Deutsche Bank
Markets Research

Europe
United Kingdom
Consumer Staples
Beverage

Industry
Beer

Date
29 July 2014

Recommendation Change

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Tapping into growth

More than a consumer staple

Beer shares many of the favorable characteristics inherent in consumer staples, but there are subtle differences where the details matter. Emerging market growth and the right cultural and population dynamics are available to the brewers in the right geographies. Capital intensity and affordability favor volume over pricing. The physical and local nature of beer gives brewers a "moat" around their operations protecting earnings and creating the capacity to invest for growth. These nuances also make brewers more of a company rather than a sector call. We upgrade Heineken to a Buy and downgrade Carlsberg to a Sell. We maintain Holds on ABInBev and SABMiller.

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Beer shares many of the favorable characteristics inherent in consumer staples, but there are subtle differences where the details matter. Emerging market growth and the right cultural and population dynamics are available to the brewers in the right geographies. Capital intensity and affordability favor volume over pricing. The physical and local nature of beer gives brewers a "moat" around their operations protecting earnings and creating the capacity to invest for growth. These nuances also make brewers more of a company rather than a sector call. We upgrade Heineken to a Buy and downgrade Carlsberg to a Sell. We maintain Holds on ABInBev and SABMiller.

Embedded growth in beer
Entrenched population and GDP growth in emerging markets drives growth in consumer staples, and for brewers more so. The sizable non commercial and illicit alcohol market in Africa and to a lesser extent in Latin America and Asia provides a readily available and addressable market for conversion to beer consumption. Cultural and religious considerations boost or limit the potential. With beer considered a luxury item in emerging markets, affordability remains the biggest barrier to volume growth.

Protected moats with volume and scale
High capital intensity, the required freshness of beer, sheer bulkiness, and regulatory pressure require a greater focus on volume driven scale that can only be determined locally. The protection and leverage of that local scale drives sustainable returns allowing brewers to consistently re invest their earnings into brands, capital expenditures, market expansion and penetration into illicit alcohol markets at attractive price points.

Local scale can be enhanced with soft drinks
We see limited scope for M&A between the big four brewers, but do view soft drinks as an opportunity for the brewers to expand their scale locally in emerging as well as developed markets.

Heineken (BUY; price target €60)
Heineken now has one of the strongest embedded profiles in beer and the patience to invest in brands in and beyond Heineken for the long term. With the majority of its key markets back in growth, we upgrade to BUY and see the opportunity for the current discount to SABMiller and ABInBev to narrow.

AB InBev (HOLD; price target €85)
ABInBev remains a fairly priced solid performer with upside in Mexico, but we are concerned about the lack of category management credentials and organic opportunities outside Mexico.

Carlsberg (SELL; price target DKK525)
The opportunity and potential of Asia does not offset the structural challenges in Eastern Europe and revived competition in Russia in particular. We downgrade to SELL.

SABMiller (HOLD; price target £35)
We have not changed our long term favorable view of SABMiller which we believe is currently fairly priced by the market.

Key Changes

Company	Target Price	Rating
SAB.L	3,000.00 to 3,500.00(GBP)	-
HEIN.AS	50.00 to 60.00(EUR)	Hold to Buy
CARLb.CO	600.00 to 525.00(DKK)	Hold to Sell
ABI.BR	70.00 to 85.00(EUR)	-

Source: Deutsche Bank

Top picks

Heineken (HEIN.AS),EUR53.71	Buy
Carlsberg (CARLb.CO),DKK559.00	Sell

Source: Deutsche Bank

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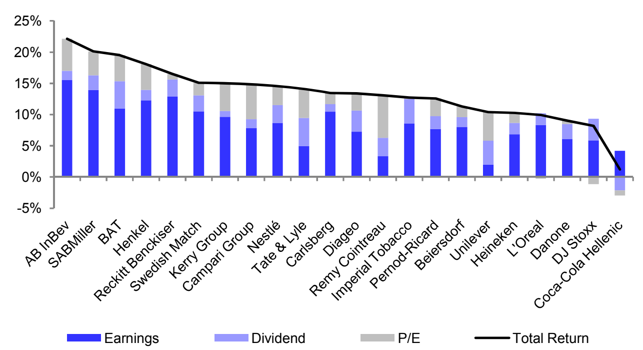
Executive summary

Brewers have and can outperform consumer staples

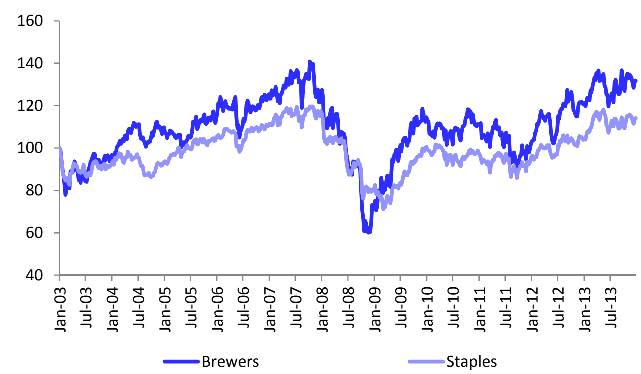
In March, we published our note, *Emerging Exposure*, covering the broad potential of consumer staples. Having analyzed 22 categories, the beer industry at first glance was seen as the least preferred. Backdating the analysis to a decade ago, we could have come to the same conclusion, yet beer has outperformed most staples, and on a company level, both ABInBev and SABMiller have been the top performing companies in that time.

Figure 1: TSR consumer staples 2003-2013



Source: Deutsche Bank, Datastream. TSR in US$.

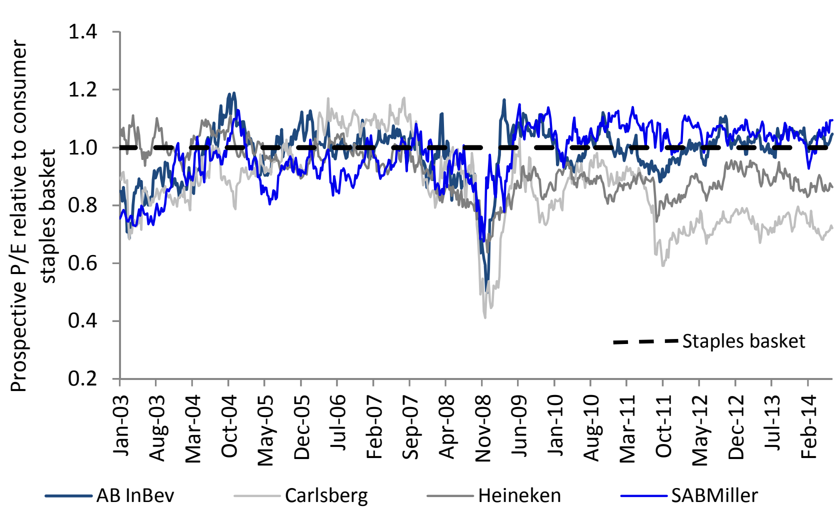
Figure 2: Brewers vs Staples TSR 2003-2013



Source: Deutsche Bank, Datastream. TSR in US$.

The outperformance for brewers has been driven primarily by earnings growth, with a significant proportion driven by synergies. The brewers have also enjoyed a re-rating relative to other consumer staples sectors. Despite the growth delivered, the valuation has rarely exceeded the sector.

Figure 3: Brewers prospective P/E to relative consumer staples



Consumer staples index based on a weighted average of 34 companies
Source: Deutsche Bank, Datastream

Embedded growth drives company calls

Though beer has many of the favorable characteristics inherent to consumer staples, there are significant differences which ensure, we argue, a strong growth platform and sustainable returns. The embedded volume growth is driven by the right population dynamics, the opportunity to take share from illicit and non-commercial alcohol and ensuring affordability.

An additional 1 billion hectoliters of growth available

Over the next 10 years, we see an embedded CAGR of 1.8% volume growth

We have analyzed 194 beer markets on the impact of population growth, the opportunity to take share of non-commercial and illicit alcohol, per capita consumption potential and cultural barriers. As result, we calculated an embedded growth profile for each market which we amalgamated for the brewers proportionate to their current share.

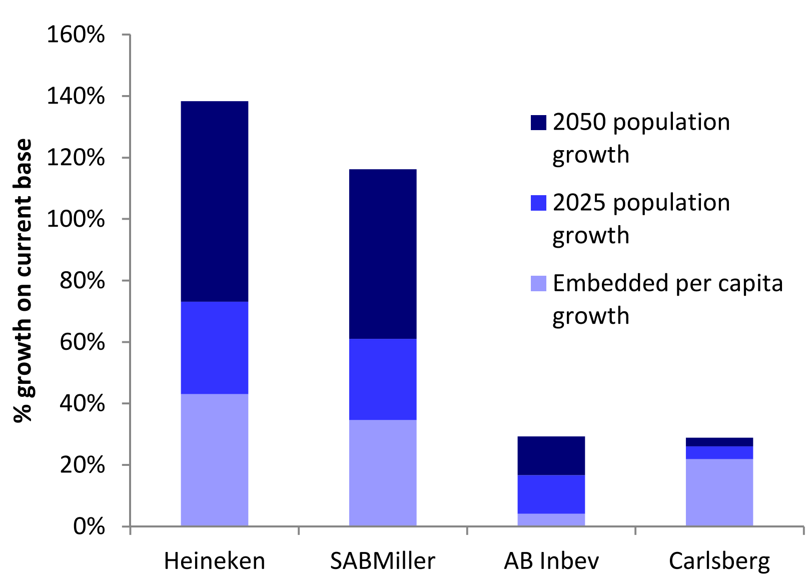
Today, the global beer volume is 1.95 billion hectoliters (hl). If the brewers hit their full potential, we see an additional 630 million hl by 2025 and 1.1 billion hl by 2050 of embedded untapped volume. Over the next ten years, our model calculates a CAGR of 1.8% volume growth. Sub-Saharan Africa accounts for half of the potential growth and Latin America and Asia 20% each.

Embedded growth makes beer a company call

We see the potential for the brewers to add 55% more volume by 2050

The local nature of the potential indicates that growth in beer is more of a company rather than a sector call.

Figure 4: Brewers embedded volume growth on current base



Source: Deutsche Bank estimates, Plato Logic, World Bank, Euromonitor

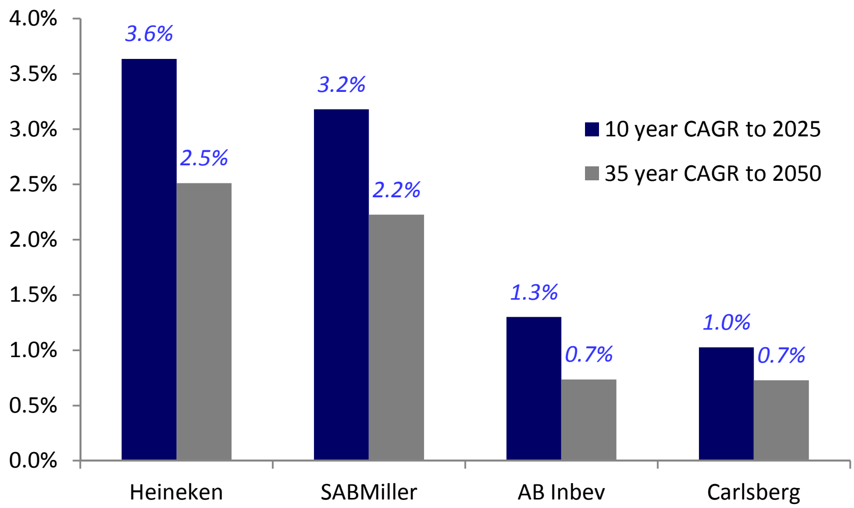
Heineken and SABMiller are best positioned for embedded growth

Heineken is the best positioned listed brewer to grow its current platform with a 138% embedded growth by 2050. The potential suggests a 10 year CAGR volume growth of 3.6% to 2025. Both growths in population as well per capita consumption drive the potential.

SABMiller is able to double their current volume base by 2050. Should they be in a position to consolidate the remaining 78% of the privately owned Castel business in Africa, the potential would increase to 150%.

Heineken and SABMiller have a 10 year embedded volume CAGR of 3.6% and 3.2% respectively.

Figure 5: Embedded volume CAGR



10 Year CAGR assumes steady state per capita consumption growth to potential on 2014 DBe volumes.
35 year CAGR assumes full per capita consumption potential on 2014 DBe volumes.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

Figure 6: Embedded volume CAGR

CAGR	Castel	Heineken	SABMiller	ABInBev	Carlsberg	Molson Coors
Population growth to 2025	7.5%	2.7%	2.4%	1.2%	0.4%	0.6%
Population 2026- 2050	3.1%	1.3%	1.2%	0.7%	-0.5%	0.8%
Per capita growth to 2050	2.4%	1.0%	0.9%	0.1%	0.6%	-0.2%
10 year CAGR to 2025	9.3%	3.6%	3.2%	1.3%	1.0%	0.5%
35 year CAGR to 2050	5.3%	2.5%	2.2%	0.7%	0.7%	0.3%

10 year CAGR assumes steady state per capita consumption growth to potential on 2014DBe base.
35 year CAGR assumes full per capita consumption potential on 2014DBe base.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

ABInBev sees limited embedded growth. We see a ten year CAGR of 1.3% volume growth and a 30% total upside by 2050. Similarly Carlsberg is in the same position, with population shrinkage resulting in real beer consumption declines in key markets.

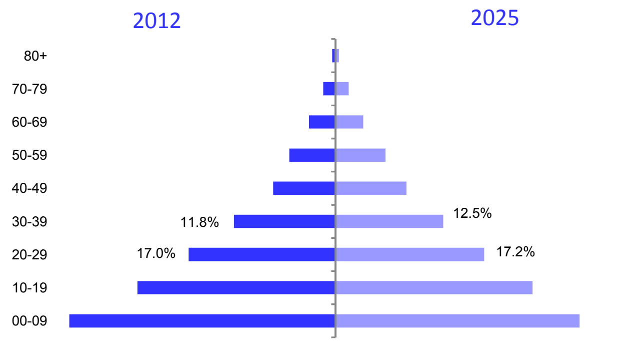
Population dynamics drives future consumption

Population growth in the 20 to 35 year olds cohort is most relevant to beer consumption

Population growth drives consumer staples growth and the embedded growth for brewers. The key cohort for beer consumption sits between the ages of 20 to 35 year olds- where consumption patterns and brand loyalty gets established. In the same age group, the number of drinking occasions and volume per occasion peaks.

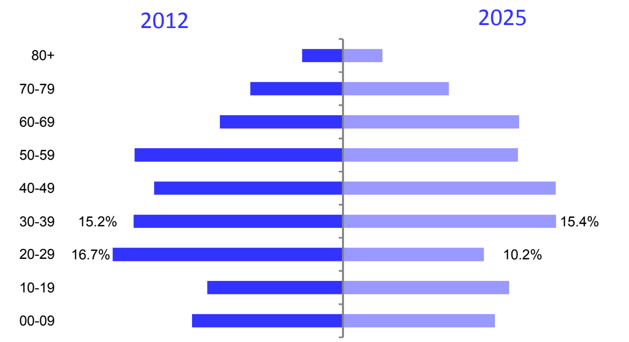
Sub Saharan Africa will see a population boom favorable to beer. Today, 17% of those consumers are 20 to 29 – a number that will grow both in absolute terms as well as relatively by 2025. Similar figures apply to parts of Latin America and Asia, including India.

Figure 7: Sub-Sahara Africa 2012 population profile



Source: Deutsche Bank, World Bank

Figure 8: Russia 2012 & 2025 population profile



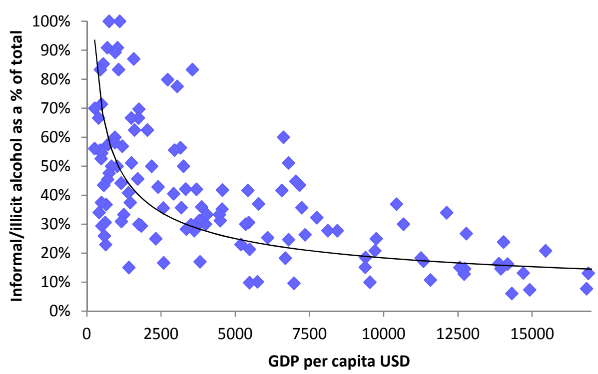
Source: Deutsche Bank. World Bank

In contrast, markets like Russia will go negative. Today, Russian males 20-29 year old make up 18% of the population, a number that decline to 11% by 2025 in addition to real population declines. Perhaps not as dramatic, but declines will be seen in most developed markets as well as China and Brazil which does not bode well for established brewers in those markets.

