rate cases.

Regulatory riders have been granted in some states in the form of pass-throughs and surcharges to allow for timely recovery of certain costs between rate filings. Seven states have allowed the use of these infrastructure surcharges: Pennsylvania, Illinois, Missouri, Indiana, New York, California and Ohio. New Jersey is considering a similar infrastructure surcharge, with a potential decision by year-end 2009. In 2008, US$18.6m in revenues were granted from surcharges.

Recent regulatory developments by state

Pennsylvania: In April 2009, American Water filed for a US$58m, or 12%, increase in rates to recover US$310m of capital investments since its last rate case in 2007. The company is requesting that new rates become effective June 2009; however, the request will likely be delayed up to nine months (January 2010) as the commission conducts its review.

New Jersey: In December 2008, American Water was granted a rate increase of 15.2% to allow it to cover the costs of service and US$325m of capital investments. The rate case was filed in January 2008. The company's previous rate case was approximately two years ago.

Indiana: In April 2009, American Water filed for a US$46.9m (28.86%) rate increase to recover US$198m in capital investments between January 2007 and June 2009. The company expects the regulatory process to take a year, and it will not change rates in the interim.

Illinois: In July 2008, American Water received approval for a US$24.9m rate increase, reflecting US$257m in capital investments since 2003. The rate case was filed with the commission in August 2007. The company's previous rate case became effective in August 2003.

California: In January/February 2009, American Water filed three rate cases for US$32.7m in rate increases to recover US$105m in capital investments through 2010 and 2011. The company expects the regulatory process to take up to 20 months, with a final decision by June 2010.

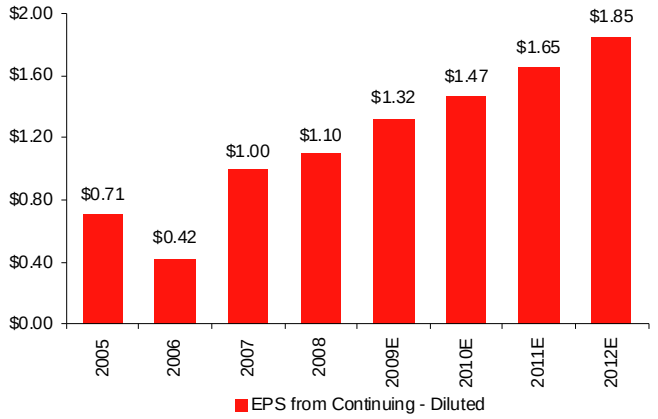
West Virginia: In March 2009, American Water was approved for an annualized rate increase of US$4.3m, or 29% of the US$14.7m requested. The request was filed in May 2008 to recover US$30m of capital investments. The company's previous rate case was in March 2008; it included a rate increase of US$14.5m, or 14.9%, to recover US$63.8m in capital investments.

Earnings projections

We expect American Water to generate EPS of US$1.32, US$1.47 and US$1.65, in 2009, 2010 and 2011, respectively. Our 2009 estimate assumes the full impact of 2008 rate increases of US$188m and a 2.6% drop in water volumes, mainly industrial (down 10%). For 2010, we assume the impact of 2009 revenue requests of US$150m and no change in water volumes. We also assume O&M improvements, from 62.6% in 2008 to 61% in 2009, and 100bp annual declines thereafter. These estimates should translate into realized ROEs of 6.5% for 2009 and 2010, a decrease from 7.1% realized in 2008 and below the average allowed ROE of approximately 10%. Our long-term growth outlook for EPS is 7–10%, which is underpinned by US$4.0–$4.5bn in planned capital spending for 2009–13.

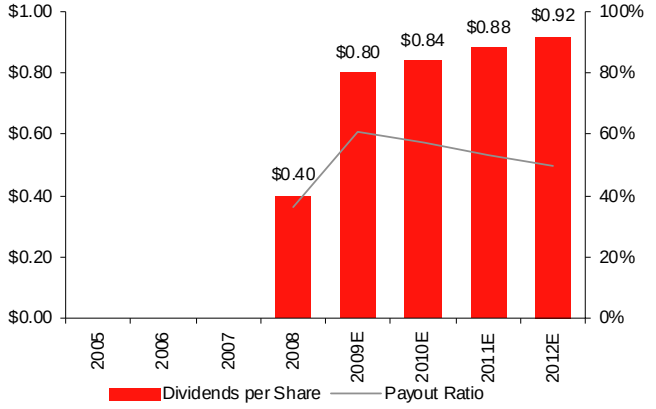
For dividends, we expect US$0.80, US$0.84 and US$0.88 in 2009, 2010 and 2011, respectively, which correspond to payout ratios of 60%, 57% and 53%, respectively. In the long run, we see dividends rising at a 4% CAGR; however, there is upside risk to our dividend estimates as our estimates imply that payout ratios fall below the company's target payout of 50–70%.

Fig 8 Long-term EPS CAGR of 7–10%



Source: Company data, Macquarie Capital (USA), May 2009

Fig 9 Dividend CAGR 4%, upside in declining payout



Source: Company data, Macquarie Capital (USA), May 2009

We assume capital spending of US$815m and minor acquisitions (tuck-ins) of US$35m in 2009. AWK is also in the process of acquiring Trenton's water system, a municipal with budget issues, for US$80m. The company expects to raise US$300m of new debt, including municipal (tax-exempt) bonds and senior unsecured debt. AWK plans to re-market up to US$145m of tax-exempt general mortgage bonds in New Jersey in 2009, and it closed a US$80m tax-exempt revenue bond through the Pennsylvania Economic Development Financing Authority in 2008. In addition, the company closed two senior unsecured bond offerings, raising US$150m, with net proceeds used to repay short-term debt.

At 31 March 2009, total liquidity of US$489m included cash of US$9m and US$480m of availability on its US$850m long-term revolving credit facility.

We expect the equity-to-total capitalization ratio to drop to 40% at year-end 2009 from 44% in 2008; this compares with the company's target of 45–50%. Further goodwill impairments represent a risk to the company's equity capitalization. If the entire balance (US$1.3bn) was written off, we estimate that equity capitalization would fall to 32%. This could trigger a credit rating downgrade, violation of debt covenants, or realized ROE that exceeds authorized ROE.

Valuation and recommendation

Our 12-month target price is US$25, which represents a total potential return of 42% based on the current share price of US$18.16 and a dividend yield of 4.4%. We rate AWK Outperform.

We derive our target price from an average of the valuations below.

- 16x 2010E PER of US$23.50. Our 16x multiple is based on a historical 18% discount to our regulated water utility base/anchor multiple of 19x.
- Dividend discount model of US$27. Our key assumptions are 5–8% dividend growth from 2009 to 2015, 4% long-term dividend growth and a payout ratio of 40–60%.

Fig 10 Dividend discount model (US$)

	2009E	2010E	2011E	2012E	2013E	2014E	2015E	Terminal
Earnings per share	1.32	1.47	1.65	1.85	2.08	2.35	2.62	
Dividend Per Share	0.80	0.84	0.88	0.92	0.98	1.06	1.14	37.3
Dividend Payout ratio	60%	57%	53%	50%	47%	45%	43%	
Dividend Yield	4.4%	4.6%	4.9%	5.1%	5.4%	5.9%	6.3%	
Return on equity	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%
Long term dividend growth rate								4.0%
Number of years to present	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5
Present Value of Dividends	0.77	0.76	0.74	0.72	0.72	0.72	0.73	22.21
Appraised share price	**27.37**							

Source: Macquarie Capital (USA), May 2009

Risks

RWE divestiture could have implications on the share price

The pending RWE divestiture carries two potential risks: the near-term overhang of a large-sized offering (64% of share outstanding, or roughly US$3bn), and potential post-offering valuation dilution. High valuation multiples relative to the broader market and other utility industries could reflect the relatively small market capitalization of the water utility industry (ie, a scarcity premium). Other potential issues include expiration of two regulatory approvals for the divestiture in April 2010 and April 2011, and the Illinois state PUC approval that has been appealed; however, we do not believe that either will impede the RWE sale.

Adequate regulatory recovery is not assured

Public utility commissions and similar state regulatory bodies regulate utility rates and ROEs. The timing and outcome of regulatory proceedings create uncertainty and potential delays (ie, regulatory lag) in cost recovery. In the past, AWK has typically received 50–70% of requested rate increases. Risk of condemnation (ie, acquisition) by governmental entities exists. Lastly, stricter environmental standards could result in significant higher operating costs.

Capital intensity creates execution and financing risk

American Water estimates capital spending of US$4.0–4.5bn for 2009–13. The ability to recover and earn a return on invested capital could materially affect the company's financial position and cash flows. Moreover, completion of capital investment projects is subject to construction and development risks, including availability of capital, complying with permits, meeting budgets and satisfying operating and environmental performance standards.

Weather and economic conditions may affect demand

Water demand is seasonal, with peak demand in summer months and reduced demand in cooler months. Demand typically varies with temperature, rainfall levels and rainfall frequency. Hotter (colder)-than-normal weather can result in higher (lower) demand. Higher (lower)-than-normal rainfall can result in lower (higher) demand. Drought conditions can result in mandatory conservation, which reduces water demand and revenues. Economic weakness can negatively affect (1) residential demand via lower discretionary and recreational water use, lower natural customer growth from fewer housing starts and higher bad-debt expense and (2) industrial and commercial demand via slower business activity, and customer payment delays and bankruptcies.

Goodwill impairment could have negative credit implications

As of 31 March 2008, AWK has recorded US$1.3bn of goodwill on its balance sheet, primarily related to the RWE acquisition. The company may be required to impair goodwill in the future if it fails certain valuations tests. Any impairment could have a negative financial (not economic or cashflow) impact and reduce total capitalization, which was 44% at 31 December 2008. Credit rating agencies could downgrade AWK's credit ratings, which could impede the company's ability to access debt markets for capital. Goodwill impairment charges were US$385m, US$222m, US$509m, US$750m and US$450m in 2005, 2006, 2007, 2008 and 2009, respectively.

Fig 11 Income statement, 2006–12E (US$m except per-share data)

	2006	2007	2008	2009E	2010E	2011E	2012E
Sales	2,093	2,214	2,337	2,488	2,676	2,869	3,067
Operating expenses	1,360	1,430	1,503	1,561	1,667	1,772	1,877
Operational EBITDA	733	784	834	926	1,009	1,097	1,190
Depreciation	259	267	271	286	302	317	337
Operational EBIT	474	517	563	640	707	779	853
Net interest expense	368	285	283	303	326	343	357
Ordinary Profit Before Tax	113	254	299	356	400	455	516
Income tax	45	95	123	141	158	180	204
Net group profit of continuing operations	68	159	176	216	242	276	312
Weighted average number of shares (m)	160	160	160	163	165	167	169
Diluted EPS	**0.42**	**1.00**	**1.10**	**1.32**	**1.47**	**1.65**	**1.85**
Gross dividend per share	NA	NA	0.40	0.80	0.84	0.88	0.92
Dividend payout ratio	NA	NA	36%	60%	57%	53%	50%

Source: Company data, Macquarie Capital (USA), May 2009

Fig 12 Cashflow statement, 2006–12E (US$m)

	2006	2007	2008	2009E	2010E	2011E	2012E
Net income	-162	-343	-562	-227	242	276	312
D&A, goodwill amortisation	259	267	271	286	302	317	337
Other non cash elements	323	532	943	545	108	125	143
Funds from operations	420	457	652	604	652	718	792
Decrease (increase) in noncash working capital	(97)	17	(100)	7	(7)	(7)	(8)
Operating cash flow	324	474	552	610	646	711	785
Net investments in fixed assets	(692)	(750)	(1,009)	(930)	(850)	(850)	(850)
Net investments in financial assets	0	4	(25)	0	0	0	0
Free cash flow before dividends	(368)	(273)	(481)	(320)	(204)	(139)	(65)
Dividends paid (group + minorities)	0	0	(64)	(130)	(139)	(147)	(155)
Free cash flow after dividends	(368)	(273)	(546)	(450)	(343)	(286)	(221)
Increase or (repayment) of capital and subsidies	291	977	297	395	293	236	171
Increase or (repayment) of financial debt	(1)	(1,750)	1	56	50	50	50
Adjustment for minorities / miscellaneous	42	1,030	244	0	0	(0)	0
Increase in cash	**(35)**	**(16)**	**(4)**	**0**	**0**	**0**	**0**

Source: Company data, Macquarie Capital (USA), May 2009

Fig 13 Balance sheet statement, 2006–12E (US$m)

	2006	2007	2008	2009E	2010E	2011E	2012E
Cash and cash equivalents	30	13	10	10	10	10	10
Financial and Operating Receivables	185	193	199	211	227	244	261
Inventory	23	27	29	29	31	33	35
Other short-term assets	175	196	180	194	209	223	238
Goodwill	2,962	2,457	1,700	1,250	1,250	1,250	1,250
Other-long term assets	688	729	991	991	991	991	991
Property, plant, and equipment	8,721	9,318	10,124	10,768	11,315	11,848	12,361
Total assets	**12,783**	**12,934**	**13,232**	**13,453**	**14,033**	**14,599**	**15,145**
Financial liabilities	1,007	317	655	655	655	655	655
Operating liabilities	141	169	150	169	180	191	202
Other liabilities	216	289	300	300	300	300	300
Deferred credits and other regulatory liabilities	2,727	2,914	3,372	3,481	3,604	3,743	3,901
Long-term debt	3,096	4,675	4,624	5,019	5,312	5,548	5,719
Shareholders' equity	5,596	4,571	4,131	3,828	3,982	4,160	4,367
Total liabilities and equity	**12,783**	**12,934**	**13,232**	**13,453**	**14,033**	**14,599**	**15,145**

Source: Company data, Macquarie Capital (USA), May 2009

Company profile

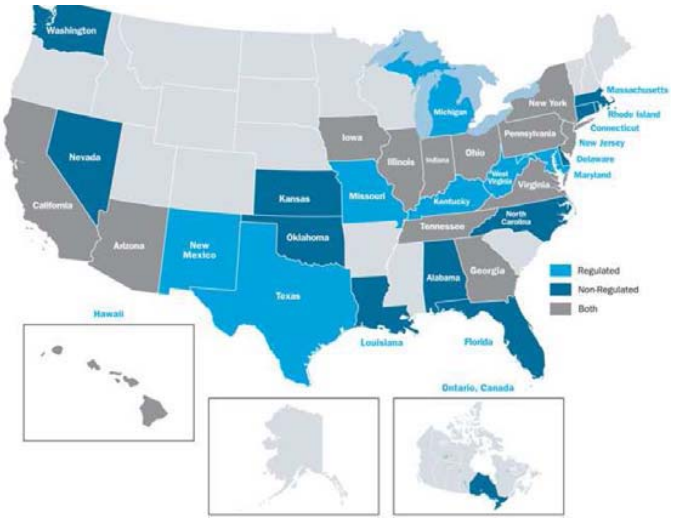
American Water is the largest investor-owned water and wastewater utility company in the United States, as measured by operating revenues and customers served. The company provides drinking water, wastewater and other water-related services to more than 15m people in 32 states and Ontario, Canada.

Its primary business involves the ownership of water and wastewater utilities that provide water and wastewater services to residential, commercial and industrial customers. AWK's regulated businesses that provide these services are located in 20 states; in 2008, they served approximately 3.3m customers, generating about 89% of AWK's consolidated revenues.

AWK's nonregulated businesses include Contract Operations Group (water public/private partnerships for municipalities and military), Applied Water Management Group (development of small water and wastewater treatment plants) and Homeowner Services Group (protection against broken water pipes).

Initially founded in 1886, AWK was acquired by German utility company RWE, in 2003. In 2006, RWE decided to divest American Water through the sale of shares in one or more public offerings, the first of which took place in April 2008.

Fig 14 AWK has regulated and nonregulated water operations in 32 states and Canada



Source: Company data, Macquarie Capital (USA), May 2009

UNITED STATES

Aqua America

11 May 2009

WTR US		**Neutral**
Stock price as of 07 May 09	US$	18.43
12-month target	US$	20.00
12-month TSR	%	+11.5
Valuation - PER	US$	19.00
GICS sector		utilities
Market cap	US$m	2,500
30-day avg turnover	US$m	0.0
Number shares on issue	m	135.6

Investment fundamentals

Year end 31 Dec		2008A	2009E	2010E	2011E
Sales revenue	m	627.0	682.4	755.6	835.6
EBIT	m	225.8	248.4	276.1	307.3
Adjusted profit	m	97.9	110.8	121.7	135.5
Gross cashflow	m	190.6	207.0	226.8	249.5
CFPS	US$	1.41	1.53	1.67	1.83
CFPS growth	%	5.3	8.1	9.3	9.6
PGCFPS	x	13.0	12.1	11.0	10.1
EPS adj	US$	0.73	0.82	0.90	0.99
EPS adj growth	%	2.2	12.6	9.6	10.9
PE adj	x	25.4	22.5	20.5	18.5
Total DPS	US$	0.51	0.54	0.57	0.60
Total div yield	%	2.8	2.9	3.1	3.3
ROA	%	6.7	6.9	7.1	7.4
ROE	%	9.6	10.2	10.7	11.4
EV/EBITDA	x	11.9	11.0	10.0	9.1
Net debt/equity	%	124.6	135.2	142.1	145.4

WTR US vs S&P 500 - US, & rec history

Source: FactSet, Macquarie Capital (USA), May 2009
(all figures in USD unless noted)

Analyst
Angie Storozynski
1 212 231 2569 angie.storozynski@macquarie.com

Sparkling: tastes good, costs more

Initiating coverage with Neutral, TP US$20

We are initiating coverage of Aqua America (WTR) with a 12-month target price of US$20 and a rating of Neutral based on relative valuation. WTR is a leading publicly traded US water utility given its large geographical footprint, superior growth profile, strong regulatory relationships, respected management, lean cost structure and strong balance sheet. These qualities are, however, largely reflected in current 2010E trading multiples of 21.6x PER and 2.4x P/BV, compared with the peer averages of 16.7x and 1.8x, respectively. Recent economic headwinds have magnified valuation differentials between WTR and its peers, with the stock trading at a 21% premium vs 13% historically.

