Equity Markets

Western Europe

The third industrial revolution

Multi-committed company (MCC): the archetype to capture consumer loyalty

Food, Beverages & HPC: a thematic insight

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Our research shows that if FMCG companies are able: (1) to redefine business models to include responsibility in marketing and sourcing; and (2) to reposition themselves as MCCs, they will be able to reap 'hard' business benefits.

Confirmation of 2010-15 investment paradigm. In the short term, the winners in FMCG will be those companies that are able to mitigate the impact of food and energy price volatility and to accommodate the impact of demographic growth and Consumer Reset.

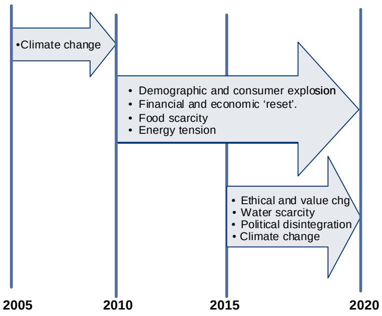
But a revolution in marketing/sales is coming. 'Brands' have a responsibility to act. Against the background of demographic growth in developing areas and economic/social crises in the West, we are at a crossroads where consumption growth will have to be decoupled from impacting society. An increasing minority of consumers are choosing a sustainable positive lifestyle and are no longer willing to compromise on responsible behaviour from companies. Hence the need for companies to focus on clean labelling, local sourcing and a new DNA for brands.

Revolution in sourcing towards responsibility and access. Companies will have to adjust their total value chain to resource scarcity (food, energy, water) and responsible sourcing, as this will be critical for their cost level, margins and brand equity.

Emerging market strength is redefining the balance of power and creating MCCs. Economic and political crises, as well as food, energy and water trends, should lead to a redistribution of power towards EM. Multi-committed companies (MCCs) are in the sweet spot of these trends and could create the third industrial revolution: real responsible and sustainable growth.

'Hard' business benefits need new equity research. Although there is a perception that these trends are soft, in our view we are reaching a point where new factors need to be incorporated into research. Buy low-valued MCCs.

Phasing of the eight crises/opportunity events



Source: ING estimates

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SEE THE DISCLOSURES APPENDIX FOR IMPORTANT DISCLOSURES AND ANALYST CERTIFICATION

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Summary

The third industrial revolution

After the first industrial revolution, with the invention of the steam engine, and the second industrial revolution which came with the invention of the computer, we are now at the forefront of the third industrial revolution. Against the current background of eight interdependent crises (demography, ethics, social-economic, food, water, climate, energy and political), the third industrial revolution emerges from the corporate industry's opportunity to benefit from the upcoming trends. Companies can reap profits from consumers' social and environmental concerns and the understanding that resource scarcity will result in a permanent change to business models. In our view, the third industrial revolution will on the one hand save the planet and, on the other, accommodate the consumer explosion we expect in the coming decade.

The main topics are as follows:

1) The marketing/sales challenge: huge consumption growth accompanied by increased responsibility.

2) The sourcing challenge: scarcity of responsibly-sourced input.

3) Emerging market strength will redefine the balance of power. The emergence of the multi-committed company (MCC).

4) Phasing of business opportunities.

5) Investment case.

Revolution in marketing, sourcing and strategy

- **The marketing/sales challenge: huge consumption growth accompanied by increased responsibility.** Global population growth, from the current 6.8bn to 9-10bn in 2050, will be accompanied by a strong increase in the number of middle class consumers and a huge increase in consumption of resource-intensive goods, particularly in emerging markets. In Western markets, we see that contrarian consumption patterns that demand greater sustainability, clean labelling and less waste, are gaining ground. The positive impact of the social-economic crisis is lower consumption (higher taxes, lower government spending, less credit). However, an increasing group of consumers will try to defend its wealth position and will react negatively to costs related to more responsible consumption. ***Companies and brands which redefine sales/marketing strategies will be the winners.***

- **The sourcing challenge: scarcity of responsible input.** The combination of huge consumption growth and increasing responsible consumption puts mounting pressure on sourcing. In terms of agricultural input, the good news is that with no big changes in climate conditions, food availability can increase through more land, higher yields, more efficient animal feeding and control of waste. For water, it is very probable that shortages will emerge in several regions. We calculate that the water price will rise substantially. The upcoming shortage in fossil fuel does not only need adjustments in production processes but also in product offering. Lastly, clean sourcing needs to get into the DNA of every company. ***Companies/brands which adapt will be best able to defend their margin.***

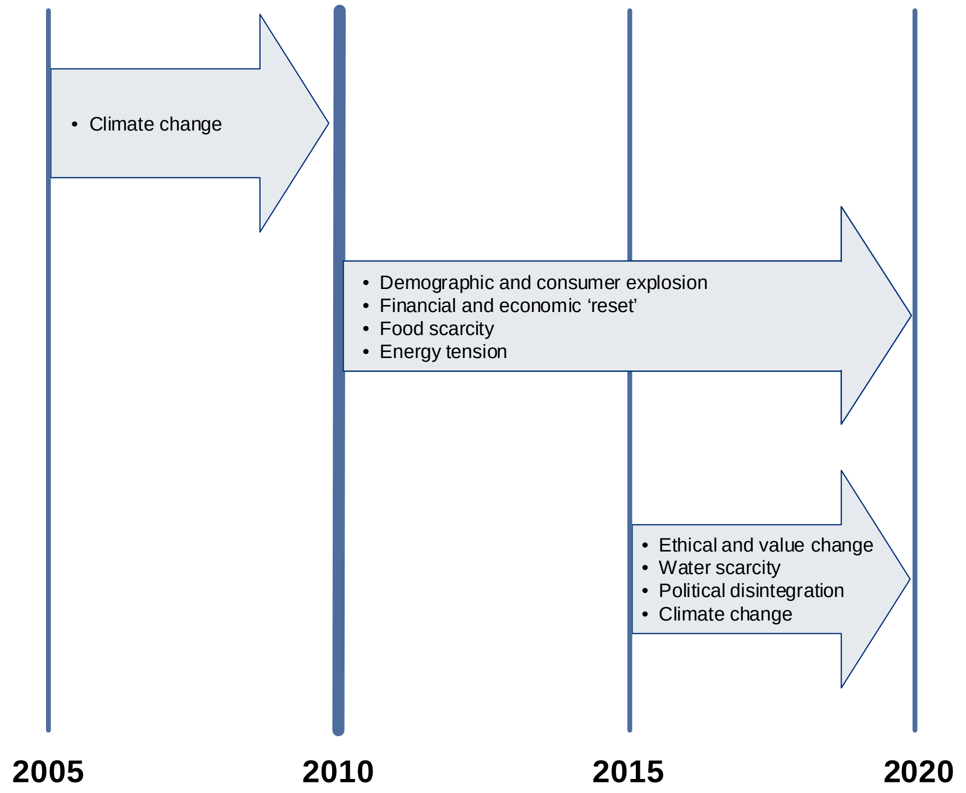
- **Emerging market strength will redefine the balance of power. Emergence of the MCC.** With control of scarce resources, the new world order will comprise seven to eight power centres: North America, Brazil/Latam, Europe, Russia, China, Middle East, parts of Africa and maybe India. Multinational companies have the opportunity to become multi-committed companies (MCCs). MCCs could create the third industrial revolution by making consumption growth responsible and sustainable again in every region in which they are active. 'Hard' business benefits come from lower costs from supply chain synergies and higher sales.

Evolution in phasing of business opportunities

2010-15: margin management, demographics and Consumer Reset

- Because of Climategate and falling disposable incomes due to the economic crisis, we believe the focus has temporarily moved away from climate change. The focus in 2010-15 will be on crises/opportunities related to demography, financial/economy, food and energy. In 2015-20, we believe the crises and opportunities regarding ethical/values, water and the global political shift will be the main focus. Preparation for these is crucial.

Fig 1 Phasing of the eight crises/opportunity events



Source: ING estimates

- In 2010-15, food and brewing companies could be the victim of rising COGS due to increases in agricultural and energy prices. Brewers will find some compensation as their geographical footprint is relatively exposed to developing markets and markets that benefit from wealth effects from energy and food price changes. Food and HPC are in a more neutral position as their demographic and Consumer Reset footprint is still largely exposed to western markets, and a sharp increase in costs could pose margin risks. Spirits might feel more pressure from the Consumer Reset, although they do not need to raise sales prices too much as input price increases have a relatively small impact in this sector.

- Margin protection by the FMCG industry is gaining shape as a result of sustainability measures on the carbon footprint, which often goes hand-in-hand with reductions in energy use. In addition, measures to reduce the use and waste of other input materials (eg, water, grain) could enhance margins for those companies that take action, and cause margin pressure for those that do not.

After 2015, water management, a multi-polar presence and commitment and ethical behaviour are high on the agenda

- In 2015-20, a shift in ethics and values will change the food basket that consumers desire to buy, with the focus on products with a higher sustainability footprint, including rising water prices.

- Additionally, several companies with a lagging multi-polar footprint need to strengthen their local commitment to upcoming new power centres. Overall, food majors and brewers are well prepared to enter the multi-committed company status, while spirits (in particular Pernod) and HPC leaders need local expansion.

Multi-committed companies (MCCs) have the opportunity to reap hard business benefits in an era in which governments and consumers are unable to take the lead

- National governments (particularly in Western democracies) and multilateral organisations are unlikely to offer solutions as they do not have the power and/or sufficient legacy to make decisive changes. Their current status (like that of the IPCC) and actions (China) accelerate the shift towards a multi-polar world in which cooperation is much more difficult.

- Consumers are still dominated by ‘mass conservatism’ and ‘populism’. Because of the social-economic crisis, the populist group has even been strengthened. It will take time, GDP growth and/or (unfortunately) disasters, in order for the minority group of ‘cultural creatives’ to grow in such a way that it can overtake the larger groups.

- NGOs’ (such as the WWF, Greenpeace) information gathering, research, education and public actions will continue to have an impact on consumer as well as corporate decision-making.

- Increasingly, companies need to take action mainly based on their presence in the new power centres in the world. They need to transfer knowledge and corporate governance to these regional power centres and in this way become *multi-committed companies*. In particular, due to a lack of momentum at government organisations and the consumer level, the *multi-committed companies* can form a very valuable initiator of the move to a better world.

Investment case: Brewers are better positioned than spirits, Food better positioned than HPC

- Although there is a perception that the above-mentioned trends are soft, we believe we are reaching a point where new factors will have to be incorporated into our research.

- For now, investors should give greatest weight to the positioning of companies versus the crucial 2010-15 trends, including the preparation for multi-committed company (MCC) status. Figure 2 shows that brewers offer a good combination of position and valuation. Food, HPC and spirits have a neutral position.

- Company-wise, we observe a positive positioning in AB InBev, Heineken and SABMiller, while Carlsberg's presence in the future power centres and in demography is lagging. For ABI (BUY) the valuation is low. For Heineken (HOLD) we need a more attractive entry point, although we have become more positive based on this analysis as well as the FEMSA Cerveza acquisition. Carlsberg's (BUY) positives are its low valuation and its sustainability footprint. We rate SABMiller as too expensive, despite its healthy positioning. In spirits, the current ratings of Diageo (HOLD) and Pernod (SELL) are supported by this analysis. Pernod needs to work on its multi-committed status.

- We see that Unilever (BUY) and Nestle (BUY) are well positioned to benefit from Consumer Reset. Both have large exposure to developing markets and are well equipped to partner with local suppliers to offset multiple pressures from regulation or commodity costs. In HPC in particular, we expect the social crisis to have an impact on demand, mostly impacting cosmetics players such as Beiersdorf (SELL) and L'Oreal (SELL) and from higher energy prices and changing consumer mix. HPC companies are relatively higher valued at 16x FY11F PER, compared with c.14x FY11F PER for food companies.

Fig 2 The 2010-15 investment environment

	Demographic opportunities	Social crisis	Agri prices	Energy prices	Preparation multi-commitment and water	Other	Valuation	Total
Food	+	-/-	-/-	-/-	+		=	-1
HPC	+	-/-		-/-			-/-	-2
Beer	++	=	-/-	-/-	+	+	+	3
Spirits	+	-/-	=	=	-/-		=	-1

Source: ING

Investment case

2010-15 dominated by emerging markets, margins and preparation

The current five-year period 2010-15 will probably be dominated by the following factors:

1) Demographic opportunities, the financial/economic/social adjustment process (the Consumer Reset), and the impact of rising tensions in the food and energy demand/supply balances.

2) The need for companies to focus on proactive measures in order to address the 2015-20 problems/opportunities in the ethical/value shift (more sustainable consumption patterns), rising water shortages and the need to shift the organisation to a *multi-committed company.*

We summarise the positions and valuations of the different sub-sectors as follows:

Fig 3 The 2010-15 investment environment

	Demographic opportunity	Social crisis	Agri prices	Energy prices	Preparation multi-commitment and water	Other	Valuation	Total
Food	+	-/-	-/-	-/-	+		=	-1
HPC	+	-/-		-/-	=		-/-	-2
Beer	++	=	-/-	-/-	+	+	+	3
Spirits	+	-/-	=	=	-/-		=	-1

Source: ING

Food sector on average better positioned in multi-commitment and better valued than HPC

Several food companies already have a highly multi-committed status (local farmers, local brands, local commitment projects such as Shakti) and a rising position in demographic growth areas. However, the negatives consist of the footprint in 'social crisis' areas and the high agricultural and energy price sensitivity. The valuation is currently neutral.