Converting cheaper alcohol to beer consumption

Beer takes share from a readily addressable market in the form of cheaper, often illicit and non-commercial alcohol. The level of local alcohol in a market is strongly correlated to national income as per Figure 9.

Figure 9: Illicit alcohol in 158 markets



Source: Deutsche Bank estimates, WHO, World Bank, Euromonitor

Figure 10: Absolute alcohol share in Nigeria

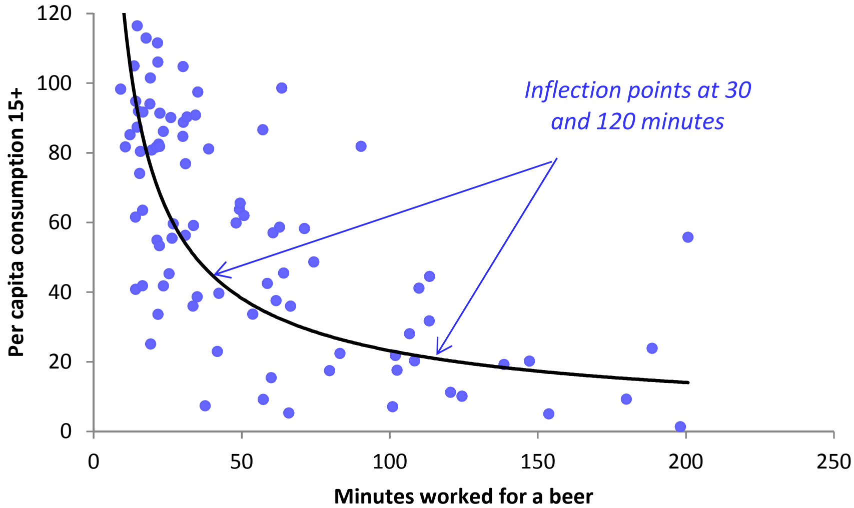
Source: Deutsche Bank estimates, WHO, Euromonitor

This readily available market accounts for over 50% to 90% of alcohol consumption in Africa, with growing markets like Nigeria, Democratic Republic of Congo and Ethiopia particularly attractive. Other emerging markets have lower, but nevertheless interesting figures which range from 15% to 40%. Markets like Latin American Ecuador and Peru and Asian markets such as Myanmar and Cambodia looking interesting to the brewers.

Beer is a luxury

The barrier to conversion from illicit alcohol to beer is the affordability of beer. Per capita consumption in a market is relation to the amount of time a consumer has to work to afford a beer. As seen in Figure 11, the first inflection point for growth acceleration is around 120 minutes of work to afford a beer.

Figure 11: Minutes worked for a beer in (close up of 134 markets)



Close up of <200 minutes worked for a beer. All 134 markets extend to 2500 minutes of work, with the majority in Africa. Adjusted to exclude Islamic nations. Based on national income and ILO standards for working hours.
Source: Deutsche Bank, World Bank, Euromonitor, Plato Logic, ILO

Per capita consumption inflections points are at 120 and 30 minutes worked for a beer

A second inflection can be found at 30 minutes worked for a beer. Not only does beer consumption accelerate to the levels seen in developed markets, consumers also move up in the portfolio towards more premium brands.

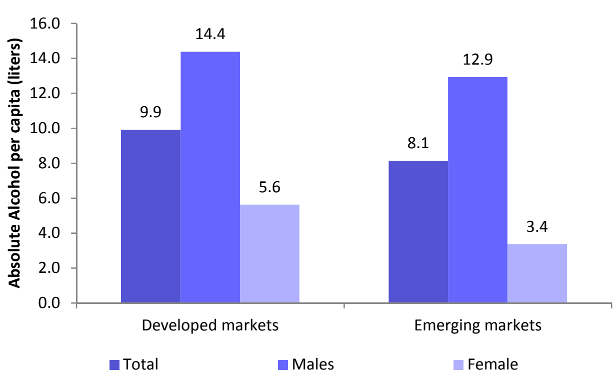
There are market dependent limits to per capita growth

On average, consumers drink 10 liters of absolute alcohol per year

There is a limit to how much alcohol and beer one can drink. For beer, the per capita average of 10 liters of pure alcohol translates to 200 liters which approximates consumption in core beer markets such as Germany and Czech.

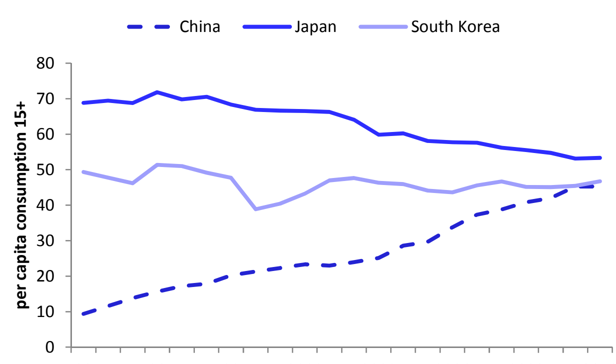
As markets mature, our analysis indicates a range of 70-90 liters per capita being the developed market norm over time. For most emerging markets with favorable population and illicit alcohol profiles, this is a growth destination; for developed markets this may translate into more declines.

Figure 12: Absolute Alcohol consumption



Source: Deutsche Bank estimates, WHO. Excludes Islamic nations.

Figure 13: Asian 15+ per capita



Source: Deutsche Bank estimates, China NBS, Plato Logic, Euromonitor, company reports

There are also further physical and cultural limits to growth. As an Asian norm, China is close to reaching this point as in Figure 13. Restrictive environments will continue to severely limit per capita growth in India, though this is somewhat offset as a market with the most significant population growth.

Protected earnings and reinvestment

The local moat around brewers

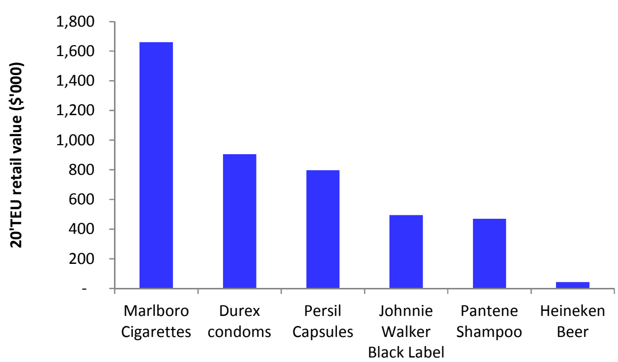
Growth in beer carries a cost which requires investment ahead of demand. Fortunately, the inherent local nature of beer protects the established local interests of the global brewers.

Beer's bulkiness and need to be fresh requires local production close to final consumption

Being low value, high volume and bulky limits the physical range of beer brands. Moving a truck or shipping container is a costly business relative to other staples as in Figure 14. Beer is also a live product- lager does not get better with age and deteriorates the moment it leaves the factory gates. With some notable exceptions, international brand localize their production as soon as it is feasible to increase margins and ensure product quality.

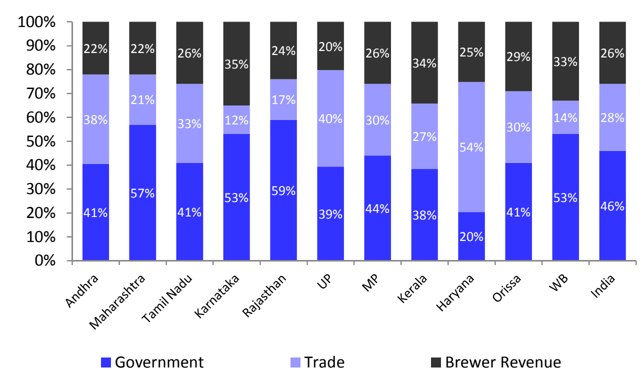
Being a product with much greater emotional and social value, beer has greater passion point rooted in national and increasingly local values as demonstrated by the recent craft beer phenomenon.

Figure 14: Value of a 20ft shipping container



Source: Deutsche Bank estimates, Euromonitor, worldfreightrates.com

Figure 15: India government revenue split



Source: Deutsche Bank estimates, company presentation

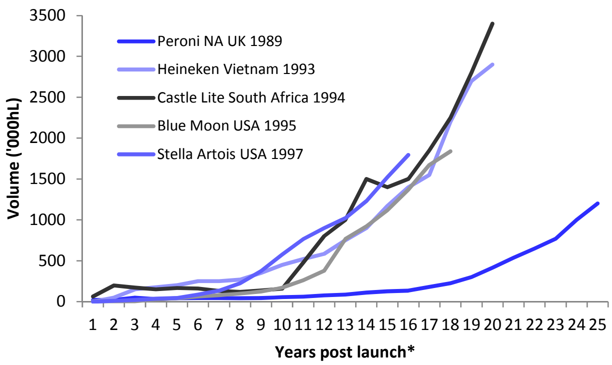
As one of the largest cost to brewers, taxation and excise needs to be nationally and increasingly regionally influenced. Excise rates differ significantly by states in the USA often dependent on the influence of local powerful distributors on their local congressman and senators. As in Figure 15, similarly in India, the local states have vested interests in maintaining their large share of direct and indirect revenue.

Regulation and beer's emotional properties anchor the category locally

Investing for future growth will bring sustainable returns

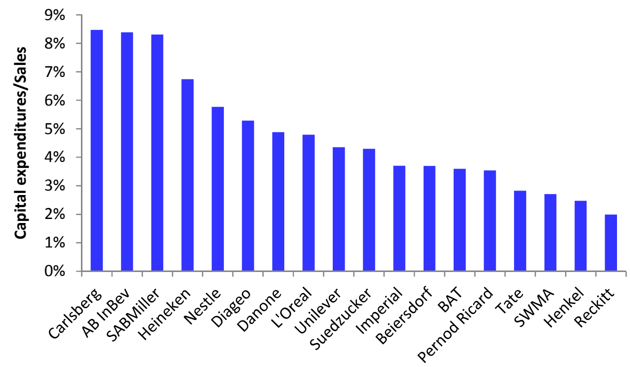
The protective moats around earnings give brewers the cash flow to invest ahead of demand for future growth. Successful brand building in beer takes time, especially in the premium segment, and often exceeding five year ROIC requirements. The seeds of some of the most successful brands take five to ten years before accelerating.

Figure 16: Premium brand development takes time



Source: Deutsche Bank estimates, company reports, Euromonitor

Figure 17: Capital expenditure to sales ratio in staples



Source: Deutsche Bank, company report. Based on 2013 results

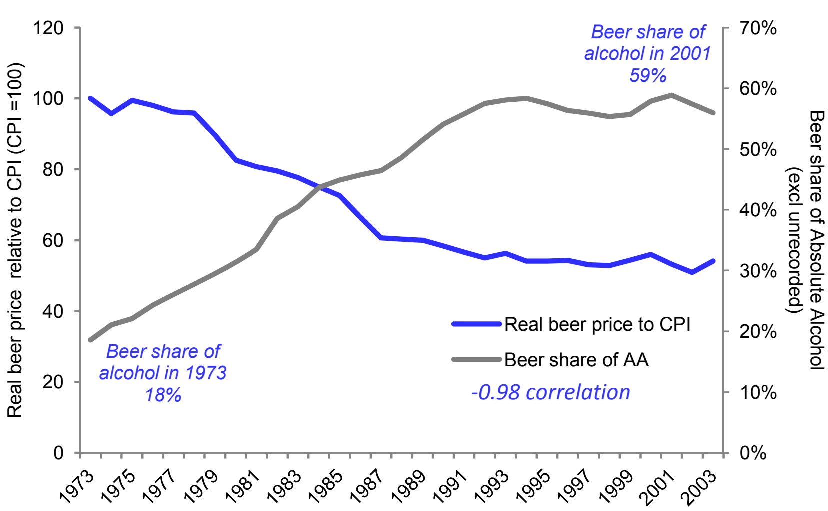
To meet demand, brewers need a continual infusion of capital investment

Brewing is expensive and requires continual capital investment to feed the growth. As in Figure 17, brewers have the highest ratio of investment among consumer staples with a capital investment ratio which ranges from 6% to 8% of revenue. To maintain a level of necessary production and quality, a ratio of 0.9x depreciation is required, or approximately 4 to 5% of revenue. Additional investment for production, trade investment, and innovation seems to be in line with the embedded growth potential, with SABMiller and Heineken perhaps needing to spend more in the future to meet demand.

Strong moats ≠ dynamic pricing power

Though the brewers have protective moats around their operations and often have either quasi-monopolies or duopolies, this has not been extended to dynamic pricing power above inflation. In emerging markets, brewers make the conscious choice to price below inflation in order to gain share from other forms of alcohol.

Figure 18: South Africa alcohol market share and real beer pricing



Source: Deutsche Bank, SAWIS, SACBA, SAB, ACNielsen

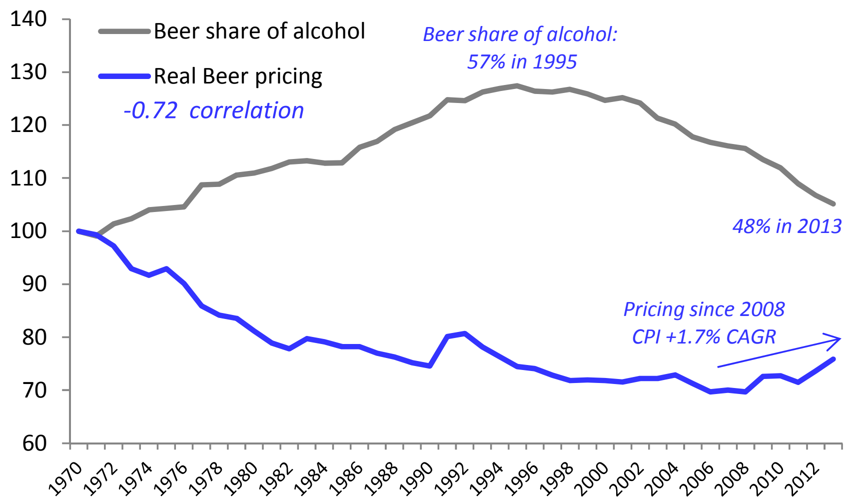
Pricing below inflation in emerging markets brings consumers into the beer category…

In South Africa illustrated in Figure 18, three decades of pricing below inflation increased beer's share of alcohol from 18% to 59% by 2001. Sorghum beer, both commercially produced and illicit, lost the corresponding share.

Conversely, beer can also lose share of alcohol when pricing above inflation in developed markets. In the United States, there is a 72% negative correlation between real beer pricing and beer alcohol share (Figure 19).

Pricing below inflation also allows beer to gain share in developed markets

Figure 19: US real beer pricing and share of alcohol since 1970



Source: Deutsche Bank estimates, Beer Institute, IWSR

Beer priced below inflation from 1970 to 2000 drove market share of absolute alcohol from 45% to 55%. Subsequently, a reversal of this pricing dynamic has seen beer lose share to other alcohol. Since 2008, when the brewers started pricing on average 1.8% above CPI, beer has given up share of alcohol and now has declined to 48% share of alcohol.