Capex drives earnings growth

WTR is the most active consolidator of the US water utility sector on the back of its superior access to capital, operational efficiencies and reliability. The company absorbs 25–30 smaller water systems per year, usually for the equivalent of rate base. WTR is conservative with larger acquisitions as well, paying a premium over the rate base only if regulators allow the company to include it in its expanded rate base. WTR's earnings growth is, however, mainly driven by capital investments into the expanded rate base. We believe that this strategy together with strong cost management should enable WTR to grow EPS at an 8–9% CAGR longer term, despite stagnant earnings from 2005 to 2008 due to regulatory lag from acquisitions.

Strong management and regulatory relationships

With large capital investments and flattish water consumption, we see water utilities as 'rate case machines' whose realized ROEs depend on the effectiveness of the rate cases and regulatory mechanisms (riders) available to recover costs without regulatory lags in between rate cases. The riders are a function of the state of operations, and WTR is fortunate to have more than 50% of its revenues coming from Pennsylvania, a state with a constructive regulatory regime. However, in the remaining 12 states where WTR operates, the profitability of its regulated water utilities is more reliant on the effectiveness of their rate cases and regulatory relationships.

Valuation based on PER and DDM

Our target price of US$20 is an average of the valuations below.

- 21x 2010E PER of US$19. Our 21x multiple is based on a historical 13% premium to our regulated water utility base/anchor multiple of 19x.
- Dividend discount model of US$21. Our key assumptions are 5–7% dividend growth from 2009 to 2015, 4.5% long-term dividend growth and payout ratio of 55–60%.

Investment thesis

Initiating coverage with a US$20 target price and Neutral rating on relative valuation

We are initiating coverage of Aqua America with a 12-month target price of US$20 and a rating of Neutral based on relative valuation. WTR is a leading-publicly traded US water utility given its large geographical footprint, superior growth profile, strong regulatory relationships, respected management, lean cost structure and strong balance sheet. These qualities are, however, largely reflected in current 2010E trading multiples of 21.6x PER and 2.4x P/BV, compared with the peer averages of 16.7x and 1.8x, respectively. We believe that a premium multiple is justified based on the company's track record and quality of its management. Recent economic headwinds have magnified valuation differentials between WTR and its peers, with the stock trading at a 21% premium vs 13% historically. In addition, we see risk of valuation dilution related to an anticipated offering of additional AWK shares currently held by RWE.

Earnings growth should recover to 8–9% CAGR long term

Flat earnings in recent years (2005–08) reflect regulatory lag and the slowdown in the economy. We believe that Aqua America's earnings can recover to an 8–9% CAGR longer term, with the recovery lag partially addressed by recent and future rate cases, US$1.4bn of capital spending for 2009–13 and tuck-in and disciplined acquisitions.

Regulatory lag should become less pronounced. Aqua America recently completed rate cases in Florida and Texas, receiving US$18m in total rate increases. This should partly address the regulatory lag in the southern regions. We anticipate that the frequency (and success) of rate cases in Florida and Texas should increase as the company's investments improve the quality of local water systems.

US$1.4bn in planned capital spending eventually goes into rate base. We believe that longer-term capital spending will drive rate base and, thus, earnings growth. The company has guided to capital spending of US$1.4bn for 2009–13, and we believe that there is plenty of room for capital spending to grow. This US Environmental Protection Agency's (EPA) US$335bn assessment in 2007 of US water infrastructure needs over the next 20 years compares with WTR's current run rate of US$5.7bn over the same period.

Disciplined acquisitions supplement growth. WTR is the most active consolidator of the US water utility sector on the back of its superior access to capital, operational efficiencies and reliability. The company absorbs 25–30 smaller water systems per year, usually for the equivalent of rate base. WTR is conservative with larger acquisitions as well, paying a premium over the rate base only if regulators allow the company to include it in its expanded rate base. We believe that WTR should continue to pursue US$50–100m of minor tuck-ins per year and larger opportunistic acquisitions.

Rate case machine – overcoming regulatory lag key to earnings growth

Investment recovery through rate relief remains a major focus as the company addresses the regulatory lag that hampered earnings from 2005 to 2008. With large capital investments and flattish water consumption, we see water utilities as rate case machines whose realized ROEs depend on the effectiveness of the rate cases and regulatory mechanisms (riders) available to recover costs without regulatory lags in between rate cases. The riders are a function of the state of operations, and WTR is fortunate to have more than 50% of its revenues coming from Pennsylvania, a state with a superior regulatory regime. However, in the remaining 12 states where WTR operates, the profitability of its regulated water utilities is more reliant on the effectiveness of their rate cases and regulatory relationships. Allowed ROEs of Aqua's regulated businesses average 10.5% vs the industry standard of about 10% and 2005–08 realized ROE of 8.5–10.0%. WTR was granted US$60m in new rates for 2008, including Florida, Texas and North Carolina, and it plans to apply for US$75m in 2009, including in Pennsylvania, New Jersey, New York and Ohio.

Earnings expectations

We expect Aqua to generate EPS of US$0.82, US$0.90 and US$0.99 in 2009, 2010 and 2011, respectively. Our 2009 estimate assumes the full impact of 2008 rate increases of US$61m and a 1.1% drop in water volumes, mainly for industrial customers (down 8%). For 2010, we assume the impact of 2009 revenue requests of US$75m, a 60% rate case success rate and no change in the customer base. Our long-term outlook for EPS growth is 8–9%, which is underpinned by US$1.4bn of its planned capital expenditures and no large acquisitions.

For dividends, we expect Aqua to pay out US$0.54, US$0.57 and US$0.60 in 2009, 2010 and 2011, respectively, which translates into dividend payout ratios of 66%, 63% and 60%, respectively, roughly in line with management's assumptions. Longer term, we forecast Aqua's dividends to grow at a 4.5% CAGR. The company's board of directors typically reviews its dividend in August.

1Q09 results: capex increased; rate case/acquisition machine chugs along

Aqua reported 1Q09 adjusted EPS of US$0.14, in line with consensus and above US$0.11 in 1Q08. Revenues increased 11% YoY, while O&M as a percentage of revenue declined to 43% from 46%. The company increased capex 5% to US$300m and reiterated that additional equity financing would not be necessary. In April, two major rate cases in Florida and North Carolina were resolved with US$13.2m in revenues granted. There are currently US$8.2m in rate cases pending, and an additional US$60m is expected to be filed in 2009. Five minor acquisitions have been completed to date in 2009, with six more likely to been announced by the summer.

Valuation and recommendation

We are initiating coverage of Aqua America with rating of Neutral and a 12-month target price of US$20, which represents total potential return of 11%. Our target price is an average of the valuations below.

- 21x 2010E PER of US$19. Our 21x multiple is based on a historical 13% premium to our regulated water utility base/anchor multiple of 19x.
- Dividend discount model of US$21. Our key assumptions are 5–7% dividend growth from 2009 to 2015, 4.5% long-term dividend growth and payout ratio of 55–60%.

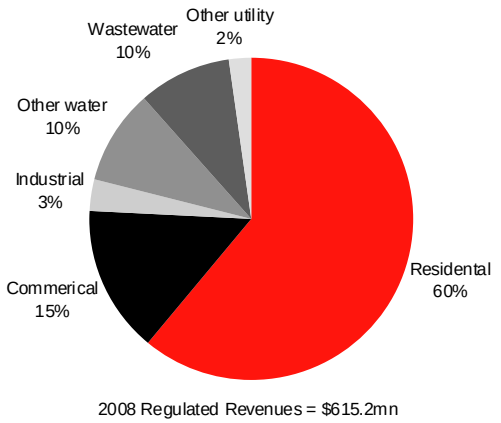
Risks to our achieving our target price

- Adequate and timely regulatory recovery of capital investments
- Financing risks
- Recession pressures on water demand
- Higher interest rates

Business overview

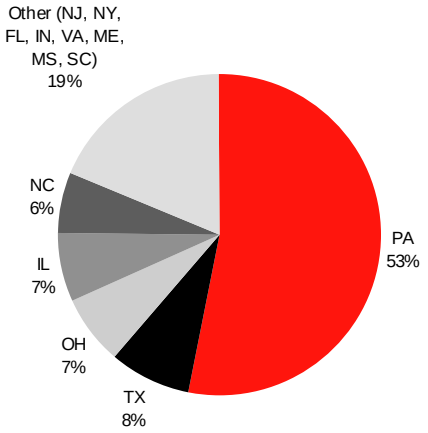
Aqua America is the second-largest investor-owned water utility in the United States. It serves approximately 950,000 water and wastewater utility customers across 13 northeastern and southern states: Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, New York, Florida, Indiana, Virginia, Maine, Missouri and South Carolina. The majority of Aqua's revenues (98%) in 2008 came from its regulated water and wastewater businesses. Residential customers accounted for 60% of 2008 revenues, and Pennsylvania was its largest state at 53% of 2008 revenues. Operating & maintenance expenses in 2008 represented 43% of revenues; this compares with American Water's (AWK US, US$18.34, Outperform, TP: US$25) at 63%. Customer growth is higher at 2% per year in the Southeast, compared with 1% per year in the relatively mature Northeast. Recent demand trends have been -1% per year across WTR's service territories as a result of efficiency improvements. Figures 1 and 2 provide 2008 revenue breakdown by customer type and state.

Fig 1 Residential is 60% of regulated sales



Source: Company data, Macquarie Capital (USA), May 2009

Fig 2 Pennsylvania is 53% of revenues



Source: Company data, Macquarie Capital (USA), May 2009

Flattish earnings reflect regulatory lag and economic slowdown

Aqua's flat earnings in recent years (2005–08) reflect regulatory lag and the slowdown in the economy. Legacy water quality issues have hampered regulatory relief efforts in Florida, where Aqua America acquired AquaSource (2003) and Florida Water Service (2004). In addition, the slowdown in the economy reduced customer growth to -0.1% in 2008 vs +5.2% in 2007. Until regional economic and housing markets improve, the company expects customer growth to remain below the historical average of 1.5%. Its acquisitive growth strategy has partly offset this, adding about 1% to annual customer growth. Meanwhile, O&M expense has risen steadily from 38.3% of revenue in 2003 to 42.6% in 2008.

Earnings growth should eventually return to 8–9% long term CAGR

Aqua America's earnings growth should recover to 8–9% long term with the recovery lag partially addressed by recent and future rate cases, rate base growth from US$1.4bn of capital spending for 2009–13 and disciplined growth through acquisitions.

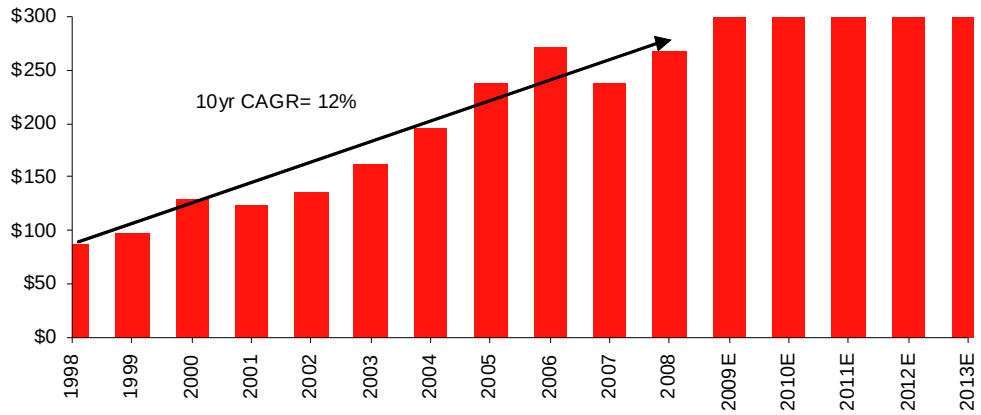
Regulatory lag should become less pronounced. Aqua America's realized ROE has fallen from about 10% in 2005 to 8.5% in 2008, compared with its average allowed ROE of 10.5% and the industry standard of roughly 10%. We believe that regulatory lag, specifically related to its large acquisitions in 2003 and 2004, has hampered Aqua America's ability to achieve its allowed ROE. The company is focused on investment recovery and recently completed rate cases in Florida and Texas, receiving US$18m in total rate increases. We anticipate that the frequency (and success) of rate cases in Florida and Texas will gradually improve as the company's investments improve the quality of local water systems. We provide a more detailed regulatory overview later in the report.

Rate base should grow through US$1.4bn in capital spending. A long history of underinvestment provides a large investment opportunity for WTR with good visibility. Estimated capital spending is US$1.4bn for 2009–13, and we believe that there is plenty of room for the capital spending to grow. The EPA's US$335bn assessment in 2007 of US water infrastructure needs over the next 20 years compares with WTR's current run rate of US$5.7bn over the same period.

In addition, infrastructure surcharges should allow for timely recovery of invested capital, as WTR can recover these costs between rate cases. WTR estimates US$116m (41%) of its 2009 capital program will qualify for this surcharge. Lastly, 60–80% of WTR's capital budget is discretionary (ie, not compliance-related), adding flexibility over the size and timing of Aqua's expenditures.

As Figure 3 shows, Aqua America's capital spending increased from US$60m in 1997 to US$135m in 2002 and US$255m in 2008. This capital will eventually be reflected in rate base and should underpin Aqua America's growth.

Fig 3 US$2bn capex since 1998, 10-year CAGR = 12%



Source: Company data, Macquarie Capital (USA), May 2009

Disciplined acquisitions supplement growth. WTR's acquisition strategy is focused on conservative valuation, regulatory relationships, low cost of capital and economies of scale. WTR's target valuation for smaller acquisitions is equal to or less than rate base; for larger acquisitions, it is 1.0–1.3x rate base. In some past cases, WTR has been authorized to recover a portion of the goodwill – excess over rate base – via higher base rates. In the 2004 Heater Utilities, Inc. acquisition, WTR paid approximately 1.3x rate base but was authorized to recover two-thirds of the goodwill upon achieving certain objectives. In the 2004 Florida Water Services acquisition, the purchase agreement was based on the Commission's rate base determination, which did not result in goodwill.

WTR has been the most active consolidator in the US water utility sector, completing approximately 200 acquisitions for about US$949m since 1998. Past acquisitions have ranged from small municipal water utilities (less than US$100,000) to larger corporate acquisitions (US$10–75m). WTR's larger acquisitions (50,000 customers or more) include Consumer Water Co. in 1999 for US$462m, AquaSource Inc. in 2003 for US$178m, Heater Utilities, Inc. in 2004 for US$76m and New York Water Service Corp. in 2007 for US$50m. Figure 4 shows WTR's acquisition history. We believe that the company will continue to pursue US$50–100m of minor tuck-ins per year and larger opportunistic acquisitions. We do not expect a significant uptick in acquisition activity, as the negotiation and public hearing process can stretch from six months to multiple years.

The fragmented nature of the US water industry creates access to capital, cost of capital and economies of scale advantages for WTR over smaller investor-owned and municipal water utilities. In some cases, undercapitalized and budget-constrained municipal water utilities have initiated acquisition discussions. However, operating efficiencies gained in the near term are typically redistributed by regulators to customers with the next rate case. The long-term benefit of acquisitions for WTR is the growth platform for capital investment, in our view.

Fig 4 Aqua has been the most active consolidator of the water sector

Date	Target	Price (US$m)
FY2008	9 minor acquisitions	$17
1-Jan-07	New York Water Service Corporation	$50
FY2007	26 minor acquisitions	$25
FY2006	27 minor acquisitions	$12
FY2005	30 minor acquisitions	$12
1-Jun-04	Heater Utilities, Inc.	$76
30-Jun-04	Florida Water Services Corp.	$13
31-Jul-03	AquaSource, Inc.	$178
FY2003	17 minor acquisitions	$2
FY2002	25 minor acquisitions	$12
FY2001	20 minor acquisitions	$15
FY2000	18 minor acquisitions	$12
11-Mar-99	Consumers Water Company	$462
FY1999	16 minor acquisitions	$39
FY1998	5 minor acquisitions	$25
	198 total acquisitions	$949

Source: Company data, Macquarie Capital (USA), May 2009

Regulatory overview

Investment recovery through rate relief remains a major focus as the company addresses the regulatory lag that hampered earnings from 2005 to 2008. With large capital investments and flattish water consumption, we view water utilities as rate case machines whose realized ROEs depend on the effectiveness of the rate cases and regulatory mechanisms (riders) available to recover costs without regulatory lags in between rate cases. The riders are a function of the state of operations, and WTR is fortunate to have more than 50% of its revenues coming from Pennsylvania, a state with a constructive regulatory regime. However, in the remaining 12 states where WTR operates, the profitability of its regulated water utilities is more reliant on the effectiveness of their rate cases, and regulatory relationships.

Allowed ROEs of Aqua's regulated businesses average 10.5% vs the industry standard of approximately 10% and 2005–08 realized ROE of 8.5–10.0%. WTR manages its realized ROE through timely rate case filings, O&M cuts and low cost of debt. The company's regulated businesses consist of approximately 200 rate divisions that are each required to file rate cases with state utility commissions. WTR has a very good reputation and relationships with state regulators in most of its jurisdictions.

