

The global water sector

The global water crisis presents opportunities and risks

Water scarcity is a global reality – 1 billion people lack access to clean drinking water, 2.6 billion have no access to improved sanitation services and 1.4 million children under five die a year as a result of poor access to clean water and adequate sanitation (Source: UN). Water is under growing pressure both on the supply side (insufficient freshwater, uneven distribution, poor quality, non-revenue water, climate change) and the demand side (agriculture, industry, residential).

Water will become the oil of the 21st century

The long-term supply challenges are enormous and with no improvement in the efficiency of agricultural, industrial and residential water use, demand is projected to overshoot supply by 40% in the next 20 years, with half the world's population living under conditions of "water stress" by 2030. In our view, water may become scarcer than oil, with potential for the supply/demand imbalance to manifest itself in increased domestic social unrest and trans-boundary disputes (50 countries on five continents are potential locations for future conflicts over water).

US\$500bn market of up to 6% CAGR, US\$800bn by 2030-35

We believe that the current global dynamics of water supply and demand mean that the water sector offers numerous growth opportunities for those with exposure to the industry's value chain. Water is a US\$500bn market today, which, despite the recession, is delivering an estimated CAGR of up to 6% (Source: GWI). By 2030-35, we estimate that the water industry could be worth between US\$800bn and US\$1tn, with Asia and South America seeing the biggest growth.

The water sector - treatment, management & infrastructure

We have mapped the global water sector's value chain and see long-term opportunities for companies with exposure to three main areas: 1) water treatment (wastewater, industrial treatment, desalination, ballast water treatment, analysis, water quality, and bottled water); 2) water management (leak detection, smart metering technology, irrigation and household water management); and 3) water infrastructure (pipes, pumps and valves, engineering & construction, and utilities).

BofAML Global Water Exposure Stock list

We have created a list of global stocks covered by BofAML, based on the companies' current sales exposure to water management, water treatment and water-infrastructure themes and solutions, and given the role of water as a long-term growth driver. The aim of the stock list is to provide investors with information to understand company and sub-sector specific risks and opportunities inherent in the water theme.

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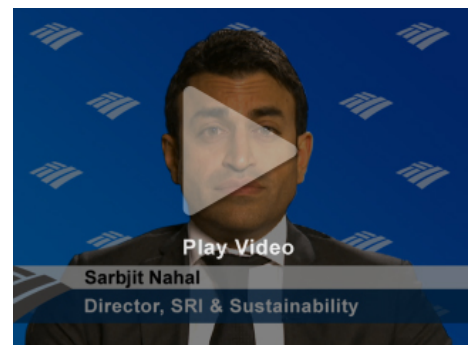
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Contents

Investing in the global water sector	3
BofAML Global Water Exposure Stocklist Comps	12
Water supply & demand challenges	15
Water treatment solutions	32
Water management solutions	48
Water infrastructure solutions	60

Investing in the global water sector

Water scarcity is a global reality and according to UNICEF:

- 1 billion people have no access to clean drinking water
- 2.6 billion lack access to improved sanitation services, and
- 1.4 million children under five die a year from lack of access to clean water.

Demand to overshoot supply by 40%

With no improvement in the efficiency of agricultural, industrial and residential water use, demand may overshoot supply by 40% in the next 20 years, with half the world's population living in conditions of "water stress" by 2030 (source: Water 2030). Water could become scarcer than oil and the supply/ demand imbalance could lead to rising social unrest, and trans-boundary disputes. Up to 50 countries could be susceptible to future conflict over water.

US\$500bn market today growing to up to US\$800bn to US\$1tn

We believe that the water sector offers numerous growth opportunities for those with exposure to the water industry's value chain – a US\$500bn market, which is growing at up to 6% CAGR (Source: GWI). By 2030-35, we estimate that it could become a US\$800bn market, with Asia and South America seeing the biggest growth in our view.

Water treatment, infrastructure & management opportunities:

We have mapped the global water sector's value chain and see opportunities for companies with exposure to three main areas: 1) water treatment, 2) water management, and 3) water infrastructure. We examine these areas more fully in the sections below.

BofAML Global Water Exposure Stock list: Based on their current sales exposure to water management, treatment and infrastructure themes – and the role of water as a long-term growth driver – we have created a list of stocks covered by BofAML. The aim of the stock list is to provide investors with information to understand company and sub-sector specific risks and opportunities inherent in the water theme.

The BofAML Global Water Exposure Stock list is not a recommended list either individually or as a group of stocks. Investors should consider the fundamentals of the companies and their own individual circumstances/objectives before making any investment decisions.

Table 1: BofA Merrill Lynch Global Water Exposure Stock list (water exposure as a % of sales*)

WATER TREATMENT	Water Exposure	WATER MANAGEMENT	Water Exposure	WATER INFRASTRUCTURE	Water Exposure
KURITA	100%	GEBERIT	100%	AMERICAN WATER WORKS	100%
ECOLAB INC	40%	JAIN IRRIGATION	78%	COPASA	100%
SCI	c.30%	TOTO	>50%	KSB AG	100%
DANONE	17%	ITRON INC.	20%	SABESP	100%
DANAHER CORP	11%	ITT CORP.	17%	SABSEP-ADR	100%
NESTLE (REG)	7%	ROPER	14%	SEVERN TRENT	100%
ALFA LAVAL	<5%	HORIBA	<10%	UNITED UTILITIES	100%
TORAY	<5%	IDEXX	7%	MUELLER	>75%
		DEERE & CO	c.1%	PENNON	70%
		SYNGENTA	NM	GUANGDONG INVESTMENT	63%
				IVRCL INFRASTRUCTURE	50%
				SUEZ ENVIRONNEMENT	>40%
				VEOLIA	35%
				ROTORK	25%
				KEP	< 25%
				BEIJING ENTER	23%
				NAGARJUNA CONSTRUCTION	23%
				HERA SPA	15%

Table 1: BofA Merrill Lynch Global Water Exposure Stock list (water exposure as a % of sales*)

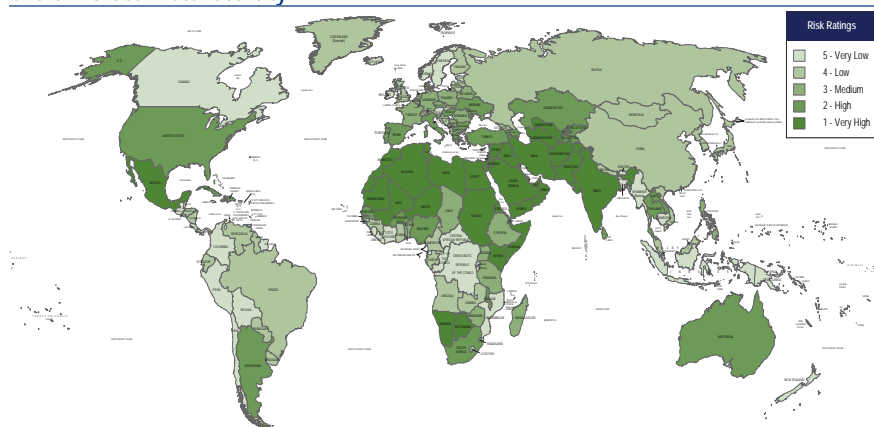
WATER TREATMENT	Water Exposure	WATER MANAGEMENT	Water Exposure	WATER INFRASTRUCTURE	Water Exposure
				AECOM TECHNOLOGY	c.10%
				AVENG LTD	c.10%
				KUBOTA	c.10%
				URS CORP.	c.5%
				OHL	4%

Source: BofA Merrill Lynch Global Research. * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions. Water Treatment includes: wastewater, industrial treatment, desalination, ballast water treatment, analysis, water quality, and bottled water. Water Management includes: leak detection, smart metering technology, irrigation and household water management Water Infrastructure includes: pipes, pumps and valves, engineering, consulting and construction, and utilities

The global water crisis

The link between water shortage and poverty is stark, with two-thirds of the world population lacking access to clean water surviving on less than US\$2 per day. The socio-economic implications are important, with countries such as Cambodia, Indonesia, the Philippines and Vietnam, for instance, together losing about 2% of combined GDP because of poor water and sanitation (Source: UNEP).

Chart 1: Global water scarcity

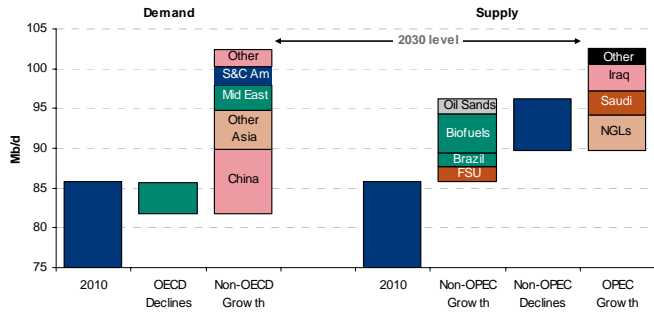


Source: BofA Merrill Lynch Global research

Water could be a scarcer resource than oil in 20Y

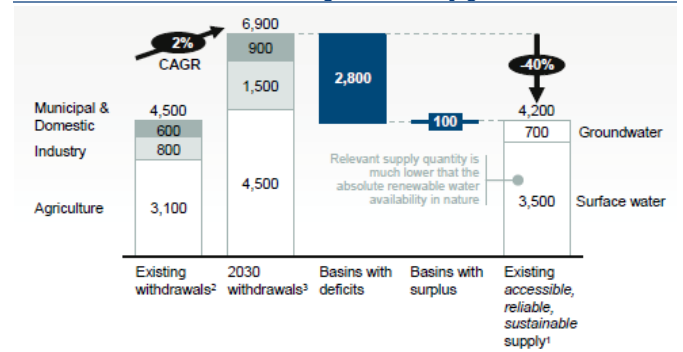
By 2030, under an average economic growth scenario and if no efficiency gains are assumed, global water requirements will grow at 2% CAGR from 4,500bn m³ today to 6,900bn m³ (Source: Water 2030). Population increase, higher living standards, over-exploitation of water, water pollution, ecosystem degradation and adverse climate change will mean that water demand will overshoot supply by 40% and that 3.9 billion people – close to half the world’s population will be living under conditions of water stress. In contrast, oil, which attracts far more global attention, is expected to meet demand growth as global liquids supply is set to rise by about 16.5 Mb/d by 2030 (source: BP Energy Outlook 2030).

Chart 2: Supply side oil increases: alternatives to quench the rising non-OECD demand



Source: BP Energy Outlook 2030

Chart 3: Aggregated global gap between existing water supply¹ and 2030 water withdrawals, assuming no efficiency gains



Source: Water 2030 Global Water Supply and Demand model: 1 agricultural production based on IFPRI IMPACT-WATER base case. Existing supply which can be provided at 90% reliability, based on historical hydrology and infrastructure investments scheduled through 2010: net of environmental requirements. 2 Based on 2010 agricultural production analyses from IFPRI. 3 Based on GDP, population projections and agricultural production projections from IFPRI; considers no water productivity gains between 2005-2030

Need to look for solutions

In order to stop the water crisis from worsening, we need to see improvements in water productivity and supply (eg, desalination, recycling, treatment). Equally important is a pressing need for massive investments in water infrastructure, major reform of global water policy(ies) and the development and implementation of new technologies.

- 1) **Water-friendly investment** - global water use can be kept within sustainable limits and the UN's Millennium Development Goals (MDG) for 2015. With an annual investment of US\$198bn, on average, over the next 40 years, water use can be made more efficient, enabling increased agricultural, biofuel and industrial production. By 2030, the number of people living in a water-stressed region could be 4% less than under a business as usual (BAU) scenario and up to 7% less by 2050.
- 2) **Water-friendly policy frameworks** - investments need to be coupled with improvements in institutional arrangements and better water charging and finance arrangements. Much will depend on resolving issues around agriculture, which accounts for 70% of global water use, and the long-term need to transfer the water savings from agriculture to urban, commercial and industrial use.

Table 2: Impacts on the water sector of a global 2% of GDP being invested in green sectors

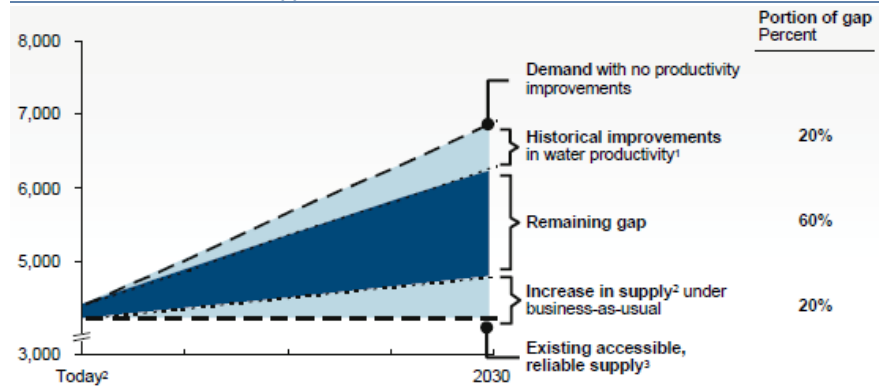
	Unit	2030	2050
Additional investment in water sector	US\$bn/year	191	311
Additional water from desalination	1000m ³	27	38
Water from efficiency improvements	1000m ³	604	1,322
Employment in water sector	Million people	38	43

Source: UNEP

Investing in the water industry

Investors are becoming increasingly aware of the true value of water – and the related risks and opportunities that it offers. We believe that the current global dynamics of water supply and demand mean that the water sector offers numerous growth opportunities for those with exposure to the water industry's value chain.

Chart 4: Business-as-usual approaches will not meet demand for raw water (bn m3)



Source: Water 2030. 1 Based on historical agricultural yield growth rates from 1990-2004 from FAOSTAT, agricultural and industrial efficiency improvements from IFPRI 2 Total increased capture of raw water through infrastructure buildout, excluding unsustainable extraction 3 Supply shown at 90% reliability and includes infrastructure investments scheduled and funded through 2010. Current 90%-reliable supply does not meet average demand

Relative & historical returns 5Y and 10Y returns

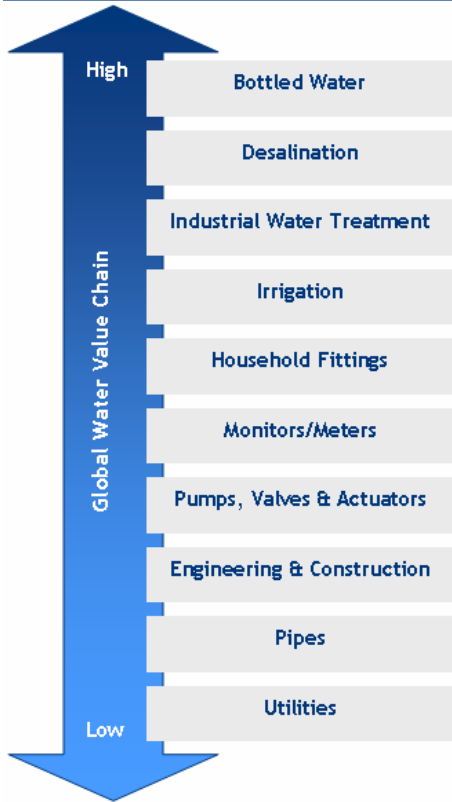
Water stocks have proven to be a good investment over the past decade with the S&P Global Water Index significantly outperforming the MSCI World stock index since 2002.

Observations on relative & historical performance of Water: S&P water vs MSCI World

	Absolute performance observations				Relative performance observations			
	-1 Y	-3 Y	-5 Y	Since Jan '02	-1 Y	-3 Y	-5 Y	Since Jan '02
S&P Global Water	9.2%	-11.7%	7.2%	119.7%	9.2%	-4.0%	1.4%	9.7%
MSCI World	6.4%	-11.7%	-11.6%	19.8%	6.4%	-4.1%	-2.4%	2.1%

Source: BofA Merrill Lynch Global Research, Datastream

Chart 5: Water value chain

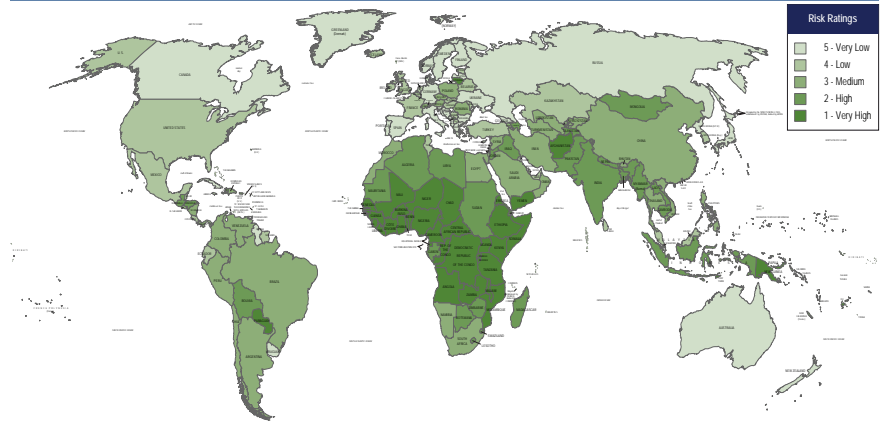


Source: BofA Merrill Lynch Global Research

Water as a long-term investment

In our view, for the next 20 years or more water will be increasingly important as emerging and developed markets grapple with the 40% supply vs demand undershoot. We expect to see complementary growth and investment patterns in the water sector. We think emerging markets in Asia and South America present the highest growth opportunities as they tackle their burgeoning water needs and develop adequate infrastructure, often from scratch. For developed markets, the task is equally daunting, but will present lower growth opportunities linked to the upgrading and maintenance of their often antiquated water infrastructure.

Chart 6: Global water infrastructure needs



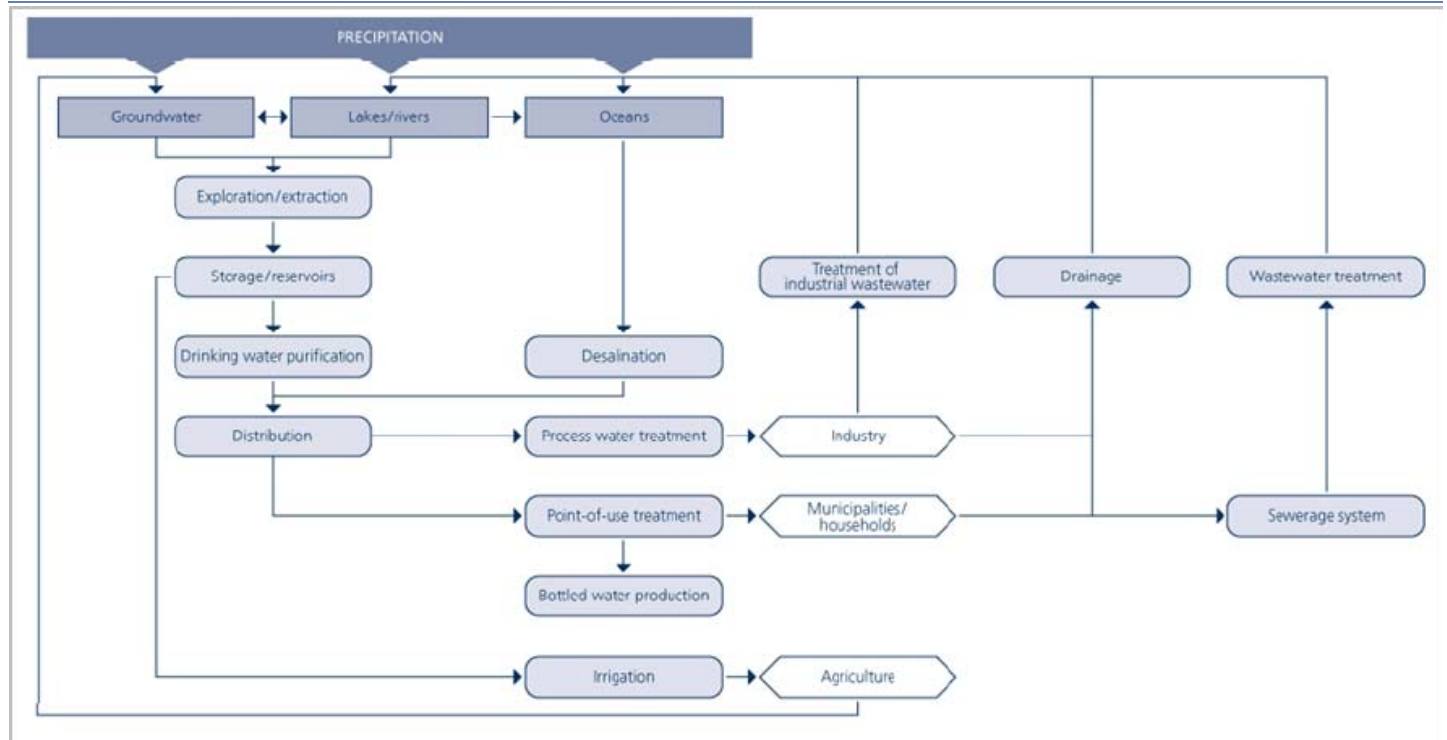
Source: BofA Merrill Lynch Global Research

Mapping the global water sector

We have mapped the global water value chain in order to highlight the diverse range of entry points available to investors wishing to play the water theme. Broadly speaking, company involvement falls under three broad segments of Water Treatment, Water Management and Water Infrastructure.

Each segment has different and distinct opportunities and drivers based on regional development cycles. We have attempted to focus on the value-added by sub-segment from high(er) value-added (ie, bottled water, desalination, industrial water treatment) to medium (ie, irrigation, household, metres) to low(er) (ie, pumps, valves and actuators, engineering and construction, pipes, and utilities). We examine these three areas in much greater detail in standalone sections.

Chart 7: Global water chain



Source: SAM, BofA Merrill Lynch Global Research

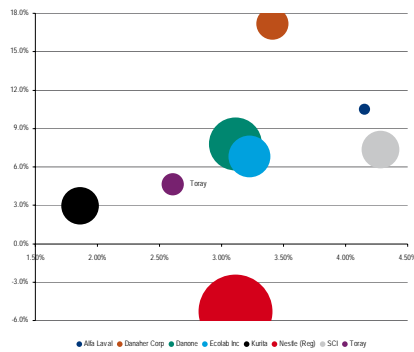
Stakeholder-friendly approach will be key

We are in full agreement with the first paragraph of the EU's Water Framework directive which states that "water is not a commercial product like any other, but, rather a heritage which must be protected, defended and treated as such." Water is a sensitive, common-good issue, which presents challenges as diverse as corruption, to domestic unrest, to GDP impacts, to poverty, to the threat of global conflicts being fought over it. As such, companies and investors involved in the space must be careful to adopt a stakeholder-centred approach, particularly around pricing, if they are to maintain a long-term licence to operate.

BofAML Global Water Exposure Stock List

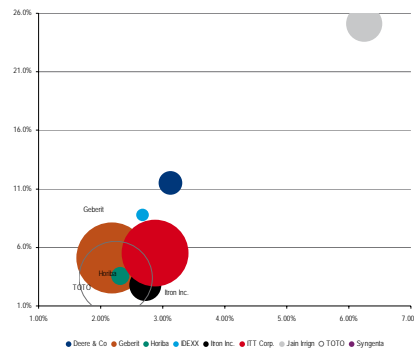
We have created a BofA Merrill Lynch Global Research list of stocks which have meaningful exposure to water-related themes and that we consider should benefit from long-term global water sector growth.

Chart 8: BofAML Water Treatment



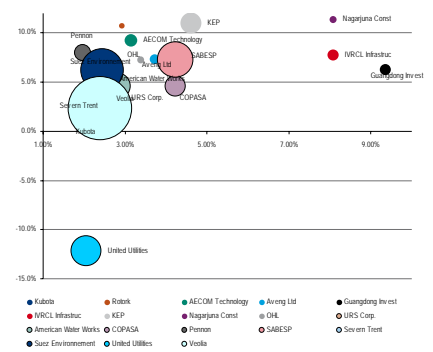
Source: BofA Merrill Lynch Global Research. Vertical axis = BofAML company sales CAGR 2011-13e, horizontal axis = BofAML WDW (Who Does What Where) country GDP CAGR exposure, size of bubble = water as a % of sales.

Chart 9: BofAML Water Management



Source: BofA Merrill Lynch Global Research. Vertical axis = BofAML company sales CAGR 2011-13e, horizontal axis = BofAML WDW (Who Does What Where) country GDP CAGR exposure, size of bubble = water as a % of sales.

Chart 10: BofAML Water Infrastructure



Source: BofA Merrill Lynch Global Research. Vertical axis = BofAML company sales CAGR 2011-13e, horizontal axis = BofAML WDW (Who Does What Where) country GDP CAGR exposure, size of bubble = water as a % of sales.

The aim of the stock list is to provide investors with information to understand company and sub-sector specific risks and opportunities inherent in the water theme. We have also provided overviews of other companies, outside of our research coverage, that are exposed to water (see relevant sections of the report).

BofAML Global Water Exposure Stock list

Ticker	Name	Country	MCap (US\$ mn)	BofAML Ticker	BofAML Rating	Water sub-sector	Water exposure
Ticker	Name	Country	MCap (US\$ mn)	Ticker	BofAML Rating	Water Treatment	Water exposure
ALFA SS	ALFA LAVAL	Sweden	6685.70	ALFV	UNDERPERFORM	Treatment	<5%
DHR US	DANAHER CORP	United States	27406.16	DHR	BUY	Treatment	11%
BN FP	DANONE	France	34022.69	GPDNF	BUY	Treatment – Bottled water	17%
ECL US	ECOLAB INC	United States	11624.83	ECL	BUY	Treatment	40%
6370 JP	KURITA WATER INDUSTRIES LTD	Japan	3502.21	KTWIF	UNDERPERFORM	Treatment	100%
NESN VX	NESTLE	Switzerland	177584.02	NSRGF	BUY	Treatment – Bottled water	7%
SCI SP	SEMBCORP INDUSTRIES LTD.	Singapore	5003.69	SCRPF	NEUTRAL	Treatment	4%
3402 JP	TORAY INDUSTRIES	Japan	11331.21	TRYIF	BUY	Treatment	<5%
Ticker	Name	Country	MCap (US\$ mn)	Ticker	BofAML Rating	Water Management	Water exposure
DE US	DEERE & CO	United States	28944.98	DE	BUY	Management – Agriculture	c.1%
GEVN VX	GEBERIT AG-REG	Switzerland	7032.76	GBERF	NEUTRAL	Management – Household	100%
6856 JP	HORIBA LTD	Japan	1277.49	HRIBF	BUY	Management – Testing	<10%
IDXX US	IDEXX LABORATORIES	United States	4122.73	IDXX	BUY	Management – Testing	7%
ITRI US	ITRON INC	United States	1323.42	ITRI	BUY	Management – Metering	20%
ITT US	ITT CORP	United States	7636.91	ITT	UNDERPERFORM	Management – Diversified	17%
J1 IN	JAIN IRRIGATION SYSTEMS LTD	India	1211.63	JNIDF	NEUTRAL	Management – Agriculture	78%
ROP US	ROPER INDUSTRIES INC	United States		ROP	XR VW	Management – Metering	14%
SYNN VX	SYNGENTA AG-REG	Switzerland	24051.06	SYENF	BUY	Management – Agriculture	NM
5332 JP	TOTO LTD	Japan	2864.20	TOTDF	UNDERPERFORM	Management – Household	>50%
Ticker	Name	Country	MCap (US\$ mn)	Ticker	BofAML Rating	Water Infrastructure - PPV	Water exposure
KSB3 GR	KSB AG-VORZUG	Germany	851.39	KSVRF	BUY	Pipes/pumps/valves	12-14%
6326 JP	KUBOTA	Japan	10466.78	KUBTF	UNDERPERFORM	Pipes/pumps/valves	16%
MWA US	MUELLER WATER PRODUCTS INC-A	United States	339.88	MWA	XR VW	Pipes/pumps/valves	100%
ROR LN	ROTORK	UK	2151.35	RTOXF	NEUTRAL	Pipes/pumps/valves	25%
Ticker	Name	Country	MCap (US\$ mn)	Ticker	BofAML Rating	Water Infrastructure - E&C	Water exposure
ACM US	AECOM TECHNOLOGY CORP	United States	2127.25	ACM	BUY	Engineering & Construction	c.10%
AEJ SJ	AVENG LTD	South Africa	1527.95	AVEPF	NEUTRAL	Engineering & Construction	c.10%
392 HK	BEIJING ENTERPRISES HOLDINGS	Hong Kong	6095.41	BJINF	BUY	Engineering & Construction	23%
270 HK	GUANGDONG INVESTMENT LTD	Hong Kong	3858.54	GGDVF	UNDERPERFORM	Engineering & Construction	63%

BofAML Global Water Exposure Stock list

Ticker	Name	Country	MCap (US\$ mn)	BofAML Ticker	BofAML Rating	Water sub-sector	Water exposure
IVRC IN	IVRCL INFRASTRUCTURES & PROJ	India	202.51	IIFRF	BUY	Engineering & Construction	50%
KEP SP	KEPPEL CORP	Singapore	11444.98	KPELF	BUY	Engineering & Construction	< 25%
NJCC IN	NAGARJUNA CONSTRUCTION CO	India	346.51	NGRJF	BUY	Engineering & Construction	23%
OHL SM	OBRASCON HUARTE LAIN	Spain	2344.90	OBSJF	BUY	Engineering & Construction	4%
URS US	URS CORP	United States	2245.53	URS	UNDERPERFORM	Engineering & Construction	c.5%
Ticker	Name	Country	MCap (US\$ mn)	ML Ticker	ML Rating	Water Infrastructure - Utilities	Water exposure
AWK US	AMERICAN WATER WORKS	United States	5262.13	AWK	BUY	Utilities	100%
CSMG3 BZ	COPASA	Brazil	1865.51	CSAOF	BUY	Utilities	100%
HERIM	HERA GROUP SPA	Italy	1556.40	HRASF	XRWV	Utilities	15%
PNN LN	PENNON GROUP PLC	UK	3758.53	PEGRF	NEUTRAL	Utilities	70%
SBSP3 BZ	SABESP	Brazil	5493.71	CSBJF	BUY	Utilities	100%
SBS US	SABSEP-ADR	Brazil	5424.79	SBS	BUY	Utilities	100%
SVT LN	SEVERN TRENT	UK	5366.47	SVTRF	BUY	Utilities	100%
SEV FP	SUEZ ENVIRONNEMENT	France	7193.99	SZEVF	BUY	Utilities	>40%
UU/ LN	UNITED UTILITIES	UK	6290.46	UUGWF	BUY	Utilities	100%
VE FP	VEOLIA	France	7205.71	VEOEF	BUY	Utilities	35%
VE US	VEOLIA	France	7205.71	VE	BUY	Utilities	35%

Source: BofA Merrill Lynch Global Research, Bloomberg. NM = not material. * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions. Water Treatment includes: wastewater, industrial treatment, desalination, ballast water treatment, analysis, water quality, and bottled water. Water Management includes: leak detection, smart metering technology, irrigation and household water management Water Infrastructure includes: pipes, pumps and valves, engineering, consulting and construction, and utilities

BofAML Global Water Exposure Stock list Comps

Table 3: BofAML Global Water Exposure Stock List - Multiples

As at COB Company	Mon 19 Sep 11 Ticker	P/E				Gross Yield				FCF Yield				EV/EBITDA				Price Book
		2010	FY11e	FY12e	FY13e	2010	FY11e	FY12e	FY13e	2010	FY11	FY12e	FY13e	2010	FY11e	FY12e	FY13e	
Water Treatment																		
Alfa Laval	ALFV	15.4x	13.8x	11.8x	10.5x	2.6%	2.8%	3.0%	3.2%	7.6%	5.6%	7.4%	9.0%	9.2x	8.2x	6.8x	6.1x	3.9x
Danaher Corp	DHR	20.5x	16.1x	13.5x	11.8x	0.2%	0.2%	0.2%	0.2%	5.9%	7.4%	9.3%	10.6%	12.0x	9.8x	7.6x	6.4x	2.7x
Danone	GPDNF	16.2x	14.9x	13.1x	11.7x	3.0%	3.1%	3.5%	3.9%	5.8%	6.4%	7.0%	7.8%	11.2x	10.2x	9.0x	8.1x	2.7x
Ecolab Inc	ECL	23.0x	20.2x	17.8x	15.3x	1.2%	1.4%	1.6%	2.0%	5.8%	2.4%	5.9%	6.5%	11.0x	12.0x	9.1x	8.1x	5.9x
Kurita	KTWIF	15.3x	15.4x	15.3x	14.5x	1.7%	1.8%	1.9%	2.1%	8.9%	8.7%	8.7%	9.2%	5.3x	4.9x	4.3x	3.8x	1.5x
Nestle (Reg)	NSRGF	14.7x	15.3x	14.1x	13.1x	3.8%	4.0%	4.2%	4.4%	5.6%	3.9%	4.5%	4.9%	7.9x	9.8x	9.2x	8.5x	3.3x
SCI	SCRPF	8.8x	8.7x	8.2x	7.0x	4.5%	4.4%	4.7%	5.5%	12.5%	-1.7%	6.6%	12.8%	4.3x	4.7x	4.2x	3.5x	2.0x
Toray	TRYIF	-54.8x	15.2x	11.7x	11.0x	0.9%	1.4%	1.8%	1.8%	12.0%	8.6%	0.4%	1.5%	5.9x	3.0x	2.6x	2.5x	1.9x
Water Management																		
Deere & Co	DE	16.6x	11.9x	10.2x	8.9x	1.5%	2.0%	2.2%	2.4%	5.7%	6.9%	7.5%	9.0%	13.8x	9.4x	8.0x	7.0x	6.6x
Geberit	GBERF	16.1x	17.7x	16.3x	14.7x	3.6%	3.8%	4.1%	4.4%	7.3%	6.1%	6.6%	7.4%	10.9x	12.0x	10.7x	9.4x	4.4x
Horiba	HRIBF	12.3x	11.4x	9.7x	9.3x	0.9%	1.3%	1.5%	1.6%	7.9%	8.4%	13.4%	15.6%	5.0x	4.1x	2.8x	2.4x	1.3x
IDEXX	IDXX	31.1x	26.8x	24.2x	21.1x	0.0%	0.0%	0.0%	0.0%	2.8%	3.1%	3.4%	4.0%	0.1x	0.1x	-0.4x	0.1x	4.5x
Itron Inc.	ITRI	8.5x	8.9x	7.7x	NA	0.0%	0.0%	0.0%	NA	8.1%	21.6%	21.4%	NA	8.8x	3.4x	2.0x	NA	1.0x
ITT Corp.	ITT	10.1x	9.1x	8.6x	NA	2.1%	2.3%	2.3%	NA	11.0%	10.3%	12.5%	NA	6.8x	5.8x	5.1x	NA	2.1x
Jain Irrign	JNIDF	30.7x	18.0x	12.8x	10.9x	0.4%	0.9%	1.2%	1.5%	-1.1%	5.0%	5.2%	8.1%	13.3x	9.7x	7.7x	6.6x	7.7x
Roper	ROP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Syngenta	SYENF	13.6x	11.1x	10.6x	9.7x	3.6%	2.5%	2.6%	2.7%	5.6%	6.5%	6.0%	6.2%	10.8x	8.4x	8.1x	7.4x	3.3x
TOTO	TOTDF	41.7x	21.1x	16.3x	13.2x	1.6%	1.6%	1.6%	1.6%	-0.4%	4.0%	3.4%	4.8%	7.3x	6.7x	5.8x	5.2x	1.3x
Pipes, pumps & valves																		
KSB AG	KSVRF	7.7x	7.2x	5.8x	5.3x	3.2%	3.2%	3.6%	3.6%	2.4%	12.7%	6.0%	7.3%	4.6x	4.1x	3.5x	3.2x	1.1x
Kubota	KUBTF	15.1x	14.5x	13.4x	12.6x	2.2%	2.2%	2.2%	2.2%	6.7%	5.1%	5.8%	6.3%	10.3x	9.1x	8.4x	7.8x	1.3x
Mueller	MWA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.9x
Rotork	RTOXF	19.6x	16.8x	15.2x	14.0x	2.0%	2.3%	2.5%	2.8%	4.6%	4.2%	5.9%	6.5%	12.7x	10.5x	9.2x	8.1x	8.4x
E&C																		
AECOM Technology	ACM	9.8x	8.7x	7.1x	6.3x	0.0%	0.0%	0.0%	0.0%	3.8%	2.6%	15.5%	14.5%	6.6x	5.9x	4.7x	4.0x	1.4x
Aveng Ltd	AVEPF	7.8x	9.6x	8.2x	6.1x	4.1%	3.5%	4.2%	5.3%	4.8%	-0.1%	11.9%	13.2%	2.0x	2.8x	2.3x	1.6x	1.3x
Beijing Enter	BJINF	16.8x	15.3x	13.1x	NA	1.8%	2.0%	2.3%	NA	5.0%	6.3%	7.7%	NA	10.4x	8.7x	7.2x	NA	1.6x
Guangdong Invest	GGDVF	12.8x	12.7x	11.7x	10.8x	3.0%	2.8%	3.0%	2.2%	13.2%	11.3%	12.5%	13.0%	7.0x	6.8x	5.8x	5.0x	1.8x
IVRCL Infrastruc	IIFRF	5.3x	5.8x	8.3x	5.2x	1.9%	1.4%	1.0%	1.5%	25.6%	-5.6%	7.8%	15.7%	4.8x	5.4x	6.0x	4.8x	0.6x
KEP	KPELF	10.6x	10.3x	9.3x	8.3x	4.5%	4.9%	5.4%	6.0%	-2.8%	-6.0%	4.4%	11.7%	9.2x	9.2x	8.1x	7.0x	2.6x
Nagarjuna Const	NGRJF	9.5x	11.2x	11.7x	9.7x	1.8%	1.4%	1.3%	1.6%	-14.0%	-30.4%	9.1%	16.7%	6.5x	8.5x	8.0x	7.2x	1.1x
OHL	OBSJF	9.6x	8.5x	6.9x	6.3x	2.6%	3.0%	3.6%	4.0%	-83.4%	-33.4%	-20.9%	0.2%	7.3x	6.8x	6.3x	6.0x	2.4x
URS Corp.	URS	9.7x	8.9x	8.1x	7.9x	0.0%	0.0%	0.0%	0.0%	19.0%	16.9%	17.5%	17.9%	3.9x	3.8x	3.4x	2.9x	0.7x
Utilities																		
American Water Works	AWK	19.3x	17.3x	15.9x	14.8x	3.0%	3.1%	3.4%	3.7%	0.2%	-3.6%	-2.9%	-1.9%	NA	NA	NA	8.5x	1.3x
COPASA	CSAOF	5.4x	7.8x	7.3x	7.1x	5.8%	4.9%	6.3%	7.0%	1.6%	1.7%	0.7%	0.4%	4.6x	5.5x	5.5x	5.4x	1.0x
Hera SPA	HRASF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.7x
Pennon	PEGRF	16.7x	16.1x	15.1x	14.4x	3.3%	3.6%	3.9%	4.1%	2.1%	2.4%	-1.5%	-1.7%	624.6x	623.3x	572.5x	540.6x	4.1x
SABESP	CSBJF	6.6x	9.7x	9.1x	6.8x	3.7%	3.6%	3.3%	2.7%	3.1%	-2.4%	0.1%	1.9%	5.3x	6.2x	5.7x	5.0x	1.3x
Sabsep-ADR	SBS	6.5x	8.8x	8.9x	7.0x	3.9%	3.9%	3.3%	2.7%	3.1%	-2.6%	0.1%	1.8%	5.4x	5.8x	5.5x	5.1x	1.2x
Severn Trent	SVTRF	13.8x	15.8x	15.1x	14.0x	4.9%	4.4%	4.8%	5.1%	-1.0%	3.9%	4.5%	3.0%	434.1x	447.1x	436.8x	412.2x	3.7x
Suez Environnement	SZEVF	13.8x	12.3x	10.7x	9.6x	6.0%	6.3%	6.6%	7.0%	8.7%	3.7%	8.0%	8.9%	5.8x	5.1x	4.6x	4.3x	1.5x
United Utilities	UUGWF	10.6x	17.1x	17.1x	16.5x	5.7%	5.0%	5.3%	5.7%	8.3%	2.1%	-0.2%	-0.5%	390.8x	467.3x	463.8x	449.5x	2.8x
Veolia	VEOEF	9.5x	13.1x	11.0x	10.1x	11.0%	5.7%	6.3%	6.9%	-0.6%	-7.1%	-7.1%	-6.3%	5.8x	5.8x	5.5x	5.4x	0.8x
Veolia	VE	9.9x	13.3x	11.2x	10.3x	10.6%	5.7%	6.3%	6.8%	-0.6%	-7.0%	-7.1%	-6.2%	5.9x	5.9x	5.5x	5.4x	0.7x

Source: BofA Merrill Lynch Global Research

Table 4: BofAML Global Water Exposure Stock list - Price Performance

As at COB	Mon 19 Sep 11				Mkt Cap		Free float		EV FY1		Share Price Performance (LC)		
Company	Ticker	Recommendation	FY11 Year		LC mn	USD mn	%	USD mn	LC mn	USD mn	-1w Abs	-3m Abs	YTD Abs
Water Treatment													
Alfa Laval	ALFV	UNDERPERFORM	B-3-7	DEC-2011	47,566	7,065	82	5,793	48,018	7,132	-0.4%	-9.8%	-18.1%
Danaher Corp	DHR	BUY	A-1-7	DEC-2011	31,542	31,542		NA	30,708	30,708	4.2%	-12.9%	-2.4%
Danone	GDNF	BUY	B-1-7	DEC-2011	28,517	38,821		NA	35,640	48,516	1.6%	-15.5%	-5.5%
Ecolab Inc	ECL	BUY	A-1-7	DEC-2011	11,904	11,904	100	11,845	12,731	12,731	2.0%	-5.9%	1.7%
Kurita	KTWIF	UNDERPERFORM	B-3-7	MAR-2012	273,436	3,579	67	2,398	224,206	2,934	2.0%	-13.4%	-18.8%
Nestle (Reg)	NSRGF	BUY	A-1-7	DEC-2011	160,479	181,261	100	181,261	153,418	173,286	-0.9%	-6.7%	-8.1%
SCI	SCRPF	NEUTRAL	B-2-7	DEC-2011	6,729	5,322	50	2,648	6,022	4,762	0.8%	-23.0%	-24.4%
Toray	TRYIF	BUY	B-1-7	MAR-2012	905,472	11,851	97	11,487	683,149	8,941	3.4%	-6.1%	15.4%
Water Management													
Deere & Co	DE	BUY	B-1-7	OCT-2011	31,951	31,951	100	31,891	38,627	38,627	0.8%	-5.4%	-7.3%
Geberit	GBERF	NEUTRAL	B-2-7	DEC-2011	6,631	7,489	90	6,728	6,249	7,058	-0.5%	-14.2%	-23.0%
Horiba	HRIBF	BUY	B-1-7	DEC-2011	99,995	1,309	89	1,162	83,911	1,098	0.3%	-4.6%	2.4%
IDEXX	IDXX	BUY	B-1-9	DEC-2011	4,191	4,191	99	4,136	18	18	-0.6%	-2.2%	5.0%
Itron Inc.	ITRI	BUY	B-1-9	DEC-2011	1,491	1,491	99	1,476	1,822	1,822	-0.2%	-23.6%	-34.4%
ITT Corp.	ITT	UNDERPERFORM	A-3-7	DEC-2011	8,222	8,222	100	8,186	10,361	10,361	2.8%	-22.5%	-14.7%
Jain Irrign	JNIDF	NEUTRAL	C-2-7	MAR-2012	65,543	1,371	66	912	81,594	1,707	-2.0%	16.1%	-17.5%
Roper	ROP	XRWW	XRWW	DEC-2011	7,166	7,166	99	7,064	4,849	4,849	0.0%	-10.2%	-4.3%
Syngenta	SYENF	BUY	A-1-7	DEC-2011	23,516	23,516	100	23,487	24,756	24,756	0.3%	-10.2%	-8.3%
TOTO	TOTDF	UNDERPERFORM	B-3-7	MAR-2012	230,431	3,016	85	2,571	248,031	3,246	1.5%	3.0%	6.1%
Pipes, pumps & valves													
KSB AG	KSVRF	BUY	B-1-7	DEC-2011	732	997	100	997	964	1,312	6.6%	-25.7%	-32.2%
Kubota	KUBTF	UNDERPERFORM	B-3-7	MAR-2012	837,133	10,957	95	10,363	1,167,559	15,281	3.2%	-6.6%	-14.6%
Mueller	MWA	XRWW	XRWW	SEP-2011	380	380	97	370	380	380	8.0%	-33.2%	-41.3%
Rotork	RTOXF	NEUTRAL	B-2-7	DEC-2011	1,402	2,193	97	2,119	1,360	2,127	-0.9%	1.1%	-9.2%
E&C													
AECOM Technology	ACM	BUY	C-1-9	SEP-2011	2,394	2,394	96	2,301	2,760	2,760	-5.3%	-26.6%	-28.8%
Aveng Ltd	AVEPF	NEUTRAL	B-2-8	JUN-2012	14,030	1,821	82	1,490	6,574	853	7.9%	2.9%	-17.6%
Beijing Enter	BJINF	BUY	C-1-7	DEC-2011	48,347	6,202	55	3,413	55,348	7,100	5.5%	12.2%	-9.0%
Guangdong Invest	GGDVF	UNDERPERFORM	B-3-8	DEC-2011	30,043	3,854	39	1,508	34,621	4,441	5.5%	16.8%	27.3%
IVRCL Infrastruc	IIFRF	BUY	C-1-7	MAR-2012	10,800	226	76	171	25,290	529	0.9%	-33.6%	-66.5%
KEP	KPELF	BUY	B-1-7	DEC-2011	15,295	12,096	78	9,442	17,984	14,222	0.1%	-18.9%	-13.3%
Nagarjuna Const	NGRJF	BUY	C-1-7	MAR-2012	17,935	375	55	207	31,240	653	10.5%	-8.7%	-47.6%
OHL	OBSJF	BUY	B-1-8	DEC-2011	1,872	2,549	53	1,362	7,368	10,030	7.9%	-26.4%	-15.9%
URS Corp.	URS	UNDERPERFORM	B-3-9	DEC-2011	2,541	2,541	98	2,495	2,753	2,753	-0.5%	-26.2%	-23.8%
Utilities													
American Water Works	AWK	BUY	B-1-7	DEC-2011	5,162	5,176	100	5,168	10,834	10,834	2.3%	0.7%	16.0%
COPASA	CSAOF	BUY	C-1-7	DEC-2011	3,638	2,050	47	955	5,670	3,185	5.0%	6.9%	15.5%
Hera SPA	HRASF	XRWW	XRWW	DEC-2011	1,192	1,647	47	779	1,192	1,623	5.8%	-26.5%	-26.0%
Pennon	PEGRF	NEUTRAL	A-2-7	MAR-2012	249,015	3,823	99	3,798	250,911	392,475	2.8%	7.9%	10.5%
SABESP	CSBJF	BUY	C-1-7	DEC-2011	10,708	6,015	50	2,992	16,984	9,539	6.1%	1.1%	10.4%
Sabsep-ADR	SBS	BUY	C-1-7	DEC-2011	6,043	6,043		NA	9,821	9,821	1.9%	-9.9%	1.3%
Severn Trent	SVTRF	BUY	A-1-7	MAR-2012	349,575	5,481	96	5,262	353,524	552,982	1.9%	5.5%	1.5%
Suez Environnement	SZEVF	BUY	A-1-8	DEC-2011	5,551	7,559	55	4,183	13,335	18,153	2.2%	-19.9%	-26.9%
United Utilities	UUGWF	BUY	A-1-7	MAR-2012	409,702	6,409	96	6,153	414,608	648,530	2.9%	4.5%	3.7%
Veolia	VEOEF	BUY	B-1-8	DEC-2011	5,720	7,795	74	5,768	21,036	28,637	11.1%	-42.8%	-47.7%
Veolia	VE	BUY	B-1-8	DEC-2011	7,879	7,887		NA	28,427	28,427	10.6%	-45.1%	-48.8%