HPC companies have a worse demographic and social footprint than food companies and sometimes lack multi-commitment in the new global power areas as they only install sales offices and are not (yet) engrained in local society. Moreover, their sensitivity to higher energy prices and the high valuations warrant caution on expecting outperformance from current levels.

Brewers: attractive combination valuation and positioning…

Combining the 2010-15 chances and threats with the current valuation, Brewers' relatively low valuations combine well with their healthy positioning in demographic trends and their lower exposure to the 'social crisis' area. The worries are on their higher exposure to food and energy price volatility, and the use of water. However, the brewers are investing here very well in their multi-commitment status (local farmers and local energy/water policies) and focusing on harvesting the synergies from recent consolidation, including improved pricing power.

…while spirits should worry on footprint in demography, Reset and multi-commitment

Spirit companies have a high valuation while their demographic and 'social crisis' footprint is worse than brewers. On top of that, the companies need to invest in multi-commitment, in particular Pernod. The only positive for spirit companies is the lower sensitivity to energy and food prices, although the spirit sector lacks the cost saving opportunities to compensate for higher input costs.

Within sub-sectors, interesting deviations

Unilever and Nestle well placed, Danone more work to do…

In European food and HPC we believe Danone still has a gap to close compared with Unilever and Nestle, which have a history of operating multi-local and of being committed to society even in severe crises (Unilever and Nestle stepped up investment in the Asian crisis and during the crisis in Argentina). In particular, Unilever's demographic footprint is a strong positive, whereas Danone is particularly at risk from the social crisis due to its high exposure to Western Europe.

Fig 4 Valuation 2010F

	Currency	Share price	Cash EPS 2011F	PER 2011F (x)	EV/EBITDA 2011F (x)	EV/EBITA 2011F (x)	Rec	Target price	CAGR EPS 2009-11F (%)	Div yield FY10 (%)	FCF yield FY10 (%)
Danone	€	43.58	2.83	15.4	9.8	12.1	Hold	45.5	4.8	2.8	5.8
Nestlé (ex L'Oreal)	SFr	53.15	3.42	13.8	9.4	10.7	Buy	55.0	14.9	3.5	5.1
Unilever NV (basic)	€	22.24	1.61	13.9	8.5	8.5	Buy	25.5	12.1	3.7	7.0
Unilever NV (adj.)	€	22.24	1.68	13.3	8.5	9.7	Buy	25.5	12.1	3.7	7.0
Food average				14.1	9.2	10.8			10.6	3.3	6.0
AB InBev	€	38.07	2.80	13.6	8.8	10.6	Buy	43.6	35.0	1.6	8.4
Carlsberg	DKr	451.50	37.39	12.1	6.3	8.5	Buy	480.0	25.6	0.8	8.8
Heineken	€	37.99	2.78	13.7	9.0	11.8	Hold	37.0	13.6	1.8	6.9
SABMiller	p	1944.00	134.04	14.5	11.1	13.9	Sell	1558.5	16.7	0.0	6.9
Beer average				13.5	8.8	11.2			14.0	1.1	7.8
Diageo	p	1,092.00	79.71	13.7	9.5	10.5	Hold	1070.0	6.1	3.6	7.2
Pernod Ricard	€	60.15	4.08	14.8	12.4	13.5	Sell	50.0	-5.6	2.3	6.8
Spirits average				14.2	10.9	12.0			0.1	2.9	7.0
Reckitt Benckiser	p	3,564.00	210.88	16.9	11.1	11.9	Hold	3400.0	3.0	2.3	5.3
Henkel	€	38.10	2.81	13.6	7.9	10.0	Buy	45.0	21.6	1.4	6.6
L'Oreal (adj. Aventis)	€	78.70	3.97	17.8	11.7	14.9	Sell	66.0	7.7	2.1	4.3
L'Oreal	€	78.70	3.97	19.8	11.7	14.9	Sell	66.0	7.7	2.1	4.3
Beiersdorf (adj cash)	€	44.29	2.60	17.0	9.5	10.9	Sell	39.0	15.9	2.1	3.6
Household care average				16.3	10.1	11.9			11.2	2.0	4.8

All recommendations and target prices are unchanged. Pricing date: 19 March 2010
Source: ING estimates

Valuation levels are particularly at risk

In HPC, energy exposure is a clear risk going forward for companies such as Reckitt Benckiser (HOLD) and Henkel (BUY). With their current demographic footprints Reckitt Benckiser and Beiersdorf (SELL) are particularly underexposed to the demographic opportunity. The multi-commitment drive is still low, as L'Oreal (SELL), Beiersdorf and Reckitt Benckiser are not (yet) truly engrained in local society. Furthermore, valuation levels of more than 16x for the group remain a negative.

Pernod and Carlsberg have multi-commitment work to do. Carlsberg has low valuation

In the European beverage group, we already distinguished Pernod Ricard, which has a gap to close in the multi-commitment status. Including a relatively high valuation based on enterprise value multiples (FY11F EV/EBITA is a high 13x), we maintain our SELL rating. Carlsberg's demographic footprint is weak as well as its multi-commitment status. Compensation comes from its low valuation as well as its sustainable footprint in energy, water and waste.

Other brewers have a good position, but with varying valuations

In the remaining brewing group, the high exposure to healthy demographic footprints is visible for SABMiller and AB InBev. The major negative for SABMiller is its valuation, while this is an advantage for AB InBev. Increasingly Heineken is investing in growth areas and already has a status as a multi-committed company, but its exposure to the economic crisis environment of Europe remains a negative.

Conclusion

- Based on this study, we remain positive on the beer sector. For its combination of positioning and valuation, we continue to like AB InBev (BUY). Fundamentally, we become more positive on Heineken (HOLD), but valuation-wise we need a more attractive entry point. Carlsberg (BUY) needs to work on its multi-committed status. SABMiller (SELL) is well positioned, but its current valuation is too high.

- In spirits, the combination of positioning is in line with our recommendations on Diageo (HOLD) and Pernod (SELL).

- In line with our recent equity strategy downgrade from Overweight to Neutral for Food and HPC – mainly related to current valuation levels for the sector that are at mid-cycle levels – we become more selective in our company stance. We believe Unilever (BUY) is still attractive as it moves from restructuring to growth, and we expect more positive newsflow ahead. Nestle (BUY) is at the start of a turnaround after a very difficult 2009 in which Nutrition, Water and Out of Home were very weak. We believe Danone has handled the strategic reset well but at the moment we believe there is limited upside from current levels, while the risk of action from the European Food Safety Authority (EFSA) is a worry to us.

- In HPC, cosmetics companies that exhibit a combination of high valuations and lack of multi-commitment are at risk.

Introduction: Changes to business success factors

How are companies affected by the current state of society after the multiple crises of 2007-09?

We seek to analyse how food, beverage and HPC companies might be affected by the current state of society following the crisis environment of 2007-09. In 2007-08, these companies were hurt by a strong rise in agricultural, packaging and energy costs. Later on, this was followed by a credit crisis with a huge impact on the economy and on disposable incomes in some parts of the world. The additional issues concern the state of the global water supply, climate change effects and increasing political instability worldwide.

How do companies prepare for the changes in society?

We analyse how companies can prepare for this multi-crises environment. Does this offer new opportunities to Food, Beverage and HPC companies? Our recent report, *Consumer Reset,* 4 January 2010, already focused on the effects of weakening GDP, disposable incomes and trading down. The current analysis will add the elements of rapid demographic growth, the risks of a food crisis, a water crisis, an energy crisis, a political crisis and the impact of a value/ethical behavioural change.

Does 'Climategate' mean a change in strategy?

Recently there have been discussions on the credibility of evidence for climate change through the Intergovernmental Panel on Climate Change (IPCC). Elements include the 'Climategate' e-mails, miscommunication on the pace that the Himalaya glaciers are melting at, and misquoting the percentage of the Netherlands that is below sea level. These developments have raised questions regarding the current status of the crisis environment. It also raises the question whether governments, consumers and producers will return to the 'mainstream' discussions of economic growth that we had in the period 1980-2005.

Crises and opportunities

The key trends to analyse, their connections, and how to prepare

For Food, Beverage and HPC companies, we need to analyse the connection between the different crises and the opportunities these developments offer:

- Demographic explosion and rapid consumer growth.
- Current value and ethics and necessary changes.
- Financial, economic and social crises.
- Food scarcity: is yield growth and area growth enough?
- Climate crisis: how to prepare for an uncertain outcome?
- Water crisis: is it real or is it another IPCC failure?
- Energy crisis and the change in global money streams.
- The political crisis: how will the global power shift change the food, beverage and HPC industry?

Consumption explosion

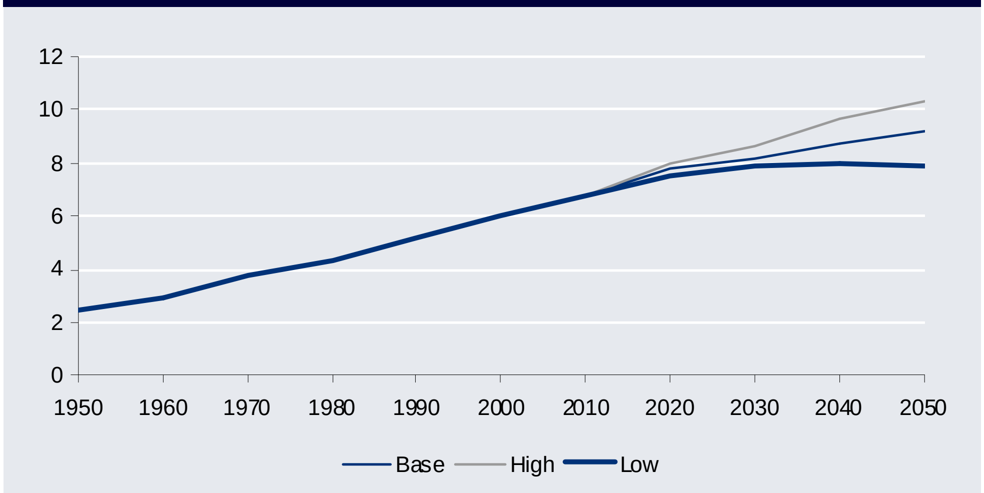
We forecast 40% more consumers in the next 30 years and these new consumers will consume more per capita than now.

Larger population, much greater consumption

From 1950 to 2050, a 4-5 fold increase in population

The global population is currently 6.8bn. This has been reached after a period of tremendous growth. The outlook for the coming decades is that in 2050 the number could peak at c.9-10bn, although growth could also continue further. The growth mainly comes from the rise in life expectancy in certain parts of the world, alongside new consumers in developing markets.

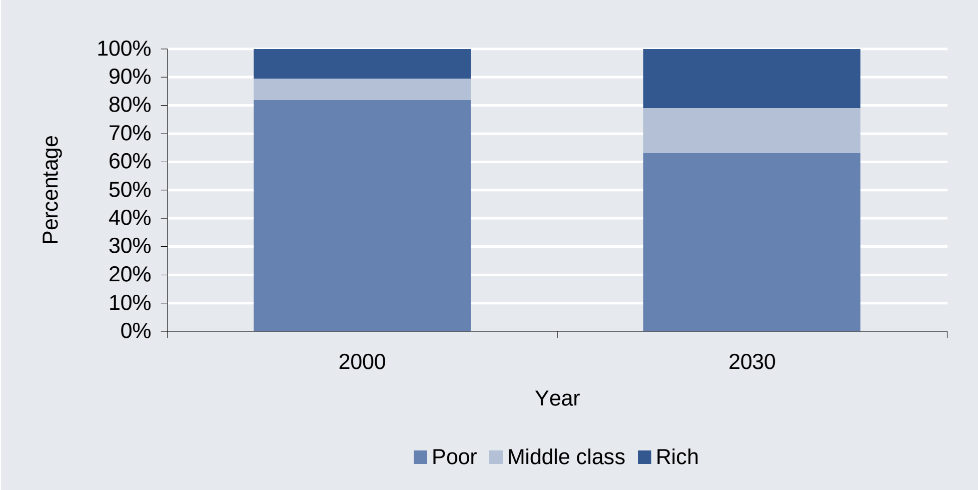
Fig 5 Global population forecast (bn): Three scenarios



Source: UN

Whether the growth will continue after 2050 is dependent on the changes in birth rate that occur in regions such as Africa as countries gradually become richer.

Fig 6 Distribution of income worldwide



Note: The definition used for middle income earners gives purchasing power parity. An international dollar has the same purchasing power over GDP as a US dollar has in the United States at a particular point in time, in this case the year 2000.

