

# Liquid gold

The dramatic events of recent weeks have fundamentally altered the financial system and the full repercussions are not yet known. Capital intensive sectors have suffered from fears that the credit crunch could slow financing of infrastructure projects. Whilst this has led to some uncertainty surrounding the funding of certain water projects in the short-term, water should represent a steady defensive growth market in the face of an uncertain macro and stockmarket environment in 2009.

The global water sector exhibits sustained long-term growth – a combination of proven defensiveness with sustainable underlying industry growth. In developed markets like the US and Europe, the water sector should generate steady growth of 2-3% in excess of GDP growth, as repair and replacement of existing water and wastewater infrastructure is carried out. In developing markets like China, projects to build new infrastructure should drive growth rates in the sector well ahead of GDP for the next 10 years, at least, as that country keeps pace with population and economic growth. Water investment is usually less discretionary in nature than other project activity. Whilst there will be some slowing in the near-term given the current liquidity crisis, water projects that need to get done, will get done – water is ultimately more important than oil because it is more immediately crucial for life, and there is no substitute. Millions already die every year from limited access to freshwater and adequate sanitation, so failure to take action can have broad and grave consequences. In the developed world, regulation will continue to mandate the adoption of new technology and ensure that adequate investment is made to upgrade existing infrastructure. Water may well be the most important commodity of the 21st Century and this presents opportunities for companies that provide products, services and technology along the water value chain.

By 2025, the United Nations estimates that two-thirds of all nations will become “water stressed”, with close to two billion people living in countries facing “absolute water scarcity”. Terms such as “world water crisis” are not new, but they are usually applied to the water problems and ecological catastrophes of the developing world. However, the world’s wealthier nations also face a water crisis, as the profligate water use and abuses of the past and new requirements for cleaner and purer water confront and in some cases outrun available supplies. To provide enough water for all uses through 2030, industry analysts estimate that the world will need to invest as much as US\$1trn per year in applying existing technologies to conserve water, maintain and replace water-related infrastructure, and construct sanitation systems. In the US alone, at the current pace of investment it would take 900 years to replace the existing water infrastructure. Thus the prospects for companies – especially those with a

A simple application of the law of supply and demand ought to be enough to convince any investor that water is a compelling sector, writes Jean Ryan



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global footprint and innovative business models – that are positioned to manage water demand and facilitate access to safe water appear bright and potentially profitable over the long term.

## Limited supply

Several factors threaten the planet’s limited supply of fresh water. Water sources are threatened by inadequate treatment of waste water, releases of industrial pollutants, fertiliser runoff and coastal influxes of sea water into aquifers as groundwater. Water is not always located where it is needed most. Providing adequate water is especially challenging in drier, less developed nations with large, growing populations, because demand in those areas is high and supply is low. Although China has only 8% of the world’s fresh water supply, it is home to 22% of the world’s population. Analysts also expect India’s demand for urban water to double by 2025.

## Growing demand

At the same time, demand for fresh water is steadily increasing as a result of demographic shifts, urbanisation, industrialisation and dietary changes. Worldwide population growth is projected to increase by two to three billion people over the next 20 years to eight to nine billion, with 90% of the increase in developing countries. The UN estimates that human water use, including industrial developments and irrigation, increased at twice the rate of population growth in the 20th century.

In addition to population increases, higher living standards are also causing an increase in the use of water. As nations shift from agrarian economies to more of an industrialised focus, per-capita water use increases. Industry consumes vast quantities of energy to power factories and heat and light office and commercial installations. Thermal power plants – those that consume coal, oil or natural gas generate the vast majority of electricity and they are water hogs. As standards of living rise, populations typically adopt a higher-calorie diet that includes more meat and poultry. Raising cows and chickens requires more water than growing fruit or vegetables.

The combination of a growing population, industrialisation and rising standards of living is exacerbating water stress in countries already experiencing supply stresses such as India and China.

Per capita, citizens of the USA are the most profligate water users on the planet. Such high rates of water use run headlong into the reality that many areas of the country are naturally dry. And the problem is worsening as the population is migrating gradually towards warmer, drier regions, mainly in the southwest. In 2007, the US Census Bureau announced that seven of the ten most populous cities were located within 500 miles of Mexico. Many of those areas are historically arid and water-starved.