WTR was granted US$60m in new rates for 2008, including Florida, Texas and North Carolina, and it plans to apply for US$75m in 2009, including in Pennsylvania, New Jersey, New York and Ohio. The company has just completed rate cases in North Carolina and Florida, where it asked for US$12m and US$8m revenue increases, respectively. However, the rate cases ended up with only US$8m and US$6m in additional revenues, respectively. Aqua has recently filed a US$50m rate case in Pennsylvania, and it has plans to file for approximately US$25m, including in New Jersey (US$7–8m), New York (US$5m) and Ohio (US$5m). The impact of these 2009 rate cases will be evident only in 2010.

Regulatory riders have been granted in some states in the form of pass-throughs and surcharges to allow for timely recovery of certain costs between rate filings. WTR has surcharges for replacing and rehabilitating infrastructure systems – distribution system improvement charges ((DSICs) – in six states for water and two states for wastewater; it is also being considered in New Jersey. The infrastructure rehabilitation surcharge is capped at a percentage of base rates, generally at 5–9% of base rates, and is reset when new base rates become effective or when utilities over-earn their allowed ROE. Specifically, surcharges allowed in its six operating states are Pennsylvania (7.5%), Illinois (5%), Indiana (5%), Ohio (9%), New York (2.7%) and Mississippi (NA). In addition, changes in state taxes, other taxes and purchased water and power costs are a pass-through in some states.

Overview of Aqua's regulated activities in its key states

Pennsylvania

- In April 2009, Aqua filed a rate case in Pennsylvania requesting a US$50m increase in revenues.
- In July 2008, Aqua Pennsylvania was authorized a US$34m revenue increase premised on a constructive 11.0% allowed ROE. The ROE included a 22bp premium to reflect 'exemplary management performance' and highlighted quality/service improvements at systems acquired throughout the state. We consider the rate decision to be constructive, particularly given that the subsidiary received 82% of the revenues requested (US$41.7m) and the allowed ROE was above those recently granted.

Texas

- In September 2008, the Texas Commission on Environmental Quality (TCEQ) issued a final ruling approving the rate application filed in 2004 for annualized rates increases of US$11.9m over a multiyear period beginning in 2004. The final order had been appealed to TCEQ by two parties, and TCEQ affirmed its approval decision. As a result, the parties have filed suit against TCEQ in an effort to appeal the order. As of 31 December 2008, the company has deferred US$10.9m of operating costs and US$2.8m of rate case expenses and recognized US$36.4m of revenue that is subject to refund pending the outcome of appeals.

Florida

- While the Florida Public Service Commission (FPSC) has historically been constructive in dealing with electric and gas utilities, water utilities have been the 'neglected stepchild,' primarily due to the lack of a financially strong and customer-oriented water utility presence in the state. WTR established a presence in Florida over the last few years via a series of acquisitions, including Aqua Source and Florida Water Service. The water systems acquired by Aqua in Florida were generally neglected and some had preexisting environmental and/or quality violations, and the company has spent the last six years investing roughly US$1bn in the infrastructure; it is also working with its regulators to improve their understanding of water utilities. Because of these large investments, some of Aqua's rate cases in Florida turned out particularly large, which were merely a reflection of underinvestments by previous owners. Unfortunately, WTR must overcome the poor reputation its acquired assets have developed in Florida, as well as an expectation of immediate improvements. New rates should be implemented in time for the summer.
- In May 2008, the company filed an application with the FPSC to increase annualized rates by US$8.4m. In February 2009, the Commission granted Aqua a US$6.1m revenue increase premised upon a 9.75% allowed ROE and a 62% equity ratio. The allowed ROE was below the 10.77% recommended by the staff of the FPSC due to a penalty for poor customer service. We understand that numerous customers attended Aqua's hearings to voice their dissatisfaction.
- In December 2006, the company applied with the FPSC to increase annualized rates by US$7.3m. However, during 3Q07, a settlement agreement was reached resulting in the company voluntarily withdrawing its application and refunding interim revenue associated with the application.

North Carolina

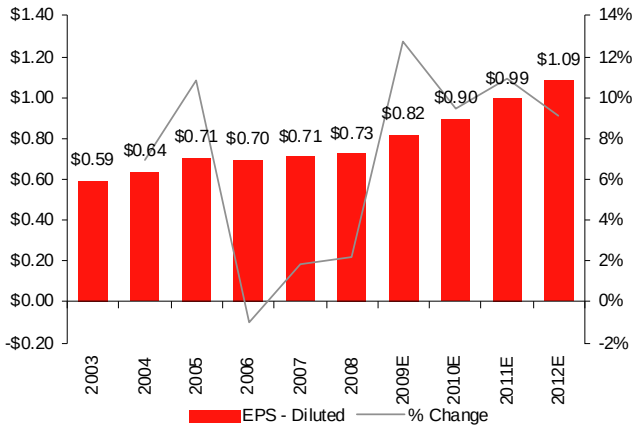
- In February 2009, WTR's North Carolina subsidiary reached a settlement with the Public Staff, the state's consumer advocate on utility rate matters, calling for a US$7.7m annual revenue increase vs US$12.3m requested.

Earnings projections

We expect Aqua to generate EPS of US$0.82, US$0.90 and US$0.99 in 2009, 2010 and 2011, respectively. Our 2009 estimate assumes the full impact of 2008 rate increases of US$61m and a 1.1% drop in customer base, mainly industrial (down 8%). For 2010, we assume the impact of 2009 revenue requests of US$75m, a 60% rate case success rate and no change in customer base. These estimates should translate into a realized ROE of 8.7% for 2009 and 8.8% for 2010, an improvement from the 8.4% ROE realized by Aqua in 2008 but well below its average allowed ROE of 10.5%. Our long term outlook for Aqua's EPS growth is 8–9%, which is underpinned by US$1.4 billion of its planned capital expenditures and no large acquisitions.

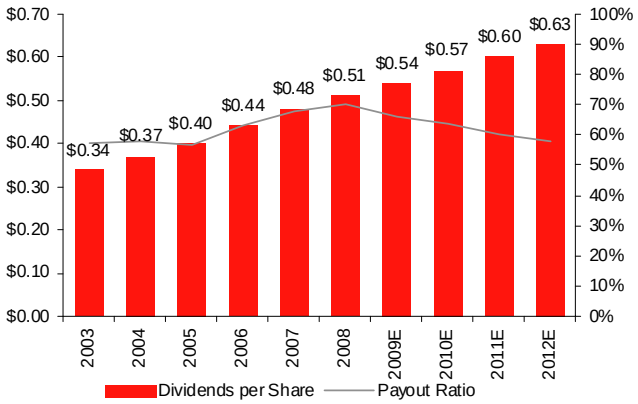
For dividends, we expect Aqua to pay out US$0.54, US$0.57 and US$0.60 in 2009, 2010 and 2011, respectively, which corresponds to payout ratios of 66%, 63% and 60%, respectively, roughly in line with management's assumptions. Longer term, we forecast Aqua's dividends to grow at a 4.5% CAGR. The company's board of directors typically reviews its dividend in August.

Fig 5 Long-term EPS CAGR of 8–9%



Source: Company data, Macquarie Capital (USA), May 2009

Fig 6 Long-term dividend growth of 4.5%



Source: Company data, Macquarie Capital (USA), May 2009

We assume that the company spends US$300m in capex and US$50m for minor acquisitions (tuck-ins) in 2009. We do not see unsecured debt or equity financing as necessary this year; however, the equity-to-total capitalization ratio drops to 42% at year-end 2009 from 41% for 2008. Potential equity issuance may be needed to shore up Aqua's equity capitalization, as overleveraging may result in a credit rating downgrade, potential breach of bond covenants, or realized ROE may exceed authorized ROE.

At 31 March 2009, Aqua's total liquidity of US$91m included US$17m of cash, US$55m of availability on its US$139m short-term credit facilities and US$19m of availability on its US$95mn long-term revolving credit facility. In addition, Aqua qualifies for various municipal (tax-exempt) debt financing programs. In October 2008, the company was approved by the Pennsylvania Economic Development Financing Authority (PEDA) to issue US$80m of secured First Mortgage bonds. The company issued US$22m of debt at 6.5% under the PEDA in 2008 and can issue an additional US$58m in 2009.

Valuation and recommendation

Our 12-month target price for Aqua America is US$20, which represents total potential return of 11% based on the current share price of US$18.43 and dividend yield of 3%. We rate WTR Neutral.

We derive our target price from an average of the valuations below.

- 21x 2010E PER of US$19. Our 21x multiple is based on a historical 13% premium to our regulated water utility base/anchor multiple of 19x.
- Dividend discount model of US$21. Our key assumptions are 5–7% dividend growth from 2009 to 2015, 4.5% long-term dividend growth and a payout ratio of 55–60%.

Fig 7 Dividend discount model (US$)

	2009E	2010E	2011E	2012E	2013E	2014E	2015E	Terminal
Earnings per share	0.82	0.90	1.00	1.09	1.17	1.27	1.33	
Dividend Per Share	0.54	0.57	0.60	0.63	0.67	0.71	0.76	29.7
Dividend Payout ratio	66%	63%	60%	58%	57%	56%	57%	
Dividend Yield	3.0%	3.1%	3.3%	3.5%	3.7%	3.9%	4.2%	
Return on equity	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%
LT dividend growth rate								**4.5%**
No. of years to present	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5
PV of Dividends	0.52	0.51	0.50	0.49	0.49	0.49	0.48	17.66
Appraised share price	**21.15**							

Source: Macquarie Capital (USA), May 2009

Risks

Adequate regulatory recovery is not assured

Public utility commissions or similar state regulatory bodies regulate utility rates and ROEs. The timing and outcome of regulatory proceedings create uncertainty and potential delays (ie, regulatory lag) in cost recovery. In the past, WTR has typically received approximately 60% of requested rate increases. Risk of condemnation (ie, acquisition) by governmental entities exists. The City of Fort Wayne, Indiana, acquisition by eminent domain in 2007 serves as an example. Lastly, stricter environmental standards could result in significantly higher operating costs.

Capital intensity creates execution and financing risk

Aqua America is projected to spend US$1.4bn over the next five years. The ability to recover capital expenditures in a timely manner could materially affect the company's financial position and cashflows. In addition, completion of capital investment projects is subject to construction and development risks, including availability of capital, complying with permits, meeting budgets and satisfying operating and environmental performance standards.

Valuation dilution resulting from American Water share offering

Given high valuation multiples relative to the market and utility peers, electric utilities in particular, and the relatively small market capitalization of the water sector, the addition of American Water in April 2008, which increased the market capitalization of the group by 50%, could lead to valuation dilution of the other publicly traded water utility stocks, including Aqua America.

Weather and economic conditions may affect demand

Water demand is seasonal, with peak demand in summer months and reduced demand in cooler months. Demand typically varies with temperature, rainfall levels and rainfall frequency. Hotter (colder)-than-normal weather can result in higher (lower) demand. Higher (lower)-than-normal rainfall can result in lower (higher) demand. Drought conditions can result in mandatory conservation, which reduces water demand and revenues. Economic weakness can negatively affect (1) residential demand via lower discretionary and recreational water use, lower natural customer growth from fewer housing starts, and higher bad debts expense, and (2) industrial and commercial demand via slower business activity, and customer payment delays and bankruptcies.

Level of market interest rates

Our DCF valuation for WTR relies on a 4.25% risk-free rate, the Macquarie projection of the level of 10-year US Treasury yields in the next 12 months. Every 10bp difference in the Treasury yield has a +/- US$0.80/sh impact on our DCF and DDM valuation of WTR. More important, the higher interest rates could depress the appeal of water utilities to income-seeking equity investors.

Fig 8 Income statement, 2006–12E (US$m except per-share data)

	2006	2007	2008	2009E	2010E	2011E	2012E
Sales	533	602	627	682	756	836	910
Operating expenses	253	298	307	336	373	413	450
EBITDA	281	304	320	346	383	423	460
Depreciation and amortization	75	88	94	98	107	116	124
EBIT	206	216	226	248	276	307	336
Net interest expense	58	67	69	70	79	88	95
Ordinary Profit Before Tax	152	156	163	184	202	225	246
Income tax	60	61	65	73	80	89	98
Net group profit of continuing operations	92	95	98	111	122	135	148
Weighted average number of shares (m)	132	134	135	135	136	136	137
Diluted EPS	**0.70**	**0.71**	**0.73**	**0.82**	**0.90**	**0.99**	**1.09**
Dividend per share	*0.44*	*0.48*	*0.51*	*0.54*	*0.57*	*0.60*	*0.63*
Dividend payout ratio	*63%*	*67%*	*70%*	*66%*	*64%*	*60%*	*58%*

Source: Company data, Macquarie Capital (USA), May 2009

Fig 9 Cashflow statement, 2006–12E (US$m)

	2006	2007	2008	2009E	2010E	2011E	2012E
Net income	92	95	98	111	122	135	148
D&A, goodwill amortization	75	88	94	98	107	116	124
Other non cash elements	18	26	46	33	36	41	45
Funds from operations	185	209	238	241	265	292	318
Decrease (increase) in non-cash working capital	(14)	(15)	(17)	(5)	(2)	(2)	(2)
Operating cashflow	171	194	222	237	263	290	316
Net investments in fixed assets	(282)	(282)	(261)	(350)	(350)	(350)	(350)
Net investments in financial assets	57	(62)	22	0	0	0	0
Free cashflow before dividends	(55)	(150)	(17)	(113)	(87)	(60)	(34)
Dividends paid	(58)	(64)	(69)	(73)	(77)	(81)	(86)
Free cashflow after dividends	(113)	(214)	(86)	(186)	(164)	(141)	(119)
Increase or (repayment) of capital and subsidies	65	17	46	9	10	10	10
Increase or (repayment) of financial debt	59	167	37	177	154	131	109
Adjustment for minorities / miscellaneous	20	1	3	0	0	0	0
Increase in cash	**32**	**(29)**	**0**	**0**	**0**	**0**	**0**

Source: Company data, Macquarie Capital (USA), May 2009

Fig 10 Balance sheet statement, 2006–12E (US$m)

	2006	2007	2008	2009E	2010E	2011E	2012E
Cash and cash equivalents	44	15	15	15	15	15	15
Receivables	72	83	85	95	105	115	125
Inventory	8	9	10	10	11	12	14
Other short-term assets	10	9	12	12	12	12	12
Other-long term assets	237	319	367	367	367	367	367
Property, plant, and equipment	2,506	2,793	2,997	3,250	3,493	3,727	3,953
Total assets	**2,878**	**3,227**	**3,485**	**3,748**	**4,002**	**4,248**	**4,485**
Financial liabilities	150	81	88	88	88	88	88
Operating liabilities	49	46	50	52	58	64	70
Other liabilities	56	57	55	55	55	55	55
Deferred credits and other regulatory liabilities	747	850	983	1,020	1,060	1,104	1,153
Long-term debt	952	1,215	1,248	1,425	1,579	1,710	1,820
Shareholders' equity	923	978	1,061	1,108	1,162	1,226	1,299
Total liabilities and equity	**2,878**	**3,227**	**3,485**	**3,748**	**4,002**	**4,248**	**4,485**

Source: Company data, Macquarie Capital (USA), May 2009

Company profile

Aqua America is the second-largest investor-owned water utility in the United States with a market capitalization of approximately US$3bn. It serves about 950,000 water and wastewater utility customers across 13 northeastern and southern states: Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, New York, Florida, Indiana, Virginia, Maine, Missouri and South Carolina. The majority of revenue (ie, 98%) in 2008 was from its regulated water and wastewater businesses. Residential customers accounted for 60% of 2008 revenues, and Pennsylvania was its largest state at 53% of 2008 revenues. WTR has been the most active consolidator in the US water utility sector, completing roughly 200 acquisitions for US$950m since 1998.

Fig 11 WTR's regulated service territory

Source: Company data, May 2009

Important disclosures:

Recommendation definitions

Macquarie - Australia/New Zealand
Outperform – return >5% in excess of benchmark return
Neutral – return within 5% of benchmark return
Underperform – return >5% below benchmark return

Macquarie – Asia/Europe
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie First South - South Africa
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie - Canada
Outperform – return >5% in excess of benchmark return
Neutral – return within 5% of benchmark return
Underperform – return >5% below benchmark return

Macquarie - USA
Outperform (Buy) – return >5% in excess of benchmark return (Russell 3000)
Neutral (Hold) – return within 5% of benchmark return (Russell 3000)
Underperform (Sell)– return >5% below benchmark return (Russell 3000)

Recommendations – 12 months

Note: Quant recommendations may differ from Fundamental Analyst recommendations

Volatility index definition*

This is calculated from the volatility of historical price movements.

Very high–highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.

High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

Medium – stock should be expected to move up or down at least 30–40% in a year.

Low–medium – stock should be expected to move up or down at least 25–30% in a year.

Low – stock should be expected to move up or down at least 15–25% in a year.
* Applicable to Australian/NZ/Canada stocks only

Financial definitions

All "Adjusted" data items have had the following adjustments made:
Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense
Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa*
ROA = adjusted ebit / average total assets
ROA Banks/Insurance = adjusted net profit /average total assets
ROE = adjusted net profit / average shareholders funds
Gross cashflow = adjusted net profit + depreciation
*equivalent fully paid ordinary weighted average number of shares

All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

Recommendation proportions – For quarter ending 31 March 2009

	AU/NZ	Asia	RSA	USA	CA	EUR	
Outperform	40.44%	49.55%	44.83%	38.49%	67.19%	43.84%	(for US coverage by MCUSA, 1.19% of stocks followed are investment banking clients)
Neutral	38.60%	15.57%	39.66%	46.43%	28.12%	39.04%	(for US coverage by MCUSA, 0.25% of stocks followed are investment banking clients)
Underperform	20.96%	34.88%	15.52%	15.08%	4.69%	17.12%	(for US coverage by MCUSA, 0.69% of stocks followed are investment banking clients)

The analyst primarily responsible for the preparation of this research report did not provide the certifications specified in 17 CFR 242.502(a) for the second quarter of 2008.