The scale opportunity- locally

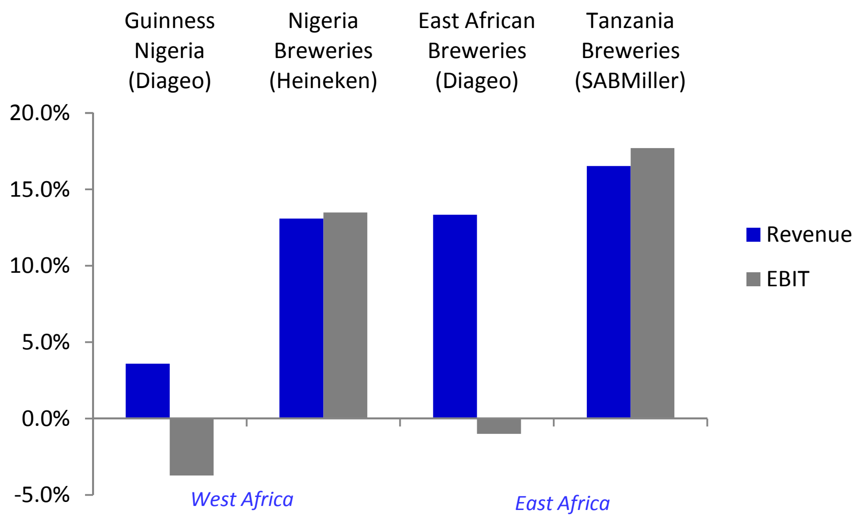
The biggest opportunity for beer to leverage its scale and expand its margins remains volume. Beyond beer, category expansion provides potential to drive further scale. We see limited potential for spirits in this area; a great deal of opportunity for soft drinks.

Spirits don't work with beer

When spirits and beer combine operations, beer tends to lose

The total beverage alcohol company was much touted a decade ago, but has proven to be a failure. With premium spirits being high value, low volume items, the production, distribution, and sales dynamics are diametrically opposed to a successful beer business. Whenever there have been combinations, beer loses. This is most apparent in Africa as in Figure 20. The beer businesses which Diageo runs in Africa have dramatically underperformed their peers over the last five years.

Figure 20: African subsidiaries five year performance CAGR to 2013



Companies calendarized to full year 2013.
In reporting currency. Guinness Nigeria and Nigerian Breweries in Nigerian Naira. East African Breweries in Kenyan Shillings. Tanzanian Breweries in Tanzanian Shillings.
Source: Deutsche Bank, Bloomberg, Datastream, Company reports.

Diageo beer assets attractive

We value Diageo's Africa beer assets between $5 and $6bn which we believe would be attractive to any of the four brewers

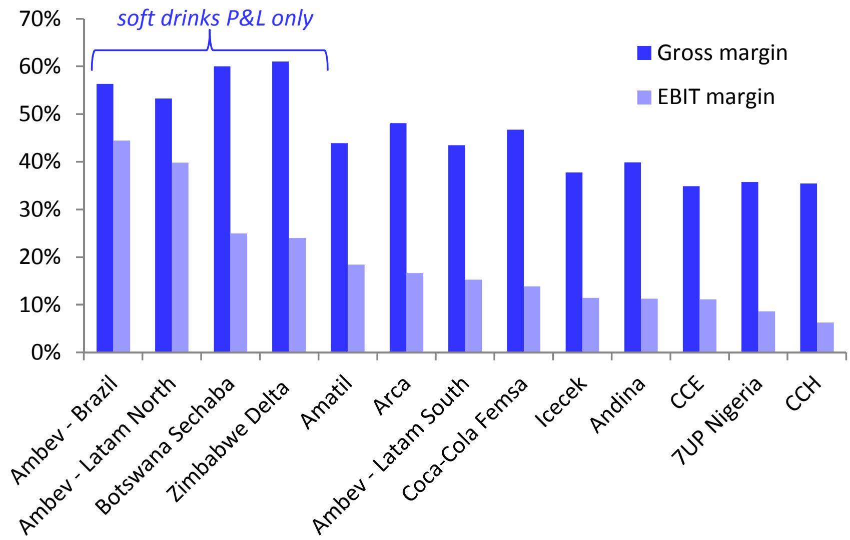
We view the production assets of Diageo as an attractive investment to any of the four brewers, both as a means of consolidating their position or as an entry point into Africa. The Guinness brand itself will have a sizeable premium and we would assume Diageo would not part with it. It is a very profitable licensing model with the extract being supplied including taxation benefits from Ireland

We value the consolidated beer operational footprint of Diageo in the range of $5- $6 billion. To attain our valuation, we used sum of the parts methodology. For the three listed entities in Ghana, Nigeria and Kenya, based on previous transactions in beer, assumed that any acquirer would pay a 30% premium on enterprise value of the admittedly high local market capitalization. We derived a value of the operations in Cameroon on revenue estimates and we assumed a 50% value premium on the Ethiopian business purchased in 2012.

Soft drinks do work with beer

In contrast, with both soft drinks and beer being low value, high volume items, the synergies in the value chain drive margin expansion on both product lines. In emerging markets, this has proven to be a winning model with margins exceeding stand alone soft drinks businesses as in Figure 21.

Figure 21: Soft drinks P&L margins 2013



Source: Deutsche Bank estimates, Bloomberg, Datastream, company reports. Companies calendarized to full year 2013.

Soft drinks and brewer combinations in fragmented developed markets would benefit both parties

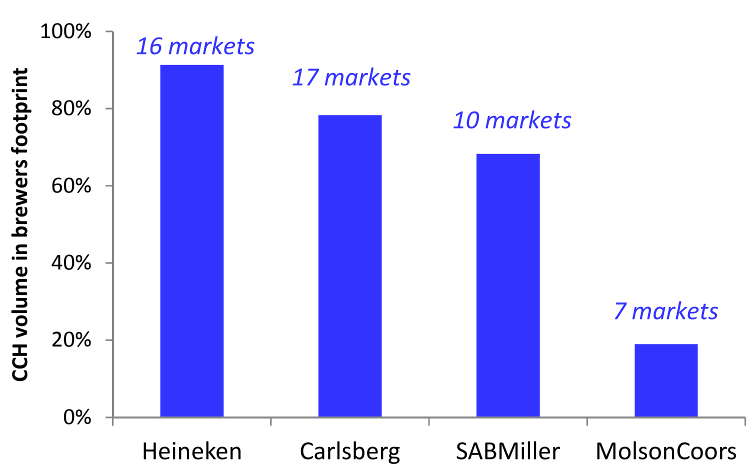
In the case of AmBev, a combination of own soft drinks and more favorable terms from Pepsico helps them drive EBIT margins on the soft drinks P&L alone in the 40% range. Coca Cola bottlers tend to share more of the profit pool with their partner, but those who have combined their operations see EBIT margins approaching 20%. Stand alone bottlers perform below this ratio with Coca Cola Hellenic currently experiencing a 7% EBIT margin.

Combining CCH with the brewers value accretive

We see an opportunity to combine beer and soft drinks operations in fragmented developed markets such as Europe, where brewer's margins and costs are also under pressure. Though the Coca Cola Company will have a final say on any potential bottler/brewer consolidation, we do believe that both bottlers such as Coca Cola Hellenic and brewers would be better served should they combine operations. A fully leveraged deal would be naturally accretive.

We see Coca Cola Hellenic as an attractive asset for any brewer to leverage scale in fragmented markets

Figure 22: Brewer volume overlap on Coca Cola Hellenic footprint



Source: Deutsche Bank estimates, company reports

The brewer stocks

Heineken (BUY; price target €60)

Based on its embedded growth profile being in the right places, patient brand building extended to the broader portfolio and an excessive discount to peers, we upgrade Heineken from a HOLD to a BUY with a €60 price target.

In our view, Heineken is the best positioned listed brewer to grow their current platform with a with an embedded growth profile which should deliver 3.6% annual volume growth in the next ten years. The company has a proven model of patient brand development being extended to wider global and regional premium portfolios.

Cycling soft comparatives, the company will additionally benefit from favorable macro in key markets, stabilization in Western Europe and strong growth in Mexico and Nigeria. We also see further scope for cost savings as the company extends its programs beyond Europe.

Carlsberg (SELL; price target DKK525)

We downgrade Carlsberg from HOLD to SELL with a price target of DKK525. We see limited medium and long term volume growth for Carlsberg and see at best an embedded growth which will add 1% of volume per annum over the next ten years.

Despite its further and encouraging diversification into Asia and solid performance in the tough Eastern European markets, we believe that Russia will continue to be a problem which extends beyond regulatory issues. A resurgent Efes will potentially disrupt pricing discipline and market share gains.

ABInBev (HOLD; price target €85)

We have upgraded our price target on ABInBev, but believe the stock is fairly valued and remains a HOLD. The embedded volume growth profile is much behind Heineken and SABMiller.

We see further opportunity in Mexico beyond synergies in driving its top line, leveraging the brand equity of Bud Light in Northern Mexico. Negative population dynamics, strong per capita consumption and high margins limit upside in Brazil. The USA is unlikely to see further margin expansion as the cost to play in innovation and a need to abate market share losses will need additional investment.

Unless it steps beyond the beer category, large scale M&A is unlikely in the near term.

SABMiller (HOLD; price target £35)

We updated our price target and have not changed our long term favorable view of SABMiller which we believe is fairly priced by the market.

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Rating
Buy

Europe
Netherlands

Consumer Staples
Beverage

Company
Heineken

Reuters	Bloomberg
HEIN.AS	HEIA NA

Price at 28 Jul 2014 (EUR)	53.71
Price Target (EUR)	60.00
52-week range (EUR)	56.04 - 44.96

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In all the right places

Upgrading to BUY with price target of €60
Based on its embedded growth profile being in the right places, we upgrade Heineken from a HOLD to a BUY with a €60 price target.

Strong embedded growth profile and margin mix
Heineken is best positioned listed brewer to grow their current platform with a with an embedded growth profile which should deliver 3.5% annual volume growth in the next ten years and more than double volumes by 2050. With half of EBIT coming from relevant higher margin emerging markets, we see an acceleration of margins and profitability.

Patient brand building beyond the Heineken brand
With a proven model of patient brand development on the Heineken brand; the rewards are enjoyed today with further opportunity in new markets such as Mexico and Brazil. This model is being effectively expanded to regional premium brands driving further higher margin growth.

2014 green shoots
Cycling soft comparatives, the company will benefit from favorable macro in key markets, stabilization in Europe and strong growth in Mexico and Nigeria.

Valuation and risk profile
We base our €60 price target on a DCF-model, the core assumptions behind which are a WACC of 7.85% and a terminal growth rate of 2.0%. We view our terminal growth rate of 2.0% as conservative number below the company's embedded volume growth rate Our downside risks include consumer sentiment in developed markets, emerging market volatility in Asia and Africa, currency risk, and competitive dynamics in Mexico.

Forecasts And Ratios

Year End Dec 31	2012A	2013A	2014E	2015E	2016E
EBITDA (EURm)	3,784	4,193	4,187	4,403	4,741
EBITA (EURm)	2,666	2,941	2,951	3,200	3,465
PBT DB (EURm)	2,178	2,341	2,444	2,751	3,069
DB EPS (EUR)	2.88	2.75	2.89	3.21	3.58
OLD DB EPS (EUR)	2.53	2.75	2.87	3.19	3.55
% Change	14.2%	0.0%	0.6%	0.8%	1.0%
DB EPS growth (%)	6.7	-4.6	5.1	11.0	11.6
P/E (DB EPS) (x)	14.9	19.2	18.6	16.7	15.0
EV/EBITA (x)	14.3	14.4	14.3	12.8	11.5
DPS (EUR)	0.89	0.89	0.94	1.04	1.16
Yield (%)	2.1	1.7	1.8	1.9	2.2

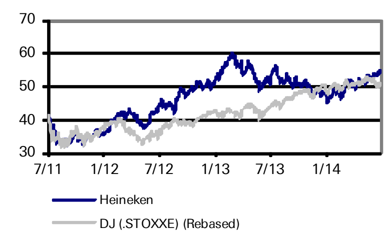
Source: Deutsche Bank estimates, company data

Key changes

Rating	Hold to Buy	↑	
Target Price	50.00 to 60.00	↑	20.0%

Source: Deutsche Bank

Price/price relative



Performance (%)	1m	3m	12m
Absolute	3.3	7.3	6.0
DJ (.STOXXE)	-1.6	-0.2	15.8

Source: Deutsche Bank

Model updated:25 July 2014

Running the numbers

Europe

Netherlands

Beverage

Heineken

Reuters: HEIN.AS Bloomberg: HEIA NA

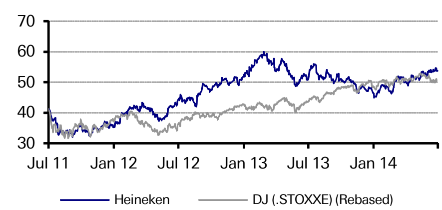
Buy

Price (28 Jul 14)	EUR 53.71
Target Price	EUR 60.00
52 Week range	EUR 44.96 - 56.04
Market Cap (m)	EURm 30,937
	USDm 41,556

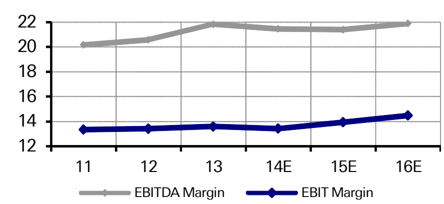
Company Profile

Heineken is a leading international brewer, with significant positions in Western and C&E Europe, Mexico, Africa and Asia. We estimate that emerging markets now account for approaching 60% of Heineken's earnings, with the remainder coming largely from Western Europe and the US. The company's key brand asset is Heineken itself, the most global beer brand, supported by Sol, Tiger, Desperados, Amstel, Strongbow cider, and a range of regional and local brands.