Source: BofA Merrill Lynch Global Research

Table 5: BofAML Global Water Exposure Stock List - input

As at COB Company	Mon 19 Sep 11 Ticker	CRNY	EPS				EPS 4Y CAGR	DPS				DPS 4Y CAGR	EBITDA (in bn)				EBITDA 4Y CAGR	EcoDebt/ EBITDA			
			2010	FY11e	FY12e	FY13e		2010	FY11e	FY12e	FY13e		2010	FY11e	FY12e	FY13e		2010	FY11	FY12	FY13
Water Treatment																					
Alfa Laval	ALFVF	SEK	7.36	8.20	9.63	10.84	14.0%	3.00	3.21	3.43	3.68	10.1%	5.2	5.9	7.08	7.68	12.8%	0.1x	0.1x	0.1x	-0.2x
Danaher Corp	DHR	USD	2.24	2.86	3.40	3.90	21.8%	0.08	0.08	0.09	0.10	11.6%	2.6	3.5	4.37	4.92	24.7%	13.5x	10.9x	8.4x	7.1x
Danone	GPDF	EUR	2.71	2.94	3.36	3.76	9.9%	1.30	1.37	1.54	1.72	9.4%	3.2	3.5	3.83	4.14	9.9%	2.7x	2.4x	1.9x	1.4x
Ecolab Inc	ECL	USD	2.23	2.54	2.88	3.35	13.9%	0.62	0.70	0.83	1.00	15.6%	1.2	1.1	1.35	1.50	10.3%	35.9x	41.9x	35.3x	33.9x
Kurita	KTWIF	JPY	134.38	134.02	134.22	142.11	2.9%	36.00	38.00	40.00	44.00	6.7%	42.6	43.9	44.80	46.20	3.4%	-0.6x	-0.8x	-1.2x	-1.6x
Nestle (Reg)	NSRGF	CHF	3.31	3.18	3.44	3.72	4.8%	1.85	1.95	2.05	2.15	7.7%	19.4	16.0	17.05	18.37	-0.9%	1.1x	1.4x	1.3x	1.1x
SCI	SCRPF	SGD	0.43	0.43	0.46	0.54	8.8%	0.17	0.17	0.17	0.21	16.9%	1.4	1.5	1.67	1.99	12.6%	-1.3x	-0.9x	-0.8x	-0.8x
Toray	TRYIF	JPY	-10.12	36.41	47.33	50.41	A	5.00	7.50	10.00	10.00	7.5%	115.0	170.6	199.00	211.00	15.2%	5.7x	2.8x	2.4x	2.3x
Water Management																					
Deere & Co	DE	USD	4.65	6.46	7.57	8.63	32.3%	1.16	1.52	1.67	1.84	13.2%	2.8	3.9	4.52	5.04	30.7%	6.2x	4.1x	3.4x	2.8x
Geberit	GBERF	CHF	10.32	9.38	10.19	11.34	2.7%	6.00	6.25	6.75	7.25	3.2%	0.6	0.5	0.57	0.63	0.7%	3.0x	3.5x	3.0x	2.5x
Horiba	HRIBF	JPY	190.64	206.67	241.34	252.78	35.6%	22.00	30.00	35.00	38.00	30.8%	16.8	18.8	23.25	25.80	27.6%	-0.6x	-0.9x	-1.2x	-1.3x
IDEXX	IDXX	USD	2.37	2.75	3.05	3.50	14.6%	NA	NA	NA	NA	NA	0.2	0.3	0.31	0.34	11.0%	2.2x	2.0x	1.4x	1.7x
Itron Inc.	ITRI	USD	4.30	4.10	4.75	NA	NA	NA	NA	NA	NA	NA	0.2	0.4	0.44	NA	NA	9.7x	3.9x	2.4x	NA
ITT Corp.	ITT	USD	4.41	4.85	5.15	NA	NA	0.95	1.00	1.00	NA	NA	1.5	1.7	1.82	NA	NA	1.4x	1.0x	0.6x	NA
Jain Irrign	JNIDF	INR	5.52	9.45	13.24	15.50	30.7%	0.68	1.51	2.12	2.48	-0.2%	6.1	8.4	10.54	11.96	23.3%	3.2x	2.3x	1.8x	1.4x
Roper	ROP	USD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Syngenta	SYENF	USD	18.44	22.61	23.71	25.77	9.2%	9.09	6.16	6.62	6.85	-3.2%	2.3	2.9	2.96	3.18	8.7%	0.7x	0.5x	0.3x	0.1x
TOTO	TOTDF	JPY	14.86	29.36	38.00	46.87	107.3%	10.00	10.00	10.00	10.00	0.0%	34.0	36.8	41.17	45.60	14.0%	0.4x	0.3x	0.1x	0.1x
Pipes, pumps & valves																					
KSB AG	KSVRF	EUR	50.03	54.05	66.88	72.29	13.6%	12.26	12.26	13.80	13.80	3.0%	0.2	0.2	0.26	0.28	8.5%	0.5x	0.2x	0.0x	-0.1x
Kubota	KUBTF	JPY	43.10	44.82	48.75	51.50	11.5%	14.00	14.00	14.00	14.00	3.9%	113.1	125.0	133.00	138.50	8.8%	2.5x	2.1x	1.7x	1.4x
Mueller	MWA	USD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rotork	RTOXF	GBP	82.45	96.49	106.33	115.96	11.6%	32.50	37.05	40.76	44.83	12.1%	0.1	0.1	0.14	0.15	11.4%	-0.5x	-0.6x	-0.9x	-1.2x
E&C																					
AECOM Technology	ACM	USD	2.05	2.30	2.81	3.18	16.9%	NA	NA	NA	NA	NA	0.4	0.5	0.60	0.63	14.2%	1.7x	2.1x	1.5x	1.0x
Aveng Ltd	AVEPF	ZAR	4.60	3.70	4.33	5.82	4.5%	1.45	1.26	1.51	1.89	6.8%	3.2	2.8	3.14	3.72	4.3%	-2.2x	-2.1x	-2.0x	-2.0x
Beijing Enter	BJINF	HKD	2.58	2.84	3.31	NA	NA	0.77	0.85	0.99	NA	NA	5.3	6.1	7.05	NA	NA	-0.2x	-0.6x	-0.9x	NA
Guangdong Invest	GGDVF	HKD	0.39	0.39	0.43	0.46	8.7%	0.15	0.14	0.15	0.11	-0.2%	4.9	4.8	5.14	5.44	7.0%	0.4x	0.0x	-0.6x	-1.1x
IVRCL Infrastruc	IIFRF	INR	7.91	7.21	5.02	7.96	-0.4%	0.80	0.60	0.40	0.64	-2.3%	5.3	5.7	5.54	7.33	14.8%	2.8x	3.5x	4.2x	3.4x
KEP	KPELF	SGD	0.80	0.83	0.91	1.03	9.3%	0.38	0.41	0.46	0.52	-1.8%	1.9	2.1	2.48	2.79	13.5%	0.1x	0.9x	0.8x	0.5x
Nagarjuna Const	NGRJF	INR	7.47	6.37	6.09	7.36	2.3%	1.30	1.00	0.96	1.15	1.2%	4.8	4.9	5.70	6.56	15.1%	2.8x	4.9x	5.0x	4.5x
OHL	OBSJF	EUR	1.96	2.22	2.70	2.99	-3.3%	0.49	0.55	0.68	0.75	-4.8%	1.0	1.2	1.34	1.41	17.2%	5.1x	4.9x	4.5x	4.3x
URS Corp.	URS	USD	3.28	3.60	3.95	4.06	6.5%	NA	NA	NA	NA	NA	0.7	0.8	0.80	0.82	6.2%	0.7x	0.8x	0.5x	0.0x
Utilities																					
American Water Works	AWK	USD	1.53	1.71	1.85	1.99	12.3%	0.88	0.92	1.00	1.08	6.5%	NA	NA	NA	1.33	NA	NA	NA	NA	4.8x
COPASA	CSAOF	BRL	5.89	4.06	4.34	4.47	-0.6%	1.83	1.55	1.99	2.23	2.6%	1.2	1.0	1.10	1.16	5.7%	1.8x	2.2x	2.3x	2.4x
Hera SPA	HRASF	EUR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pennon	PEGRF	GBP	40.80	42.26	45.05	47.24	5.7%	22.55	24.65	26.30	28.01	7.5%	0.4	0.4	0.44	0.46	4.6%	4.9x	4.9x	4.8x	4.8x
SABESP	CSBJF	BRL	7.16	4.86	5.15	6.89	1.0%	1.73	1.70	1.56	1.29	-0.2%	3.2	2.9	3.23	3.69	7.9%	1.9x	2.4x	2.4x	2.1x
Sabsep-ADR	SBS	USD	8.14	6.02	5.99	7.60	3.5%	2.08	2.06	1.74	1.41	-1.4%	1.8	1.8	1.88	2.04	10.5%	2.1x	2.4x	2.2x	2.1x
Severn Trent	SVTRF	GBP	106.96	93.07	97.98	105.20	4.2%	72.32	65.09	70.11	75.02	2.7%	0.8	0.8	0.81	0.86	4.6%	5.3x	5.5x	5.1x	4.9x
Suez Environnement	SZEVF	EUR	0.79	0.89	1.02	1.14	23.3%	0.65	0.68	0.72	0.77	4.2%	2.3	2.6	2.85	3.03	10.1%	3.5x	3.1x	2.8x	2.6x
United Utilities	UUGWF	GBP	56.55	35.10	35.16	36.51	-8.8%	34.30	30.00	32.04	33.99	1.0%	1.1	0.9	0.89	0.92	-2.1%	4.9x	5.6x	5.8x	5.9x
Veolia	VEOEF	EUR	1.16	0.84	1.00	1.09	2.0%	1.21	0.63	0.70	0.76	-10.9%	3.7	3.5	3.80	3.98	2.6%	4.8x	4.9x	4.6x	4.6x
Veolia	VE	USD	1.54	1.14	1.36	1.48	1.4%	1.60	0.86	0.95	1.04	-11.4%	4.8	4.8	5.18	5.42	2.0%	4.9x	4.9x	4.6x	4.6x

Source: BofA Merrill Lynch Global Research

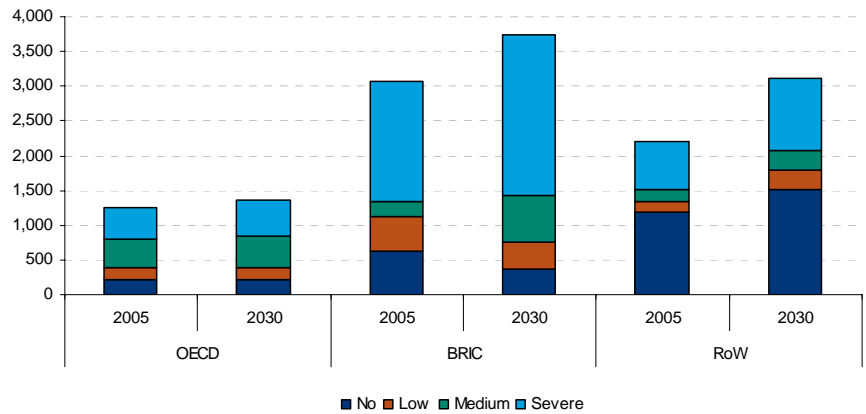
Water supply & demand challenges

Water faces some of the toughest challenges of any natural resource or commodity – with significant supply- and demand-side pressures. On the supply side, the world is facing a combination of insufficient freshwater, uneven distribution, widely varying quality, water losses, and adverse impacts from climate change. On the demand side, agricultural, industrial and municipal/residential usage is set to rise strongly over the next 20 years. By 2030, according to Water 2030, demand will overshoot water supply by 40%, and close to half of the world’s population will be living in water stressed areas. Water is set to be a scarcer commodity than oil.

Supply side water pressure

Global water supply has failed to keep pace with the rising world population, leading to chronic shortages in many regions around the world. Supply side pressures are being further exacerbated by a lack of freshwater, its uneven distribution, widely varying quality, and emerging climate change risks.

Chart 11: No. of people living in water stressed areas in OECD, BRIC & rest of world (mn)

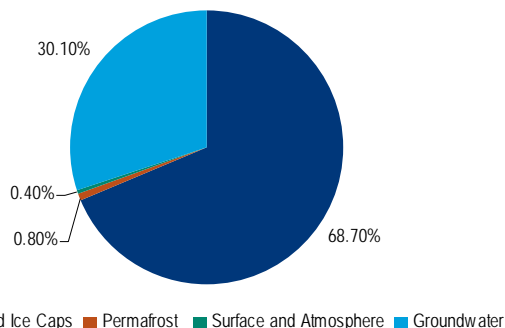


Source: UNEP, OECD

Insufficient freshwater

Freshwater accounts for less than 3% of the total water on the planet, most of which is locked in the two polar ice caps. Ground water, a critical source of potable water for the world’s major cities, makes up about 30% of freshwater resources. Lakes, rivers, wetlands and different soil types account for only 1.2% of freshwater. Nevertheless, humans rely on these sources more than any other.

Chart 12: Total Freshwater Supply



Source: USGS, BofA Merrill Lynch Global Research

Water is the wrong quality in the wrong places

Uneven distribution

In theory, there is enough water to satisfy all human needs on a sustainable basis. However, in practice, water is not distributed evenly across the globe. Ten countries possess 60% of the world's freshwater resources, whereas there are:

- **17 countries facing water stress:** when annual water supplies drop below 1,700m³ per person
- **10 countries facing water scarcity:** when annual water supplies drop below 1,000m³ per person
- **19 countries facing absolute water scarcity:** when annual water supplies drop below 500m³.

Table 6: Water resources: total renewable per capita (m3/inhabitant/year)

Top 10 water m3/p/yr	Water stress m3/p/yr	Water Scarcity m3/p/yr	Absolute Water Scarcity m3/p/yr
Brazil 8,233	Sudan and South Sudan 1560	Burkina Faso 820.5	Algeria 339.5
Russia 4,508	Burundi 1553	Kenya 792	Barbados 313.7
United States 3,069	Ethiopia 1512	Syrian Arab Republic 791.4	Israel 252.4
Canada 2,902	Lesotho 1475	Egypt 702.8	Palestinian Territory 201.8
China 2,840	Republic of Korea 1447	Cape Verde 601.2	Jordan 152.7
Colombia 2,132	Haiti 1421	Antigua and Barbuda 597.7	Bahrain 149.5
Indonesia 2,019	Comoros 1412	Oman 502.7	Singapore 130.0
Peru 1,913	Pakistan 1304		Malta 124.1
India 1,911	Eritrea 1279		Maldives 98.4
DR Congo 1,283	Czech Republic 1274		Libyan Arab Jamahiriya 95.3
	Malawi 1164		Saudi Arabia 95.2
	Denmark 1099		Yemen 91.6
	Lebanon 1074		Bahamas 59.2
	South Africa 1007		Qatar 45.3
			United Arab Emirates 33.4
			Kuwait 6.9

Source: Aquastat

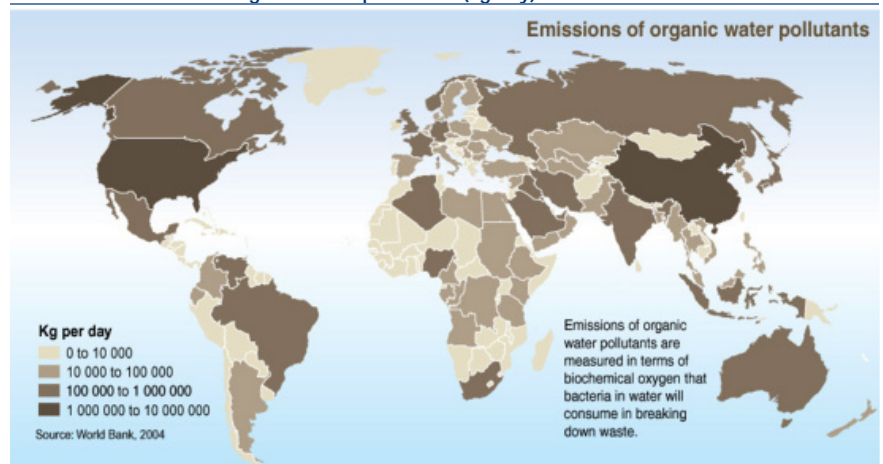
Widely varying water quality

Beyond water quantity, water scarcity is also emerging as a direct consequence of water quality issues. Some of the key challenges are that:

- Urban areas are facing water pollution issues arising from inappropriate land use activities and poor water treatment;

- Chemical fertiliser run-offs are creating excessive nutrient concentrations in seas and oceans (+10-20% in the next 30 years);
- Irrigation is reducing the capacity of rivers to transport sediments; and
- In emerging markets, where wastewater treatment is either inadequate or non-existent, water sources are often used as little more than open sewers.

Chart 13: Emissions of organic water pollutants (kg/day)



Source: World Bank

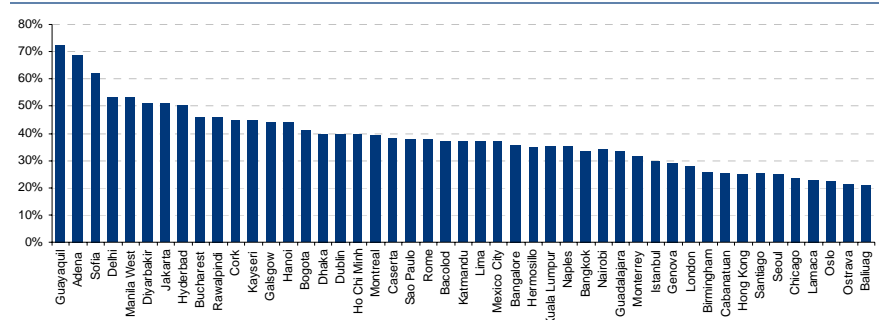
More than 50m m³/day is lost through leakage. A further 30m m³/day is not paid for. The total cost to water utilities worldwide is estimated at more than US\$20bn+/year (Source: World Bank)

NRW, US\$20bn in lost water

Water loss or non-revenue water (NRW) – physical, commercial and unbilled authorise consumption – is a considerable problem around the world. Two-thirds of the volume of water lost is in low- and middle-income countries, where every drop of water and revenue is desperately needed to meet burgeoning demand. For instance, in Asia, NRW averages 30% across cities and is as high as 65% in some urban areas, leading to losses of US\$9bn per year (Source: ADB).

But developed markets also face an NRW challenge with studies showing that water leakages from distribution networks are as high as 50% in certain areas of Europe; and the American Society of Civil Engineers estimating that 26.5m m³ of safe drinking water (or 15% of the total) is lost every day in the US. as a result of their antiquated distribution systems.

Chart 14: Urban water networks with NRW of 20%+



Source: Smart water Networks Forum

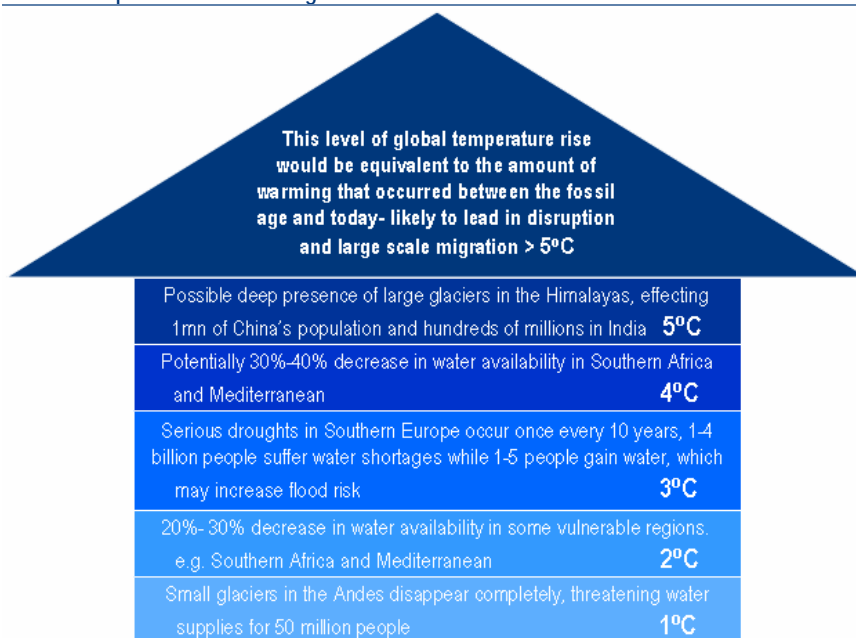
South Asia, Africa & the Mediterranean are the most vulnerable to climate change-related water impacts

Climate change is making things worse

Climate change is exacerbating supply side water pressure in three ways: water quality, water quantity and water timing. As temperatures rise:

- **The hydrological cycle is expected to change**, accelerating the rate of evaporation from land and sea. This will lead to an increase in flooding (as the atmosphere holds more moisture) and droughts (reduced water availability in low precipitation areas) and to changes in the geographic distribution and timing of precipitation.
- **Rainfall patterns will change**: rainfall is expected to rise in the tropics and higher latitudes, but decrease in the already dry semi-arid to arid mid-latitudes and in the interiors of larger continents.
- **Sea levels will rise** and coastal communities could lose up to 50% or more of their freshwater supplies.
- **Saltwater intrusion of freshwater aquifers** will become a growing threat to drinking water supplies (eg, in the US eastern seaboard, other low lying settlements).

Chart 15: Impact of climate change on water

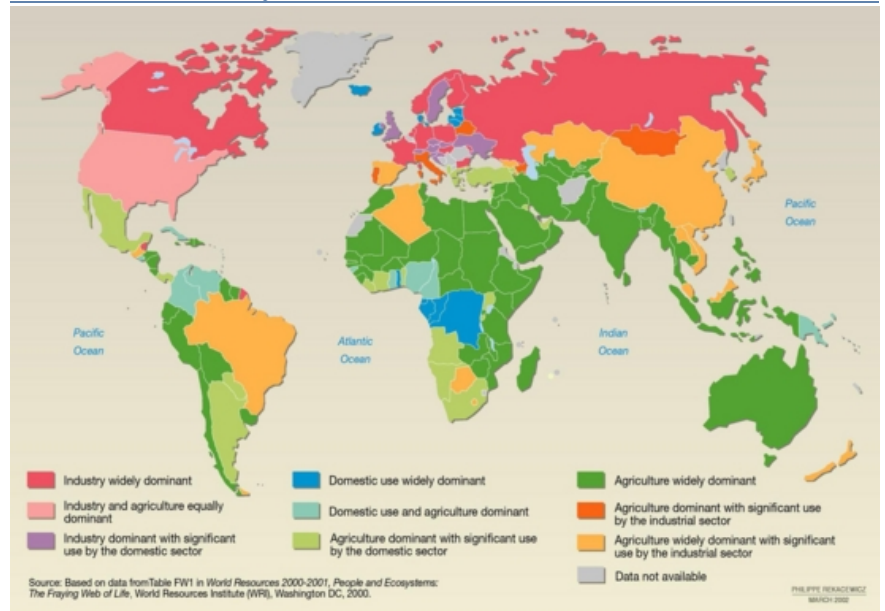


Source: WaterAid, BofA Merrill Lynch Global Research

Demand-side water pressures

The necessity for water is such that all individuals and industries are water dependent. Agriculture is the largest single user of freshwater in the world, accounting for 70% of total water use. Industry and energy are the second largest users and domestic users make up the rest.

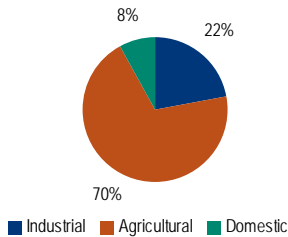
Chart 16: Freshwater use by sector



Source: UNEP

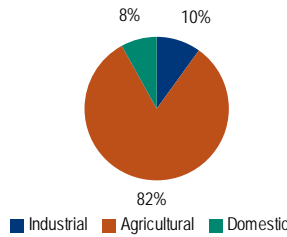
It is worth noting that the proportions of water use vary widely if analysed from an income perspective – with industry and energy (especially coal) accounting for a disproportionately higher use of freshwater in high(er) income countries.

Chart 17: World water use



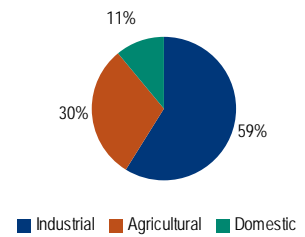
Source: World Bank, BofA Merrill Lynch Global Research

Chart 18: Low & middle income country use



Source: World Bank, BofA Merrill Lynch Global Research

Chart 19: High income country use



Source: World Bank, BofA Merrill Lynch Global Research

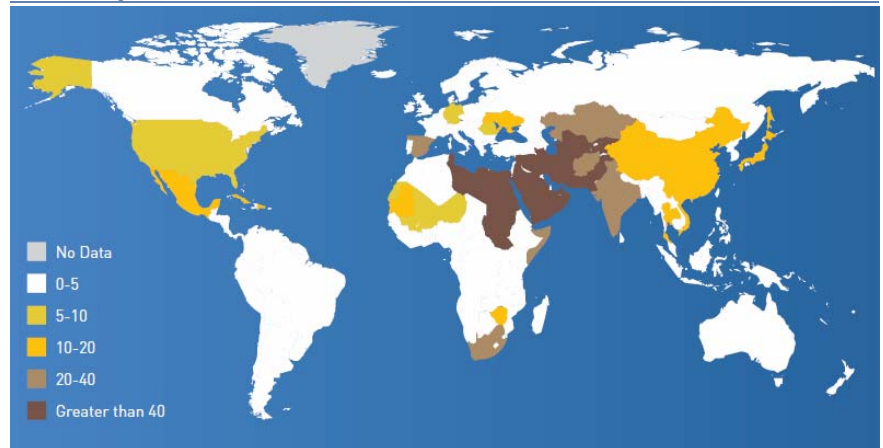
The daily drinking water requirement per person is 2-4l, but it takes 2000-5000l to produce one person's daily food requirements (Source: FAO)

Agriculture, today's biggest consumer

According to the FAO, it takes 1000x more water to feed a population via agriculture than it does to satisfy thirst. This is leading to growing demand-side water pressure as food demand is expected to increase by 50% by 2030, exacerbating the imbalance between water demand and supply:

Farmers are extracting water at an unsustainable rate as the area irrigated by groundwater has increased on the back of more reliable water delivery, a decline in extraction costs, and government subsidies for power and pump installation and water itself.

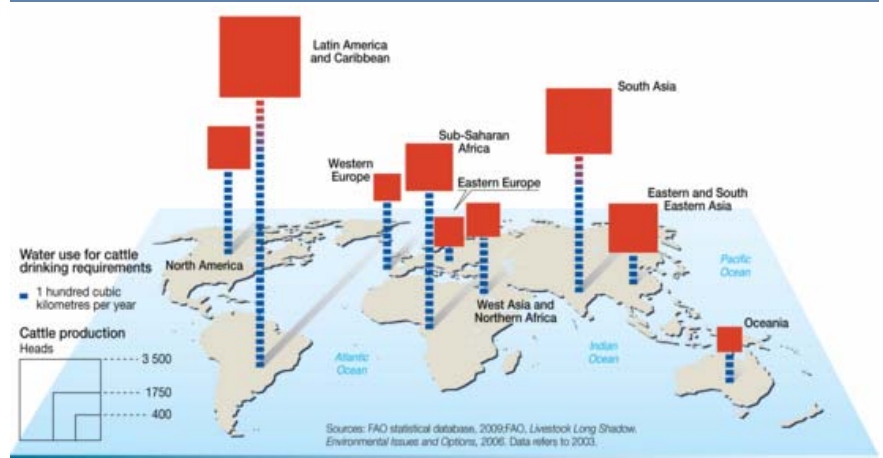
Chart 20: Agricultural water withdrawals as a % of total renewable water resource



Source: FAO (Withdrawals are critical when higher than 40% and indicative of water stress at 20-40%)

Water intensity varies depending on the crop or livestock. Farming livestock is more water intensive than farming crops. It takes 15,500l of water to produce 1kg of beef, compared with 1,500l for 1kg of grain. However, increasing demand for food is expected to come from higher protein based sources rather than more subsistence based diets. Using current practices, the amount of water required for agricultural evapotranspiration to feed the world's population would increase from today's figure of 7130km³ to between 12,050 and 13,500km³, an increase of 70-90% by 2050.

Chart 21: Converting water into red meat



Source: UN FAO, UNEP

Industry, tomorrow's biggest user

Demand from industry represents around 22% of global total demand, rising to as much as 59% in developed markets. Industrial water use arises as a raw material and as a constituent of the product itself as well as from cleaning, heating and cooling and power generation. Usage is expected to rise significantly as:

Emerging markets divert water from agriculture to industry as they ramp up their economic growth efforts via large-scale industrialisation. Worryingly, this is often being done with scant regard for the environmental or social impact.

Water usage in industry:

- 3 barrels of water per barrel of oil produced from oil sands
- 75,000 gallons water per well drilled in shale gas
- Over 2 billion gallons water per day for mining in the US & 1.5 tons of water to process a ton of ore (Source: Kemira)

Energy infrastructure highly dependent on water – gas, coal and nuclear plants, in the US for example, consume an estimated 20% of non-agricultural water. In China, coal-fired electricity currently uses more than 114tn l of water, c. 20% of the country’s total consumption, rising to 40% over the next decade if current trends continue.

Mining infrastructure highly dependent on water with over 2 billion gallons of water per day used in the US alone – the processing of a ton of ore requires 1.5 tons of water. Tailings and acid rock drainage are also becoming major issues.

Unconventional oil & gas - the oil industry currently produces 2.5x more water than oil; by 2025, it will produce 5x more water than oil according to Global Water Intelligence (GWI). Usage is expected to increase via shale gas and the process of hydraulic fracturing or, “fracking”, which can use as much as 5m gallons of water per well and poses a growing risk to freshwater supplies. As well as the risk this poses to groundwater, if improperly handled this fluid could potentially harm surface water assets.

Cross Reference

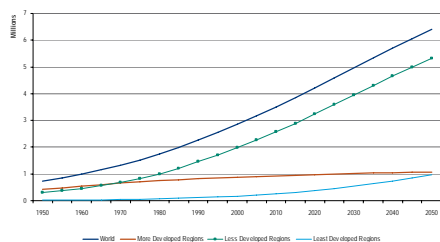
[SRI & Sustainability, 02 December 2010](#)

Table 7: Energy-water relationship

Energy element	Connection to water use / scarcity	Connection to water quality
Energy Extraction and Production		
Oil and Gas Exploration	Water for drilling, completion and fracturing	Impact on shallow groundwater quality
Oil and Gas Production	Surface water and groundwater for cooling and scrubbing	Produced water can impact surface and groundwater
Coal and Uranium Mining	Mining operation can generate large quantities of water	Tailings and drainage can impact surface water and groundwater
Electric Power Generation		
Thermal electric (fossil, biomass, nuclear)	Surface water and groundwater for cooling and scrubbing	Thermal and air emissions impact surface waters and ecology
Hydro-electric	Reservoirs lose large quantities to evaporation	Can impact water temperatures, quality and ecology
Solar PV and Wind	None during operation; minimal water use for panel and blade washing	
Refining and Processing		
Traditional Oil and Gas refining	Water needed to refined oil and gas	End use can impact water quality
Biofuels and Ethanol	Water for growing and refining	Refinery waste-water treatment
Synfuels and Hydrogen	Water for synthesis or steam reforming	Wastewater treatment
Energy Transportation and Storage		
Energy Pipelines	Water for hydrostatic testing	Wastewater requires treatment
Coal Slurry Pipelines	Water for slurry transport, water not returned	Final water is poor quality, requires treatment
Barge Transport of Energy		Spills or accidents impact water quality
Oil and Gas Storage Caverns	Slurry mining of caverns requires large quantities of water	Slurry disposal impacts water quality and ecology

Source: BofA Merrill Lynch Global Research

Chart 22: Global urban population 1950-2050 (bn people)



Source: Unpopulation

Residential & municipal, set to rise sharply in long term

While water for domestic use is the smallest demand segment of freshwater resources, we think there are some significant drivers for it to increase in the long-term:

- **The world’s population is estimated to grow by 50%** to approximately 9 billion by 2050 (Source: UN) while the world’s water resources will remain constant. Intuitively, we expect there to be significant growth in the high(er) income brackets associated with greater water use.
- **Urbanisation is placing growing demands on groundwater** and by 2025, 5 billion people will be living in urban areas while 70% of the world’s population will be living in cities by 2050. The prospect of “mega-regions”, which can stretch hundreds of kilometres across countries could push water resources and infrastructure to their limits, especially as groundwater recharge rates have slowed. This will have an impact on water quantity and quality, with increasing demand for efficient water infrastructure systems.

Top 10 Megacities 2007-2025 (population in millions)

City	Country	Population – 2007 City	Country	Population - 2025
Tokyo	Japan	35.7 Tokyo	Japan	36.4
NYC	US	19.0 Mumbai	India	26.4
Mexico City	Mexico	19.0 Delhi	India	22.5
Mumbai	India	19.0 Dhaka	Bangladesh	22.0
São Paulo	Brazil	18.8 São Paulo	Brazil	21.4
Delhi	India	15.9 Mexico City	Mexico	21.0
Shanghai	China	15.0 NYC	US	20.6
Kolkata	India	14.8 Kolkata	India	20.6
Dhaka	Bangladesh	13.5 Shanghai	China	19.4
Buenos Aires	Argentina	12.8 Karachi	Pakistan	19.1

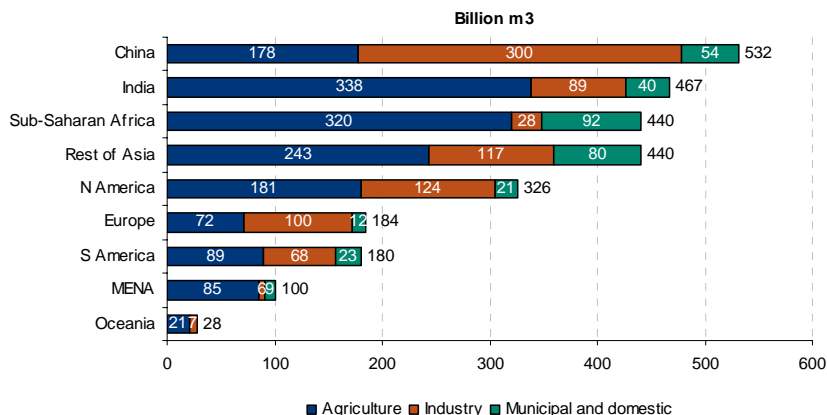
Source: UNpopulation

- **More water-intensive commodities and foodstuffs** as a result of rising prosperity. As developing nations shift their appetite from subsistence (starch) to protein (meat, dairy)-based diets, their water requirements are likely to increase markedly with livestock farming ten times more water-intensive than crop farming.
- **Property will amplify demands** for improved water quality, for more access to recreational and amenity use and for the preservation of biodiversity.

From 2005 to 2030, water demand will increase by:

- 283% for Sub-Saharan Africa
 - 109% for Oceania
 - 95% for South America
 - 61% for China
 - 58% for India
 - 50% for Europe
 - 47% for MENA
 - 43% for North America
- (Source: Water 2030)

Chart 23: Expected increase in global water demand by 2030

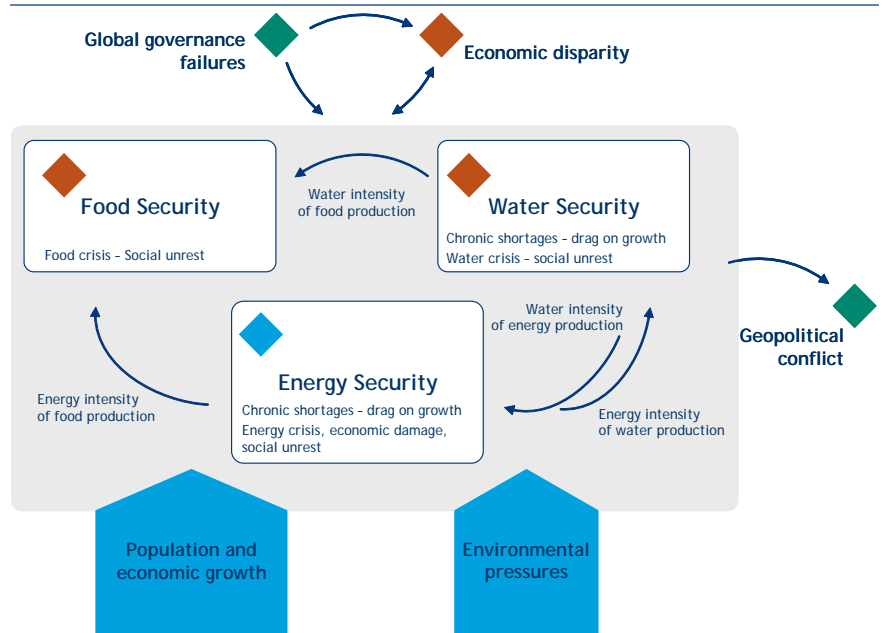


Source: 2030 Water Working group

Bringing it all together, the water-energy-food nexus

The inextricable links between agricultural, industrial and domestic demand-side water pressure is illustrated through the water-energy-food nexus. Food security, energy security and water security are linked by a series of sometimes reciprocal inputs, and influenced by other factors such as population, economic growth and environmental pressures along with the two overarching factors of global governance failures and economic disparity. Trade-offs between the three resources, as well as between users in the form of resource rationing, will, in our view, become an increasingly important issue, as will managing these trade-offs.

Figure 1: Water-energy-food nexus

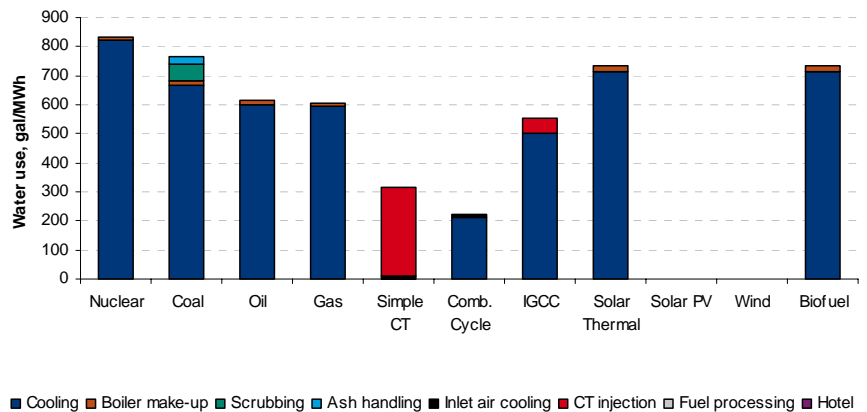


Source: World Economic Forum

Coal-fired electricity accounts for 20% of non-agricultural water use in the US and in China could account for 40% of all water use over the next decade

- Water & rising energy needs:** The IEA forecasts that the world economy will demand at least 40% more energy by 2030. This will require the installation of larger and more efficient power generation plants across the world. This means massive water use. Gas fired plants consume the least amount of water per unit of energy produced; coal and oil fired plants consume up to twice as much as gas-fired, and nuclear consumes up to three times as much. The future is unclear, with IGCC able to reduce a coal plant's water consumption by half but CCS potentially increasing a coal plant's water consumption by 30-100%.

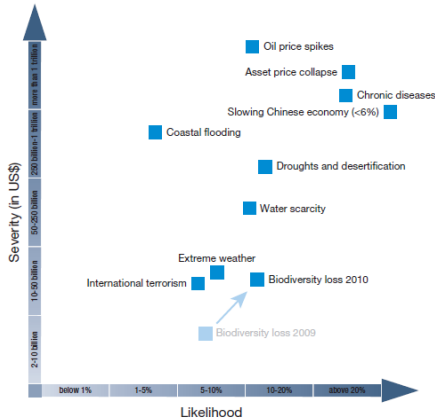
Chart 24: Water use by plant type



Source: EPRI

- Water & rising food needs:** In recent years, up to 40-60% of crops such as corn and sugarcane have found new applications in the production of bio-fuels. The most water intensive aspect of biofuel production is growing the feedstock. When the feedstock is irrigated corn or soy, water consumption

Chart 25: Water and biodiversity risks



Source: World Economic Forum Global Risks 2010 report

per gallon of fuel produced can exceed the water consumption for refining oil by a factor of one thousand. Government targets for the use of biofuels pose challenges for global freshwater resources, in the form of stringent management of irrigation techniques, innovative methods of processing and debates surrounding new technologies such as GM crops.

Investor pressure, water as an opportunity & risk factor

We think investors are showing increasing interest in water both from an opportunity and risk-based perspective. They are increasingly looking at water as a long-term investment theme. In that vein, we note that “Water Utilities” was the No 1 held GICS3 sector among the world’s top 500 Socially Responsible Investment (SRI) funds. They are also looking at it from a physical, reputational, regulatory and legal risk-perspective, focusing on issues such as:

- **Negative impacts from water** including operational disruptions from drought and flooding, poor water quality leading to higher pre-treatment costs, increases in water prices and fines and legal costs.
- **High-impact sectors** which use large volumes of water and wastewater such as the agriculture, beverage, energy, electronics, food, mining and textile sectors.
- **Best practice** initiatives such as awareness of water related risks in terms of business decision making, improving water management and efficiency in internal operations and the supply chain, disclosing corporate water performance and targets, and subsequent efficiency improvements.

Stakeholder pressure, water matters

Recognition of clean water as a human right

In July 2010, the UN General Assembly adopted a resolution declaring a human right to clean drinking water and sanitation by a vote of 122 in favour, none against and 41 abstentions. Brazil, China, France, Germany, Russia and Spain were among those supporting the resolution. Abstaining countries – which included Australia, Canada, the UK and US - said the resolution could undermine a process in the UN’s Human Rights Council in Geneva to build a consensus on water rights. An independent expert is due to report to the Human Rights Council in Geneva later in 2011-12 on countries’ obligations related to water and sanitation.

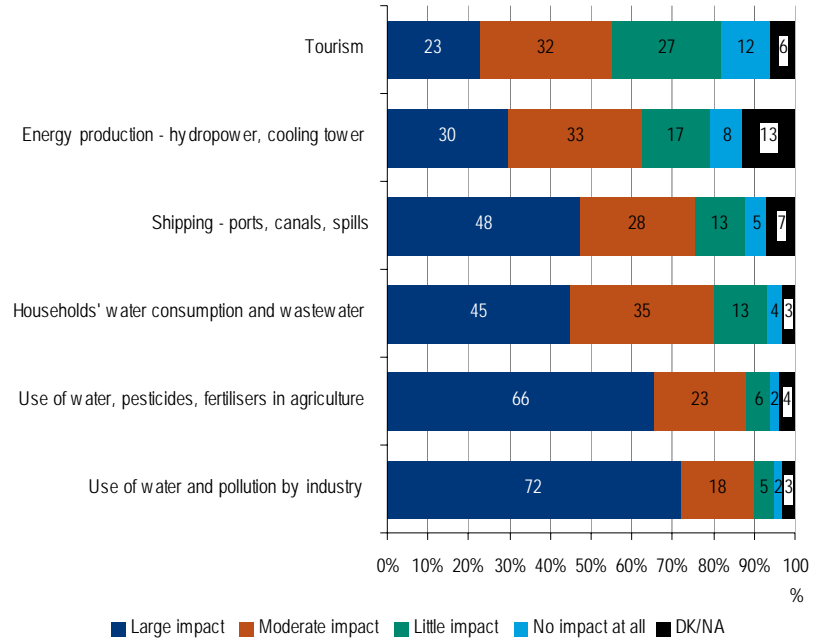
Growing stakeholder awareness

There is also growing stakeholder awareness of challenges around water. Industry needs to be conscious of this sea-change in attitudes as a recent European Consumer poll of citizens shows that consumers have high level awareness of the demand side pressures around water.

The UN resolution "declares the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of the right to life".

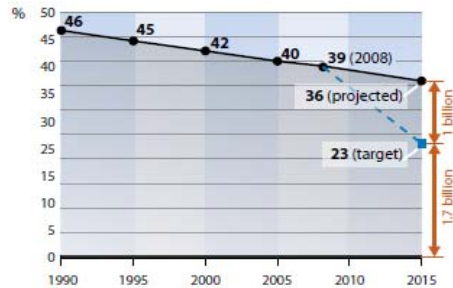
It urges the international community to "scale up efforts to provide safe, clean, accessible and affordable water and sanitation for all".

Chart 26: Perceived impact of various factors on the status of water



Source: European Commission

Chart 27: Population without improved sanitation



Source: UNEP

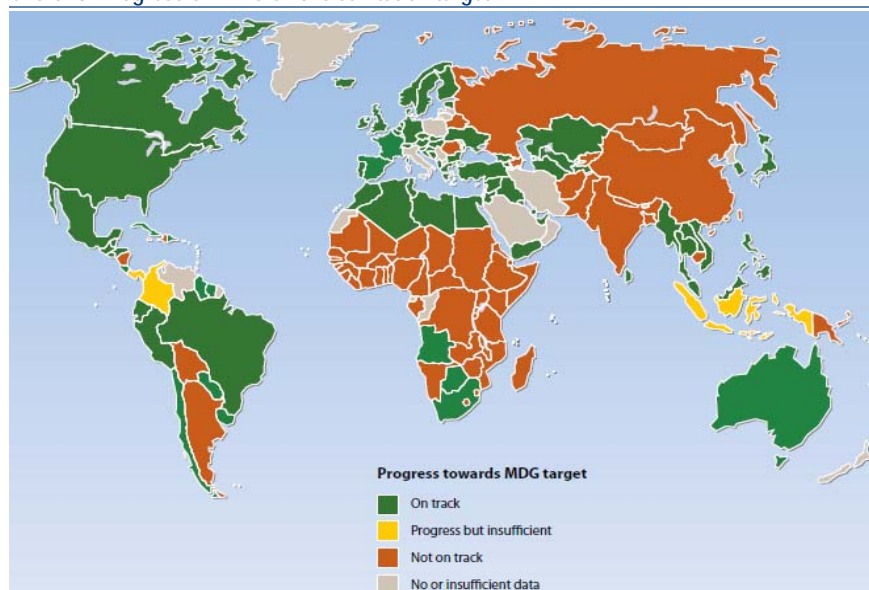
UN's Millennium Development Goals, falling short on water & sanitation

There is also growing acceptance of the need to recognise water as a fundamental human right. For instance, in 2000, governments committed to a wide range of Millennium Development Goals (MDGs) with the aim of reducing poverty and child mortality by 2015. The MDGs include two specific goals related to water:

- **To halve the proportion of people who are unable to access or afford safe drinking water**
- **To stop the unsustainable exploitation of water resources** by developing water management strategies at local, regional and national levels to promote both equitable access and adequate supplies.

The 2010 update on progress towards the water specific goals reports that 884 million people lack access to clean drinking water. When it comes to sanitation, 2.6 billion people have no access to improved sanitation services. One in seven of those without access to adequate sanitation services lives in a rural area. At the current rate of investment progress, the MDGs for sanitation will be missed by 1 billion people. Most of these people live in sub-Saharan Africa and Asia (Source: WHO/UNICEF 2010).

Chart 28: Progress on MDG's 2015 sanitation target



Source: WHO/UNICEF

Up to 50 countries on five continents have been identified as potential locations for future conflicts over water

Imbalance could potentially lead to conflict

Water is an inherently thorny political issue around the world, with the supply vs. demand imbalance manifesting in social unrest, corruption, and the long-term threat of conflicts and wars being fought over water becoming an increasingly widely and seriously accepted reality. The threat of political conflict or other disruption in regions where companies operate or have source inputs is both a humanitarian concern and a significant threat to corporate operations.

Alleged problems of corruption

Corruption in the water sector is a root cause and catalyst for the global water crisis. Leading anti-corruption stakeholder group Transparency International (TI) has identified a range of problems throughout the industry's value chain from policy design and budgeting to building, maintaining, and operating water networks to petty bribery in water delivery to procurement-related looting of irrigation and hydropower funds. TI's International Bribe Payer's Index also identifies public works and construction companies to be perceived – ie, viewed as paying bribes - as the most corruption-prone, and thus most likely to exert undue influence on the policies, decisions and practices of governments. While developing markets have experienced the most problems, corruption has allegedly plagued the tendering of water contracts in the U.S., France and Italy..

Developing country water sector corruption increases household connection costs by up to 30% and costs the industry US\$48bn in annual losses

Poor are paying the greatest price for corruption

The poor already bear the greatest burden of water scarcity – and pay the price of corruption in drinking water and sanitation – as it drains investment from the sector, increases prices and decreases water supplies. In India, for example, corruption is estimated to add at least 25% to irrigation contracts with the proceeds supporting a corrupt system of political handouts and compromised oversight. One perverse result is that poor households in Jakarta, Lima, Manila or Nairobi spend more on water than residents of London, New York City or Rome. Another is that it leads to poor outcomes with TI estimating that in China, bribery is responsible for pollution in some 90% of aquifers in cities and 75% of urban rivers.

Increasing social unrest

The need to tackle water shortages is exacerbating social unrest in many emerging markets where capital intensive infrastructure projects, such as dams and changes to water supply infrastructure, are being undertaken. In the former case, project sites have been the scene of many violent confrontations between communities and governments, whilst changes to community water or tariff increases have led to significant social unrest.

Table 8: Examples of recent water unrest

Year	Country	Overview
2009-11	China	Violent clashes over water pollution
2010	Pakistan	100 killed and scores injured after fighting over irrigation water between tribes.
2010	Pakistan	A water dispute in Pakistan's tribal region leads to 116 deaths
2010	India	Violent protests and injuries after a protest over erratic water supply in New Delhi
2009	China & India	China tries to block a US\$2.9bn ADB loan to India on the grounds that part of it was destined for water projects in a disputed area.
2009	Ethiopia & Somalia	Three killed and a community driven from their homes after a borehole dispute.
2009	India	A family in MP state is killed by a mob after illegally drawing water from a municipal pipe.
2009	India	One person killed after hundreds protest over water rationing & cuts in Mumbai.
2009	Koreas	North Korea releases 40m m3 of water from a dam, causing flash flooding and deaths in South Korea.
2008	Nigeria	Violence after a protest over the price of water.
2008	Pakistan	Taliban threaten to blow up Warsak Dam, Peshewar's main water supply.
2007	Israel	Israel's sanctions against Gaza cause water deprivation.
2007	Australia	Sydney man charged with murder after an alleged fight over water restrictions
2007	Sudan	Four villagers killed after a dam protest.

Source: Press sources

Table 9: Surface water interdependence

International basins	# countries
Danube	17
Congo and Niger	11
Nile	10
Rhine and Zambezi	9
Amazon and Lake Chad	8
Aral Sea, Ganges-Brahmaputra-Meghna, Jordan, Tigris and Euphrates, Mekong	6
La Plata, Neman and Vistula	5
Indus	4
Rhone, Volga	3

Source: ESCP

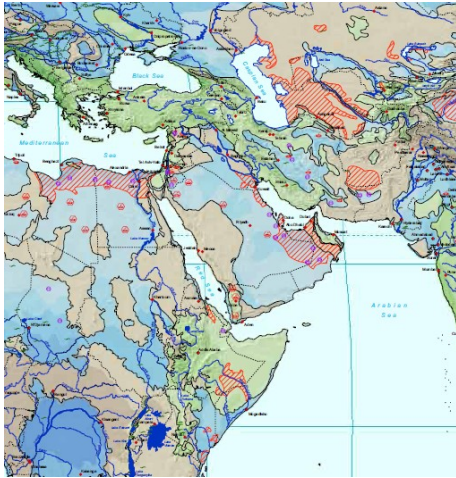
Water set to become a source of international unrest

Water issues are already inherently geo-political with two in every five people living in international water basins. While no nations have ever gone to war solely on the grounds of water (although some of you may know of WW1's Battle of Beersheba), there were 1,831 water conflicts over trans-boundary basins from 1950–2000 (Source: Aaron Wolf et al).

Now, as nations deplete existing resources and infrastructure projects become more far reaching, trans-boundary water disputes – over rivers, seas and groundwater basins – are likely to be an increasing source of risk. We have identified up to 50 countries on five continents as potential locations for future conflicts over water, including:

- **Middle East:** Disputes stemming from the Euphrates and Tigris rivers between Turkey, Syria, and Iraq; and conflicts over the river Jordan involving Israel, Lebanon, Jordan and the Palestinian Territories
- **Africa:** Nile river-related conflicts among Egypt, Ethiopia, and Sudan; also, the Horn of Africa where the ongoing drought, and subsequent famine, has raised concerns over the political stability of the region, which relies heavily on the flows from the Nile. Conflicts could arise if the militarily stronger nations downstream believe their interests in the shared resource are threatened by actions of the upstream nations.
- **Central Asia:** the Aral Sea conflict among Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan and Kyrgyzstan.
- **China vs South Asia:** Indo-Chinese relations have been strained as China plans to divert water from its South to its arid North, potentially meaning that millions of people in India and Bangladesh may lose vital water supplies.