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Contact Gareth Warfield for access (612) 8232 3207

Email addresses

FirstName.Surname@macquarie.com
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Joanne Patterson (Montréal)	(514) 925 2872
Cindy Vaincourt (Montréal)	(514) 925 2867

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UNITED STATES

American Water Works

3 June 2009

AWK US		**Outperform**
Stock price as of 02 Jun 09	US$	17.06
12-month target	US$	25.00
12-month TSR	%	+51.3
Valuation - PER	US$	22.45
GICS sector		utilities
Market cap	US$m	2,730
30-day avg turnover	US$m	0.0
Number shares on issue	m	160.0

Investment fundamentals

Year end 31 Dec		2008A	2009E	2010E	2011E
Sales revenue	m	2,336.9	2,487.7	2,676.3	2,869.1
EBIT	m	562.7	639.9	706.7	779.3
Reported profit	m	176.1	-227.4	250.6	284.0
Adjusted profit	m	176.1	215.6	250.6	284.0
Gross cashflow	m	442.3	496.9	547.8	596.4
CFPS	US$	2.76	2.96	3.07	3.30
CFPS growth	%	7.1	7.0	3.8	7.7
PGCFPS	x	6.2	5.8	5.6	5.2
EPS adj	US$	1.10	1.28	1.40	1.57
EPS adj growth	%	10.6	16.6	9.4	12.1
PE adj	x	15.5	13.3	12.2	10.8
Total DPS	US$	0.40	0.80	0.84	0.88
Total div yield	%	2.3	4.7	4.9	5.2
ROA	%	4.3	4.8	5.1	5.4
ROE	%	4.1	5.3	6.0	6.6
EV/EBITDA	x	9.6	8.8	8.3	7.6
Net debt/equity	%	128.9	133.2	135.7	136.0
Price/book	x	0.7	0.7	0.7	0.7

AWK US vs S&P 500 - US, & rec history

Source: FactSet, Macquarie Capital (USA), June 2009
(all figures in USD unless noted)

Analyst
Angie Storozynski
1 212 231 2569 angie.storozynski@macquarie.com

Better safe than sorry

Event

- On 1 June, American Water Works announced an equity offering of 26m shares, which includes 14.5m of newly issued shares and 11.5m of existing shares being sold by AWK's largest shareholder, RWE AG. The offering includes an over-allotment option of 3.9m shares owned by RWE.

Impact

- **RWE divestiture – no surprise**: Following the expiration of the 180-day lock-up period after AWK's IPO in October 2008, we expected RWE to continue to shed its stake in AWK. On 1 May 2009, AWK filed a mixed shelf registration, which provided for sales by existing security holders. Following the sale of shares and the additional equity issuance, RWE will hold 85.2m shares (81.3m with the over-allotment), representing 49% (47%) of shares outstanding, and thus RWE would no longer be a majority shareholder of AWK. The divestiture should increase the liquidity of AWK's stock and remove some overhang on the stock associated with the anticipated equity transaction. We await further divestitures.
- **New equity – opportunistic issuance:** While the sale of AWK shares by RWE was long overdue, the new share issuance by AWK was somewhat surprising to us. While AWK's equity-to-capitalization fell to c40% post the 1Q09 goodwill impairment, we believed its equity mix would stabilize and improve organically with rapid earnings growth. We understand, however, that the low equity ratio could have hurt AWK in some of its pending rate cases, which in turn would have triggered attention from credit agencies. Following the offering, we estimate that AWK's 09E equity ratio should improve by 255 bp to 42.8%, which is still below the company's longer-term goal of 45%, but an acceptable level, in our opinion. Net proceeds from the issuance will be used for debt repayments.

Earnings revision

- Our 2009/2010/2011 EPS decline 4%/4%/5% to US$1.28/$1.40/$1.57, reflecting the increase in shares outstanding partially offset by lower interest expense.

Price catalyst

- 12-month price target: US$25.00 based on a combination of PER and DDM methodology.
- Catalyst: Further divestitures by RWE, quarterly earnings and regulatory rate case updates.

Action and recommendation

- We continue to recommend AWK as we see regulatory catch-up translating to accelerated earnings growth through 2012 and capex extending earnings and dividend growth longer term. The sale of shares by RWE is another step towards its goal of fully divesting its ownership of AWK; however, with a sizable stake still remaining, some overhang on stock should remain, we believe.

Valuation and risks

Our 12-month target price of US$25 is an average of our PER and DDM valuations below.

- 16x 2010E PER valuation of US$22.45. Our 16x multiple is based on a historical 18% discount to our regulated water utility base/anchor multiple of 19x.
- Dividend discount model of US$27. Our key assumptions are 5-8% dividend growth from 2009 to 2015, 4% long-term dividend growth and a payout ratio of 40-60%.

Fig 1 Dividend discount model (US$)

	2009E	2010E	2011E	2012E	2013E	2014E	2015E	Terminal
Earnings per share	1.28	1.40	1.57	1.76	1.96	2.21	2.46	
Dividend per share	0.80	0.84	0.88	0.92	0.98	1.06	1.14	37.3
Dividend payout ratio	63%	60%	56%	52%	50%	48%	46%	
Dividend yield	4.6%	4.9%	5.1%	5.3%	5.7%	6.1%	6.6%	
Return on equity	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%
Long term dividend growth rate								4.0%
Number of years to present	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5
Present value of dividends	0.77	0.76	0.74	0.72	0.72	0.72	0.73	22.21
Appraised share price	27.37							

Source: Macquarie Capital (USA), June 2009

Rising 10-year Treasury yields could reduce valuations of regulated utilities

We use the DDM valuation in determining our 12-month target price. Our key assumptions include a beta of 0.65, risk free rate of 4.3% and risk premium of 4.5%. An increase to our long-term risk free rate assumption of 100bps would reduce our DDM valuation by -24% to US$20.75, from US$27.37.

RWE divestiture could have implications on the share price

The pending RWE divestiture carries two potential risks: the near-term overhang of a large-sized offering and potential post-offering valuation dilution. High valuation multiples relative to the broader market and other utility industries could reflect the relatively small market capitalization of the water utility industry (ie, a scarcity premium). Other potential issues include expiration of two regulatory approvals for the divestiture in April 2010 and April 2011, and the Illinois state PUC approval that has been appealed; however, we do not believe that either will impede the RWE sale.

Adequate regulatory recovery is not assured

Public utility commissions and similar state regulatory bodies regulate utility rates and ROEs. The timing and outcome of regulatory proceedings create uncertainty and potential delays (ie, regulatory lag) in cost recovery. In the past, AWK has typically received 50–70% of requested rate increases. Risk of condemnation (ie, acquisition) by governmental entities exists. Lastly, stricter environmental standards could result in significant higher operating costs.

Capital intensity creates execution and financing risk

American Water estimates capital spending of US$4.0–4.5bn for 2009–13. The ability to recover and earn a return on invested capital could materially affect the company's financial position and cash flows. Moreover, completion of capital investment projects is subject to construction and development risks, including availability of capital, complying with permits, meeting budgets and satisfying operating and environmental performance standards.

Goodwill impairment could have negative credit implications and trigger equity needs

As of 31 March 2008, AWK has recorded US$1.3bn of goodwill on its balance sheet, primarily related to the RWE acquisition. The company may be required to impair goodwill in the future if it fails certain valuations tests. Any impairment could have a negative financial (not economic or cashflow) impact and reduce total capitalization. Credit rating agencies could downgrade AWK's credit ratings, which could impede the company's ability to access debt markets for capital. Goodwill impairment charges were US$385m, US$222m, US$509m, US$750m and US$450m in 2005, 2006, 2007, 2008 and 2009, respectively.

Financials

Fig 2 Income statement (US$m, except per share)

	2006	2007	2008	2009E	2010E	2011E	2012E
Sales	2,093	2,214	2,337	2,488	2,676	2,869	3,067
Operating expenses	1,360	1,430	1,503	1,561	1,667	1,772	1,877
Operational EBITDA	733	784	834	926	1,009	1,097	1,190
Depreciation	259	267	271	286	302	317	337
Operational EBIT	474	517	563	640	707	779	853
Net interest expense	368	285	283	303	312	329	343
Ordinary Profit Before Tax	113	254	299	356	414	470	530
Income tax	45	95	123	141	164	186	209
Net group profit of continuing operations	68	159	176	216	251	284	321
Weighted average number of shares (m)	160	160	160	169	179	181	183
Diluted EPS	0.42	1.00	1.10	1.28	1.40	1.57	1.76
Gross dividend per share	NA	NA	0.40	0.80	0.84	0.88	0.92
Dividend payout ratio	NA	NA	36%	63%	60%	56%	52%

Source: Macquarie Capital (USA), June 2009

Fig 3 Cashflow statement (US$m)

	2006	2007	2008	2009E	2010E	2011E	2012E
Net income	-162	-343	-562	-227	251	284	321
D&A, goodwill amortisation	259	267	271	286	302	317	337
Other non cash elements	323	532	943	545	112	129	148
Funds from operations	420	457	652	604	665	731	805
Decrease (increase) in non-cash working capital	(97)	17	(100)	7	(7)	(7)	(8)
Operating cash flow	324	474	552	610	658	724	798
Net investments in fixed assets	(692)	(750)	(1,009)	(930)	(850)	(850)	(850)
Net investments in financial assets	0	4	(25)	0	0	0	0
Free cash flow before dividends	(368)	(273)	(481)	(320)	(192)	(126)	(52)
Dividends paid (group + minorities)	0	0	(64)	(135)	(150)	(159)	(168)
Free cash flow after dividends	(368)	(273)	(546)	(455)	(342)	(285)	(220)
Increase or (repayment) of capital and subsidies	291	977	297	153	292	235	170
Increase or (repayment) of financial debt	(1)	(1,750)	1	302	50	50	50
Adjustment for minorities / miscellaneous	42	1,030	244	0	0	0	0
Increase in cash	(35)	(16)	(4)	0	0	0	(0)

Source: Macquarie Capital (USA), June 2009

Fig 4 Balance sheet ($USm)

	2006	2007	2008	2009E	2010E	2011E	2012E
Cash and cash equivalents	30	13	10	10	10	10	10
Financial and Operating Receivables	185	193	199	211	227	244	261
Inventory	23	27	29	29	31	33	35
Other short-term assets	175	196	180	194	209	223	238
Goodwill	2,962	2,457	1,700	1,250	1,250	1,250	1,250
Other-long term assets	688	729	991	991	991	991	991
Property, plant, and equipment	8,721	9,318	10,124	10,768	11,315	11,848	12,361
Total assets	12,783	12,934	13,232	13,453	14,033	14,599	15,145
Financial liabilities	1,007	317	655	655	655	655	655
Operating liabilities	141	169	150	169	180	191	202
Other liabilities	216	289	300	300	300	300	300
Deferred credits and other regulatory liabilities	2,727	2,914	3,372	3,481	3,608	3,752	3,914
Long-term debt	3,096	4,675	4,624	4,777	5,075	5,316	5,493
Shareholders' equity	5,596	4,571	4,131	4,071	4,215	4,384	4,581
Total liabilities and equity	12,783	12,934	13,232	13,453	14,033	14,599	15,145

Source: Macquarie Capital (USA), June 2009

Important disclosures:

Recommendation definitions

Macquarie - Australia/New Zealand
Outperform – return >5% in excess of benchmark return
Neutral – return within 5% of benchmark return
Underperform – return >5% below benchmark return

Macquarie – Asia/Europe
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie First South - South Africa
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie - Canada
Outperform – return >5% in excess of benchmark return
Neutral – return within 5% of benchmark return
Underperform – return >5% below benchmark return

Macquarie - USA
Outperform (Buy) – return >5% in excess of benchmark return (Russell 3000)
Neutral (Hold) – return within 5% of benchmark return (Russell 3000)
Underperform (Sell)– return >5% below benchmark return (Russell 3000)

Recommendations – 12 months

Note: Quant recommendations may differ from Fundamental Analyst recommendations

Volatility index definition*

This is calculated from the volatility of historical price movements.

Very high–highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.

High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

Medium – stock should be expected to move up or down at least 30–40% in a year.

Low–medium – stock should be expected to move up or down at least 25–30% in a year.

Low – stock should be expected to move up or down at least 15–25% in a year.
* Applicable to Australian/NZ/Canada stocks only

Financial definitions

All "Adjusted" data items have had the following adjustments made:
Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense
Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa*
ROA = adjusted ebit / average total assets
ROA Banks/Insurance = adjusted net profit /average total assets
ROE = adjusted net profit / average shareholders funds
Gross cashflow = adjusted net profit + depreciation
*equivalent fully paid ordinary weighted average number of shares

All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

Recommendation proportions – For quarter ending 31 March 2009

	AU/NZ	Asia	RSA	USA	CA	EUR	
Outperform	40.44%	49.55%	44.83%	38.49%	67.19%	43.84%	(for US coverage by MCUSA, 1.19% of stocks followed are investment banking clients)
Neutral	38.60%	15.57%	39.66%	46.43%	28.12%	39.04%	(for US coverage by MCUSA, 0.25% of stocks followed are investment banking clients)
Underperform	20.96%	34.88%	15.52%	15.08%	4.69%	17.12%	(for US coverage by MCUSA, 0.69% of stocks followed are investment banking clients)

The analyst primarily responsible for the preparation of this research report did not provide the certifications specified in 17 CFR 242.502(a) for the second quarter of 2008.

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John O'Connell (Global Co – Head)	(612) 8232 7544
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Stephen Harris (Canada)	(1 416) 848 3655

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Ian Macqueen (Calgary)	(1 403) 218 6659
Jenny Mikhareva (Calgary)	(1 403) 218 6655

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Adam Rowley (London)	(44 20) 3037 4272
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Email addresses

FirstName.Surname@macquarie.com
eg. David.Rickards@macquarie.com

Sales

Equities

Stevan Vrcelj (Head of Global Sales)	(612) 8232 5999
Alex Rothwell (Toronto)	(1 416) 848 3677

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Grant Hall (Boston)	(1 617) 598 2507
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Richard Sears (New York)	(1 212) 231 2489
Eric Wellmann (Boston)	(1 617) 598 2506

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Patrick Caufield (New York)	(1 212) 231 2581
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Peter Schwartz (New York)	(1 212) 231 6381
James Trounson (New York)	(1 212) 231 2547

Canada Sales

Tim Sorensen (Toronto)	(416) 848 3623
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Chris Naprawa (Toronto)	(416) 848 3634
Tim Newington (Toronto)	(416) 848 3558
Harry Pokrandt (Toronto)	(416) 848 3546
Michael Zuk (Toronto)	(416) 848 3688
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Roy McDowall (Montréal)	(514) 925 2864
Carly Dean (Vancouver)	(604) 639 6349
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Underweight
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Least preferred stock
Centrica

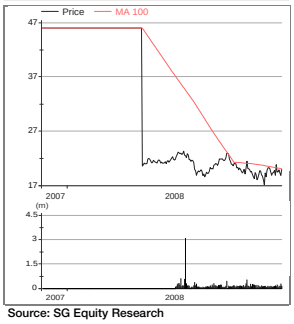
- **Investment case** American Water offers a unique opportunity to build market positions that appear sheltered from the fallout from the economic crisis. Water consumption (52% residential) has remained stable (>1% over one year) and, although financing a water network management business implies significant investment and high levels of debt ($5bn+), we believe management has a good grip on things, having arranged very long-term financing (80% of debt matures after 2013).

- **Catalysts for the share price** In addition to quarterly publications that are likely to reassure the market on the group's capacity to keep to its commitments in terms of contract renewals, non-regulated contract wins and dividend payment (20 $cents per quarter), we believe the withdrawal of RWE (Buy, €80) will increase free float and stock liquidity. In our view, American Water represents the perfect safe-haven and any worsening in the economic crisis should constitute positive news for the stock. Sovereign wealth funds, with their presumed interest in the water business, could want to own part of the largest water company in America and gain involvement in this industry. Similarly, the strong visibility of this business (regulated water network management) could attract other major investors.

- **12m target price and methodology** We initiate coverage of American Water with a target price of $22 which implies upside potential of 10%. We have an EV/EBIT ratio of 11.2x which corresponds to levels observed for a selection of peers or similar profiles (network managers or water companies), plus a 5% premium to reflect recurrence and visibility. A DCF approach supports our initial valuation. We recommend taking advantage of the current share price and potentially certain opportunities (share sales) to benefit from visibility, strong positioning (8% market share) and the current water industry consolidation movement in the US.

- **Alternative scenarios and risk to our scenario** The sale of shares owned by RWE (Buy, TP €80) could trigger a temporary weakness in the share price (which would offer an even better opportunity) but we believe it is not in RWE's interest to push the share price down. A rise in interest rates could have a negative impact. We also believe that the consensus could be too optimistic, which could lead the company to issue a profit warning. In the medium term, the group could also attempt to set up bridge financing which could be negatively interpreted.