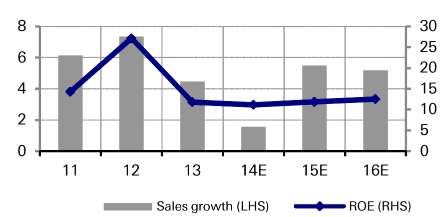
Price Performance



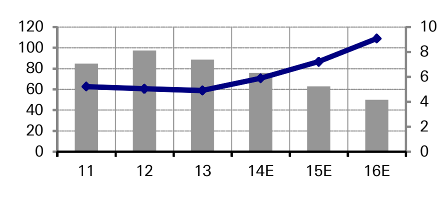
Margin Trends



Growth & Profitability



Solvency



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Fiscal year end 31-Dec	2011	2012	2013	2014E	2015E	2016E
Financial Summary						
DB EPS (EUR)	2.70	2.88	2.75	2.89	3.21	3.58
Reported EPS (EUR)	2.44	5.06	2.37	2.28	2.60	2.98
DPS (EUR)	0.83	0.89	0.89	0.94	1.04	1.16
BVPS (EUR)	17.0	20.4	19.8	21.2	22.8	24.7
Weighted average shares (m)	585	575	575	576	576	576
Average market cap (EURm)	21,854	24,666	30,368	30,937	30,937	30,937
Enterprise value (EURm)	28,218	38,038	42,367	42,084	41,047	39,863
Valuation Metrics						
P/E (DB) (x)	13.8	14.9	19.2	18.6	16.7	15.0
P/E (Reported) (x)	15.3	8.5	22.3	23.5	20.6	18.0
P/BV (x)	2.11	2.48	2.48	2.53	2.35	2.17
FCF Yield (%)	9.1	5.6	4.4	4.6	5.3	6.0
Dividend Yield (%)	2.2	2.1	1.7	1.8	1.9	2.2
EV/Sales (x)	1.6	2.1	2.2	2.2	2.0	1.8
EV/EBITDA (x)	8.2	10.1	10.1	10.1	9.3	8.4
EV/EBIT (x)	12.3	15.4	16.2	16.1	14.3	12.7
Income Statement (EURm)						
Sales revenue	17,123	18,383	19,203	19,504	20,577	21,643
Gross profit	6,924	7,269	7,881	8,117	8,601	9,151
EBITDA	3,455	3,784	4,193	4,187	4,403	4,741
Depreciation	936	1,062	1,089	1,176	1,129	1,187
Amortisation	232	254	492	389	403	417
EBIT	2,287	2,468	2,612	2,622	2,871	3,136
Net interest income(expense)	-438	-489	-532	-446	-398	-346
Associates/affiliates	240	213	146	152	167	184
Exceptionals/extraordinaries	-58	1,229	-58	-150	-150	-150
Other pre-tax income/(expense)	-6	168	-61	-61	-50	-50
Profit before tax	1,785	3,376	1,961	1,965	2,272	2,590
Income tax expense	465	515	520	581	696	792
Minorities	130	160	223	218	241	265
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	1,430	2,914	1,364	1,317	1,502	1,717
DB adjustments (including dilution)	154	-1,253	221	352	350	350
DB Net profit	1,584	1,661	1,585	1,669	1,852	2,067
Cash Flow (EURm)						
Cash flow from operations	2,751	2,492	2,627	2,952	3,111	3,406
Net Capex	-755	-1,117	-1,294	-1,528	-1,472	-1,550
Free cash flow	1,996	1,375	1,333	1,424	1,639	1,857
Equity raised/(bought back)	-649	3	-22	0	0	0
Dividends paid	-483	-494	-525	-510	-553	-622
Net inc/(dec) in borrowings	195	3,909	-811	-914	-1,086	-1,235
Other investing/financing cash flows	-931	-4,553	291	0	0	0
Net cash flow	128	240	266	0	0	0
Change in working capital	*251*	*101*	*51*	*25*	*37*	*39*
Balance Sheet (EURm)						
Cash and other liquid assets	813	1,037	1,290	1,290	1,290	1,290
Tangible fixed assets	7,860	8,844	8,454	8,726	8,986	9,261
Goodwill/intangible assets	10,835	17,688	15,934	15,625	15,305	14,974
Associates/investments	3,363	3,728	3,212	3,210	3,208	3,205
Other assets	4,256	4,683	4,447	4,633	4,868	5,121
Total assets	27,127	35,980	33,337	33,484	33,656	33,851
Interest bearing debt	9,387	13,491	12,226	11,312	10,226	8,991
Other liabilities	7,648	9,684	8,755	8,954	9,202	9,471
Total liabilities	17,035	23,175	20,981	20,266	19,428	18,462
Shareholders' equity	9,774	11,734	11,402	12,209	13,159	14,254
Minorities	318	1,071	954	1,009	1,069	1,135
Total shareholders' equity	10,092	12,805	12,356	13,218	14,228	15,389
Net debt	*8,574*	*12,454*	*10,936*	*10,022*	*8,936*	*7,701*
Key Company Metrics						
Sales growth (%)	6.1	7.4	4.5	1.6	5.5	5.2
DB EPS growth (%)	4.5	6.7	-4.6	5.1	11.0	11.6
EBITDA Margin (%)	20.2	20.6	21.8	21.5	21.4	21.9
EBIT Margin (%)	13.4	13.4	13.6	13.4	14.0	14.5
Payout ratio (%)	34.0	17.6	37.5	41.1	39.9	38.9
ROE (%)	14.3	27.1	11.8	11.2	11.8	12.5
Capex/sales (%)	5.0	6.8	7.5	8.1	7.4	7.4
Capex/depreciation (x)	0.9	1.1	1.2	1.3	1.3	1.3
Net debt/equity (%)	85.0	97.3	88.5	75.8	62.8	50.0
Net interest cover (x)	5.2	5.0	4.9	5.9	7.2	9.1

Source: Company data, Deutsche Bank estimates

Heineken in all the right places

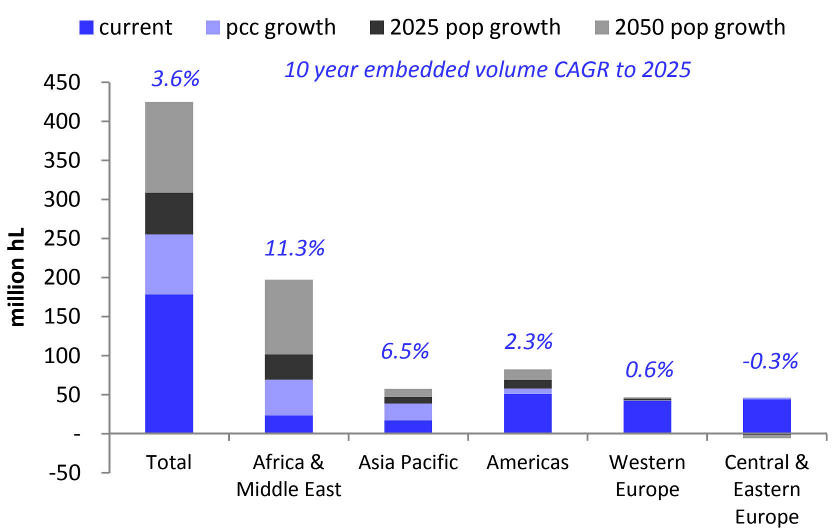
Stronger embedded profile in place

Heineken has significantly shifted its revenue profile towards areas of growth that are relevant to beer. Emerging markets excluding Eastern Europe now account for 45% of group revenue which we see increasing to 53% by 2018.

The result is the strongest embedded growth profile among the listed brewers. Heineken has the opportunity to more than double its volume. We see an embedded 10 year volume CAGR of 3.6%, driven by its exposure to Africa, the right places in Asia, and Mexico.

Heineken has an embedded 10 year volume CAGR of 3.6%

Figure 23: Heineken embedded growth profile



10 Year CAGR assumes steady state per capita consumption growth to potential on 2014DBe volume.
35 year CAGR assumes full per capita consumption potential on 2014DBe volume.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

Figure 24: Heineken embedded volume growth profile

	Total	Americas	Western Europe	Central & Eastern Europe	Africa & Middle East	Asia Pacific
Population growth to 2025	2.7%	2.0%	0.6%	-0.4%	9.2%	4.2%
Population growth to 2026-2050	1.4%	0.7%	0.1%	-0.3%	4.8%	1.3%
Per capita growth to 2050	1.0%	0.4%	0.0%	0.1%	3.2%	2.3%
10 year CAGR to 2025	3.6%	2.3%	0.6%	-0.3%	11.6%	6.5%
35 year CAGR to 2050	2.5%	1.4%	0.3%	-0.3%	6.3%	3.5%

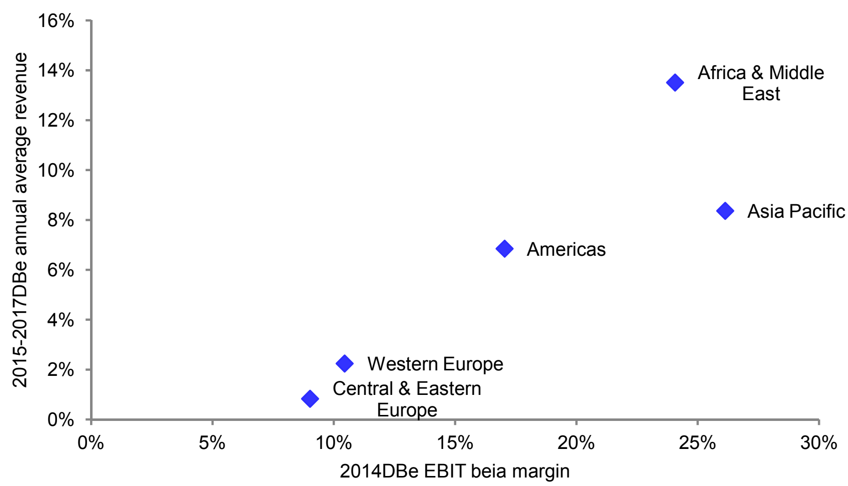
10 Year CAGR assumes steady state per capita consumption growth to potential on 2014DBe.
35 year CAGR assumes full per capita consumption potential on 2014DBe volume.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

Changed platform drives better earnings

For Heineken, its fastest growing markets are also the most margin enhancive. Asia is not burdened by the low margin mainstream businesses in China. Africa will drive the fastest growth, though some portfolio mix issues will put pressure on margin.

High margin Africa and Asia also have the best growth profiles

Figure 25: 2015-2017DBe revenue growth rates on 2014DBe base year

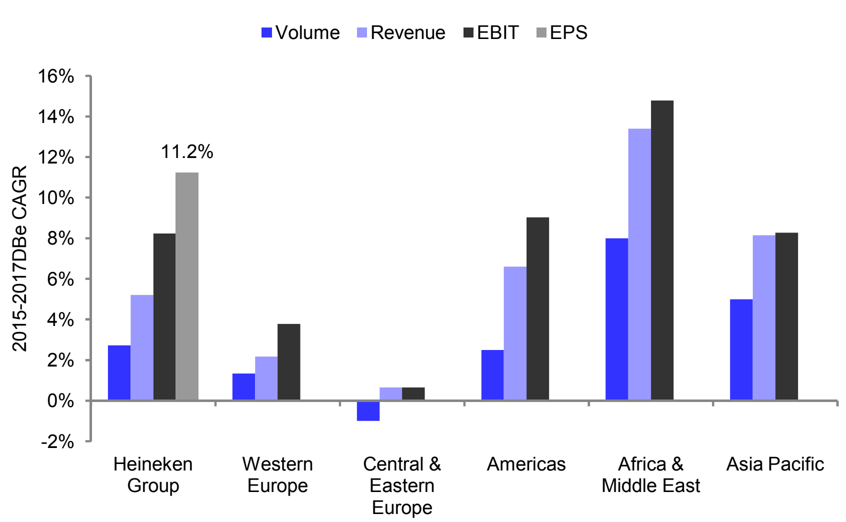


Source: Deutsche Bank estimates

The right mix and growth profile will allow Heineken to deliver EBIT and EPS growth ahead of the staples sector. Our model assumes EPS growth of 11% in the next 3 years on the 2014e base.

We believe Heineken will deliver 12% annual eps growth in the medium term

Figure 26: DBe 2015-2017 growth rates on 2014DBe base

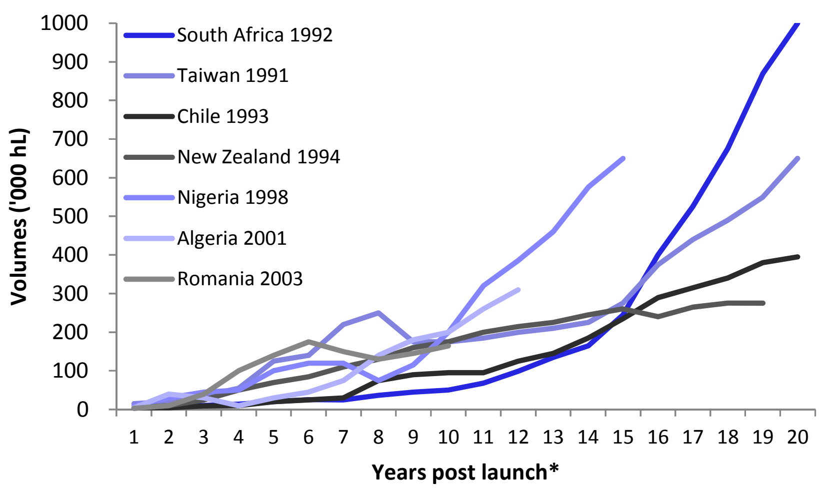


Source: Deutsche Bank estimates

Patience to invest for the long term

Sustainable brand building takes time. Heineken uses their STAR model to seed brands and has the patience to create the demand and consumer pull.

Figure 27: Heineken brand building comes to those who wait

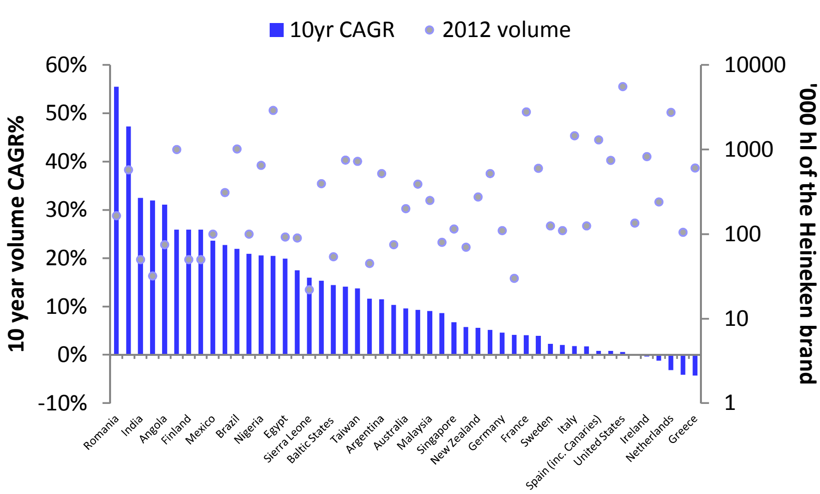


Source: Deutsche Bank estimates, company reports, Euromonitor, Plato Logic, ACNielsen

Patient brand building sees Heineken reap rewards after 5 to 7 years

As in Figure 27, after 5 to 7 years, distribution is pushed, price points are lowered, and local or licensed production are enacted which accelerates profitability.

Figure 28: Ten year CAGR to 2012 of the Heineken brand in 51 markets



Source: Deutsche Bank estimates, Canadean, Plato Logic, Euromonitor

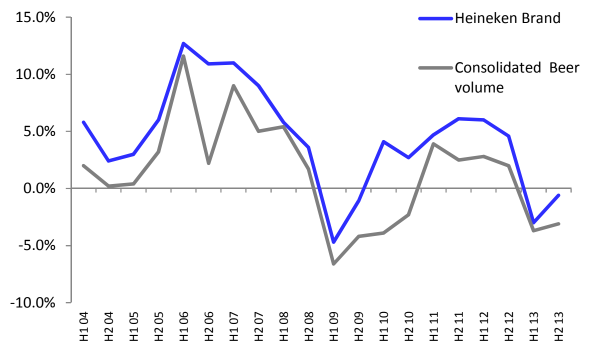
The seeding period creates sustainable growth. Of the 50 markets where the Heineken brand exceeds 50,000hl, 37 have a ten year CAGR exceeding 4%. Only four - the Netherlands, Japan., Greece, and Switzerland - have seen a decline.

Moving to broader, premium portfolios

Historically, the mainstream portfolio has acted as a strategic slave to enhance the long term ambitions of the Heineken brand. The Heineken brand has succeeded in outpacing the organic beer growth in every set of half year results since 2004. Conversely, it could be said that the local portfolios underperformed leading to overall mediocre performance for the company.

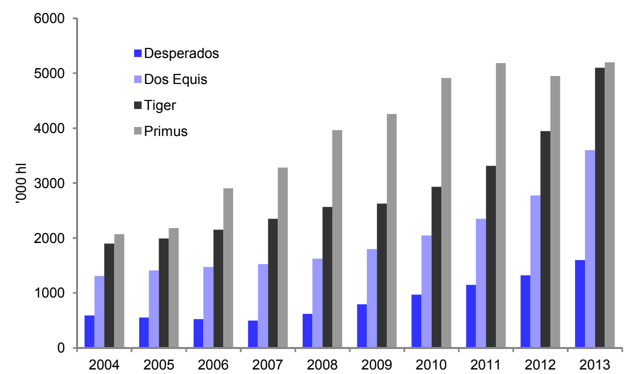
Since being appointed in 2010, the Heineken CMO and now head of Western Europe has significantly shifted the focus and extended the BWP (Building Winning Portfolios) initiative moving the mindset of the company. Like an oil tanker, the company has slowly come around. Their global brand building skills have been more visibly applied to a broader global premium portfolio and regional premium brands.

Figure 29: Heineken brand and consolidated volume



Source: Deutsche Bank, company reports

Figure 30: Heineken regional brands



Source: Deutsche Bank estimates, Canadean, Euromonitor, company reports

Each region has established a broader premium portfolio. Originally established in 1932 in Singapore as a compromise with Fraser & Neave (to prevent their partner to compromise the Heineken brand), Tiger Beer is now fully managed by Heineken and complementing its Asian growth as a pan-regional brand. With 33% CAGR the last three years, part of the growth focus is to ensure that the gap between Heineken and mainstream remains, especially in markets such as Vietnam.

Heineken has extended its brand building skills to a broader premium portfolio

Dos Equis and Tecata in North America have maintained and even improved their momentum since entering the Heineken portfolio, with Dos Equis generating the most interesting growth of 12% CAGR since 2010.

Desperados and Affligem drive pan regional growth in Europe, and Primus and Star in Africa are all complementing the drive for Heineken. In their global portfolio, Strongbow has the opportunity to be the global leader in the fast growing cider category. Sol has recently been re-launched with healthy brand equity scores, and Amstel continues to be an accessible premium category developer.