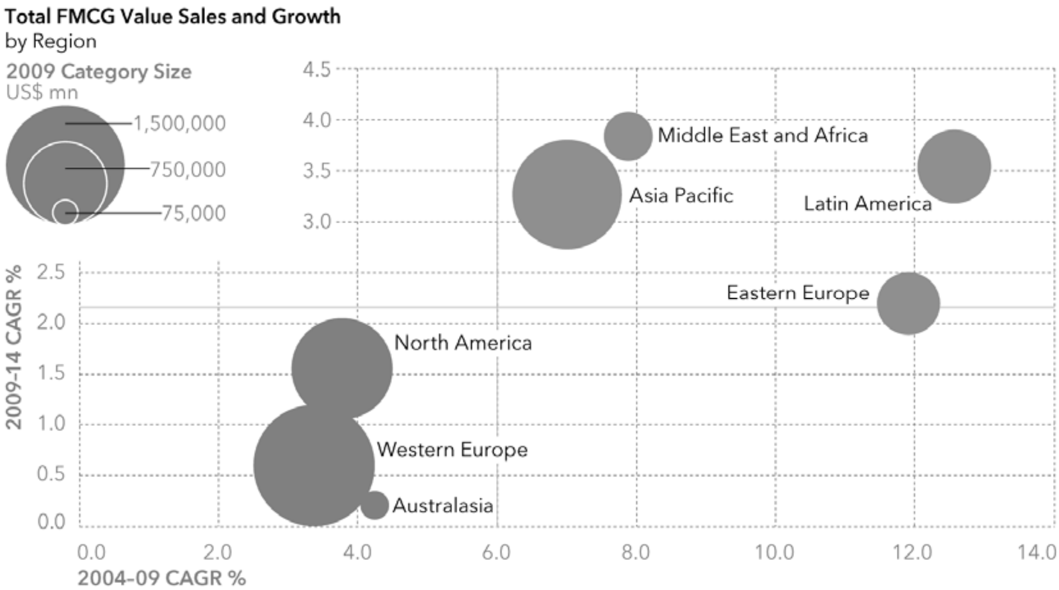
Source: World Bank

As countries become richer and child death rates decline due to better medical provision, the birth rate should decline as fewer children are needed to support the parents when they get old.

After the high growth of preceding years, global consumption growth will accelerate

This change towards a higher percentage of middle- and high-income earners will lead to further strong growth in consumption. The number of people in this group will grow by 3-4% per year in the coming ten years and probably also in 2020-50. It should mean that the big trend of rising consumption will continue and might even accelerate. Bubbles in EM are rapidly developing (see Figure 7 below).

Fig 7 Emerging countries support FMCG growth



Source: Euromonitor 2010

The problem: this growth leads to multiple impacts and multiple challenges

Multiple impacts…

The consumer explosion is coming and FMCG companies will be able to benefit from this. However, this growth also leads to impacts on the use of agricultural land, energy, water and environment/climate. The consequence of this is that there is likely to be changes to the technical and also economic and political balance in the world.

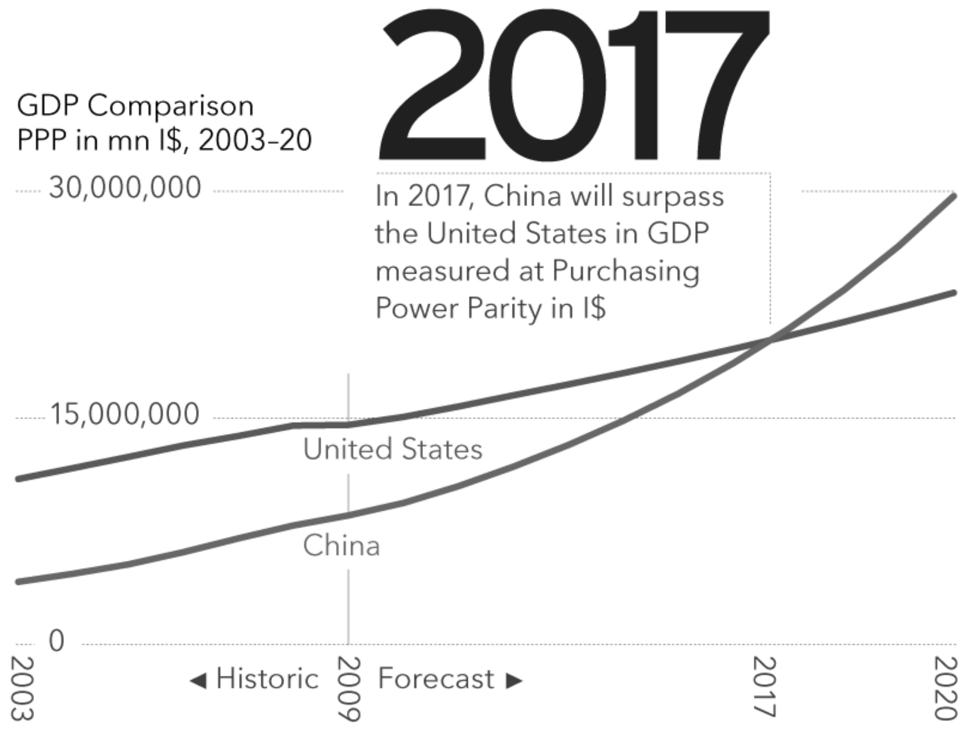
…and multiple challenges

It is up to the FMCG companies to decouple business growth from the multiple impacts. In the course of this report, we conclude that it is up to the multi-committed global companies to utilise the scarce resources well. For instance, Unilever expressed in a statement at the Economist Sustainability seminar in March 2010:

"To double in size while reducing the environmental impact goes hand in hand"

Figure 8 shows how Euromonitor estimates China will overtake the US in consumption in 2017. Ten years ago few people would have predicted that the Chinese economy would be larger than the US economy by then.

Fig 8 China GDP forecast to overtake US GDP in 2017



Note: I$ = indexed dollars
Source: Euromonitor 2010

Changes to the growth mentality

The current growth mentality is linked to key characteristics of the historical development of capitalism/liberalism. The negative effects of capitalism are now recognised and a mentality change is needed. However, a large group of those hurt by the social-economic crises will defend its position and will delay changes.

The problem: we want growth

Capitalist philosophies…

Throughout recent history, we as humans have been conditioned to accept the idea that growth is crucial to living, alongside religion and love.

...have led to a desire for growth, consumption and, inevitably, bubbles…

As a consequence, all our decisions, investments and institutions are built on the 'growth idea'. The mindset has long been about 'rising consumption'. A consequence of this is that economies and markets show periods of high and excessive growth, which sometimes leads to bubbles. These bubbles then tend to pop, which in turn leads to periods of decline and losses.

…against a backdrop of smaller government

While between 1500 and 1970 the state had a dominant role in the economic life and direction of individuals, the move towards smaller governments since the eighties and rising individualism since then has resulted in a completely new direction. In this environment there is a lack of 'checks-and-balances' in the system. The problem is that Milton Friedman's theory has not worked. He said that entrepreneurs should only focus on maximising profits, with the condition that they would act in a free market without fraud. One could argue that the re-packaging of mortgages could be seen as fraud, and that the free market has not been able to align the individual interest and the common interest.

'Growth' and lack of regulation led to undesirable outcomes in the food chain

Individual decision-making, a small supervision/regulation basis (small governments), and the mentality of 'consumption growth' has led to less desirable effects and by-products. These include a high consumption of fatty, salty and sweet products, leading to diseases such as obesity. This occurred in an environment where ingredient suppliers' focus on profitability might not always have led to the most desirable outcomes.

Solution: mentality change vs populism

Criticism of capitalism is now widespread and comes from two different, opposing sources:

1. A group that sees the inter-relation of a multi-crises environment and wants to reshape the world in a more sustainable way ('cultural creatives').

2. A group that feels hurt by the negative effects of capitalism and globalisation and wants to defend its own wealth and status ('populists').

There is also a large group which is less 'extreme' and simply wants to continue the consumption pattern, embedded in 'mass conservatism'.

'Cultural creatives': consuming less, but better

'Cultural creatives' already account for 20% of the population…

In the US, some sources say that the group of so-called cultural creatives is already large. This is a group of people with responsible behaviour and a critical approach. Estimates by the *Financial Times* are that the group is already 50m people in the US, or nearly 20% of the population.

…and are changing conditions

In other countries too, such groups are present and are growing. These groups have access to the media and to the democratic process. These processes have already led to many initiatives, such as:

- Information on packaging.
- Clean labelling (reduction of additives).
- Education by government.
- Regulations and pressure on companies to take measures on sustainability and food safety and traceability.

However, there is scepticism about the real change in attitude…

There is scepticism whether indications of a more responsible attitude will really last when the economy recovers.

- In Harvard MBA, there is now an oath circulating (according to the philosopher Peter Singer), in analogy to Hippocrates, which says that the students will work ethically and that they will strive for sustainable economic growth. However, Peter Singer fears that the earlier the economy recovers, the smaller the chance that we learn something.
- P&G has seen a notable increase in interest from business school graduates to have a life with meaning. Robert Mc Donald, the chief executive of P&G says: "For some of them, making products or marketing brands that improve people's lives is more meaningful than being involved in a financial transaction that creates no value". However, he is also sceptical about the depth of what some US consumers and companies have described as 'a new moral' in consumer purchasing habits that has emerged during the downturn.

'The populists': consuming more

…while the countervailing group of 'populists' has gained support from the social crisis

The 'mass conservatism' group wants to continue its consumption. This group is angry about how the system has hurt them and is angry at governments, particularly when they have a social-democratic signature. This populist group is relatively individualistic and focused on defending its own position and status.

In the next section we analyse the economic, financial and social crises. We expect that because of the need to reduce the real value of debt in Western economies, consumption is likely to decline and savings should increase. Lower government expenditures and higher taxes will have a negative impact on economic growth and on the distribution of income.

Because of the social crisis, we believe that 'populism' will remain a relatively large and critical group.

‘Mass conservatism’: consuming not less but better

‘Mass conservatives’ aim to consumer better rather than less

Between the group of ‘cultural creatives’ and the group of ‘populists’, we define a group which is less politically extreme. This group wants to defend its consumption pattern but also has a desire to consume in a way that is best for the earth when the costs are not too high.

This group is characterised by consuming ‘not less but better against a competitive price’. This is a Consumer Reset attitude.

Conclusion: stalemate

Short term and long term: slow change

Although ‘cultural creatives’ and ‘populists’ agree on the negative effects of capitalism, they disagree on how to adjust values and ethics. The ‘mass conservative’ movement is less politically engaged.

Economic and social Reset

The adjustments needed between debtor and asset countries will inevitably lead to lower consumption (growth) and probably also more inflation in debt-laden nations. Consumers will reset their consumption to lower-priced categories. In so-called asset rich countries, consumer spending growth could decelerate due to negative wealth effects on their assets from inflation/depreciation.

The problem: free money

Pro-cyclical behaviour of the financial system…

Central bank policies have been strongly supportive to the strength of economic cycles in recent years. In fact, they have been pro-cyclical. We have seen it in the upturn, and we have seen it in the downturn.

The invention of creative products and the direct and indirect loosening of solvency ratios, accompanied by low interest rates from central banks, created a money supply bubble in the economy until 2008. Easy credit also partly fuelled the speculative hype in commodities in 2007-08.

The crisis of end 2008 and early 2009 has reduced companies' access to credit and the willingness of banks to provide loans. In addition, supervisory authorities have tightened conditions by implicitly demanding higher solvency ratios.

…leads to more volatile commodity prices and under-investment

Lastly, more expensive credit also led to a very quick reversal of commodity prices in 2009. Low prices might lead to under-investment in necessary capacity expansion in several commodities (agri, energy, water) leading to lack of supply in the next upturn. This feeds into increased volatility.

More fundamental: the mentality of debt versus the mentality of savings

More fundamental has been the 'endless' credit approach of central banks and some governments, leading to structural imbalances in terms of debt. Including the still-dominant role of the US Dollar in the global financial system, this has led to further growth of the twin-deficit in the US: the government deficit and current account deficit. This has led to high debts in US government institutions and the US private sector. The assets are held by the rest of the world. This could be done as in many parts of the world there is still an attitude of saving.

The US debt attitude was related to the ethical and value crises we described in the preceding section. The mentality of growth needed new credit lines, which not only funded capital expenditure but also private consumption and the purchases of cars and houses. As a consequence, for many years the savings rate in the US has been low or negative, while this was mirrored by the positive savings rate in the rest of the world.

The solution: less consumption or inflation

The solution will inevitably lead to more tension between debtor and asset countries

In this system, the crisis can be tempered by a period of growth, as then the increasing wealth can be distributed between the Western and the developing world.

However, in case of weak economic growth the rising consumption that will occur in developing markets could come at the expense of the western world. Indeed, the western world could choose austerity. However, the western world could also opt for a high inflationary environment in order to wipe out the US$-asset-based wealth of developing nations.

The eventual outcome is likely to lie between austerity and inflation. Inevitably this will lead to more tension between debtor and asset countries, as well as a negative impact on future economic growth.

Conclusion: resolving of the financial crisis ends in Consumer Reset

Conclusion: every outcome from the resolution of the financial crisis is likely to result in lower economic growth in the Western World and a tempering of potential growth in developing countries. This is an important element for the Consumer Reset.

Food scarcity: The tension

An increasing global population requires a more efficient use of land, higher yield and less waste in order to avert a global food crisis. In a best-case scenario, the food demand-supply tension can be managed, but it needs higher prices in the coming ten years. Latam, C/E Europe and Africa can benefit from this scenario. In a worst-case scenario, the 'turning point' analysis might lead to lower yields, and tensions between rich consumers and poor consumers could increase.