## Evolving regulatory landscape

To address these and many other water-related issues, governments are intensifying regulation of the water sector as access to reliable, renewable and sufficient freshwater supplies becomes a dominant public policy issue.

The European Union designed the new Water Framework Directive to improve and integrate the management of water bodies in its member countries. China enacted 71 new national standards for drinking quality in 2007. China has also established a national inspection network to monitor water quality.

## Technology

Improvements in environmental sciences and technologies can add enhancements in efficiency, distribution and filtration. Changes in industrial and manufacturing processes often demand new and innovative methods of water-efficient technology for operational use. For



example, a recent Goldman Sachs survey of the 200 largest U.S. water utilities showed that they planned to increase their use of ultraviolet light disinfection by 15% to 20% annually over the next several years.

Desalination is a strong driver of growth for this sub-sector, as are treatments to remediate wastewater. Engineering and chemical breakthroughs that mimic nature’s process of filtration are advancing the processes of desalination and wastewater treatment. Water metering is another rapidly growing area, as rising prices, water scarcity and higher leakage rates are leading more water utilities to adopt water metering technologies. Automated Meter Reading technologies, which currently represent less than 25% of the US’s installed base, are rapidly gaining traction.

## Opportunities throughout the water cycle

There are opportunities for investment at almost every stage of the water cycle from the providers of equipment and services for treating water pollutants, owing or operating water and wastewater transmission systems, providing the products to build, repair and maintain these systems, and testing and metering. Although companies operating in these sectors should all benefit from the tightening supply and demand equation for water and the fact that water resources continue to increase in value, there are distinct growth and profitability prospects for each of the sectors and the firms operating therein. For investors, understanding the relative merits of these various industry sectors is vital to making astute portfolio decisions in the water sector.

KBCAM’s dedicated water portfolio team based in Dublin actively manage global, diversified equity investments in companies that are well positioned to benefit from the secular tailwinds driving the water industry and that have the most favourable long-term growth prospects.

Utilities continue to provide a focus on areas of the water theme that have defensive revenue streams, stable cash generation, dividend income and regulatory support. We are particularly positive on the US water utilities. Californian regulation is evolving very positively following a number of fundamental reviews of the regulatory system. This provides the utilities with the opportunity to increase tariffs following their extensive capital expenditures in recent years. Utilities in other regions of the US are also expecting a number of rate increases to flow through in the coming months following a period of significant investment.

Technology companies which provide test equipment and services are well supported by regulatory enforcement in the area of water pollution and will also do well in the current environment. As energy prices have risen sharply, the interaction between water use and energy use is becoming a central issue in the water industry. Technology is beginning to offer a range of solutions to save energy in the water cycle – energy-efficient pumps, better process management, energy recovery and metering, presenting opportunities for firms that offer innovative technology solutions.

Water offers a compelling investment proposition. Global population growth is driving growing demand for clean, fresh water, irrespective of economic conditions. In the face of the uncertainty in global economies and stockmarkets, investors looking to access strong long-term growth prospects may consider the current volatility in share prices as an attractive entry point to capitalise on investment opportunities in the water sector.

### Did you know?

- To provide enough water for all uses through 2030, the world will need to invest as much as \$1 trillion a year on applying existing technologies for conserving water, maintaining and replacing water-related infrastructure and constructing sanitation systems.
- While China has only 8% of all the freshwater in the world, it is home to 22% of the world’s population. Also, analysts expect India’s demand for urban water to double by 2025.
- 1,000 cubic meters per year – the minimum water each person requires for drinking, hygiene and growing food. The volume is equivalent to two fifths of an Olympic-size swimming pool.
- Water covers nearly three-quarters of the Earth’s surface, but over 97% of the earth’s water lies in saltwater oceans. Just 3% is fresh, and 70% of this fresh water supply is permanently frozen in the polar ice caps and glaciers. Another 29% of the fresh water supply is stored in underground aquifers. The surface water in lakes, rivers and streams is less than 1% of the world’s fresh water supply.