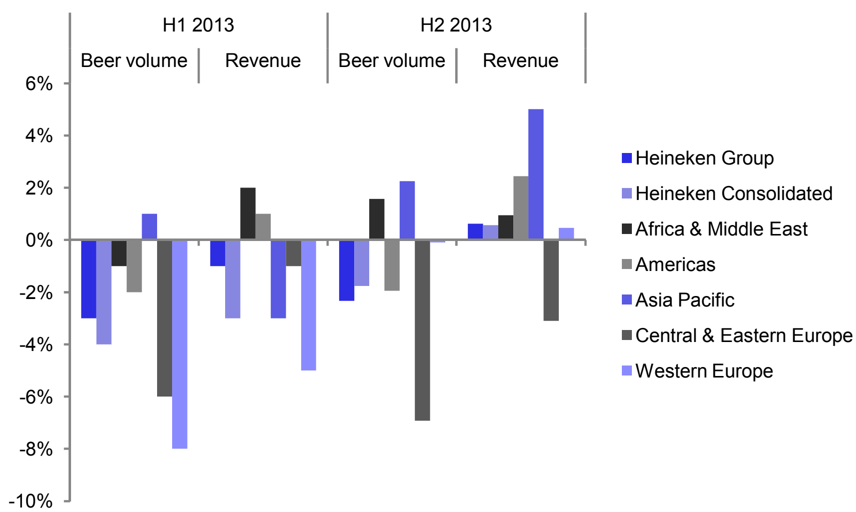
The broader focus on driving more scalable, premium portfolios will help Heineken better leverage its operational and marketing capabilities.

2014 green shoots

We see 2014 as a year of renewed growth following a weak performance in the past year as per Figure 31. In the majority of its geographies macro factors are improving, one-off issues get cycled or work in its favor and the company extends opportunities for cost savings.

The remainder of 2014 sees favorable tailwinds for Heineken

Figure 31: Like for like soft comparatives for Heineken for 2014

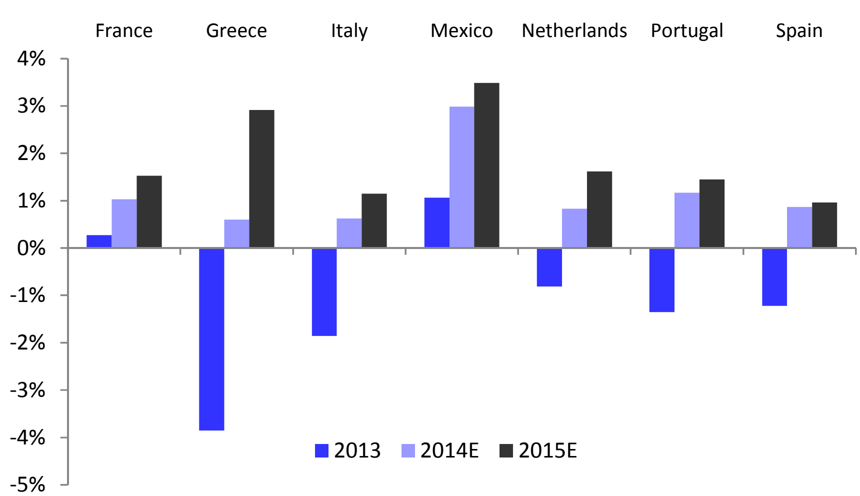


Source: Deutsche Bank, company reports

GDP underpinning recovery in key developed markets

A return of GDP growth, soft comparatives, and the benefit of Easter in key western and southern European markets will see a return of growth. Though the European region is significantly less relevant to the Heineken profile, stabilization in the region will minimize the drag on earnings.

Figure 32: GDP growth in key Heineken markets



Source: Deutsche Bank, IMF

A step up of marketing spending will impact short term margins in the European region, but will also allow Heineken to reassert its leadership positions in beer and the broader alcohol landscape. The benefit of the additional marketing spend can be most recently seen in the Radler phenomenon. With Radler extensions being reproduced by the brewers like feral cats, Heineken has been the most systematic and successful in this fast growing category and see it as an additional element to win share this summer.

Mexico with more cost savings

Mexico and Nigeria should have strong upside in 2014

In Heineken's biggest market Mexico, macro dynamics, cost savings and a rational pricing environment will drive positive growth in 2014. A marked rebound in GDP and the ongoing boost of government spending will drive beer growth. The company also announced in December an additional €100 million in incremental cost savings in Mexico to the initial €220m, €50m will benefit 2014.

Besides the population dynamics in Mexico, Heineken has an additional embedded growth element in the form of accelerated Oxxo and the beer centric SIX store expansion this year. With exclusive supplier contract in place till 2020, Oxxo's new store openings every 8 hours will drive and embedded 1% to 2% distribution growth in areas where the company currently under-indexes.

Nigeria

Heineken's subsidiary Nigerian Breweries has already reported a local 14% profit before tax for the first half which should translate to a +9% increase in Euros. We see further benefits for the remainder of year. In May, Heineken announced the merger of their Nigerian subsidiaries Nigerian Breweries and Consolidated. Though there will be some cost synergies, the main relevance is to accelerate growth in the economy and mainstream segments and better management against the rising threat of SABMiller. In a fragmented market that is Nigeria, a singular and importantly, controlled platform to further develop the route to market and value brand portfolio should also enhance the latent brand equity of value brands 33 Export in Ogun and Imo states and Champion Lager in Akwa Ibom states. The run up to the elections in early 2015 will see an influx of money at a consumer level, stimulating the economy, civil servant pay packages and beer sales.

Further cost savings opportunities

We expect further cost savings benefits as programs expand globally.

At our DB consumer conference in June, Heineken highlighted further opportunities to increase cost savings by extending the scope of their Global Business Services program (GBS) and Shared Services Center (HGSS). Though the benefits of previous programs (F2F, TCM I & II) have been substantial, only about a third of the €1.5bn savings have been visible to the bottom line. Mostly this is due to the structural challenges in Europe as well as the volatile input cost environment. In effect, Heineken in Europe has been running to stand still in the past five years.

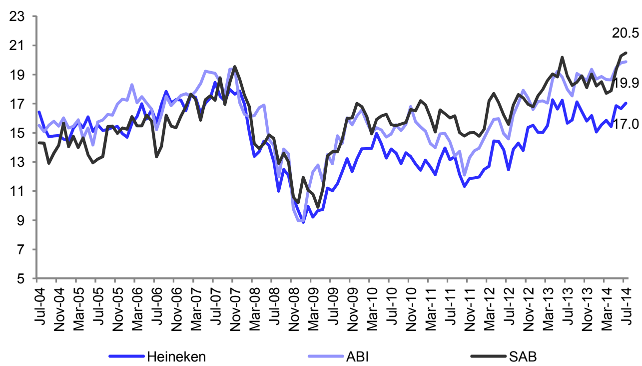
We see the expansion of GBS and HGSS beyond the Europe to bring more tangible benefits to the P&L. Heineken does allocate most expansion costs to overheads and not as non- recurring and exceptionals, so a large proportion of the "savings" will be reabsorbed. We also expect a further step up in marketing to absorb some additional savings, but we assume a larger proportion of the savings to be visible in profitability.

Valuation

Valuation gap not reflective of embedded growth

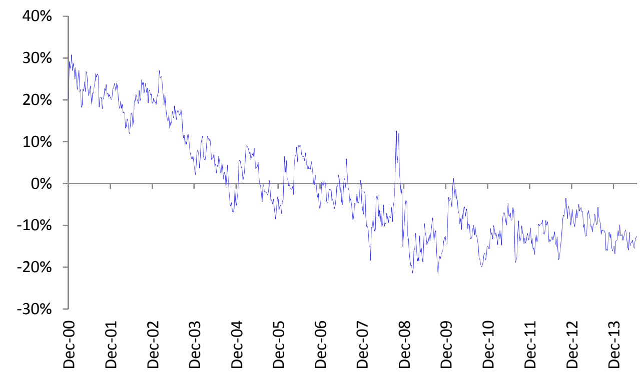
Considering its embedded growth profile, we also believe that the discount implied by the relative valuation to SABMiller and ABInBev is excessive. Currently Heineken trades at a 17% and 14% discount to the two brewers respectively and 13% discount to our broader consumer staples universe. With an EV/EBITDA ratio additionally significantly below ABI and SABMiller, we believe shrinkage to the discount is warranted.

Figure 33: Brewer monthly forward P/E



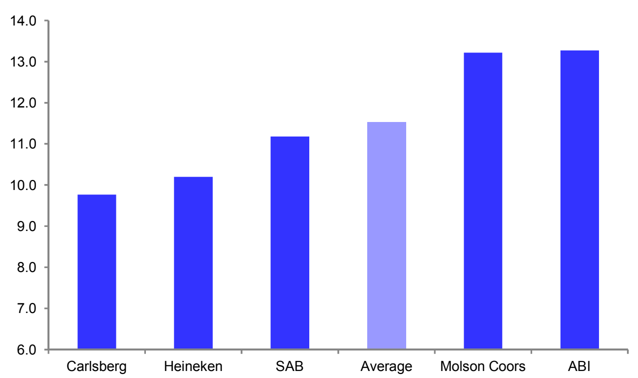
Source: Deutsche Bank, Datastream

Figure 34: Heineken forward P/E relative to brewers



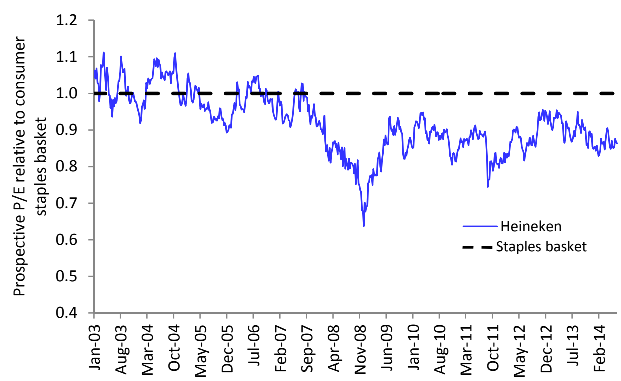
Brewers index based on SABMiller, ABInBev, Carlsberg, Heineken
Source: Deutsche Bank, Datastream

Figure 35: Brewer 2014DBe EV/EBITDA



Source: Deutsche Bank

Figure 36: Heineken forward P/E relation to staples



Consumer staples index based on a weighted average of 34 companies
Source: Deutsche Bank, Datastream

Price Target of €60

We base our €60 price target on a discounted cash flow model.

For all our brewers and spirits companies, we have assumed a risk free rate of 4.0% and an equity premium of 4.3%. For Heineken, the resultant WACC is 7.83% which incorporates a levered beta of 1.18, and net debt / EV ratio of 20%. Our medium term cash flow models growth of 5% a year, and a post year-10 terminal growth rate of 2.0%. We view our terminal growth rate of 2% as conservative number below the company's embedded volume growth rate.

Figure 37: Heineken target price sensitivities

TP per Share (€)							WACC
Terminal Growth Rate	7.07%	7.32%	7.57%	7.82%	8.07%	8.32%	8.57%
2.75%	84.37	78.85	73.94	69.54	65.58	62.01	58.77
2.50%	79.98	74.95	70.46	66.41	62.76	59.45	56.43
2.25%	76.01	71.41	67.28	63.54	60.15	57.07	54.25
2.00%	72.41	68.18	64.35	**60.89**	57.73	54.85	52.22
1.75%	69.11	65.20	61.66	58.43	55.49	52.79	50.31
1.50%	66.09	62.46	59.16	56.15	53.39	50.85	48.52
1.25%	63.30	59.93	56.84	54.02	51.42	49.03	46.83

Source: Deutsche Bank

Risks to our valuation

Key downside risks include the economic environment in Europe, competitor activity in key markets (Europe plus the Americas, Africa and Asia), and volatility in input costs and currency. Additional potential risk factors include overpayment for an acquisition target and the fact that institutional shareholders remain in a minority position.

Rating
Sell

Europe
Denmark

Consumer Staples
Beverage

Company
Carlsberg

Reuters	Bloomberg
CARLb.CO	CARLB DC

Price at 28 Jul 2014 (DKK)	559.00
Price Target (DKK)	525.00
52-week range (DKK)	607.00 - 513.50

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In all the wrong places

Downgrade to SELL with a price target of DKK525
We downgrade Carlsberg from HOLD to SELL with a price target of DKK525. Despite its further and encouraging diversification into Asia and solid performance in the tough Eastern European markets, we believe that Russia will continue to be a problem which extends beyond regulatory issues.

Limited embedded growth
We see limited volume growth for Carlsberg and see at best an embedded growth which will add 1% of volume per annum over the next ten years. Despite encouraging performance and potential in Asia, the population and consumption dynamics in Europe will inhibit any volume growth.

Russia will get worse, not better
Though most regulations have been put into place, population dynamics and competitive pressures will continue to put pressure on Russian performance. A resurgent Efes we believe will potentially disrupt pricing discipline and market share dynamics.

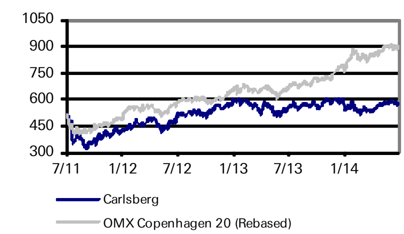
Valuation and risks
We base our price target on a DCF-model, the core assumptions behind which are a WACC of 7.90% (incorporating a levered beta of 1.18, net debt / EV ratio of 20%, risk-free rate of 4.00% and 4.30% cost of debt), medium-term cash flow growth of 5% a year, and a post year-10 terminal growth rate of 1.5% . We view our terminal growth rate of 1.5% in line with the leverage the company could attain above its embedded volume growth rate to 2050 of 1.0%. Upside risks include strong Russia growth, currency tailwinds and market share gains in Europe.

Key changes

Rating	Hold to Sell	↓	
Target Price	600.00 to 525.00	↓	-12.5%

Source: Deutsche Bank

Price/price relative



Performance (%)	1m	3m	12m
Absolute	-3.4	5.9	2.3
OMX Copenhagen 20	0.4	6.4	36.7

Source: Deutsche Bank

Forecasts And Ratios

Year End Dec 31	2012A	2013A	2014E	2015E	2016E
EBITDA (DKKm)	13,676	13,336	13,476	13,821	14,241
EBITA (DKKm)	9,685	9,353	9,372	9,592	9,884
PBT DB (DKKm)	7,913	7,847	7,780	8,082	8,551
DB EPS (DKK)	36.00	37.71	37.09	38.48	40.73
OLD DB EPS (DKK)	36.00	37.71	38.22	42.00	46.31
% Change	0.0%	0.0%	-3.0%	-8.4%	-12.1%
DB EPS growth (%)	5.8	4.7	-1.6	3.8	5.8
P/E (DB EPS) (x)	13.5	15.0	15.1	14.5	13.7
EV/EBITA (x)	12.2	13.9	13.2	12.6	12.0
DPS (DKK)	6.00	8.00	8.80	9.50	10.45
Yield (%)	1.2	1.4	1.6	1.7	1.9

Source: Deutsche Bank estimates, company data

Model updated:24 July 2014

Running the numbers

Europe

Denmark

Beverage

Carlsberg

Reuters: CARLb.CO Bloomberg: CARLB DC

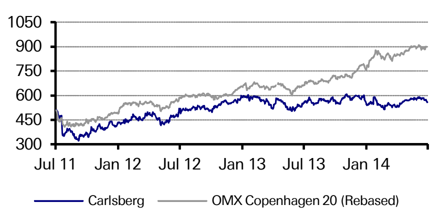
Sell

Price (28 Jul 14)	DKK 559.00
Target Price	DKK 525.00
52 Week range	DKK 513.50 - 607.00
Market Cap (m)	DKKm 85,266
	USDm 15,359

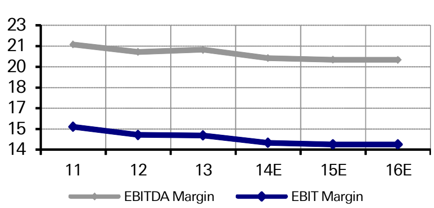
Company Profile

Carlsberg is an international brewing company which markets the Carlsberg and Tuborg brands as well as other regional beers. Key markets for the business are Russia and Ukraine (around 37% of EBIT, Carlsberg has a leading volume share in Russia), and Western Europe. Carlsberg also has a growing presence in Asia, including markets such as Western China, India, Vietnam, Malaysia and Laos as well as a dominant position in Malawi.