The problem: food, feed and bio-fuels

Grain is 70% of global agricultural production

The rising population and the growing consumption per capita (in particular of meat) leads to a strong increase in demand for food and in particular grain (wheat, rice, oats), which makes up 70% of all the food produced on earth. On top of this, increasing production of (first generation) bio-fuels also contributes to rising demand for grain.

The gap between 2-3% demand growth and 0.6-0.9% yield growth to be solved by more land…

We made these calculations for 2008-20 previously, in our report *Inflationary environment: a convenient truth*, November 2007, in which we concluded that annual demand growth for grain could be 1.7-3.2% while the rise in annual yield would be closer to 0.6-0.9%. The rest should be solved by increasing use of land.

Fig 9 Additional acreages of land needed in 2020F, including biofuels

Demand	Supply	High	Medium	Low
High	Extra hectares	286,215,770	301,472,534	338,633,325
	Increase (%)	**41.7**	**43.9**	**49.3**
	Annual (%)	3.5	3.7	4.1
Medium	Extra hectares	121,720,744	133,926,792	169,829,524
	Increase (%)	**17.7**	**19.5**	**24.7**
	Annual (%)	1.6	1.8	2.2
Low	Extra hectares	64,025,241	75,161,271	110,622,748
	Increase (%)	**9.3**	**10.9**	**16.1**
	Annual (%)	0.9	1.0	1.5

Source: ING estimates

…which is available

The good news is that land is available. In certain areas in the world, land use is still very inefficient (Latam, C/E Europe, Africa). Until 2020, the figure shows that in a scenario of medium demand we would need 20% more land, with a range of 9-49%.

In a best-case scenario, the developing world could close part of the nutrition gap

We have also calculated numbers until 2050. The best-case scenario is illustrated in Figure 10. It shows how with 20% more land and the historical 0.9% annual yield increase, people in developing markets on average could have as much as 70% more grain to eat/use. The bad news is that there would still be a gap of 55% between per capita consumption in the developing and the developed world.

Fig 10 How to share the grain in 2050F: The best-case scenario with 20% more land and 0.9% yield CAGR

	Total world	Developing world	Developed world
Population (m)	9,500	8,500	1,000
Consumption of grain (mt)	3,848	3,161	687
Per capita kg per day 2050F	1.11	1.02	1.88
Per capita kg per day 2005	0.81	0.60	1.88
%ch	37	70	0

Source: ING estimates

In a worst-case scenario, developing markets would lose 42% in per capita consumption

We can also calculate a worst-case scenario. Here we include the potential negative effects from climate change and the water crisis. Figure 11 shows that in such a scenario, the grain use per capita in developing markets would fall by 42% in 2050. This is a disastrous scenario as current consumption is already very low.

Fig 11 How to share the grain in 2050F: The worst-case scenario with no additional land and a 20% yield fall

	Total world	Developing world	Developed world
Population (m)	9,500	8,500	1,000
Consumption of grain (mt)	1,761	1,074	687
Per capita kg per day 2050F	0.51	0.35	1.88
Per capita kg per day 2005	0.81	0.60	1.88
%ch	-37	-42	0

Source: ING estimates

Roberts and Schlenker: GHG leads to yield fall

We base the 20% yield fall on the research from Roberts and Schlenker, which says that climate change and GHG (Greenhouse Gas, CO_2 + methane) could have a dramatic impact on corn yields.

Fig 12 Climate change and impact on US crop yields (Roberts, Schlenker)

Corn, soy, cotton	Yield
GHG -50% in 2050 (vs 1991)	-30 to -46%
GHG at current level	-63 to -82%
Yields of corn rise to 29˚C and soy to 30˚C	At >29 and 30˚C respectively, they decline sharply

Source: Roberts, Schlenker

Solution: more land, higher yield, less waste

Land, yield and less waste are part of the solution

Even in the best case scenario above, the gap in grain consumption per capita between developed and developing countries would not be closed in the next 40 years. In the western world consumers would use 80% more grain. The solution can be found by:

- More land.
- Higher yields.
- Less waste or use in the Western world.

More land: where is the potential?

With higher food prices, the capitalist mechanism should lead to more supply. The current use and availability of land is as follows:

Fig 13 Potential land for grain cultivation (m hectares)

	Land used for crops	Land used for grain	Land suitable	Share used (%)	Production (m tons)	Yield/hectare
North America	225	71	342	21	397	5.6
Europe	185	78	252	31	332	4.3
Russian Fed.	130	41	212	19	72	1.8
Latin America	158	48	575	8	155	3.2
Africa	198	100	593	17	145	1.5
Asia	557	318	384	83	1,099	3.5
Total	1,452	656	2,356	28	2,201	3.4

Source: various, FAO, Sage, ING

In Figure 13 we calculate that there is enough land available. Several countries and areas could very well benefit.

- C/E Europe would need better infrastructure in order to get the harvest from the land. In addition to better seeds and techniques, the profit margin would be too attractive to ignore.

Land is available in C/E Europe, Africa and Latin America

- Sub-Saharan Africa has enormous potential in terms of more efficient use of land. Here the problem is about ownership, regulation and law, and wars. In addition, improved regulation of water could support an expansion of land use.
- Latin America still uses only a small part of its land outside of the Amazon. Here it is a matter of investment in water control and also the culture change to meat production on smaller pieces of land. If that occurs, more land would be available for grain and other plants.

Higher yield: in plants and in meat production

There are two solutions here:

- Better yield of plants.
- More efficient use of grain to produce meat.

Higher yield of plants

Talking to Cargill and Syngenta (seed improver), the opinion is that the average yield worldwide could be increased by:

- Roll out of current techniques and seeds throughout the whole world;
- Improvement of seeds and adaptation to new environments, such as less water use.
- Greater focus on improvement in crops other than grain. Until now grain (which generates 70% of global food) has been given the majority of attention by scientists.

Yields can improve, with existing technology and with GM

Syngenta says that current techniques could increase yield/ha by 2% per year for several years. Cargill says the use of fertilizers globally and genetic modification can help.

However, there are limits. Rudy Rabbinge of the Wageningen Agricultural University says that the proceeds of wheat can go up from 9t/hectare to 15t/hectare. But that is the maximum because of sun intensity, CO_2 content, temperature and characteristics of the variety. He says that because of agricultural policies, inefficient land stays in production. This also leads to over use of pesticides. Such use could fall by 75%. In Europe, only half the existing space needs to be used. In fact Mr Rabbinge indicates that by ending the use of inefficient land, production will move to more efficient land which needs fewer pesticides.

Less feed per kilogram of meat

Feed conversion rates can improve substantially

In meat production, efficiency can also be improved substantially. This means that less grain would be needed to produce one kg of meat. Nutreco says that worldwide the productivity of farm animals is 30-40% below their genetic potential. This is because of sub-optimal conditions and health status.

Less waste: still enormous improvements to make

Research points to 20-40% waste

- On average, more than 20% of produced food is estimated to be wasted.
- In the developed market in the US the number is as high as 30-40%.
- In India, the calculation is that 30-40% of perishable products rot in transport or in production sites due to inadequate storage and transport delays.
- Ahold now discounts its products as early as 10am in all its stores in the Netherlands, instead of late afternoon, in order to cut waste to a minimum.

In our view, a higher food price, the Consumer Reset (ie, changing consumer behaviour) and infrastructure investment should lead to a reduction of these very high numbers.

Climate change: Delayed

The debate on climate change data has led to a change in urgency and the topic has been pushed to the background.

Additionally, the short-term GDP loss from measures to mitigate climate change is relatively high versus the negative impact of climate change on long-term GDP. Calculations show that the negative impact of climate change on GDP in 2100 is 0 to -4% in the mean scenario, while the costs to mitigate climate change are -1 to -6% in 2050.

Climate change urgency to background

A string of blunders by scientists will lead to…

The Stern Review, Al Gore and the IPCC have had a receptive audience in recent years, but the blunders on 'Climategate' emails at the end of 2009-10, temperature measuring methods around the globe, the calculation of the pace of melting of the Himalaya glaciers, and lastly the calculation of what percentage of the Netherlands is below sea level, have created an environment where the sceptics have dealt the climate change scientists a major blow.

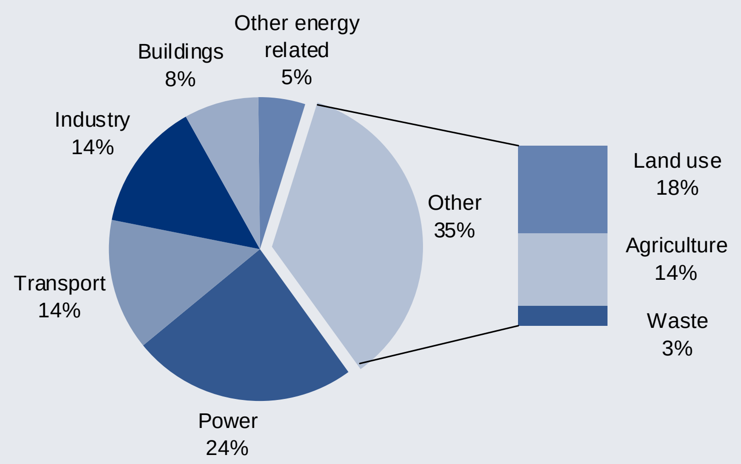
…falling support for costly climate policies in democracies…

As most of the proposed climate change measures by governments would lead to higher taxes/costs for consumers, it is logical that in a difficult economic/social environment the support for climate change measures is likely to be low.

…even in case of disasters

Even several natural disasters are unlikely to convince a majority that the casualties are due to climate change.

Fig 14 Greenhouse gas emissions (2000; CO_2 equivalent)



Source: ING, Stern Review, WRI

Problem: The CO_2 temperature link

Despite discussions, the GHG-temperature link is intact

Despite recent discussions, the consensus remains that the production of GHG (greenhouse gas = CO_2 + methane gas) emissions will continue and the content in the atmosphere will rise every year. There is already ample evidence of the relation between GHG-content and temperature change, and despite a ten-year standstill in global temperature increase versus 1998, scientific evidence suggests that the temperature increase will continue.

Agriculture and the food chain are major contributors to rising greenhouse gas emissions. The Stern review says that non-CO_2 emissions from agriculture amount to 14% of total GHG emissions. Of this, fertiliser use and livestock each account for one third (other sources include rice and manure management). More than 50% comes from developing countries. Agricultural practices are also responsible for releasing stores of CO_2 from the soil, although we lack estimates.

Food production generates 38-51% of GHG

Agriculture is also indirectly responsible for emissions from land-use change (agriculture is a key driver of deforestation), industry (in the production of fertiliser), and transport (in the movement of goods). There have been calculations which indicated that directly and indirectly agriculture/food production is responsible for 38-51% of all GHG emissions. Increasing demand for agricultural products, due to rising population and incomes per head, will probably lead to continued rises in emissions from this source. Not only will more fertilizers be used, but also more fresh water is needed. This will lead to accelerated demand for water.

P&L of measures is a bad marketing tool

The GDP effect of climate change seems low and is highest for developing areas

A lot of analysis has been done on the impact of climate change on GDP and the costs to mitigate climate change. The impact on GDP in 2100 from a 2.0-2.5˚C increase in temperatures seems limited. In particular, developed markets see nearly no impact. The main negatives are for developing countries with a 2-4% negative impact on GDP. These (relatively) higher costs reflect developing countries' geographical location and their high dependence on agriculture, forestry and fisheries.

Fig 15 Economic impact of global warming (+2.0-2.5˚C by 2100)

	Mean	Lower bound	Upper bound
Developed countries			
North America	0	1	-2
Asia	-1	0	-3
Europe	-1	0	-3
Transition economies	1	0	2
Developing economies			
Africa	-4	-1	-9
Latin America	-2	0	-4
West Asia	-3	-2	-4
South/SE Asia	-3	1	-9
China	-1	2	-5

Source: ING; Unctad 2009, Burniaux 2008

The costs of measures to mitigate seem relatively high

The loss to GDP from measures to mitigate climate change can be seen as limited in percentage of GDP (1.0-5.5% of GDP, see Figure 16), but are relatively big versus the negative impact of climate change on GDP. These costs include the impact of raising the duties/price of products with high CO_2 emissions (which will limit GDP growth) and the early redemption of expensive capital goods which are energy/oil intensive.

Fig 16 Loss of GDP from climate change mitigation when stabilising GHG concentration

	GHG at CO_2 eq ppm[3]	Target year	Loss of GDP (%)	Target year
IPCC (2007)	445	2050	-5.5	2050
Burniaux/OECD (2008)	550	2050	-4.8	2050
IMF (2008)	535-590	2100	-2.6	2040
Stern Review (2006)	550	2050	-1.0	2050

Source: ING; Unctad 2009

Costs seem to exceed benefits… a bad marketing tool

The calculations show that the negative impact of climate change on GDP in 2100 is 0 to -4% in the mean scenario, while the costs to mitigate climate change are -1 to -6% in 2050. It is clear that this is a bad marketing tool in terms of encouraging people to act on climate change. In effect it is the equivalent of telling a consumer or voter to pay €3.5 up front to get back €2 at least 50 years later.