1 year



Source: SG Equity Research

Risk

Stock vs sector
Sector vs market

American Water Works
on www.sgresearch.socgen.com

Share data			
RIC AWK.N, **Bloom** AWK US			
52-week range			23.4-17.2
EV 08 ($m)			8,826
Market cap. 08 ($m)			3,200
Free float (%)			40.0
Performance (%)	**1m**	**3m**	**12m**
Ordinary shares	1.6	-8.7	na
Rel. S&P 500	21.3	45.9	na

Financial data	12/07	12/08e	12/09e	12/10e
Revenues ($bn)	2.21	2.34	2.43	2.55
EBIT margin (%)	23.4	23.6	23.7	23.9
Rep. net inc. ($m)	139	-531	181	180
EPS (adj.) ($)	0.99	1.09	1.13	1.12
Dividend/share ($)	0.00	0.60	0.80	0.88
Payout (%)	0.0	nm	70.9	78.4
Interest cover (x)	1.8	1.8	1.7	1.7
Net debt/equity (%)	110.0	135.0	145.0	154.5

Ratios	12/07	12/08e	12/09e	12/10e
P/E (x)	20.3	18.4	17.7	17.8
FCF yield (/EV) (%)	0.0	-2.2	-0.8	-0.1
Dividend yield (%)	0.0	3.0	4.0	4.4
Price/book value (x)	0.7	0.8	0.8	0.8
EV/revenues (x)	3.70	3.77	3.84	3.84
EV/EBIT (x)	15.9	16.0	16.2	16.1
EV/IC (x)	0.6	0.6	0.6	0.6
ROIC/WACC (x)	0.5	0.5	0.5	0.5

CAGR 07-10e: +4.4%


John Honore
(33) 1 42 13 51 55
john.honore@sgcib.com

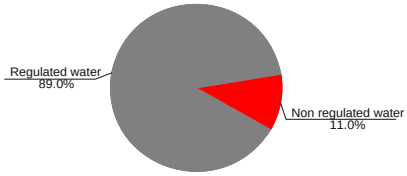

Didier Laurens
(33) 1 42 13 50 78
didier.laurens@sgcib.com

Please see important disclosures at the end of document

Group anatomy – business overview

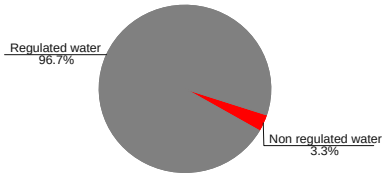
Founded in 1886, American Water is the largest water company in North America. With around 7,000 employees, the group provides 15.7 million customers with drinking water and collects waste water in 32 US states and in Ontario (Canada). Revenues are approximately four times higher than those of the number two in the sector. Regulated contracts account for 80% of the group's activity and translate into a very high level of recurrent revenues.

Sales/division 2007



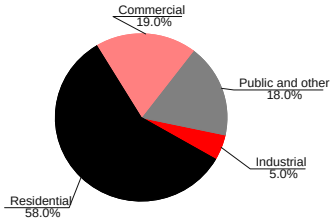
The group is exposed to the water market and primarily to the regulated water market in the US.

EBIT/division 2007



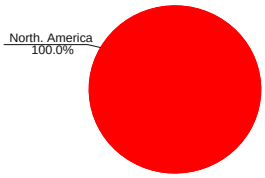
At present, non-regulated business accounts for a very small portion of EBIT.

End-market exposure 2007



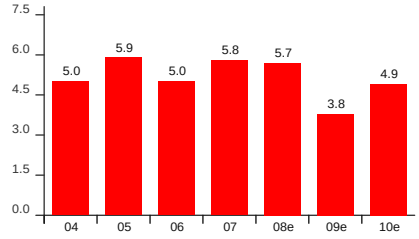
Due to strong positioning in regulated businesses, the group is more exposed to residential clients, who are also less volatile.

Sales/region 2007



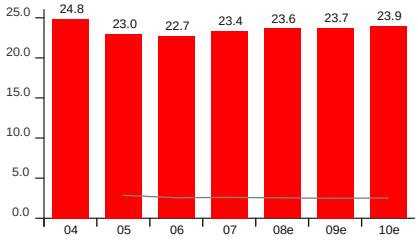
The group only operates in North America.

Revenues organic growth (%)



Organic growth stands between 3% and 5% per annum. This mainly reflects a price effect as volumes are rising only slowly.

EBIT margin (red) and ROIC (grey) (%)



EBIT margin suffered in our view as a result of a badly handled growth strategy (in 2005) and should return to previous levels thanks to current measures.

Competitive landscape

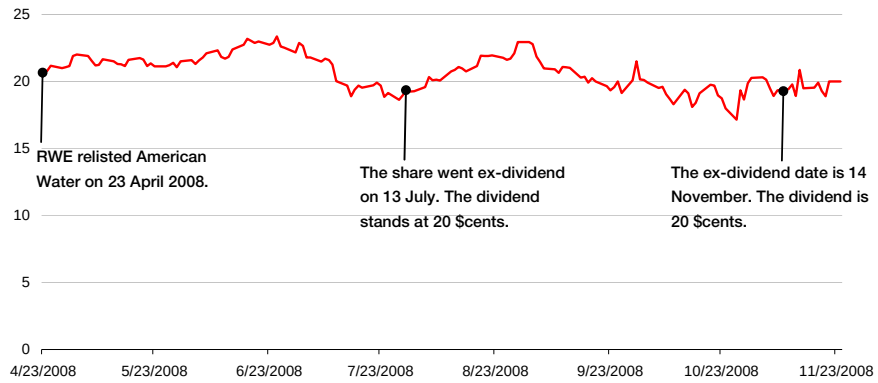
Business	Company market share	Sales CAGR (5y)	Company EBIT margin	Avg sector EBIT margin	Main players
Water	c. 8% in the US	5%+	25% normalised	15%	Veolia Environnement, Suez Environnement, California Water Services.

Source: SG Equity Research

Group anatomy – performance and valuation

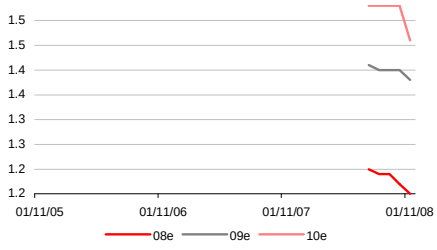
American Water Works was acquired by RWE at the end of 2002 at more than $45 per share (although the number of shares was different). RWE then relisted American Water in Q2 2008 (with 160 million shares)

American Water Works. Historical share price performance (in $)



Source: SG Equity Research

IBES EPS revision



Source: SG Equity Research, Datastream

SG EPS revision vs IBES

	Cur.	08e	09e	10e
SG EPS (adj.)	$	1.09	1.13	1.12
IBES EPS	$	1.17	1.40	1.48
SG vs IBES (%)		-7	-20	-32
EPS last revision				
SG EPS change at 12/11/08 (%)		Nm	Nm	Nm
Last IBES EPS change (%)		-1.7	-1.4	-4.5

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SG Equity Research opinion

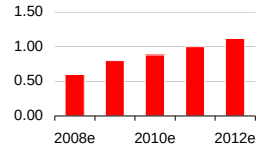
The stock provides a unique opportunity to build positions in a very stable market that offers very strong visibility and to steer clear of the effects of economic deterioration.

Despite these positive points American Water is currently affected by aversion to debt ($5bn at end-2007). We believe this aversion will not last and that, in the absence of any proof to the contrary, the management should be able to:

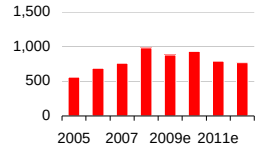
- Pay out an attractive dividend (4% yield).
- Finance growth (total investment of $4bn+ over 2008-2012e).
- Refinance its debt requirements while retaining a limited average effective rate of 6% (vs 5.22% in 2007).

To do this the management can draw on unique positioning: the number one water company in North America (US and Canada).

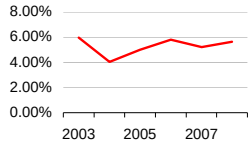
Anticipated dividend trend ($/share)



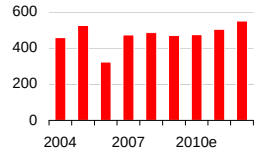
Change in capex 2005/2012e ($m)



Change in effective interest rate (%)



Change in cash flow from operations ($m)



Source: SG Equity Research

Who are American Water?

With an 8% market share the group is well exposed to structural change in the local market:

- We believe that sector consolidation is unavoidable because the market is highly fragmented (56% of networks are managed by very small entities). This could generate additional growth at the net income level (synergies);
- A long-term trend towards the privatisation of public services due to current pressure on public finances. Only 16% of drinking water services and 2% of waste water treatment is currently privatised.
- A certain increase in revenues thanks to fundamental efforts to improve the authorised level of return on investment. In 2007 the management that had just taken control of the group obtained $137m in price increases (6.9% of regulated revenues). This progress should continue, albeit at more moderate pace ($50m estimated per annum).

SG Equity Research forecasts vs consensus

In terms of EBITDA growth, our forecast is far lower than the consensus, at +7% on average over 2008-2012, vs +11% per annum for consensus.

We note that over 2001-2006 the group registered a CAGR of 3% at the EBITDA level.

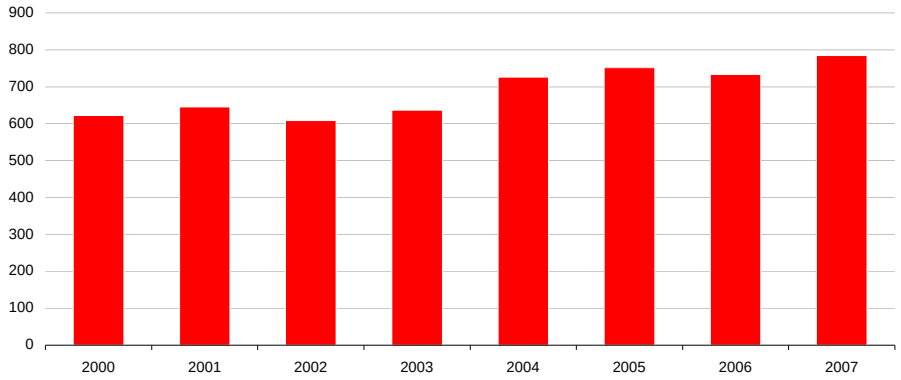
We believe EBITDA growth (7% in 2007 and 5% forecast for 2008) could slow in 2009e and 2010e (4%+) due to the recession which seems to be taking a grip in North America. However, due the highly recurrent nature of the demand for water (50%+ of volumes sold to residential clients), the group should demonstrate strong resistance to the economic environment.

EBITDA – SGe vs consensus

$m	2008e	2009e	2010e	2011e	2012e	CAGR
EBITDA - SGe	823	863	913	998	1,087	7.2%
EBITDA – Reuters consensus	862	1,024	1,149	1,213	1,309	11.0%
SG vs consensus	-4.5%	-15.7%	-20.5%	-17.7%	-17.0%	

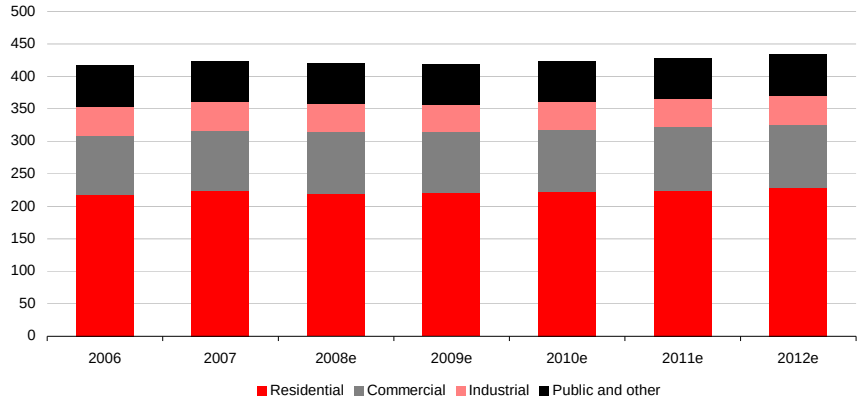
Source: SG Equity Research

American Water: EBITDA 2000/2007



Source: SG Equity Research

Change in volumes sold by type of client (billions of gallons)



Source: SG Equity Research

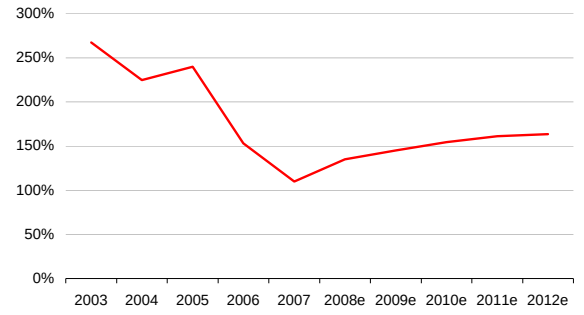
Our assumptions suggest a quarterly dividend of 20 $cents, which leads us to project a dividend of 60 $cents per share for 2008e and 80 $cents per share for 2009e, implying a 33% increase in payout (2009e/2008e).

Other investment themes

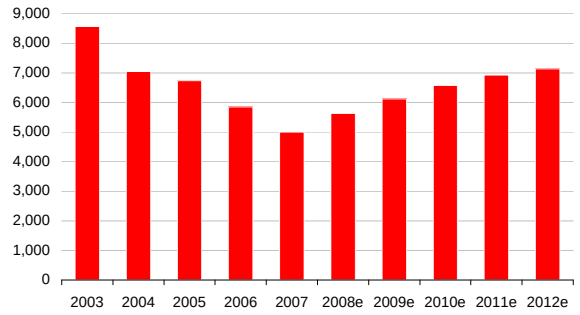
Other scenarios and risks

The main risk at present is quite clearly the level of debt. The group's gearing is expected to stand at 135% at end-2008 and 155% at end-2010.

Change and expected change in gearing (%)



Change and expected change in net debt ($m)



Source: SG Equity Research

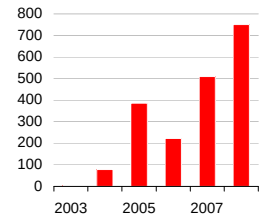
We assume an interest rate of 5.65% on American Water's debt, compared with 5.2% on average over the last five years.

According to our calculations a 50bp rise in interest rates would reduce EPS by 11% on average over 2009-2012e. Every 50bp increase in cost of debt leads to an 11% deterioration in EPS (100bp therefore corresponds to a 22% average drop in EPS over 2009-2012e).

We note that 2008 is not in line due to the anticipated net loss linked to asset writedowns.

Asset writedowns: $750m in 2008

Annual write-downs (€m)



Source: SG Equity Research

The group wrote down $750m of asset value in 2008. This constitutes an adjustment to the long-term value of future results (downward revision of management expectations) following a revision of demand for water, water usage, projected capex and estimates of the potential increase in return on investment (rate increase).

This represents a peak level of depreciation in comparison to recent years and should in our view bring the current downward cycle to an end (decline in the value of operating equipment). Over 2003-2008, the group has recorded total depreciation of €1,949m. We have not factored in any additional writedowns.

RWE should sell its remaining stake in the coming months

We believe RWE will sell its entire stake in American Water before the middle of 2009. Authorisation to list American Water was subject to conditions from three local regulators: two local commissions argued RWE must sell its entire stake within the next 24 months and one commission allowed 36 months.

We believe that these authorisations will expire in 2009. If the stakes are not sold before mid-2009 (our estimate), then the managements of American Water and RWE are likely to file for an extension which could imply further constraints for American Water, in terms of additional investment and declines in authorised returns on investment.

In the event that RWE sells its stake (very likely in our view) in American Water, we believe the American company would carry out a capital increase to improve its shareholders' equity/debt ratio which currently stands at 43%/57% vs a target of 50/50, and shore up its financial position. A $750m capital increase should restore the ratio to 50/50 (implying the issue of 38 million shares and dilution of 10%+ based on the current share price).

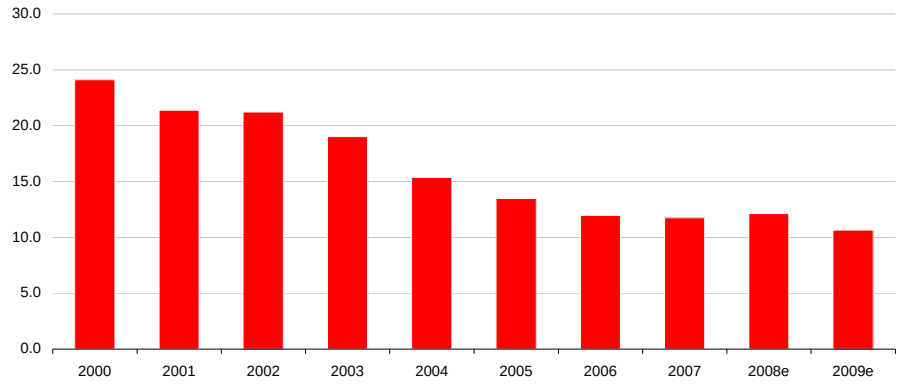
Summary of the target price calculation

Our target price of $22 corresponds to an EV/EBIT valuation (10.7x for a selection of peers: historical multiple for Suez, plus multiples for Suez Environnement, Veolia Environnement, Enagas and EVN) and a 5% premium.

Our selection of peers bear the following features: water companies or network management companies.

Our 5% premium factors in: 1) the low risk attached to the group's debt maturities (nothing significant before 2013); 2) the high level of recurrence in the volumes of water sold (420 billion gallons) due to regulation (visibility); and 3) leadership positioning in North America.

Average EV/EBIT multiple over 2000/2009e



Source: SG Equity Research / Peer selection composed of water companies and network managers

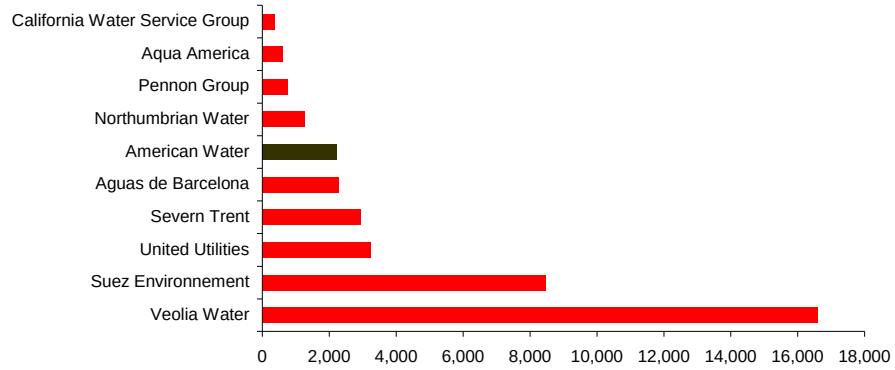
Our target price is supported by a normalised DCF approach which values American Water at $22.3 pre share.