Chart 29: Examples of transboundary aquifers



Source: UNESCO

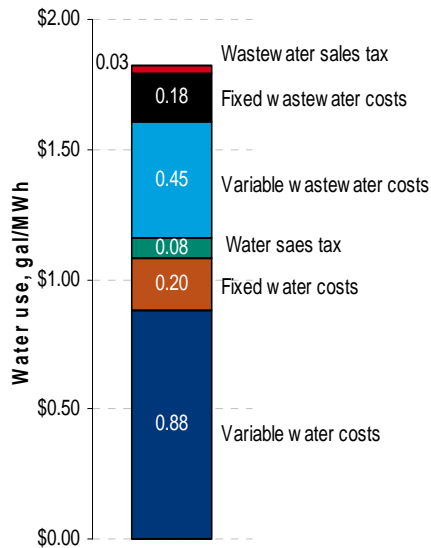
Disputes are also likely to become more nuanced, focusing on trans-boundary aquifers. Almost 96% of the planet’s freshwater resources are to be found in underground aquifers, most of which straddle national boundaries. Of these, 273 are shared aquifers: 68 are on the American continent, 38 in Africa, 65 in eastern Europe, 90 in western Europe and 12 in Asia.

“Hydro-diplomacy”

Water conflict and “hydro-diplomacy” are likely to become hot topics among governments, the media and stakeholders:

- **The United Nations** is aiming to improve understanding of water resources and foster effective water management and facilitate dispute resolution via its Potential Conflict to Co-operation Potential mission. However, it has been unable to agree on whether the UN Security Council should address water conflict or not. Earlier in the year, Russia and China, backed by many developing countries, rejected the notion that the issue even belongs on the Security Council agenda.
- **The World Trade Organization** can arbitrate water disputes between its member states when the disputes are commercial in nature. Because of water’s role in agriculture, this can arise via virtual water and water used in the production of goods and services but not directly traded between countries.

Chart 30: What makes the average water tariff



Source: GWI

Pricing or trading, potential solutions

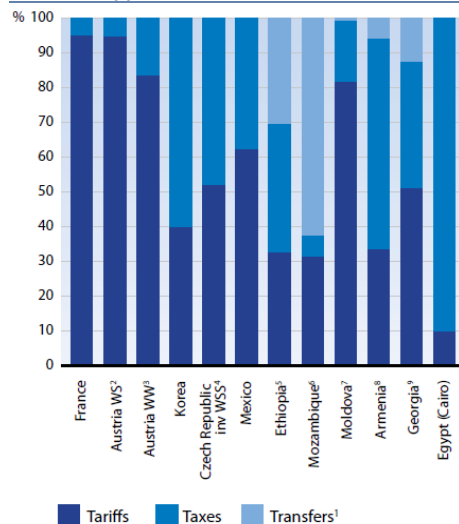
As things stand today, there is often little incentive for efficient water use as water has no price, or is priced too low to act as an incentive for efficient resource allocation. Water costs are significant, encompassing demand, the cost of transport from source to user, treatment and price subsidies. Yet, on average worldwide, municipal suppliers do not charge enough for water to meet even their basic operational and maintenance costs. The reality is that we need to explore new mechanisms such as full cost recovery pricing or water trading – which would explicitly or implicitly incorporate infrastructure, maintenance, provision and administration costs into the water price.

As an example of inefficient pricing, water revenues in New Delhi are less than 20% of what the municipality spends each year to provide water.

Pricing, fuller cost but stakeholder-friendly recovery

Higher water prices could raise incentives for efficient water use, increase cost recovery in the water sector, and enhance the financial sustainability of urban water supply systems. We would see this as largely beneficial for the entire water sector from an investment perspective. It could also be beneficial to many of the world’s poor, who are not connected to municipal water supplies and who have no choice but to pay for informal purchases, which are up to 50x the price that middle- and high-income households pay.

Chart 31: Approaches to water finance



Source: Water 2030

“Water is not a commercial product like any other, but, rather a heritage which must be protected, defended and treated as such” - EU Water Framework Directive’s 1st paragraph

In Europe, the Water Framework Directive, adopted in 2000, requires member states to impose pricing policies to encourage users to consume water more efficiently. However, many markets have no such policy. Moreover, there is no generally accepted pricing mechanism and countries tend to use a mix of three different mechanisms to finance and operate water infrastructure:

- Users can be charged a tariff for the water provided to them
- Tax revenue can be used to subsidise opex and capex costs
- Transfer payment such as grants can be sourced from other countries.

Factors which need to be taken into account include public vs private usage, abundant vs scarce supply, supply to households vs industry vs agriculture and institutional capacity.

Affordability and social equity are key but difficult to achieve

Prices also need to be balanced with affordability and social equity to ensure that lower income and vulnerable consumers are not priced out of the market. This will be key to avoiding social unrest and political opposition (even in developed markets), and for utilities are to maintain their licence to operate. This is no easy challenge given the pressing water infrastructure & O&M needs.

Global water tariffs rose by an average of 8.5% between June 2009 and June 2010 at constant exchange rates. The average combined water and wastewater tariff in the 276 major cities represented in GWI’s 2010 Water Tariff Survey was US\$1.81/ m³. The biggest increases were in Mexico and Eastern Europe, most notably Russia, where unprecedented levels of investment in the sector continue to feed through to customers’ bills.

Table 10: Top 10 water & wastewater tariffs in 2010

Top 10 combined water and wastewater tariff increases		Top 10 combined water and wastewater tariff increases (absolute)	
1. Distrito Federal (Mexico)	86.00%	1. Copenhagen (Denmark)	US\$8.00/m3
2. Chisinau (Moldova)	81.30%	2. Aarhus (Denmark)	US\$7.61/m3
3. Monterrey (Mexico)	65.20%	3. Honolulu (USA)	US\$6.06/m3
4. Rostov-on-Don (Russia)	62.20%	4. Glasgow (UK)	US\$5.89/m3
5. Yekaterinburg (Russia)	51.40%	5. Gent (Belgium)	US\$5.79/m3
6. Karachi (Pakistan)	51.10%	6. Berlin (Germany)	US\$5.67/m3
7. Samara (Russia)	50.90%	7. Sydney (Australia)	US\$5.03/m3
8. New Delhi (India)	46.60%	8. Stuttgart (Germany)	US\$4.93/m3
A. Vladivostok (Russia)	38.30%	a San Diego (USA)	US\$4.90/m3
10. Ulan Bator (Mongolia)	38.20%	10. Frankfurt (Germany)	US\$4.89/m3

Source: Global Water Intelligence

While water pricing will always be controversial, social tariffs are a compromise solution which could provide a lifeline but also facilitate a sustainable financial model by creating disincentives to overuse.

- **Passport tariffs** could reduce charges for one or more defined household groups such as lower-income and/or other vulnerable groups.
- **Block tariff** refers to any general metered tariff in which the first “block” of water used is provided at a lower price than that of subsequent blocks.

Water is not the new carbon in the sense that water trading would probably be local or regional because of its physical characteristics and the difficulty of transporting it over long distances

Other forms of water trading include treated wastewater trading, which would create a financial incentive for suppliers to install treatment technologies

Some of the western states of the US, Chile, South Africa, and Spain's Canary Islands already have water trading schemes

Water trading, price determined by market forces

An alternative to traditional pricing would be water trading, under which the price would be determined by market forces. Many believe water trading has the potential to limit the impacts of water scarcity as it would encourage users to understand the economic value of water and to use it more efficiently. This could work as follows:

- A facility that reduces initial demand or improves the quality of discharge against an established baseline might trade excess demand or allocate it to another facility
- A facility that reclaims water and provides it to an external reuse application might use the corresponding reduction in demand to offset its own water intake.

A hypothetical model for trading

A hypothetical trading structure would be the development of a regional cap-and-trade system in water abstraction licences: a pre-assigned abstraction limit will define the volume of water that licence holders are allowed to abstract in a particular region.

Table 11: Hypothetical water trading model

Factor	Overview
Area under coverage	Defined by the watershed in which the body of water drains
Allowances	Distributed via competitive auctions held at the beginning of each year. The highest bidding firms to receive allowances up to a limit set during an initial consultation period. The total no of licences will be reduced in a systematic fashion once the market has been established
Auction proceeds	Will go towards the funding of R&D
Fully developed market	futures, forwards and options may be purchased to secure supplies in advance of predicted water shortages

Source: BofA Merrill Lynch Global Research

The Australian precedent

Over the past thirty years Australia has carefully constructed a market for water. Under the country's National Water Initiative, water entitlements (permanent) and seasonal allocations (temporary) can be transferred between different entities within the Murray-Darling Basin, which covers a seventh of the Australian continent and includes four states. Currently, water is traded mostly over-the-counter through independent brokers who understand the complex rules in the heavily regulated market. Trading rules are expected to be redefined as part of an overhaul of the Basin Plan, which is to be implemented in 2012.

Many challenges remain

While there is scope for water trading, it is currently constrained in many markets by factors such as the nature of the underlying commodity, a lack of incentives to buy water, a lack of incentives to sell water, complexity in the process of agreeing a bulk supply, and the lack of a clear pricing model around marginal costs (Source: E&Y and Severn Trent).

If we take the UK as an example, regulators are keen to promote water trading to relieve local pressure on water resources. Yet, under current pricing policies, the buyer of water is subject to operating cost efficiency adjustments despite not having ultimate control of the costs. A solution to this problem would be to remove the capital expenditure and operational expenditure costs associated with bulk supplies from the price review process; this is not expected to be considered until the next pricing review at the earliest.

International bulk water trading, highly controversial

The proposal to export water from their natural basins has sparked fierce resistance from stakeholders in some parts of the globe. The Great Lakes region in North America has established laws and regulation to ban the practice. Other water rich nations, such as Russia, have welcomed the idea. Bulk water transfers are not new. For instance, Singapore imports water from neighbouring Malaysia and Lesotho sends water to South Africa via the Highlands Project.

The transfer of water by tanker is a more recent development. Depending on the supply-side issues in the tanker market, water stressed areas in the Middle East, northern China, southern India and parts of Africa could provide sufficient demand to create a market for bulk water shipments. Hoping to identify the regulatory stance on the concept, the New Zealand government submitted an unofficial request to the WHO early in 2009 for guidance on the management and monitoring of the safety of large volumes of water carried by marine vessels. In response, the WHO suggested monitoring at each stage of the transfer to ensure that the quality of water remains above regulatory standards. If transport costs relative to the value of the cargo are favourable, it would not be fanciful to imagine tankers transporting water across the globe.

Table 12: BofAML Water Treatment Stock List

Company	Water exposure (sales)
ALFA LAVAL	<5%
DANAHER	11%
DANONE	17%
ECOLAB	40%
KURITA WATER	100%
NESTLE	7%
SEMBCORP INDS.	4%
TORAY INDS.	<5%

Source: BofA Merrill Lynch Global Research. * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

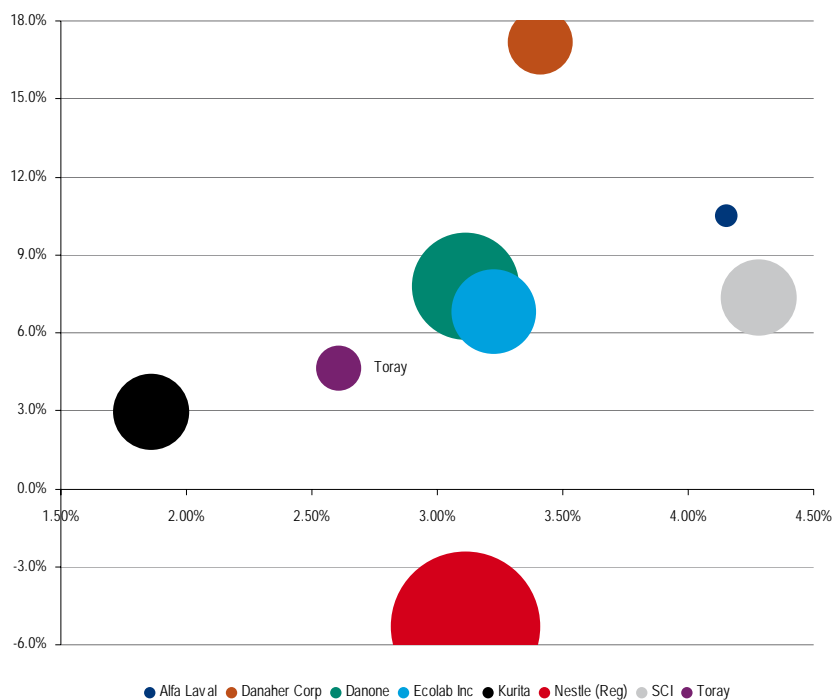
Water treatment solutions

Globally, millions and millions of tons of sewage, industrial and agricultural waste is discharged into the world's waterways every day. The poor are the worst affected with at least 1.8 million children of under five years-old dying every year from water related disease, or one every 20 seconds.

As such, there are huge opportunities around water treatment or the processes used to make water more acceptable for a desired end-use such as drinking water, usage or re-usage by industry, or return to the natural environment. The goal of all water treatment processes is to remove contaminants in the water, or reduce their concentration. Separation solutions include physical (solid separation via settling and filtration), chemical (disinfection and coagulation) and biological (slow sand filters, activated sludge, aerated lagoons) processes – as well as desalination, which is closely related.

We believe that a number of stocks are well placed to benefit from the theme of water treatment through their involvement in areas such as wastewater, industrial treatment, desalination, ballast water treatment, analysis, water quality, and bottled water, among other areas.

Chart 32: BofAML Water Treatment Stock List



Source: BofA Merrill Lynch Global Research. Vertical axis = BofAML company sales CAGR 2011-13e, horizontal axis = BofAML WDW (Who Does What Where) country GDP CAGR exposure, size of bubble = water as a % of sales.

Potable water

Water purification is the removal of contaminants from untreated water to produce potable water (ie, pure enough for human consumption) and its post-treatment conveyance and distribution. Substances that are removed during the process of drinking water treatment include suspended solids, bacteria, algae, viruses, fungi, minerals such as iron, manganese and sulphur, and other chemical pollutants such as fertilisers.

A global challenge

For 1.2 billion people across the globe, access to safe drinking water remains out of reach. For those with access to treated water, especially in urban areas, quality concerns are growing. The main drivers of water purification treatment are the rapid growth of urban areas and new drinking water standards in Europe and North America. In 2009, the American Society of Civil Engineers produced a report on drinking water and wastewater infrastructure standards in the US, awarding the lowest grade possible. Confirmation of these results came from EPA, which suggested that US\$203bn would be required over 20 years simply to address infrastructure shortcomings.

Standards vary widely across the world

WHO guidelines are generally followed as the baseline for drinking water quality requirements – with each country or territory or water supply body also able to set more stringent guidelines:

- **The European Drinking Water Directive** acts a benchmark for all EU Member States. While the member states are allowed to include additional requirements, they are not allowed to lower standards.
- **The Safe Drinking Water Act in the US** requires EPA to establish National Primary Drinking Water Regulations for various contaminants that may cause adverse effects if ingested.
- **China's classification system** uses grades; Grade I refers to the natural water resources protected by the states, Grades II and III refer to the natural water resources that could be used to make drinking water and to sustain the aquatic eco-system. Grade IV water is deemed suitable only for industrial use, and Grade V water is only for agricultural use.

Table 13: Summary of selected national water agencies

Country	Industry bodies	Description
England & Wales	Ofwat	Economic regulator
	Drinking Water Inspectorate	Monitors the quality of drinking water
	Environment Agency	Scrutinizes the companies' environmental performance
	Defra	Oversees water policy and regulation
Scotland	Water Industry Commission for Scotland	Economic regulator
	Drinking Water Quality Regulator for Scotland	Regulates drinking water standards
	Scottish Environmental Protection Agency	Evaluates environmental performance
Australia	National Water Commission	Responsible for driving water reform in Australia
Canada	Canadian National Water and Wastewater Benchmarking Initiative	Tracks and reports the performance of water and wastewater utilities
Portugal	Instituto Regulador de Aguas e Residuos	Responsible for local distribution systems and the retail function
USA	National Association of Water Bodies	Association of privately owned water companies
	United States Environmental Protection Agency	Monitors the quality of drinking water

Source: BofA Merrill Lynch Global Research

New technologies gaining on chlorination

There is no unique solution and municipalities or water utilities will use different processes according to the water source or season. Chlorination was the dominant technology in the disinfection sector for close to 100 years, accounting for 80% of the market. Now, other technologies including ozone treatment, membrane filtration and ultraviolet (UV) treatment, are becoming more widespread as concerns about chlorine use grow.

Table 14: Water purification processes & technologies

Process	Overview
Pre-chlorination	Algae control and arresting any biological growth
Aeration	With pre-chlorination for removal of dissolved iron and manganese
Coagulation	For flocculation
Coagulant aids (polyelectrolytes)	To improve coagulation and for thicker floc formation
Sedimentation	For solids separation (ie, removal of suspended solids trapped in the floc)
Filtration	removing particles from water
Desalination	Process of removing salt from the water
Disinfection	for killing bacteria.

Source: BofA Merrill Lynch Global research

Bottled water

Closely or tangentially related to potable drinking water – depending on investors’ perspectives – is the theme of bottled water. Bottled water is one of the fastest growing segments of the world’s FOB market and already has a 38% share of the refreshing drinks market. The global bottled water market grew by 3.9% in 2010 to reach a value of US\$99bn and is expected to grow by a further 27% to US\$126bn by 2015 (Source: Datamonitor). While the market is highly fragmented, traditional leaders Nestlé and Danone – along with newer entrants Coca-Cola and PepsiCo – command 36% of market by volumes.

Successfully tapped into consumer trends

Bottled water has tapped into divergent consumer trends around the world:

- **Developed markets:** bottled water is a major commercial beverage by registering as an attractive option for health-conscious consumers or vis-à-vis real or perceived health concerns surrounding the quality of tap water.
- **Emerging markets:** bottled water serves as a temporary solution to the problem of unsafe drinking water and/or is a beneficiary of rising disposable income in many countries. Both China and India have seen and will continue to see double-digit CAGR growth in bottled water.

A glass half full or empty, the ongoing debate

Bottled water is the subject of much debate with many stakeholders raising doubts as to its social and environmental utility. The industry does face many challenges including:

- **Embedded water:** Estimates suggest that the embedded water (i.e. the water used in the production of a good) in a 500ml plastic bottle is anywhere between 1-2l.
- **Aquifer depletion and the contamination of water sources** pose a severe problem for many players, especially in regulated markets such as the EU where bottled waters must comply with the European Parliament Directives 80/777/EEC & 96/70/EC (ie, spring water and “mineral water” must come from a specific underground source and be bottled there). Companies offering bottled table water (ie, tap water that has been treated in some way), where water utilities act as main suppliers, are not as vulnerable [to regulatory interventions].
- **Packaging:** The primary roles of packaging are to contain, protect and preserve bottled water as well as aid its handling and presentation. The Essential Requirements regulation in the European Directive on Packaging and Packaging Waste specify that these functions must be met by use of the minimum packaging necessary. Since the bottled water industry’s green

credentials have been challenged, large players have overhauled the composition of their packaging in order to reduce the weight of their bottles and incorporate 100%-recycled/100%-recyclable PET bottle alternatives into their production process.

- **Carbon footprint:** While the carbon footprint of bottled water may be the same as tap water at the time the bottle is filled, if we include packaging and transportation, its carbon footprint becomes substantially larger.

POU systems provide an alternative

Point of use water treatment technologies offer a cost-effective potential alternative to bottled water where the water has already been treated. The POU sector in the US and Europe was valued at US\$2bn in 2009. Pall Corp, a global filtration company, and WaterLogic, which has recently listed on London's AIM, provide exposure to this burgeoning industry.

Waste water & sewage treatment

Sewage treatment is the process that removes the majority of the contaminants from wastewater or sewage and produces both a liquid effluent suitable for disposal to the natural environment and a sludge. To be effective, sewage must be conveyed to a treatment plant by appropriate pipes and infrastructure and the process must be subject to regulation and controls. Some wastewaters require different and sometimes specialised treatment methods. At the simplest level, treatment of sewage and most wastewaters is carried out through the separation of solids from liquids, usually by sedimentation. By progressively converting dissolved material into solids, usually a biological floc that is then settled out, an effluent stream of increasing purity is produced.

Industrial water treatment

Industrial wastewater treatment is a highly differentiated multi-billion dollar market, including equipment, services and chemicals to meet the specialised water quality and water treatment needs of various industrial sectors. Due to the highly differentiated nature of technologies and strong pricing, industrial water treatment sits close to the top of the water value chain. We have already discussed two of the largest consumers, agriculture and energy, but water use is extensive across sectors and we see significant opportunities in mining and ship ballast water treatment, and oil and gas gaining increasing stakeholder scrutiny.

In the US, ageing wastewater management systems discharge billions of gallons of untreated sewage into local surface waters each year

In China, an estimated 70% of lakes, rivers and reservoirs are polluted

The expansion of industries with special water requirements for either quality or reliability will drive growth in this market

Demand for wastewater treatment by sector

Sector	Issue	Market potential
Agriculture	Surface run-off carrying large amounts of fertiliser and livestock slurry are contaminating waterways	Water quality regulations and protection of biodiversity will drive this industry
Chemicals	Wastewater from chemical industries often requires a combination of treatment methods to remove contaminant before discharge	Installed capacity is already at a reasonably high level
Electronics	Semiconductors require regular washing with ultra-pure water during manufacture	
Marine Transport	IMO ballast water regulations are expected to ratified enforcing stricter quality standards	More than 57,000 maritime vessels will require BWT equipment from 2009 to 2020. Potential to generate \$34.1bn in revenues
Mining	Toxic waste and mine effluents can be mobilised by water contaminating local sources	Currently estimated expenditure: \$818.1m
Oil & Gas	Produced water contains residual oil as well as other contaminants. Injection water can block reservoir pores if contaminated with solids and bacteria	More stringent regulations for discharge require exploration wells to closely consider more effective treatment systems.
Pharmaceuticals	Growing concern about the persistence of some pharmaceutical products and their impacts on water resources.	
Textiles	Almost all dyes, speciality chemicals and finishing products are applied to textiles in water baths.	Majority of manufacturers have established treatment systems in place

Source: BofA Merrill Lynch Global Research

Mining, a US\$14bn market by 2014

The mining industry is particularly dependent on water as a key input to the processing system, when the ore is crushed into finely ground tailings and mixed with various chemicals. With more and more miners operating in water scarce regions, there will be significant investment to ensure the security of supply. Moreover, water pollution from waste rock and tailings has prompted national regulators to address the current water quality legislation. One of the problems – in terms of water – is the mechanisation of the industry that has enabled mining companies to handle more rock and, importantly, lower grade ore which generates large volumes of waste.

Table 15: Main impacts of mining on water

Mining impact	Overview
Acid mine drainage	A natural process whereby sulphuric acid is produced when sulphides in rocks are exposed to air and water. Acid mine drainage is, therefore, the same process magnified
Heavy metal contamination & leaching	Caused when such metals as arsenic, cobalt, copper, lead and zinc contained in excavated rock or exposed in an underground mine come into contact with water
Processing chemicals pollution	Occurs when chemical agents (such as cyanide or sulphuric acid) used to separate the mineral from ore spill, leak or leach from the mine site into nearby water bodies.
Erosion & sedimentation	In the absence of adequate prevention and control strategies, erosion of the exposed earth may carry substantial amounts of sediment into streams, rivers and lakes.

Source: BofA Merrill Lynch Global research

As a result of their global presence, excavators have responsibilities to treat water used in operations and implement best practice on water stewardship. By 2014, it is estimated that the mining industry could spend US\$13.6bn (vs. US\$7.7bn today) on water related infrastructure with c.US\$820m spent on chemical treatment filtration and desalination systems (Source Global Water Intelligence). For the companies involved, this presents a fast growing market for water treatment. Specialist providers may even be able to derive additional revenue from metal recovery in mining effluents.

Ship ballast water treatment, a multi-billion opportunity

Ballast water is the seawater pumped into a ship to maintain operating conditions during a voyage and to stabilise a ship's hull when in port. While the ballast water enables safe and efficient shipping operations, it does pose serious environmental problems due to the range of marine species carried in the water. Typically, the seawater contains local plankton, bacteria, viruses, mud and sand picked up in one ecosystem and transferred to the next.

After more than 14 years of complex negotiations between International Maritime Organisation member states, the International Convention of the Control and Management of Ship's Ballast Water and Sediments may finally be ratified. This Convention aims to address the issue of so-called 'invasive marine species' by enforcing mandatory treatment of ballast water. The BWM Convention will come into force 12 months after ratification by 30 States representing 35% of the world merchant shipping tonnage. As of October 2010, 27 countries have ratified the Convention. This presents a considerable opportunity for IMO certified systems manufacturers as 57,000 maritime vessels will require a retrofit. The market is expected to grow at a remarkable CAGR of 50%+ and generate revenues of up to US\$34.1bn until 2020.

Table 16: Companies developing BWT systems

Company name	Stage in development	Ownership
Alfa Laval	Type Approval	Public
Auramarine	NA	Private
OceanSaver	NA	Private
RWO	Type approval	Veolia Env.
Severn Trent De Nora	Sea based testing	Severn Trent
N.E.I Treatment Sys.	Sea based testing	Private
Wartisala	Seeking approval	Public
Wilhelmsen Technical	Type Approval	Public
Calgon Carbon	Type Approval	Public

Source: BofA Merrill Lynch Global Research

Treatment systems to replace current management techniques

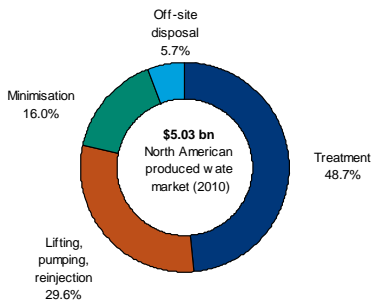
Currently, rebalasting at sea provides the best available means of reducing the risk of transfer of harmful aquatic species, but is subject to serious ship safety limits. Even when performed correctly, this technique is less than 100% effective in removing organisms from ballast water. Some even argue that the technique may, itself, be a contributor to the wider dispersal of harmful species. More than 40 systems are at or close to commercialisation using one or more methods – mechanical, physical and chemical – to treat ballast water.

Oil & gas, up to US\$10bn a year in N America alone

The oil industry produces around 2.5x more water than oil and by 2025, it could be producing 5x more water than oil. The water to oil ratio (WOR) is expected to increase on the back of unconventional O&G such as EOR, shale gas and oil sands – all of which have thirsty water needs. This produced water is often highly saline and contaminated by hydrocarbons: it is a hazardous waste which requires treatment, disposal, and potentially recycling (Source: GWI).

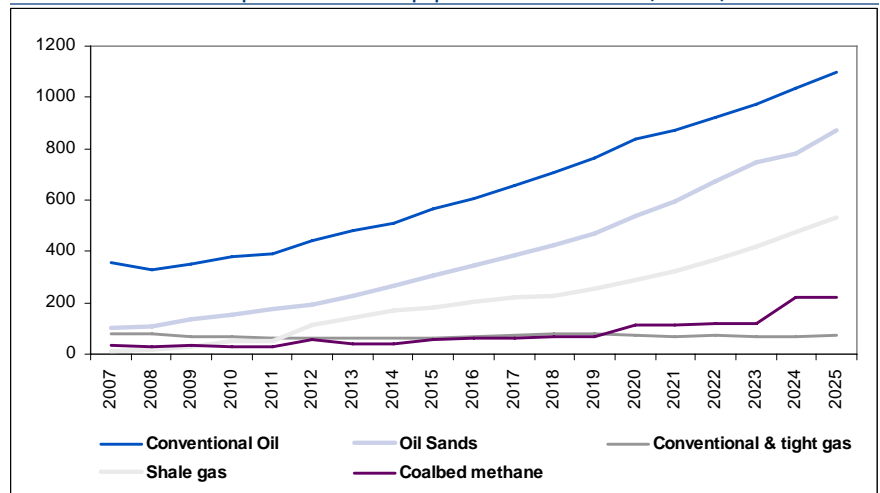
The increased WOR and growing environmental concerns and regulation will, we estimate, see the market for water treatment technologies such as membrane and thermal desalination technologies, filtration systems and biological treatment systems grow at close to 5% pa over the next 20 years. The market in the US alone could grow from an estimated US\$5bn in 2010 to US\$10bn by 2025. Within the sector, the US-produced water treatment equipment market is set to grow from US\$693mn in 2010 to US\$2.9bn during that time, an annual growth rate of 10%, and the desalination technologies market, currently worth US\$59mn, will enjoy the fastest growth rate, averaging 20.4% per year (Source: GWI).

Chart 33: N Am produced water market 2010



Source: GWI

Chart 34: North America produced water equipment market 2007-25 (\$USmn)



Source: GWI

Hydraulic fracturing under pressure

The development of the shale gas sector is controversial because the industry uses large volumes of water withdrawals from ground and surface water, which some believe could impair drinking water resources – as well as posing a contamination risk.

The amount of water needed in the hydraulic fracturing process depends on the type of formation (depth and porosity) and the fracturing operations (well depth and length, fracturing fluid properties, and fracture job design). However, water

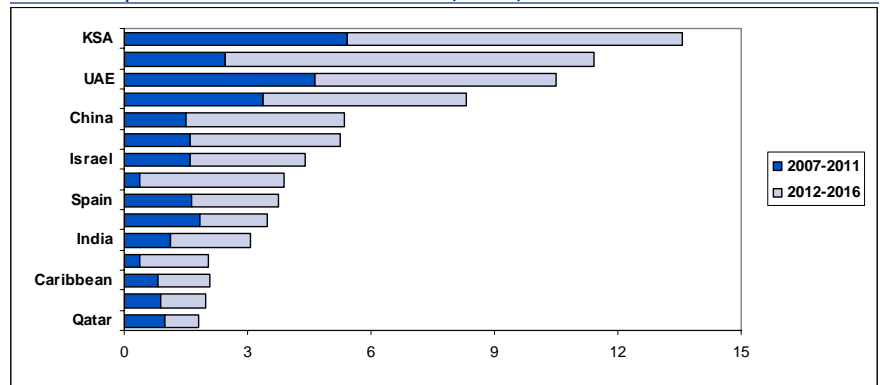
use in shale gas plays is generally estimated at 2 to 5 million gallons per well – although figures can be as high as 13 million gallons (Source: EPA 2011). With companies drilling up to 16 wells per well pad, this amounts to an average of 32-64 million gallons of water per pad. We anticipate that drillers will come under growing pressure to register their water usage, water source and timing of water withdrawal and also disclose a detailed list of chemicals added.

Desalination, a drop in the ocean

Desalination is becoming an increasingly popular solution to plug the gap caused by the depletion of freshwater reserves. By region, we expect:

- **The Gulf area** to remain the largest seawater desalination market as the combination of rapid population growth, depleted groundwater reserves and the retirement of existing plants will require a material increase in capacity.
- **Australia, Central Asia and the US** to remain the largest markets for brackish water desalination, as industrial users become more aware of growing risk of water shortages.
- **Mediterranean Rim** to express greater interest in desalination as the economic and environmental costs of groundwater and surface water abstraction rise.

Chart 35: Top 15 desalination markets 2007-16 (\$USbn)

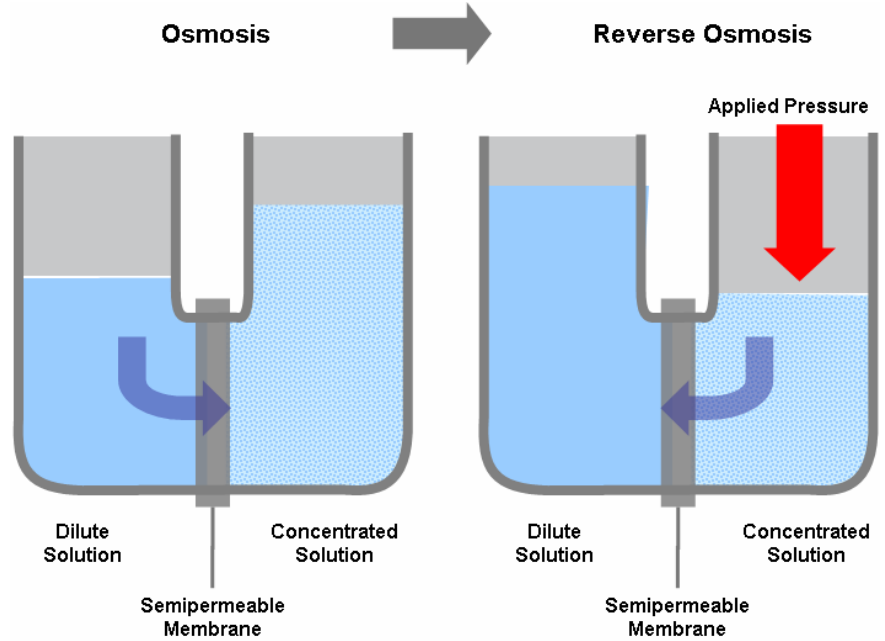


Source: GWI DesalData Desalination Markets 2010

Reverse osmosis in the lead but new technologies gaining

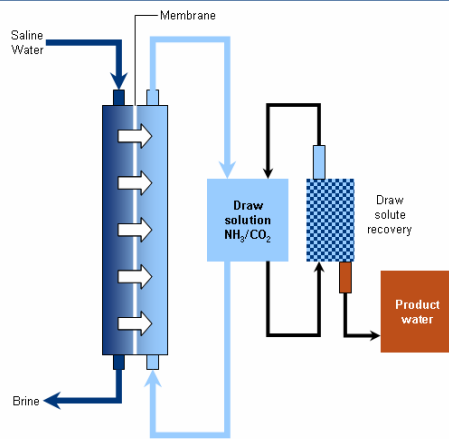
Reverse Osmosis (RO) is rapidly gaining acceptance as the most effective and economical approach for desalinating water. The process involves passing feedwater through a semi-permeable membrane – semi-permeable barrier sheets – at pressure so that the salt remains on one side and allows pure water to pass to the other. Although the lowest cost method, RO is only 20% thermodynamically efficient. Current methods require anything from 8-20KWh of energy to produce 1,000g of desalinated water. Improvements to the technology have slowly filtered into the commercial space as large and small players alike concentrate on improving the productivity of the RO membrane.

Chart 36: Reverse osmosis



Source: National Academy of Sciences

Chart 37: Forward osmosis



Source: Modern Water

Newer technologies becoming commercial

Recently, we have been seeing significant R&D activity aimed at addressing concerns about the required energy input. For instance, forward osmosis is being commercially implemented. In the FO process, a draw solution is used to create a driving force for freshwater to pass through the membrane. The technology, according to Modern Water, can reduce energy use by up to 30% and overcomes the fouling limitation inherent in pressure driven membrane separations. Another option, Vacuum Multi Effect Membrane Distillation uses processes that combine thermal and membrane technologies in a vacuum to boil the feedwater at lower temperatures (50°C to 80°C)

We find it unlikely that membrane distillation will replace RO in the next five years given the price advantage of the incumbent technology. Investment costs for a RO plant are between €700 to €2,000 per m³ of daily production capacity, or US\$3.75 to US\$10.75 a gallon. Ultimately, the selection of a desalination process depends on site-specific conditions, economics, the quality of water to be desalinated, the purpose for which the water is to be used and local engineering experience and skills.

Table 17: Overview of desalination technologies

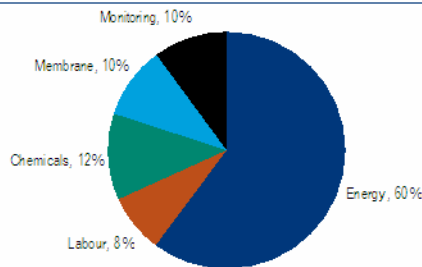
Process	Basic Mechanism	Status	Strengths	Weakness	Future
<i>Phase Change</i>	<i>Salt-Free phase produce</i>				
Thermal	Steam is salt-free, condenses to form pure water. Energy reused	Major Application	Well established	Energy demand	Strong in 'hybrid' systems
Freeze-thaw	Ice is salt-free, thaws to pure water	Not used	Limited	Energy demand	Unlikely
<i>Voltage Driven</i>	<i>Salt ion transport</i>				
Electrodialysis	Ions move through ion selective membranes	Significant for low salt feeds	Well established	Possibly high salts	Strong but unlikely for seawater
Electro deionization	ED combined with ion exchange resin	Possibly growing	Enhanced ED	As above	As above
Capacitive deionization	Ions absorb and desorb on electrode due to DC voltage	Developmental	Removes minor ions	Possibly high salts Energy recovery	Possible

Table 17: Overview of desalination technologies

Process	Basic Mechanism	Status	Strengths	Weakness	Future
Pressure Driven	Water Transport through membrane				
Reverse Osmosis	Pressure > osmotic pressure, water through polymer film, salts retained	Major application	Established Low energy demand relative to thermal process	Energetic efficiency is low	Strong, with advanced membranes
Forward Osmosis	Water passes to draw solute of high OP. Draw solute regenerated to give water	Operational	Lower energy Ambient pressure	Membrane type	Potentially strong
Thermal-Membrane	Water Vapour Transport				
Membrane Distillation	Heated feed evaporates through hydrophobic microporous membrane	Demonstration	Ambient pressure Low grade heat	Availability of low grade heat	Potentially strong
Bio-enabled	Cellular Ion Transport				
Biometric Membranes	Cell wall transports/sorbs ions	Research	Biological process	Development of industrial analogue to biological process	Possible

Source: BofA Merrill Lynch Global Research

Chart 38: O&M costs for desalination



Source: Sembcorp Industries

Environmental impacts are huge

Desalination is a highly energy intensive process, with energy constituting 60% of the operating and maintenance costs of desalinated water. Besides freshwater impacts, a desalination plant emits GHGs and highly concentrated brine. This latter potent liquid can have a highly detrimental impact on coastal water and marine wildlife if left untreated.

Table 18: Energy use of various water supply alternatives

Water Supply Alternative	Energy use – kWh/m ³
Conventional treatment of surface water	0.2-0.4
Raw water imported by state water project in California (w/o treatment)	2.4-2.8
Water reclamation	0.5-1.1
Indirect potable reuse	1.3-2.0
Brackish water desalination	0.8-1.3
Desalination of Pacific Ocean Water	2.6 – 3.7

Source: Water Globe Consulting

Water treatment companies

We have identified the following companies covered by BofA Merrill Lynch Global Research that have exposure to water treatment as percentage of sales vis-à-vis their involvement in wastewater, industrial treatment, desalination, ballast water treatment, analysis, water quality, and bottled water, among other areas. Although it is difficult to accurately gauge the link between such exposure and share price performance (as many factors outside the scope of this analysis play a role in short- and long-term price development), we still consider water exposure as an important positive point to track.

Table 19: List of companies covered by BofAML involved in water treatment

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$m)	Investment Opinion	Water Exposure
ALFA SS	ALFA LAVAL AB	SWEDEN	ALFVF	7,420.88	UNDERPERFORM	<5%
DHR US	DANAHER CORP	UNITED STATES	DHR	31,700.05	BUY	11%
BN FP	DANONE	FRANCE	GPDF	39,541.76	BUY	17%
ECL US	ECOLAB INC	UNITED STATES	ECL	11,924.97	BUY	40%
6370 JP	KURITA WATER INDUSTRIES LTD	JAPAN	KTWIF	3,585.67	UNDERPERFORM	100%
NESN VX	NESTLE SA-REG	SWITZERLAND	NSRGF	183,238.90	BUY	7%
SCI SP	SEMBCORP INDUSTRIES	SINGAPORE	SCRPF	6,373	NEUTRAL	4%
3402 JP	TORAY INDUSTRIES INC	JAPAN	TRYIF	11,648.55	BUY	<5%

Source: IQ, DataStream, BofA Merrill Lynch Global Research . * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

Table 20: Alfa Laval – key data

Analyst's Name	Maslen, Ben		
Analyst's Email Id.	ben.maslen@baml.com		
Analyst's Phone No.	+44 20 7996 4783		
ALFVF	2010	2011E	2012E
Revenues	24,720	28,441	32,074
Operating Profit	4,401	5,080	5,931
Operating Margin	17.8%	17.9%	18.5%
Y-o-Y Growth	9.2%	15.4%	16.7%
Net Profit	3,088	3,441	4,040
Net Margin	12.5%	12.1%	12.6%
Y-o-Y Growth	13.9%	11.4%	17.4%
EBIT	4,401	5,080	5,931
EBIT Margin	17.8%	17.9%	18.5%
EBITDA	5,197	5,875	7,084
EBITDA Margin	21.0%	20.7%	22.1%
Operating Cash Flow	4,005	3,350	4,390
Capex	398	664	849
Free Cash Flow	3,607	2,686	3,541
Net Debt/Equity	- 4.06	- 3.49	- 2.98

Source: Company data, BofA Merrill Lynch Global Research

Alfa Laval (Underperform)

Alfa Laval is global market leader in heat transfer and separation equipment, making heat exchangers, separators, decanters and sanitary equipment. Over 40% of sales are tied to energy production or efficiency, with Marine, Food, Beverage and Pharmaceutical production other key end markets.

Alfa Laval is a water treatment play across both its equipment and process technology divisions, both for municipal and industrial (O&G, power) customers. Its high-speed separators, decanter centrifuges and filters provide excellent separation and it is well positioned in the cleaning of wastewater and reduction of sludge volumes, recycling of effluents, desalination, cleaning of ballast water onboard ships and treatment of bilge water onboard ships. We believe that Alfa Laval is well positioned to deliver solid performance in a weak global economy, given the high percentage of revenues it derives from emerging markets, a solid aftermarket, and its lean manufacturing system. High margins and strong cash flows lend Alfa Laval defensive characteristics and warrant a sector valuation premium, although in our view the current share price already reflects this.

Table 21: Danaher Corp – key data

Analyst's Name	Inch, John G.		
Analyst's Email Id.	john.inch@baml.com		
Analyst's Phone No.	+1 646 855 2454		
DHR	2010	2011E	2012E
Revenues	12,826	16,427	19,683
Operating Profit	NA	NA	NA
Operating Margin	NA	NA	NA
Y-o-Y Growth	NA	NA	NA
Net Profit	1,791	2,182	2,462
Net Margin	14.0%	13.3%	12.5%
Y-o-Y Growth	55.5%	21.8%	12.8%
EBIT	2,160	2,837	3,466
EBIT Margin	16.8%	17.3%	17.6%
EBITDA	2,557	3,507	4,366
EBITDA Margin	19.9%	21.4%	22.2%
Operating Cash Flow	2,084	2,735	3,460
Capex	217	400	540
Free Cash Flow	1,867	2,335	2,920
Net Debt/Equity	8.65	28.03	17.42

Source: Company data, BofA Merrill Lynch Global Research

Danaher Corp (Buy)

Danaher is a Washington D.C. based diversified, global company. It designs manufactures, and markets professional, medical, industrial, and consumer products. It operates through six strategic platforms: Environmental, Electronic Test, Medical Technologies, Motion, Product Identification and Mechanics' Hand Tools that serve its general and niche businesses.

Danaher's water quality business is a global leader in water quality analysis and treatment providing instrumentation and disinfection systems to help analyze and manage the quality of ultrapure, potable and wastewater in residential, commercial and industrial applications. The company continues to build out its global water platform in water testing (Hach), ultraviolet water treatment (Trojan), and industrial water treatment (ChemTreat). We consider Danaher to be one of the best managed industrials in its sector. The Danaher Business System is considered to be the industry gold standard. Segments backed by favorable drivers include environmental test, water treatment, electronic test, microscopy, critical care diagnostics, dental and product ID.

Table 22: Danone – key data

Analyst's Name	Waldschmidt, Robert		
Analyst's Email Id.	robert.waldschmidt@baml.com		
Analyst's Phone No.	+44 20 7996 4412		
GPDNF	2010	2011E	2012E
Revenues	17,010	19,201	20,318
Operating Profit	2,498	2,807	3,103
Operating Margin	14.7%	14.6%	15.3%
Y-o-Y Growth	-0.5%	12.4%	10.5%
Net Profit	1,870	1,762	2,016
Net Margin	11.0%	9.2%	9.9%
Y-o-Y Growth	37.4%	-5.8%	14.4%
EBIT	2,498	2,807	3,103
EBIT Margin	14.7%	14.6%	15.3%
EBITDA	3,092	3,492	3,826
EBITDA Margin	18.2%	18.2%	18.8%
Operating Cash Flow	2,476	2,650	2,894
Capex	832	838	885
Free Cash Flow	1,644	1,811	2,008
Net Debt/Equity	70.25	65.70	50.38

Source: Company data, BofA Merrill Lynch Global Research

Table 23: Ecolab – key data

Analyst's Name	Ridley-Lane, David		
Analyst's Email Id.	david.ridleylane@baml.com		
Analyst's Phone No.	+1 646 855 2907		
ECL	2010	2011E	2012E
Revenues	6,090	6,600	6,997
Operating Profit	NA	NA	NA
Operating Margin	NA	NA	NA
Y-o-Y Growth	NA	NA	NA
Net Profit	531	534	633
Net Margin	8.7%	8.1%	9.0%
Y-o-Y Growth	26.8%	0.6%	18.4%
EBIT	807	831	978
EBIT Margin	13.2%	12.6%	14.0%
EBITDA	1,155	1,069	1,351
EBITDA Margin	19.0%	16.2%	19.3%
Operating Cash Flow	950	559	999
Capex	261	276	294
Free Cash Flow	690	283	705
Net Debt/Equity	28.28	27.76	6.80

Source: Company data, BofA Merrill Lynch Global Research

Danone (Buy)

Danone is a leading global food company specialising in nutrition. The group is the global leader in fresh dairy products, the global number two in infant nutrition and bottled water and a strong regional player in medical nutrition (Europe). Danone's brand portfolio includes internationally well-known names such as Danone, Dannon (US), Evian, Volvic, as well as strong regional brands.

Danone is a water play on bottled water where it is the world No. 2 player. Key brands include Evian, Volvic, Badoit, Aqua, Naya, Lanjarón, Font Vella, Bonafont (Brazil), Villa del Sur, Villa Vicencio. Its water division saw a 5.3% like-for-like increase in sales in 2010-11, double-digit growth in emerging countries and an increase in market share in mature economies in Europe. Category growth and Aquadrinks are growth drivers. For the group, we forecast high-single-digit organic sales growth and an EPS CAGR of 11% in 2011-15E. Volume growth should continue due to exposure to healthier categories, innovation, low penetration rates and emerging markets (49pc 2010 sales). Cost pressures appear manageable (milk costs peaked in 3Q10) and strong organic growth and Unimilk synergies could provide upside to our 2011E EBIT margin of 14.6%. Danone should continue to deploy strong cash flow into bolt-on deals and buybacks, bolstering EPS growth.

Ecolab (Buy)

Ecolab offers cleaning products and services to restaurants, hotels, food & beverage producers and other businesses. The company reports in three service lines: US Cleaning & Sanitizing, US Other Services, and International. In July 2011, Ecolab announced it was acquiring Nalco for US\$5.4bn plus US\$2.7bn of assumed debt.

Ecolab has become a water treatment play via Nalco, which provides integrated water treatment and process improvement services, largely for industry. Ecolab generated just 2% of total revenue in water treatment revenue in 2010. After the acquisition, Ecolab will have US\$4.4bn in water treatment revenue (roughly 40% of the combined entity's 2010 pro forma revenue). The technology of both companies has more similarities than differences. Roughly 90% of Ecolab's chemistry is water-based. While the acquisition adds to execution risks, Ecolab is well positioned to take advantage of the economic recovery, in our view. It has highly recurring revenue, a defensive business, a dominant competitive position, and potential for near-term margin expansion.

Table 24: Kurita Water Industries Ltd – key data

Analyst's Name	Mizuno,Hideyuki		
Analyst's Email Id.	hideyuki.mizuno@baml.com		
Analyst's Phone No.	+81 3 6225 8528		
KTWIF	2010	2011E	2012E
Revenues	178,520	181,234	191,000
Operating Profit	26,358	27,133	28,500
Operating Margin	14.8%	15.0%	14.9%
Y-o-Y Growth	-5.6%	2.9%	5.0%
Net Profit	17,288	17,138	17,000
Net Margin	9.7%	9.5%	8.9%
Y-o-Y Growth	6.1%	-0.9%	-0.8%
EBIT	26,358	27,133	28,500
EBIT Margin	14.8%	15.0%	14.9%
EBITDA	41,881	43,199	44,100
EBITDA Margin	23.5%	23.8%	23.1%
Operating Cash Flow	43,644	29,796	30,145
Capex	19,278	6,014	6,400
Free Cash Flow	24,366	23,782	23,745
Net Debt/Equity	- 19.56	- 24.35	- 32.03

Source: Company data, BofA Merrill Lynch Global Research

Kurita Water Industries Ltd (Underperform)

Kurita is the No. 1 Japanese maker of water treatment chemicals and facilities. Water treatment chemicals and water treatment facilities services account for around 90% of operating profit. The company commands a 25% share of the domestic water treatment chemicals market and supplies around 70% (estimate) of the ultra-pure water needed for the electronics industry. In its medium-term plan, Kurita will focus on services, water treatment chemicals, and its water treatment facilities business mainly in the growing Chinese market.

Kurita is a water treatment pure play. Kurita's earnings link with the production activities of manufacturing industries. We believe that the recovery in domestic demand for water treatment products is likely decelerating. Overseas demand is growing but upside to company's earnings may be limited for the time being. Upside risks include 1) the capture of large new orders in the ultra-pure water supply business, 2) expansion of overseas earnings, and 3) expansion of capex in the manufacturing sector.

Table 25: Nestlé - key data

Analyst's Name	Waldschmidt,Robert		
Analyst's Email Id.	robert.waldschmidt@baml.com		
Analyst's Phone No.	+44 20 7996 4412		
NSRGF	2010	2011E	2012E
Revenues	109,722	84,069	88,031
Operating Profit	38,820	12,496	13,329
Operating Margin	35.4%	14.9%	15.1%
Y-o-Y Growth	159.3%	-67.8%	6.7%
Net Profit	34,233	9,703	10,460
Net Margin	31.2%	11.5%	11.9%
Y-o-Y Growth	228.3%	-71.7%	7.8%
EBIT	38,820	12,496	13,329
EBIT Margin	35.4%	14.9%	15.1%
EBITDA	42,002	14,877	15,807
EBITDA Margin	38.3%	17.7%	18.0%
Operating Cash Flow	13,608	11,127	12,148
Capex	4,576	4,914	4,902
Free Cash Flow	9,032	6,213	7,247
Net Debt/Equity	6.16	7.37	5.85

Source: Company data, BofA Merrill Lynch Global Research

Nestlé (Buy)

Nestle is the world's leading food manufacturer with activities in coffee, bottled water, milk products and dietetics, prepared dishes and pet food, chocolate & confectionery and pharmaceuticals. The company holds a 30% stake in L'Oréal and has JV agreements with several companies.