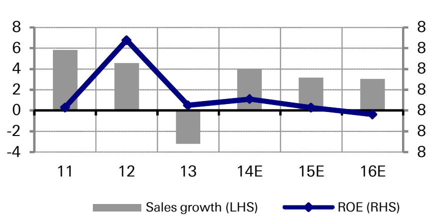
Price Performance



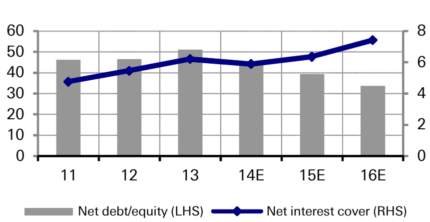
Margin Trends



Growth & Profitability



Solvency



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Fiscal year end 31-Dec	2011	2012	2013	2014E	2015E	2016E
Financial Summary						
DB EPS (DKK)	34.04	36.00	37.71	37.09	38.48	40.73
Reported EPS (DKK)	33.69	36.68	35.74	36.37	38.48	40.73
DPS (DKK)	5.50	6.00	8.00	8.80	9.50	10.45
BVPS (DKK)	431.8	460.6	444.6	473.1	502.9	534.2
Weighted average shares (m)	153	153	153	153	153	153
Average market cap (DKKm)	74,651	73,980	86,017	85,266	85,266	85,266
Enterprise value (DKKm)	115,146	118,596	130,432	123,841	121,190	118,258
Valuation Metrics						
P/E (DB) (x)	14.4	13.5	15.0	15.1	14.5	13.7
P/E (Reported) (x)	14.5	13.2	15.8	15.4	14.5	13.7
P/BV (x)	0.94	1.20	1.35	1.18	1.11	1.05
FCF Yield (%)	5.6	6.2	3.1	3.8	4.7	5.1
Dividend Yield (%)	1.1	1.2	1.4	1.6	1.7	1.9
EV/Sales (x)	1.8	1.8	2.0	1.8	1.8	1.7
EV/EBITDA (x)	8.6	8.7	9.8	9.2	8.8	8.3
EV/EBIT (x)	11.9	12.2	13.9	13.2	12.6	12.0
Income Statement (DKKm)						
Sales revenue	63,561	66,468	64,350	66,941	69,065	71,180
Gross profit	34,444	35,452	35,660	37,556	38,723	39,708
EBITDA	13,416	13,676	13,336	13,476	13,821	14,241
Depreciation	3,521	3,752	3,733	3,845	3,960	4,079
Amortisation	259	239	250	259	268	278
EBIT	9,636	9,685	9,353	9,372	9,592	9,884
Net interest income(expense)	-2,028	-1,776	-1,506	-1,592	-1,510	-1,333
Associates/affiliates	180	108	370	398	418	439
Exceptionals/extraordinaries	-268	85	-435	-145	0	0
Other pre-tax income/(expense)	10	4	0	0	0	0
Profit before tax	7,350	7,998	7,412	7,635	8,082	8,551
Income tax expense	1,838	1,861	1,833	1,964	2,083	2,203
Minorities	543	638	478	502	527	553
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	5,149	5,607	5,471	5,567	5,891	6,234
DB adjustments (including dilution)	54	-103	301	110	0	0
DB Net profit	5,203	5,504	5,772	5,677	5,891	6,234
Cash Flow (DKKm)						
Cash flow from operations	8,232	9,242	8,312	9,082	9,485	10,012
Net Capex	-4,053	-4,627	-5,638	-5,804	-5,491	-5,631
Free cash flow	4,179	4,615	2,674	3,278	3,994	4,382
Equity raised/(bought back)	-49	-25	-70	0	0	0
Dividends paid	-763	-839	-915	-1,220	-1,342	-1,450
Net inc/(dec) in borrowings	-1,003	2,473	-114	-2,058	-2,652	-2,932
Other investing/financing cash flows	-2,130	-4,000	-3,318	0	0	0
Net cash flow	234	2,224	-1,743	0	0	0
Change in working capital	*-282*	*641*	*-50*	*16*	*5*	*96*
Balance Sheet (DKKm)						
Cash and other liquid assets	3,145	5,760	3,714	3,714	3,714	3,714
Tangible fixed assets	31,848	31,991	33,482	34,508	35,106	35,725
Goodwill/intangible assets	89,041	91,216	91,895	92,569	93,234	93,889
Associates/investments	5,779	6,422	2,359	2,638	2,930	3,237
Other assets	17,901	18,576	19,688	20,342	20,753	21,137
Total assets	147,714	153,965	151,138	153,771	155,737	157,701
Interest bearing debt	36,239	40,058	40,211	38,153	35,501	32,569
Other liabilities	39,846	40,257	39,428	39,647	39,585	39,558
Total liabilities	76,085	80,315	79,639	77,800	75,086	72,127
Shareholders' equity	65,866	70,261	67,811	72,158	76,706	81,491
Minorities	5,763	3,389	3,688	3,813	3,945	4,084
Total shareholders' equity	71,629	73,650	71,499	75,971	80,651	85,574
Net debt	*33,094*	*34,298*	*36,497*	*34,439*	*31,787*	*28,855*
Key Company Metrics						
Sales growth (%)	5.8	4.6	-3.2	4.0	3.2	3.1
DB EPS growth (%)	-4.0	5.8	4.7	-1.6	3.8	5.8
EBITDA Margin (%)	21.1	20.6	20.7	20.1	20.0	20.0
EBIT Margin (%)	15.2	14.6	14.5	14.0	13.9	13.9
Payout ratio (%)	16.3	16.3	22.3	24.1	24.6	25.6
ROE (%)	7.9	8.2	7.9	8.0	7.9	7.9
Capex/sales (%)	6.8	7.6	9.0	8.7	8.0	7.9
Capex/depreciation (x)	1.1	1.3	1.5	1.4	1.3	1.3
Net debt/equity (%)	46.2	46.6	51.0	45.3	39.4	33.7
Net interest cover (x)	4.8	5.5	6.2	5.9	6.4	7.4

Source: Company data, Deutsche Bank estimates

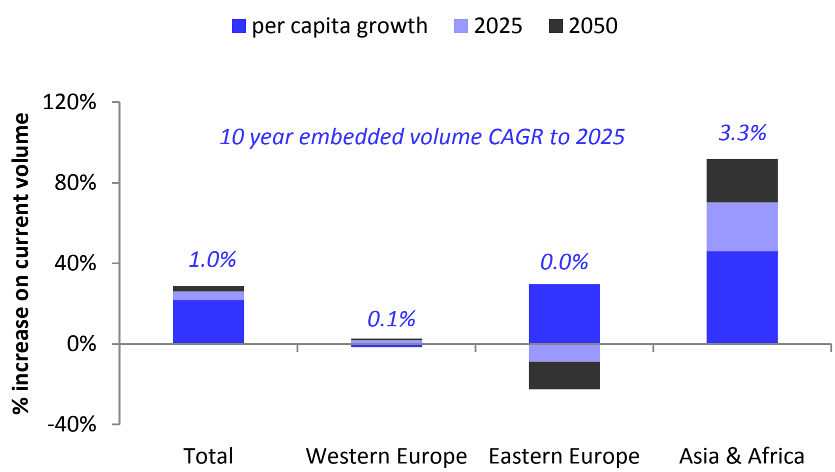
Carlsberg in the wrong places

A limited embedded volume growth profile

We see limited volume growth for Carlsberg and see at best an embedded growth which will add 1% per annum over the next ten years. We believe Malawi will be delivering more incremental volume by 2050 than all of Eastern and Western Europe together. That is less a reflection of the potential of Malawi, but more of the lack of growth to be seen in the latter markets

Carlsberg has an embedded 10 year volume CAGR of 1%

Figure 38: Carlsberg embedded volume growth profile

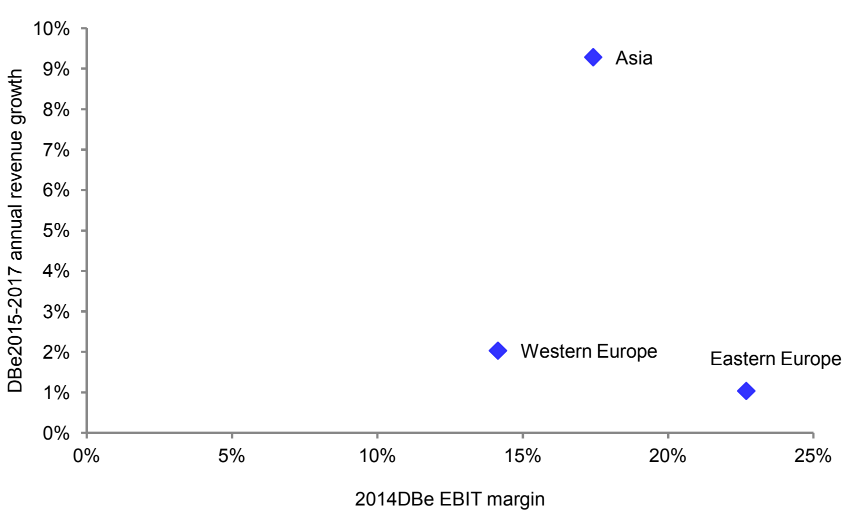


10 Year CAGR assumes steady state per capita consumption growth to potential on 2014DBe volume.
35 year CAGR assumes full per capita consumption potential on 2014DBe volume.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

Growing and declining in the wrong directions

As in Figure 39, we see faster growth rates in lower margin regions and declines in high margin regions.

Figure 39: 2015-2017DBe revenue growth rates on 2014DBe base year

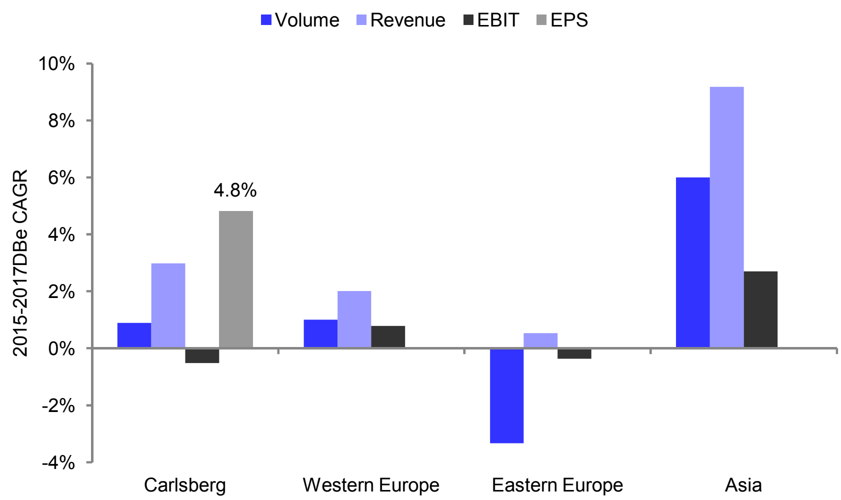


Source: Deutsche Bank estimates

As a result, Carlsberg should continue to lag behind the staples sector. Our model assumes annual EPS growth of 5% in the next 3 years.

We believe that Carlsberg will deliver 5% annual EPS growth in the medium term

Figure 40: 2015-2017DBe Carlsberg growth rates on 2014DBe base

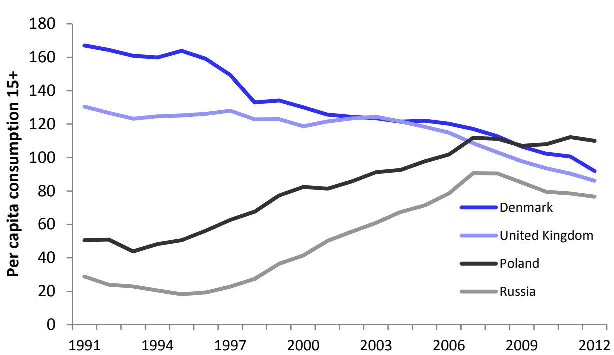


Source: Deutsche Bank estimates

European declines

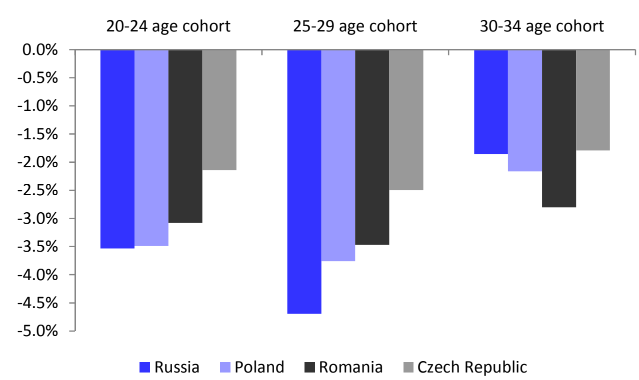
Over the past 20 years, Denmark has seen per capita beer consumption decline 45%, the worst performing market globally. Carlsberg's issues in its home market are being replicated across its wider European footprint.

Figure 41: per caps meeting in the middle for Carlsberg



Per capita consumption in liters
Source: Deutsche Bank estimates, Plato Logic, Euromonitor

Figure 42: Eastern Europe annual declines to 2025



Source: Deutsche Bank, World Bank

The developed markets will move towards stabilized per capita rates of 80 to 85 liters per capita. Its Eastern European markets will see limited upside from here on as real population declines will have a negative impact on beer consumption. Recently, Carlsberg has taken a more practical approach in Poland and understood the realities of the changing retail and consumer environment better than its competitors, as a result winning share. However, as per Figure 42, the number of 20 to 35 year olds in Poland is expected to decline 3% *per year* until 2025. It is a structural reality which is difficult to overcome.

Eastern Europe is expected to have strong population declines in the 20 to 34 year old cohort

Russia will not get better

Like Eastern Europe, the Russian population dynamics are negative. Key drinkers in the 20 to 29 year old age group will decline a third by 2025 and Russian male life expectancy is not expected to improve making it hard to sell beer to those who are not alive.

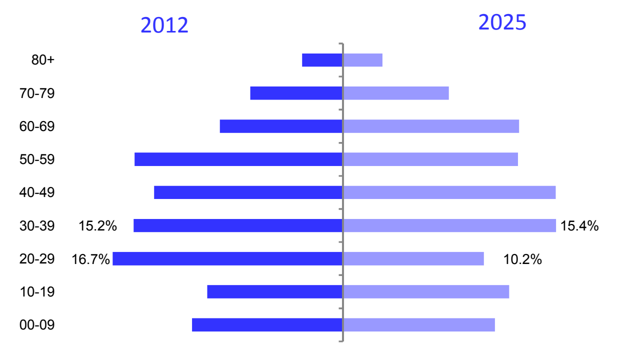
All the issues impacting Russia seem to have washed out – kiosks closures, outdoor drinking bans. Excise is being "normalized" to global standards. At first glance (Figure 43), beer is entering an advantaged position in excise relative to Vodka- increases in the latter will have a greater impact. However, we estimate that half of Vodka's production avoids paying their full complement of taxes and view it unlikely for that to change.

Figure 43: Russia alcohol excise rates

	Beer (<8.6% abv) per liter volume	Vodka (>9.0% abv) per liter alcohol	Yoy increase beer vs vodka
Minimum Price	RUB 0	RUB 170	
Excise tax 2011	RUB 10	RUB 231	1.11x
Excise tax 2012	RUB 12	RUB 300	0.67x
Excise tax 2013	RUB 15	RUB 400	0.43x
Excise tax 2014	RUB 18	RUB 500	0.80x
Excise tax 2015	RUB 20	RUB 600	0.55x
Excise tax 2016	RUB 21	RUB 660	0.50x

Source: Deutsche Bank, ROSSTAT

Figure 44: Russia population pyramid



Source: Deutsche Bank, World Bank

More concerning is the lack of influence on the legislative environment. All the brewers have issues in their biggest markets – ABInBev on unexpected tax increases before the world cup, SABMiller with shebeen closures in South Africa during election cycles, Heineken dealing with excise increases in the Netherlands. A seat at the table is vital for those discussions which seem to be lacking in Russia. In the coming years, further PET bans are expected by 2016, automatic batch counters will be required, the minimum drinking age increased. The biggest "win" in Russia has been the recent lifting of the ban on beer sales in football stadium, though that seems to have been more through the influence of Sepp Blatter and FIFA, rather than the brewers.