Note that the GDP costs of limiting GHG emissions to 2.0-2.5˚C do not include the benefits of warding off dramatic environmental chain reactions.

The "turning point analysis" theory

The 'turning point analysis' is the missing link

The crucial gap in the analysis of the P&L in the climate change debate is the 'turning point analysis'. We believe this will gain more weight in the coming years, albeit probably after a string of disasters.

The problem of the above-mentioned effects is that they are non-linear. It means that so called critical thresholds ("turning points") are neglected. There is a risk that these turning points can be exceeded. This could result in irreversible damage to ecosystems, which could end up having catastrophic impacts.

Figure 17 shows that there are major problems in the loss of bio-diversity, in the nitrogen cycle, in GHG emissions, and in acidification of oceans. The use of fresh water is still healthy, but it is very unevenly spread and growing quickly as a problem.

Fig 17 Turning points climate

Problem	Measure	Pre-industrial	Now	Upper limit	Comment
Loss of bio-diversity	Pace of dying; species (m per year)	0.1-1	>100	10	Major problem
Nitrogen cyclus	m tonnes per year taken from atmosphere	0	121	35	Major problem
Climate change	CO_2 mpm	280	387	350	Major problem
Fosfor cyclus	m tonnes/year in oceans	-1	8.5-9.5	11	Upcoming problem
Acidification oceans	Limestone in oceans	3.44	2.9	2.75	Major problem
Change in land use	% land changed to agricultural	low	11.7	15	Upcoming problem
Global use fresh water	km^3/year per person	415	2,600	4,000	Un-even spread; Upcoming problem
Ozone shield	Concentration (Dobson units)	290	283	276	Under control?
Air pollution		Still to be measured			

Source: Nature, newspapers

Dramatic decline in grain yields could occur

The turning point risk is further underlined by the analysis of Roberts and Schlenker, which indicates that keeping GHG emissions at the current level could hurt grain yields dramatically (-60 to -80%) in the US in 2050. Even a halving would be disastrous (see the section on food scarcity).

The solutions: growth, integrity, MCCs

The solutions have been discussed in Copenhagen, but our analysis in the preceding and in the next sections conclude:

Social crisis and global political disintegration do not enable a climate change strategy…

- Because of the economic and financial crisis, it will become more difficult to change the ethics and values of individuals and the attitude to sustainability. If climate change measures mean that it will lead to higher taxes or higher costs, the democratic system in many countries does not guarantee the introduction of effective measures.
- In an increasingly fragmented world, it will become more difficult to coordinate measures between local governments. Moreover, multilateral organisations such as the IPCC have lost some of their integrity. This will only return with more solid evidence. However, it will take a lot of time, investment and probably disasters to get the individual consumers back into the 'anti-climate change mood'.

…and companies should have a big role

- Multi-committed companies (MCCs) can play a crucial role in investing in 'turning point' research and preparing/executing measures on climate change.

Water scarcity: gap vs price

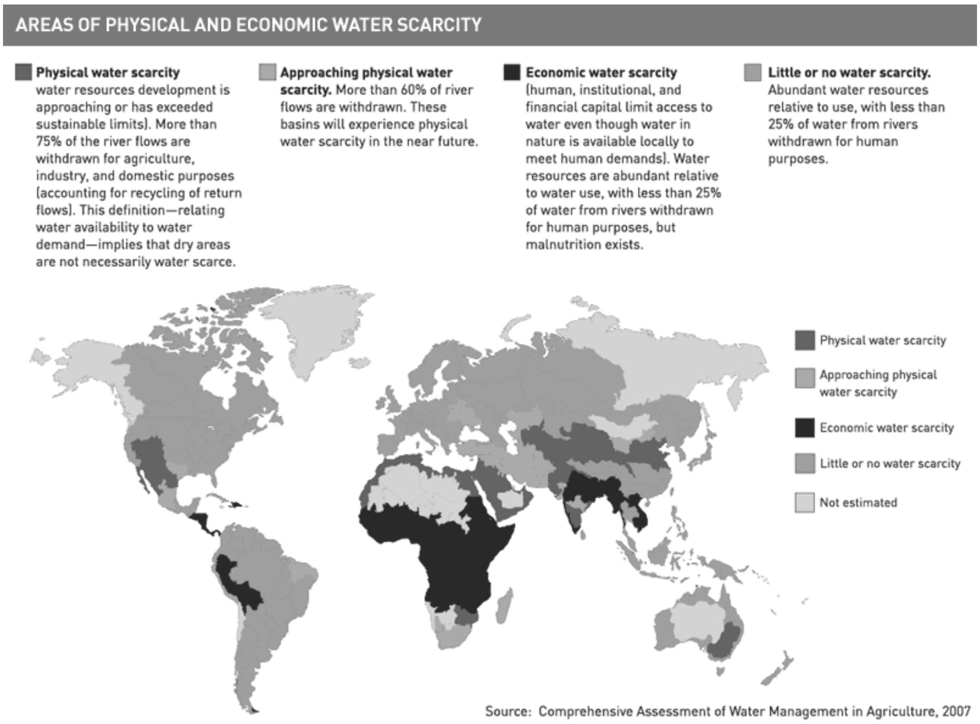
Global demand for fresh water will increase due to rising populations and increasing per capita consumption and urbanisation. We forecast a bigger supply-demand gap in the coming 20 years, which means the price of water could treble over this period. Of fresh water, c.75% is used in the entire food chain (from agriculture to consumer) and companies will have to adapt.

The problem: shortage of fresh water

Fresh water data: is there a problem?

Of global water supplies, 97.5% is salt and 2.5% is fresh. Agriculture uses 70% of global fresh water, industry 20% and households 10%. The problem is that the trend in fresh water availability per capita is down in most areas (Asia, parts of Africa and Central America). Fresh water supply is not evenly spread over the world. UNEP (Global International Waters) states that 1.8bn people could have acute water shortages by 2025. In terms of water stress, different scenarios indicate that in 2085, 875m to 4.5bn people could have increased stress. This is mirrored by a range of 1.7-6bn people who will have less water stress. Of course, the pain from having no water weighs heavily.

Fig 18 Areas of physical and economic water scarcity



Source: Comprehensive assessment of water management in agriculture, 2007.

Growing demand for fresh water…

The driving forces behind water scarcity are the growing world population, dietary change, bio fuel production, climate change, urbanisation, the need for environmental water and, last but not least, continued economic growth. If economic and population growth continues, global water demands will be 40% higher than current supply. The existing gap between the supply and demand of water will continue to grow.

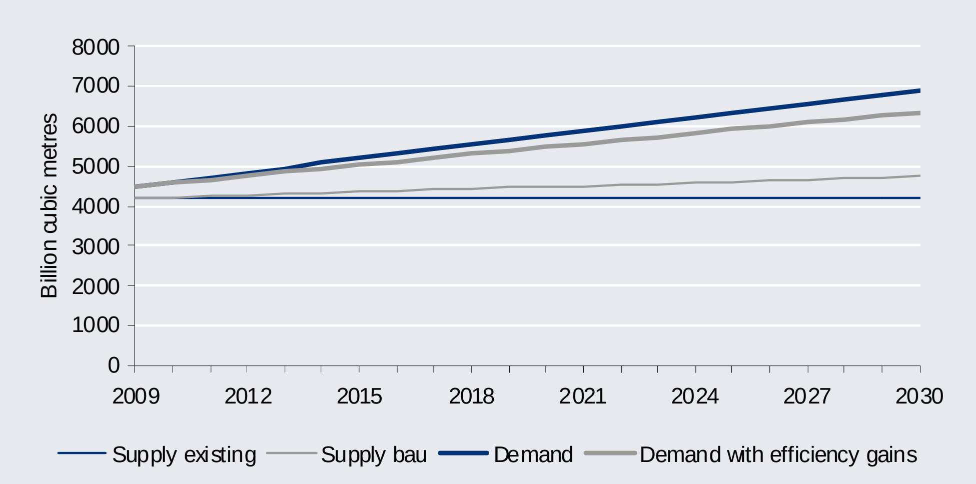
…and lagging supply…

Fresh water is not distributed evenly around the world. An increasing number of regions will face troubles to maintain human wealth as a result of the growing lack of water resources, and this might lead to social and international political problems.

…resulting in a 40% gap

Demand for fresh water resources will grow more than 50% within 20 years if there are no efficiency gains, according to McKinsey. With 3,500bn cubic metres of surface water and 700bn cubic metres of groundwater, existing supply will stabilise at 4,200bn cubic metres. This means that we will see a shortage of 2,700bn cubic metres of fresh water in 2030. A gap of around 40% is created.

Fig 19 Growing water gap



Source: McKinsey

It is estimated that only a fraction of the gap can be filled by historic efficiency improvement. According to Figure 19, only 20% of the gap in 2030 would be met if the rate of improvement in the past 15 years is sustained. On the supply-side, only 20% of the gap will be filled by the current growth rate of water resources. If this is the case, there is still a gap of around 1,600bn cubic metres in 2030.

Fresh water will become a new business risk

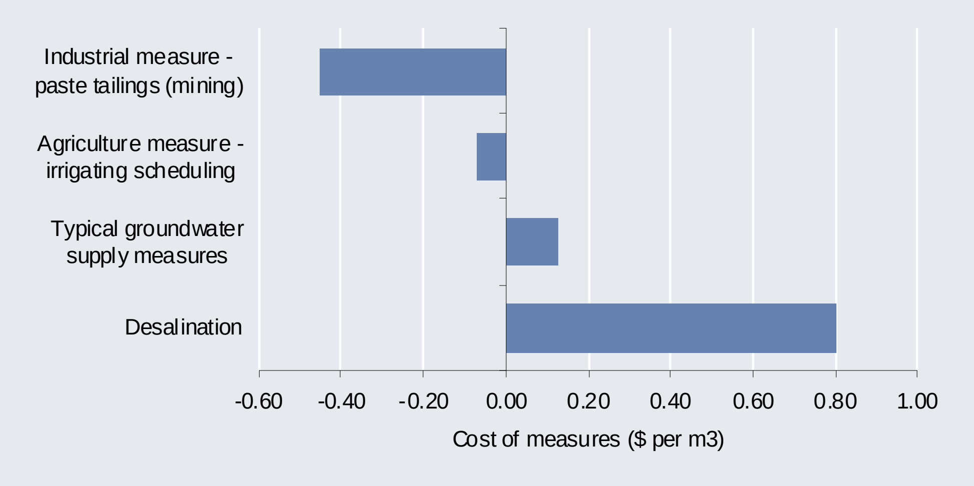
The competition for fresh water will make water more costly, which is a relatively new business risk. Businesses are not only affected by input costs of water directly, but also, for example, indirectly via higher food prices as a result of water scarcity.

The solutions: trade, save, increase supply

Three solutions: trading, saving and raising supply

Regional water problems can be partly solved by trading commodities such as grain and meat. Another solution is saving water and increasing the supply of water. Piet Klop (World Resources Institute) points to another problem; water is just far too cheap. Government subsidies lead to inefficient use, and a lack of revenues and profits which could have been invested in more supply. In Figure 20 we can see the costs per cubic metre.

Fig 20 Demand- and supply-side measures

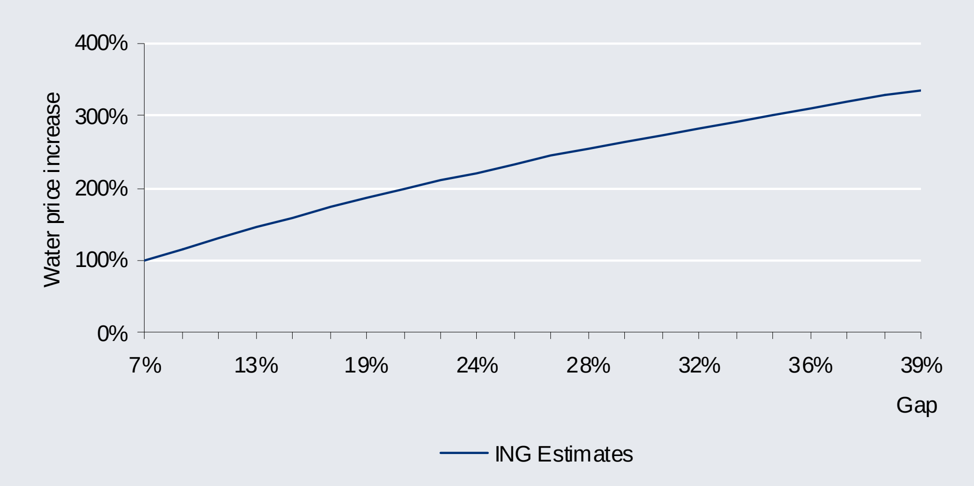


Source: McKinsey

A bigger demand-supply gap needs a higher water price…

In response to the widening gap between supply and demand, the water price could increase by over 300% by 2030. Figure 21 shows the relationship we have found between the water price and the gap between supply and demand.