Nestlé is a water play on bottled water where it is the world's No. 1 (Nestlé Pure Life, Perrier, Poland Spring, S.Pellegrino). Nestle's scale and spread enable it to weather most headwinds and deliver mid-single-digit organic sales growth. In our view, the shares present compelling value after the recent de-rating. Nestlé faces easing comps for margin, input costs and A&P spend in 2H. While we do not see material scope for consensus EPS upgrades in the near-term due to the strong CHF, we expect the shares to be supported by the dividend yield and defensive rotation in the current volatile political and macro environment.

Table 26: Sembcorp Industries - key data

Analyst's Name	Chong,Wee Lee		
Analyst's Email Id.	wee.lee.chong@baml.com		
Analyst's Phone No.	+65 6591 0403		
SCRPF	2010	2011E	2012E
Revenues	8,764	8,825	11,771
Operating Profit	1,180	1,192	1,354
Operating Margin	13.5%	13.5%	11.5%
Y-o-Y Growth	11.8%	1.1%	13.6%
Net Profit	793	771	814
Net Margin	9.0%	8.7%	6.9%
Y-o-Y Growth	16.1%	-2.8%	5.5%
EBIT	1,180	1,192	1,354
EBIT Margin	13.5%	13.5%	11.5%
EBITDA	1,405	1,450	1,670
EBITDA Margin	16.0%	16.4%	14.2%
Operating Cash Flow	1,702	907	1,310
Capex	863	1,024	867
Free Cash Flow	839	117	444
Net Debt/Equity	- 37.56	- 23.59	- 20.51

Source: Company data, BofA Merrill Lynch Global Research

Sembcorp Industries (Neutral)

Sembcorp Industries (SCI) has three businesses: marine engineering, utilities, and industrial parks development. SCI has a 61% stake in SGX-listed Sembcorp Marine, which is its marine engineering arm and largest business division. The second largest business for SCI is utilities, with Singapore accounting for >50% of net profit. The overseas utilities businesses are in rest of Asia & Australia, Middle East and Africa, UK, China, and the Americas, in descending order of earnings contribution.

SCI is a water play via Sembcorp Utilities, which offers industrial and municipal water treatment, water supply and desalination solutions. It is Singapore's No. 1 water management company – with its involvement coming via the acquisition of Cascal, a leading municipal water group. It is also expanding its water treatment business in China. Sembcorp was named the 2011 Global Water Intelligence Global Water Awards' "Water Company of the Year". SCI's appeal to more risk adverse investors remains the relative profit stability provided by its power and water utilities. Still, the Utilities business is only expected to see visible growth from 2H12, when its long gestation projects in Singapore, Middle East, and India start contributing.

Table 27: Toray Industries Inc – key data

Analyst's Name	Kuwahara, Akiko		
Analyst's Email Id.	akiko.kuwahara@baml.com		
Analyst's Phone No.	+81 3 6225 6902		
TRYIF	2010	2011E	2012E
Revenues	1,359,631	1,539,693	1,661,200
Operating Profit	40,107	100,087	127,000
Operating Margin	2.9%	6.5%	7.6%
Y-o-Y Growth	11.4%	149.5%	26.9%
Net Profit	-14,158	57,925	75,300
Net Margin	-1.0%	3.8%	4.5%
Y-o-Y Growth	-13.3%	-509.1%	30.0%
EBIT	40,107	100,087	127,000
EBIT Margin	2.9%	6.5%	7.6%
EBITDA	115,011	170,566	199,000
EBITDA Margin	8.5%	11.1%	12.0%
Operating Cash Flow	166,215	129,214	111,602
Capex	57,467	51,093	108,000
Free Cash Flow	108,748	78,121	3,602
Net Debt/Equity	108.99	60.23	56.73

Source: Company data, BofA Merrill Lynch Global Research

Toray Industries Inc (Buy)

Toray is Japan's largest domestic synthetic fiber maker. It has a solid reputation for R&D and technological depth, is a top global maker of PAN carbon fibers, has strong tie-ups with top users in all business segments and has strong environmental credentials – all of which position it advantageously for growth.

Toray is a secondary water play via its Environment & Engineering business, which produces water treatment membranes, water treatment systems and water purifiers. It has seen increased sales of reverse osmosis membranes and growth in water treatment sales in the US and China. Toray is looking to expand its "green innovation" business globally to ¥500bn in revenues by 2013. We believe carbon fiber sales including those to the aircraft industry will start to contribute to earnings and that profit gains will be especially large for the carbon fiber composite materials and environment & engineering businesses.

Table 28: List of other companies involved in water treatment

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$m)	Investment Opinion	Water Exposure
AIRB MK	ALIRAN IHSAN RESOURCES BHD	MALAYSIA	NR	122.41	NR	100%
AFS LN	AMIAD WATER SYSTEMS LTD	ISRAEL	NR	69.30	NR	100%
ASH US	ASHLAND INC	UNITED STATES	ASH	3,889.33	NA	30%
BWT AV	BWT AG	AUSTRIA	NR	346.35	NR	100%
BNET US	BION ENVIRONMENTAL TECH INC	UNITED STATES	NR	33.68	NR	100%
BQE CN	BIOTEQ ENVIRONMENTAL TECH IN	CANADA	NR	23.57	NR	<50%
BTEC MK	BRITE-TECH BHD	MALAYSIA	NR	8.47	NR	100%
CCC US	CALGON CARBON CORP	UNITED STATES	CCC	825.97	XR VW	43%
GUD AU	G.U.D. HOLDINGS LTD	AUSTRALIA	NR	523.09	NR	28%
HEO CN	H2O INNOVATION INC	CANADA	NR	19.05	NR	100%
HYF SP	HYFLUX LTD	SINGAPORE	HYFXF	1,138.24	XR VW	99%
KRA1V FH	KEMIRA	FINLAND	NR	1,834.12	NR	>75%
6368 JP	ORGANO CORP	JAPAN	NR	459.30	NR	67.40%
PLL US	PALL CORP	UNITED STATES	PLL	5,106.40	XR VW	20%
556 HK	PAN ASIA ENVIRONMENTAL	CHINA	XPNVF	86.27	NR	78%
1065 HK	TIANJIN CAPITAL ENVIRON-H	CHINA	NR	1,117.37	NR	>50%
WTL LN	WATERLOGIC PLC	BRITAIN	NR	230.91	NR	100%

Source: IQ, DataStream, BofA Merrill Lynch Global Research. * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

Table 29: Companies involved in water treatment that we do not cover

Company	BBG ticker	Overview
ALIRAN IHSAN RESOURCES BERHAD	AIRB MK	AIR is an investment holding company. It operates water treatment, rehabilitation of water treatment plants, as well as operation, maintenance, and services of water treatment plants. It operates principally within the water industry and in the state of Johor Darul Takzim, Malaysia. It is the third largest supplier of treated water in Malaysia, which is poised to take on bigger and more diversified businesses within the water sector in Malaysia and the rest of the world. AIR has forged an alliance through Equiventures Sdn Bhd with Suez Environnement.
AMIAD FILTRATION SYSTEMS	AFS LN	AFS is a producer and global supplier of water filters and filtration systems used in two key markets: industrial and municipal market and the irrigation market. It specialises in automatic self-cleaning filters. During 2010 its revenue increased by 29% to US\$89.4mn (2009: US\$69.1m) driven by increased sales in new and growing territories and a return to growth in the irrigation segment primarily due to the contribution from Arkal Filtration Systems which it had acquired. Arkal is one of the leading suppliers of water filtration solutions, with a particular presence in the irrigation market. Its expansion strategy also includes establishing Amiad Andina in Chile and acquiring full control of its subsidiaries in China and France. As a result, they have enhanced their global position by strengthening local presence in new and growing geographies, and gaining direct sales channels in competitive markets.
ASHLAND INC.	ASH US	Ashland Inc. is a diversified chemical company. The Ashland water technologies segment makes chemical and non-chemical water treatment products for industrial, commercial, and municipal customers. This includes influent and wastewater treatment, and boiling and cooling water treatment chemicals. The business was recently expanded with the acquisition of Degussa AG's water treatment business. Its contribution to the overall revenue has constantly increased from a mere 5.7% in 2005 to around 20% in 2010. The Ashland water technologies segment owns and operates 11 manufacturing facilities in eight countries and participates in three joint ventures. Since Ashland provides a portfolio of

Table 29: Companies involved in water treatment that we do not cover

Company	BBG ticker	Overview
BEST WATER TECHNOLOGY AG	BWT AV	<p>water and waste management solutions, the growing concerns about environmental awareness could help the company in expanding its operations to increase its revenues.</p> <p>BWT operates as a water technology company in Europe. It develops and markets water treatment technologies. The company produces filters, water softeners, disinfection devices, dosing systems, fittings and sanitary fixtures. BWT also designs and constructs water supply and waste water treatment plants. The target market of the BWT Group comprises small, compact water treatment products for households, buildings and the pharmaceutical industry, a market that is worth about USD 11 billion globally and whose average annual growth is about 5%. The market structure is mostly dominated by local providers; BWT is one of the companies operating internationally, and is the leader in Europe with a market share of about 30%. In financial year 2010, BWT Group's consolidated revenues went up by €60.0 million to €460.7 million, an increase of 15.0% on the previous year. The 15% increase in revenues led to an improvement in EBITDA of only 3.2% due to a disproportional rise in material and personnel costs. However, EBIT increased by 17.4% as a result of significantly lower depreciation.</p>
BION ENVIRONMENTAL TECH.	BNET US	<p>Bion Environmental Technologies, Inc. designs, markets, and manages waste, waste water, and storm water treatment systems for the agricultural and food processing industries. Bion also produces organic fertilizers, potting soils, and soil amendments by mixing nutrient rich livestock waste with sand, peat moss and pine bark. Bio markets its fertilizers under it Bionsoil label.</p>
BIOTECH ENVIRONMENTAL TECH		<p>BioteQis a clean technology company that treats industrial wastewater and generates revenue from water treatment fees, by-product sales, engineering fees and plant sales. BioteQ has developed technologies for water treatment, sulphate reduction, and lime sludge processing. BioteQ's process plants treat acid and metal contaminated water with concurrent recovery of saleable metals from the water and reduction of total dissolved solids. BioteQ focuses on delivering lower life cycle costs for industrial wastewater treatment by removing dissolved heavy metals and sulphate effectively than conventional treatment systems, producing clean water for re-use or discharge, and recovering valuable metals from waste in the form of saleable products. Its customers include resource companies, utility operators, and regulators. Revenues from metal recovery comprised 46%, Treatment fees 22% and Engineering services and plant sales formed 32% of its total revenues (US\$8.7mn) in 2010 which recorded a 37% increase over 2009.</p>
BRITE TECH GROUP	BTEC MK	<p>Brite-Tech Group is an integrated water purification and wastewater treatment solutions provider and the group's business activities comprise the following business segments: i) Environmental products and services: Complete range of services and products in the field of water treatment and wastewater treatment. It generated 80% of the total revenues in 2010. ii) System equipment and ancillary products: Consultation, engineering design, construction, installation and commissioning of water purification, water recycling and wastewater treatment systems. It generated 20% of the total revenues in 2010. The group believes its expertise is in the analysis of a customer's water purification and wastewater treatment requirements, and the application of company's analytical testing, formulated chemical products, system, equipment and services to provide cost effective solution, essentially, it is a one-stop center for water and wastewater treatment.</p>
CALGON CARBON CORP.	CCC US	<p>Calgon Carbon Corporation manufactures and markets products and services employed for separation, concentration, and purification of liquids and gases. The company participates in six primary areas: Potable Water, Industrial Process, Environmental Water, Environmental Air, Food, and Specialty Markets. The company expects the total global market (Drinking Water Disinfection) to reach US\$125mn by 2015. Calgon Carbon is uniquely positioned to meet steadily rising demand for Reactivated carbon through the current expansion projects. CCC is increasing capacity by approximately 50% at its facility in Feluy, Belgium, which serves much of Europe and is already the largest reactivation plant in the world. To meet the demand for Ballast Water Disinfection (Both the IMO and the U.S. Coast Guard are proposing regulations that will require ballast water treatment in vessels), it is expanding the production, technological, and commercial capabilities of the UV business.</p>
G.U.D. HOLDINGS	GUD AU	<p>G.U.D. Holdings Limited manufactures and markets consumer and industrial products. The company's products includes small electrical appliances, lawnmowers, cleaning products, automotive parts, water transfer pumps and water pressure systems, water treatment systems, security products, swimming pool pumps and spa bath controllers. The company has and is expanding its presence in the water Infrastructure segment. The company's Water Products segment has been developed through recent acquisitions. It manufactures sources and distributes a comprehensive range of products for transfer, conservation and treatment of water. Davey has a high market share in Australia and exports to more than 50 countries, servicing some of the toughest environmental and climatic conditions on earth. Davey Water Products operates in key industry segments: Water Supply: pumping, water conservation and water treatment products for urban, rural, irrigation and commercial applications.</p>
H2O INNOVATION INC	HEO CN	<p>H2O is a water treatment solutions company providing custom designed water treatment systems along with operating and maintenance solutions in Canadian and international communities. The company's technologies are centred on membrane filtration by reverse osmosis and by centrifugation. H2O is seeking to market existing water treatment solutions, as well as its desalination and purification technology. With over 450 systems in operation in Canada, the United States, and around the world, it ranks as the 20th largest global supplier of desalination systems. Their advanced water treatment technologies are said to be among the most environmentally friendly now available which require minimal energy and no harsh chemicals like conventional water treatment systems. The waste treatment segment contributes 100% of its revenues wherein 70% of its sales come from equipment and system sales and 30% from the sale of consumables and services.</p>
HYFLUX	HYF SP	<p>Hyflux Ltd (Hyflux) is a global environmental solutions company. Hyflux Ltd's contribution to the private water industry has been highly recognised. In 2006, the company was given the 'Water Company of the Year' award, at the 'Global Water Awards', by the Global Water Intelligence, UK. Hyflux Limited designs, fabricates, installs, commissions, and maintains</p>

Table 29: Companies involved in water treatment that we do not cover

Company	BBG ticker	Overview
KEMIRA	KRAV1V FH	<p>treatment systems for water purification, wastewater treatment, water recycling, advanced membrane filtration, and high-purity piping systems and equipment hook-up. The company services its customers in several industries, including the electronics, pharmaceutical, chemical, food and beverage, and biotechnology. The municipal sales constituted 90% of group revenue while the industrial sector provided 9%, with sales from Others contributing the remaining 1% in FY10. The group's key markets of China, India, Southeast Asia, MENA and North Africa are confronted with critical water scarcity issues and over the years it is expected to benefit from investments coming in from these governments in water sector. Hyflux's track record includes Singapore's first water recycling plant and seawater desalination plant and China's largest membrane-based seawater desalination plant in Tianjin Dagang. The company is building the world's largest membrane-based seawater desalination plant in Magtaa, Algeria.</p> <p>Kemira is a global chemicals company that is focused on serving customers in water-intensive industries. Kemira's segments – Paper (improve water efficiency), Municipal & Industrial (water treatment chemicals), and Oil & Mining (improved water efficiency) – build on their product and water chemistry expertise. Kemira has created a Center of Water Efficiency Excellence (SWEET) - and research areas include more efficient water use in water-intensive industries, reuse of biomass for energy production, production of fresh water through desalination and sustainable development through water chemistry. Kemira serves over 10,000 customers in approximately 40 countries, including cities, municipalities and industries in Europe, North America and South America, among others.</p>
ORGANO CORP	6368 JP	<p>ORGANO CORPORATION manufactures water treatment equipment and other related peripherals and supplies. The company also produces industrial chemical products such as activated carbon and charcoal, water treatment compounds, and ion exchange resins. Organo's water treatment systems are used for ultra-pure water production in nuclear power and semiconductor manufacturing processes. Organo operates three businesses: (i) the plant business sells water treatment systems, (ii) the solution business maintains and manages delivered systems and (iii) the functional product business sells standard products and chemicals. Organo Corporation is increasingly extending its operations beyond the borders of its home market in Japan to other markets in Asia and around the world, with overseas sales now comprising 15% of the company's sales in comparison to 6% an year earlier. The IT industry, centered on LSI, LCD, and materials for electric devices fabrication, accounts for the largest portion of the company's sales. 65% of the company's sales came from water treatment engineering and 35% from functional products.</p>
PALL CORP	PLL US	<p>Pall Corporation is a supplier of filtration, separation and purification technologies. The company utilizes proprietary filter media and other fluid clarification and separation equipment for the removal of solid, liquid, and gaseous contaminants. Pall has been called the "original clean technology company" since many of its products deliver sustainable social benefits. Pall Corporation is the technology leader in the US\$48bn global filtration, separation and purification industry. Pall Corporation's business is split into two broad groups: Life Sciences and Industrial. The company sells its products to five major markets: medical, biopharmaceuticals, food and beverage, energy and water, aeropower, and microelectronics. Energy and water represents 20% of the company's revenues of US\$2.4 bn. Emerging regions – such as Latin America, Eastern Europe, MENA, China, India, and Southeast Asia – represent about 20% of company sales.</p>
PAN ASIA ENVIRONMENTAL PROTECTION GROUP	0556 HK	<p>Pan Asia Environmental Protection Group Ltd. designs, sells, and installs water and flue gas treatment products and equipment. The water treatment systems produced by the group are mainly used to process industrial and urban wastewater. Water treatment business generated a turnover of approximately RMB492.2mn, accounting for 78.4% of the segmental turnover. Water treatment business is still the main focus of the group's contracts on hands and during the year, the group completed 42 water treatment related sales contracts. The group will continue to focus on the development of water treatment projects and the business will maintain steady growth.</p>
TIANJIN CAPITAL ENVIRONMENTAL PROTECTION GROUP	1065 HK	<p>Construction, design, management, operation, technological consultation, and auxiliary services of sewage water treatment, tap water, and recycled water plants and their facilities in the People's Republic of China. It also involves in the toll collection business; production and sale of recycled water; manufacture, installation, commissioning, and operation of equipment for recycled water; research, development, and promotion of environmental protection technology; manufacture and sale of construction materials, new compound material products, and polymer material products; and technical consultation on new piping materials. In addition, the company provides project consultation services for water processing facilities, environmental projects, municipal projects, highway projects, and transportation projects. Further, it engages in the treatment, recycling, and utilization of sewage water; and production, supply, and sale of equipment and materials relating to water and environmental protection. Tianjin Capital Environmental Protection Group Company Limited is a subsidiary of Tianjin Municipal Investment Company Limited.</p>
WATERLOGIC PLC	WTL LN	<p>Manufacturer and global distributor of mains attached point-of-use drinking water purification and dispensing systems designed for commercial environments. As POU systems are the only products in the company's portfolio, Waterlogic is a pure play water investment. The company's Firewall technology gives the group a distinct competitive advantage within the existing POU market; however, management wishes to expand into new markets to include: kitchen faucets/taps, refrigerators, portable devices and health sector applications. The group also intends to acquire new dealers, distributors and sub-distributors to remain competitive in the consolidating water dispenser market. In 2009, the point-of use sector in the US and Europe was valued at about US\$2bn, according to the company.</p>

Source: Bloomberg, company sources

Water management solutions

Water management has assumed greater importance in recent years as a strategy to improve efficiency and the sustainable use of resources. In a situation of growing water scarcity, fragmented water management (and conflicting interests of stakeholders) is no longer cost-effective or sustainable in the long term. More attention is now being paid to water losses and unaccounted for water, whether it is due to leakages or information deficiencies, which are estimated to cost utilities upwards of US\$20bn/year in lost revenues. There is also growing recognition that the current water crisis is as much a consequence of weak policies and poor management as natural scarcity. Effective water management enables users to reduce their demand, mitigate the risks associated with its shortage and reduce the need for capex intensive solutions.

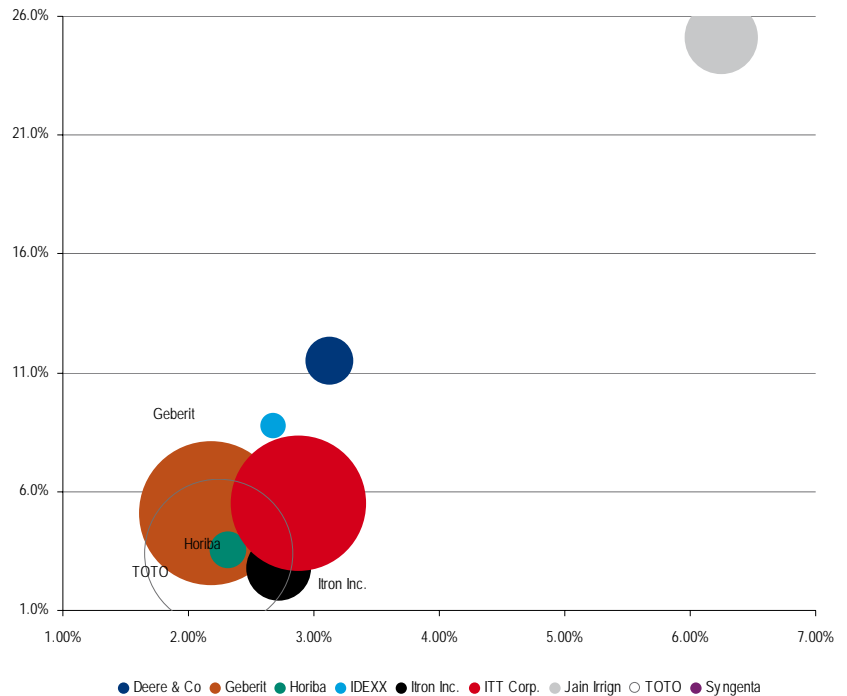
We believe that a number of companies are well placed to benefit from the theme of water management, vis-à-vis their involvement in areas such as leak detection, smart metering technology, irrigation and household water management.

Table 30: BofAML Water Management Stock list

Company	Water exposure (sales)
DEERE & CO	c.1%
GEBERIT	100%
HORIBA	<10%
IDEXX LAB.	7%
ITRON	20%
ITT CORP.	17%
JAIN IRRIGATION	78%
ROPER INDS.	14%
SYNGENTA	NM
TOTO	>50%

Source: BofA Merrill Lynch Global research. * Water exposure = BofAML estimates of % of current sales derived from water related products, services, technologies and solutions

Chart 39: BofAML Water Management Stock List



Source: BofA Merrill Lynch Global Research. Vertical axis = BofAML company sales CAGR 2011-13e, horizontal axis = BofAML WDW (Who Does What Where) country GDP CAGR exposure, size of bubble = water as a % of sales.

Metering, “what gets measured gets managed”

In addition to tackling the huge issue of NRW, there is an increasing realisation that companies can conserve water and reduce costs with more data – which is fuelling the growing application of demand side management. However, existing mechanical water meters (90-95% of the global market) provide limited information on the real-time status of water availability and quality. Moreover, little information is shared and this leads to water stress for downstream users.

‘Smart’ water meters - advanced sensor networks and automation systems are a solution to this problem. Smart water meters are data logging devices that enable

commercial and residential customers to enhance efficiency and analyse water flow in order to detect abnormal water usage or leakage.

Chart 40: Non-revenue water (NRW)

System Input Volume	Authorized Consumption	Billed Authorized Consumption	Billed Metered Consumption	Non Revenue Water (NRW)
		Unbilled Authorized Consumption	Billed Un-metered Consumption	
			Unbilled Metered Consumption	
		Unbilled Un-metered Consumption		
	Water Losses	Apparent Losses (Commercial Losses)	Unauthorized Consumption	
			Customer Meter Inaccuracies and Data Handling Errors	
		Real Losses (Physical Losses)	Leakage in Transmission and Distribution Mains	
			Storage Leaks and Overflows from Water Storage Tanks	
		Service Connections Leaks up to the Meter		

Source: Smart water Newtorks Forum

Benefits of intelligent metering

Existing water networks provide limited information on the real-time status of water availability and quality and there is little sharing of information. Advanced sensor networks and automation systems are a solution to this problem. Smart water meters are data logging devices that enable commercial and residential customers to enhance efficiency and analyse water flow in order to detect abnormal water usage or leakage. On average, a meter can save up to 20 litres of water per day as customers are more aware of the water they use.

Table 31: Smart water management at three levels

Environment

- Water resource mapping and availability
- Water quality monitoring and management (surface and subsurface)
- Land use analysis
- Extraction monitoring (surface and subsurface)
- Flood control

Source: IBM, BofA Merrill Lynch Global Research

Utilities

- Water quality and usage
- Discharge, combined sewer overflow
- Asset management
- “Smart levees” and levee monitoring systems
- Weather event assimilation
- Energy management

Companies

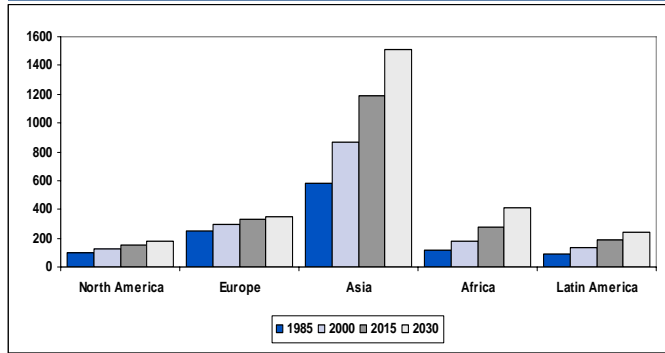
- Water usage tracking
- Water quality control (into and within plants, discharges)
- Supply chain optimisation
- Energy management
- Business process improvements
- Metrics and management

Illegal, unregulated & unmetered water abstraction is rife in EMs and beyond. In Spain, up to 45% of all groundwater pumped to irrigate crops, golf courses and urban developments is thought to be taken illegally

Strong growth drivers

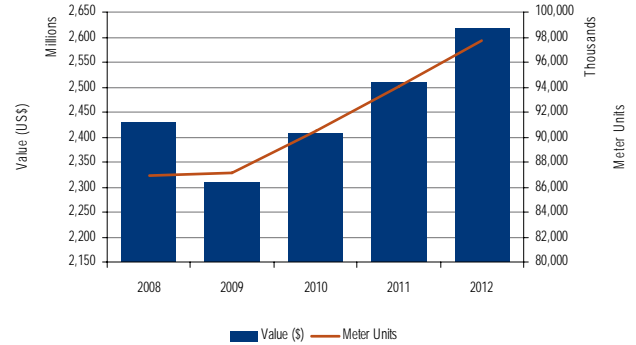
We expect water security, water theft, rising costs and environmental concerns to act as drivers of growth in the smart water meter market. On the demand side, demographic factors such as population growth and household size will determine the rate of growth in residential connections, while economic development and water conservation will constitute demand from commercial and industrial customers.

Chart 41: Number of households by region 1985 to 2030



Source: ABS Energy Research, UN World Population Projections

Chart 42: Annual world demand for water meters



Source: ABS Energy Research (2010)

US\$13bn market by 2020

Globally, the smart meter market is expected to deliver a CAGR of 22.7% from 2011 to 2016 and could reach US\$13.2bn by 2020 (Source: Frost & Sullivan). Smart electric meters continue to dominate the market but smart water meters are not far behind. We believe the mass adoption of smart water meters should follow legislative action by national or supranational governments – although it could be a long term, ie, 10-20 year exercise.

Table 32: European smart water meter roll-out

Country / region	Overview
France	Dependent on the approach of the two largest water utilities Veolia and Suez. Their large market share allows them to install devices at a faster rate than in more fragmented markets
Germany	Already has one of the strongest smart water meter markets in Europe, primarily a result of it being the domicile of many manufacturers
Iberia	An alternative to desalination projects. These devices could be seen as a cheap alternative, therefore be positively affected by the current debt crisis.
UK	The Environment Agency estimates it will take 30 years at current rates for water companies to install meters at all properties where it is reasonably practical to do so

Source: BofA Merrill Lynch Global Research

Many challenges remain

There are still a number of challenges to the mass adoption of smart water meters. Most notable is the lack of an adequate IT and telecommunications infrastructure outside urban environments. Without sufficient bandwidth the information promised by such technology cannot be transferred effectively and will be a barrier to the growth.

Pre-payment meters face legal hurdles over social impacts

Pre-payment meters face a growing legal obstacle as some jurisdictions declare them illegal on the basis of depriving the poor of water. Cases have already been filed in the UK and South Africa, where judges found that the underlying basis for the introduction of pre-payment meters seemed to be credit control rather than water efficiency. Moreover, the provision of 25 litres a day for free was deemed to be insufficient to meet the basic needs of inhabitants in these areas.

Water meters and volumetric tariffs can reduce water consumption

A study by the University of Australia in 2009 concluded that volumetric water charges increase the probability of engaging in water saving activities, such as turning off the tap while brushing teeth, watering the garden at the coolest part of the day, and collecting/recycling rainwater and wastewater. In the same survey,

respondents listed seven factors that would reduce water consumption: 1) practical information on how to save water; 2) money savings; 3) environmental benefits; 4) availability of water efficient products; 5) confidence in water-efficiency labels; 6) lower cost water efficiency equipment; and 7) mandatory water restriction.

Agriculture & irrigation, more crop per drop

Agriculture accounts for approximately 70% of global water withdrawals today and has significant long-term challenges in the form of water scarcity and rising food needs. There is a pressing need to implement better water management practices with the appropriate infrastructure to develop solutions that produce crops with greater water efficiency. Solutions include:

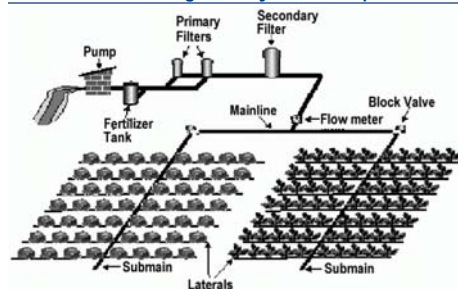
- Improving soil structure: increases surface water storage;
- Weed control using herbicides: lowers the need for tillage, which removes topsoil, and maintains roots, which improves water absorption; and:
- More efficient irrigation systems: deliver water to roots, reducing waste.

More efficient irrigation is a solution

Irrigation provides approximately 40% of the world's food including most of its horticultural output from an estimated 20% of agricultural land (Source: FAO). Given the strong pressure to produce more with less, and a growing awareness about the environmental impact of agriculture, we are seeing a move to rethink the current strategies for intensifying agriculture in favour of more efficient irrigation..

We see significant opportunities presented by the development of more efficient forms of irrigation such as micro-irrigation, trickle irrigation, daily flow irrigation, drop-irrigation, sip-irrigation and diurnal irrigation – all of which fall under the more crop per drop category. The choice of irrigation technology will depend on the local level of development, hydrological situation, political and social institutions, management skills, financial resources, and popular attitudes to water, among other issues.

Chart 43: Micro-irrigation system components



Source: International Commission on Irrigation and Drainage

Table 33: Overview of main types of irrigation

Type	Overview
Surface irrigation	Based on the principle of moving water on land by simple gravity in order to wet it, either partially or completely, before infiltrating. Often this type of irrigation leads to the run-off of chemicals and fertilisers.
Sprinkler Irrigation	Consists of a pipe network, through which water moves under pressure before being delivered to the crop via sprinkler nozzles.
Localized Irrigation	A system whereby the water is distributed under low pressure through a piped network, in a pre-determined pattern, and applies water as a small discharge to each plant. There are three main categories: Drip irrigators: drip emitters are used to apply water slowly to the soil surface Spray or micro-sprinkler irrigation: applies water slowly to the roots of plants through a network of valves, pipes, tubing and emitters Bubbler irrigation: a small stream is applied to flood small basins or the soil adjacent to individual trees
Spate Irrigation	Random irrigation using the floodwater of a normally dry water course or riverbed.

Source: Aquastat, BofA Merrill Lynch Global Research

Drip / micro-irrigation has huge international potential

Micro-irrigation increases land productivity, improves soil conditions and brings about savings in water, energy and fertilisers. Moreover, it has great potential in markets like India where only 8% of feasible irrigated land uses micro-irrigation. Globally, only 14% of irrigated area is using micro-irrigation.

Table 34: International micro-irrigation potential

Region	# countries	Available irrigated area	Sprinkler irrigated area	Drip irrigated area	Total micro-irrigated area	Proportion of available irrigated area
Americas	35	41.9	43.3	1.9	15.2	36%
Europe	35	25.2	10.1	1.8	11.9	47%
Asia	46	194.0	6.8	1.8	8.6	4%
Africa	53	12.5	1.9	0.4	2.3	18%
Oceania	5	2.6	0.9	0.2	1.1	42%
GLOBAL	174	276.2	33.0	6.1	39.1	14%

Source: Jain Irrigation

Indian success story

India has a long history of inefficient irrigation. Over 80% of irrigated agriculture is supported by groundwater but with little control of water extraction, the country faces serious groundwater depletion, leading to seawater intrusion in many coastal zones. However, over the past decade, nearly 9m acres of the country have been converted to drip and other water conserving methods of micro-irrigation. Of the converted farmland, c.5m acres have irrigation systems installed by Jain Irrigation.

India has also been a leader in organic farming techniques with the use of more environmentally friendly fertilisers and crop protection agents – which protects the quality of the groundwater and reduces top-soil runoff. Organic farming techniques such as the System of Rice Intensification (the other SRI) have helped increase yields by over 30% while using 40% less water than conventional methods.

Household water management

Household water management is a rapidly growing sector, comprised of companies that provide the technology and services to improve end-use efficiency for residential customers. Companies providing high-efficiency equipment, including showers, faucets, toilets and other residential and commercial appliances may benefit as water prices rise, limits to economic supply are reached, new regulations are adopted and awareness of efficiency potential increases.

Demand reduction of up to 70%

Household water consists of three main components (grey water, yellow water and brown water) each with diverse properties. While faeces-contaminated brown water contains most of the organic substances, urine-contaminated yellow water contains nearly all the soluble nutrients such as nitrogen, phosphorus, potassium etc. Grey water is domestic wastewater generated from dishwashing, laundry and bathing. Different uses can be derived from each type of waste water. Grey water has received the most attention as it can be channelled back into the household water cycle or be allowed to drain back into the soil for groundwater recharge. Such measures can reduce household water demand in developed countries by 70%, according to US EPA.

Government incentives will be key

One of the principle policy levers of water conservation available to governments and water utilities is to impose a volumetric water charge on households. This

requires that (1) households have water meters (ideally smart meters) and (2) that household water bills depend on the amount of water consumed. Water efficiency best practice voluntary standards, legislation and subsidies, will be critical for the growth of this industry. Some examples include:

- **WaterSense** in the US, which helps people save water with a product label and tips for saving water around the home. To date, WaterSense has enabled the saving of a cumulative 125bn gallons of water and US\$2bn in water and energy bills..
- **The US Green Building Council and LEED**, an internationally recognised green building certification system known as the Leadership in Energy and Environmental Design certificate. The LEED promotes a whole building approach to sustainability by recognising performance in key areas including water efficiency.
- **UK Water Supply (Water Fitting) Regulations 1999** are national requirements for the design, installation, composition and maintenance of water fixtures and fittings. These regulations intend to protect customers and the environment from poor water quality and the misuse of water supplies.
- **Australia's commitment to household water conservation:** In addition to mandatory water restrictions in many parts of the country, many Australians have been voluntarily conserving water by adopting water saving practices and installing water saving devices such as dual flush toilets. The A\$250m National Rainwater and Greywater initiative aims to help people use water wisely in their everyday lives including rebates of up to A\$500 for a household that installs rainwater tanks or Greywater systems.

Despite these examples, significant barriers remain – notably the low price of water and the lack of funding to carry out water-saving projects. Domestic solar initiatives may provide a useful guide, whereby a residence can be rewarded for water efficiency.

Water management companies

We have identified the following companies covered by BofA Merrill Lynch Global Research that have exposure to water management as percentage of sales vis-à-vis their involvement in wastewater, industrial treatment, desalination, ballast water treatment, analysis, water quality, and bottled water, among other areas. Although it is difficult to accurately gauge the link between such exposure and share price performance (as many factors outside the scope of this analysis play a role in short- and long-term price development), we still consider water exposure as an important positive point to track.

Table 35: List of companies involved in water management

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$m)	Investment Opinion	Water Exposure
AGRICULTURE						
DE US	DEERE & CO	UNITED STATES	DE	31,449.95	BUY	c.1%
JI IN	JAIN IRRIGATION SYSTEMS LTD	INDIA	JNIDF	1,365.31	NEUTRAL	78%
SYNN VX	SYNGENTA AG-REG	SWITZERLAND	SYENF	26,485.92	BUY	NM
HOUSEHOLD						
GEBN VX	GEBERIT AG-REG	SWITZERLAND	GBERF	7,523.27	NEUTRAL	100%
5332 JP	TOTO LTD	JAPAN	TOTDF	3,052.88	UNDERPERFORM	>50%
MTRG/MGT						
BMI US	BADGER METER INC	UNITED STATES	NR	508.08	NR	>50%

Table 35: List of companies involved in water management

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$m)	Investment Opinion	Water Exposure
6856 JP	HORIBA LTD	JAPAN	HRIBF	1,315.57	BUY	<10%
IDXX US	IDEXX LABORATORIES INC	UNITED STATES	IDXX	4,233.74	BUY	7%
ITRI US	ITRON INC	UNITED STATES	ITRI	1,426.40	BUY	20%
ITT US	ITT CORP	UNITED STATES	ITT	8,181.00	UNDERPERFORM	17%

Source: BofA Merrill Lynch Global Research, BBG. * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

Table 36: Deere & Co – key data

Analyst's Name		Obin, Andrew		
Analyst's Email Id.		andrew.obin@baml.com		
Analyst's Phone No.		+1 646 855 1817		
DE	2010	2011E	2012E	
Revenues	23,573	28,842	31,489	
Operating Profit	NA	NA	NA	
Operating Margin	NA	NA	NA	
Y-o-Y Growth	NA	NA	NA	
Net Profit	1,865	2,745	3,158	
Net Margin	7.9%	9.5%	10.0%	
Y-o-Y Growth	113.6%	47.1%	15.1%	
EBIT	2,252	3,316	3,895	
EBIT Margin	9.6%	11.5%	12.4%	
EBITDA	2,800	3,916	4,515	
EBITDA Margin	11.9%	13.6%	14.3%	
Operating Cash Flow	2,545	3,295	3,407	
Capex	736	1,100	1,000	
Free Cash Flow	1,809	2,195	2,407	
Net Debt/Equity	4.30	- 17.87	- 23.54	

Source: Company data, BofA Merrill Lynch Global Research

Table 37: Jain Irrigation Systems – key data

Analyst's Name		Deshmukh, Prasad		
Analyst's Email Id.		prasad.deshmukh@baml.com		
Analyst's Phone No.		+91 22 6632 8678		
JNIDF	2010	2011E	2012E	
Revenues	34,200	45,239	56,528	
Operating Profit	5,115	7,003	8,848	
Operating Margin	15.0%	15.5%	15.7%	
Y-o-Y Growth	13.9%	36.9%	26.3%	
Net Profit	2,093	3,579	5,016	
Net Margin	6.1%	7.9%	8.9%	
Y-o-Y Growth	8.6%	71.0%	40.1%	
EBIT	5,115	7,003	8,848	
EBIT Margin	15.0%	15.5%	15.7%	
EBITDA	6,134	8,360	10,543	
EBITDA Margin	17.9%	18.5%	18.7%	
Operating Cash Flow	3,932	6,254	6,398	
Capex	4,657	3,000	3,000	
Free Cash Flow	- 725	3,254	3,398	
Net Debt/Equity	152.26	120.63	93.23	

Source: Company data, BofA Merrill Lynch Global Research

1. Agricultural solutions

Deere & Co (Buy)

Deere is the largest manufacturer/distributor of agricultural equipment worldwide with leading market shares in large farm-equipment segments. DE's three main areas of operation are: 1) Agriculture and Turf (farm equipment, lawn and garden, other outdoor products), 2) Construction and Forestry (construction earth-moving material-handling and timber-harvesting equipment), 3) Credit (financing).

Deere is a secondary water play via John Deere Water, one of the largest irrigation companies in the world. Its micro and drip irrigation products and services enable the efficient and uniform application of water, optimise the use water resources while increasing the quantity and quality of crop yields for permanent and vegetable corps, nurseries and greenhouses, and landscaping. It also offers services such as hydraulic design, irrigation project management, soil moisture monitoring and agronomic support. We consider DE to be the best-managed company in our ag universe. We believe that demand for agricultural equipment in N.A. and W. Europe is likely to remain at historically high levels – and its expansion in the Latin American ag equipment market should allow the company to benefit from a strong ag cycle in the region.

Jain Irrigation Systems Ltd (Neutral)

Jain Irrigation is the market leader in Micro Irrigation Systems in India with a 55% share. It is an early entrant in the Indian agro processing business and is the largest processor of mangoes in India, with marquee clients like Coke, and is the third largest global player in onion dehydration. It also leads in the plastic pipes business and has a solar business.

Jain is a water play on micro-irrigation (54% of FY10 sales) and piping systems (24%). It has a dominant position in India's micro-irrigation market, which is growing at c.30% pa. It has significant long-term growth potential with only 5m ha of India's 61m ha of feasible irrigated area or 5% of the market covered by micro-irrigation. In addition, the government provides a supportive policy framework. Globally, only 14% of the world's total irrigated area is supported by micro-irrigation systems. We like Jain Irrigation for 1) its leadership in its business segments, 2) visible earnings growth, and 3) minimal impact from the global slowdown given a strong focus on India's rural economy. We expect it to continue to lead in Micro Irrigation Systems (MIS) and also scale up agro-processing, leveraging its rural setup.

Table 38: Syngenta AG – key data

Analyst's Name	Stott, Andrew		
Analyst's Email Id.	andrew.stott@baml.com		
Analyst's Phone No.	+44 20 7996 2180		
SYENF	2010	2011E	2012E
Revenues	11,641	13,195	13,599
Operating Profit	1,793	2,375	2,445
Operating Margin	15.4%	18.0%	18.0%
Y-o-Y Growth	-1.4%	32.5%	2.9%
Net Profit	1,397	1,812	1,894
Net Margin	12.0%	13.7%	13.9%
Y-o-Y Growth	-0.8%	29.7%	4.5%
EBIT	1,793	2,375	2,445
EBIT Margin	15.4%	18.0%	18.0%
EBITDA	2,302	2,895	2,965
EBITDA Margin	19.8%	21.9%	21.8%
Operating Cash Flow	1,707	1,919	1,833
Capex	396	400	425
Free Cash Flow	1,311	1,519	1,408
Net Debt/Equity	19.06	13.87	7.01

Source: Company data, BofA Merrill Lynch Global Research

Syngenta AG (Buy)

Syngenta has the number one position globally in the Crop Protection (CP) industry with around a 19-20% market share in 2010. Its Seeds division, accounting for 23% of 2011e sales, is currently a significantly lower margin business than that of CP, with scope to improve materially over the mid-term. Syngenta also reports a loss-making Business Development division, which incorporates R&D costs for new projects such as corn amylase.

Syngenta is an indirect water play on crop protection and technologies, notably via its water-efficient and yet still high-yielding plants. Other examples include its: 1) PaniPipe that allows farmers to monitor water levels below ground, decreasing the need to flood rice and increasing yields; and 2) Invinisa which blocks the natural ageing process of plants giving them a chance to survive in times of moderate drought. It hopes to use its water management systems and novel planting technology to boost sales in 2015 to ~US\$12bn. Some 76% of sales come from Crop Protection. The majority of Syngenta's EBITDA is derived from Crop Protection chemicals. We expect further market share gains, and now foresee a period of recovery in volumes (after a weak 9 to 12-month period) as growers' returns are improving materially. Mid-term we continue to expect a significant improvement in group margins from a shift to biotech products within Field Crops (Seeds) and improved cost efficiencies.

Table 39: List of other companies involved in agricultural water management solutions

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$m)	Investment Opinion	Water Exposure
AGRICULTURE						
CDZI US	CADIZ INC	UNITED STATES	NR	117.66	NR	100%
FSI US	FLEXIBLE SOLUTIONS INTL INC	CANADA	NR	35.82	NR	82%
LNN US	LINDSAY CORP	UNITED STATES	NR	720.39	NR	72%
TTC US	TORO CO	UNITED STATES	NR	1,603.04	NR	19%
TRMB US	TRIMBLE NAVIGATION LTD	UNITED STATES	NR	4,321.30	NR	25%
VMI US	VALMONT INDUSTRIES	UNITED STATES	NR	2,360.87	NR	22.5%

Source: BofA Merrill Lynch Global Research, BBG. * Water exposure = BofAML estimates of % of current sales derived from water related products, services, technologies and solutions

Table 40: Other companies involved in agricultural solutions

Company	BBG ticker	Overview
CADIZ INC	CDZI US	Develops and manages water and agricultural resources in California dedicated to pursuing sustainable projects through the responsible stewardship of outland and water resources. The company's portfolio of assets encompasses landholdings with groundwater resources and water storage availability, agricultural properties with water rights, and contractual water rights. Cadiz also holds technologies for water conservation, reclamation, production, and conveyance. The Cadiz Valley Water Conservation, Recovery and Storage Project is designed to capture and conserve billions of gallons of renewable native groundwater flowing beneath the Cadiz valley that is currently lost to evaporation at nearby dry lakes.
FLEXIBLE SOLUTIONS INT INC	FSI US	Flexible Solutions is an environmental technology company involved in research, development and manufacturing of products that save water and energy. Three products exist to date: Ecosavr™, Heatsavr™, and WaterSavr™. Each product serves as a water evaporation inhibitor in different markets and for various applications. The Ecosavr™ and Heatsavr products are both marketed for the swimming pool market, however, the Ecosavr™ is targeted to residential pool owners and Heatsavr™ is marketed for commercial and public pool markets. WaterSavr™, an evaporation control powder, has a broader number of applications, as it can be applied in just about any evaporation reduction situation.
LINDSAY CORP	LNN US	Lindsay Corporation has been involved in the manufacture and distribution of agricultural equipment for over 50 years. They have grown their sales and distribution network from a regional company, to a major international agribusiness and highway infrastructure firm with worldwide sales and distribution. Lindsay has become a major worldwide force in expanding the benefits of irrigation while making it more efficient. The company's success comes from finding a better way to irrigate almost any crop on varied terrain and soils to increase yields and better utilize natural resources. Lindsay's Infrastructure Segment continues to develop and promote products to make roadways safer for motorists and highway workers worldwide. Lindsay's irrigation segment generates revenue from three primary sources: 1) conversion of dry land to irrigation; 2) conversion from less efficient irrigation methods to mechanized systems; and 3) sales of replacement systems and parts.

Table 40: Other companies involved in agricultural solutions

Company	BBG ticker	Overview
TORO CO	TTC US	Designs, manufactures, and markets a range of turf equipment, including turf and agricultural irrigation systems, spray and rotating nozzles, and the Lynx golf central control system. It has established a manufacturing plant in Eastern Europe to serve increasing micro-irrigation demand and is looking for strategic adjacencies to widen their portfolio of precision irrigation and soil moisture monitors. A leading worldwide provider of innovative turf and landscape maintenance equipment, and precision irrigation solutions, Toro helps customers care for golf courses, sports fields, public green spaces, commercial and residential properties, and agricultural fields.
TRIMBLE NAVIGATION LTD	TRMB US	Trimble Navigation Limited designs, manufactures, and markets electronic products, enabled by Global Positioning System technology, that determine precise geographic location. The company's products are integrated systems for collecting, analyzing, and displaying position data in forms optimized for specific end-user applications. Its field solutions segment is an indirect water play, offering flow and overlap control for efficient chemical and fertiliser application and utility management solutions. Its systems can improve yields by 25%, and reduce water usage by 30%.
VALMONT INDUSTRIES	VMI US	Valmont Industries, Inc. designs and manufactures poles, towers, and structures for lighting, communication, and utility markets and provides protective coating services for infrastructure. The company also manufactures and distributes industrial and agricultural irrigation products in addition to a wide variety of fabricated products for commercial and industrial applications. Valmont is the world's largest manufacturer of mechanized irrigation equipment. Their Valley brand center pivot and linear irrigation equipment reduces agriculture's burden on the world's fresh water supply. Valmont have a global network of experienced dealers in place.

Source: BofA Merrill Lynch Global Research, Bloomberg

Table 41: Geberit – key data

Analyst's Name	Hake,Mark		
Analyst's Email Id.	mark.hake@baml.com		
Analyst's Phone No.	+44 20 7996 1194		
GBERF	2010	2011E	2012E
Revenues	2,147	2,206	2,350
Operating Profit	486	443	479
Operating Margin	22.6%	20.1%	20.4%
Y-o-Y Growth	-7.7%	-8.9%	8.1%
Net Profit	407	370	402
Net Margin	18.9%	16.8%	17.1%
Y-o-Y Growth	2.3%	-9.1%	8.7%
EBIT	486	443	479
EBIT Margin	22.6%	20.1%	20.4%
EBITDA	574	527	572
EBITDA Margin	26.7%	23.9%	24.3%
Operating Cash Flow	564	507	541
Capex	81	100	104
Free Cash Flow	484	407	437
Net Debt/Equity	- 33.74	- 31.15	- 40.24

Source: Company data, BofA Merrill Lynch Global Research

Table 42: TOTO Ltd – key data

Analyst's Name	Hashimoto,Yoshihiro		
Analyst's Email Id.	yoshihiro.hashimoto@baml.com		
Analyst's Phone No.	+81 3 6225 7643		
TOTDF	2010	2011E	2012E
Revenues	421,929	433,557	453,970
Operating Profit	6,391	14,014	16,750
Operating Margin	1.5%	3.2%	3.7%
Y-o-Y Growth	-2.7%	119.3%	19.5%
Net Profit	878	5,114	10,030
Net Margin	0.2%	1.2%	2.2%
Y-o-Y Growth	-103.3%	482.5%	96.1%
EBIT	6,391	14,014	16,750
EBIT Margin	1.5%	3.2%	3.7%
EBITDA	26,966	34,014	36,750
EBITDA Margin	6.4%	7.8%	8.1%
Operating Cash Flow	33,627	28,117	32,385
Capex	11,600	29,000	23,200
Free Cash Flow	22,027	883	9,185
Net Debt/Equity	4.77	7.23	5.77

Source: Company data, BofA Merrill Lynch Global Research

2. Household solutions

Geberit AG (Neutral)

Geberit is a manufacturer of pipes, piping and flushing systems for the residential and commercial sectors. Most manufacturing takes place in Switzerland, but Germany remains the largest single market, accounting for about 30% of revenues last year. By contrast, the US and Eastern Europe each account for barely 5% of group sales.