Efes re-awakened will create headwinds for Carlsberg

Post the installment on new management, we expect Efes to be a more formable competitor to Carlsberg in Russia

For Carlsberg, a bigger concern will be the competitive environment in Russia. Besides the four main players- Carlsberg, ABInBev, Heineken and Efes-, Russia has a further 34 large breweries and 69 medium scale breweries. As the main players "behave" and exit large PET packagings in the economy segment and questionable marketing practices, the slack will be picked up by local brewers at the bottom end creating further price pressure.

The main competition in the near future will come from Efes who have lost significant share – at the time of the merger with SABMiller a supposed 19% market share reduced to 13%. Following a network optimization reducing its cost base and creating more efficient operations, the Anadolu Efes group has also instituted some key management changes including the recent appointment of a new managing director in Russia with a proven track record in beer and tough operational and regulatory environments. We believe this will bring further pressure on Carlsberg.

Asia looks great, but is it enough?

Carlsberg has built a strong business in Asia. The current Chongqing integration in China will bring benefits, their footprint in India improved for access to more reasonable states, and small markets from Nepal to Vietnam starting to make a sizable contribution. We also believe Carlsberg will be very active in the latter region to see more M&A, but remain cautious on the multiples to be paid to play.

We have a positive view of Carlsberg's Asian platform, but do not believe it will have a significant impact in the near future

Valuation

Price target of DKK525

We base our DKK525 price target on a discounted cash flow model.

For all our brewers and spirits companies, we have assumed a risk free rate of 4.0% and an equity premium of 4.3%. For Carlsberg, the resultant WACC is 7.90% which incorporates a levered beta of 1.18, and net debt / EV ratio of 20%. Our medium term cash flow models growth of 5% a year, and a post year-10 terminal growth rate of 1.5%. We view our terminal growth rate of 1.5% in line with the leverage the company could attain above its embedded volume growth rate to 2050 of 1.0%.

Figure 45: Carlsberg target price sensitivities

TP per Share (DKK)							WACC
Terminal Growth Rate	7.15%	7.40%	7.65%	7.90%	8.15%	8.40%	8.65%
2.25%	713	669	629	594	561	531	504
2.00%	678	638	601	568	538	510	484
1.75%	647	609	575	544	516	490	466
1.50%	617	583	551	**522**	495	471	448
1.25%	591	558	528	501	476	453	432
1.00%	566	535	507	482	458	436	416
0.75%	542	514	488	463	441	421	401

Source: Deutsche Bank

Risks to our valuation

Key upside risks relate to macroeconomic factors and competitive dynamics in Russia, input costs, currency movement, and the volume outlook and market share gains in Carlsberg's mature Western European markets. Additionally, further M&A activity, particularly in Asia, can change the investment profile for Carlsberg.

Rating
Hold

Europe
Belgium

Consumer Staples
Beverage

Company
ABInBev

Reuters	Bloomberg
ABI.BR	ABI BB

Price at 28 Jul 2014 (EUR)	81.63
Price Target (EUR)	85.00
52-week range (EUR)	85.13 - 67.04

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Limited upside, but cash is nice

Maintain our HOLD, adjusting our target price to €85
We have upgraded our price target on ABInBev, but believe the stock is fairly valued and remain a HOLD. The embedded volume growth profile is considerably behind Heineken and SABMiller, with Mexico providing the much needed upside.

Mexico to drive more value, limited upside to Brazil, USA
We see further opportunity in Mexico beyond synergies in driving its top line, leveraging the brand equity of Bud Light in Northern Mexico. Negative population dynamics, strong per capita consumption and high margins limit upside in Brazil. The USA is unlikely to see further margin expansion innovations and a need to abate market share losses will need additional investment.

Value investors and cash generators
Unless it steps beyond the beer category, large scale M&A is unlikely in the near term. Instead, we see ABInBev returning more cash to shareholders, with the most likely form being dividend in the same manner as the top staples companies.

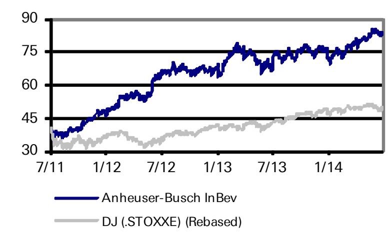
Valuation and risks
We base our €85 price target on a DCF-model, the core assumptions behind which are a WACC of 7.97% and a terminal growth rate of 1.5%. We view our terminal growth rate of 1.5% slightly above the leverage the company could attain above its embedded volume growth rate. Our upside/downside risks include the level of concentration in a few markets, level of cost savings achieved in Mexico, currency instability, government taxation and incentives, consumer sentiment in Brazil and the USA and M&A.

Key changes

Target Price	70.00 to 85.00	↑	21.4%

Source: Deutsche Bank

Price/price relative



Performance (%)	1m	3m	12m
Absolute	-2.5	2.4	22.2
DJ (.STOXXE)	-1.6	-0.2	15.8

Source: Deutsche Bank

Forecasts And Ratios

Year End Dec 31	2012A	2013A	2014E	2015E	2016E
EBITDA (USDm)	15,525	17,191	19,345	20,740	21,982
EBITA (USDm)	12,779	14,204	16,358	17,679	18,873
PBT DB (USDm)	10,431	11,718	13,833	15,354	16,933
DB EPS (USD)	4.42	4.81	5.38	5.79	6.38
OLD DB EPS (USD)	4.42	4.81	5.03	5.69	6.20
% Change	0.0%	0.0%	7.0%	1.8%	3.0%
DB EPS growth (%)	10.7	8.8	11.8	7.7	10.3
P/E (DB EPS) (x)	17.2	20.0	20.4	18.9	17.2
EV/EBITA (x)	14.2	16.4	15.6	14.1	13.0
DPS (USD)	2.18	2.72	3.23	3.76	4.47
Yield (%)	2.9	2.8	2.9	3.4	4.1

Source: Deutsche Bank estimates, company data

Model updated:24 July 2014

Running the numbers

Europe

Belgium

Beverage

Anheuser-Busch InBev

Reuters: ABI.BR Bloomberg: ABI BB

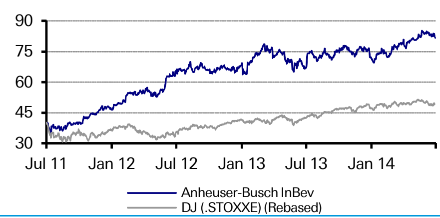
Hold

Price (28 Jul 14)	EUR 81.63
Target Price	EUR 85.00
52 Week range	EUR 67.04 - 85.13
Market Cap (m)	EURm 131,033
	USDm 176,009

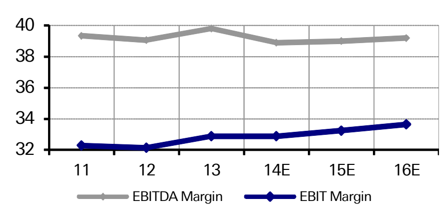
Company Profile

AB InBev is the world's largest brewer, formed from the 2008 merger of Interbrew and Anheuser-Busch. The US and Brazil are ABI's two most important markets, with the recent acquisition of Gruppo Modelo in Mexico adding a strong thrid market. The group also has a significant presence across the rest of South America, in Canada, China, Western Europe and Russia / Ukraine. Key brands include Budweiser, Bud Light, Stella Artois and Beck's. The company's goal is to become the Best Beer Company in a Better World.

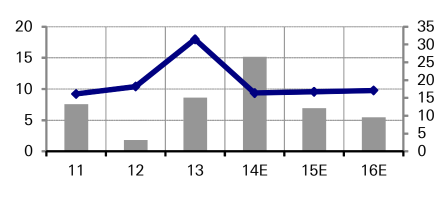
Price Performance



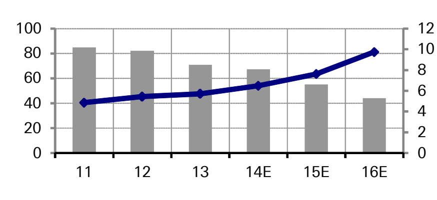
Margin Trends



Growth & Profitability



Solvency



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Fiscal year end 31-Dec	2011	2012	2013	2014E	2015E	2016E
Financial Summary						
DB EPS (USD)	4.00	4.42	4.81	5.38	5.79	6.38
Reported EPS (USD)	3.63	4.40	8.72	5.24	5.79	6.38
DPS (USD)	1.67	2.18	2.72	3.23	3.76	4.47
BVPS (USD)	23.5	25.7	31.4	34.0	36.7	39.4
Weighted average shares (m)	1,595	1,600	1,617	1,605	1,605	1,605
Average market cap (USDm)	90,492	121,960	155,294	176,009	176,009	176,009
Enterprise value (USDm)	147,903	180,868	232,387	254,384	249,961	245,237
Valuation Metrics						
P/E (DB) (x)	14.2	17.2	20.0	20.4	18.9	17.2
P/E (Reported) (x)	15.6	17.3	11.0	20.9	18.9	17.2
P/BV (x)	2.61	3.38	3.39	3.22	2.99	2.78
FCF Yield (%)	8.3	7.2	5.9	4.9	5.5	6.1
Dividend Yield (%)	2.9	2.9	2.8	2.9	3.4	4.1
EV/Sales (x)	3.8	4.5	5.4	5.1	4.7	4.4
EV/EBITDA (x)	9.6	11.7	13.5	13.2	12.1	11.2
EV/EBIT (x)	11.7	14.2	16.4	15.6	14.1	13.0
Income Statement (USDm)						
Sales revenue	39,046	39,758	43,196	49,744	53,186	56,093
Gross profit	25,162	26,082	28,589	33,841	36,878	39,302
EBITDA	15,357	15,525	17,191	19,345	20,740	21,982
Depreciation	2,750	2,746	2,987	2,644	2,710	2,751
Amortisation	0	0	0	342	351	358
EBIT	12,607	12,779	14,204	16,358	17,679	18,873
Net interest income(expense)	-2,597	-2,348	-2,486	-2,525	-2,324	-1,940
Associates/affiliates	623	624	294	30	33	33
Exceptionals/extraordinaries	-818	-50	6,523	-278	0	0
Other pre-tax income/(expense)	0	0	0	0	0	0
Profit before tax	9,192	10,381	18,241	13,556	15,354	16,933
Income tax expense	1,856	1,680	2,016	2,850	3,532	3,895
Minorities	2,104	2,165	2,124	2,147	2,371	2,614
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	5,855	7,160	14,395	8,589	9,485	10,457
DB adjustments (including dilution)	594	41	-6,458	222	0	0
DB Net profit	6,449	7,201	7,937	8,811	9,485	10,457
Cash Flow (USDm)						
Cash flow from operations	10,774	11,862	12,845	12,568	13,572	14,688
Net Capex	-3,256	-3,089	-3,625	-4,000	-3,964	-3,929
Free cash flow	7,518	8,773	9,220	8,568	9,608	10,759
Equity raised/(bought back)	155	102	73	0	0	0
Dividends paid	-1,376	-2,226	-5,234	-4,369	-5,184	-6,035
Net inc/(dec) in borrowings	-6,063	3,692	6,521	1,282	-4,423	-4,724
Other investing/financing cash flows	525	-8,252	-6,656	-5,480	0	0
Net cash flow	759	2,089	3,924	0	0	0
Change in working capital	*1,409*	*1,099*	*866*	*144*	*89*	*87*
Balance Sheet (USDm)						
Cash and other liquid assets	5,320	7,051	9,839	9,839	9,839	9,839
Tangible fixed assets	16,022	16,461	20,889	27,283	28,096	28,832
Goodwill/intangible assets	75,120	76,137	99,265	99,364	99,455	99,539
Associates/investments	7,044	14,207	587	597	608	619
Other assets	8,921	8,765	11,086	11,811	12,340	12,932
Total assets	112,427	122,621	141,666	148,895	150,338	151,761
Interest bearing debt	40,165	44,341	49,126	50,408	45,984	41,260
Other liabilities	31,218	32,827	37,232	38,101	38,719	39,397
Total liabilities	71,383	77,168	86,358	88,509	84,703	80,657
Shareholders' equity	37,492	41,154	50,365	54,584	58,885	63,307
Minorities	3,552	4,299	4,943	5,802	6,750	7,796
Total shareholders' equity	41,044	45,453	55,308	60,386	65,635	71,103
Net debt	*34,845*	*37,290*	*39,287*	*40,569*	*36,145*	*31,421*
Key Company Metrics						
Sales growth (%)	7.6	1.8	8.6	15.2	6.9	5.5
DB EPS growth (%)	27.7	10.7	8.8	11.8	7.7	10.3
EBITDA Margin (%)	39.3	39.0	39.8	38.9	39.0	39.2
EBIT Margin (%)	32.3	32.1	32.9	32.9	33.2	33.6
Payout ratio (%)	45.5	48.7	30.6	60.4	63.6	68.6
ROE (%)	16.1	18.2	31.5	16.4	16.7	17.1
Capex/sales (%)	8.6	8.2	9.0	8.0	7.5	7.0
Capex/depreciation (x)	1.2	1.2	1.3	1.3	1.3	1.3
Net debt/equity (%)	84.9	82.0	71.0	67.2	55.1	44.2
Net interest cover (x)	4.9	5.4	5.7	6.5	7.6	9.7

Source: Company data, Deutsche Bank estimates

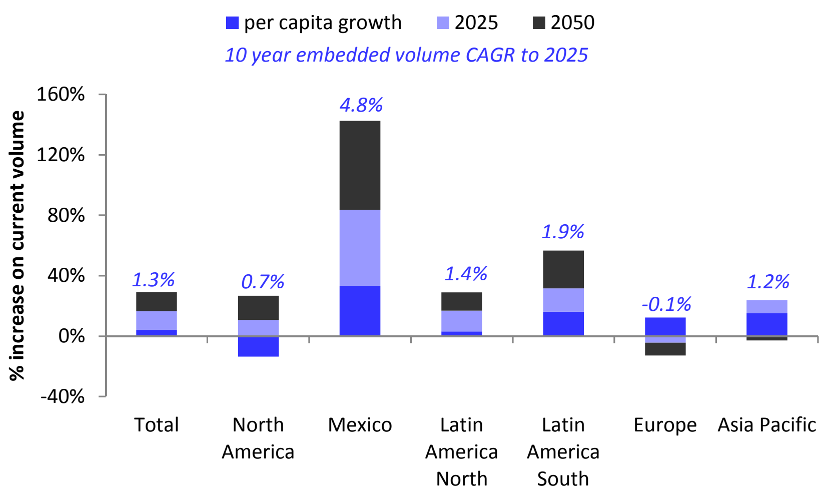
ABInBev with mixed opportunities

Limited embedded potential

ABInBev sits in the biggest market profit pools, but we see limited upside volumetrically on its current base in those areas.

ABInBev has a 10 year embedded volume CAGR of 1.3%

Figure 46: ABInBev embedded growth profile to 2050



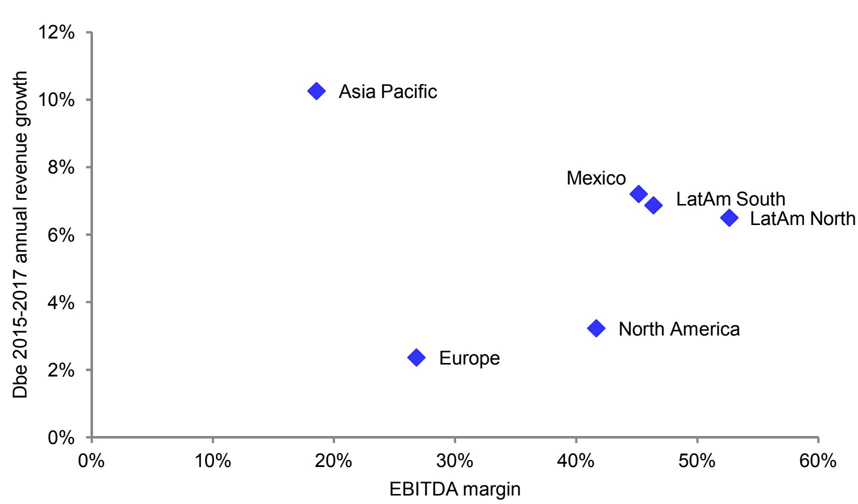
10 Year CAGR assumes steady state per capita consumption growth to potential on 2014DBe volume.
35 year CAGR assumes full per capita consumption potential on 2014DBe volume.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

ABInBev has 30% upside between now and 2050 on embedded volume, with most of the volume driven by population dynamics in Mexico. Along with Carlsberg, it has the lowest CAGR growth rate of the brewers.