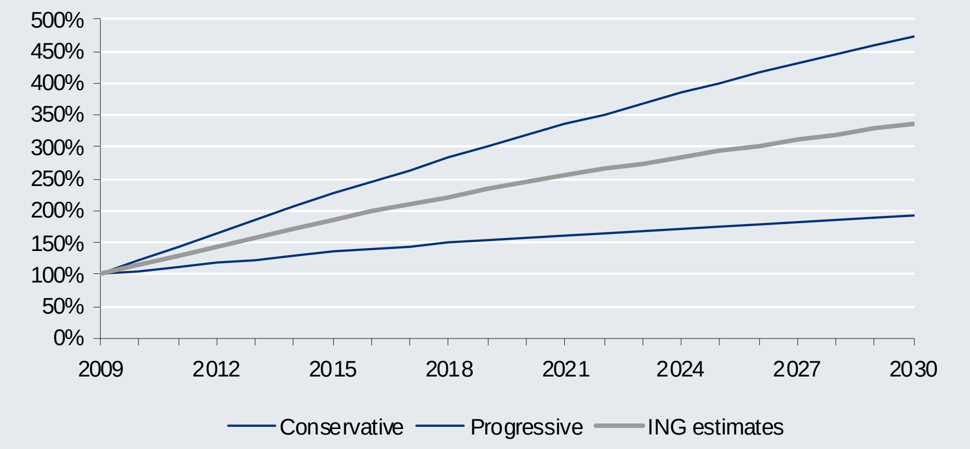
Fig 21 Relation average world water price and demand-supply gap



Source: ING estimates

In our model we used different assumptions to make predictions for the water price. In Figure 22 we show conservative, progressive and moderate estimates. It depends, among other things, on whether, how and how quickly governments, companies, farmers and households react to the widening gap.

Fig 22 Average world water price increase



Source: ING estimates

Conclusions

- Global demand for fresh water will increase due to the rising global population, increasing consumption/capita and urbanisation. In some areas, water stress will become more intense. In other areas, water supply could increase.

The price of water will move up, whether in fresh form or included in grain and meat

- We expect the price of fresh water to increase substantially. This will fuel investment in infrastructure, desalinisation etc. Of fresh water, 75% is used in the food chain, so food and beverage players need to adapt.
- Another solution of water stress is the trade in water-containing products such as grains and meat. The prices of these commodities will increase.

Return of the energy crisis

Food, beverage and HPC companies have a relatively high energy footprint. Rising energy prices will lead to higher costs in (agricultural) input, in packaging materials in production and in transport. Companies should do more to change products with a high energy footprint.

A positive impact from rising energy costs is higher purchasing power in some key regions, such as Latam, Middle East, Russia and parts of Africa.

The problem: higher energy costs

It is a broad-based assumption that demographic development and rising consumption per capita will put upward pressure on energy prices.

Broad-based consensus is that energy prices will move up due to shortages of fossil fuels and the need to develop new ideas…

The rising demand for energy will have to be matched by rising supply. We know that after the relatively low-cost production of oil in land-based sources from the US and the Middle East, now the need is increasing to explore deep sea reserves, oil sands in Canada, new gas extrusion techniques and, of course, renewable resources. However, the vast majority of energy supplies will be from carbon-based products such as oil, gas and coal.

The impact on producers and specifically on food, beverage and HPC players of rising energy prices is threefold:

…resulting in higher agricultural, water and energy input costs…

- More expensive raw materials and packaging. Note that agriculture is energy intensive, and also the necessary desalination of fresh water for irrigation. For HPC companies, a major part of ingredients is oil based.
- Higher energy bills related to production and transport.
- Customers in specific regions will either face pressure on disposable incomes from higher energy bills or face higher spending power as they benefit from energy surplus earnings in the region.

In our 2005 report, *The impact of higher oil prices on food & beverages,* we calculated the sensitivity of companies to higher energy prices related to transport, packaging and energy bills/production. We now also need to add the energy component in agricultural input costs and in water costs.

…and a geographical change in the wealth of the consumer base

Concerning changing disposable incomes in the customer base, because of rising energy prices, the areas with the largest oil and gas reserves should benefit most. Of course, these include well known areas such as the Middle East and Russia, but also certain parts of Africa and Latin America should be able to benefit. With a rising market share of renewable resources and new gas techniques, certain countries could be able to raise their self-sufficiency in energy. There is potential in the US (gas techniques, bio ethanol, wind) and maybe China, but on balance strongly growing Asian countries in particular will need to spend an increasing amount of disposable income on energy. The conclusion is that because of potential future energy surpluses/shortages, consumer goods companies might find most disposable income growth in Russia, Middle East, parts of Africa and parts of Latin America.

The solution: save energy, renewable resources, other production

Consumer goods companies can react threefold:

- Reduce the use of energy in production and transport. Reduce the energy intensive supply elements, or chose those that mainly use renewable resources.
- Produce only products that have a low energy footprint and thus also have low energy use in households.
- Raise exposure to areas with an energy surplus.

Saving energy = saving costs

With rising energy costs and the need to remain competitive, we believe companies are automatically pushed in the direction of lower energy use. Increasingly the remuneration of management should be focused on this element as it will support a profitable future for a company.

In products, only some moves to energy-efficient products. More is needed

The production of products with a low energy footprint in the whole chain is now starting to see some early adopters, such as Unilever in low-temperature detergents. However, these are still very small initiatives which do not really change the trend sharply. A much sharper change could come from ending production of certain products because of their energy footprint. These are actions that we do not yet see. In total, companies still have a long way to go in the adaption of their product ranges.

The shift of production to energy surplus countries is a development that is embedded in the expansion of activities of several developing markets, such as Africa and Latin America.

Conclusion

In the energy crisis, food & beverage will be affected and the current adjustment is not sufficient

- Food, beverage and HPC companies have a high energy footprint. Rising energy prices will lead to higher costs in (agricultural) input, in packaging, in production and transport.
- The main focus of policies is currently on reducing energy consumption.
- In choice of end products, much more action is needed to reduce the energy footprint of the products.
- In geographical adjustments, the move to energy-benefiting consumer nations is mainly embedded in the overall move to developing areas.

EM strength redefines balance of power

The regional wealth changes due to the imbalances in food, energy, water, demographic and economic development will lead to the creation of seven/eight power centres in the world.

This means a shift from a uni-polar world to a multi-polar world. It also means further political fragmentation with less cooperation.

This creates opportunities for global multinational companies to become multi-committed companies (more engrained in local society than ever before). In a world of multiple crises and shortages, companies need to become more locally committed to each region without sacrificing global reach. There is an enormous opportunity from transfer of knowledge and speed to market, in combination with local sourcing.

The problem: from bi-polar to multi-polar

From a bi-polar world to a multi-polar…

For a long period following the Second World War there was a bi-polar world with two centres of power, the US and Russia. After the collapse of Russia in the 1990s, the US created a uni-polar world. The future, with changes in energy balance, food balance, water balance and also demographic and economic balance, will be a world where we will see an increasing number of power centres. We assume the US/Canada will remain strong, Brazil will become stronger; China will remain a stronghold including its clever investments in resources worldwide, and lastly Russia and parts of the Middle East.

The EU will have a relatively small place based on its limited resources in energy and soft commodities, but with a potential surplus in value and ethical investments. Sub-Saharan Africa is an outsider. Only major investment in infrastructure (utilities, roads, law and police) and better regional cooperation can make this a super-power. We have not included India. It is enormously strong in demographics, but its current investments in infrastructure (of all kinds) and its lack of resources make it a problematic area.

…consisting of seven or eight areas, which does not facilitate decision-making

So, the multi-polar world could exist of seven areas, maybe eight. In a world of ample resources, this creates an enormous opportunity for multi-polar growth. However, in a world of shortages and tensions in food, water, energy and climate, a group of 7-8 does not even form an oligopoly. The competition for resources could result in more conflicts and potentially wars. With 7-8 power centres it will be difficult to find cross-border solutions. How does the consumer goods industry need to adapt to this new situation where the US is not the only dominant power?

Solution: the multi-committed company

Rising international tensions will force smaller companies to remain at home…

Companies could react to global political fragmentation in the following ways:

1. Focus on the home region in order to reduce the international risks.

2. Focus on areas which will gradually become one of the poles in order to benefit from growth and spread the risk.

Small companies could opt for the first solution, but bigger consumer goods companies can only realistically choose the second solution. After all, it is a continuation of the strategy most companies already have.

…but global companies need to commit to each power centre…

However, we believe that multinational companies need to change their regional tactics from the multinational strategy they have had previously. The companies need to become committed to each power centre in which they are working. This means local commitment to politics and government, development, sourcing and consumers.

…which creates an enormous opportunity

The positive impact of these multi-committed companies is that knowledge transfer will be better, sourcing will be developed, healthcare will be improved and corporate governance will be rolled out much better. Versus the multi-polar political world the multi-committed companies will create a world of international cooperation and development. This is an enormous chance for companies. There is no choice to continue with a policy of 'colonial' power brand roll-out – this would be disastrous.

This multi-commitment is currently beginning to take place, but others still need to take their positions.

Timing and regional positioning

The preceding sections have revealed that companies will be confronted with eight different and also inter-related potential crisis events or trend changes. In this section we focus on the timing of these crises and the geographical location.

1) **Consumption explosion.** This results in a 40% population growth in the next 30 years. This means 40% more consumers. Moreover, these new consumers will consume more per capita than we do now.

2) **The 'growth' mentality change.** Pressure on scarce materials will increase, which is linked to the key 'growth' characteristic of capitalism. A by-product has been undesirable consumer patterns potentially leading to diseases. Due to rising individualism and smaller government influence, it will be increasingly difficult to organise a co-operative solution with 9-10bn people in 2050. Two groups are emerging and are likely to create a stalemate: the 'cultural creatives' that want to change capitalism towards sustainability, and 'populism', which wants to defend individual interests now that Western countries are confronted with declining growth. The third group of 'mass conservatives' is neutral. There is no quick solution.

3) **Economic and social crises: resulting in Consumer Reset.** The adjustments needed between debtor and asset countries will inevitably lead to lower consumption (growth) and probably also increased inflation in debt-laden nations. Consumers will reset their consumption to lower-priced categories. In so-called asset countries, consumer spending will continue to grow.

We see eight major crises or trend changes which lead to changing risks and opportunities

4) **Food scarcity tension.** The rising population and the rising consumption per capita, including bio-fuels use, leads to the need for more land and rising yields. There is land available and yield improvements can be done. Of course, it needs higher prices to get the land into production and to accelerate the innovations. However, grain production could disappoint based on the climate crisis and the water crisis. If that scenario occurs, the result would be a serious food crisis and starvation.

5) **Climate change: urgency pushed to the background.** The debate on climate data will probably lead to a temporary downgrading of priority, in particular because any government measures against climate change/greenhouse gas emissions seem to hurt the voter/consumer in its wallet. Unfortunately, it probably needs several disasters to get this back on the agenda. The turning point analysis remains a very scary outcome.

6) **Water scarcity: rising shortages will lead to much higher prices.** A water crisis can be averted or delayed by increased investment in water infrastructure projects, the saving of water and the increased trading of water-containing commodities, such as grain. However, we think the water price could increase substantially.

7) **Energy tension leads to higher input costs and geographical demand shift.** Rising energy costs are the consensus, and this affects several sectors heavily. Also food & beverage will be heavily hurt in its input prices, not only by energy directly, but also due to agricultural and water use, which both have an energy

component. Companies make adjustments mainly in their production process' energy use and also build new activities in regions which benefit from higher energy prices. However, a reduction in demand of energy-intensive products has not yet been observed.

8) **Political fragmentation. The need for 'multi-committed' organisations.** After the Second World War the US and Soviet Union were the two leading global powers, but due to the different crises and global trends the world is moving towards a multi-polar world where coordinated decision-making will be more difficult. The big global consumer goods companies need to create much more commitment to each power centre, which equates to an enormous chance in terms of the transfer of knowledge and local sourcing.

Time phasing schedule

When analysing the different crises, we conclude that we see the following phasing.

Between now and five years time:

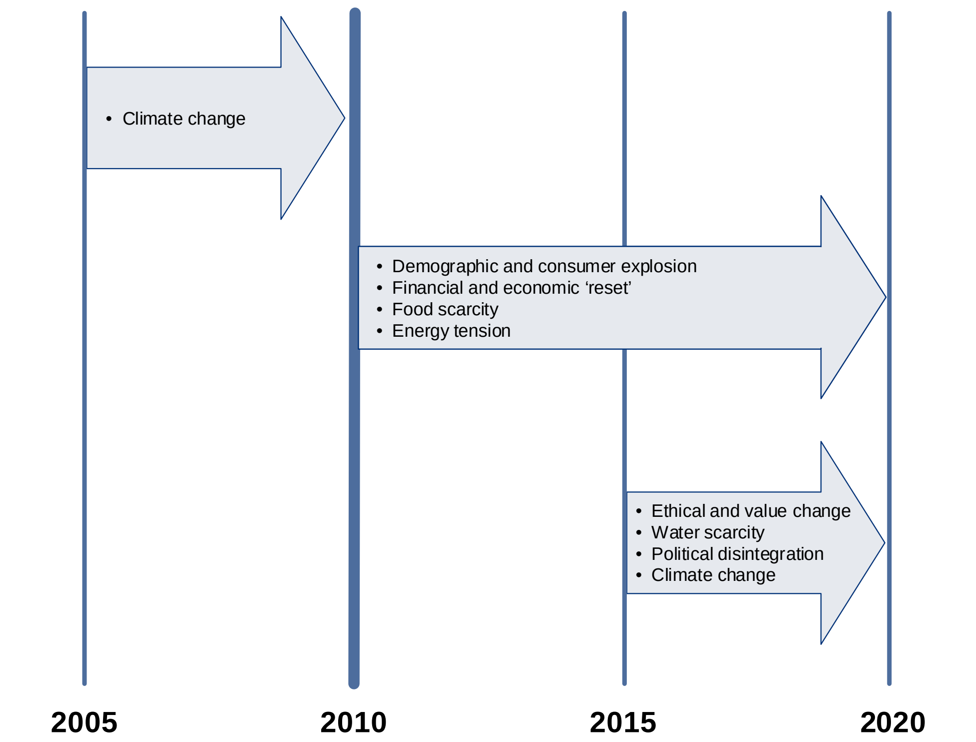
- Demographic growth, consumption growth and opportunity.
- The financial, social and economic crisis.
- The food demand/supply balance.
- The energy demand/supply balance.