Geberit AG is a water play on green buildings (water conservation, drinking water quality) via its bathroom fittings such as taps, dual-flush, toilets, drainage systems, traps, pipes etc. Its products can help facilitate certification against LEED and Minergie building standards. While construction and renovation are the key drivers of the company's share price, residential water management is gaining importance on the back of new building efficiency regulations, and urbanisation trends in emerging markets. Geberit has a superb track record despite deriving c.30% of its revenues from the German construction market, which has been in the doldrums for a decade. The group's pricing power should ensure that margins remain sustainable – and it should benefit from expansion into emerging markets and new product introduction.

TOTO Ltd (Underperform)

Toto is the No. 1 domestic Japanese sanitary ware company with a 60% share [of its home market].

TOTO is a water play on green buildings (water conservation) through its bathroom fittings and accessories. The company has a 2011 target of raising the ratio of water saving toilets – 4.8-liter toilets – to 80% of its sales of core toilets. It is looking to accelerate the sale of water-efficient products internationally. It has won high-end market share in the US and China and aims to expand into S.E. Asia where demand for flush toilets and baths is growing. The company is currently implementing its long-term V plan to improve business in the domestic renovation market and achieve growth overseas. Upside risks are (1) an unexpected sharp recovery in housing starts and remodeling, (2) the announcement of major restructuring or M&A deals, and (3) a greater than expected fall in materials prices.

Table 43: List of other companies involved in residential water management solutions

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$m)	Investment Opinion	Water Exposure
HOUSEHOLD						
JY8 GR	JOYOU AG	GERMANY	NR	338.95	NR	100%
021240 KS	WOONGJIN COWAY CO LTD	SOUTH KOREA	WOOJF	2,625.50	XRWW	64%

Source: BofA Merrill Lynch Global Research, BBG. * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

Table 44: Other companies involved in residential solutions

Company	BBG ticker	Overview
Joyou AG	JY8 GR	Designs, produces and sells faucets and other sanitary ware products in China under its own brand as well as other international brands.
WOONGJIN COWAY CO	021240 KS	Develops, manufactures, maintains, and markets environment related products, such as water purifiers, air cleaners, and water softeners. In addition, the company provides water testing service.

Source: BofA Merrill Lynch Global Research, Bloomberg

Table 45: Horiba – key data

Analyst's Name	Takahashi,Ryohei		
Analyst's Email Id.	ryohei.takahashi@baml.com		
Analyst's Phone No.	+81 3 6225 8516		
HRIBF	2010	2011E	2012E
Revenues	118,556	122,689	130,226
Operating Profit	12,284	14,057	16,458
Operating Margin	10.4%	11.5%	12.6%
Y-o-Y Growth	138.8%	14.4%	17.1%
Net Profit	8,062	8,741	10,207
Net Margin	6.8%	7.1%	7.8%
Y-o-Y Growth	155.0%	8.4%	16.8%
EBIT	12,284	14,057	16,458
EBIT Margin	10.4%	11.5%	12.6%
EBITDA	16,807	18,755	23,252
EBITDA Margin	14.2%	15.3%	17.9%
Operating Cash Flow	11,964	13,946	20,942
Capex	4,033	5,500	7,500
Free Cash Flow	7,931	8,446	13,442
Net Debt/Equity	- 21.18	- 26.55	- 34.81

Source: Company data, BofA Merrill Lynch Global Research

3. Metering and management solutions

Horiba (Buy)

Horiba is an industrial testing major. It has a global market share of 80% in auto emission measurement equipment and a top global share in environmental / scientific analysis. It also has top niche products in semiconductor system equipment and is expanding its extensive fundamental measuring / analytical technology into high-growth areas such as medical systems.

Horiba is a water play on its fixed water quality measurement devices for utilities, the pharmaceutical, food & cosmetics industries, and portable monitors. It sees water analysis as accounting for 1% of the global water market and its long-term strategy includes expanding its water business. Automotive measurement earnings, currently recovering, look set to drive short-term earnings. Long term, medical systems have ample room to grow, in our view.

Table 46: IDEXX Laboratories Inc – key data

Analyst's Name	Willoughby,Robert		
Analyst's Email Id.	robert.m.willoughby@baml.com		
Analyst's Phone No.	+1 646 855 5109		
IDXX	2010	2011E	2012E
Revenues	1,103	1,211	1,310
Operating Profit	NA	NA	NA
Operating Margin	NA	NA	NA
Y-o-Y Growth	NA	NA	NA
Net Profit	141	161	177
Net Margin	12.8%	13.3%	13.5%
Y-o-Y Growth	16.0%	13.8%	10.4%
EBIT	204	236	259
EBIT Margin	18.5%	19.5%	19.8%
EBITDA	250	283	307
EBITDA Margin	22.6%	23.4%	23.4%
Operating Cash Flow	175	199	216
Capex	56	70	73
Free Cash Flow	119	129	143
Net Debt/Equity	- 2.28	- 2.06	- 12.13

Source: Company data, BofA Merrill Lynch Global Research

IDEXX Laboratories Inc (Buy)

IDEXX a leading provider of diagnostic and information technology products and services for pet and animal health, water quality and milk safety, and human point-of-care diagnostics.

IDEXX is a water play via the safety of water supplies as the world's No. 1 provider of drinking-water microbiology test kits. Its products, approved in 36 countries and used by medical charities and in natural disasters, provide water-testing solutions on coliform/E. coli, cryptosporidium/giardia, enterococci, pseudomonas aeruginosa, heterotrophic plate count and chlorine. We believe that market share gains captured during an economic downturn should translate into more profitable growth with a veterinary industry rebound that we believe should distinguish IDXX from our other veterinary suppliers and manufacturers that have fewer competitive advantages.

Table 47: Itron Inc – key data

Analyst's Name	Milunovich, Steven		
Analyst's Email Id.	steven.milunovich@baml.com		
Analyst's Phone No.	+1 646 855 1272		
ITRI	2010	2011E	2012E
Revenues	2,259	2,365	2,359
Operating Profit	NA	NA	NA
Operating Margin	NA	NA	NA
Y-o-Y Growth	NA	NA	NA
Net Profit	105	35	149
Net Margin	4.6%	1.5%	6.3%
Y-o-Y Growth	-4758.5%	-67.0%	330.1%
EBIT	175	73	240
EBIT Margin	7.7%	3.1%	10.2%
EBITDA	306	198	384
EBITDA Margin	13.6%	8.4%	16.3%
Operating Cash Flow	255	190	398
Capex	63	69	76
Free Cash Flow	192	121	322
Net Debt/Equity	30.91	16.13	11.84

Source: Company data, BofA Merrill Lynch Global Research

Itron Inc (Buy)

Itron is a leading technology provider to the global energy and water industries. It is the leading provider of intelligent metering, data collection, and utility software solutions, serving nearly 8,000 utilities worldwide. Products include electricity, gas, water and heat meters, data collection and communication systems, including automated meter reading (AMR) and advanced metering infrastructure (AMI), meter data management and related software applications.

Itron is a play on the water management theme, as it provides “smart” measurement solutions to commercial and residential customers. As part of the company’s overall strategy, management plans to expand the water business to over US\$1.3bn worldwide. It also gives exposure to the larger smart grid theme. The shift to more advanced AMI meters should pick up now that standards are progressing to the extent that utilities are more willing to implement them. As a leading name with a strong relationship with networking giant Cisco, Itron's revenue and earnings growth should accelerate. However, we note that the metering upgrade cycle, especially in electric, has developed more gradually than we expected.

Table 48: ITT Corporation – key data

Analyst's Name	Inch, John G.		
Analyst's Email Id.	john.inch@baml.com		
Analyst's Phone No.	+1 646 855 2454		
ITT	2010	2011E	2012E
Revenues	10,995	11,984	12,393
Operating Profit	NA	NA	NA
Operating Margin	NA	NA	NA
Y-o-Y Growth	NA	NA	NA
Net Profit	797	547	973
Net Margin	7.3%	4.6%	7.9%
Y-o-Y Growth	22.9%	-31.4%	78.0%
EBIT	1,230	1,352	1,456
EBIT Margin	11.2%	11.3%	11.7%
EBITDA	1,527	1,702	1,816
EBITDA Margin	13.9%	14.2%	14.7%
Operating Cash Flow	1,234	1,126	1,326
Capex	328	280	300
Free Cash Flow	906	846	1,026
Net Debt/Equity	7.39	2.10	12.53

Source: Company data, BofA Merrill Lynch Global Research

ITT Corporation (Underperform)

ITT Corporation designs and manufactures a variety of engineered products and provides related services. It has operations all over the globe. ITT operates under three business segments: Fluid Technology, Defense Electronics & Services and Motion & Flow Control. Its products include water treatment equipment, space communication systems, aircraft fuel systems, electronic connectors, and friction materials.

ITT is a major water play across the entire water cycle – delivering fresh water to residential and business customers, analysis, treatment, wastewater and transport. The group’s spin-off of its water division to a standalone company by year-end 2011 will create one of the world's largest standalone water companies with roughly 80% of sales from water markets. We believe management's decision to spin off water-related and Defense businesses has largely removed potential capital allocation risks and the associated "conglomerate discount" on ITT shares. However, we expect ongoing military spending pressures to continue to weigh on ITT's overall valuation.

Roper Industries Inc (Under review)

Roper Industries, Inc. manufactures industrial controls, fluid handling, and analytical instrumentation products worldwide. Roper serves selected segments of a broad range of markets such as oil & gas, scientific research, medical diagnostics, semiconductor, refrigeration, automotive, water and wastewater, power generation, agricultural irrigation, and other niche industries.

Roper is a water play via its Industrial Technology segment, which includes water meter and AMR products and systems for water utilities; pumps for irrigation, agriculture and wastewater applications; and instruments and consumables for material analysis and characterisation. Its business is being bolstered by replacement or upgrades to installed water meters and growing demand for AMR solutions. Roper holds a leading position in fragmented sectors, distributing high-tech industrial equipment and analytical instruments for niche applications. It has good customer, geographic, and product diversity. The company generates one third of its revenues outside of the US and has a significantly diversified customer base across different nations.

Table 49: List of other companies involved in metering & water management solutions

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$m)	Investment Opinion	Water Exposure
MTRG/MGT						
BMI US	BADGER METER INC	UNITED STATES	NR	508.08	NR	>50%
ELT US	ELSTER GROUP SE-ADR	GERMANY	NR	1,921.22	NR	22%
ROP US	ROPER INDUSTRIES INC	UNITED STATES	ROP	7,048.85	XRWW	14%

Source: BofA Merrill Lynch Global Research, BBG. * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

Table 50: Other companies involved in metering & water management solutions

Company	BBG ticker	Overview
BADGER METER	BMI US	<p>Badger Meter, Inc. manufactures and markets, flow measurement and control products. Badger's products include water meters and associated systems, wastewater meters, industrial process meters, automotive fluid meters, small valves, and natural gas instruments along with state-of-the-art AMR/AMI systems using the latest communications and software technologies. Since its inception, Badger Meter has earned an international reputation as a leader in the development and manufacture of flow management solutions. Badger Meter is a founding member and ongoing participant in the American Water Works Association (AWWA), the trade group that sets the industry standards for water measurement in the United States. Water application products represented 84.3% of total net sales for Badger Meter in 2010 compared to 89.6% in 2009. International sales for water application meters and related technologies are generally made to customers in Canada and Mexico, which use similar mechanical technology as customers in the U.S. International sales for other water application and specialty application products are comprised primarily of sales of small valves, electromagnetic meters and automotive fluid meters in Europe, sales of electromagnetic meters and related technologies in Latin America, and sales of valves and other metering products throughout the world. Fundamental forces continuing to drive their largest market include the global focus on water conservation and the fact that less than 30% of U.S. water meters have been converted to advanced meter reading technologies. In addition, recent acquisitions and new technologies will continue to generate shareholder value from their water meters, meter reading systems and specialty products.</p> <p>Elster Group SE provides gas, electricity and water meters and related communications, networking and software solutions. The company's products and solutions are used to measure gas, electricity and water consumption as well as enable energy efficiency and conservation. It is a world leader in Advanced Metering Infrastructure (AMI) and integrated metering and utilization solutions to the gas, electricity and water industries. The company's products and solutions are used to accurately and reliably measure gas, electricity and water consumption as well as enable energy efficiency and conservation. Companies water based solutions in various markets are: Water Metering North American market (AMR/AMI solutions; Utility products; Industrial products; Sub-metering products), Water Metering European market and RoW (Residential meters; Bulk meters; Intelligent Metering Solutions) and Energy Metering (Calculators; Compact meters; Temperature and flow sensors; Software) Elster has operations in 38 countries. Water segment provided 21% of the company's revenues in FY10.</p>
ELSTER GROUP	ELT US	

Source: BofA Merrill Lynch Global Research, Bloomberg

Table 51: BofAML Water Infrastructure Stock list

Company	Water exposure (sales)
AECOM TECH.	c.10%
AMERICAN WATER	100%
AVENG	c.10%
BEIJING ENTERPRISES	23%
COPASA	100%
GUANGDONG INVEST.	63%
HERA GROUP	15%
IVRCL INFRASTRUCT.	50%
KEPPEL CORP.	<25%
KSB	12-14%
KUBOTA	16%
MUELLER WATER	>75%
NAGARJUNA CONST.	23%
NORTHUMBRIAN	100%
OBRASCON HUARTE	4%
PENNON	70%
ROTORK	25%
SABESP	100%
SEVERN TRENT	100%
SUEZ ENVIRONNEMENT	100%
URS CORP.	c.5%
VEOLIA	35%

Source: BofA Merrill Lynch Global Research. * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

Water infrastructure solutions

Water and sanitation infrastructure is sorely lacking in many emerging markets and water loss or non revenue water is a considerable problem around the globe. Crumbling and incomplete infrastructure are the primary cause of this. Investing in infrastructure including pipes, valves, meters and the complete distribution network will be critical to improving water loss rates.

Water infrastructure is currently a US\$360bn+ market and is growing at CAGR of up to 6% in some segments. There are lower but stable rates for the highly fragmented utilities sector where only around 10% of customers are served by investor owned companies – and performance depends on regulatory factors as well as fundamental drivers of revenue and cost. The prospects for this segment are, however, very different between developed markets which are focused on maintenance and improving efficiency, and emerging markets which are focused on building out infrastructure.

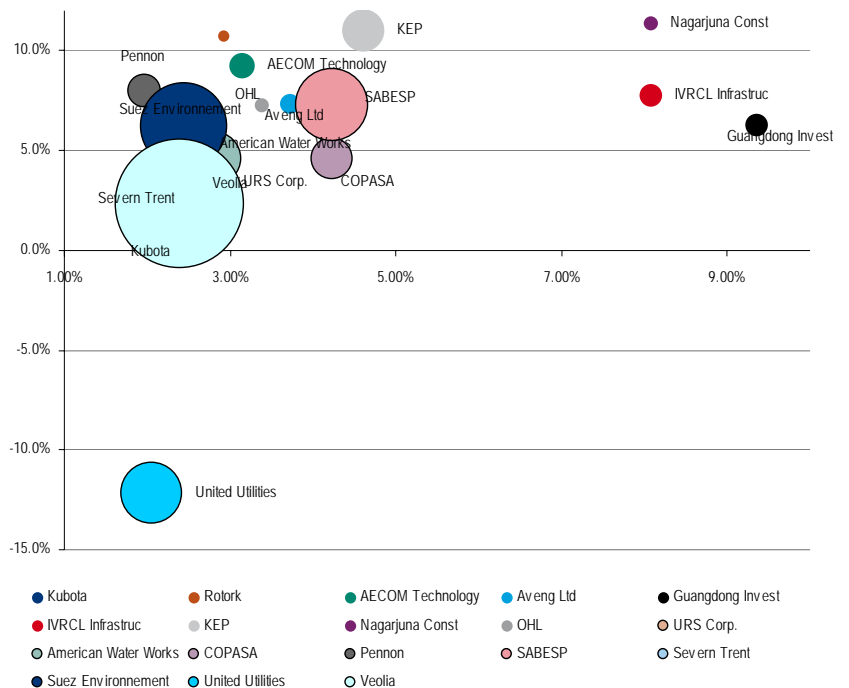
Table 52: Water infrastructure market by segment

	Market volume 2010 (US\$bn)	Expected annual growth (2010 – 2016 CAGR)
Wastewater operating expenditures	134.9	2%
Water operating expenditures	87.3	3%
Engineering, planning and construction	49.7	6%
Pipes	36.2	6%
Pipes rehabilitation services	28.6	5%
Pumps	20.7	6%
Valves	5.9	5%
TOTAL	363.3	NA

Source: GWI Global Water Market 2011

We believe that a number of stocks are well placed to benefit from the theme of water infrastructure, vis-à-vis their involvement in areas such as pipes, pumps and valves; engineering, planning and construction; and dedicated water utilities.

Chart 44: BofAML Water Infrastructure Stock List

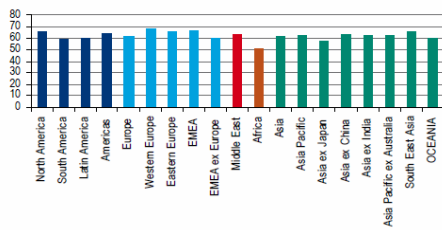


Source: BofA Merrill Lynch Global Research. Vertical axis = BofAML company sales CAGR 2011-13e, horizontal axis = BofAML WDW (Who Does What Where) country GDP CAGR exposure, size of bubble = water as a % of sales.

Water infrastructure, huge financing needs

Financing is critical for ongoing O&M in developed markets and new infrastructure in emerging markets – with annual water investment needs estimated to rise to over US\$770bn for the OECD and BRICs by 2015 (Source: Ashley and Cashman). Water services are more capital intensive than other utilities, requiring twice the capital of electricity utilities with the same annual operating expenses. With growing financial needs, along with a decline in public investments in water, and the lack of private investment being directed to this sector, new strategies need to be found to make much-needed investments. Full cost but stakeholder-friendly pricing is a key tool being considered to address funding gaps (Source: OECD).

Chart 45: Water infrastructure needs by region

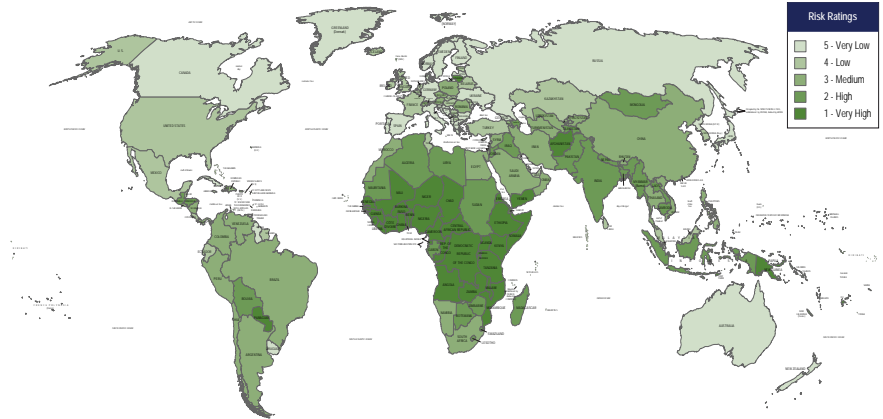


Source: BofA Merrill Lynch Global Research. 0 = higher needs, 100 = lower needs.

Two-speed growth

We expect two separate growth patterns for the water sector. Emerging markets will, in our view, present the highest growth opportunities as they attempt to tackle their burgeoning water needs and develop adequate infrastructure, often from scratch. For developed markets, the task is equally large, but will provide lower growth opportunities as, in many cases, they will be concentrating on upgrading and maintaining their antiquated water infrastructure.

Chart 46: Global water infrastructure needs



Source: BofA Merrill Lynch Global Research

Water infrastructure is 3x more expensive to build and maintain than electricity infrastructure (Source: IBM)

The recession is biting, PPPs a 'must' but under the gun

Water infrastructure spending, unlike water itself, is affected by the macro economy. The investment needed for the global water infrastructure market far exceeds the capacity of public sources to fund it. The past decade has witnessed growth in partnership based procurement around the world such as public-private partnerships. This trend is likely to continue as national governments recognise the correlation between economic competitiveness and the quality of infrastructural provision, but are restricted by the austerity measures and budgetary pressures weighing on governments around the world.

However, we must be conscious of the reality that the financial crisis is having a profound impact on PPP markets. Illiquidity and the erosion in lending capacity within the banking sector globally have led to a marked increase in the cost of debt. This has been compounded by the contraction in risk appetite across the investment community.

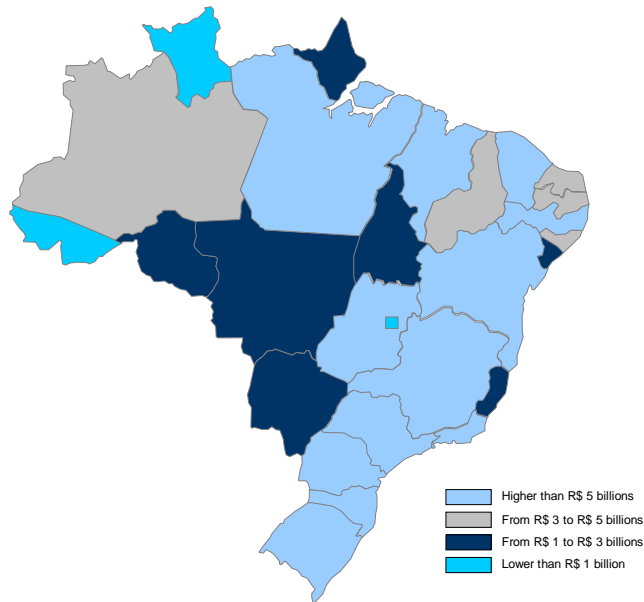
Opportunities in emerging markets Brazil

Cross Reference: Improving Regulatory Outlook

The expected implementation of new regulatory frameworks in 2012 (March for Copasa and September for Sabesp) should be key developments towards achieving Brazil's water goals [Brazil Water Utilities, 08 July 2011](#)

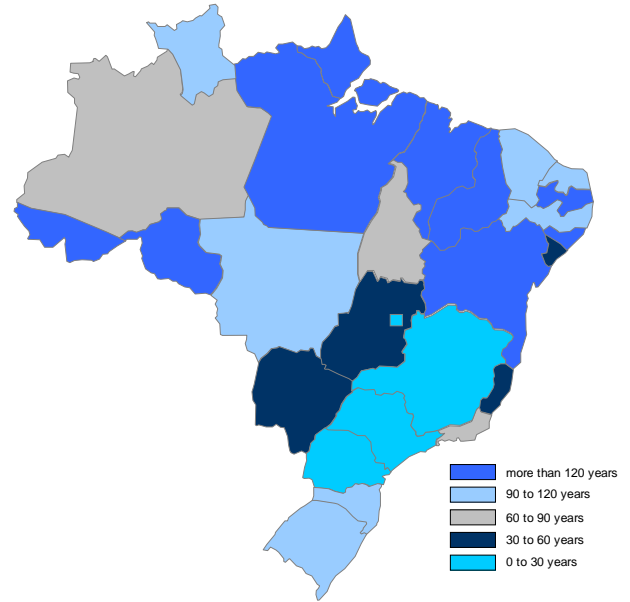
The Brazilian sanitation sector requires substantial investment. With very low coverage levels (81% in water, 43% in sewage collection and 35% in sewage treatment), Brazil requires investments in the order of R\$288bn (US\$180bn) to reach 100% coverage. At the current rate of investment, this would take 60 years to achieve. In addition, the loss levels of the water utilities in Brazil are very high versus the world average (37.4% in Brazil versus 13% on average for the world). With greater regulatory visibility, we believe that in the Brazilian water sector (1) capex will likely start to be remunerated, strengthening state-owned companies' balance sheets and bringing a growth component to the investment cases, and (2) the solid and consistent regulations will likely attract private players to the sector.

Figure 2: Annual investment needs to achieve universal coverage



Source: BofA Merrill Lynch Global Research, Instituto Trata Brasil

Figure 3: Estimated time to achieve universal coverage



Source: BofA Merrill Lynch Global Research, Instituto Trata Brasil

The new sanitation law approved in 2007 requires all sanitation companies in Brazil to have a tariff regime established and regulated by a regulatory agency (state or municipal) by the end of 2012. Currently, the tariff structure does not take into consideration the amount of capex undertaken by companies, so from the perspective of a minority investor, it would be better if companies paid a lot of dividends instead of allocating funds to increase service coverage. The new regulatory framework will align minority, political and company interests as the proposed tariff methodology would be ROA-based in which regulators will establish a regulatory asset base (RAB) that will be remunerated by a regulatory WACC, similar to Brazilian electricity distribution regulation. Thus, EBITDA will start to grow cycle by cycle as capex will be incorporated into the RAB. Given its magnitude it will offset the probable WACC reduction over cycles.

A regulatory framework that adequately remunerates investments should provide the key missing element to attract private investment. We expect this to take place via partnerships with state-owned companies or privatizations over the long term as most of the state-owned companies do not have the necessary

investment capacity to fulfill expansion requirements. This would be similar to what occurred in the electricity, telecom, gas distribution and toll road sectors (and currently being planned for airports).

Russia, infrastructure issues

In Russia, the existing water supply system uses obsolete Soviet-era technology in which key assets are close to exhaustion. According to the Federal Agency for Construction, Housing & Utilities, the present level of wear and tear on wastewater infrastructure ranges from 50% to 70%. An estimated 15tn roubles (US\$459bn) is needed to complete necessary upgrades, refurbishment and new construction for water and sanitation infrastructure by 2020.

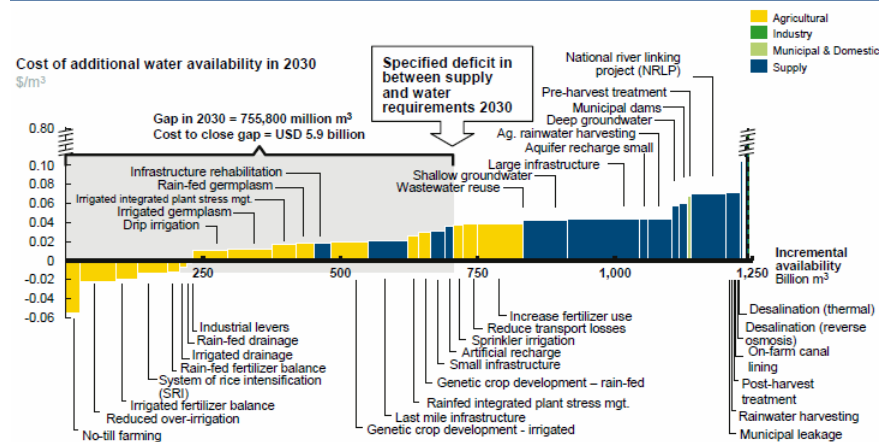
India, recognising the need for investment

India, in its Eleventh Five-Year Plan (2007–12), planned for investments of 127,025 crore (US\$28.3bn) for urban water supply and sanitation, including urban (stormwater) drainage and solid waste management. The Indian government is increasingly acknowledging the importance of water infrastructure given the population pressure and need for greater economic development, and is drafting a new national water policy to be finalised by the end of March 2012.

There has also been a shift away from the earlier state dominated investments whereby the central government played the major role now to one where private investments have a place in the development of the water sector. There are also positive signs that utilities are attempting to reduce their historical reliance on state subsidies and move a step closer to cost recovery. New Delhi implemented a 47% tariff rise at the start of 2010, while Hyderabad and Mumbai each hiked rates by 25% (Source: GWI).

Despite the large investments in inventory infrastructure, India lags behind other countries in water storage. India can still store only relatively small amounts of its seasonal rainfall, so there is a requirement for large-scale storage and supply projects. High-cost solutions like desalination are increasingly finding a foothold in India. The sector is poised to grow in double digits per annum in the coming 3-5 years and is likely to create significant jobs in the private sector. State utilities have also started giving importance to water efficiency projects and agriculture is seen as a major development area.

Chart 47: India – water availability cost curve



Source: Water 2030

Cross Reference

[Investing in China's Water Sector, 08 April 2011](#)

54% of households in China are not connected to water pipelines

Over the next five years China will upgrade and build a total of 150,000km of water pipe

China, deregulation presents investment opportunities

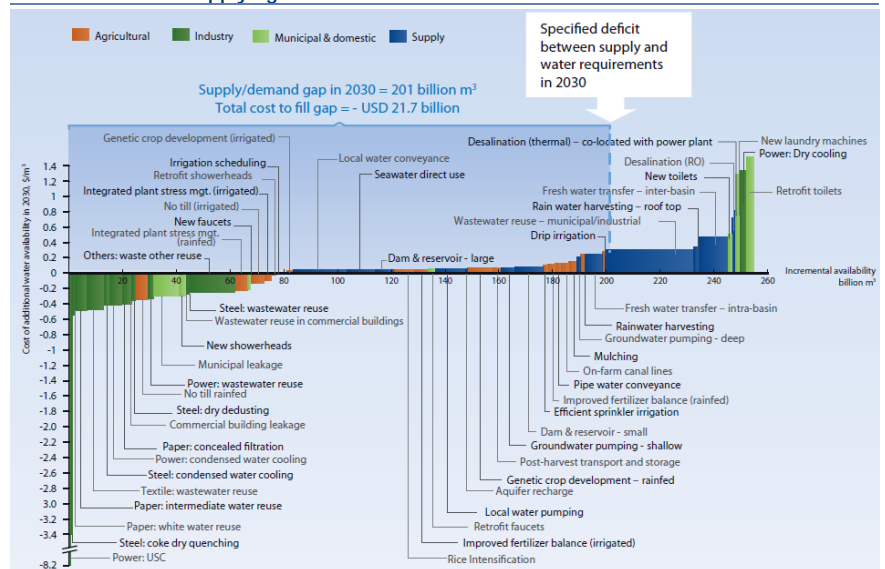
With the largest population and one of the fastest-growing economies in the world, China's demand for water is intense. To cope with this, the Chinese government has launched a number of initiatives to reform the severely under resourced water sector. Companies that stand to benefit from this deregulation process present an interesting investment opportunity, in our view.

The Chinese government is fully aware of the severity of water shortage and pollution in China, and has set into motion a multi-year reform objective to deregulate the water sector. In addition, water tariff adjustments are to be made for the reasons below, as cited by the Nation Development and Reform Commission:

- To improve the returns of water supply franchises
- To raise funding for south-north water transmission projects
- To help conserve the scarce water resources
- To narrow the gap of water tariffs between China and other countries.

In this year's State Document No.1, which usually reflects government priorities for the year, the Chinese government announced measures to improve China's relatively backward water conservancy situation. According to the document, PRC government plans to spend an average RMB400bn per year in 2011-20 on water projects, up from RMB200bn in 2010. We believe this will help expand the scale of water exploration and improve the efficiency of water usage to the advantage of companies exposed to water infrastructure.

Chart 48: Costs of supplying water in China



Source: UNEP

Developed market deficits a barrier to growth

Developed market water networks are often in very great need of modernisation. For instance, the US EPA estimates that US\$636bn will be required over the next two decades to keep American water systems in safe working order. Despite this, the chronic budget deficits of many developed countries could act as a barrier to

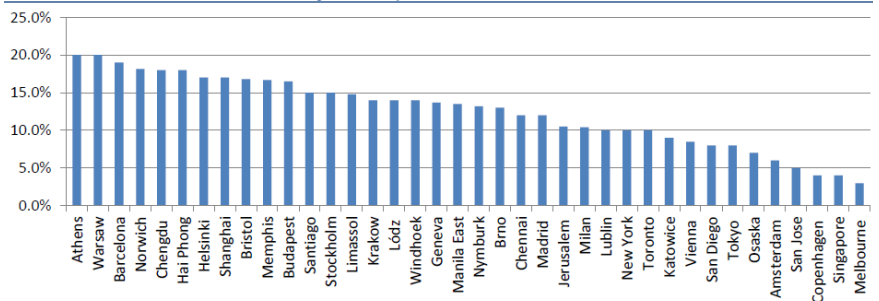
More than 45 million cubic metres per day are lost through leakages. The total cost to water utilities worldwide is estimated at more than US\$14bn per year

activity in this segment of the water industry for some time. Indeed, political considerations have often overridden decisions to address infrastructure needs due to the disruptive nature of network improvements and the lack of public interest that water has generated in the past.

Focus on maintenance, water loss & NRW

Water loss or non-revenue water (NRW) is a considerable problem around the world, especially in emerging markets. But even in developed markets, water losses from creaking supply systems and inefficient irrigation can exceed 50%. The American Society of Civil Engineers estimates that 26.5mn m³ of safe drinking water (or 15% of the total) is lost every day in the US as a result of their antiquated distribution systems.

Chart 49: NRW is an issue in many developed market urban areas



Source: Smart water Networks Forum

NRW comprises three components: physical losses including leakage and overflow; commercial (or apparent) losses caused by customer meter under registration, data-handling errors, and theft of the utility for operation purposes and water used for free by certain consumer groups; and unbilled authorised consumption. All are considerable issues for every water utility because it is a straight hit to their top line.

Given that the majority of water distributors rely on municipal contracts and funds to conduct their investments, there are growing opportunities for affordable management practices rather than expensive replacement projects. Water utilities primarily consider their estimated current level of leakage in comparison with a notional economic level of leakage – the point at which the cost of reducing leakage is equal to the benefit gained from further leakage reduction.

Utilities usually estimate when pipes need replacing from a number of variables – age, soil type, etc, but this is time consuming and inefficient. There are a number of small private companies involved in providing IT-orientated infrastructure management solutions. The technology ranges from stethoscope-like devices that are pressed against the asphalt to detect leakage, to miniature sensors that are inserted into the sewer mains. We see this as an exciting segment of supply-side water management.

Table 53: Companies involved in water management software

Company	Ownership	Description
Innovyze	Private	Leading provider of wet infrastructure modelling and simulation software
Pure Technologies	Private	Technology driven solutions for infrastructure asset management
Syrinx	Private	Leading developer of smart pipeline technology
Fuji Tecom Inc.	Private	Manufacturer of leak detection and measurement instruments

Table 53: Companies involved in water management software

Company	Ownership	Description
TaKaDu	Private	Provider of IT software that searches for patterns in data to detect problems within the water supply system
Hydropoint	Private	Provider of monitoring and metering for landscape irrigation
Echologics	Private (Mueller Water Products)	Provider of leak detection and assessment services using acoustic expertise

Source: BofA Merrill Lynch Global Research

France, a long history in private sector participation

France has been a pioneer of PSP in the water sector. Since French water services belong to a specific category of public service called industrial or commercial public services, a local public authority can delegate the management of the water service to a private firm. In the case of private management, the relationship between the local municipality and the firm can take different forms: management contracts, affermage (lease contracts) where the municipality remains the owner of assets, and concessions where the private operator is responsible for financing all new investments over the period of delegation. Affermage is the most common form of contract, usually awarded for 12-15 years.

Table 54: French water utilities

Name	Symbol	P/E Ratio			EV/EBITDA			Dividend Yield (%)		
		2010A	2011E	2012E	2010A	2011E	2012E	2010A	2011E	2012E
Suez Environnement	SZEVF	15.48	13.85	12.08	8.03	6.53	6.01	4.94	5.56	5.90
Veolia	VEOEF	8.86	8.91	8.25	7.49	6.83	6.44	10.96	11.75	11.75

Source: BofA Merrill Lynch Global Research

Cross Reference

[UK Water Utilities, 28 June 2011](#)

United Kingdom: defined by M&A & regulatory reform

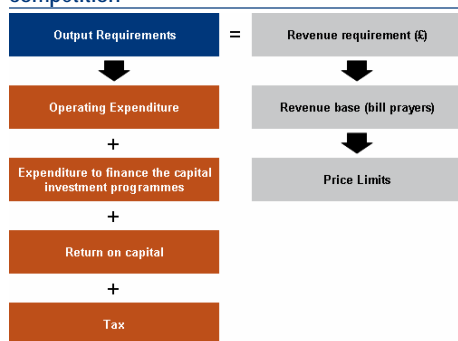
Takeover activity has defined the UK water utility market in recent years, highlighted by the recent acquisition of Northumbrian Water by CKI investments for US\$3.9bn. Three listed water utilities remain: Severn Trent, Pennon and United Utilities. These stocks offer potential exposure to the water scarcity theme as the UK climate becomes hotter and drier. In the meantime, UK water stocks offer the purest exposure to high UK inflation among utilities. With interest rates low and set to remain low in a stagnating economy, the potential for inflation driven tariff increases remains: +1% higher RPI = c2% on water valuations.

Table 55: M&A Activity prior to Northumbrian Water Takeover

Month-Year	Target	Acquirer	Deal EV (£bn)
Oct-06	AWG	Osprey Consortium	5.57
Oct-06	Thames Water	Kemble Water	8.00
Oct-07	Southern Water	Greensands	4.20
Nov-07	Keida	Saltire Water	5.55
Jul-10	EDF DNO	CKI/HEH	5.21
Mar-11	E.ON DNO	PPL US	4.20

Source: BofA Merrill Lynch Global Research, OFWAT, EDF, E.ON

Chart 50: UK price setting under yardstick competition



Source: Ofwat, BofA Merrill Lynch Global Research

UK water regulator Ofwat is proposing some significant changes to the current regulatory structure, such as retail competition and price limit separation. These changes would:

- Enable more competition and allow non-discriminatory network access
- Encourage companies to move water from areas where it is plentiful to those where it is relatively scarce, thus reducing over abstraction and water scarcity.

Nevertheless, we do not expect revolutionary reforms but rather a gradual adjustment over the next 5 -10 years. The government White Paper on Water expected later this year should provide greater clarity on future reforms.

UK utilities actively set water leakage forecasts and reduction targets

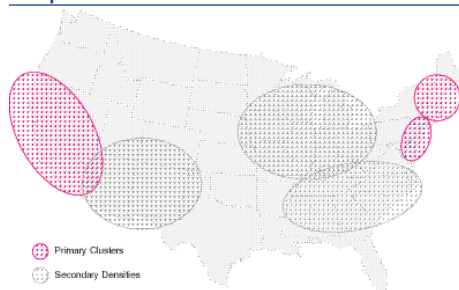
Since privatisation, investment in the British water industry has focused principally on developing the supply network to reach the standard of European counterparts. Over the next 20 years, much of the investment is expected to be maintenance orientated to reduce the levels of leakage and disruption in supply. Manufacturers of the maintenance equipment required by the utilities are likely to be positively affected by such a strategy. A major impact of the increasing competition from the private sector has been to stimulate public water agencies to engage in self-improvement programmes such as establishing performance targets.

Table 56: UK leakage assumptions 2010-15

Leakage assumption (MI/d)	2010-11	2011-12	2012-13	2013-14	2014-15
Water and sewerage companies					
Anglian	212	212	211	211	211
Dwr Cymru	190	188	186	185	184
Northumbrian					
Northumbrian	150	150	150	150	150
Essex & Suffolk	66	66	66	66	66
Severn Trent	483	474	468	456	453
South West	84	84	84	84	84
Southern	83	80	79	78	77
Thames	674	673	673	673	673
United Utilities	464	464	464	463	463
Wessex	71	71	71	71	71
Yorkshire	297	297	297	297	297
Water only companies					
Bournemouth & W Hampshire	22	22	22	22	21
Bristol	52	51	50	49	49
Cambridge	14.0	14.0	14.0	14.0	14.0
Dee Valley	10.2	10.2	10.2	10.2	10.2
Portsmouth	30	30	30	30	30
South East	95	95	94	94	93
South Staffs	74	74	74	74	74
Sutton & East Surrey	25	25	25	25	25
Veolia Central	185	185	185	185	185
Veolia East	5.1	5.1	5.1	5.1	5.1
Veolia Southeast	7.9	7.8	7.7	7.6	7.5
Industry total	3,294	3,278	3,266	3,250	3,243

Source: Ofwat. Totals may not add up because of rounding (less than 20 Mid to 1 decimal point, above 20 Mid no decimal points)

Chart 51: Distribution of regulated water supply companies



Source: BofA Merrill Lynch Global Research

USA: Fragmented market yet exciting opportunities

The U.S. water supply industry is highly fragmented. There are more than 53,000 drinking water companies across the country, the majority of which serve very small populations – less than 1% of these serve more than 100,000 people. We expect further consolidation as a consequence of more stringent regulations and greater capital requirements for investment. As the chart on the left illustrates, the US private sector water suppliers are concentrated in the populous coastal states where efficiencies are more readily achievable – though resources more constrained.

Water infrastructure companies

We have identified the following companies covered by BofA Merrill Lynch Global Research that have exposure to water infrastructure as percentage of sales vis-à-vis their involvement in pipes, pumps and valves, construction, engineering and consultancy, and water utilities. Although it is difficult to accurately gauge the link between such exposure and share price performance (as many factors outside the scope of this analysis play a role in short- and long-term price development), we still consider water exposure as an important positive point to track.

Table 57: Water: companies covered by BofAML involved in Water infrastructure

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$)	Investment Opinion	Water Exposure
ACM US	AECOM TECHNOLOGY CORP	UNITED STATES	ACM	2,314.90	BUY	c.10%
AWK US	AMERICAN WATER WORKS CO INC	UNITED STATES	AWK	5,293.20	BUY	100%
AEG SJ	AVENG LTD	SOUTH AFRICA	AVEPF	1,812.16	NEUTRAL	c.10%
392 HK	BEIJING ENTERPRISES HLDGS	HONG KONG	BJINF	6,279.80	BUY	23%
SBSP3 BZ	CIA SANEAMENTO BASICO DE SP	BRAZIL	CSBJF	5,933.25	BUY	100%
SBS US	CIA SANEAMENTO BASICO DE-ADR	BRAZIL	SBS	5,930.59	BUY	100%
CSMG3 BZ	CIA SANEAMENTO MINAS GERAIS	BRAZIL	CSAOF	2,057.91	BUY	100%
270 HK	GUANGDONG INVESTMENT LTD	HONG KONG	GGDVF	3,992.97	UNDERPERFORM	63%
HER IM	HERA SPA	ITALY	HRASF	1,611.93	XRVW	15%
IVRC IN	IVRCL LTD	INDIA	IIFRF	228.53	BUY	50%
KEP SP	KEPPEL CORP LTD	SINGAPORE	KPELF	12,106.63	BUY	< 25%
KSB3 GR	KSB AG-VORZUG	GERMANY	KSVRF	981.81	BUY	100%
6326 JP	KUBOTA CORP	JAPAN	KUBTF	11,068.08	UNDERPERFORM	c.10%
MWA US	MUELLER WATER PRODUCTS INC-A	UNITED STATES	MWA	374.98	XRVW	>75%
NJCC IN	NCC LTD	INDIA	NGRJF	374.03	BUY	23%
OHL SM	OBRASCON HUARTE LAIN S.A.	SPAIN	OBSJF	2,593.26	BUY	4%
PNN LN	PENNON GROUP PLC	BRITAIN	PEGRF	3,893.30	NEUTRAL	70%
ROR LN	ROTORK PLC	BRITAIN	RTOXF	2,253.57	NEUTRAL	25%
SVT LN	SEVERN TRENT PLC	BRITAIN	SVTRF	5,638.52	BUY	100%
SEV FP	SUEZ ENVIRONNEMENT CO	FRANCE	SZEVF	7,688.14	BUY	>40%
UU/ LN	UNITED UTILITIES GROUP PLC	BRITAIN	UUGWF	6,565.93	BUY	100%
URS US	URS CORP	UNITED STATES	URS	2,458.15	UNDERPERFORM	c.5%
VIE FP	VEOLIA ENVIRONNEMENT	FRANCE	VEOEF	7,877.46	BUY	35%
VE US	VEOLIA ENVIRONNEMENT-ADR	FRANCE	VE	7,856.19	BUY	35%

Source: BofA Merrill Lynch Global Research, Bloomberg. * Not covered / rated by BofA Merrill Lynch Global Research. * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

1. Pipes, pumps & valves

Table 58: Water Infrastructure: companies covered by BofAML involved in the provision of pipes, pumps and valves

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$)	Investment Opinion	Water Exposure
KSB3 GR	KSB AG-VORZUG	GERMANY	KSVRF	981.81	BUY	100%
6326 JP	KUBOTA CORP	JAPAN	KUBTF	11,068.08	UNDERPERFORM	c.10%
MWA US	MUELLER WATER PRODUCTS INC-A	UNITED STATES	MWA	374.98	XRWW	>75%
ROR LN	ROTORK PLC	BRITAIN	RTOXF	2,253.57	NEUTRAL	25%

Source: BofA Merrill Lynch Global Research, Bloomberg. * Not covered / rated by BofA Merrill Lynch Global Research. * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

Table 59: KSB – key data

Analyst's Name	Roller, Claus		
Analyst's Email Id.	claus.roller@baml.com		
Analyst's Phone No.	+44 20 7996 4193		
KSVRF	2010	2011E	2012E
Revenues	1,954	2,055	2,101
Operating Profit	153	160	170
Operating Margin	7.8%	7.8%	8.1%
Y-o-Y Growth	-16.9%	4.5%	6.3%
Net Profit	77	88	95
Net Margin	4.0%	4.3%	4.5%
Y-o-Y Growth	-28.0%	13.2%	8.0%
EBIT	153	160	170
EBIT Margin	7.8%	7.8%	8.1%
EBITDA	201	211	222
EBITDA Margin	10.3%	10.3%	10.6%
Operating Cash Flow	148	118	193
Capex	94	101	101
Free Cash Flow	53	17	93
Net Debt/Equity	12.51	11.86	3.61

Source: Company data, BofA Merrill Lynch Global Research

Table 60: Kubota - key data

Analyst's Name	Mizuno, Hideyuki		
Analyst's Email Id.	hideyuki.mizuno@baml.com		
Analyst's Phone No.	+81 3 6225 8528		
KUBTF	2010	2011E	2012E
Revenues	930,644	933,685	968,500
Operating Profit	69,702	86,111	94,000
Operating Margin	7.5%	9.2%	9.7%
Y-o-Y Growth	-32.2%	23.5%	9.2%
Net Profit	42,326	54,822	57,000
Net Margin	4.5%	5.9%	5.9%
Y-o-Y Growth	-11.9%	29.5%	4.0%
EBIT	69,702	86,111	94,000
EBIT Margin	7.5%	9.2%	9.7%
EBITDA	98,873	113,104	125,000
EBITDA Margin	10.6%	12.1%	12.9%
Operating Cash Flow	119,072	81,907	76,397
Capex	26,621	25,439	34,000
Free Cash Flow	92,451	56,468	42,397
Net Debt/Equity	43.43	36.50	31.10

Source: Company data, BofA Merrill Lynch Global Research

KSB (Buy)

KSB is a leading global supplier of pumps, valves and related systems for a large variety of industrial applications. The company has market leading positions in the fields of energy, process engineering and water and wastewater.

KSB is a secondary play on water via pumps for water extraction (incl. desalination), treatment and transport - which helps to supply households, farms and industrial plants with clean water and service water. It is also involved in wastewater treatment (effluent treatment, pumping stations). Around 50% of the segment is standard business; the other half comes from projects, usually tendered by governments and water authorities. The company's main competitor is ITT. Water projects are driven by very strong Asia Pacific demand and are less affected during the economic crisis, although European investment declined somewhat as many economic recovery packages did not include waste water. An investment in KSB offers exposure to the late-cyclical recovery of the industrial investment cycle, and potential long-term growth in emerging markets and service and spare parts revenues following its expanded project business.

Kubota (Underperform)

Kubota is a top domestic Japanese agricultural machinery manufacturer. It has a 60% market share [in Japan] in cast-iron pipes, mainly for public sector – and its internal combustion engine division accounts for about 80% of operating profit. Overseas sales weight has grown to just over 40% (up from 15% in FY3/96) with North American tractor business growth. It has plans to expand its Asian and European tractor sales. Public sector dependence has decreased to around 20%.

Kubota is a secondary play on water through pipes, pump and water treatment categories in Japan. 2010 saw domestic pipe sales fall on the back of shrinking public sector investments and sluggish demand in the housing market, but export sales of valves and pumps increased. We are seeking the next sales driver since Asian growth slowed after 2010. The share price is likely to follow N. American tractor demand and Asian agricultural mechanization, in our view. On the mid-term horizon, we plan to watch its growth in water-management systems in Asia closely, and its expansion into crop machinery.

Mueller Water Products Inc (Under review)

Mueller Water Products, Inc. manufactures a broad range of water infrastructure and flow control products for use in water distribution networks, water and wastewater treatment facilities, gas distribution systems and fire protection piping systems. The company's product portfolio includes engineered valves, fire hydrants, pipe fittings and ductile iron pipe.

Mueller is a water play on US infrastructure, which has twice been graded "D-" by the American Society of Civil Engineers; by 2020, 45% of all the pipes in the US will be classified as poor, very poor or elapsed. Some 70% of Mueller's sales come from the repair and replacement of municipal water distribution and treatment systems. Near-term financing issues represent the strongest headwinds, especially in US municipalities. The company is exploring "strategic alternatives" for its US Pipe business, a consistent laggard.

Table 61: Rotork – key data

Analyst's Name	Toms,Alex		
Analyst's Email Id.	alex.toms@baml.com		
Analyst's Phone No.	+44 20 7995 8720		
RTOXF	2010	2011E	2012E
Revenues	381	443	484
Operating Profit	98	113	126
Operating Margin	25.7%	25.6%	26.0%
Y-o-Y Growth	6.8%	16.0%	11.1%
Net Profit	70	81	90
Net Margin	18.3%	18.3%	18.5%
Y-o-Y Growth	8.6%	16.8%	10.5%
EBIT	98	113	126
EBIT Margin	25.7%	25.6%	26.0%
EBITDA	103	120	134
EBITDA Margin	27.2%	27.1%	27.7%
Operating Cash Flow	70	69	90
Capex	6	10	7
Free Cash Flow	64	60	83
Net Debt/Equity	- 47.93	- 46.45	- 53.80

Source: Company data, BofA Merrill Lynch Global Research

Rotork (Neutral)

Rotork is a high quality pure-play manufacturer of actuators – devices which can reliably switch valves on and off. Its key drivers are capex in the Oil & Gas, Power Generation and Water industries. The USP of Rotork products is reliability, as is its ability to interface with the hardware used to run these plants efficiently.