Despite relatively low upside (13%), we believe American Water represents an interesting investment opportunity at the moment because it offers limited correlation to the economy combined with highly recurrent revenues.

American Water Works

American Water operates in 32 US states and generated $2.3bn in revenues in 2007, which makes it the number one water company in the United States and the sixth largest player in the world.

2007 revenues of the largest water companies (in $bn)



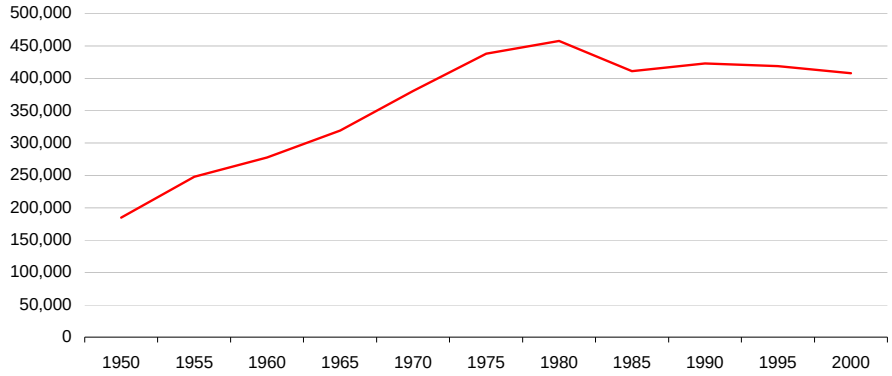
Source: SG Equity Research

We believe the American market will register 1-2% volume growth per annum in the coming years (mainly due to population growth) and stronger growth in terms of price (2%+?). Additionally, this market is highly fragmented and largely controlled by public operators, which leaves the door open to consolidation (slow and cautious) around American Water.

The American market: +1.6% per annum

Water consumption grew strongly in the United States until the beginning of the 1980s. Since then, total consumption levelled out at just above 400 billion gallons per day. Volume growth now averages +1.6% per annum since 1950.

Change in water demand (billions of gallons per day)



Source: SG Equity Research / USGS

Population growth: +1.2% per annum

We think there is a degree of correlation between population development (+1.2% per annum) and water consumption (+1.6%).

Population growth (in millions)

	1950	1967	1978	2006
Population	151	200	218	300

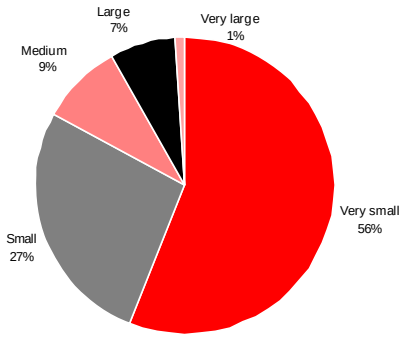
Source: SG Equity Research / Wikipedia

The latest projections (source: Center for Immigration Studies) indicate that the population of the US will reach 468 million by 2050, implying average annual growth of 1% per annum, which should mean a 1-1.5% increase in water consumption per annum.

A fragmented sector…

The water sector is very fragmented in the United States with more than 50% of water systems operated by very small players (non-private local companies managing a set area).

Number of water systems by size

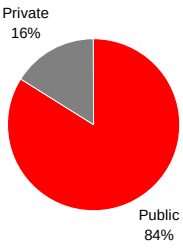


Source: SG Equity Research

… in the hands of public authorities

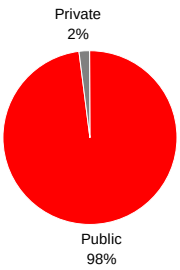
Water is mainly owned by state-run or state-affiliated companies.

Breakdown of public/private drinking water services



Source: SG Equity Research / American Water

Breakdown of public/private waste water treatment services



Source: SG Equity Research / American Water

By way of comparison, we note that only 25% of the French water market is publicly owned (SG Equity Research estimates)

Five percent average annual revenue growth

We expect revenues to grow by 5% on average over the next five years (2008-2012e), based on a number of factors, including volume growth:

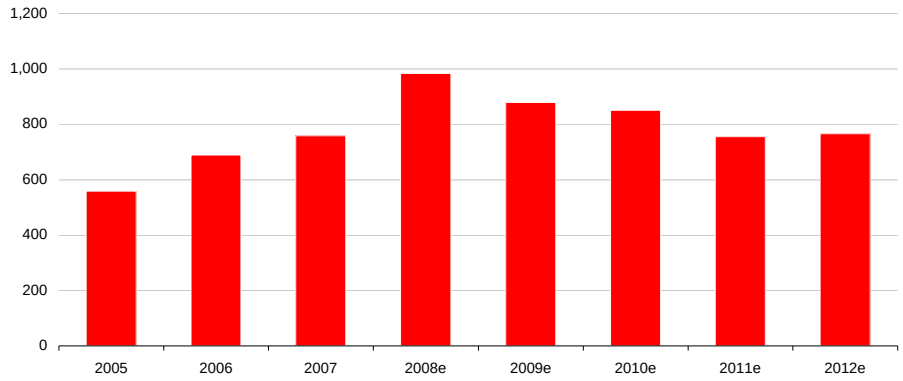
- Roughly 1% growth in volumes per annum;
- 3%+ growth in tariffs authorised by local regulators;
- 1% growth from non-regulated contract gains.

This growth, combined with cost controls, should enable management to restore the EBITDA margin to around 25% (vs 23% over the last three years on average).

Investment to meet demand and feed growth

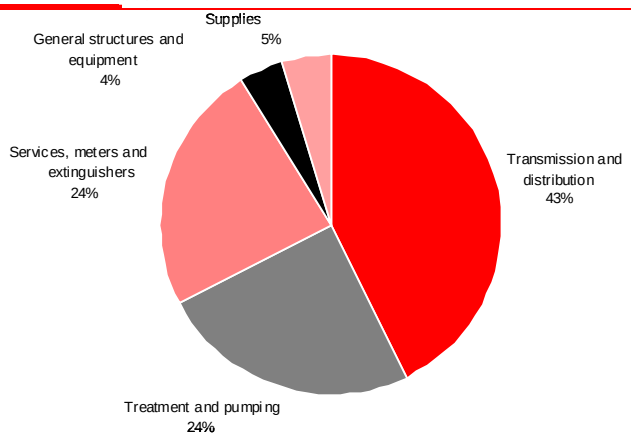
We believe the group will invest $4.2bn over 2008-2012e to meet the needs of the local population (and local authorities) and to improve its infrastructure.

Change and expected change in capex ($bn)



Source: SG Equity Research

Breakdown of investment by type (2007)



Source: SG Equity Research / American Water

Obtaining suitable ROIs from public commissions in each state

In a regulated space asset bases offer a certain amount of protection as ROIs are set at the moment the asset is created. For American Water, the set return (rate base) on invested capital stands at 10-10.5%.

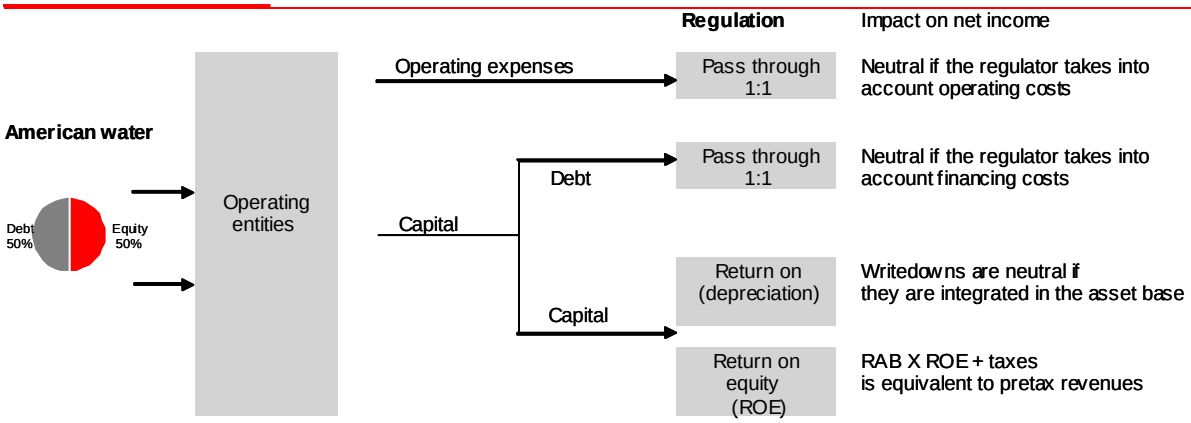
The group has to approach local commissions to obtain authorisations to implement tariff increases (leading to the 3% estimated tariff increase as indicated previously) in order to reach the targeted ROI.

These local commissions, known as Public Utilities Commissions (PUCs), are the only authorities with the power to authorise tariff increases.

To obtain authorisation, American Water needs to first complete a form which is then filed and processed by the PUC. The process can take many months.

Under the US industry model, the operator supports the risks in terms of volumes (of water), investment and quality of service, which clearly constitutes a substantial risk. Also, the return is not totally guaranteed for the operators (and therefore the shareholders). In our view, one of the biggest risks in financial terms is therefore volume change which can have an impact on revenues and therefore on earnings.

How is net income generated?



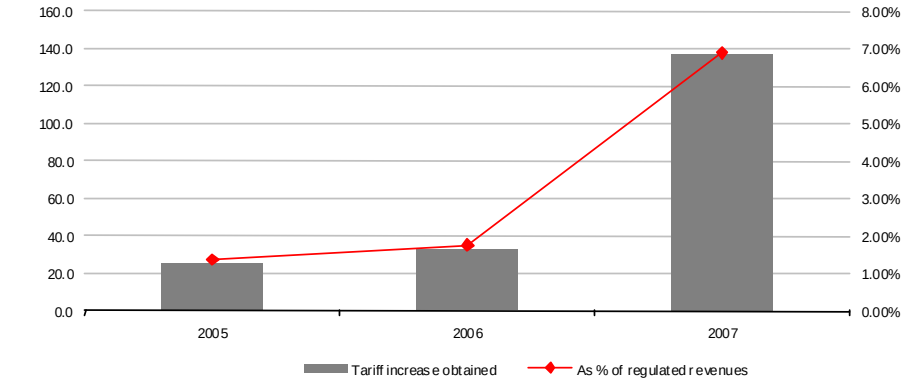
Source: SG Equity Research / American Water

The above graph indicates the group's main variable: return on investment.

American Water needs to develop and industrialise the process of requesting an increased ROI on its regulated asset base to maximise its net profit.

Management has not been standing around since taking over the reins in 2007, as the graph below shows. Since 2007 the group has obtained nearly $140m in regulated tariff increases, equivalent to almost 7% of regulated revenues, compared with very small increases previously.

Change in regulated tariff increases obtained ($m – left) expressed as a % of regulated revenues (right)



Source: SG Equity Research

Two states account for a very large portion of the overall sum: New Jersey ($56m) and Pennsylvania ($41m). We believe management should concentrate on a higher number of smaller sums (of up to $20m per contract). This leads us to expect tariff growth of 3% per annum.

Developing non-regulated activities (public-private partnerships)

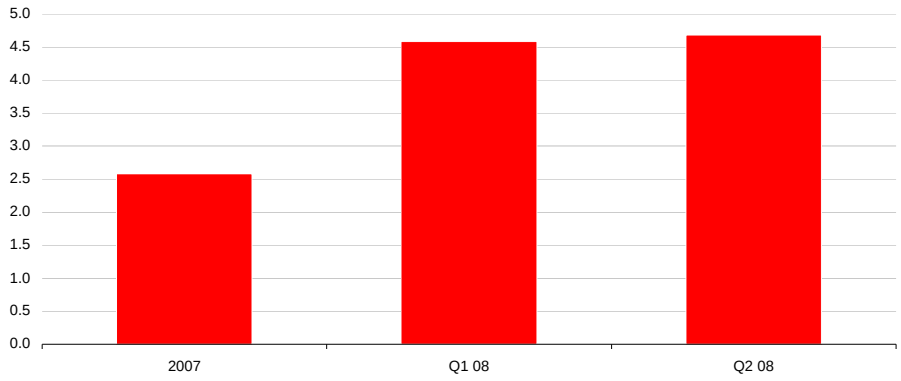
Management is also seeking to accelerate the growth of its non-regulated activities ($243m at end-2007).

In this segment the group generated an operating margin of 1.1% in 2007 ($3m).

We believe a concerted effort would enable the group to reach an operating margin of 6.5% (or $30m) by 2012e. However, the contribution of this business to total operating income is expected to remain limited to 4% (in 2012e).

American Water could/should however communicate on this subject which represents a certain growth driver. This acceleration was already evident in the first half of this year when operating income increased by 3.5x to reach $9.3m.

Operating income comparison: 2007 vs Q1 and Q2 08 ($m)



Source: SG Equity Research

Carry out medium-sized acquisitions to build up geographical coverage

Management could consider external growth as way of increasing the group's local presence:

Such an operation would in our view have to meet a number of criteria:

- The target would have to be a company that had not achieved all its potential tariff increases, leaving scope for future growth;
- It would also need to be situated in a state that is close to current positions.
- The "transfer" price would need to be reasonable (a discount would clearly be welcome).

All these factors should enable the group to win a wider range of contracts over time. The natural target pool consists of a large number of very small companies managing small areas (56% of the American market) and is therefore both difficult to understand and difficult to identify.

Why is EBITDA below the consensus?

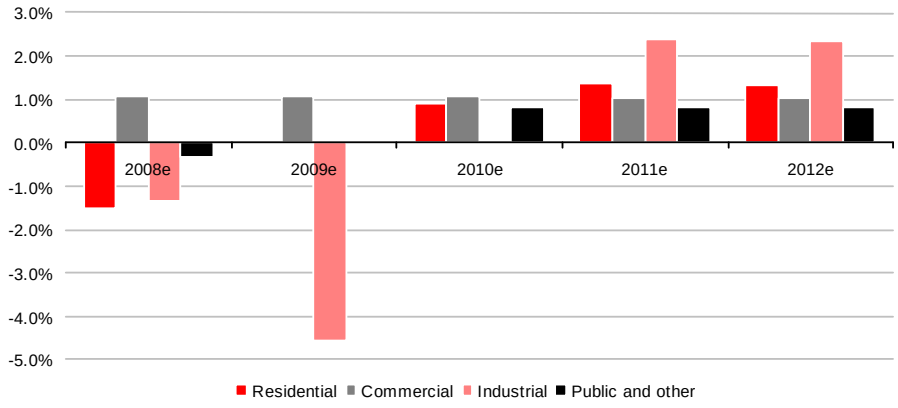
We estimate a slight increase in sales, which can only mean slow growth in the gross operating margin of a fixed-cost industry. We do not believe that management's ability to boost ROI is called into question, but that growth could be delayed.

Lower volumes/higher prices

Our earnings estimates are based on the following:

▪ A decline in volumes of 0.8% in 2008 and 0.2% in 2009, notably in the industrial water segment (-1.3% in 2008 and -4.5% in 2009), whereas water sold to residential customers would rise slightly.

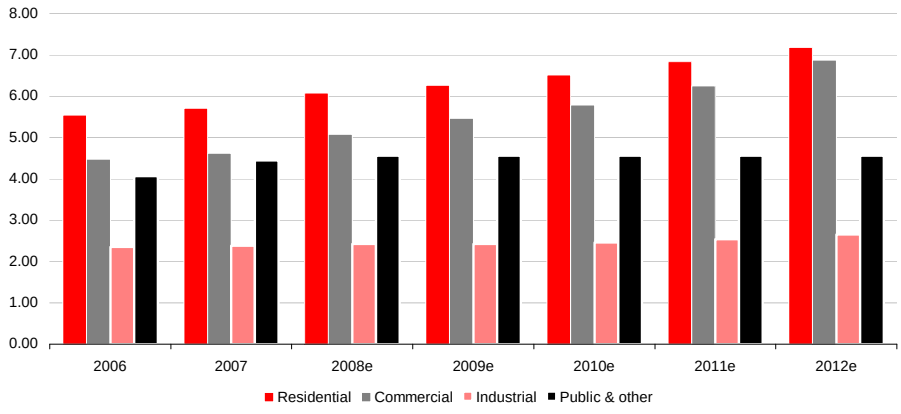
Change in water volumes sold



Source: SG Equity Research
NB: certain changes are not reflected because they equal zero, which is notably the case for "public and others 2009e"

▪ A positive change in the price of water volume sold at +3.9% pa on average (weighted by volume).

Change in price per gallon by type of customer ($/gallon)



Source: SG Equity Research

A 10%+ increase in unregulated business. The company won two new water supply contracts to US army bases in Q3: Fort Polk, Louisiana ($348m over 50 years) and Fort Hood, Texas ($329m over 50 years).