Four trends are occurring now, three in 5-10 years time, while climate has moved to the background

Between five and ten years:

- The ethical and value crisis and change
- The water demand/supply challenge
- The political shift to a multi-polar world

Fig 23 Phasing of the eight crises/opportunity events



Source: ING

The climate crisis will continue for the next 40 years, in our view. However, we expect the discussion to move to the background temporarily due to discussions on the IPCC outcomes. Additionally, the social crisis and the move to a multi-polar world will not facilitate discussions on how to share the costs of the measures, domestically and internationally.

This phasing of crises and trends is important for the key driving factors in the coming five years, which is the relevant investment horizon.

Geographical positioning

For 2010-15, the obvious emerging markets are favoured, although Latam and Africa are best

The tables below indicate where the main problems and opportunities are, divided into two periods (2010-15 and 2015-20).

For the 2010-15 period, we conclude that positioning in Latin America, Sub-Saharan Africa, Asia and C/E Europe would give most success, but clearly Latin America and Africa are leading.

Fig 24 Multi-crises and opportunity positioning per region in 2010-15: winners and losers

	Demographic	Economic/social	Food	Energy	Sub-total
Winners					
Latin America	+	+	+	+	4
Sub-Sahara Africa	+	+	+	+	3
Asia	+	+	-/-	-/-	0
C/E Europe	-/-	-/-	+	+	0
Losers					
North America	=	-/-	+	-/-	-1
Western Europe	=	-/-	=	-/-	-2
Southern Europe/North Africa	=	-/-	-/-	-/-	-3

Source: ING

The problems and opportunities in 2015-20 are almost positioned in the same regions, except for Asia and Western Europe. Asia gets increasingly hurt by the effects of water shortages and temperature changes. By contrast, both factors improve the attractiveness of Western Europe.

Fig 25 Multi-crises and opportunity positioning per region in 2015-20: winners and losers

	Climate	Water	Ethical	Political	Sub-total
Winners					
Latin America	+	+	=	+	3
C/E Europe	+	+	=	+	3
Sub-Sahara Africa	+	=	=	+	2
Western Europe	+	+	-/-	-/-	0
Losers					
Asia	-/-	-/-	=	+	-1
North America	+/=	+/=	-/-	-/-	-1
Southern Europe/North Africa	-/-	-/-	-/-	-/-	-4

Source: ING

Including the 2015-20 trends, Asia falls away from the favoured list

We summarise the two periods in Figure 26, and give the period 2015-20 a weighting of 50%. The conclusion is that on average it is most worthwhile for food, beverage and HPC companies to be present in Latin America, Sub-Saharan Africa and C/E Europe.

Of particular interest is the outcome for Asia, which does not make it into the top-three areas. North America is in line with Western Europe, but Southern Europe is at the low end.

Fig 26 Multi-crises and opportunity positioning per region: total

	2010-15	2015-20	Total
Winners			
Latin America	4	2	6
Sub-Sahara Africa	3	1	4
C/E Europe	0	2	2
Losers			
Asia	0	-1	-1
North America	-1	-1	-2
Western Europe	-2	0	-2
Southern Europe/North Africa	-3	-2	-5

Source: ING (period 2015-20 is weighted 50%, period 2010-15 is weighted 100%)

For our analysis on the impact on food, beverages and HPC, we take this table as a crucial input.

The impact on food, beverage and HPC in 2010-15

We concluded in the preceding section that in the upcoming five years, the usual forecast period, we expect an impact from the following trends and crises:

- Demographic trends
- Financial, social and economic crises
- Food price risk
- Energy tension

The margin impact

Higher agri and energy prices hit food and beer more than spirits

Rising food prices and energy prices will have most effect on the food and brewing sector and less impact on spirits. Should agricultural and energy prices increase by 10%, food companies will need to raise net sales prices (ceteris paribus) by 2.5% to compensate for this, while brewers will need a price increase of 1.8%. Spirit companies only need to increase sales prices by 0.6%. In Energy, we incorporate costs of distribution, packaging and production. HPC is exposed to a substantial increase in energy.

Fig 27 Cost categories as % of sales

	Agri/water	Energy	Total
Food big caps	15-20	10-15	25-35
Brewers	5-10	10-15	15-25
Spirits	0-5	5-10	5-15
HPC	10-15	10-15	20-30
Small/mid caps	20-25	10-15	30-40

Source: ING estimates

Passing on higher input costs is now more difficult in mature markets

These input price increases can be passed on more easily when elasticity of demand is low. In preceding studies, we said that a high premium brand exposure and a high developing market exposure would enable this. Looking to our thesis of the 'Consumer Reset', passing on price increases in mature markets will become more difficult and probably this will happen at the expense of volumes.

Mitigation and the availability of input against low prices

Companies can mitigate the impact of rising input costs when they are able to increase their negotiation power versus suppliers or when they get involved in the input chain.

'Size' is important to gain access to scarce materials

At the moment, most companies are focusing on getting bigger in order to be better able to support the marketing/sales element and to enable the roll-out of innovations. An important additional effect here is that companies also get larger in the purchase/procurement side and they can reach more attractive deals. So this is already in process. However, in buying agricultural and energy commodities it is difficult to get prices lower per tonne, but a bigger company can better organise its access to scarce raw materials.

Sustainability measures could support margins in 2010-15F

Another element in mitigating input prices and supporting margins is the current sustainability momentum in several companies. The reduction in carbon footprint goes hand-in-hand with reductions in energy use and waste. Furthermore, in other input materials, the input price inflation in 2007-08 has resulted in strategies to reduce the use of crucial inputs. In brewers, there are often strategies focused on reducing the water footprint. For brewers, we have calculated that a reduction in the use of water and energy can already support the margin by 100bp in 2010-15F. This is substantial but it shows that sustainability policies can be accompanied by margin enhancement.

We come to alternative and more far-reaching strategies in the next sections.

The volume impact

Negative volume impact in mature markets from higher pricing versus rising volumes in developing markets

Rising input prices and the need to protect margins, leads to higher sales prices. As a result, volumes in mature markets will come under further pressure. This will be partly compensated by the exposure to trends in demographics and the economy in general. Several developing markets will benefit from a rising middle class, a positive wealth effect related to their reserves in land and in energy, while they will not be hurt by a 'Consumer Reset'.

Figure 28 shows the regional exposure of the different sub-sectors. The winning and losing areas are defined in the preceding section, in which we summarised the winning and losing areas in 2010-15. It shows that brewers are best positioned in the 'winning area', with an average 58% of sales (and more of EBIT due to higher margins in emerging areas). In contrast, HPC and Spirits have above-average exposure to the 'losing areas'.

Fig 28 Regional exposure (%)

	Food	HPC	Beer	Spirits	Average
Western Europe	36	44	28	35	36
C/E Europe	7	9	21	7	11
North America	22	20	14	27	21
Latin America	10	9	18	14	13
Africa	5	3	13	7	7
Asia	20	15	6	10	13
Total	100	100	100	100	100
Winning area	42	36	58	38	44
Losing area	58	64	42	62	57

Source: ING estimates

Conclusion for sub-sectors in 2010-15

In total, brewing seems best-positioned in 2010-15F

Figure 29 summarises the 2010-15 impacts. In total, the brewing sector seems best positioned, as the input price sensitivity is exceeded by the demographic effects and the higher consumption effects. At food, the high margin impact is nullified by demographics. At HPC and Spirits we also have a neutral position overall.

Fig 29 Conclusion on sub-sectors for 2010-15F

	Margin	Geography	Total
Food	-/-	+	=
Beer	-/-	++	+
Spirits	=	=	=
HPC	=	=	=

Source: ING

The impact on food, beverage and HPC after 2015

What will be the impact of the ethical/value change and the move to a multi-polar world

The crises and trends that will become more dominant after 2015F are:

- The water crisis.
- The growth mentality change.
- The political change: from the current uni-polar world to a multi-polar world.
- Climate change could come back onto the agenda.
- The water crisis effect we have already pointed to in the preceding section.

Growth mentality change: towards responsible consumption in 2015-20

The ethical/value change will probably lead to a different way of consumption. As we said, the ‘cultural creatives’ in the US already form 20% of the population. Education is crucial to a more mitigated and more responsible way of consumption. We assume that in the mature markets there will be a significant shift in 2015-20F towards a more sustainable way (using a broad definition) of consumption.

- For instance, this means a radical shift from eg, Hummers to low-energy cars.

Move to sustainable consumption will change the food basket

- In food, beverage and HPC this might mean changes to packaging, with more renewable formats.
- In HPC, this means that consumers buy low-temperature detergents and ultra-cleaning dishwasher tablets.
- In beer, consumers might focus on producers that use as little energy and water as possible to produce one litre of beer.
- In food, the shift can be made towards less meat consumption and more fish.

Within the company landscape, we already see many initiatives to develop a more ‘sustainable’ image.

The political change to multi-polar

The multi-committed status will become essential

The change to a multi-polar world means that food, beverage and HPC companies need to become much more connected with and committed to all local power centres in the world: North America, Europe, Latin America/Brazil, China, Russia, parts of Africa and parts of the Middle East. Including India (as the future largest country in terms of population), we forecast seven or eight power centres. As said, local presence and commitment is crucial, as is the transfer of knowledge and local sourcing.

We observe that not every sub-sector is now engaged in each power centre. Several companies/industries still behave in a colonial way: only Western brands are rolled out and cash flow is transferred from developing markets to mature markets.

- In the brewing sector, the leading companies are engaged in several power centres. Carlsberg has the least geographical spread and commitment, but in the areas where they lack this exposure they also have no material sales. The Carlsberg brand can probably not become a broadly distributed global brand in this way. A merger with SABMiller, for instance, could solve this issue.

- In spirits, Diageo has greater local exposure and commitment (Africa, Russia and China) than Pernod Ricard, which needs to make an organisational change in the coming five years.
- In Food and HPC the leading companies have already engaged in local activities that go beyond sales offices. Examples include Nestle, which is supporting local farms, and Unilever with its Shakti (women empowering project).

Water: all sectors active

In water, the food and brewery sectors are taking steps

In relation to the upcoming water crisis, we see a positive attitude in every sub-sector to reduce its water footprint, in particular in the food and the brewing sectors. This is logical as these two sub-sectors are most hurt by an eventual shortage of water or rising prices. As Diageo is active in beer production/marketing (20% of the business), this is probably the reason why this spirits producer is relatively active in water policy.

Conclusion: still work to do for 2015-20

Food and beer are best-positioned for the 2015-20 crises/opportunities

We conclude that on balance food and beer are best prepared for 2015-20. In large part this is due to their business models, in which they traditionally use a lot of water and need local brands, distribution and sourcing to reach local customers.

Fig 30 Conclusion on sub-sectors for 2015-20F

	Ethical change	Political	Water	Total
Food	+	+	+	3
Beer		+	+	2
Spirits			+	1
HPC	+			1

Source: ING

On a company level, the main issues we see are for Pernod Ricard, which needs to increase its local commitment in several regions. Carlsberg could use the coming five years to improve its local commitment in order to be able to reap global brand benefits later on.

The emergence of multi-committed companies

How are the companies affected by the reactions of society and consumers?

In the preceding section we analysed the impact of multi-crises and trends on the food, beverage and HPC sub-sectors and the current status of their positioning and actions. However, companies do not operate in a vacuum and it is important to know how the actions of society and consumers are likely to affect companies. We analyse:

- Governments, national and multilateral.
- Consumers.
- NGOs (non-government organisations).

The governments: lack of coordination

Partly by accident, the government policies on the economy since the crises have been anti-cyclical

In the run up to the financial crisis and the related economic crisis, the (supervisory) authorities lacked the coordination to avoid the crisis. An important general critical remark is that the authorities have lacked coordination since the crises started. Despite the lack of coordination, most developed market authorities have opted for monetary expansion and budgetary deficit creation. Through all of these individual government actions, the outcome was the right anti-cyclical policy.

However, on many other fields governments and multilateral organisations have failed to have a coordinated approach to the multi-crises and trend-change environment.

On other areas, governments have no coordinated approach…

- In the food crisis, neither governments nor the FAO have a coordinating role.
- At the climate change meeting in Copenhagen in 2009 there was no agreement on a successor to the Kyoto protocol.
- In the related water crisis, there is no coordination.
- In the energy crisis, the search for alternatives is embedded in the capitalistic system.