Rotork is a water play on actuators. Water treatment and distribution offers significant opportunities for Rotork in view of the increasing need for processes to maximise existing resources such as desalination plants and water re-use projects. Key drivers are end-market growth and the substitution of valve control from hand-wheels to actuators. Management seeks to augment this growth through product innovation and expanding the service offering, while using more low cost outsourcing.

Table 62: Water Infrastructure: other companies involved in the provision of pipes, pumps and valves

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$)	Investment Opinion	Water Exposure
AALB NA	AALBERTS INDUSTRIES NV	NETHERLANDS	AALIF	1,777.62	NR	<70%
FLS US	FLOWSERVE CORP	UNITED STATES	NR	4,738.68	NR	100%
GRC US	GORMAN-RUPP CO	UNITED STATES	NR	551.35	NR	100%
INSU US	INSITUFORM TECHNOLOGIES-CL A	UNITED STATES	INSU	528.31	XRWW	17%
PNR US	PENTAIR INC	UNITED STATES	NR	3,319.54	NR	100%
WTS US	WATTS WATER TECHNOLOGIES-A	UNITED STATES	NR	1,039.98	NR	100%
WAVIN NA	WAVIN NV	NETHERLANDS	WAVNF	359.22	XRWW	100%

Source: BofA Merrill Lynch Global Research, Bloomberg. * Not covered / rated by BofA Merrill Lynch Global Research. * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

Table 63: Other companies involved in pipe, pump & valve solutions

Company	BBG ticker	Overview
Aalberts Industries NV*		Aalberts Industries N.V. provides industrial services and flow control systems. The Flow Control operation manufactures and distributes flow control systems that range from beer taps to HVAC components; its customers include building contractors, industrial manufacturers, energy utilities, and scientific laboratories. Aalberts also develops and produces valves, dispensing systems for water, gas and energy. Aalberts Industries N.V. has reached an agreement to acquire 100% of the shares of DEC SA, a surface treatment provider established in Cormenon, France. This would help them expand their existing French network of surface treatment companies and help bring the Industrial Services activities of Aalberts Industries into a position among the leading players in surface treatment technologies in France. Their Flow Control business realised profitable growth and strengthened market position in the first half of FY12. Around 70% of their business comes from Flowcontrol segment and is well placed in the water infrastructure segment in North American and various EU markets. The company believes that its energy efficiency products for this segment can provide energy savings up to 30%.
Ebara Corporation *		Ebara Corporation manufactures pneumatic and hydraulic pumps and related equipment. The company's products include fuel, oil, water, and firefighting pumps, as well as steam turbines and boilers. Ebara Corporation also engineers garbage incinerators, smoke desulfurizers, and other products related to environmental technology. In the Environmental Engineering (EE) segment, to expand operations in the water-related business in Japan and overseas, which is expected to be a growth field going forward, an alliance, involving both capital and strategic business arrangements, was concluded with Mitsubishi Corporation and JGC Corporation in 2010. The company is also focusing on marketing the water-related environment fields in the Middle East. In the market for pumps used in seawater desalination plants, between 2008 and 2016, the capacity of such plants around the world is forecast to rise from 52 million m3 per day to 107 million m3 per day. To meet this demand, EBARA will draw on its capabilities in pump design, casing fabrication technology, and welding

Table 63: Other companies involved in pipe, pump & valve solutions

Company	BBG ticker	Overview
Flowserve Corp*		<p>technology to supply the strongly corrosion resistant “Vertical type all super duplex stainless steel fabricated pump” and other equipment.</p> <p>Flowserve Corporation designs, manufactures, distributes, and services industrial flow management equipment throughout the world. The company provides pumps, valves, and mechanical seals primarily for the refinery and pipeline segments of the petroleum, chemical processing, power generation and water treatment industries. The water management industry represented approximately 5% and 7% of the company’s bookings in 2010 and 2009, respectively. Due to the limitations of usable fresh water around the globe, there continues to be an increased investment in desalination. This investment is forecasted to significantly increase over the next couple of decades. The company is an important player in the desalination market, which is already an important source of fresh water in the Mediterranean region and the Middle East. They expect that this trend in desalination will expand from these traditional areas to other coastal areas around the globe, which presents a significant market opportunity for pumps, valves, actuation products and energy recovery devices.</p>
Gorman Rupp*		<p>The Gorman-Rupp Company designs, manufactures, and sells pumps and related fluid control equipment. The company’s products are used in construction, industrial, petroleum, water, wastewater, original equipment, agricultural, fire protection, and military applications. Gorman-Rupp operates around the world. The company’s pumps are marketed in the United States and Canada through a network of more than 1,000 distributors, through manufacturers’ representatives (for sales to many original equipment manufacturers), through third-party distributor catalogs, and by direct sales. International sales are made primarily through foreign distributors and representatives. The company sells to more than 100 countries around the world.</p>
IDEX Corp		<p>IDEX is an applied solutions provider serving niche markets worldwide. The served markets include process industry and infrastructure related applications, life science and medical technologies, industrial and municipal fire and rescue, and equipment associated with the retail dispensing of architectural paints and coatings. From leak detection within water infrastructure to enabling the push towards personalized medicine, IDEX is enabling technology, improving business prospects for a diverse customer set across the globe. Fluid and Metering Technologies, the largest business segment by revenue (accounting for 48% of IDEX’s total revenue) generates revenue growth with broad-based contributions from our energy, water, pharma, agriculture and chemical market segments. Water/Wastewater market consists of 23% of the Fluid and Metering segment. To augment their production capability in Asia, they’re increasing their manufacturing footprint in India in a manner similar to the model they executed in China.</p>
Insituform Technologies-CI A		<p>Insituform Technologies, Inc. provides cured-in place pipe and other technologies and services for the rehabilitation of pipeline systems. The company’s businesses consist of sewer, drinking water and energy and mining pipeline rehabilitation and protection. Insituform services customers worldwide. Its businesses units are Energy & Mining (42% of Revenue), North American Sewer Rehabilitation (44% of Revenue), European Sewer Rehabilitation (8% of Revenue), Asia-Pacific Sewer Rehabilitation (4.5% of Revenue) and Water (1.5% of Revenue).</p>
Pentair Inc*		<p>Pentair, Inc. is a diversified manufacturing company. The company produces electrical and electronic enclosures, professional tools, and water products. Pentair manufactures and distributes its products in North America, Europe, and Asia. Its Water Group provides innovative products and systems used worldwide in the movement, treatment, storage and enjoyment of water. Pentair’s Technical Products Group provides enclosures and thermal management markets, designing and manufacturing thermal management products and standard, modified, and custom enclosures that protect sensitive electronics and the people who use them.</p>
Saudi Arabian Amiantit		<p>Saudi Arabian Amiantit Company manufactures construction materials. The company produces fiberglass reinforced, iron, and pre-tensioned concrete cylinder pipes, fiberglass thermal and acoustical insulation, and rubber extrusions, rings for pipe and fittings, and refrigeration and air conditioning parts. The company’s core business activities are Pipe Systems (90 % of Revenues) Amiantit has 30 pipe manufacturing facilities in 18 countries. Technology (2% of Revenues) Amiantit wholly or jointly owns six leading pipe system technology companies, and has a close relationship with several others, making it a global leader in pipe technology. Water Management (8% of Revenues) Water management consultancy and engineering services are provided by the group through a number of subsidiaries of international renown. Materials Amiantit manufactures and supplies a range of: rubber products for seals and air-conditioning applications; sizing and agents; lining materials to protect pipes and structures against corrosion; and polyurethane products for pipes and tanks. It also manufactures fiberglass products, fiberglass reinforced plastic products, sizing and agents.</p>
Watts Water Technologies-A*	WTS US	<p>Watts Water Technologies, Inc. designs, manufactures, and sells a line of products to the water regulation and control markets. The company has manufacturing plants and distribution channels in the United States, Canada, and Europe, as well as a joint venture in The People’s Republic of China. Watts Water Technologies is a world leader in the manufacture of innovative products to control the efficiency, safety and quality of water within residential, commercial and institutional applications. Their expertise in a wide variety of water technologies enables them to be a comprehensive supplier to the water industry. A “pure play” in this industry; water is their primary focus and has been for 137 years. The products center around four key application areas, referred to as strategic business platforms: Commercial & Residential Flow, Water Reuse & Drainage, HVAC & Gas, and Water Quality. Offers solutions for water and energy conservation, comfort and control, and water quality and safety, and increasingly the products support the sustainability efforts of customers and the green building industry.</p>
Wavin NV*	WAVIN NA	<p>Wavin NV manufactures plastic pipe systems for gas, water, sewer systems, building, land drainage, cable conducting, and irrigation applications. The company further provides consultation and design services, as well as product support. The business segments in which it operates Hot & Cold (Systems for tap water connections, underfloor heating, ceiling cooling and radiator connections); Soil & Waste (Solutions to transport waste water from kitchens and bathrooms to sewer</p>

Table 63: Other companies involved in pipe, pump & valve solutions

Company	BBG ticker	Overview
		collection systems); Other Building Systems (Systems such as roof gutters for domestic housing, electrical conduit pipes and fittings, ventilation pipes); Foul Water Systems(Innovative solutions for: Main sewage, underground drains, manholes, inspection chambers, gullies, septic tanks and rehabilitation pipes); Water Management(Products include Stormwater and channel drains, Infiltration units and pipes, Syphonic roof drainage, Irrigation systems and Land- and road drainage); Cable Ducting(Ducting systems for: Power distribution, Signalling, Telecom backbones and city rings, Last-mile telecom). It holds the number one market position in 50 % of the countries it is operating, while in others it ranked among top 5.

Source: BofA Merrill Lynch Global Research, Bloomberg

2. Construction, Engineering & Consultancy

Table 64: Water infrastructure: companies covered by BofAML involved in Construction, Engineering & Consultancy

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$m)	Investment Opinion	Water Exposure
ACM US	AECOM TECHNOLOGY CORP	UNITED STATES	ACM	2,314.90	BUY	c.10%
AEG SJ	AVENG LTD	SOUTH AFRICA	AVEPF	1,812.16	NEUTRAL	c.10%
392 HK	BEIJING ENTERPRISES HLDGS	HONG KONG	BJINF	6,279.80	BUY	23%
270 HK	GUANGDONG INVESTMENT LTD	HONG KONG	GGDVF	3,992.97	UNDERPERFORM	63%
IVRC IN	IVRCL LTD	INDIA	IIFRF	228.53	BUY	50%
KEP SP	KEPPEL CORP LTD	SINGAPORE	KPELF	12,106.63	BUY	< 25%
NJCC IN	NCC LTD	INDIA	NGRJF	374.03	BUY	23%
OHL SM	OBRASCON HUARTE LAIN S.A.	SPAIN	OBSJF	2,593.26	BUY	4%
URS US	URS CORP	UNITED STATES	URS	2,458.15	UNDERPERFORM	c.5%

Source: BofA Merrill Lynch Global Research . * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

Table 65: Aecom Technology Corp – key data

Analyst's Name	Obin,Andrew		
Analyst's Email Id.	andrew.obin@baml.com		
Analyst's Phone No.	+1 646 855 1817		
ACM	2010	2011E	2012E
Revenues	6,567	8,174	8,672
Operating Profit	NA	NA	NA
Operating Margin	NA	NA	NA
Y-o-Y Growth	NA	NA	NA
Net Profit	237	272	322
Net Margin	3.6%	3.3%	3.7%
Y-o-Y Growth	25.1%	14.8%	18.1%
EBIT	351	419	496
EBIT Margin	5.3%	5.1%	5.7%
EBITDA	430	533	596
EBITDA Margin	6.5%	6.5%	6.9%
Operating Cash Flow	159	130	444
Capex	68	68	73
Free Cash Flow	90	61	371
Net Debt/Equity	14.88	29.52	14.51

Source: Company data, BofA Merrill Lynch Global Research

Aecom Technology Corp (Buy)

Aecom is a premier global engineering and design firm with leading market positions both in the US and globally. Aecom specialises in front-end design and engineering work, project management and operations and maintenance services. Its key end markets include Transportation, Environmental, Facilities, Government and Energy.

Aecom is a secondary water play on E&C and water supply / shortages. It offers integrated services for total project delivery – covering community Infrastructure, industrial water, drinking water, wastewater, water design build, water resources, and hydro and dams. We expect the stock to perform well as investors gain more visibility on the upside from the US stimulus plan, stimulus-related growth in Hong Kong, and recovery in the Middle East. We view Aecom's margins as more stable through the downturn with less price competition on publicly-funded projects, relative to some other E&Cs.

Table 66: Aveng Ltd – key data

Analyst's Name	Maluleka,Horatius		
Analyst's Email Id.	horatius.maluleka@baml.com		
Analyst's Phone No.	+27 11 305 5185		
AVEPF	2010	2011E	2012E
Revenues	33,981	36,985	37,998
Operating Profit	2,078	1,648	1,930
Operating Margin	6.1%	4.5%	5.1%
Y-o-Y Growth	-2.3%	-20.7%	17.1%
Net Profit	1,873	1,458	1,646
Net Margin	5.5%	3.9%	4.3%
Y-o-Y Growth	-10.4%	-22.2%	12.9%
EBIT	2,139	1,673	1,957
EBIT Margin	6.3%	4.5%	5.2%
EBITDA	3,219	2,781	3,143
EBITDA Margin	9.5%	7.5%	8.3%
Operating Cash Flow	1,855	1,485	3,241
Capex	1,179	1,500	1,575
Free Cash Flow	676	15	1,666
Net Debt/Equity	- 61.06	- 48.49	- 49.58

Source: Company data, BofA Merrill Lynch Global Research

Aveng Ltd (Neutral)

Aveng is involved in infrastructure development in SA, Africa, the Middle East, Australasia and the Pacific. The sub-segments of water, energy, sub-sea activities and oil & gas are of particular interest. The group aims to capitalise on group collaboration and pursue multi-disciplinary opportunities to ensure sustainability in the tough operating environment.

Aveng is a water play through its E+PC division, which is well-positioned and should continue to secure new private sector water projects (c.12% of its order book). In addition to its strong position on O&M, it is looking to expand its desalination and AMD capabilities within Africa, Australia and the MENA region. Water is a strategic focus and long-term drivers include tightening regulations on mining companies to process waste water and the increasing prevalence of droughts in the southern hemisphere. Deteriorating industry conditions are contributing to a less favourable sector outlook in the near-term. The medium-term outlook for construction companies remains positive as infrastructure needs to be rebuilt and expanded to deal with economic growth. Aveng's diversified nature and considerable unencumbered cash pile leaves it in a reasonable position to weather the current challenging environment. It is our preferred construction stock.

Table 67: Beijing Enterprises Hldgs – key data

Analyst's Name	Wong,Thomas		
Analyst's Email Id.	thomas.m.wong@baml.com		
Analyst's Phone No.	+852 2161 7753		
BJINF	2010	2011E	2012E
Revenues	29,793	33,673	37,747
Operating Profit	3,747	4,385	5,176
Operating Margin	12.6%	13.0%	13.7%
Y-o-Y Growth	31.6%	17.1%	18.0%
Net Profit	2,930	3,370	3,926
Net Margin	9.8%	10.0%	10.4%
Y-o-Y Growth	22.1%	15.0%	16.5%
EBIT	3,747	4,385	5,176
EBIT Margin	12.6%	13.0%	13.7%
EBITDA	5,316	6,111	7,055
EBITDA Margin	17.8%	18.1%	18.7%
Operating Cash Flow	4,964	5,603	6,313
Capex	2,500	2,500	2,500
Free Cash Flow	2,464	3,103	3,813
Net Debt/Equity	- 2.93	- 9.19	- 13.71

Source: Company data, BofA Merrill Lynch Global Research

Beijing Enterprises Holdings (Buy)

Beijing Enterprises is mainly engaged in the natural gas distribution, water supply, toll roads and brewery businesses. Given the support of the Beijing Municipal Government, we believe Beijing Enterprises is well positioned to benefit from the strong growth of natural gas consumption in China.

BEHL is a water play on China via its BE Water division, an integrated water systems solution provider. Construction services remain the largest water revenues segment while sewage treatment and technical consultancy services are the biggest profit segments. BE owns a total of 79 water plants (5.91m tons/day processing capacity). It is looking to leverage on BOT, TOT, JVs and strategic cooperation to increase its market share and is also intensifying its efforts in developing international markets (Malaysia etc.). Long-term drivers include water scarcity, economic growth, urbanisation, and higher requirements in terms of water resources utilisation – and Chinese government support. BE has divested non-core assets and sharpened its focus on utilities and infrastructure through organic growth and mergers and acquisitions. With new investments and the potential for value-accretive acquisitions ahead, we expect it to continue to improve returns to shareholders.

Table 68: Guangdong Investment Ltd – key data

Analyst's Name	Ng,Billy		
Analyst's Email Id.	billy.ng@baml.com		
Analyst's Phone No.	+852 2161 7791		
GGDVF	2010	2011E	2012E
Revenues	6,352	6,727	7,226
Operating Profit	3,738	3,569	3,852
Operating Margin	58.9%	53.1%	53.3%
Y-o-Y Growth	22.7%	-4.5%	8.0%
Net Profit	2,420	2,457	2,667
Net Margin	38.1%	36.5%	36.9%
Y-o-Y Growth	18.4%	1.5%	8.5%
EBIT	3,738	3,569	3,852
EBIT Margin	58.9%	53.1%	53.3%
EBITDA	4,719	4,595	4,893
EBITDA Margin	74.3%	68.3%	67.7%
Operating Cash Flow	4,462	3,913	4,203
Capex	360	400	300
Free Cash Flow	4,102	3,513	3,903
Net Debt/Equity	8.15	2.26	13.49

Source: Company data, BofA Merrill Lynch Global Research

Guangdong Investment Ltd (Underperform)

A “window” company of the Guangdong government, Guangdong Investment is a conglomerate focusing on water supply and investment properties. Its owns the exclusive right to supply raw water to Hong Kong to 2030, and provides around 55% of water needs in Shenzhen and Dongguan. It also has hotel, power and toll road operations.

GDI is a primary water play on water supply to the Hong Kong, Shenzhen and Dongguan regions, for which it has a concession to 2030. The profit contribution from water distribution remains significant and we expect a raw water tariff hike in Hong Kong of 8% to be announced later this year. Meanwhile, we expect revenue from water supply to China to stay flat this year due to inflation concerns. GDI is the most defensive play in the China Conglomerates space but we expect it to underperform its China conglom peers due to its slower earnings growth and lack of catalysts from the economic upturn.

Table 69: IVRCL Infrastructure & Proj – key data

Analyst's Name	Parekh,Bharat		
Analyst's Email Id.	bharat.parekh@baml.com		
Analyst's Phone No.	+91 22 6632 8656		
IIFRF	2010	2011E	2012E
Revenues	54,923	56,515	61,036
Operating Profit	4,770	4,898	4,570
Operating Margin	8.7%	8.7%	7.5%
Y-o-Y Growth	27.4%	2.7%	-6.7%
Net Profit	702	1,924	1,342
Net Margin	1.3%	3.4%	2.2%
Y-o-Y Growth	-68.9%	174.0%	-30.3%
EBIT	4,770	4,898	4,570
EBIT Margin	8.7%	8.7%	7.5%
EBITDA	5,313	5,656	5,542
EBITDA Margin	9.7%	10.0%	9.1%
Operating Cash Flow	4,002	1,291	2,172
Capex	1,158	1,919	1,300
Free Cash Flow	2,844	628	872
Net Debt/Equity	78.30	98.39	107.34

Source: Company data, BofA Merrill Lynch Global Research

IVRCL Infrastructure & Proj (Buy)

IVRCL is a diversified infrastructure construction company with four divisions - Water Supply & Irrigation, Roads & Bridges, Buildings & Industrial Structures and Power. It has also entered the real estate business through its subsidiary, IVR-Prime Developer Ltd.

IVRCL is a primary play on India's water infrastructure needs. It is well positioned to benefit from the increased infrastructure spending and increasing use of E&C players as part of the next Five Year Plan (2012-17), which includes US\$27bn on urban water supply and sanitation and over US\$48bn on irrigation. Its water business line (58% of FY10 order book) includes water supply projects, sewage system development, canal works, desalination and irrigation projects. Water is a high-margin business with high entry barriers and little competition. IVRCL's focus on roads and water in non-AP states should drive strong earnings growth over the next three years. Potential Infra SPVs wins at its subsidiary, IVR Asset, the sale of land-bank to fund Infra SPVs and scaling up at HDO are triggers, in our view. Further, a strong order book led by the state of Maharashtra and NHA orders should provide visibility. With its well-funded parent balance sheet, IVRCL has the means to bid for big infra projects.

Table 70: Keppel Corp – key data

Analyst's Name	Chong,Wee Lee		
Analyst's Email Id.	wee.lee.chong@baml.com		
Analyst's Phone No.	+65 6591 0403		
KPELF	2010	2011E	2012E
Revenues	9,783	9,305	11,648
Operating Profit	1,756	1,870	2,162
Operating Margin	18.0%	20.1%	18.6%
Y-o-Y Growth	16.7%	6.5%	15.6%
Net Profit	1,623	1,475	1,629
Net Margin	16.6%	15.8%	14.0%
Y-o-Y Growth	-0.1%	-9.1%	10.5%
EBIT	1,756	1,870	2,162
EBIT Margin	18.0%	20.1%	18.6%
EBITDA	1,945	2,147	2,475
EBITDA Margin	19.9%	23.1%	21.3%
Operating Cash Flow	450	45	1,317
Capex	873	868	642
Free Cash Flow	-	423	914
Net Debt/Equity	-	1.91	14.46

Source: Company data, BofA Merrill Lynch Global Research

Keppel Corp (Buy)

Keppel Corp (KEP) has three key businesses: offshore & marine, property, and infrastructure. KEP is a world leader in rig-building, and owns proprietary designs for various offshore units. KEP is the lead private investor in Sino-Singapore Tianjin Eco-City, a 10 to15-year sustainable residential housing project in China. KEP provides eco-friendly proprietary waste treatment solutions globally and owns listed associates, including Keppel Land, Keppel T&T, K1 Ventures, and K-Green Trust.

KEP is a secondary water play via its Keppel Seghers subsidiary, which covers consultancy, construction and engineering and technology on solid waste, wastewater, drinking water, process water, desalination, biosolids and sludge. It has built over 400 plants worldwide and is a leading player in the municipal, industrial and purification water markets. We believe Keppel Corp's key Offshore and Marine business will ride on the expected upswing in construction contracts for new, eco-friendly offshore rigs. We also expect KEP to gain from residential property launches – and the K-Green Trust, which should provide a ready financial platform for KEP to embark on eco-friendly infrastructure projects globally.

Table 71: Nagarjuna Construction Co – key data

Analyst's Name	Parekh,Bharat		
Analyst's Email Id.	bharat.parekh@baml.com		
Analyst's Phone No.	+91 22 6632 8656		
NGRJF	2010	2011E	2012E
Revenues	47,778	50,737	57,564
Operating Profit	4,309	4,191	4,897
Operating Margin	9.0%	8.3%	8.5%
Y-o-Y Growth	34.5%	-2.7%	16.8%
Net Profit	2,326	1,635	1,563
Net Margin	4.9%	3.2%	2.7%
Y-o-Y Growth	51.2%	-29.7%	-4.4%
EBIT	4,309	4,191	4,897
EBIT Margin	9.0%	8.3%	8.5%
EBITDA	4,834	4,876	5,699
EBITDA Margin	10.1%	9.6%	9.9%
Operating Cash Flow	- 939 -	3,629	2,767
Capex	1,624	1,928	1,100
Free Cash Flow	- 2,563 -	5,556	1,667
Net Debt/Equity	59.25	98.56	110.80

Source: Company data, BofA Merrill Lynch Global Research

Table 72: Obrascon Huarte Lain – key data

Analyst's Name	Wojtal,Marcin		
Analyst's Email Id.	marcin.wojtal@baml.com		
Analyst's Phone No.	+44 20 7996 1070		
OBSJF	2010	2011E	2012E
Revenues	4,910	5,499	5,996
Operating Profit	700	892	1,019
Operating Margin	14.3%	16.2%	17.0%
Y-o-Y Growth	36.8%	27.5%	14.2%
Net Profit	196	221	269
Net Margin	4.0%	4.0%	4.5%
Y-o-Y Growth	23.1%	13.0%	21.9%
EBIT	700	892	1,019
EBIT Margin	14.3%	16.2%	17.0%
EBITDA	729	1,181	1,335
EBITDA Margin	14.9%	21.5%	22.3%
Operating Cash Flow	- 157	620	643
Capex	1,406	1,245	1,035
Free Cash Flow	- 1,562 -	625	392
Net Debt/Equity	235.64	226.22	204.29

Source: Company data, BofA Merrill Lynch Global Research

Table 73: URS Corporation – key data

Analyst's Name	Obin,Andrew		
Analyst's Email Id.	andrew.obin@baml.com		
Analyst's Phone No.	+1 646 855 1817		
URS	2010	2011E	2012E
Revenues	9,177	9,831	10,286
Operating Profit	NA	NA	NA
Operating Margin	NA	NA	NA
Y-o-Y Growth	NA	NA	NA
Net Profit	288	282	303
Net Margin	3.1%	2.9%	2.9%
Y-o-Y Growth	7.0%	-2.1%	7.5%
EBIT	567	608	650
EBIT Margin	6.2%	6.2%	6.3%
EBITDA	700	758	800
EBITDA Margin	7.6%	7.7%	7.8%
Operating Cash Flow	528	480	501
Capex	45	50	55
Free Cash Flow	482	430	446
Net Debt/Equity	3.05	3.74	2.20

Source: Company data, BofA Merrill Lynch Global Research

Nagarjuna Construction Co (Buy)

Established in 1978 as a partnership by founder and chairman AVS Raju, NCC is engaged in civil construction work in the industrial structures, buildings, and housing sectors. It became a public limited company in 1990. NCC has moved across the domains in the engineering and construction space to capitalize on capex cycles in different subsectors.

NJCC is a play on its Water & Environment division, which executes EPC, turnkey and BOT projects in water supply, water treatment plants, underground drainage works, and sewerage treatment projects. It should continue to be a beneficiary of the increasing investments by various Indian Government agencies in water supply and sewerage, effluent and underground waste water treatment plants. It is also a play on irrigation (dams, lift and gravity irrigation). We believe that potential triggers for the stock are a) strong earnings growth over the next three years, b) expansion into high growth domains along with suitable partners - steel plant construction (Posco), Railways and Oil & Gas, c) a value accretive Infra portfolio across Airports, Ports, Hydro power & real estate, and d) its attractive valuation.

Obrascon Huarte Lain (Buy)

OHL is a Spanish contractor with a primary focus on the operation of infrastructure assets and civil engineering construction. The portfolio comprises 28 infrastructure concessions, 23 of which are toll motorways, mostly in Latin America. The company is 57% owned by Grupo Villar Mir.

OHL is a water play on construction and engineering via its environmental division OHL Environment Inima which has 50+ years of public and private sector water experience (design and technology, financing, construction, operation and maintenance). It is involved in: urban and industrial water purification (100+ plants, serving 6 million people); potable water treatment (25+ plants, 2.5m customers); desalination (25 installations, 3m customers); sludge treatment; and execution and maintenance. OHL's value proposition is based on the high-growth phase of the concessions portfolio, sound earnings momentum of international construction activities and potential for synergies between the two divisions.

URS Corporation (Underperform)

URS Corp. is the largest design firm in the US, providing a variety of planning, engineering, operating and maintenance services to Federal, state and local, and private and int'l clients. URS's acquisition and diversification strategy has reduced business cyclicality and diversified service offerings, clients, and markets.

URS is a play on engineering across full-service water, wastewater and hydropower projects for public and private sector clients. Its services encompass the water and wastewater industry (water supply planning, water storage and transmission, water quality management planning, water treatment and distribution), and wastewater collection, treatment and disposal. It also has expertise in storm water and watershed management, hydropower, flood control, water quality monitoring, and environmental planning and permitting. We expect URS to underperform our coverage on a relative basis due to the company's more defensive business model and significant exposure to US public spending. Upside risks are: 1) Faster-than-expected recovery in private sector capex spending, 2) an increase to DoD and DoE budgets ahead of our forecast, 3) cash redeployment into a large strategic acquisition accretive to earnings and well-received by investors.

Table 74: Water infrastructure: other companies involved in Construction, Engineering & Consultancy

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$m)	Investment Opinion	Water Exposure
ARCAD NA	ARCADIS NV	NETHERLANDS	NR	1,228.15	NR	17%
392 HK	BEIJING ENTERPRISES HLDGS	HONG KONG	BJJNF	6,279.80	BUY	23%
GAM MK	GAMUDA BHD	MALAYSIA	GMUAF	1,871.25	XRVW	<70%
KRNV IT	KARDAN NV	NETHERLANDS	NR	282.29	NR	12%
LAYN US	LAYNE CHRISTENSEN COMPANY	UNITED STATES	LAYN	447.80	XRVW	77%
SGL SP	SOUND GLOBAL LTD	CHINA	NR	544.37	NR	100%
STN CN	STANTEC INC	CANADA	NR	1,048.84	NR	<40%
TTEK US	TETRA TECH INC	UNITED STATES	NR	1,192.78	NR	30%

Source: BofA Merrill Lynch Global Research. * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

Table 75: Other companies involved in construction, engineering & consultancy solutions

Company	BBG ticker	Overview
ARCADIS		Arcadis is an int'l company providing consultancy, planning, architectural design, engineering and management services for infrastructure, water, environment and buildings. It is one of the top ten water consultants thanks to a merger with US based Malcolm Pirnie in 2009. Water accounts for 19% (FY2010) of revenues, reflecting an ambition to build a leading position in the global water market. With an organic growth target of 5-7% pa with margins of 10-11%, Arcadis has strategic plans to expand water treatment in the US and expand into selected new regions, notably Brazil, Chile and the Middle East. The group's largest water business client is the City of New York. Arcadis is in a position to benefit from water management services, working with SABESP in its expansion of infrastructure in the Sao Paulo metropolitan areas and the Public Authority for Electricity and Water of Oman and Veolia Environnement to further professionalise its water utility management.
GAMUDA BERHAD	GAM MK	Gamuda is a Malaysia-based investment holding company with interests in highway construction and water-related infrastructure. The group has infrastructure concessions to operate several highways in Malaysia and in India, and is one of the largest private water suppliers in the region. PBT breakdown is: Engineering & Construction 22%, Property Development 24%, infrastructure concessions 54%. Water related subsidiaries include Gamuda Water Sdn Bhd (80%), Syarikat Mengurus Air Banjar & Terowong Sdn Bhd (50%) and Syarikat Pengeluar Air Sungai Sdn Bhd (40%). Government efforts to consolidate the water industry in Selangor continue to be hampered by various obstacles and have made little progress.
Kardan NV	KRNV IT	Kardan is a publicly listed infrastructure company specialising in developing economies. The company is active in real estate (49% of investment), water infrastructure (12%) and financial services (30%). Water infrastructure investments are conducted through Tahal Group International, acquired by Kardan in 2001. Tahal is split into two sub-divisions: Tahal Projects: design, consulting and turnkey projects and Tahal Assets: investments/development of assets, Build Own Transfer and Build Operate Own. Noteworthy projects/assets include: three drinking water supply systems in Ghana, a turnkey water treatment project in Serbia, a concession to operate & maintain 10 WWTPs in China and the management & operation of urban water works in Israel.
LAYNE CHRISTENSEN	LAYN US	Layne Christensen provides drilling services and related products in four principle markets: water resources, mineral exploration, geoconstruction and energy services. Its full range of water-related services encompasses: water well drilling, well and pump repair, maintenance and surface water treatment plants, pipeline and sewer rehabilitation, well field design and development and pump installation. In FY11, the firm began to reorganize management and structure of the Water Infrastructure Division. Beginning in FY12, the water division will have five reporting groups with operating presidents for each. The company sees the issues associated with oil shale as a growth driver for its water technologies business, developing a zero-liquid discharge solution. It is positioned to benefit from increased specialty drilling and the combined factors of stricter regulation and water scarcity in heavy construction. Water infrastructure accounts for 76.9% of revenues.
MICHAEL BAKER CORP	BKR US	Baker provides engineering, design, planning and construction services. The water segment range of services include: watershed planning and floodplain management, water related infrastructure engineering, coastal and ocean environmental engineering and oil & gas pipeline & engineering/procurement. Baker intends to grow in "Megapolitan" areas of the West, Southwest and Southeast as well as make strategic acquisitions through to 2014. The firm is expanding its service offering to include hard design and CM (dams, levees, pipelines, power infrastructure) and technology based services (modelling, mapping, LiDAR). From 350 staff in the service area, Baker targets 1,000 employees devoted to water by 2014.
SOUND GLOBAL	SGL SP	Sound Global Ltd. provides water and wastewater treatment solutions in China. The company is involved in engineering, procurement, construction and equipment fabrication. It plans to become an integrated solutions provider through its operations management and build-operate-transfer projects. The company has a dual listing in Hong Kong (Sept. 2010) and Singapore (2006) 100% of Sound Global's revenues are derived from water. As an early entrant to the Chinese water treatment business, the company was initially focused on industrial wastewater treatment, subsequently diversifying into municipal wastewater treatment projects. Over the past few years, the capital market for China's water industry has developed swiftly due to improvements in the industry's investment and financing landscape. The company is well positioned to benefit from China's 12th five year plan which plans to emphasis water management and quality.
STANTEC INC	STN CN	Provides professional consulting services in a range of markets to support clients from the initial project and financial feasibility to project completion and beyond. Rated 7th in the world for water by ENR, Stantec's experience with water supply, treatment, and distribution systems includes modelling, planning, testing, design, construction management, and operations consulting. The firm is a recognised leader in sustainable design for water systems. In addition, it offers

Table 75: Other companies involved in construction, engineering & consultancy solutions

Company	BBG ticker	Overview
TETRA TECH INC	TTEK US	wastewater engineering services to address the total project life cycle. Stantec intends to cover the entire North American market and expand locally within 10 years. The environment segment, in which water is its dominant activity, accounts for 40% of gross revenues (FY2010). With strong US coverage the company may benefit from the growth in Oilsand, Sahle gas and new regulations for mining effluent, whilst maintaining a presence in industrial, municipal and urban projects. Tetra Tech is part of the global consulting and engineering industry that serves public and private clients. The company provides water/wastewater management, environmental and energy services, infrastructure design, communication support, outsourced technical services, and construction services. Tetra is the No.1 design firm for water services in the US and the recipient of equivalent awards for water treatment/desalination, water transmission lines and aqueducts. Water features in two operating segments. Tetra's Engineering and Consulting services offers surface water and ground water management whilst their Engineering and Architecture services offer design and technical expertise to various aspects of quality and quantity management in water and wastewater treatment plants, combined sewer storage and separation, and drainage and flood control. 80% of revenues in the Consulting, Engineering and Project Management Services segment came from water & environment.

Source: BofA Merrill Lynch Global Research, Bloomberg

3. Utilities

Table 76: Water Infrastructure - Companies covered by BofAML involved in water utilities

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$m)	Investment Opinion	Water Exposure
AWK US	AMERICAN WATER WORKS CO INC	UNITED STATES	AWK	5,293.20	BUY	100%
CSMG3 BZ	CIA SANEAMENTO MINAS GERAIS	BRAZIL	CSAOF	2,057.91	BUY	100%
HER IM	HERA SPA	ITALY	HRASF	1,611.93	XRWV	15%
PNN LN	PENNON GROUP PLC	BRITAIN	PEGRF	3,893.30	NEUTRAL	70%
SBSP3 BZ	CIA SANEAMENTO BASICO DE SP	BRAZIL	CSBJF	5,933.25	BUY	100%
SBS US	CIA SANEAMENTO BASICO DE-ADR	BRAZIL	SBS	5,930.59	BUY	100%
SVT LN	SEVERN TRENT PLC	BRITAIN	SVTRF	5,638.52	BUY	100%
SEV FP	SUEZ ENVIRONNEMENT CO	FRANCE	SZEVF	7,688.14	BUY	>40%
UU/ LN	UNITED UTILITIES GROUP PLC	BRITAIN	UUGWF	6,565.93	BUY	100%
VIE FP	VEOLIA ENVIRONNEMENT	FRANCE	VEOEF	7,877.46	BUY	35%
VE US	VEOLIA ENVIRONNEMENT-ADR	FRANCE	VE	7,856.19	BUY	35%

Source: BofA Merrill Lynch Global Research . * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

Table 77: American Water Works – key data

Analyst's Name	Fleishman, Steve		
Analyst's Email Id.	steven.fleishman@baml.com		
Analyst's Phone No.	+1 646 855 2906		
AWK	2010	2011E	2012E
Revenues	2,711	2,827	2,974
Operating Profit	NA	NA	NA
Operating Margin	NA	NA	NA
Y-o-Y Growth	NA	NA	NA
Net Profit	268	299	340
Net Margin	9.9%	10.6%	11.4%
Y-o-Y Growth	-214.9%	11.6%	13.8%
EBIT	748	814	890
EBIT Margin	27.6%	28.8%	29.9%
EBITDA	1,103	1,169	1,260
EBITDA Margin	40.7%	41.4%	42.4%
Operating Cash Flow	775	719	706
Capex	766	907	857
Free Cash Flow	9	188	151
Net Debt/Equity	136.48	136.29	126.25

Source: Company data, BofA Merrill Lynch Global Research

American Water Works (Buy)

American Water provides a regulated water service in 15 US states. New Jersey and Pennsylvania are the two largest states with each representing 20-25% of revenues. American Water Enterprises is the non-regulated business and represents a modest 5% of total earnings. The non-regulated business lines include 1) water service contracts with military bases, 2) homeowner repair, 3) contract operations for large cities, 4) water reuse, and 5) desalination.

As the largest public traded water utility, AWK is a pure play on the growth prospects for the water utility business, which include the need for substantial capex to upgrade an aging system and the potential consolidation or outsourcing of the government-owned share of the water sector. AWK is also a turnaround story, making great strides in improving earned returns at its regulated business. AWK is positioned to grow EPS and the dividend by 7-10% over the next few years, in our view.

Table 78: Copasa – key data

Analyst's Name	Moreno, Diego		
Analyst's Email Id.	diego.moreno@baml.com		
Analyst's Phone No.	+55 11 2188 4223		
CSAOF	2010	2011E	2012E
Revenues	3,238	3,311	3,526
Operating Profit	NA	NA	NA
Operating Margin	NA	NA	NA
Y-o-Y Growth	NA	NA	NA
Net Profit	677	467	499
Net Margin	20.9%	14.1%	14.1%
Y-o-Y Growth	28.9%	-31.0%	6.8%
EBIT	962	734	754
EBIT Margin	29.7%	22.2%	21.4%
EBITDA	1,231	1,048	1,102
EBITDA Margin	38.0%	31.7%	31.3%
Operating Cash Flow	898	811	825
Capex	838	750	801
Free Cash Flow	60	61	24
Net Debt/Equity	48.57	48.34	50.54

Source: Company data, BofA Merrill Lynch Global Research

Cia de Saneamento de Minas Gerais-COPASA - Buy

Copasa is the water and sewage utility company controlled by the state, rendering services in the state of Minas Gerais, with an estimated population of 19.6 million and accounting for approximately 9.3% of Brazil's GDP. The company has 100% coverage of water services, but only 83% for sewage collection and 55% for sewage treatment. Copasa provides water for 13.1 million people and sewage for 7.7 million (42.9 thousand km of water and 16.2 thousand km of sewage pipelines in 615 municipalities). The MG state government holds a majority of the share capital.

Copasa is a pure play on the growth prospects for the water utility business in Brazil, where it is the No. 2 player in the market. We believe the company has three main positive drivers: (1) the upcoming March 2012 implementation of a regulatory framework, which should drive a re-rating of valuation multiples; (2) strong earnings growth (6.4% 10-year EBITDA CAGR) from remuneration of expansion capex (tariff hikes) with attractive dividends (6.4% 2012E yield), and (3) low funding and concession risk. Copasa is our top LatAm water utility pick.

Hera Group SpA

Hera SpA is a northern Italy-based multi-utility. The company distributes electricity, methane gas and water, operates sewers and treats wastewater, offers district heating, manages public lighting, and collects and disposes of municipal waste. Hera operates in Bologna, Rimini, Ravenna-Lugo, Forli-Cesena, and Imola-Faenza.

Hera is Italy's No. 2 operator in the management of the complete water cycle, from collection and purification of waste water to the distribution of drinking water. It invoiced 251m m³ of water for 171 municipalities and has 834 treatment plants.

Table 79: Pennon Group PLC – key data

Analyst's Name	Das, Pinaki		
Analyst's Email Id.	pinaki.das@baml.com		
Analyst's Phone No.	+44 20 7996 2453		
PEGRF	2010	2011E	2012E
Revenues	1,069	1,159	1,259
Operating Profit	266	261	282
Operating Margin	24.9%	22.5%	22.4%
Y-o-Y Growth	5.8%	-2.0%	8.3%
Net Profit	140	142	149
Net Margin	13.1%	12.3%	11.9%
Y-o-Y Growth	55.1%	1.3%	5.0%
EBIT	266	261	282
EBIT Margin	24.9%	22.5%	22.4%
EBITDA	402	403	436
EBITDA Margin	37.6%	34.7%	34.6%
Operating Cash Flow	287	305	286
Capex	235	245	322
Free Cash Flow	52	60	36
Net Debt/Equity	285.91	248.08	241.50

Source: Company data, BofA Merrill Lynch Global Research

Pennon Group PLC (Neutral)

Pennon operates and invests in two areas. 1) Water - South West Water Services: The regulated water company supplies water and sewerage services to the population of Devon and Cornwall; and 2) Waste - Viridor: one of the leading UK waste management companies, handling more than 8 million tonnes pa.

Pennon is a play on UK water utilities. The water utility business (SWW) represents 70% of group value, Viridor waste the rest. In our view, SWW was a relative winner at the 2009 regulatory review, although some aspects (eg, low RAV growth) were less reassuring. Viridor has not disappointed despite challenging macro conditions. DPS growth has now been set at 4% real for 2010-15, highest among its peers. The shares offer lower fundamental upside relative to peers, in our view. Upside risks lie in a resumption of corporate activity.

Table 80: SABESP – key data

Analyst's Name	Moreno,Diego		
Analyst's Email Id.	diego.moreno@baml.com		
Analyst's Phone No.	+55 11 2188 4223		
CSBJF	2010	2011E	2012E
Revenues	9,231	9,962	10,544
Operating Profit	NA	NA	NA
Operating Margin	NA	NA	NA
Y-o-Y Growth	NA	NA	NA
Net Profit	1,630	1,106	1,172
Net Margin	17.7%	11.1%	11.1%
Y-o-Y Growth	8.1%	-32.1%	6.0%
EBIT	2,670	2,179	2,480
EBIT Margin	28.9%	21.9%	23.5%
EBITDA	3,223	2,872	3,233
EBITDA Margin	34.9%	28.8%	30.7%
Operating Cash Flow	2,233	1,723	2,070
Capex	1,902	1,978	2,057
Free Cash Flow	332	255	13
Net Debt/Equity	64.82	66.92	67.30

Source: Company data, BofA Merrill Lynch Global Research

Table 81: Severn Trent – key data

Analyst's Name	Das,Pinaki		
Analyst's Email Id.	pinaki.das@baml.com		
Analyst's Phone No.	+44 20 7996 2453		
SVTRF	2010	2011E	2012E
Revenues	1,704	1,711	1,786
Operating Profit	557	519	525
Operating Margin	32.7%	30.3%	29.4%
Y-o-Y Growth	18.6%	-6.8%	1.2%
Net Profit	252	220	232
Net Margin	14.8%	12.9%	13.0%
Y-o-Y Growth	20.3%	-12.7%	5.4%
EBIT	557	519	525
EBIT Margin	32.7%	30.3%	29.4%
EBITDA	814	791	809
EBITDA Margin	47.8%	46.2%	45.3%
Operating Cash Flow	460	540	522
Capex	495	405	365
Free Cash Flow	-	35	157
Net Debt/Equity	416.97	364.27	353.67

Source: Company data, BofA Merrill Lynch Global Research

Table 82: Suez Environnement – Buy

Analyst's Name	Lopez,Eric		
Analyst's Email Id.	eric.j.lopez@baml.com		
Analyst's Phone No.	+44 20 7996 4143		
SZEVF	2010	2011E	2012E
Revenues	13,869	14,976	15,736
Operating Profit	1,221	1,209	1,363
Operating Margin	8.8%	8.1%	8.7%
Y-o-Y Growth	40.8%	-0.9%	12.7%
Net Profit	388	451	529
Net Margin	2.8%	3.0%	3.4%
Y-o-Y Growth	60.9%	16.1%	17.5%
EBIT	1,221	1,209	1,363
EBIT Margin	8.8%	8.1%	8.7%
EBITDA	2,195	2,333	2,550
EBITDA Margin	15.8%	15.6%	16.2%
Operating Cash Flow	1,734	1,538	1,865
Capex	1,251	1,334	1,422
Free Cash Flow	483	205	443
Net Debt/Equity	164.99	154.49	139.37

Source: Company data, BofA Merrill Lynch Global Research

Companhia de Saneamento Basico do Estado de Sao (SABESP) – Buy

Sabesp is the largest water and sewage service provider in Latin America, rendering services in the state of Sao Paulo, with an estimated population of 39.6m and accounting for 32% of Brazil's GDP. Sabesp services 368 of the 645 municipalities in the state, including the city of Sao Paulo. The company also supplies water on a wholesale basis to six municipalities in the Sao Paulo metropolitan region in which it does not operate water systems.

SABESP is a pure play in the growth prospects for the water utility business in Brazil, where it is the No. 1 player in the market. The September 2012 implementation of a tariff regime for Sabesp should drive (1) a re-rating of valuation multiples, and (2) earnings growth from remuneration of Sabesp's expansion capex as it seeks to increase coverage. We see limited downside risk and expect the stock to rerate due to a better regulatory environment with better visibility of earnings and returns.

Severn Trent (Buy)

Severn Trent Water: The regulated water utility serves a population of 8.2m in the Midlands. It is the only UK water services group without any coastline. Severn Trent's Water Technologies & Services are retained unregulated businesses (water purification, operating services and analytical services) that are close to the regulated water utility's core competencies, and principally trade in the US and the UK.

Severn Trent is a pure play on water and wastewater treatment in the UK, Europe, Middle East and Asia. It has the potential to become a UK water industry leader in operational performance and service levels, key metrics for a regulated utility, in our view. In recent years, the utility has undergone significant change, including the consolidation of its operations into a central HQ and an overhaul of processes and IT systems (SAP). SVT has consulted with various stakeholders on water sector reforms, especially highlighting the potential benefits of water trading and a need to incentivise innovation in the industry. Valuation is attractive compared with some listed peers, in our view. Upside risk lies in a resumption of corporate activity.

Suez Environnement – Buy

Suez Environnement was spun off from Suez and listed separately on 22 July 2008. It is among the leading water and waste operators in the world together with Veolia Environnement, has revenues of €12bn (2007) and 65,915 employees. Almost half of its sales are generated in the European waste division, 32% in the European water activity and 22% in water and waste outside Europe.

Suez Environnement provides strong exposure to environmental services - in particular water supply and water treatment and waste - across the world. As such, it represents one of the default investment options together with Veolia. In a challenging macro environment, the company continues to deliver visible and high quality performance. Tightening environmental regulation and GDP growth are long-term business drivers. The group is focused on generating 5-7% top line growth and maintaining margins at current levels. The need to acquire to deliver growth targets adds a degree of re-investment risk.

Table 83: United Utilities – key data

Analyst's Name	Das,Pinaki		
Analyst's Email Id.	pinaki.das@baml.com		
Analyst's Phone No.	+44 20 7996 2453		
UUGWF	2010	2011E	2012E
Revenues	2,439	1,513	1,588
Operating Profit	756	596	586
Operating Margin	31.0%	39.4%	36.9%
Y-o-Y Growth	2.0%	-21.1%	-1.7%
Net Profit	385	239	240
Net Margin	15.8%	15.8%	15.1%
Y-o-Y Growth	6.9%	-37.9%	0.2%
EBIT	756	596	586
EBIT Margin	31.0%	39.4%	36.9%
EBITDA	1,061	887	894
EBITDA Margin	43.5%	58.6%	56.3%
Operating Cash Flow	912	575	585
Capex	573	491	592
Free Cash Flow	339	85	6
Net Debt/Equity	325.35	284.82	301.60

Source: Company data, BofA Merrill Lynch Global Research

Table 84: Veolia Environnement – key data

Analyst's Name	Lopez,Eric		
Analyst's Email Id.	eric.j.lopez@baml.com		
Analyst's Phone No.	+44 20 7996 4143		
VEOEF	2010	2011E	2012E
Revenues	34,787	33,724	35,887
Operating Profit	2,056	1,823	2,114
Operating Margin	5.9%	5.4%	5.9%
Y-o-Y Growth	6.4%	-11.3%	16.0%
Net Profit	580	436	526
Net Margin	1.7%	1.3%	1.5%
Y-o-Y Growth	16.9%	-24.8%	20.6%
EBIT	2,056	1,823	2,114
EBIT Margin	5.9%	5.4%	5.9%
EBITDA	3,654	3,392	3,804
EBITDA Margin	10.5%	10.1%	10.6%
Operating Cash Flow	2,565	2,368	2,284
Capex	2,598	2,776	2,693
Free Cash Flow	33	408	409
Net Debt/Equity	140.59	134.03	132.82

Source: Company data, BofA Merrill Lynch Global Research

United Utilities – Buy

United Utilities is the UK's largest listed water company, providing regulated water and wastewater services in north-west England to about 7 million customers. It has 184 reservoirs, 42,000+ km of water mains, 43,000+ km of sewers, 1,400+ km of aqueducts, 100 water treatment works and 575 wastewater treatment works.

UU is a play on UK water and wastewater. Its RAV growth is the highest among the listed UK water companies, which is a key attraction. Recent disposals and a recovery in RPI have addressed the previously weak balance sheet, which should help the company sustain the dividend policy in 2011-15. UU has made efforts to control costs and lock in efficiencies in financing and capex, positioning the utility for modest outperformance during 2011-15. Fundamentals like water demand are also more stable now. The upside risk lies in a resumption of corporate activity.