A fixed cost business (75% of sales)

Water is a fixed cost business. We expect costs to rise 4-5%, notably owing to:

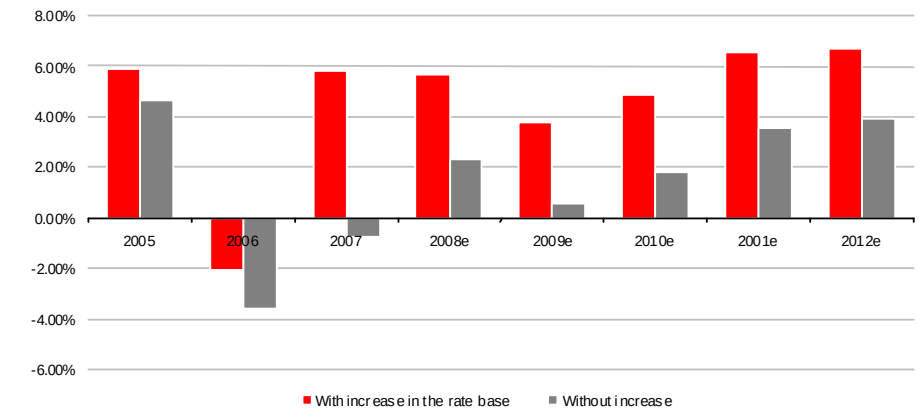
- An increase in staff costs given management's determination to improve service quality.
- Stable production costs for water correlated to volume sold. At this stage, we do not know of any technological advances that would cut production costs for drinking water.
- A per annum 10% increase in other costs (maintenance, payment systems, etc.).
- An increase in local tax of over 25% by 2012 (budget for municipalities and other public entities).

As a result, we project EBITDA growth of +7% over the 2008-2012e period.

We do not call into question potential increases in ROI (rate base, which would generate additional revenue of $267m over the full year according to management), but believe that the current state of the economy and various budget constraints could make these increases more difficult to obtain.

Nevertheless, we believe that these increases negotiated between the company and PUCs will be delayed, and this is reflected in our sales growth estimates.

Sales growth in 2005-2012e with and without an increase in return on investment



Source: SG Equity Research

Financing

In exchange for high investment (a $4.2bn programme over 2008-2012e), American Water must honour two commitments:

- Paying a dividend attractive to shareholders; and
- Refinancing on the markets.

A quarterly dividend of $0.20/share

Management has already stated that it will pay a dividend of $0.20/share every quarter.

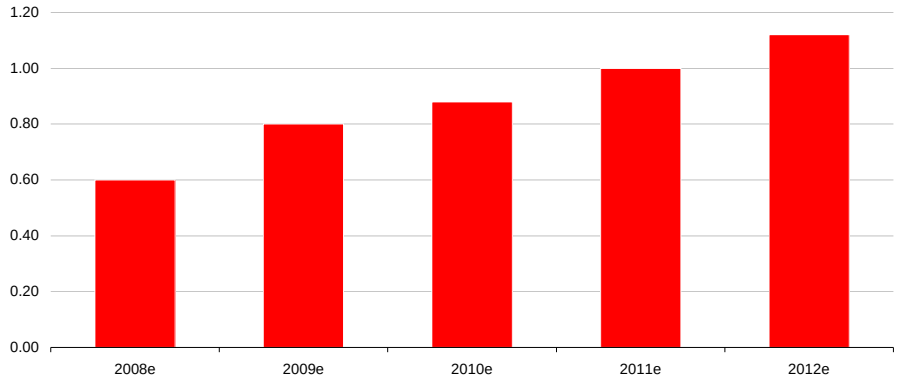
Shares are to go ex-dividend on 2 February 2009.

The full year dividend, i.e. $0.80/share for 2008 (which is not the dividend paid but a normalized base for the future), gives a net yield of 3.6% based on our $22 target price. Based on the current share price, the net dividend yield is 4%+.

We note that the company should pay out only $0.60/share for 2008, as it did not pay a dividend after the Q1 08 loss.

Growth expected for 2009 is based mainly on the ongoing payment of $0.20/share every quarter, or over the four quarters in 2009 instead of only three in 2008.

Estimated change in dividend over 2008e-2012e (in $)



Source: SG Equity Research

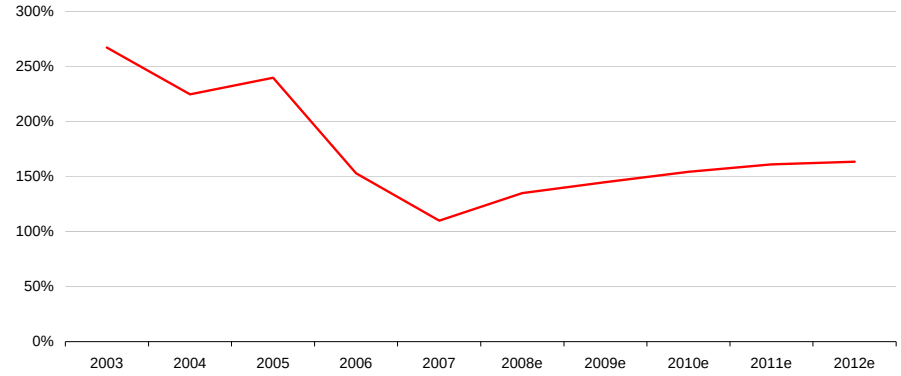
Thereafter, we expect payout to stabilise at around 70%, which should make possible a 12% increase in dividend p.a.

Debt: $5bn at end-2007

Paying a dividend will not make it possible to stabilise debt, in any event no more than an investment programme ($4.2bn over 2008-2012e).

Based on our model, we expect net debt of about $7bn at end-2012e, or net growth of $2bn over the period (+40%).

Change in gearing

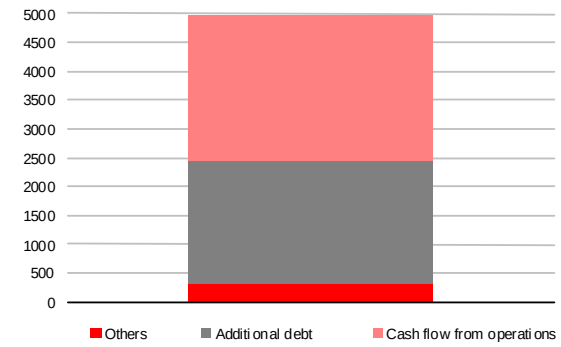


Source: SG Equity Research

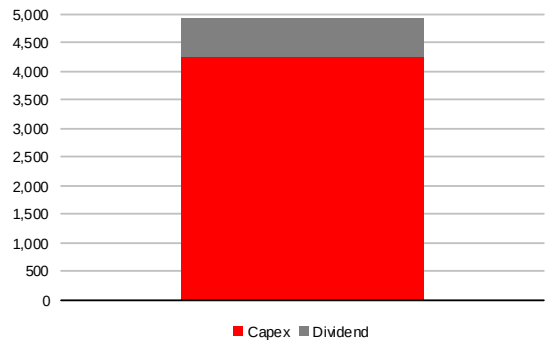
We estimate that the group should generate operating cash flow of $2.5bn over 2008-2012e.

At the same time, dividends should represent $0.7bn, maintenance and growth capex $4.2bn, and the sale of assets and construction advances should finance the remaining $300m.

Financing sources 2008-2012e ($m)



Cumulated capex and dividends 2008-2012e ($m)



Source: SG Equity Research

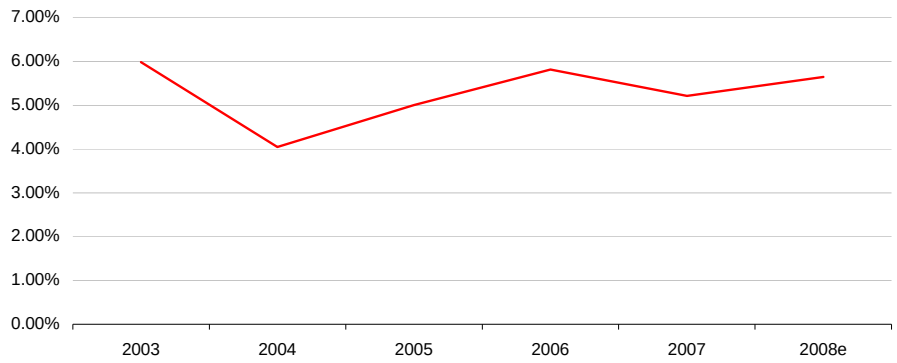
Long-term debt

The current environment is only slightly favourable to companies wishing to take on debt (which includes American Water), but a careful look at the financial structure reveals the long-term debt position.

At 30 June 2008, group debt was $5,054m, of which only $324m due in less than one year (6% of debt).

We discounted an interest rate increase to 5.65%, which is a peak compared with the company's recent historical figures.

Change in group's effective interest rates



Source: SG Equity Research

Clearly, higher interest rates would have a negative impact on earnings, insofar as we model them today.

A 0.5% change in the effective average interest rate would prompt an average change in EPS of 11%

Nevertheless, we believe the company should continue to obtain financing at under 6%. We note that in H1 08, the net effective cost of debt was 5.58%, in line with previous years.

In our opinion, the group's new short-term debt requirements should be limited to $500-600m (based on the effective outstandings). Thereafter, credit lines of $650-700m pa would be needed to maintain the group's activity.

Valuation

Target price calculation

Our $22 valuation is based on an EV/EBIT multiple of 10.7x and a 5% premium. A normalized DCF model confirms this approach.

Our target price can be compared with the consensus average of $24.6. The consensus ratings break down as 56% Buy, 44% Hold and 0% Sell.

We believe the consensus is too optimistic, notably regarding the pace of sales and thus earnings growth. Estimates could very likely be adjusted.

EV/EBIT valuation

The current sector average 2008e EV/EBIT is 12.1x (and 10.7x for 2009e).

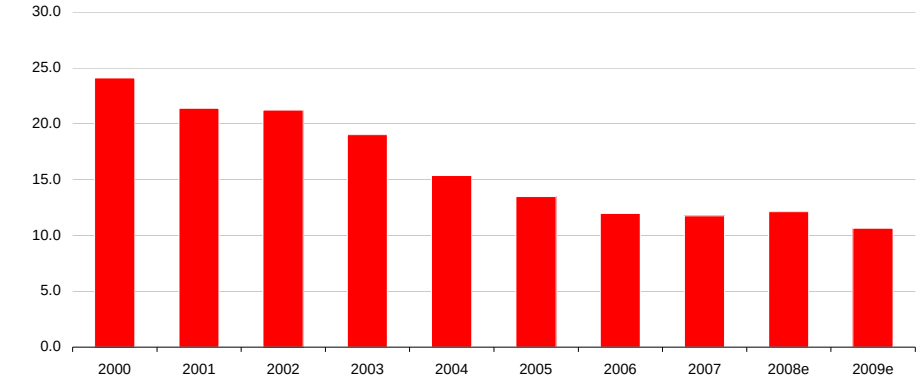
We use the 2009e multiple to which we apply a 5% premium, or a multiple of 11.2x, which just about corresponds to the average of the years 2006, 2007 and 2008e.

The share' valuation comes to $22 on this basis

In our opinion, the premium we apply reflects the following:

- Very steady recurrence of water volumes sold;
- The company's leadership position in the North American market;
- Very little risk on the share's liquidity.

Average 2000-2009e EV/EBIT multiple



Source: SG Equity Research / Panel of comparables consists of water companies and network management companies

We do not use a very high premium, as we do not believe the consensus can apply a 20% premium (visibility, recurring earnings, and strength of the company). A 20% premium is what we have used in the past for companies with a regulated asset base (Pennon Group – no rating, Red Electrica de Espana – no rating) as well as for companies in the water business (Veolia Environnement – Hold €21.5, until the company announced there would be no growth in 2008).

DCF

WACC is 5.2% based on a beta of 0.6 (vs a Bloomberg beta of 0.71), which in our view represents the highly regulated aspect. We use a growth rate to perpetuity of 1%.

DCF assumptions

Valuation ($m)		Weighted average cost of capital (%)	
Enterprise value	9,201	Risk-free rate - long-term bonds	3.79
o/w forecast period (%)	*18.4*	Market risk premium	6.15
o/w terminal value (%)	*81.6*	Beta	0.6
		Cost of equity	7.5
Net debt (-)/cash (+)	-5,626	Cost of debt after tax	4.0
Value of minorities	0	WACC	5.23
Value of associates	0	Normalised revenue growth (%)	6.0
Value of marketable assets	0	Normalised EBIT margin (%)	28.7
Other adjustments	0	Normalised cash conversion rate (%)	74.4
Value of equity (DCF)	**3,575**	Average cash conversion rate 04/10 (%)	15.9
SG DCF value/share ($)	**22.3**	CF perpetuity growth rate (%)	1.0

Source: SG Equity Research

DCF details

($m)	Forecast period (four years)				Normalised forecast period (six years)					
	12/09	12/10	12/11	12/12	12/13	12/14	12/15	12/16	12/17	12/18
Revenues (Mdm)	2.43	2.55	2.71	2.90	3.07	3.25	3.45	3.66	3.88	4.11
Revenue growth (%)	3.8	4.9	6.5	6.7	6.0	6.0	6.0	6.0	6.0	6.0
EBIT	576	609	679	754	882	935	991	1,050	1,113	1,180
EBIT margin (%)	23.7	23.9	25.0	26.0	28.7	28.7	28.7	28.7	28.7	28.7
Depreciation	288	305	320	333	408	432	458	485	515	545
Taxes	-173	-183	-204	-226	-265	-280	-297	-315	-334	-354
Capex	-879	-851	-756	-650	-607	-643	-682	-723	-766	-812
Capex as % of sales	-36.2	-33.4	-27.9	-22.4	-19.8	-19.8	-19.8	-19.8	-19.8	-19.8
Change in working capital	-20	-21	-22	-24	-26	-28	-30	-31	-33	-35
Other operating cash mvts										
Free cash flow	-208	-141	17	186	392	415	440	466	494	524
EV/IC (x)	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5
ROIC/WACC (x)	0.5	0.5	0.6	0.6	0.7	0.8	0.8	0.8	0.9	0.9

Source: SG Equity Research

Sensitivity analysis

		WACC (%)				
		4.23%	4.73%	5.23%	5.73%	6.23%
CF perpetuity growth rate (%)	0.0%	27.4	19.4	13.0	7.7	3.3
	0.5%	34.5	24.8	17.2	11.0	6.0
	1.0%	43.9	31.7	**22.3**	15.0	9.1
	1.5%	56.6	40.6	28.9	20.0	13.0
	2.0%	75.1	52.8	37.5	26.3	17.7

Source: SG Equity Research

Appendix

Volume of water sold

In billions of gallons	2006	2007	2008e	2009e	2010e	2011e	2012e
Residential	217.2	223.4	220.0	220.0	222.0	225.0	228.0
In % of revenue	52.1%	52.8%	52.4%	52.5%	52.5%	52.6%	52.6%
Change		2.9%	-1.5%	0.0%	0.9%	1.4%	1.3%
Commercial	91.6	93.0	94.0	95.0	96.0	97.0	98.0
In % of revenue	22.0%	22.0%	22.4%	22.7%	22.7%	22.7%	22.6%
Change		1.5%	1.1%	1.1%	1.1%	1.0%	1.0%
Industrial	44.4	44.6	44.0	42.0	42.0	43.0	44.0
In % of revenue	10.6%	10.5%	10.5%	10.0%	9.9%	10.0%	10.1%
Change		0.5%	-1.3%	-4.5%	0.0%	2.4%	2.3%
Public and other	63.8	62.2	62.0	62.0	62.5	63.0	63.5
In % of revenue	15.3%	14.7%	14.8%	14.8%	14.8%	14.7%	14.6%
Change		-2.5%	-0.3%	0.0%	0.8%	0.8%	0.8%
Total	417.0	423.2	420.0	419.0	422.5	428.0	433.5
Change		1.5%	-0.8%	-0.2%	0.8%	1.3%	1.3%

Source: SG Equity Research

Sales breakdown

($m)	2005	2006	2007	2008e	2009e	2010e	2011e	2012e
Revenues breakdown								
Water Revenues	2,060	2,011	2,130	2,255	2,336	2,448	2,602	2,781
In % of revenue	96.4%	96.1%	96.2%	96.4%	96.2%	96.1%	95.9%	96.0%
Change	5.8%	-2.4%	5.9%	5.9%	3.6%	4.8%	6.3%	6.9%
O/w Residential	1,204	1,203	1,275	1,338	1,378	1,446	1,539	1,637
In % of revenue	56.3%	57.5%	57.6%	57.2%	56.7%	56.8%	56.7%	56.5%
Change		0.0%	6.0%	4.9%	3.0%	4.9%	6.4%	6.4%
O/w Commercial	400	410	430	478	519	556	607	674
In % of revenue	18.7%	19.6%	19.4%	20.4%	21.4%	21.8%	22.3%	23.3%
Change		2.5%	4.7%	11.2%	8.6%	7.1%	9.1%	11.1%
O/w Industrial	111	105	106	107	102	104	109	117
In % of revenue	5.2%	5.0%	4.8%	4.6%	4.2%	4.1%	4.0%	4.0%
Change		-5.3%	1.6%	0.6%	-4.5%	1.5%	5.5%	6.9%
O/w Public and other	252	260	277	283	283	285	287	290
In % of revenue	11.8%	12.4%	12.5%	12.1%	11.6%	11.2%	10.6%	10.0%
Change		3.0%	6.6%	2.2%	0.0%	0.8%	0.8%	0.8%
O/w Other	94	33	42	50	54	57	60	63
In % of revenue		-64.3%	1.9%	2.1%	2.2%	2.2%	2.2%	2.2%
Change		-64.3%	25.6%	18.8%	8.0%	5.6%	5.3%	5.0%
Wastewater service	77	82	84	85	93	100	112	115
In % of revenue	3.6%	3.9%	3.8%	3.6%	3.8%	3.9%	4.1%	4.0%
Change	8.9%	6.1%	3.1%	1.0%	9.7%	7.6%	12.0%	2.3%
Other & Management fees	0	0	0	0	0	0	0	0
In % of revenue	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total revenues	2,137	2,093	2,214	2,340	2,429	2,548	2,714	2,896
Change	5.9%	-2.1%	5.8%	5.7%	3.8%	4.9%	6.5%	6.7%