…and face declining influence

In fact, the authority of several multilateral organisations has declined, such as that of the UN's IPCC due to the email issue (Climategate), the over-estimation of the melting time of the Himalaya glaciers (by 2350 instead of 2035), the calculation of the average temperature based on a declining number of measure points (in particular less in non-urban areas which are usually colder) and the mistake in calculating what percentage of the Netherlands is below sea level.

The democratic system is not supportive to a long-term solution

In general, we do not see any momentum in government solutions, particularly in developed markets. Here the democratic system and regular elections prohibit a long-term strategy. Furthermore, most of the solutions need extra government spending or taxes, which could lead to a loss of votes for the ruling parties.

The multi-polarisation of the world is leading to an increasing number of individual government actions. These actions are further accelerating the shift to multi-polarisation. For instance, China is very active in buying up interests in resources abroad. The following is a list of energy and resource actions.

Fig 31 China's largest natural resources: M&A and other deals

Date	Acquirer	Target stakes	Deal value (US$bn)
Aug-05	CNPC	PetroKazakhstan	4.2
Jan-06	Cnooc	Oil & Gas assets Nigeria	2.7
Jun-06	Sinopec	Udmurtneft (Russian Fed)	3.7
Jun-06	Sinopec	Stakes in three deepwater blocks	0.7
Feb-08	Aluminium Corp of China; Alcoa	Rio Tinto	14.3
Apr-08	State administration of Foreign Exchange	Total	2.9
Apr-08	State administration of Foreign Exchange	BP	2.0
Jul-08	Cnooc	Awilco Offshore (Norway)	4.3
Sep-08	Sinopec	Tanganyika (Canada)	2.0
Jun-09	Sinopec	Addax Petroleum (Swiss)	8.9
Aug-09	PetroChina	LNG deal with Exxon Mobil (Australia)	41.1
Sep-09	CIC (China Investment Corp = SWF)	PT Bumi Resources (coal Indonesia)	2.0
Oct-09	CIC	KazMunaiGas	0.9

Source: ING, different sources, newspapers

More individual actions by governments, accelerating multi-polarisation

India is also taking steps to secure natural resources, although it is far behind China. India's ONGC (Oil and Natural Gas Corporation) took a 20% stake in a Russian field, it bought Imperial Energy with stakes in Russian fields and is looking for further deals in Russia, Africa and Latam. In agriculture, we see the following actions:

Fig 32 Agricultural investments (headlines)

Saudi investors to put US$100m into Ethiopian farm
Saudis set aside US$800m to secure overseas food
UAE stepping up agricultural investment in Sudan
Land leased to secure crops for South Korea
Korea's Daewoo logistics leases Madagascar land for feed, fuel
Pakistan offers farmland to foreign investors
UN warns of neo-colonialism
The main targets are Africa, Pakistan, Kazakhstan, Cambodia and Brazil
Major investors are Gulf states, China and South Korea
Japan is also taking steps

Source: ING, various sources

Conclusion: no coordinated government solution

- No real coordinated approach on any crises or mega-trend.

No coordinated government solution

- Western democracies are hostage to the need to reduce deficits and the need to defend their votes/electorate.
- Individual actions by governments in the developing world are accelerating the multi-polarisation.

The consumers: mass ignorance versus 'cultural creatives'

A majority of consumers defends the old habits, while a minority is changing

In the current economic and social crisis, we see two contrasting developments:

- On the one hand there is a big group that is trying to defend its wealth and its jobs and is not really willing or has the knowledge to seek solutions in the multi-crisis environment. For instance, more than 50% of British people continue to believe that climate change will not affect them during their lifetime and in the UK a majority is not sure whether humans have an impact on climate change. Another example is that only 2% of consumers buy ecological products, while 98% still take very 'fragmented' action.

- This majority can be divided in streams of 'populism' and "mass conservatism'. The first group largely ignores the big trends and tries to defend its absolute position in a developed world where total GDP is under pressure and might come under further pressure from rising taxes/lower government spending. The second group is more about ignorance, focused on keeping the same level of consumption and only willing to go for sustainability if the price premium is small.
- On the other hand, there is an increasing minority of 'cultural creatives'. In the US, this group is already 20% of the population.

Fig 33 UK survey: respondents

%	Opinion
41	Humans are causing climate change
15	Humans are not causing climate change
33	Not sure

Source: ING

In the meantime, the Consumer Reset has started…

The good news is that the psychological impact of the current environment might trigger part of the solution. Consumers feel more uncertain, which is reflected in lower consumer confidence and less consumer spending. In our recent report *The Consumer Reset* (4 January 2010), our analysis found that consumers are seeking value for money and lower volume growth, particularly in the Western world.

Conclusions

- While a majority still defends the old habits of consumption and ignorance, in particular now that disposable incomes are under pressure…

…but the current social crisis probably leads to a stalemate

- …a growing minority of consumers is changing its habits.
- In this difficult social/economic environment, we have doubts whether the 'cultural creatives' will overtake the 'mass conservatives' and 'populists'. We conclude that there is a stalemate for now.

NGOs continue to do their work

NGOs will continue to have an impact

The role of NGOs such as WWF and Greenpeace will remain important to change the hearts and minds of consumers. By education, information collection, research and public actions they will probably continue to have an impact on consumer decisions and corporate strategies. There is not any indication that this will change.

The producers: a leading role

The role and actions of producers in response to the multi-crises/opportunity environment can be distinguished in:

- Activity in corporate strategy and communication on corporate responsibility.
- Landscape changes in terms of strategy: dichotomy, chain control, ending 'dirty' activities, local commitment.

Corporate strategy and corporate responsibility

Big companies are more aware of their responsibilities than small companies…

On average, we see that big companies are aware of the multi-crises/opportunity environment and are taking action on many fields ranging from securing supplies, climate change, energy reduction, water-use reduction and the implementation of 'green' strategies. Many initiatives are based on the key words Pure, Fair, Life and Renew. Small companies are more 'conservative'.

The World Economic Forum. The agenda at the January 2010 gathering of politicians and business people was 'Rethink, Redesign, Rebuild'. And the message was that this goes much further than just bank reforms.

…but much more still needs to be done

If we take climate change strategies as an example, a study by KPMG showed that much more still needs to be done. On climate change, most corporate actions are still mainly based on reducing the use of fossil fuel.

Fig 34 Companies' reaction on climate change (%)

Input – operations	
"Coherent policy on climate change in place"	54
Implementation of "energy efficiency"	62
Companies have been "slow in preparing climate change effects"	75
Some degree of preparation in operation disruption	24
Work done to increase resilience of their supply chains	18
Products – services	
Assessment of the carbon impact arising from the lifetime use of products/services	23
Development of new products that reduce climate effects	40
Development of new products has high priority	30

Source: EIU, KPMG

Turning to company specific actions, we see many initiatives coming through.

Company specific: very interesting actions

Unilever is taking a broad view. It not only looks to its own energy and CO_2 efficiency, but also to that of its suppliers and customers:

- For every tonne of Greenhouse Gas Emissions by Unilever's processes, the suppliers generate ten tonnes and the customers 30-60 tonnes by using Unilever products.
- 125bn washes per year at 10˚c lower temperature, is equivalent to taking 16m cars off the road.

Unilever's CEO Paul Polman said recently that sustainability must be part of the company strategy. And that this will be rewarded in the future by higher sales growth and higher profits.

In Africa, SABMiller already obtains barley from 12,700 local farmers in Uganda, Mozambique, Malawi, Ghana, Tanzania, Zimbabwe, and Zambia. By 2012, it aims to increase this to 45,000 farmers.

In an effort to reduce their carbon footprints, Whole Foods Market and Bed Bath & Beyond have taken an interesting stance as they are avoiding suppliers that source from Canada's oil sands.

Still interesting gaps in some sustainability items

Within sectors, we see very interesting differences in measurable sustainability levels. Figure 35 below shows the current differences in water and energy use and the levels of waste-reuse percentage and CO_2 emissions in the European beverage industry. In beer, Carlsberg is clearly the leader, while others can further save input and save costs.

Fig 35 Outcomes in measurable sustainability status 2008/9

	hl of water per hl beer/drink	CO_2: kg per hl beer/drink	MJ/hl beer/drink	Recycling rate (%)
AB InBev	4.0	13.0	140.0	98
Carlsberg	3.7	8.9	111.2	88
Heineken	5.1	10.4	175.0	
SABMiller	4.5	13.0	143.0	89
Diageo	7.2	22.3	380.0	98
Pernod Ricard	5.8	26.0	478.8	77

Source: Company data, ING

However, other companies pull back from a joint approach

However, other companies have loosened their ties with climate initiatives. In February 2010, BP, Conoco-Phillips and Caterpillar decided against renewing their membership of the US Climate Action Partnership, for different reasons. The companies seem to prefer to take their own approaches and initiatives to reduce carbon emissions instead of supporting a 'dogmatic' climate-change bill.

Conclusion: is this really enough?

Tim Lang of the City University London (Professor in Food Policy, who coined the term 'food-miles') says that the actions taken so far are not enough. He says that "politicians should solve the problem, but neo-liberal attitude (in the government) leaves it to the market." He says that companies such as Unilever, Tesco and Ahold are taking positive action but he adds the mentality needs to change. The Western menu should change drastically, he suggests. As we said above in the section on governments, we believe that national governments (in particular in Western democracies) and the multilateral government organisations do not have enough power or legacy to make decisive changes.

Landscape changes in strategy

These can be segmented as follows:

- Dichotomy and/or chain control, leading to the opportunity to secure sustainable sourcing.

Strategy changes in chain control, closure of activities and local commitment

- The closure of 'dirty' activities.
- Local commitment.

Dichotomy, chain control and securing sustainable sourcing

Increasingly big companies as well as smaller companies focus on securing their sourcing such that it is sustainable but also that the volumes are being secured.

This can be executed in two ways:

- By backward integration through buying your suppliers (control of the chain).
- Or by an increase in critical size and creating bargaining power to be the preferred partner of the best suppliers. This is often combined with the consumer goods company's specialisation in marketing and sales. This is what we call a dichotomy.

Dichotomy takes shape through category consolidation

In chain control through backward integration we have seen very limited actions by big companies. Overall, the strategy trend of 1980-2008 is continuing, in which companies increasingly specialise in their core competences and/or their core categories. The automatic consequence of this is that these enlarged consumer goods companies are able to increase their negotiating power in procurement. This means that the dichotomy takes shape.

Backward integration takes place through knowledge and financial support for farmers

The dichotomy is further filled in locally by supporting farmers (in particular in developing markets) to produce milk, or grain or other agricultural input materials most efficiently and how to collect these products most efficiently. Here we can see elements of backward integration by financial support. In real physical backward integration, there are examples of smaller and non-listed companies. We have no examples in our listed large-cap universe.

Closure of 'less sustainable' activities

No closure of 'multi-crises' activities

Except for closing old production processes and investing in improved technology, we have seen no major changes in product portfolios. Brewers continue to make beer in a way that requires four litres of water to produce one litre of beer.

Local commitment

Local commitment in power centres is often due to developing market expansion…

This is an element where several companies still have weak positions while others have been able to gain a sizeable position in every upcoming new power centre in the world. Of course, often the background has been to benefit from market growth, but the by-product has been local commitment.

The local commitment of companies in several upcoming power centres is a good starting point for a multi-committed approach. Multi-committed companies have an opportunity for international knowledge transfer, global sustainable sourcing, and improved healthcare support for employees.

…and the resulting multi-committed companies are taking the lead

What we currently see is that companies with a multi-polar presence already share and transfer information and strategies actively. In this way, companies are actively filling the gaps which are left open by lack of coordination between governments and the lack of action at consumer level.

Conclusion: responsible action, no landscape change

- Big companies have taken actions in communicating their corporate responsibility strategies on reducing energy use, carbon footprint and water use and strategies on climate change and sustainable sourcing and healthy food.
- The focus and consolidation in certain core competences/categories, has led to stronger negotiating power with suppliers in order to secure more sustainable sourcing.
- The move to physical backward integration is limited, but in developing countries in particular farmers are increasingly being supported financially and technically in order to produce input material efficiently.
- Local commitment in the upcoming new power centres is mainly a by-product of decisions to expand in growing markets and is now used as a starting point to develop multi-committed companies.

Conclusion on government, consumer and producer

- National governments (in particular in Western democracies) and multilateral organisations, will not bring the solution as they do not have the power and/or the legacy to make decisive changes. Their current status (IPCC) and actions (China) accelerate the shift towards a multi-polar world.
- Consumers are still dominated by the 'populists' and the 'mass conservatives'. It will take time, GDP growth and/or (unfortunately) disasters for the minority of

'cultural creatives' to expand in such a way for it can become a majority. The current economic/social crisis will lead to a stalemate.

Conclusion: due to lack of government and consumer action, the multi-committed companies and NGO's are crucial initiators

- NGOs' (such as WWF, Greenpeace) information gathering, research, education and public actions will continue to have an impact on consumer as well as corporate decision making.
- Companies are taking action mainly based on their presence in the new power centres in the world. They transfer knowledge and corporate governance to all these regional power centres. In this way they become multi-committed companies. In particular, because of a lack of momentum at government organisations and the consumer level, the multi-committed companies can become valuable initiators in the move to a better world.

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