Veolia Environnement – Buy

Veolia Environnement is the global leader in the delivery of environmental services to municipalities (70% revenues) and industrial clients. Veolia Water serves a population of c.120m, and is global no 1. Veolia Environmental Services is the European market leader in waste management, & globally no. 2. Veolia Energy is a leading energy & facilities management company. Veolia Transport is the no. 1 public passenger transport operator in Europe.

Veolia Environnement provides unrivalled exposure to the provision of environmental services, in particular, water and waste across the northern hemisphere. The water business supplied 100 million people with water and collected 7.3bn m³ of wastewater in 2010. Priorities include tapping growth opportunities in EMEA and Asia, improving efficiency and assessing and tracking the performance of membrane technology. Tightening environmental regulation and GDP growth are long-term business drivers – and we have a 2011-13E CAGR for water revenues of close to 3% pa and for EBITDA of 4.1%. The shares have underperformed and sentiment is low post poor H1 2011 results and the profit warning. The focus is now on reducing the group's geographical footprint, controlling costs and improving profitability. Veolia has never been restructured and the plan to sell €3bn of assets and exit 40 countries is a new and transforming step in the company's history.

Table 85: Water Infrastructure – Other companies involved in water utilities

BBG Ticker	Company	Location	BofAML Ticker	Market Cap (US\$m)	Investment Opinion	Water Exposure
WTR US	AQUA AMERICA INC	UNITED STATES	NR	2,984.01	NR	100%
ARTNA US	ARTESIAN RESOURCES CORP-CL A	UNITED STATES	NR	129.73	NR	100%
855 HK	CHINA WATER AFFAIRS GROUP	HONG KONG	NR	510.27	NR	100%
1129 HK	CHINA WATER INDUSTRY GROUP L	HONG KONG	NR	24.76	NR	100%
1038 HK	CHEUNG KONG INFRASTRUCTURE	HONG KONG	CKISF	13,660.51	REVIEW	<10%
EASTW TB	EASTERN WATER RESOURCES DEV	THAILAND	NR	327.83	NR	100%
MWC PM	MANILA WATER COMPANY	PHILIPPINES	NR	913.14	NR	100%
TTW TB	THAI TAP WATER SUPPLY PCL	THAILAND	NR	668.28	NR	100%

Source: BofA Merrill Lynch Global Research. * Water exposure = BofAML estimates of current sales derived from water related products, services, technologies and solutions

Table 86: Other companies involved in water utilities

Company	BBG ticker	Overview
AQUA AMERICA	WTR US	Holding company for regulated water and wastewater utilities serving approximately three million people in 13 states. The company's largest operating subsidiary, Aqua Pennsylvania accounted for approximately 53% of their operating revenues last year, therefore regulatory conditions and availability of finance from the state will be important for an investor. During 2010, the company completed 23 acquisitions and expanded its customer base by 9,931 new customers. Aqua America is currently in nine active rate proceedings in four of its thirteen states proposing an aggregate annualised rate increase of \$14,201. (Annual report 2010)
ARTESIAN RESOURCES CORP. (ARTNA)	ARTNA US	Operates as the holding company of eight wholly owned subsidiaries. Artesian Water Company, the principal subsidiary, is the largest investor owned public water utility on the Delmarva Peninsula and accounts for 90% of revenues. The strength of this stock is that its service area is located in two of the fastest growing areas of the United States. The company's three non-regulated subsidiaries include Artesian Utility Development, Artesian Development Corporation and Artesian Consulting Engineers.
CHEUNG KONG INFRASTRUCTURE	1038 HK	Interests in transportation, energy, water, and construction materials primarily in Hong Kong and mainland China. Its energy group owns nearly 40% of Hongkong Electric and has stakes in several Chinese power plants. CKI's materials operations include cement and concrete firms. The transportation arm oversees toll roads and bridges in five Chinese provinces. The company also has infrastructure investments in Australia, New Zealand, Canada, and the UK. Through Hutchison Whampoa, real estate investment holding company Cheung Kong (Holdings) Limited controls a 85% stake in CKI. CKI owns a 100% stake in Northumbrian Water (Serving North East England and South East England), a 4.75% strategic stake in Southern Water (which Supplies water and waste water services to the South of England) and a 49% stake in AquaTower Pty Limited (AquaTower has the exclusive rights until 2027 to provide potable water to four towns in Victoria).
CHINA WATER AFFAIRS GROUP	855 HK	One-stop water services solution provider with a diversified business portfolio ranging from urban water supply, sewage treatment, installation of water pipes and electronic meter systems, to water resources management. The group already owns two sewage treatment plants and was granted the first right of refusal to operate any of or the whole bundle of 80 sewage treatment plants which were to be completed in Jiangxi Province before September 2010. Their regulated water revenues has a 30-50% gross profit margin, while their non-regulated meter installation and construction revenue has a gross profit margin of 40-80%, construction 30-50% and sewage and raw water has a gross profit margin of 20-40%.
CHINA WATER INDUSTRY GROUP	1129 HK	Specializes in the investment and operation of water projects in China and serves as a professional investment company and operational and managerial service provider in the water industry in urban areas. The main business scope of the group includes the production, supply and sale of running water; the installation and modification of water meters and related services; and the construction of water supply facilities. The Group successively invested in, established and has been operating several municipal water supply companies and sewage treatment companies. The Group has also established strategic alliances with large municipal design houses and large-scale state-owned water affairs groups in an effort to obtain continuous support in terms of technology, management and talent. The existing water supply investment projects of the group are located in provinces like Shandong, Jiangxi, Anhui, Henan and Hainan. The Group is actively negotiating for possible cooperation with cities in provinces such as Jiangsu, Guizhou, Sichuan, Hunan and Henan.
EASTERN WATER RESOURCES DEVELOPMENT & MANAGEMENT	EASTW TB	Eastern Water is a Thailand-based company engaged in the integrated water business. The company's principle activities are the development and management of the water distribution pipeline systems in the Eastern Seaboard areas of Thailand, as well as the procurement of raw water from government agency sources for commercial distribution to end users. It provides two types of constructed wetlands: free water surface (FWS) wetlands, which is used to improve sewage water treated in a stabilization pond, and wetland and vegetated submerged bed (VSB), which is used to protect wastewater from insects or animals and prevents contamination caused by pathogenic microbes. A subsidiary of the company is Universal Utilities which engages in waterworks management, non-revenue water management, wastewater treatment management, O&M management and invests in its water quality analysis laboratory. Sales of raw water account for 68% of the total, tap water 23%, rental and service 8% and 1% other income. Universal Utilities, a subsidiary, intends to develop is recycled water and industrial water capacities to complement its SWRO and surface water treatment businesses.
MANILA WATER COMPANY	MWC PM	Manila Water Company is a full service water utility company serving the Philippine market. Manila Water is a company involved in providing water, sewage and sanitation services. The company holds exclusive rights to provide water delivery and sewerage and sanitation services under the terms of a 25-year concession agreement to approximately 6m people in the East Zone. FY2010, 82% of the Company's revenue came from water delivery. Rate rebasing occurs every 5 years which serves as a basis for reviewing Manila Water performance as well as determining the new business plan that the company will have to undertake. The company has recently won approval for the renewal of the Concession Agreement. This will effectively extend the concession period by 15 years beyond 2022, the current year of expiry. An additional one million people have been targeted by the company to be connected to the water network over the next five years.
THAI TAP WATER	TTW TB	Thai Tap Water Supply Co., Ltd is a water utility company that supplies water in the provinces of Nakorn Pathom and Samut Songkram. Thai Tap Water is engaged in the production and distribution of tap water. It has two subsidiaries, namely Pathumthani Tap Water, which provides treated water and Thai Water Operation, which is involved in the quality control management of water. The company has signed a 30-year contract with the Provincial Waterworks Authority under a build-own-operate agreement to supply treated water to five districts.

Source: BofA Merrill Lynch Global Research, Bloomberg

Table of companies mentioned

Table 87: Table of companies mentioned

Companies Mentioned	BofAML Symbol	Recommendation	Q-R-Q	Price
ALFA LAVAL	ALFVF	UNDERPERFORM	B-3-7	SEK 108
DANAHER CORP	DHR	BUY	B-1-7	USD 43
ECOLAB INC	ECL	BUY	A-1-7	USD 50
KURITA	KTWIF	UNDERPERFORM	B-3-7	JPY 2104
NESTLE (REG)	NSRGF	BUY	A-1-7	CHF 49.02
SCI	SCRPF	NEUTRAL	B-2-7	SGD 3.43
TORAY	TRYIF	BUY	B-1-7	JPY 541.00
DEERE & CO	DE	BUY	B-1-7	USD 68.44
GEBERIT	GBERF	NEUTRAL	B-2-7	CHF 164
HORIBA	HRIBF	BUY	B-1-7	JPY 2310
IDEXX	IDXX	BUY	B-1-9	USD 72
ITRON INC.	ITRI	BUY	B-1-9	USD 34
ITT CORP.	ITT	UNDERPERFORM	A-3-7	USD 43
JAIN IRRIGN	JNIDF	NEUTRAL	C-2-7	INR 143
SYNGENTA	SYENF	BUY	A-1-7	USD 238
TOTO	TOTDF	UNDERPERFORM	B-3-7	JPY 657
KSB AG	KSVRF	BUY	B-1-7	EUR 362
KUBOTA	KUBTF	UNDERPERFORM	B-3-7	JPY 642
ROTORK	RTOXF	NEUTRAL	B-2-7	GBP 1570
AECOM TECHNOLOGY	ACM	BUY	C-1-9	USD 18
AVENG LTD	AVEPF	NEUTRAL	B-2-8	ZAR 35
BEIJING ENTER	BJINF	BUY	C-1-7	HKD 40
GUANGDONG INVEST	GGDVF	UNDERPERFORM	B-3-8	HKD 4.66
IVRCL INFRASTRUC	IIFRF	BUY	C-1-7	INR 36.50
KEP	KPELF	BUY	B-1-7	SGD 8.05
NAGARJUNA CONST	NGRJF	BUY	C-1-7	INR 61.40
OHL	OBSJF	BUY	B-1-8	EUR 17
URS CORP.	URS	UNDERPERFORM	B-3-9	USD 30
AMERICAN WATER WORKS	AWK	BUY	B-1-7	USD 30
COPASA	CSAOF	BUY	C-1-7	BRL 30
PENNON	PEGRF	NEUTRAL	A-2-7	GBP 684
SABESP	CSBJF	BUY	C-1-7	BRL 44
SABSEP-ADR	SBS	BUY	C-1-7	USD 48
SEVERN TRENT	SVTRF	BUY	A-1-7	GBP 1494
SUEZ ENVIRONNEMENT	SZEVF	BUY	A-1-8	EUR 10
UNITED UTILITIES	UUGWF	BUY	A-1-7	GBP 602
VEOLIA	VEOEF	BUY	B-1-8	EUR 10
VEOLIA	VE	BUY	B-1-8	USD 14
DANONE	GPDFN	BUY	A-1-7	EUR 45

Source: BofA Merrill Lynch Global Research

Prices as at 27/09/2011

SPS = SWISS PRIME SITE

Source: BofAMerrill Lynch Global Research

Price objective basis & risk

Toray (3402)

Our JPY760 price objective is about 1.9x our FY3/12 BPS estimate. We derived our price objective from past correlation between ROE and P/B. Our price objective is about 9.4x EV/EBITDA. This is about the average of the range for the past 10 years. Our price objective is 16x our FY3/12 EPS estimate, and about 15x our FY3/13 EPS estimate. For reference, Toray's adjusted P/E ranged between 12x and 37x over the past 10 years, excluding abnormal figures. Valuation is high compared with competitors, but we believe this sort of premium is fair given Toray's technical capabilities and growth potential. We forecast FY3/13 adjusted ROE at 13.6%.

Risks to our view are greater-than-expected fluctuations in foreign exchange and raw materials/fuel, as well as: 1) further major delays in B787 deliveries or the 10 aircraft/month production structure being pushed back, 2) another round of price declines for carbon fiber due to intensified competition, and 3) a change in the company's stance on cost controls. Another risk could be investments in low-return areas during this period of expanded capex.

TOTO (5332)

We set our price objective at JPY620, equating to a P/B of 1.2x based on our FY3/12 estimates. We apply a discount to its 10-year historical average P/B of 1.3x, as we forecast housing starts will be down over 30% from their 10-year historical average of 1.17mn at 800,000, and in view of the deterioration in its utilization rate. The stock still looks too expensive relative to sector for us to raise our rating to Buy. Upside risks are (1) an unexpected sharp recovery in housing starts and remodeling, (2) the announcement of major restructuring or M&A deals, and (3) materials prices falling more than expected.

Kubota (6326)

Our price objective for Kubota (6326) is JPY720. This equates to a P/E of just below 15x and an EV/EBITDA multiple of around 9x (8x excluding the finance business) based on our FY3/13 estimates. In our price objective calculation, we factor in average share-price valuations during the period of earnings growth since 2001 (P/E about 18x, EV/EBITDA multiple about 9x). Developments that could trigger a rise in the share price are 1) yen depreciation on currency markets, 2) a sharp rise in the rice price, and 3) accelerating underlying sales growth for Asian agricultural machinery.

Kurita (6370)

Our price objective for Kurita (6370) is JPY2,300. This is based on a FY3/13 EV/EBITDA of just under 5x and translates to a P/E of approximately 16x. The EV/EBITDA we apply is based on the lower end of the company's historical range because we expect valuations to decline as profit growth slows. Upside risks to our price objective include 1) the capture of large new orders in the ultra-pure water supply business, 2) expansion of overseas earnings, and 3) expansion of capex in the manufacturing sector.

Horiba (6856)

Our price objective for Horiba is JPY3,100, equating to a prospective FY12/12 P/E of 13x, a 20% discount to measuring equipment major Shimadzu's P/E of 16x. The hypothetical P/E range based on Horiba's four-year moving average P/E is 9-17x. The P/E of 13x on which we base our price objective is roughly the midpoint of this hypothetical range. Our price objective equates to the appropriate share price we calculated based on the sum-of-the-parts method (we assign an

EV/EBITDA of 6x to automotive test systems, scientific instruments and systems, and process and environmental systems, 5x to semiconductor instruments and systems, and 7x to medical systems. Risks are R&D spending cutbacks by automakers, below-target capex by semiconductor makers, and harsher competition in the medical equipment market.

AECOM Technology (ACM)

Our PO of \$35 is based on applying a 12x P/E to our CY12 EPS estimate of \$2.90. 12x is conservatively at a discount to the company's historical average of 17x, reflective of uncertainty related to US infrastructure spending outlook. 12x would put ACM at a discount to its comparables, which we think is fair given projected below-average EPS growth.

Risks are:

- 1) A global economic downturn: A significant economic slowdown could lead to AECOM's private clients cutting their spending on proposed and/or existing projects.
- 2) Federal budget (DoD and DHS) cuts and shortfall in state & local tax receipts: Federal/state/local budgets are key to the company's growth. Any significant deterioration in these budgets would impair the company's ability to meet our growth estimates.
- 3) Acquisition strategy: Acquisitions are an integral part of the company's future growth strategy. This is an inherently risky strategy that relies on the availability of attractive acquisition candidates and successful integration.

Alfa Laval (ALFVF)

Our SEK 145 price objective is based on applying a target 2012 EV/EBIT multiple of 10.0x to our 12e operating profit. We think this multiple is appropriate given Alfa Laval's strong growth outlook and resilient margins, but lower demand visibility.

Downside risks to our price objective would come from a collapse in commodity prices or a weakening of emerging market growth. Upside risks would be stronger margin execution.

American Water Works (AWK)

Our \$32 price objective is 16x P/E our 2013E of \$1.99. We believe AWK should trade at no more than a 10% discount to the average 2013 P/E multiple for the water utility sector. Risks to our price objective are regular reviews of about \$1.25B in goodwill on the balance sheet and the importance of successful rate relief in various jurisdictions.

Aveng Ltd (AVEPF)

We value Aveng at ZAR39 through a combination of EV/EBITDA (4.3x), PE (8.2x), PE relative (0.9x) and P/B (1.5x) multiples. Near-term challenging trading conditions in particularly SA and strain on operational cash generation are expected to weigh on the price. It remains our preferred SA construction exposure given its cash pile (12% of market cap), strong balance sheet and diversified nature of operations (geographically and operationally).

Risks to our price objective are: 1) non-delivery by government on planned infrastructure spend, 2) risk management systems not being able to cope with more complex, bigger contracts assumed 3) sudden surge in public sector infrastructure project awards.

Beijing Enterprises Holdings Limited (BJINF)

Our price objective of HK\$64.7 is set on a par with our NAV estimate, which is based on our sum-of-the-parts analysis. We use DCF analysis (9.5% WACC and 4% terminal growth) to value Beijing Gas' distribution business, industry average of 20x 2010E PE for Huayou pipeline, NAV accretion for #3 Shan-Jing pipeline, industry average of 15x 2010E PE for toll road, 15x 2010E PE for water unit, and market value for Yanjing Brewery and BE Water Group.

Risks are a sharp slowdown in the regional economy and cost pressures faced by its gas and brewery businesses.

COPASA (CSAOF)

Our R\$44 price objective is in line with our DCF value using a WACC of 6.7% in nominal US\$, assuming Brazil risk of 120bp, 4.1% risk-free rate, 5.7% equity risk premium, and 2% perpetuity growth. At our price objective Copasa would trade at 10.1x 2012 P/E, above average of 6.1x of historical multiple. In our view, the improved regulatory environment expected over the next year justifies a higher multiple.

Downside risks are (1) new tariff regime implementation delays, (2) a less favorable ROA-based tariff, though we see limited downside risk as tariffs need to attract investments to raise sewage coverage and treatment, (3) government ownership, (4) a more fragmented regulation than electricity and (5) low liquidity.

Danaher Corp (DHR)

We derive our \$54 price objective by applying roughly 16x forward P/E to our 2012 EPS estimate of \$3.40. A 16x target multiple would represent a discount vs. DHR's average forward P/E multiple over the past 5 years, which we deem appropriate at this point given heightened global economic uncertainties. However, our target multiple would still represent a slight premium over the average valuation of our group. DHR historically carries a valuation premium vs. other multi-industry names, given the company's superior business system, more favorable/defensive business mix, leading market positions and long-term track record of superior free-cash generation. Our price objective could be conservative if the company achieves higher-than-expected organic growth due to faster recovery of the more cyclical businesses.

Risks to our price objective are: organic growth deceleration due to weaker-than-expected industrial activities, delay in resolution with the FDA that could postpone Beckman's earnings recovery, and increased competition in Danaher's higher-margin businesses.

Danone (GPDNF)

Our PO of EUR56/US\$15.9 assumes a 12m fwd PE of 15.4x, in line with the European food sector.

In the European food space, we believe Danone is most likely to see EPS upgrades in 2011 based on reaccelerating topline growth, easing input cost pressures and strong FCF generation.

We believe the shares should be supported as investors continue to favour stocks exposed to EMs in 2011. (BofAML continue to forecast 2011/12E EM GDP growth of 5% as compared to 1.5-2% for developed markets). Danone's high EM exposure (45% of sales) coupled with continued US growth should drive top line,

particularly in Dairy and Baby Nutrition.

The share has de-rated vs. Nestle and Unilever over the past 12 months, and we believe a return to its historical premium to peers is possible if growth reacceleration continues.

The downside risks to our price objective are material and unrecoverable cost inflation, especially in milk and PET, trading down in Europe and US markets, collapse in developing market GDP and currencies, negative impact from the European Food Safety Authority claims process, and large-scale value destructive M&A.

Upside risks are further input cost relief or a sustained reacceleration of top-line growth, leading the Street to put Danone back on a meaningful premium to peers.

Deere & Co (DE)

Our PO of \$104 is based on applying a 14x P/E multiple to our FY12E EPS of \$7.46. 14x P/E is slightly below the company's average historical valuation of 15.6x P/E, which we view as appropriate at this later point of the ag and construction cycle.

Risks to our price objective are: 1) Deere is currently benefiting from historically high commodity prices for corn, grain and soybeans, and a potential correction/decline in these prices could hurt demand for equipment in NA and SA, 2) Share prices could decline further if the company's Construction & Forestry segment meets greater than expected headwinds in both residential and non-residential construction markets, 3) The company is trying to establish a market position in Latin America. Greater-than-expected competition and aggressive pricing from competitors such as AGCO could prevent DE from taking market share in the region.

Ecolab Inc (ECL)

Our \$62 price objective is based on a 22x multiple of our 2012 EPS estimate, which is below the five-year median forward multiple of 24x. Valuation is supported by our expectations that EPS could continue to grow at approximately 13% per year over the next five years. Risks to our price objective are: (1) the nature and timing of acquisitions, (2) higher raw material costs, (3) negative FX translation, and (4) the company's ability to sustain current organic growth rates.

Geberit (GBERF)

Our price objective for Geberit is CHF171. This is the mid point between our DCF calculation and our estimate of implied mid-cycle fair value. Our DCF gives fair value of CHF172, assuming a market Risk Premium of 6.8%, WACC of 10.1%, gross cost of debt of 7% and long term growth of 2%. Our mid cycle valuation applies a 15x PE to 2013 EPS and gives fair value of CHF170. The upside risk to our price objective is that if German demand recovers more quickly and strongly than we expect, during 2010, this may well help eps to beat our forecasts. The downside risk, conversely, is if there is a greater slowdown in Germany then eps will deteriorate more quickly than we expect and this will reduce eps by more than we currently assume.

Guangdong Investment (GGDVF)

Our 12-month PO of HK\$4.60 is based on 35% holding company discount to estimated NAV (in line with its current trading discount). Our NAV is derived from

our sum of the parts analysis. We use DCF analysis to value its Dongshen Water Supply Project. We applied 8 -10% caps rate to value its investment properties, and industry average of 10x and 12x 2011E PE for toll road and power plants. We apply 15x 2011E PE for the department store, a slight discount to the the national department store chains in China.

Risks are tariff hike higher than expected and potential acquisition/injection of new projects.

IDEXX Laboratories (IDXX)

Our \$89 Price Objective is based on a P/E multiple of 29.2x and an 2012 EV/EBITDA multiple of 15.9, well off historical highs of 36.9x and 19.6x, respectively, better reflecting its growth prospects as the veterinary industry rebounds. Risks to our call are continuing lackluster veterinary traffic trends, unfavorable regulatory outcomes, and material inroads from reference laboratory competitors.

Itron Inc. (ITRI)

Our price objective of \$47 is supported by (1) a one-year forward P/E target multiple of 12x our 2012 adjusted EPS estimate of \$4.10, which is a conservative 20% discount to Itron's primary comparable, (2) a forward EV/Sales target multiple of 1.0x on our 2012 revenue forecast of \$2.36 billion, a 25% discount versus Itrons primary comparable, and (3) discounted cash flow analysis, with a WACC of 9.0% and a terminal EV/EBITDA multiple of 5.5x.

Risk to our price objective are: (1) AMR meter revenue falling offsets increases in AMI smart meters, (2) resistance from consumers seeing higher bills to implementation of smart meters, (3) increased competition from established and new entrants, (4) Itron's fast-follower strategy backfiring, and (5) failure to create value-added applications longer term.

ITT Corp. (ITT)

We derive our \$54 price objective for ITT by applying roughly 11x foward P/E to our 2012 EPS forecast of \$5.15, then subtract \$2-3 per share of transformation costs from the derived share price - resulting in a target forward multiple of roughly 10.5x. Our 11x sum-of-the-parts forward multiple represents a weighted average valuation of ITT's three business segments - Defense, Fluid and Motion & Flow. Our price objective assumes that ITT can trade at roughly a peer-average valuation for its 3 businesses in a year, based on current forward multiples applied to our 2012 forecast.

We believe management's decision to spin off water-related and Defense businesses largely removed potential capital allocation risks and the associated "conglomerate discount" for ITT shares. However, we expect ongoing military spending pressures to continue to weigh on ITT's overall valuation vs. other multi-industry names, as pure-play Defense stocks' valuations remain relatively depressed due to outlook uncertainties.

Downside risks to our price objective are: potential costs and operational issues associated with the announced tax-free spin, a larger-than-expected decline in U.S. military spending, municipal water spending declines in the U.S. and Europe, unforeseen softness in the company's commercial end markets and additional asbestos charges. Upside risks are better-than-expected end-market improvements and take-out speculation.

IVRCL Infrastruc (IIFRF)

Our PO of Rs120 is based on SOTP valuation. We have valued IVRCL core construction business at 9x PER of FY13 EPS, a 50pct discount to E&C majors at Rs75 per share. Hind-dorr-Oliver where IVRCL has 55pct stake is valued at Bloomberg consensus PO of Rs68 giving a per share value of Rs10. IVR Assets, where IVRCL has 75.7pct stake, real estate business is valued at 50pct discount to NPV at Rs6 per share in line with Mid Cap real estate companies. Chennai desalination plant where IVRCL has 56.8pct stake is valued on a DCF basis at Rs5 per share. Similarly, Jalandhar-Amritsar project, Kumarapalayam-Chengapally project, and Salem-Kumarapalayam project where IVRCL has 75.7pct stake are valued based on DCF of Rs4, Rs9 and Rs8 per share respectively. We arrive at an SOTP value of Rs118 per share. Risks: Unrelated acquisition in Oil & Gas space, Government capex, raw material costs, competition, traffic/interest rate risk in toll/annuity projects and project execution risk.

Jain Irrigation Systems Ltd (JNIDF)

Our PO of INR270 is based on a 20x 1yr fwd PE and a 0.5x 2yr PEG, in line with a range of 0.4 to 0.6 for other mid-cap growth companies. We maintain our bullish view on the micro irrigation market, given i) <5% market penetration, ii) increasing focus of government on improving water usage efficiency. Risks: i) demand risks from a bad monsoon, ii) better-than-expected performance from Andhra Pradesh and iii) an adverse change in government subsidies.

Keppel Corporation (KPELF)

Our SOTP valuation derives a PO of S\$12.88 for KEP. The O&M business is the biggest contributor, at 66% of our PO. Our SOTP PO includes: 1) the valuation for 53%-owned Keppel Land, which BofAML analysts arrive at by discounting their RNAV/sh estimate by 25%, 2) share prices for listed associates Keppel T&T, K1 Venture, K-REIT Asia, and K-Green Trust, 3) RNAVs for Sino-Singapore Tianjin Eco-City projects and Keppel Bay projects, 4) FCFF valuation to derive the fair values for O&M, and the unlisted Infrastructure business, and 5) 10% conglomerate discount.

We believe DCF is an appropriate valuation methodology to capture the intrinsic value of KEP's O&M business, due to the high FCF-generative nature of this business. Key assumptions used for the O&M business are: 1) 7.2% WACC, 2) 2.2% risk-free rate, 3) 4.5% market risk premium, 4) 1.1 beta, and 5) 1% terminal growth rate.

Downside risks: 1) weaker-than-expected newbuild orders for offshore rigs and units due to an unexpected credit crunch, including the failure to win the Petrobras tender, 2) severe property price declines in China and Singapore, affecting new property launches, and 3) W-shaped global economic recession, resulting in a poorer outlook for all businesses. Upside risks: 1) stronger offshore newbuild orders as rig operators decide to invest in the physical replacement of their ageing fleets, and 2) steady property prices in China and Singapore.

KSB AG (KSVRF)

We set our DCF-based price objective at EUR625 per share. Key assumptions of our DCF are a WACC of 8.5%, an intermediate growth rate of 7% a 2% terminal growth rate and an 8% sustainable EBIT margin. Our price objective implies 11.6x 2012E P/E and 5.5x 2012E EV/EBITDA for KSB, still at a discount to its global pump manufacturer peers.

Risks to our price objective are declining order volumes, price pressure from aggressive competitors, raw material costs and risks related to the relocation of production know-how to low cost countries.

Nagarjuna Const (NGRJF)

Our PO of Rs125 / US\$2.80 for NCC is based on a sum-of-the-parts valuation. We have valued NCC's core construction business (parent) at PER of 8x FY13 EPS - a 50pct discount to E&C majors - at Rs71 per share. We have valued 100% stake in International construction subsidiaries at PER of 7x 1-year forward EPS at Rs12 per share. The effective stakes in Road projects of Brindavan Infra (33pct), Western UP Tollway (30pct), Bangalore Elevated Tollway (33.5pct), Orai-Bhognipur Infrastructure (64pct) and Pondicherry - Tindivanam Tollway are valued on a DCF / Book value of investment basis at Rs2, Rs9, Rs7 Rs6 and Rs1 per share respectively. Similarly, the effective stakes in Himachal Sorang Power (33.3pct), NCC power (100pct) and NCC Urban Infra (80pct) are valued on a DCF / Book value of Investment basis at Rs12, Rs4 and Rs5 per share respectively. Jubilee Hills Land Mark Projects and Telapur JV with Tishman & ICICI Venture are valued based on Book value of Investment at Rs4 and Rs3 per share respectively. Risks: Government capex, raw material costs, competition, traffic/interest rate risk in Infra projects and project execution.

Nestle (Reg) (NSRGF)

Our Nestlé price objective of CHF57 per share (ADR \$63) is based upon a forward PE multiple of 16.3x, toward the upper end of its historical trading range of 12-18x and at a modest premium to its peers.

Our PO is based on our view that Nestle is best positioned to weather the impact of rising input price pressures, adverse FX and a pressured consumer. We expect Nestle will still deliver results in line with the Nestle model in 2011 -- 5-6pc organic sale growth and an underlying improvement in trading operating margin. We forecast organic sales growth of 7.1pc in 2011 and 43bps increase in trading operating margin. In addition, we expect Nestle could benefit from asset rotation for investors seeking a defensive hedge against rising inflation in uncertain times. The risks to our price objective are a sharp consumer acceleration in developed markets, better than expected growth in developing markets, a weakening Swiss franc, and improvement in the pricing environment or a drop in key commodity prices.

OHL (OBSJF)

Our EUR27 price objective for OHL is based on a sum-of-the-parts methodology in which International Construction, Domestic Construction are valued on an earnings multiple basis, the Environmental division at expected disposal proceeds, the stakes in OHL Brasil and OHL Mexico at market price, the Spanish and Chilean concessions by means of independent cash-flow-to-equity models, and the remaining assets at multiples of book value. We apply a 4.8x 2011E EV/EBITDA multiple to the International Construction and a 3.0x 2011E EV/EBITDA multiple to Domestic Construction. We use a 5pc NAV discount. Risks are: (1) a disappointing pace of traffic growth, (2) depreciation of Latin American currencies, (3) failure to secure financing of concessions projects, (4) project risk in any of the major construction sites, and/or (5) a prolonged slowdown in the Spanish construction market.

Pennon (PEGRF)

Our 680p price objective is based on a 7% EV/RAV premium to the water utility SWW's 2012 RAV and our valuation for the waste division, Viridor. The premium

to RAV for SWW factors in nominal asset growth (SWW below peers) and outperformance potential (SWW better placed than peers, particularly in financing).

Around 70% of Group EV is represented by the water utility's RAV, with Viridor contributing the balance. This differentiates it from the other remaining trio of listed UK water groups. Trading at our PO, Pennon would offer a prospective yield of c4% and would imply an above average EV/EBITDA multiple.

The upside risk to our price objective lies in a resumption of corporate activity. Trading conditions and growth prospects at Viridor as well the UK economic and inflation outlook present both upside and downside risks.

Rotork Plc (RTOXF)

Our 1920p price objective is based on applying a 30% premium to our 2012 target sector EV/EBIT multiple of 9.0x. The 30% premium is in line with the stock's historical premium to the sector. We feel the premium is fair given Rotork's end market exposures and historical growth and margin profile.

Upside risks - faster rebound in oil & gas and power markets, value accretive acquisitions, further expansion into process markets.

Downside risks - aggressive market pricing, slow rebound in oil and gas markets, poor acquisition

SABESP (CSBJF)

Our R\$61/US\$74 price objective is in line with our DCF value using a WACC of 7.5% in nominal US\$, assuming Brazil risk of 120bp, 4.1% risk-free rate, 5.7% equity risk premium, and 2% perpetuity growth. At our price objective Sabesp would trade at 9.9x 2012E adjusted P/E, above the average 6.5x historical multiple. In our view, the improved regulatory environment expected over the next year justifies a higher multiple.

Downside risks to our price objective are (1) less favorable ROA-based tariff methodology proposal expected to be implemented in September 2012 (but we see limited downside risk as tariffs need to attract investments to raise sewage coverage and treatment), (2) delays in implementation of the new tariff methodology, (3) higher cost trends, (4) higher FX exposure than peers, and (5) state ownership (including potential asset transfers and renegotiation of past due amounts by the state/municipal governments).

Sabsep-ADR (SBS)

Our R\$61/US\$74 price objective is in line with our DCF value using a WACC of 7.5% in nominal US\$, assuming Brazil risk of 120bp, 4.1% risk-free rate, 5.7% equity risk premium, and 2% perpetuity growth. At our price objective Sabesp would trade at 9.9x 2012E adjusted P/E, above the average 6.5x historical multiple. In our view, the improved regulatory environment expected over the next year justifies a higher multiple.

Downside risks to our price objective are (1) less favorable ROA-based tariff methodology proposal expected to be implemented in September 2012 (but we see limited downside risk as tariffs need to attract investments to raise sewage coverage and treatment), (2) delays in implementation of the new tariff methodology, (3) higher cost trends, (4) higher FX exposure than peers, and (5)

state ownership (including potential asset transfers and renegotiation of past due amounts by the state/municipal governments).

Sembcorp Industries (SCRPF)

We have an SOTP-based Price Objective of S\$5.83 for Sembcorp Industries (SCI). This is driven largely by our above-consensus PO for its 61%-owned subsidiary, Sembcorp Marine (SMM), which is based on the DCF valuation model. We also use the DCF model to value the utilities business of SCI, which is the second-largest division of the group. We believe that the DCF valuation model will best capture the good cash-flow-generative nature of SCI's two main businesses.

Our DCF valuation model for SCI's utilities business uses a WACC of 4.6%, based on a risk-free rate of 2.2% and a market risk premium of 4.5%. We have assumed a terminal growth rate of 1%. Downside risks to our PO are: 1) sudden unexpected reduction in global oil demand and E&P activities, which would reduce the incentive to build new offshore drilling rigs and production units, 2) SMM's failure to win newbuild rig/FPSO contracts from Petrobras, 3) weaker-than-expected margin execution at the new yards of SMM in Singapore and Brazil, and 4) SCI's expansion of power plants in Singapore and overseas falters, removing the long-term growth potential of its utilities business.

Upside risks are: 1) faster-than-expected new offshore construction order upswing, and 2) opportunities to make overseas acquisitions of established utilities companies at a reasonable price.

Severn Trent (SVTRF)

Our price objective of 1535p has been set at a c7% EV premium to Severn Trent Water's RAV based sum-of-the-parts March 2012E. The premium mainly reflects the value of nominal asset growth and scope for outperformance. The valuation methodology is in line with peers.

At our PO, the prospective yield would be 4.8% and EV/EBITDA would be c9x, which would be slightly below average and reflects the company's lower asset growth profile in the current regulatory period.

Upside risk to our price objective lies in a resumption of corporate activity. Changes to RPI assumptions present both upside and downside risks to earnings, dividends, debt metrics and valuations. Economic and market conditions may have an impact on water demand, bad debts, debt costs and inflation, which present both upside and downside risks. Lastly, changes in the regulatory framework may impact earnings stability and valuations. Trading conditions at Severn Trent Services may also impact the company's earnings outlook.

Suez Environnement (SZEVF)

Our price objective is EUR16. It is based on a sum-of-the-parts approach. Our sum of the parts is based on individual branch DCFs based on cost-of-capital assumptions that vary between 7% and 8.5% depending on the risk profile of the division. We have assumed that ROCE will be stable over the next ten years and then have used a 2.5% terminal growth. For Aguas de Barcelona we have used a DCF approach instead of the listed share price mainly because the free float is too small. All our DCF's are end of 2011 valuations, so is the net debt figure we are using. We have used a capex programme below company's guidance mainly

because the difference with our numbers is acquisitions and we have limited visibility on them.

Risks to our price objective are linked to acquisitions and debt. The group has a strong balance sheet and could use it to make acquisitions which in the current environment could be negatively perceived.

Syngenta (SYENF)

Our DCF-based PO is SFR280 (US\$70.80 ADR) based upon a WACC of 7.5%, terminal growth of 2.5% and a NOPAT margin of 18.3%. At our PO the stock would be trading on 15.4x 2012E PE, in line with the long run average and a 20% premium to the chemical sector average, fair in our view, given premium ROCE and a strong CP franchise globally. The risks to our price objective are weather, subsidy regimes, grain/oil prices, currencies (mainly US\$), and legislation (biofuels).

United Utilities (UUGWF)

Our price objective is 635p, based on a c9% EV premium to March 2012E RAV. In line with the valuation methodology used for its listed UK water peers, UU's c9% premium is justified by its asset growth profile (higher than peers) and scope for outperformance (similar to peers).

At our PO, dividend yield will be c5%, which is justified given the low risk profile of regulated utilities in the UK compared to continental peers and also by a much better debt position at UU versus a year back.

The upside risk to our price objective lies in a resumption of corporate activity. Downside risks are underdelivery on cost cutting and efficiency. Changes in RPI present both upside and downside risk to earnings and valuations as well as sentiment. Changes in credit market conditions could effect UU's ability to efficiently finance its functions compared to its regulatory allowances. Lastly, changes in economic trends in the UK could have an effect on revenues and costs.

URS Corp. (URS)

Our PO of \$46 is based on applying a 11.6x P/E to our '12 EPS estimate of \$3.95. 11.6x is below the company's historical average P/E of 14x but in line with historical P/E during years of muted or decelerating growth.

Upside risks to our PO are:

- 1) Faster-than-expected recovery in private sector capex spending,
- 2) Increase to DoD and DoE budgets ahead of our forecast,
- 3) Cash redeployment into a large strategic acquisition accretive to earnings and well-received by investors.

Downside risks to our PO are:

- 1) A further deterioration in private clients' capex plans,
- 2) A more significant slowdown in state and local infrastructure spending due to weak state and local budgets,
- 3) Cash redeployment into a large acquisition dilutive to earnings or carrying significant integration risk

Veolia Environnement (VEOEF / VE)

Our price objective is EUR15/US\$21.45. We value the four divisions using a DCF approach. Our base-case valuation is based on a WACC of 7.4%. Regarding our

terminal value, we assume a ROCE in line with the cost of capital and long-term growth of 2.5%. We maintain that in the long-run Veolia should be able to maintain its ROCE around 8.5%.

The risks to our price objective are slower economic growth, an inability to pass through higher costs, EUR strength, weak enforcement of environmental legislation, and underperforming acquisitions.

Link to Definitions

Basic Materials

Click [here](#) for definitions of commonly used terms.

Consumer & Retail

Click [here](#) for definitions of commonly used terms.

Energy

Click [here](#) for definitions of commonly used terms.

Healthcare

Click [here](#) for definitions of commonly used terms.

Industrials

Click [here](#) for definitions of commonly used terms.

Macro

Click [here](#) for definitions of commonly used terms.

Analyst Certification

We, Akiko Kuwahara, Alex Toms, CFA, Andrew Obin, Andrew Stott, Ben Maslen, Bharat Parekh, Billy Ng, CFA, Claus Roller, CFA, David Ridley-Lane, Eric Lopez, Hideyuki Mizuno, Horatius Maluleka, John G. Inch, Marcin Wojtal, Mark Hake, Pinaki Das, Prasad Deshmukh, Robert M. Willoughby, Robert Waldschmidt, Ryohei Takahashi, Steve Fleishman, Steven Milunovich, CFA, Thomas Wong, Wee Lee, Chong, CFA and Yoshihiro Hashimoto, hereby certify that the views each of us has expressed in this research report accurately reflect each of our respective personal views about the subject securities and issuers. We also certify that no part of our respective compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

We, Sarbjit Nahal, Diego Moreno, Julie Dollé and Valery Lucas-Leclin, hereby certify that the views expressed in this research report about securities and issuers accurately reflect our respective models applied in the analysis. We also certify that no part of our respective compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

Special Disclosures

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BofA Merrill Lynch is currently acting as Financial Advisor to Mueller Water Products Inc in their review of strategic alternatives.

BofA Merrill Lynch is currently acting as financial advisor to Ecolab Inc. in connection with its proposed merger with Nalco Holding Company, which was announced on July 20, 2011. The proposed transaction is subject to approval by shareholders of Ecolab Inc and Nalco Holding Company. This research report is not intended to (1) provide voting advice, (2) serve as an endorsement of the proposed transaction, or (3) result in the procurement, withholding or revocation of a proxy.

28 September 2011

ASEAN - Industrial Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Bangchak Petroleum	XOOKF	BCP TB	Komsun Suksumrun
	ESSO (Thailand)	XSOSF	ESSO TB	Komsun Suksumrun
	Ezion Holdings	NYTTF	EZI SP	Wee Lee, Chong, CFA
	Glow Energy	GWEFF	GLOW TB	Sirichai Chalokepunrat
	Keppel Corporation	KPELF	KEP SP	Wee Lee, Chong, CFA
	Perusahaan Gas N	PPAAF	PGAS IJ	Daisy Suryo
	PT Delta Dunia Makmur	XPDNF	DOID IJ	Daisy Suryo
	PTT Aromatics and Refining	XRMCF	PTTAR TB	Komsun Suksumrun
	PTT Chemical Plc	XUAJF	PTTCH TB	Komsun Suksumrun
	PTT Explor'n	PTXLF	PTTEP TB	Komsun Suksumrun
	PTT pcl	PETTF	PTT TB	Komsun Suksumrun
	PTT pcl -F	PETFF	PTT/F TB	Komsun Suksumrun
	Sapuracrest Petroleum	SPBHF	SCRES MK	Wee Lee, Chong, CFA
	Sembcorp Marine	SMBMF	SMM SP	Wee Lee, Chong, CFA
	Siam Cement	SCVQF	SCC TB	Jiraporn Linmaneechote, CFA
	Siam Cement -F	SCVPF	SCC/F TB	Jiraporn Linmaneechote, CFA
	Thai Oil - L	TOIJF	TOP TB	Komsun Suksumrun
	Yangzijiang Shipbuilding	YSHLF	YZJ SP	Wee Lee, Chong, CFA
NEUTRAL				
	Ezra Holdings	EZRHF	EZRA SP	Wee Lee, Chong, CFA
	Indorama Ventures Public Company Limited	XIRDF	IVL TB	Komsun Suksumrun
	Sembcorp Industries	SCRPF	SCI SP	Wee Lee, Chong, CFA
	Tenaga Nasional	TNABF	TNB MK	Daisy Suryo
UNDERPERFORM				
	COSCO Corp Singapore	COIVF	COS SP	Wee Lee, Chong, CFA
	Electricity Generating Company Ltd.	EYGGF	EGCO TB	Sirichai Chalokepunrat
	IRPC	IRPSF	IRPC TB	Komsun Suksumrun
	MMHE Holdings Berhad	XMLMF	MMHE MK	Wee Lee, Chong, CFA
	United Tractors	PUTKF	UNTR IJ	Daisy Suryo
RVW				
	Energi Mega	PEGIF	ENRG IJ	Daisy Suryo
	Ratchaburi Electricity Generating	RCHPF	RATCH TB	Sirichai Chalokepunrat

EMEA - Building, Construction & Cement Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Balfour Beatty	BAFBF	BBY LN	Mark Hake
	Bellway	BLWYF	BWY LN	Mark Hake
	Berkeley Group	BKGFF	BKG LN	Mark Hake
	Bovis	BVHMF	BVS LN	Mark Hake
	CRH	CRHCF	CRH ID	Mark Hake
	CRH	CRH	CRH US	Mark Hake
	Ferrovial	FRRVF	FER SM	Marcin Wojtal
	HeidelbergCement	HLBZF	HEI GY	Maud Penillard
	Kingspan	KGSPF	KSP ID	Mark Hake
	Lafarge	LFGEF	LG FP	Maud Penillard
	OHL	OBSJF	OHL SM	Marcin Wojtal
	Persimmon	PSMMF	PSN LN	Mark Hake
	Redrow	RDWFF	RDW LN	Mark Hake
	Saint Gobain	CODGF	SGO FP	Mark Hake
	Taylor Wimpey	TWODF	TW/ LN	Mark Hake
	Vicat	SDCIF	VCT FP	Maud Penillard
	Vinci	VCISF	DG FP	Marcin Wojtal
	Wienerberger	WBRBF	WIE AV	Mark Hake
	YIT OYJ	YITYF	YTY1V FH	Mark Hake
NEUTRAL				
	Abertis	ABFOF	ABE SM	Marcin Wojtal
	ACS	ACSAF	ACS SM	Marcin Wojtal

28 September 2011

EMEA - Building, Construction & Cement Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
	Atlantia	ATASF	ATL IM	Marcin Wojtal
	Barratt Dev.	BTFDPF	BDEV LN	Mark Hake
	Buzzi Unicem ord	BZZUF	BZU IM	Maud Penillard
	Geberit	GBERF	GEBN VX	Mark Hake
	Holcim	HCMLF	HOLN VX	Maud Penillard
	Italcementi Sav	ITAMF	ITR IM	Maud Penillard
	Skanska	SKSBF	SKAB SS	Mark Hake
UNDERPERFORM				
	Brisa	BAUEF	BRI PL	Marcin Wojtal
	Eiffage	FGLLF	FGR FP	Marcin Wojtal
	Italcementi Ord	ITABF	IT IM	Maud Penillard
	Strabag	XSTBF	STR AV	Marcin Wojtal
	Titan	TITCF	TITK GA	Maud Penillard
RVW				
	Nexity	NXYAF	NXI FP	Mark Hake

EMEA - Chemicals & Paper Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Air Liquide	AIQUF	AI FP	Andrew Stott
	Air Liquide	AIQUY	AIQUY US	Andrew Stott
	Arkema	ARKAF	AKE FP	Laurent Favre, CFA
	Arkema - A	ARKAY	ARKAY US	Laurent Favre, CFA
	Croda	COIHF	CRDA LN	Andrew Stott
	DS Smith Plc	DITHF	SMDS LN	Ross Gilardi
	DSM	KDSKF	DSM NA	Andrew Stott
	DSM	DSM	RDSMY US	Andrew Stott
	Rexam	REXMF	REX LN	Ross Gilardi
	Rexam	REXMY	REXMY US	Ross Gilardi
	Solvay S.A.	SVYSF	SOLB BB	Laurent Favre, CFA
	Syngenta	SYENF	SYNN VX	Andrew Stott
	Syngenta AG	SYT	SYT US	Andrew Stott
	UPM-Kymmene	UPMKF	UPM1V FH	Ross Gilardi
NEUTRAL				
	Akzo Nobel	AKZOF	AKZA NA	Laurent Favre, CFA
	Akzo Nobel	AKZOY	AKZOY US	Laurent Favre, CFA
	BASF	BFFAF	BAS GR	Laurent Favre, CFA
	BASF	BASFY	BASFY US	Laurent Favre, CFA
	Clariant	CLZNF	CLN VX	Andrew Stott
	Givaudan	GVDBF	GIVN VX	Andrew Stott
	Israel Chemicals Limited	ISCHF	ICL IT	Andrew Stott
	Johnson Matthey	JMPLF	JMAT LN	Andrew Stott
	Johnson Matthey	JMPLY	JMPLY US	Andrew Stott
	Linde	LNAGF	LIN GR	Laurent Favre, CFA
	Mondi Plc	MONDF	MNDI LN	Ross Gilardi
	Smurfit Kappa Group	SMFTF	SKG LN	Ross Gilardi
	Symrise	SYIEF	SY1 GR	Laurent Favre, CFA
UNDERPERFORM				
	Holmen	HLMNF	HOLMB SS	Ross Gilardi
	K+S	KPLUF	SDF GR	Andrew Stott
	Lanxess	LNXSF	LXS GR	Andrew Stott
	Lenzing AG	LNZNF	LNZ AV	Fabio Lopes
	Stora Enso	SEOFB	STERV FH	Ross Gilardi
	Svenska Cellulosa AB (SCA)	SVCBF	SCAB SS	Ross Gilardi
	Umicore	UMICF	UMI BB	Andrew Stott
	Victrex	VTXPF	VCT LN	Laurent Favre, CFA
	Yara	YRAIF	YAR NO	Laurent Favre, CFA

28 September 2011

EMEA - Consumer Staples Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	AB InBev	BUD	BUD US	Nico Lambrechts
	Anheuser-Busch InBev	AHBIF	ABI BB	Nico Lambrechts
	Brit American	BTAFF	BATS LN	Nico Lambrechts
	Brit American	BTI	BTI US	Nico Lambrechts
	Britvic	BTVCF	BVIC LN	Henry Davies
	Danone	DANOY	DANOY US	Robert Waldschmidt
	Danone	GPDFN	BN FP	Robert Waldschmidt
	Diageo	DEO	DEO US	Nico Lambrechts
	Diageo	DGEAF	DGE LN	Nico Lambrechts
	Henkel	HENOY	HENOY US	Robert Waldschmidt
	Henkel	HENOF	HEN3 GR	Robert Waldschmidt
	Imperial Tobacco	ITYBF	IMT LN	Nico Lambrechts
	Nestle (Reg)	NSRGF	NESN VX	Robert Waldschmidt
	Nestle (Reg)	NSRGY	NSRGY US	Robert Waldschmidt
	Pernod Ricard	PDRDF	RI FP	Nico Lambrechts
	Reckitt Benckiser	RBGPF	RB/ LN	Robert Waldschmidt
	Reckitt Benckiser	RBGPY	RBGPY US	Robert Waldschmidt
	SABMiller Plc	SBMRF	SAB LN	Nico Lambrechts
	Swedish Match	SWMAF	SWMA SS	Henry Davies
NEUTRAL				
	C&C	CGPZF	GCC ID	Nico Lambrechts
	Campari	DVDCF	CPR IM	Nico Lambrechts
	Carlsberg	CABJF	CARLB DC	Nico Lambrechts
	Heineken	HINKF	HEIA NA	Nico Lambrechts
	Heineken NV	HINKY	HINKY US	Nico Lambrechts
	L'Oreal	LRLCF	OR FP	Robert Waldschmidt
	L'Oreal	LRLCY	LRLCY US	Robert Waldschmidt
	Unilever	UL	UL US	Robert Waldschmidt
	Unilever	UNLYF	ULVR LN	Robert Waldschmidt
	Unilever NV	UN	UN US	Robert Waldschmidt
	Unilever NV	UNLNF	UNA NA	Robert Waldschmidt
UNDERPERFORM				
	Assoc Brit Foods	ASBFY	ASBFY US	Robert Waldschmidt
	Associated British Foods	ASBFF	ABF LN	Robert Waldschmidt
	Beiersdorf	BDRFF	BEI GR	Robert Waldschmidt
	Coca-Cola Hellenic	CCHBF	EEEE GA	Henry Davies
	Coca-Cola Hellenic ADR	CCH	CCH US	Henry Davies
	Lindt & Sprungli	COCXF	LISN SW	Jacklyn Oh
	Remy Cointreau	REMYF	RCO FP	Nico Lambrechts