Source: SG Equity Research

SOCIETE GENERALE
Cross Asset Research

Equity Research

Contribution to operating profit by division

$m	2005	2006	2007	2008e	2009e	2010e	2011e	2012e
Regulated revenues	470	469	500	518	537	566	632	699
change		-0.2%	6.7%	3.6%	3.6%	5.3%	11.7%	10.6%
in % of total	95.8%	98.9%	96.7%	93.7%	93.2%	92.9%	93.1%	92.7%
Margin	25.6%	25.3%	25.2%	25.0%	25.2%	25.6%	27.0%	28.3%
Non regulated revenues	0	-5	3	20	22	24	26	30
change		ns	ns	Ns	10.0%	9.1%	8.3%	15.4%
in % of total	0.0%	-1.0%	0.5%	3.6%	3.8%	3.9%	3.8%	4.0%
Margin	0.0%	-1.9%	1.1%	7.1%	7.0%	6.8%	6.6%	6.8%
Other	21	10	14	15	17	19	21	25
Total	491	474	517	553	576	609	679	754

Source: SG Equity Research – NB: before asset impairment ($385m in 2005, $222m in 2006, $509m in 2006 and $750m in 2007)

SOCIETE GENERALE
Cross Asset Research

Equity Research

IMPORTANT DISCLOSURES

American Water Works	SG acted as co-manager in American Water Works' IPO
RWE	SG acted as co-manager in American Water Works' IPO
Veolia Environnement	SG is acting as advisor to Veolia Environnement/Dalkia in the disposal of Clemessy and Crystal to Eiffage
Veolia Environnement	SG acted as sole financial advisor to Veolia on its subcription to a reserved capital increase leading to a 50% stake in Eolfi

US THIRD PARTY FOREIGN AFFILIATE RESEARCH DISCLOSURES:

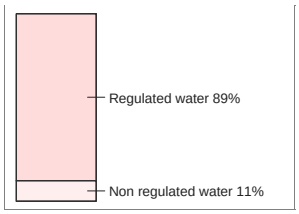
SG and its affiliates beneficially own 1% or more of any class of common equity of Ciments Français.
SG and its affiliates beneficially own 1% or more of any class of common equity of Enagas.
SG and its affiliates beneficially own 1% or more of any class of common equity of Pennon Group.
SG and its affiliates beneficially own 1% or more of any class of common equity of RWE.
SG and its affiliates beneficially own 1% or more of any class of common equity of Suez Environnement.
SG and its affiliates beneficially own 1% or more of any class of common equity of Veolia Environnement.
SG or its affiliates act as market maker or liquidity provider in the equities securities of Enagas.
SG or its affiliates act as market maker or liquidity provider in the equities securities of Suez.
SG or its affiliates act as market maker or liquidity provider in the equities securities of Veolia Environnement.
SG or its affiliates expect to receive or intend to seek compensation for investment banking services in the next 3 months from American Water Works.
SG or its affiliates expect to receive or intend to seek compensation for investment banking services in the next 3 months from Centrica.
SG or its affiliates expect to receive or intend to seek compensation for investment banking services in the next 3 months from EVN.
SG or its affiliates expect to receive or intend to seek compensation for investment banking services in the next 3 months from RWE.
SG or its affiliates expect to receive or intend to seek compensation for investment banking services in the next 3 months from Veolia Environnement.
SG or its affiliates have received compensation for investment banking services in the past 12 months of American Water Works.
SG or its affiliates have received compensation for investment banking services in the past 12 months of RWE.
SG or its affiliates have received compensation for investment banking services in the past 12 months of Veolia Environnement.
SG or its affiliates managed or co-managed in the past 12 months a public offering of securities of American Water Works.
SG or its affiliates managed or co-managed in the past 12 months a public offering of securities of Veolia Environnement.

SOCIETE GENERALE
Cross Asset Research

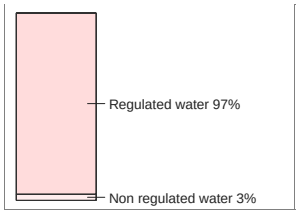
Equity Research

We expect very strong dividend growth in 2009 based on a dividend of $0.20/share for each quarter of 2009 compared with over only three quarters in 2008.

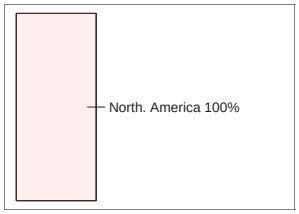
Sales/division 07



EBIT/division 07



Sales/region 07



Major shareholders (%)

RWE	60.0

Normalised data

EBITDA margin (%)	42.0
Normalised growth (%)	0.1

We believe the company could cut short-term investment in the event of financing difficulties.

Management has stated it has $810m in available credit lines.

Water Utilities (United States)

American Water Works

BUY

Price (21/11/08) $20.0

12m target $22.0

Valuation* ($m)	12/03	12/04	12/05	12/06	12/07	12/08e	12/09e	12/10e
Average nb of shares (diluted)	na	160.0	160.0	160.0	160.0	160.0	160.0	160.0
Share price (average)						20.00	20.00	20.00
Average market cap. (SG adjusted) (1)	4,606	4,606	4,606	4,606	4,606	3,200	3,200	3,200
Restated net debt (-)/cash (+) (2)	na	-7,048	-6,740	-5,848	-5,003	-5,626	-6,118	-6,580
Value of minorities (3)	na	0	0	0	0	0	0	0
Value of financial investments (4)	na	0	0	0	0	0	0	0
Other adjustment (5)	na	0	0	0	0	0	0	0
EV = (1) - (2) + (3) - (4) + (5)	4,606	11,655	11,346	10,455	9,609	8,826	9,318	9,780
P/E (x)	na	na	na	na	na	18.4	17.7	17.8
Price/cash flow (x)	na	na	na	na	na	6.6	6.8	6.6
Price/free cash flow (x)	na	nm	nm	nm	nm	nm	nm	nm
Price/book value (x)	na	na	na	na	na	0.8	0.8	0.8
EV/revenues (x)	na	5.78	5.31	4.99	4.34	3.77	3.84	3.84
EV/EBITDA (x)	na	16.1	15.1	14.3	12.2	10.7	10.8	10.7
Dividend yield (%)	na	na	na	na	na	3.0	4.0	4.4
Per share data ($)								
SG EPS (adj.)	na	0.98	0.85	0.89	0.99	1.09	1.13	1.12
Cash flow	na	2.87	3.28	2.02	2.96	3.05	2.94	3.04
Book value	na	19.59	17.56	23.89	28.42	26.04	26.37	26.61
Dividend	na	0.00	0.00	0.00	0.00	0.60	0.80	0.88
Income statement ($m)								
Revenues	na	2,018	2,137	2,093	2,214	2,340	2,429	2,548
Gross income	na	726	752	733	785	823	863	913
EBITDA	na	726	752	733	785	823	863	913
Depreciation and amortisation	na	-225	-261	-259	-267	-270	-288	-305
EBIT	na	501	491	474	517	553	576	609
Impairment losses	0	-79	-385	-222	-509	-750	0	0
Net interest income	na	-305	-336	-362	-271	-285	-318	-344
Exceptional & non-operating items	0	9	7	0	7	0	0	0
Taxation	na	-65	-49	-46	88	-50	-77	-85
Minority interests	na	0	0	0	0	0	0	0
Reported net income	na	138	110	66	139	-531	181	180
SG adjusted net income	na	158	137	143	158	174	181	180
Cash flow statement ($m)								
EBITDA	na	726	752	733	785	823	863	913
Change in working capital	na	-37	51	-97	17	-25	-20	-21
Other operating cash movements	0	-231	-278	-313	-328	-311	-372	-406
Cash flow from operating activities	na	458	525	324	474	488	471	486
Net capital expenditure	na	-546	-558	-689	-759	-984	-879	-851
Free cash flow	na	-88	-33	-365	-285	-496	-408	-365
Cash flow from investing activities	na	22	12	21	10	5	5	5
Cash flow from financing activities	na	74	7	309	259	525	386	448
Net change in cash resulting from CF	na	8	-14	-35	-16	33	-17	88
Balance sheet ($m)								
Total long-term assets	na	11,756	12,104	12,420	12,562	12,393	12,984	13,531
of which intangible	0	0	0	0	0	0	0	0
Working capital	0	-207	-105	-23	-99	-39	-34	-27
Employee benefit obligations	na	300	399	460	449	414	414	414
Shareholders' equity	na	3,134	2,809	3,822	4,547	4,167	4,219	4,258
Minority interests	na	0	0	0	0	0	0	0
Provisions	na	0	0	0	0	0	0	0
Net debt (-)/cash (+)	na	-7,048	-6,740	-5,848	-5,003	-5,626	-6,118	-6,580
Accounting ratios								
ROIC (%)	na	na	2.9	2.6	2.6	2.6	2.5	2.5
ROE (%)	na	na	3.7	2.0	3.3	-12.2	4.3	4.2
Gross income/revenues (%)	na	36.0	35.2	35.0	35.4	35.2	35.5	35.8
EBITDA margin (%)	na	36.0	35.2	35.0	35.4	35.2	35.5	35.8
EBIT margin (%)	na	24.8	23.0	22.7	23.4	23.6	23.7	23.9
Revenue yoy growth (%)	na	na	5.9	-2.1	5.8	5.7	3.8	4.9
Rev. organic growth (%)	na	5.0	5.9	5.0	5.8	5.7	3.8	4.9
EBITDA yoy growth (%)	na	na	3.6	-2.5	7.0	4.9	4.9	5.8
EBIT yoy growth (%)	na	na	-2.0	-3.4	9.1	7.0	4.1	5.7
EPS (adj.) yoy growth (%)	na	na	-13.3	4.3	10.8	10.0	3.9	-0.5
Dividend growth (%)	na	na	na	na	na	na	33.3	10.0
Cash conversion (%)	na	58.5	73.7	9.8	-17.4	-26.4	0.2	12.9
Net debt/equity (%)	na	224.9	239.9	153.0	110.0	135.0	145.0	154.5
FFO/net debt (%)	na	5.1	5.4	5.6	12.0	8.7	7.6	7.4
Dividend paid/FCF (%)	na	nm	nm	nm	nm	nm	nm	nm

*** Valuation ratios for past years are based on average historical prices and market capitalisations**

SOCIETE GENERALE
Cross Asset Research

Equity Research

MANAGEMENT OF SG EQUITY RESEARCH		
Head	**Fabrice Theveneau**	(33) 1 58 98 08 77
		(44) 20 7762 5101
COO & HOR Assistant	Tanguy Aumon	(33) 1 42 13 71 39
Deputy Heads	**Alain Galène**	(33) 1 42 13 84 75
	Stefan Slowinski	(44) 20 7762 5067
Deputy Head (London)	**Zafar Khan**	(44) 20 7762 5317
Quality, Thematic research	**Jérôme Paoli**	(33) 1 42 13 67 12
STRATEGY, QUANTITATIVE AND TECHNICAL ANALYSIS		
Global Strategy	**James Montier**	(44) 20 7762 5872
	Albert Edwards	(44) 20 7762 5890
Eur. Equity & Cross Asset Strategy	**Alain Bokobza**	(33) 1 42 13 84 38
	Roland Kaloyan	(33) 1 58 98 04 88
	Arthur van Slooten	(33) 1 42 13 45 06
Specialist Sales	Paul Jackson	(44) 20 7762 5921
Quants	**Andrew Lapthorne**	(44) 20 7762 5762
	Rui Antunes	(44) 20 7762 5875
	John Carson	(44) 20 7762 4979
	Anass Mouhsine	(33) 1 42 13 66 81
	Georgios Oikonomou	(44) 20 7762 5261
Technical analysis	**Loic de Galzain ***	(33) 1 42 13 47 12
CROSS ASSET & RELATIVE VALUE RESEARCH		
	Claudia Panseri	(33) 1 58 98 53 35
	Michael van Dulken	(44) 20 7762 5068
ECONOMIC RESEARCH		
Chief Economist	**Bijal Shah**	(44) 20 7676 7772
Europe	**Véronique Riches-Flores**	(33) 1 42 13 84 04
	Olivier Gasnier	(33) 1 42 13 34 21
	James Nixon	(44) 20 7676 7385
	Ehsan Khoman	(44) 20 7676 7652
UK	**Brian Hilliard**	(44) 20 7676 7165
	James Nixon	(44) 20 7676 7385
US	**Stephen Gallagher**	(1) 212 278 4496
	Aneta Markowska	(1) 212 278 6653
Asia	**Glenn Maguire**	(85) 221 66 5438
SECTOR TEAMS		
Aerospace & Defence	**Zafar Khan**	(44) 20 7762 5317
	Colin Campbell	(44) 20 7762 5609
Automobiles & Parts	**Philippe Barrier**	(33) 1 42 13 84 42
	Eric-Alain Michelis	(33) 1 42 13 50 95
Banks	**Alan Webborn**	(44) 20 7762 5575
	Sabrina Blanc	(33) 1 42 13 47 32
	Patrick Lee	(44) 20 7762 4125
	Asheefa Sarangi	(44) 20 7762 5294
Specialist Sales	Mark Roberts	(44) 20 7762 5962
Beverages	Valérie Wilhelm	(33) 1 42 13 97 77
Specialist Sales	Helen Waldron	(44) 20 7762 5498
Chemicals	**Peter Clark**	(44) 20 7762 5084
Construction & Materials	**Muriel Fellous**	(33) 1 42 13 60 51
	Julie Ainouz	(33) 1 58 98 05 15
	Mike Bridges	(44) 20 7762 5279
	Sven Edelfelt	(33) 1 42 13 31 86
Electrical & Engineering	**Gaël de Bray**	(33) 1 42 13 84 14
	Roderick Bridge	(44) 20 7762 5086
	Colin Campbell	(44) 20 7762 5609
	Gerard Moore	(33) 1 42 13 99 76
Food	**Joseline Gaudino**	(33) 1 42 13 84 32
Specialist Sales	Helen Waldron	(44) 20 7762 5498
Food Retailers	**Tom Gadsby**	(44) 20 7762 5293
	Eloïse Veillet	(44) 20 7762 5499
General Retailers	**John Baillie**	(44) 20 7762 5299
	Anne Critchlow	(44) 20 7762 5232
Hotels & Leisure	**Sébastien Valentin**	(33) 1 58 98 55 17
	Simon Mezzanotte	(44) 20 7762 5463
HPC	**E. Bruley des Varannes**	(33) 1 42 13 70 84
Specialist Sales	Helen Waldron	(44) 20 7762 5498
Insurance	**Emmanuelle Cales**	(33) 1 42 13 42 08
	Birgit Roeper-Gruener	(44) 20 7762 5065
	Michael van Wegen	(44) 20 7762 5535
Specialist Sales	Matthew Wright	(44) 20 7762 5711
Luxury & Sporting Goods	Aurélie Husson-Dumoutier	(33) 1 42 13 47 15
	E. Bruley des Varannes	(33) 1 42 13 70 84
Specialist Sales	Helen Waldron	(44) 20 7762 5498
Media	**Christophe Cherblanc**	(33) 1 42 13 84 44
	Edouard Camblain	(33) 1 42 13 60 75
	Laurent Picard	(33) 1 42 13 44 59
Specialist Sales	James Brady	(44) 20 7762 5272
Metals & Mining	**Alain William**	(33) 1 58 98 12 61
Oil & Gas	**Aymeric de Villaret**	(33) 1 42 13 84 58
	Guillaume Delaby	(33) 1 42 13 62 29
Pharmaceuticals/Biotechnology	**Marietta Miemietz**	(44) 20 7762 5074
	Rodolphe Besserve	(33) 1 42 13 87 43
Specialist Sales	Lachlan Towart	(44) 20 7762 5484
Real Estate	**Michel Varaldo**	(33) 1 42 13 73 02
	Marc Mozzi	(44) 20 7762 5090
	Henri Quadrelli	(33) 1 42 13 37 33
Renewable Energy	**Didier Laurens**	(33) 1 42 13 50 78
Software & IT Services	**Richard Nguyen**	(33) 1 42 13 54 22
Specialist Sales	Surendran Panicker	(44) 20 7762 5525
SRI	**Valéry Lucas-Leclin**	(33) 1 42 13 62 04
	Sarbjit Nahal	(33) 1 58 98 12 55
	Marie-Gabrielle Lannegrace	(44) 20 7762 5391
	Yannick Ouaknine	(33) 1 58 98 23 50
Telecom Equipment	**Andy Perkins**	(44) 20 7762 5413
	Vincent Rech	(33) 1 42 13 85 16
Specialist Sales	Surendran Panicker	(44) 20 7762 5525
Telecom Services	**Ottavio Adorisio**	(44) 20 7762 5761
	Stéphane Beyazian	(33) 1 42 13 45 04
	Thierry Cota	(33) 1 42 13 84 45
Specialist Sales	Saeed Baradar	(44) 20 7762 5755
Transport	**Matthew O'Keeffe**	(44) 20 7762 5385
	Jonathan Wober	(44) 20 7762 5270
Utilities	**John Honoré**	(33) 1 42 13 51 55
	Thierry Bros	(33) 1 58 98 11 70
Mid and small caps	**Patrick Jousseaume**	(33) 1 42 13 66 62
	Marie-Line Fort	(33) 1 42 13 85 21
	Jean-Baptiste Roussille	(33) 1 42 13 99 78
Specialist Sales	Olivier Michel	(33) 1 42 13 57 69
	Elisabeth Arvanitaki	(44) 20 7762 5538
	Muriel Becherot	(33) 1 42 13 59 17
	David Hirsh	(33) 1 42 13 58 49
	Hugues Jaouen	(33) 1 42 13 33 03
	Matthieu Viallet	(44) 20 7762 5094

ATTACHMENT E

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ATTACHMENT F

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