EMEA - Engineering & Capital Goods Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	ABB	ABB	ABB US	Mark Troman
	ABB Ltd.	ABLZF	ABBN VX	Mark Troman
	Alstom	AOMFF	ALO FP	Mark Troman
	Atlas Copco	ATLKF	ATCOA SS	Ben Maslen
	Cookson	CKSNF	CKSN LN	Alex Toms, CFA
	Hexagon AB	HXGBF	HEXAB SS	Ben Maslen
	IMI	IMIAF	IMI LN	Alex Toms, CFA
	Kone OYJ	KNYJF	KNEBV FH	Ben Maslen
	Melrose plc	MLSPF	MRO LN	Alex Toms, CFA
	Sandvik	SDVKF	SAND SS	Ben Maslen
	Sandvik	SDVKY	SDVKY US	Ben Maslen
	Schneider	SBGSF	SU FP	Mark Troman
	Spirax-Sarco	SPXSF	SPX LN	Alex Toms, CFA

28 September 2011

EMEA - Engineering & Capital Goods Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
	Weir Group	WEIGF	WEIR LN	Alex Toms, CFA
NEUTRAL				
	Electrolux	ELUXY	ELUXY US	Ben Maslen
	Electrolux	ELUXF	ELUXB SS	Ben Maslen
	Invensys	IVNSF	ISYS LN	Alex Toms, CFA
	Invensys	IVNYY	IVNYY US	Alex Toms, CFA
	Man	MAGOF	MAN GR	Ben Maslen
	Metso	MXCYY	MXCYY US	Ben Maslen
	Metso	MXTOF	MEQ1V FH	Ben Maslen
	Philips	PHG	PHG US	Mark Troman
	Philips	PHGFF	PHIA NA	Mark Troman
	Rexel	RXLSF	RXL FP	Mark Troman
	Rotork Plc	RTOXF	ROR LN	Alex Toms, CFA
	Siemens	SMAWF	SIE GR	Mark Troman
	Siemens	SI	SI US	Mark Troman
	SKF	SKFRY	SKFRY US	Ben Maslen
	SKF	SKUFF	SKFB SS	Ben Maslen
	Smiths Group	SMGKF	SMIN LN	Alex Toms, CFA
	Smiths Group	SMGZY	SMGZY US	Alex Toms, CFA
UNDERPERFORM				
	Alfa Laval	ALFVF	ALFA SS	Ben Maslen
	Assa Abloy	ASAZF	ASSAB SS	Ben Maslen
	Bodycote PLC	BYPLF	BOY LN	Alex Toms, CFA
	GKN	GKNLY	GKNLY US	Celine Fornaro
	GKN	GKNCF	GKN LN	Celine Fornaro
	Morgan Crucible	MCRUF	MGCR LN	Alex Toms, CFA
	SGL Group	SGLFF	SGL GR	Mark Troman
	Spectris	SEPJF	SXS LN	Alex Toms, CFA

EMEA - Small Caps Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Ansaldo STS SPA	ASDOF	STS IM	Unai Franco
	BIC SA	BICEF	BB FP	Caroline Cohen
	Brembo SPA	BRBOF	BRE IM	Unai Franco
	CAF	CAUXF	CAF SM	Unai Franco
	Chantiers Beneteau	BTEAF	BEN FP	Caroline Cohen
	CTS Eventim AG	CEVMF	EVD GR	Claus Roller, CFA
	De'Longhi	DELHF	DLG IM	Flavio Cereda
	GEA	GEAGF	G1A GR	Claus Roller, CFA
	Gemalto	GTOFF	GTO FP	Caroline Cohen
	GFK	GFKAF	GFK GR	Claus Roller, CFA
	Grenke Leasing	ZGKRF	GLJ GR	Claus Roller, CFA
	Indesit Company SPA	IDTCF	IND IM	Unai Franco
	Ingenico	INGIF	ING FP	Caroline Cohen
	Joyou AG	JYOUF	JY8 GY	Claus Roller, CFA
	Kinghero AG	XKHGF	KH6 GR	Claus Roller, CFA
	KSB AG	KSVRF	KSB3 GR	Claus Roller, CFA
	Luxtottica Group	LUX	LUX US	Flavio Cereda
	Luxtottica Group	LUXGF	LUX IM	Flavio Cereda
	MARR Spa	MRRFF	MARR IM	Flavio Cereda
	Mersen	CBLNF	MRN FP	Caroline Cohen
	Mobotix	XMBXF	MBQ GR	Claus Roller, CFA
	Monitise	MONIF	MONI LN	Caroline Cohen
	Natuzzi	NTZ	NTZ US	Flavio Cereda
	Pescanova	PNVAF	PVA SM	Unai Franco
	PFEIFFER	PFFVF	PFV GR	Claus Roller, CFA
	Piaggio	PIAGF	PIA IM	Flavio Cereda
	Safilo	SAFLF	SFL IM	Flavio Cereda

28 September 2011

EMEA - Small Caps Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
	Vossloh	VOSSF	VOS GR	Claus Roller, CFA
	Yoox Group	XYOOF	YOOX IM	Flavio Cereda
NEUTRAL				
	A. Mondadori Editore SPA	MDEPF	MN IM	Flavio Cereda
	Centrotherm Photo	CPHVF	CTN GR	Claus Roller, CFA
	Ebro Foods	EBRPF	EBRO SM	Unai Franco
	Fielmann	FLMNF	FIE GR	Flavio Cereda
	Heidelberg	HBGRF	HDD GR	Claus Roller, CFA
	Krones	KRNNF	KRN GR	Claus Roller, CFA
	L'Espresso	GPEDF	ES IM	Flavio Cereda
	Neopost SA	NPACF	NEO FP	Caroline Cohen
	Nexans	NXPRF	NEX FP	Caroline Cohen
	Prysmian	PRYMF	PRY IM	Caroline Cohen
	Rational AG	RTLLF	RAA GR	Claus Roller, CFA
	Rubis	RUBSF	RUI FP	Caroline Cohen
	SAFT	SGPEF	SAFT FP	Caroline Cohen
	SEB	SEBYF	SK FP	Caroline Cohen
	SMA Solar	SMTGF	S92 GR	Claus Roller, CFA
	Trevi-Finanziaria Industriale SPA	TVFZF	TFI IM	Unai Franco
	Wacker Chemie	WKCMF	WCH GR	Claus Roller, CFA
	Wincor	WNXDF	WIN GR	Claus Roller, CFA
UNDERPERFORM				
	Benetton Group Spa	BNTOF	BEN IM	Flavio Cereda
	Landi Renzo SPA	LDRZF	LR IM	Unai Franco
	Vopak	VOPKF	VPK NA	Caroline Cohen
RSTR				
	Rheinmetall AG	RNMBF	RHM GR	Claus Roller, CFA

EMEA - Utilities Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	E.ON	ENAKF	EOAN GR	Christopher Kuplent
	E.ON	EONGY	EONGY US	Christopher Kuplent
	EDP	EDPFY	EDPFY US	Pablo Cuadrado
	EDP	ELCPF	EDP PL	Pablo Cuadrado
	EDP Renovaveis	EDRVF	EDPR PL	Matthew Yates
	Enagas	ENGGF	ENG SM	Pablo Cuadrado
	Enel	ESOCF	ENEL IM	Pablo Cuadrado
	Fortum	FOJCF	FUM1V FH	Christopher Kuplent
	Gas Natural	GASNF	GAS SM	Pablo Cuadrado
	GDF SUEZ	GDSZF	GSZ FP	Eric Lopez
	Internat'l Power	IPR	IPRPY US	Fraser McLaren
	Internat'l Power	IPRWF	IPR LN	Fraser McLaren
	National Grid	NGGTF	NG/ LN	Fraser McLaren
	National Grid	NGG	NGG US	Fraser McLaren
	Red Electrica	RDEIF	REE SM	Pablo Cuadrado
	Severn Trent	SVTRF	SVT LN	Pinaki Das
	Suez Environnement	SZEVF	SEV FP	Eric Lopez
	Terna	TERRF	TRN IM	Pablo Cuadrado
	United Utilities	UUGWF	UU/ LN	Pinaki Das
	Veolia Environnement	VEOEF	VIE FP	Eric Lopez
	Veolia Environnement	VE	VE US	Eric Lopez
NEUTRAL				
	Acciona	ACXIF	ANA SM	Matthew Yates
	CEZ	CZAVF	CEZ CP	Christopher Kuplent
	EDF	ECIFF	EDF FP	Eric Lopez
	Endesa	ELEZF	ELE SM	Pablo Cuadrado
	Enel Green Power	XENLF	EGPW IM	Matthew Yates
	Iberdrola	IBDSF	IBE SM	Pablo Cuadrado

28 September 2011

EMEA - Utilities Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
	Pennon	PEGRF	PNN LN	Pinaki Das
	Scottish & Sthrn	SSEZF	SSE LN	Fraser McLaren
	Scottish & Sthrn	SSEZY	SSEZY US	Fraser McLaren
	Snam Rete Gas	SNMRF	SRG IM	Pablo Cuadrado
UNDERPERFORM				
	Centrica	CPYYF	CNA LN	Fraser McLaren
	Centrica	CPYYY	CPYYY US	Fraser McLaren
	Drax Group Ltd	DRXGF	DRX LN	Fraser McLaren
	Gamesa	GCTAF	GAM SM	Matthew Yates
	Q-Cells SE	QCLSF	QCE GR	Matthew Yates
	Renewable Energy	RNWEF	REC NO	Matthew Yates
	RWE	RWNFF	RWE GR	Christopher Kuplent
	RWE	RWEOY	RWEOY US	Christopher Kuplent
	Solarworld AG	SRWRF	SWV GR	Matthew Yates
	Verbund	OEZVF	VER AV	Christopher Kuplent
	Vestas	VWSYF	VWS DC	Matthew Yates
RSTR				
	Hansen Transmissions	HSNTF	HSN LN	Matthew Yates

Emerging EMEA - South Africa (Non Resources) Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Adcock Ingram Holdings	AIHLF	AIP SJ	Kate Turner-Smith
	African Bank Investments Limited	AFRVF	ABL SJ	John Storey
	African Bank Investments Limited	AFRVY	AFRVY US	John Storey
	AVI	AVSFF	AVI SJ	Paul Steegers
	BAT Africa	XBRAF	BTI SJ	Ilze Roux
	Bidvest Group	BDVSF	BVT SJ	Ilze Roux
	Bidvest Group	BVGLY	BDVSY US	Ilze Roux
	Capital Property Fund	CPLPF	CPL SJ	Kate Turner-Smith
	Clicks	NWCZF	CLS SJ	Niel Venter, CFA
	Discovery	DCYHF	DSY SJ	Marius Strydom
	FirstRand	FANDF	FSR SJ	John Storey
	Foschini Ltd	FHNIF	TFG SJ	Paul Steegers
	Imperial Holding	IHLDF	IPL SJ	Ilze Roux
	Lewis Group Ltd	LWSGF	LEW SJ	Niel Venter, CFA
	Life Healthcare Group	XLFFF	LHC SJ	Kate Turner-Smith
	Mr Price	MRPZF	MPC SJ	Paul Steegers
	Pretoria Port	PPCMF	PPC SJ	Horatius Maluleka
	Richemont	XRCMF	CFR SJ	Ilze Roux
	SABMiller Africa	SBWRF	SAB SJ	Ilze Roux
	Spar	SGPPF	SPP SJ	Paul Steegers
	Steinhoff	SNHFF	SHF SJ	Paul Steegers
	WBHO	WBYLF	WBO SJ	Horatius Maluleka
	Woolworths Holdings	WLWHF	WHL SJ	Paul Steegers
NEUTRAL				
	ABSA	AGRPF	ASA SJ	John Storey
	Aspen Pharmacare	APNHF	APN SJ	Kate Turner-Smith
	Aveng Ltd	AVEPF	AEG SJ	Horatius Maluleka
	Barloworld Ltd.	BRRAF	BAW SJ	Ilze Roux
	Barloworld Ltd.	BRRAY	BRRAY US	Ilze Roux
	Group Five	XGVFF	GRF SJ	Horatius Maluleka
	JDGroup	JDGPF	JDG SJ	Niel Venter, CFA
	MMI	MPOHF	MMI SJ	Marius Strydom
	Resilient Property Income Fund	XRSLF	RES SJ	Kate Turner-Smith
	Sanlam	SLMAF	SLM SJ	Marius Strydom
	Shoprite Hldgs	SRHGF	SHP SJ	Paul Steegers
	Standard Bank	SBGOF	SBK SJ	John Storey
	Super Group	SSPGF	SPG SJ	Ilze Roux

28 September 2011

Emerging EMEA - South Africa (Non Resources) Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
	Tiger Brands	TBLMF	TBS SJ	Paul Steegers
	Truworths Intl	TRWKF	TRU SJ	Paul Steegers
UNDERPERFORM				
	Capitec	XZCTF	CPI SJ	John Storey
	Cipla Medpro South Africa	XICMF	CMP SJ	Kate Turner-Smith
	Growthpoint	XWGFR	GRT SJ	Kate Turner-Smith
	Hyprop Investments Limited	XHPRF	HYP SJ	Kate Turner-Smith
	Liberty	LHLDF	LBH SJ	Marius Strydom
	Massmart	MMRTF	MSM SJ	Paul Steegers
	Medi-Clinic	XMDEF	MDC SJ	Kate Turner-Smith
	Murray & Roberts	MURSF	MUR SJ	Horatius Maluleka
	Nampak	NMPKF	NPK SJ	Ilze Roux
	Nedbank	NDBKF	NED SJ	John Storey
	Netcare Limited	NWKHF	NTC SJ	Kate Turner-Smith
	Pick n Pay Stores	PKPYF	PIK SJ	Paul Steegers
	Pioneer Foods	XIFO	PFG SJ	Paul Steegers
	Raubex	XBAUF	RBX SJ	Horatius Maluleka
	Redefine Properties Limited	XEFRF	RDF SJ	Kate Turner-Smith
	Sanlam	SNMCF	SNT SJ	Marius Strydom
	Vukile Property Fund Limited	XVUKF	VKE SJ	Kate Turner-Smith
RSTR				
	Investec Plc	IVTJF	INVP LN	John Storey

Greater China - Conglomerates Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Anhui Expressway	AUHEF	995 HK	Mandy Qu
	Beijing Enterprises Holdings Limited	BJINF	392 HK	Thomas Wong
	CITIC Pacific	CTPCF	267 HK	Billy Ng, CFA
	Dalian Port PD-H	DLPTF	2880 HK	Mandy Qu
	Fosun International	FOSUF	656 HK	Billy Ng, CFA
	HWL	HUWHF	13 HK	Karl Choi, CFA
	HWL - A	HUWHY	HUWHY US	Karl Choi, CFA
	Jiangsu Expressway	JEXYF	177 HK	Mandy Qu
	MTRC	MTRJF	66 HK	Karl Choi, CFA
	Shenzhen Expressway	SHZNF	548 HK	Mandy Qu
	Shun Tak - A	SHTGY	SHTGY US	Billy Ng, CFA
	Shun Tak Holdings	SHTGF	242 HK	Billy Ng, CFA
	Sichuan Expressway	SEXHF	107 HK	Mandy Qu
	Tianjin Dev Hldg	TJSCF	882 HK	Billy Ng, CFA
	Tianjin Port DEV	TJIPF	3382 HK	Mandy Qu
	Wharf Hldg	WARFF	4 HK	Karl Choi, CFA
NEUTRAL				
	China Merchants	CMHHF	144 HK	Edmond Huang, CFA
	COSCO Pacific	CSPKF	1199 HK	Mandy Qu
	Shanghai Industrial	SGHIF	363 HK	Billy Ng, CFA
	Swire Pacif 'A'	SWRAF	19 HK	Karl Choi, CFA
	Swire Pacif 'A'	SWRAY	SWRAY US	Karl Choi, CFA
	Zhejiang Expressway	ZHEXF	576 HK	Mandy Qu
UNDERPERFORM				
	Guangdong Investment	GGDVF	270 HK	Billy Ng, CFA
	Hopewell Highway	HHILF	737 HK	Mandy Qu
	Hopewell Highway	HHILY	HHILY US	Mandy Qu
	Hopewell Holdings Limited	HOWWF	54 HK	Karl Choi, CFA
	Hopewell Holdings Limited-A	HOWWY	HOWWY US	Karl Choi, CFA

28 September 2011

India - Engineering/Construction/Utilities Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Adani Power Ltd.	XADPF	ADANI IN	Bharat Parekh
	Bharat Heavy	BHHEF	BHEL IN	Bharat Parekh
	Gujarat State Petronet Ltd	GJRSE	GUJS IN	Vidyadhar Ginde
	GVK Power & Infrastructure Ltd.	GVPWF	GVKP IN	Deepak Agrawala
	IL&FS Transportation Networks Ltd	XTPSF	ILFT IN	Deepak Agrawala
	IRB Infrastructure Developers Ltd.	XIRBF	IRB IN	Deepak Agrawala
	IVRCL Infrastruc	IIFRF	IVRC IN	Bharat Parekh
	Jaiprakash Associates Limited	JPRKF	JPA IN	Bharat Parekh
	Jaiprakash Power Ventures Ltd.	XJSHF	JPVL IN	Bharat Parekh
	Lanco Infratech Ltd.	LNIFF	LANCI IN	Deepak Agrawala
	Larsen & Toub -G	LTORF	LTOD LI	Bharat Parekh
	Larsen & Toubro	LTOUF	LT IN	Bharat Parekh
	Nagarjuna Const	NGRJF	NJCC IN	Bharat Parekh
	NCC-GDR	XAKUF	NJGR LX	Bharat Parekh
	Reliance Infrastructure	RCTDF	RELI IN	Bharat Parekh
	Suzlon Energy	XZULF	SUEL IN	Bharat Parekh
NEUTRAL				
	Adani Enterprises Ltd.	ANIEF	ADE IN	Bharat Parekh
	Gujarat Inds	GUJIF	GIP IN	Bharat Parekh
	Mundra Port SEZ	XMANF	MSEZ IN	Bharat Parekh
	Tata Pwr. Co.	XTAWF	TPWR IN	Bharat Parekh
UNDERPERFORM				
	ABB	ABVFF	ABB IN	Bharat Parekh
	Gail India	XGLAF	GAIL IN	Vidyadhar Ginde
	Gail Limited - G	GAILF	GAID LI	Vidyadhar Ginde
	GMR Infrastructure Ltd.	GMRLF	GMRI IN	Deepak Agrawala
	Neyveli Lignite	NEYVF	NLC IN	Bharat Parekh
	NTPC Ltd	NTHPF	NTPC IN	Bharat Parekh
RVW				
	Essar Shipping, Ports & Logistics Ltd.	XESSF	ESRS IN	Bharat Parekh

India - General Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Aditya Birla Nu	ADYAF	ABNL IN	Reena Verma Bhasin, CFA
	Anant Raj Industries Ltd	XNRJF	ARCP IN	Gagan Agarwal
	Brigade Enterprises	XBDGF	BRGD IN	Gagan Agarwal
	Chambal Fertilisers & Chemicals	CHBZF	CHMB IN	Prasad Deshmukh
	DLF Limited	XVDUF	DLFU IN	Gagan Agarwal
	Exide Indus Ltd	XEDRF	EXID IN	Sanjaya Satapathy
	Havells	HVLIF	HAVL IN	Sanjaya Satapathy
	Indiabulls Real Estate Ltd	IBELF	IBREL IN	Gagan Agarwal
	Jaypee Infratech	XJAYF	JPIN IN	Gagan Agarwal
	Motherson Sumi	XMSUF	MSS IN	Sanjaya Satapathy
	Oberoi Realty Ltd	XRXOF	OBER IN	Gagan Agarwal
	Opto Circuits	OPOCF	OPTC IN	Sanjaya Satapathy
	Puravankara Projects Ltd	XPJVF	PVKP IN	Gagan Agarwal
	Renuka Sugars	SRNKF	SHRS IN	Sanjaya Satapathy
	SINTEX INDUSTRIES LTD	SIXDF	SINT IN	Prasad Deshmukh
	Sobha Developers	SBDRF	SOBHA IN	Gagan Agarwal
	Vollas	VTSJF	VOLT IN	Sanjaya Satapathy
NEUTRAL				
	Coromandel International Ltd	CMDFF	CRIN IN	Prasad Deshmukh
	Grasim	GRSJF	GRASIM IN	Reena Verma Bhasin, CFA
	Grasim -G	GRSJY	GRAS LX	Reena Verma Bhasin, CFA
	Housing Development and Infrastructure	XGHSF	HDIL IN	Gagan Agarwal
	Jain Irrigation Systems Ltd	JNIDF	JI IN	Prasad Deshmukh
	Shree Cements	SREEF	SRCM IN	Reena Verma Bhasin, CFA

28 September 2011

India - General Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
	Unitech Ltd	UTKIF	UT IN	Gagan Agarwal
UNDERPERFORM				
	Ambuja Cements	AMBUF	ACEM IN	Reena Verma Bhasin, CFA
	Assoc. Cement	ADCLF	ACC IN	Reena Verma Bhasin, CFA
	Bajaj Hindusthan	BJJHF	BJH IN	Sanjaya Satapathy
	Balrampur Chini	BMPRF	BRCM IN	Sanjaya Satapathy
	Container Corp	CIDFF	CCRI IN	Sanjaya Satapathy
	Cummins India	CUIDF	KKC IN	Sanjaya Satapathy
	India Cements	INIAF	ICEM IN	Reena Verma Bhasin, CFA
	India Cements -G	IAMUY	ICEM LX	Reena Verma Bhasin, CFA
	Jet Airways	JTAIF	JETIN IN	Anand Kumar
	Jindal Saw	SWPFF	JSAW IN	Sanjaya Satapathy
	Omaxe Limited	XOMXF	OAXE IN	Gagan Agarwal
	SpiceJet Ltd	MDLFF	SJET IN	Anand Kumar
	Tata Chemicals Ltd	TTCXF	TTCH IN	Prasad Deshmukh
	UltraTech Cemen	XDJNF	UTCEM IN	Reena Verma Bhasin, CFA
	Welspun Corp Ltd	XUQRF	WLCO IN	Sanjaya Satapathy
RSTR				
	Nagarjuna Fertilizers & Chemicals Ltd	NFACF	NFCL IN	Prasad Deshmukh
RVW				
	Fortis Healthcare Limited	XFFTF	FORH IN	Prasad Deshmukh

Japan - Cyclical Materials Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Air Water	AWTRF	4088 JP	Takashi Enomoto
	Asahi Glass	ASGLF	5201 JP	Akiko Kuwahara
	Fujikura	FKURF	5803 JP	Takashi Enomoto
	Hitachi Metals	HMTLF	5486 JP	Takashi Enomoto
	Kobe Steel	KBSTF	5406 JP	Takashi Enomoto
	Kuraray	KURRF	3405 JP	Akiko Kuwahara
	Miraial	MRLCF	4238 JP	Takashi Enomoto
	Mitsubishi Chemical Holdings	MTLHF	4188 JP	Takashi Enomoto
	Mitsui Chemicals	MITUF	4183 JP	Takashi Enomoto
	Mitsui Mining & Smelting	XZJCF	5706 JP	Takashi Enomoto
	MMC	MIMTF	5711 JP	Takashi Enomoto
	Nippon Electric Glass	NPEGF	5214 JP	Akiko Kuwahara
	NOK	NNOKF	7240 JP	Takashi Enomoto
	Oji Paper	OJIPF	3861 JP	Akiko Kuwahara
	Pacific Metals	PFMTF	5541 JP	Takashi Enomoto
	Rengo	RNGOF	3941 JP	Akiko Kuwahara
	Shin-Etsu Chem	SHECF	4063 JP	Takashi Enomoto
	ShinEtsu Polymer	SETUF	7970 JP	Takashi Enomoto
	SMM	STMNF	5713 JP	Takashi Enomoto
	Sumitomo Bakelit	SBKLF	4203 JP	Takashi Enomoto
	Sumitomo Chem.	SOMMF	4005 JP	Takashi Enomoto
	Sumitomo Electric Industries	SMTOF	5802 JP	Takashi Enomoto
	Tokyo Steel	TOKSF	5423 JP	Takashi Enomoto
	Toray	TRYIF	3402 JP	Akiko Kuwahara
	Yamato Kogyo	YMTKF	5444 JP	Takashi Enomoto
NEUTRAL				
	Daido Steel	DADSF	5471 JP	Takashi Enomoto
	Dowa Holdings	DWMNF	5714 JP	Takashi Enomoto
	Furukawa Electric	FUWAF	5801 JP	Takashi Enomoto
	Hokuetsu Kishu Paper	HKPMF	3865 JP	Akiko Kuwahara
	NGK Insulators	NGKIF	5333 JP	Akiko Kuwahara
	Nippon Paper Group	NPPNF	3893 JP	Akiko Kuwahara
	Nippon Sheet Glass	NPSGF	5202 JP	Akiko Kuwahara
	Nippon Steel	NISTF	5401 JP	Takashi Enomoto

28 September 2011

Japan - Cyclical Materials Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
	Nisshin Steel	NHISF	5407 JP	Takashi Enomoto
	Showa Denko	SHWDF	4004 JP	Takashi Enomoto
	SUMCO	SUMCF	3436 JP	Takashi Enomoto
	Taiyo Npn Sanso	NOSPF	4091 JP	Takashi Enomoto
UNDERPERFORM				
	Asahi Kasei	AHKSF	3407 JP	Takashi Enomoto
	Daicel Chemical	DACHF	4202 JP	Takashi Enomoto
	Fujimi	FUJXF	5384 JP	Takashi Enomoto
	Hitachi Chemical	HCHMF	4217 JP	Takashi Enomoto
	JFE Holdings	JFEFF	5411 JP	Takashi Enomoto
	JSR	JSCPF	4185 JP	Takashi Enomoto
	Mimasu Semicon	TAAKM	8155 JP	Takashi Enomoto
	Teijin	TINLF	3401 JP	Akiko Kuwahara
	Tokuyama	TKYMF	4043 JP	Takashi Enomoto
	Toyo Seikan	TOSKF	5901 JP	Akiko Kuwahara
RSTR				
	Sumitomo Metal	SMMLF	5405 JP	Takashi Enomoto

Japan - Machinery / Plant Engineering Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	JTEKT	JTEKF	6473 JP	Hideyuki Mizuno
	Kawasaki Heavy	KWHIF	7012 JP	Takahiro Mori
	Komatsu	KMTUF	6301 JP	Hideyuki Mizuno
	Komatsu	KMTUY	KMTUY US	Hideyuki Mizuno
	Makino Milling	MKMLF	6135 JP	Sho Fukuhara
	Makita	MKEWF	6586 JP	Sho Fukuhara
	Mitsubishi Heavy	MHVYF	7011 JP	Takahiro Mori
	Nabtesco	NCTKF	6268 JP	Hideyuki Mizuno
	NSK	NPSKF	6471 JP	Hideyuki Mizuno
	NSK	NPSKY	NPSKY US	Hideyuki Mizuno
	Okuma	OKUMF	6103 JP	Sho Fukuhara
	SMC	SMECF	6273 JP	Hideyuki Mizuno
	Sumitomo Heavy	SOHVF	6302 JP	Takahiro Mori
	THK	THKLF	6481 JP	Hideyuki Mizuno
	Yaskawa Electric	YASKF	6506 JP	Hideyuki Mizuno
NEUTRAL				
	Chiyoda Corp	CHYCF	6366 JP	Takahiro Mori
	Fanuc	FANUF	6954 JP	Hideyuki Mizuno
	Hitachi Construction Machinery	HTCMF	6305 JP	Hideyuki Mizuno
	IHI	IHICF	7013 JP	Takahiro Mori
	Mori Seiki	MRSKF	6141 JP	Sho Fukuhara
UNDERPERFORM				
	Amada	AMDWF	6113 JP	Hideyuki Mizuno
	JGC Corp	JGCCF	1963 JP	Takahiro Mori
	Kubota	KUBTF	6326 JP	Hideyuki Mizuno
	Kubota	KUB	KUB US	Hideyuki Mizuno
	Kurita	KTWIF	6370 JP	Hideyuki Mizuno
	Mitsui Engineering & Shipbuilding	MIESF	7003 JP	Takahiro Mori
	MODEC	MDIKF	6269 JP	Takahiro Mori
	NTN	NTTBF	6472 JP	Hideyuki Mizuno

Japan - Precision / Imaging Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Canon	CAJFF	7751 JP	Ryohei Takahashi

28 September 2011

Japan - Precision / Imaging Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
	Canon	CAJ	CAJ US	Ryohei Takahashi
	Citizen Holdings	CHCLF	7762 JP	Ryohei Takahashi
	Dainippon Screen Mfg	DINRF	7735 JP	Ryohei Takahashi
	FUJIFILM	FUJIF	4901 JP	Ryohei Takahashi
	FUJIFILM	FUJIY	FUJIY US	Ryohei Takahashi
	Horiba	HRIBF	6856 JP	Ryohei Takahashi
	HOYA	HOCPP	7741 JP	Ryohei Takahashi
	Seiko Epson	SEKEF	6724 JP	Ryohei Takahashi
	Tokyo Seimitsu	TMIUF	7729 JP	Ryohei Takahashi
NEUTRAL				
	BROTHER	BRTHF	6448 JP	Ryohei Takahashi
	Canon Marketing	CAMJF	8060 JP	Ryohei Takahashi
	KONICA MINOLTA	KNCAF	4902 JP	Ryohei Takahashi
	Olympus	OCPNF	7733 JP	Ryohei Takahashi
	Olympus	OCPNY	OCPNY US	Ryohei Takahashi
	USHIO	UHOIF	6925 JP	Ryohei Takahashi
UNDERPERFORM				
	Advantest	ADTTF	6857 JP	Ryohei Takahashi
	Disco	DISPF	6146 JP	Ryohei Takahashi
	Hitachi Kokusai	HTKKF	6756 JP	Ryohei Takahashi
	Nikon	NINOF	7731 JP	Ryohei Takahashi
	Nikon	NINOY	NINOY US	Ryohei Takahashi
	Ricoh	RICOF	7752 JP	Ryohei Takahashi
	Ricoh	RICOY	RICOY US	Ryohei Takahashi
	Tokyo Electron	TOELF	8035 JP	Ryohei Takahashi

Japan - Real Estate / Construction Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Aeon Mall	AMLLF	8905 JP	Yoshihiro Hashimoto
	BLife Investment	BLIFF	8984 JP	Toshiyuki Anegawa
	Daito Trust	DITTF	1878 JP	Yoshihiro Hashimoto
	Frontier REIT	FOTRF	8964 JP	Toshiyuki Anegawa
	Japan Real REIT	JREIF	8952 JP	Toshiyuki Anegawa
	JS Group	JSGCF	5938 JP	Yoshihiro Hashimoto
	Kajima	KAJMF	1812 JP	Toshiyuki Anegawa
	Mitsubishi Estate	MITEF	8802 JP	Yoshihiro Hashimoto
	Mitsubishi Estate	MITEY	MITEY US	Yoshihiro Hashimoto
	Mitsui Fudosan	MTSFF	8801 JP	Yoshihiro Hashimoto
	Mori Trust REIT	MRGIF	8961 JP	Toshiyuki Anegawa
	Nippon Accommodations Fund	NIPPF	3226 JP	Toshiyuki Anegawa
	Nippon Bldg Fund	NBFJF	8951 JP	Toshiyuki Anegawa
	Obayashi	OBYCF	1802 JP	Toshiyuki Anegawa
	ORIX JREIT	ORXJF	8954 JP	Toshiyuki Anegawa
	Rinnai Corp	RINIF	5947 JP	Yoshihiro Hashimoto
	Shimizu	SHMUF	1803 JP	Toshiyuki Anegawa
	Sumitomo Osaka Cement	SUCEF	5232 JP	Yoshihiro Hashimoto
	Sumitomo Realty	SURDF	8830 JP	Yoshihiro Hashimoto
	Taiheiyō Cement	THYCF	5233 JP	Yoshihiro Hashimoto
	Taisei	TISCF	1801 JP	Toshiyuki Anegawa
	Yokogawa Bridge	YGWAF	5911 JP	Toshiyuki Anegawa
NEUTRAL				
	Daiwa House	DWAHF	1925 JP	Yoshihiro Hashimoto
	Daiwa House	DWAHY	DWAHY US	Yoshihiro Hashimoto
	Japan Excellent	JPXCF	8987 JP	Toshiyuki Anegawa
	Japan Prime Realty	JPRRF	8955 JP	Toshiyuki Anegawa
	Japan Retail Fund	JRFIF	8953 JP	Toshiyuki Anegawa
	Kandenko	KDKOF	1942 JP	Toshiyuki Anegawa
	Kinden	KNDEF	1944 JP	Toshiyuki Anegawa

28 September 2011

Japan - Real Estate / Construction Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
	Nomura Real Estate Office Fund	NREOF	8959 JP	Toshiyuki Anegawa
	Sekisui House	SKHSF	1928 JP	Yoshihiro Hashimoto
	Sekisui House	SKHSY	SKHSY US	Yoshihiro Hashimoto
	Tokyu REIT	TKURF	8957 JP	Toshiyuki Anegawa
UNDERPERFORM				
	Japan Hotel and Resort	JHOTF	8981 JP	Toshiyuki Anegawa
	PanaHome	NHIXF	1924 JP	Yoshihiro Hashimoto
	Sanki	SKIGF	1961 JP	Toshiyuki Anegawa
	Sumitomo Forestry	SMFRF	1911 JP	Yoshihiro Hashimoto
	Takasago	TKSNF	1969 JP	Toshiyuki Anegawa
	Tokyo Energy & Systems	TKDKF	1945 JP	Toshiyuki Anegawa
	Top REIT	TPRYF	8982 JP	Toshiyuki Anegawa
	TOTO	TOTDF	5332 JP	Yoshihiro Hashimoto

Latin America - Utilities Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Aguas Andinas	XXSGF	AGUAS/A CI	Diego Moreno
	Cemig	CIG	CIG US	Felipe Leal
	Cemig	CEMCF	CMIG4 BZ	Felipe Leal
	COPASA	CSAOF	CSMG3 BZ	Diego Moreno
	COPEL	ELPWF	CPL6 BZ	Felipe Leal
	COPEL	ELP	ELP US	Felipe Leal
	Energias do BR	EGDBF	ENBR3 BZ	Felipe Leal
	MPX Energia	MXRF	MPXE3 BZ	Felipe Leal
	SABESP	CSBJF	SBSP3 BZ	Diego Moreno
	Sabsep-ADR	SBS	SBS US	Diego Moreno
	Tractebel	TBLEF	TBLE3 BZ	Felipe Leal
NEUTRAL				
	AES Tiete	XTITF	GETI3 BZ	Felipe Leal
	AES Tiete-Pref	CGZEF	GETI4 BZ	Felipe Leal
	Eletropaulo Metropolitana	ELPEF	ELPL4 BZ	Felipe Leal
	Endesa Chile	EOC	EOC US	Felipe Leal
	Enerjis	ENI	ENI US	Felipe Leal
UNDERPERFORM				
	CESP	CESJF	CESP6 BZ	Felipe Leal
	Colbun SA	EZDBF	COLBUN CI	Felipe Leal
	CPFL Energia	XPFGR	CPFE3 BZ	Felipe Leal
	CPFL Energia	CPL	CPL US	Felipe Leal
	Eletrabras	CAIFF	ELET3 BZ	Felipe Leal
	Eletrabras	EBR	EBR US	Felipe Leal
	Eletrabras-Pref	EBRB	EBR/B US	Felipe Leal
	Eletrabras-Pref	CNTEF	ELET6 BZ	Felipe Leal
	Inversiones Aguas Metropolitanas	XVNF	IAM CI	Diego Moreno
	Light SA	XHGFF	LIGT3 BZ	Felipe Leal
	Trans Paulista	CAXEF	TRPL4 BZ	Felipe Leal

US - Alternative Energy Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	A123 Systems	AONE	AONE US	Steven Milunovich, CFA
	Ameresco Inc.	AMRC	AMRC US	Steven Milunovich, CFA
	Clean Energy Fuels Corp.	CLNE	CLNE US	Steven Milunovich, CFA
	Covanta Holding Corporation	CVA	CVA US	Steven Milunovich, CFA
	First Solar, Inc.	FSLR	FSLR US	Steven Milunovich, CFA
	Itron Inc.	ITRI	ITRI US	Steven Milunovich, CFA

28 September 2011

US - Alternative Energy Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
	Tesla Motors Inc.	TSLA	TSLA US	Steven Milunovich, CFA
UNDERPERFORM				
	Cree, Inc.	CREE	CREE US	Steven Milunovich, CFA
	EnerNOC Inc.	ENOC	ENOC US	Steven Milunovich, CFA
	Fuel Systems Solutions	FSYS	FSYS US	Steven Milunovich, CFA
	Ormat Technologies, Inc.	ORA	ORA US	Steven Milunovich, CFA
	SemiLEDs Corp.	LEDS	LEDS US	Steven Milunovich, CFA
	SunPower Corp.	SPWRA	SPWRA US	Steven Milunovich, CFA
RVW				
	JA Solar	JASO	JASO US	Timothy Bush
	LDK Solar	LDK	LDK US	Timothy Bush
	ReneSola	SOL	SOL US	Timothy Bush
	Suntech Power	STP	STP US	Timothy Bush
	Trina Solar Limited	TSL	TSL US	Timothy Bush
	Yingli	YGE	YGE US	Timothy Bush

US - Business, Education & Professional Services Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Apollo Group	APOL	APOL US	Sara Gubins
	Archipelago Learning	ARCL	ARCL US	Sara Gubins
	CB Richard Ellis Group Inc	CBG	CBG US	David Ridley-Lane
	Corporate Executive Board	EXBD	EXBD US	David Ridley-Lane
	DeVry Inc	DV	DV US	Sara Gubins
	Ecolab Inc	ECL	ECL US	David Ridley-Lane
	Jones Lang LaSalle Inc	JLL	JLL US	David Ridley-Lane
	K12	LRN	LRN US	Sara Gubins
	Manpower	MAN	MAN US	Sara Gubins
	Nielsen	NLSN	NLSN US	Sara Gubins
	Resources Connection	RECN	RECN US	Sara Gubins
	Robert Half International	RHI	RHI US	Sara Gubins
	Towers Watson	TW	TW US	Sara Gubins
	TrueBlue	TBI	TBI US	Sara Gubins
NEUTRAL				
	Capella Education	CPLA	CPLA US	Sara Gubins
	Career Education	CECO	CECO US	Sara Gubins
	Education Management Corporation	EDMC	EDMC US	Sara Gubins
	Grand Canyon Education	LOPE	LOPE US	Sara Gubins
	Lincoln Educational Services Corp	LINC	LINC US	David Chu
	Strayer Education Inc.	STRA	STRA US	Sara Gubins
UNDERPERFORM				
	Cintas	CTAS	CTAS US	Sara Gubins
	Corinthian Colleges Inc	COCO	COCO US	Sara Gubins
	ITT Educational Services	ESI	ESI US	Sara Gubins
	Thomson Reuters	TRI	TRI US	Sara Gubins
	Universal Technical Institute	UTI	UTI US	David Chu

US - Electric Utilities/Competitive Power Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	American Water Works	AWK	AWK US	Steve Fleishman
	Calpine	CPN	CPN US	Ameet I. Thakkar
	CenterPoint Energy, Inc.	CNP	CNP US	Steve Fleishman
	Edison International	EIX	EIX US	Steve Fleishman
	Exelon	EXC	EXC US	Steve Fleishman
	FirstEnergy	FE	FE US	Steve Fleishman

28 September 2011

US - Electric Utilities/Competitive Power Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
	GenOn Energy, Inc.	GEN	GEN US	Ameet I. Thakkar
	NextEra Energy	NEE	NEE US	Steve Fleishman
	NRG Energy	NRG	NRG US	Ameet I. Thakkar
	NV Energy	NVE	NVE US	Steve Fleishman
	PG&E Corporation	PCG	PCG US	Steve Fleishman
	PPL Corporation	PPL	PPL US	Ameet I. Thakkar
	Public Service Enterprise Group Inc.	PEG	PEG US	Steve Fleishman
	Southern Company	SO	SO US	Steve Fleishman
	Westar Energy	WR	WR US	Steve Fleishman
	Xcel Energy	XEL	XEL US	Steve Fleishman
NEUTRAL				
	Alliant Energy	LNT	LNT US	Steve Fleishman
	Ameren Corp	AEE	AEE US	Steve Fleishman
	American Electric Power	AEP	AEP US	Steve Fleishman
	CMS Energy	CMS	CMS US	Steve Fleishman
	Dominion Resources	D	D US	Steve Fleishman
	Duke Energy	DUK	DUK US	Steve Fleishman
	Northeast Utilities	NU	NU US	Steve Fleishman
	NSTAR	NST	NST US	Steve Fleishman
	Pinnacle West	PNW	PNW US	Steve Fleishman
	Sempra Energy	SRE	SRE US	Naaz Khumawala
	Wisconsin Energy	WEC	WEC US	Alex Kania
UNDERPERFORM				
	Consolidated Edison	ED	ED US	Steve Fleishman
	DTE Energy	DTE	DTE US	Steve Fleishman
	Entergy	ETR	ETR US	Steve Fleishman
	Hawaiian Electric Industries	HE	HE US	Steve Fleishman
	Portland General Electric Company	POR	POR US	Steve Fleishman
	SCANA Corp.	SCG	SCG US	Steve Fleishman
	TECO Energy	TE	TE US	Steve Fleishman
	UIL Holdings	UIL	UIL US	Steve Fleishman
RSTR				
	DPL Inc.	DPL	DPL US	Steve Fleishman

US - Machinery and Engineering and Construction Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	AECOM Technology	ACM	ACM US	Andrew Obin
	AGCO Corp	AGCO	AGCO US	Andrew Obin
	Altra Holdings	AIMC	AIMC US	Anna Kaminskaya, CFA
	CNH Global	CNH	CNH US	Andrew Obin
	Deere & Co	DE	DE US	Andrew Obin
	Eaton Corp	ETN	ETN US	Andrew Obin
	Fluor Corp	FLR	FLR US	Andrew Obin
	Ingersoll-Rand	IR	IR US	Andrew Obin
	Jacobs Eng.	JEC	JEC US	Andrew Obin
	Oshkosh Corp.	OSK	OSK US	Andrew Obin
	PACCAR Inc	PCAR	PCAR US	Andrew Obin
	RBC Bearings Inc	ROLL	ROLL US	Anna Kaminskaya, CFA
	Rush	RUSHA	RUSHA US	Andrew Obin
	Terex Corp.	TEX	TEX US	Andrew Obin
	The Shaw Group	SHAW	SHAW US	Andrew Obin
	Timken Company	TKR	TKR US	Andrew Obin
	TMS International	TMS	TMS US	Andrew Obin
NEUTRAL				
	Actuant Corp	ATU	ATU US	Andrew Obin
	Caterpillar Inc	CAT	CAT US	Andrew Obin
	Donaldson Co	DCI	DCI US	Andrew Obin
	Finning International Inc.	YFTT	FTT CN	Anna Kaminskaya, CFA

US - Machinery and Engineering and Construction Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
	Kennametal Inc.	KMT	KMT US	Andrew Obin
UNDERPERFORM				
	Generac Holdings Inc.	GNRC	GNRC US	Andrew Obin
	Ritchie Bros	RBA	RBA US	Anna Kaminskaya, CFA
	URS Corp.	URS	URS US	Andrew Obin

US - Multi Industry Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	Ametek Inc	AME	AME US	Elana Hordon Wood
	Danaher Corp	DHR	DHR US	John G. Inch
	Dover Corp	DOV	DOV US	John G. Inch
	Emerson	EMR	EMR US	John G. Inch
	Grainger W.W.	GWV	GWV US	John G. Inch
	Honeywell Intl.	HON	HON US	John G. Inch
	MSC Industrial	MSM	MSM US	John G. Inch
	Rockwell	ROK	ROK US	John G. Inch
	SPX Corp	SPW	SPW US	John G. Inch
	Thomas & Betts Corp	TNB	TNB US	Elana Hordon Wood
	Tyco Intl	TYC	TYC US	John G. Inch
NEUTRAL				
	Colfax Corp	CFX	CFX US	John G. Inch
	Genl Electric	GE	GE US	John G. Inch
	Mistras Group	MG	MG US	John G. Inch
UNDERPERFORM				
	3M Company	MMM	MMM US	John G. Inch
	Illinois Tool	ITW	ITW US	John G. Inch
	ITT Corp.	ITT	ITT US	John G. Inch

US - Pharmaceutical Services Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	AmerisourceBergen	ABC	ABC US	Robert M. Willoughby
	Cardinal Health	CAH	CAH US	Robert M. Willoughby
	CVS Caremark	CVS	CVS US	Robert M. Willoughby
	DENTSPLY International	XRAY	XRAY US	Scott J. Green, CFA
	Express Scripts	ESRX	ESRX US	Robert M. Willoughby
	HMS Holdings Corp.	HMSY	HMSY US	Scott J. Green, CFA
	IDEXX Laboratories	IDXX	IDXX US	Robert M. Willoughby
	McKesson Corp.	MCK	MCK US	Robert M. Willoughby
	MedAssets, Inc.	MDAS	MDAS US	Robert M. Willoughby
	Medco Health Solutions	MHS	MHS US	Robert M. Willoughby
	Omnicare Inc	OCR	OCR US	Robert M. Willoughby
	Patterson Cos Inc	PDCO	PDCO US	Robert M. Willoughby
	PharMerica Corp	PMC	PMC US	Robert M. Willoughby
	Quest Diagnostics	DGX	DGX US	Robert M. Willoughby
	Service Corporation International	SCI	SCI US	Robert M. Willoughby
	Sirona Dental Systems	SIRO	SIRO US	Scott J. Green, CFA
	Stewart Enterprises	STEI	STEI US	Robert M. Willoughby
	VCA Antech	WOOF	WOOF US	Robert M. Willoughby
	Walgreen	WAG	WAG US	Robert M. Willoughby
NEUTRAL				
	ABAXIS	ABAX	ABAX US	Robert M. Willoughby
	Bio-Reference Laboratories	BRLI	BRLI US	Robert M. Willoughby
	LabCorp of America	LH	LH US	Robert M. Willoughby
UNDERPERFORM				

28 September 2011

US - Pharmaceutical Services Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
	Catalyst Health Solutions	CHSI	CHSI US	Robert M. Willoughby
	Henry Schein Inc	HSIC	HSIC US	Robert M. Willoughby
	MWI Veterinary Supply	MWIV	MWIV US	Robert M. Willoughby
	Owens & Minor Inc	OMI	OMI US	Robert M. Willoughby
	PSS World Medical	PSSI	PSSI US	Robert M. Willoughby

Important Disclosures

Investment Rating Distribution: Building Group (as of 01 Jul 2011)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	57	58.16%	Buy	16	30.19%
Neutral	21	21.43%	Neutral	7	36.84%
Sell	20	20.41%	Sell	7	36.84%

Investment Rating Distribution: Business Services Group (as of 01 Jul 2011)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	15	68.18%	Buy	10	66.67%
Neutral	3	13.64%	Neutral	2	100.00%
Sell	4	18.18%	Sell	1	25.00%

Investment Rating Distribution: Chemicals Group (as of 01 Jul 2011)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	64	58.18%	Buy	28	50.00%
Neutral	26	23.64%	Neutral	12	50.00%
Sell	20	18.18%	Sell	6	31.58%

Investment Rating Distribution: Electrical Equipment Group (as of 01 Jul 2011)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	19	48.72%	Buy	7	38.89%
Neutral	15	38.46%	Neutral	6	46.15%
Sell	5	12.82%	Sell	3	60.00%

Investment Rating Distribution: Engineering & Construction Group (as of 01 Jul 2011)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	33	62.26%	Buy	13	44.83%
Neutral	8	15.09%	Neutral	2	25.00%
Sell	12	22.64%	Sell	4	33.33%

Investment Rating Distribution: Engineering Group (as of 01 Jul 2011)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	5	38.46%	Buy	2	40.00%
Neutral	3	23.08%	Neutral	2	100.00%
Sell	5	38.46%	Sell	2	40.00%

Investment Rating Distribution: Food Group (as of 01 Jul 2011)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	21	34.43%	Buy	7	35.00%
Neutral	23	37.70%	Neutral	14	73.68%
Sell	17	27.87%	Sell	11	68.75%

Investment Rating Distribution: Health Care Group (as of 01 Jul 2011)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	141	54.44%	Buy	69	52.27%
Neutral	67	25.87%	Neutral	29	46.77%
Sell	51	19.69%	Sell	19	37.25%

Investment Rating Distribution: Industrials/Multi-Industry Group (as of 01 Jul 2011)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	50	64.10%	Buy	30	69.77%
Neutral	19	24.36%	Neutral	9	56.25%
Sell	9	11.54%	Sell	2	25.00%

Investment Rating Distribution: Machinery/Diversified Manufacturing Group (as of 01 Jul 2011)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	39	52.00%	Buy	21	56.76%
Neutral	25	33.33%	Neutral	8	38.10%
Sell	11	14.67%	Sell	2	20.00%

Investment Rating Distribution: Textiles/Apparel Group (as of 01 Jul 2011)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	13	48.15%	Buy	7	58.33%
Neutral	9	33.33%	Neutral	7	77.78%
Sell	5	18.52%	Sell	4	80.00%

Investment Rating Distribution: Utilities Group (as of 01 Jul 2011)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	76	42.22%	Buy	35	51.47%
Neutral	48	26.67%	Neutral	30	69.77%
Sell	56	31.11%	Sell	20	40.00%

Investment Rating Distribution: Global Group (as of 01 Jul 2011)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	2024	53.94%	Buy	935	50.68%
Neutral	944	25.16%	Neutral	442	51.64%
Sell	784	20.90%	Sell	273	37.24%

* Companies in respect of which BofA Merrill Lynch or one of its affiliates has received compensation for investment banking services within the past 12 months. For purposes of this distribution, a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster*
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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28 September 2011

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