A mixed medium term growth profile

As in Figure 47, we see a mixed growth profile, with Mexican and Asian growth offsetting the lower rates of growth in high margin Latin America.

Figure 47: 2015-2017DBe revenue growth rates on 2014DBe base year

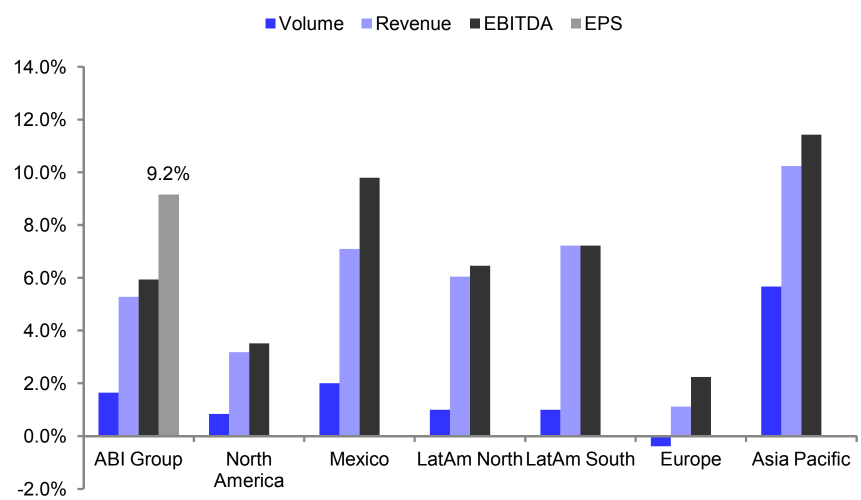


Source: Deutsche Bank

ABInBev should continue to be able to deliver EBIT and EPS growth ahead of the staples sector. Our model sees annual EPS growth of 9% in the next 3 years.

We believe ABInBev will deliver 9% eps growth in the medium term

Figure 48: 2015-2017DBe growth rates on 2014DBe base



Source: Deutsche Bank estimates

Mexico will drive more value

In our view, ABInBev will continue to deliver and do what it says. Mexico will deliver its synergies, though we do not believe that it will exceed its targets. The operational costs of Gruppo Modelo are already some of the lowest amongst brewers and it is unlikely there will be a Zoo or amusement park that can be sold.

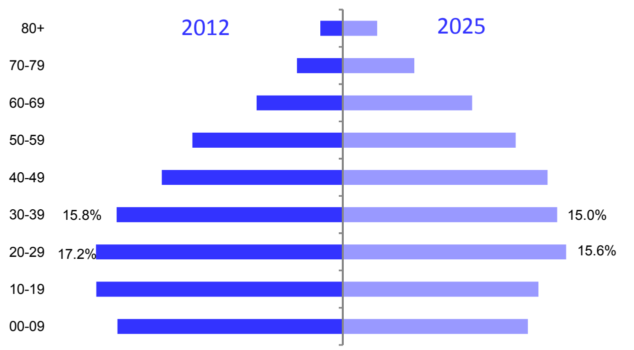
Mexico has top line opportunity in the Lights category

We do see greater potential upside in Mexico, not on costs, but rather on the revenue line. Bud Light is the largest imported premium brand in Mexico with tremendous latent brand equity having been established over two decades. The strong brand equity is primarily in the North where is can more effectively compete against Heineken. Higher prices in that area as well as bigger distribution drop sizes will allow ABInBev to accelerate its top line at a lower cost. Additionally, Bud Light is currently distributed in non-returnable formats missing out on 80% of the market; hence moving to the returnable format will further enhance profit potential.

Brazil has bigger issues than football

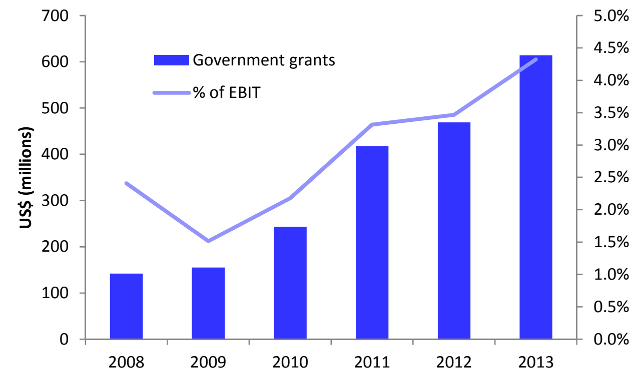
Brazil remains a strong cash cow. The self-imposed 70% market share limit helps. It prevents the company from having to go after the last 30% which often has higher costs associated to it, due to the cost of serving more rural markets or the cost of investment that is required to build premium brands. Another factor helping the profitability helping the operation are the various tax incentives for capital expenditures. As a group, it applies mostly to production facilities and trade capital investments in Brazil and China boosting group by EBIT 4% and LatAm North margins by around 350bps.

Figure 49: Brazil 2012 and 2025 population profile



Source: Deutsche Bank, World Bank

Figure 50: ABInBev government grants



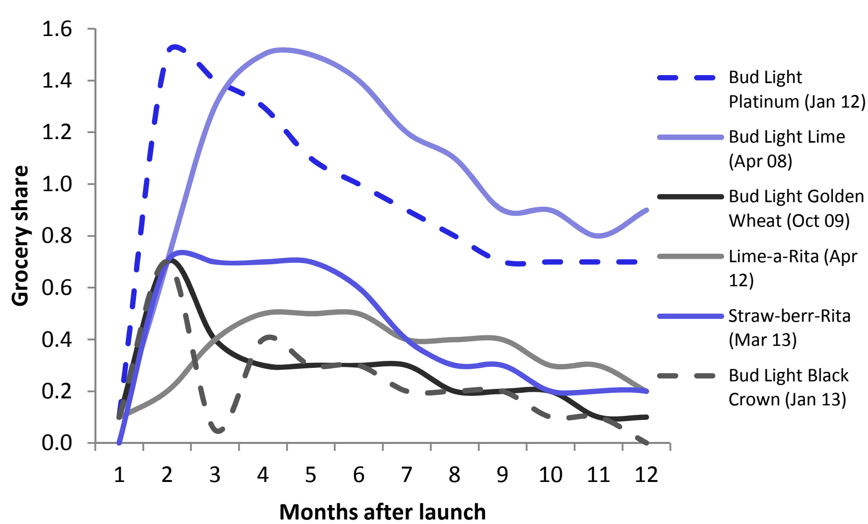
Source: Deutsche Bank estimates, company reports

More concerning is the embedded growth profile for ABInBev. Brazil will begin to see real population declines in the key age cohorts. Population will shrink as the profile ages. Between now and 2025, we also see more than a 150bps decline in the key 20 to 29 years old age group. Per capita consumption for 15 and over sits at 90 liters, at the high end globally. Regional variation does exist, but this will require greater investment to attain. With negative population dynamics, we see limited upside.

Can they build beer in the USA?

ABInBev are not known as category developers and have a mixed track record of developing brands. This is perhaps a necessary quality needed for the most globally dynamic beer market where the category is in danger of losing relevance amongst millennial. The success stories in premium have been mostly built by previous management- Stella's rise attributable to the patient outlet development run by the old Interbrew.

Figure 51: ABInBev innovation launches in the USA



Source: Deutsche Bank estimates, AC Nielsen, company reports. Grocery share based on 4 week periods.

We believe that many of the innovations in the USA hasten consumers out of the beer category

Liquid innovation in the USA has been mostly focused on making beer not taste like beer- Cranberry, Apple, and hard liquor cocktail profiles do not encourage consumers to stay in the category- it rather hastens their exit. As

Figure 51 indicates, through the push of distribution each of their innovation hit significant Nielsen share within three months. After initial trial, most of their launches had a repeat purchase rate of 30% or less leading to a slow decline the remainder of the year and creating a "hard comp" for the next year.

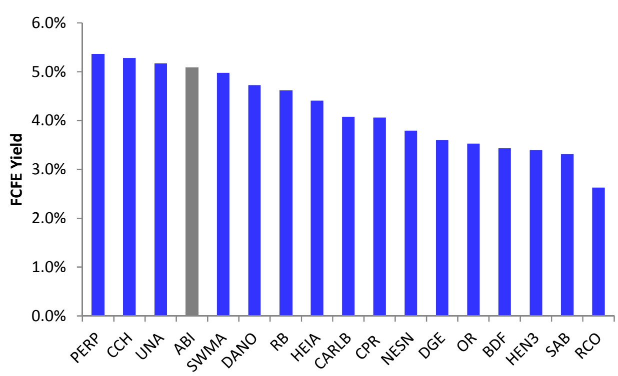
They have also been costly innovations and difficult to sustain in a Zero Based Budgeting environment. Hard comparatives from the previous year should not be difficult if the innovations continue to grow in year two and beyond as they should. As result, we seen an environment where margins wills be under pressure as sustained investment is needed and pricing opportunity more muted in the near future.

Value investors and cash deliveries

ABInBev is a committed value investor and we view any large scale M&A in beer at the current multiples as highly unlikely. ABInBev does dream big, and its dreams are most likely to be outside the limited confines of the beer category.

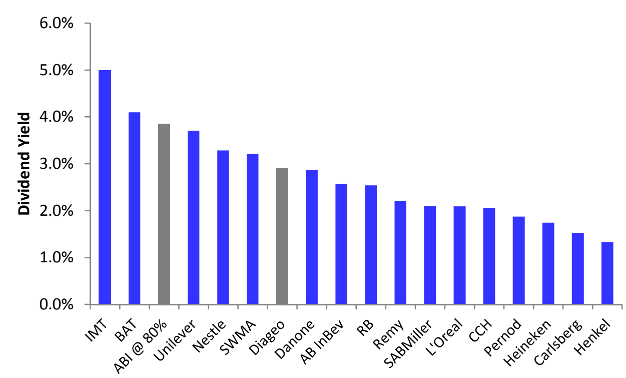
ABInBev will continue its record of a strong conversion to free cash flow with one of the strongest profiles in staples as per Figure 52. When looking at free cash flow yield to valuation, ABInBev remains one of the most attractive cash generators.

Figure 52: Free cash flow on equity yield



FCFE = EBITDA - Capex - Taxes - LIFO Expense - Working Capital Chg - Interest
Source: Deutsche Bank estimates, Datastream, company reports

Figure 53: Dividend yield in consumer staples



Note: IMT and BAT 2014 Bloomberg consensus figures. All others 2014 DB estimates
Source: Deutsche Bank estimates, Datastream, company reports, Bloomberg

The company has stated their desire to return cash to shareholders in the form of dividend along the lines of the top consumer staples companies. Though it is unlikely the company will return to the 80% payout ratio seen in 2007, it would result in a 3.8% dividend yield which equates ABInBev to the likes of Unilever and Nestle and approaches the tobacco companies. Considering the returns the likes of BAT have delivered over the past decade, a similar investment profile may prove attractive.

Valuation

Price Target of €85

We base our €85 price target on a discounted cash flow model

For all our brewers and spirits companies, we have assumed a risk free rate of 4.0% and an equity premium of 4.3%. For ABInBev, the resultant WACC is 7.97% which incorporates a levered beta of 1.20, and net debt / EV ratio of 20%. Our medium term cash flow models growth of 5% a year, and a post year-10 terminal growth rate of 1.5%. We view our terminal growth rate of 1.5% is slightly above the leverage the company could attain beyond its embedded volume growth rate.

Figure 54: ABInBev target price sensitivities

TP per Share (€)							WACC
Terminal Growth Rate	7.22%	7.47%	7.72%	7.97%	8.22%	8.47%	8.72%
2.25%	109.0	103.3	98.2	93.5	89.2	85.4	81.8
2.00%	104.5	99.3	94.5	90.1	86.2	82.6	79.2
1.75%	100.4	95.5	91.1	87.0	83.3	79.9	76.8
1.50%	96.6	92.1	87.9	**84.1**	80.7	77.5	74.5
1.25%	93.1	88.9	85.0	81.4	78.2	75.1	72.3
1.00%	89.9	85.9	82.2	78.9	75.8	73.0	70.3
0.75%	86.8	83.1	79.7	76.5	73.6	70.9	68.4

Source: Deutsche Bank

Risks to our valuation

Our upside/downside risks include the level of concentration in a few markets, level of cost savings achieved in Mexico, currency instability, government taxation and incentives, consumer sentiment in Brazil and the USA and M&A.

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Rating
Hold

Europe
United Kingdom

Consumer Staples
Beverage

Company
SABMiller

Reuters	Bloomberg
SAB.L	SAB LN

Price at 28 Jul 2014 (GBP)	3,330.00
Price Target (GBP)	3,500.00
52-week range (GBP)	3,460.00 - 2,661.00

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Maintain our hold

Maintain our HOLD and update our target price to £35
We have not changed our long term favorable view of SABMiller which we believe is fairly priced by the market. We have updated out target price to £35.

The right exposure to growth
SABMiller remains the best positioned with a profound level of embedded growth. The recent amalgamation of the South African and Africa divisions should bring further top and cost line benefits.

Short term headwinds to continue
The current management and business model transition will bring certain disruptions delivering short term headwinds. The European division will continue to be a concern.

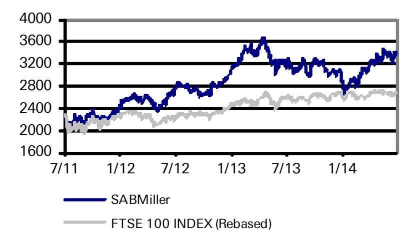
Valuation model update
We have updated our valuation model and rolled forward our DCF resulting in a target price adjustment from £30 to £35. Our long term growth parameters remain intact, but we have taken a more nuanced view of F15 performance and are below consensus. We base our price target on a DCF-model, the core assumptions behind which are a WACC of 7.89% (incorporating a levered beta of 1.18, net debt / EV ratio of 20%, risk-free rate of 4.00% and 4.30% cost of debt), medium-term cash flow growth of 5% a year, and a post year-10 terminal growth rate of 2.0% . We view our terminal growth rate of 2% as conservative number below the company's embedded volume growth rate of 2.5%. Our upside/downside risks include government taxation, consumer sentiment in Latin America and Africa, developed markets competitive pressures and M&A, real and perceived.

Key changes

Target Price	3,000.00 to 3,500.00	↑	16.7%

Source: Deutsche Bank

Price/price relative



Performance (%)	1m	3m	12m
Absolute	-1.1	4.5	6.4
FTSE 100 INDEX	0.5	1.4	3.6

Source: Deutsche Bank

Forecasts And Ratios

Year End Mar 31	2013A	2014A	2015E	2016E	2017E
EBITDA (USDm)	5,709	5,720	6,149	6,527	6,989
EBITA (USDm)	4,786	4,800	5,202	5,551	5,984
PBT DB (USDm)	4,057	4,035	4,574	5,093	5,598
DB EPS (USD)	2.34	2.39	2.57	2.78	3.02
OLD DB EPS (USD)	2.34	2.39	2.70	3.02	–
% Change	0.0%	0.0%	-4.9%	-7.9%	–
DB EPS growth (%)	10.3	2.0	7.4	8.3	8.7
P/E (DB EPS) (x)	18.8	20.9	22.0	20.3	18.7
EV/EBITA (x)	14.3	15.5	15.5	14.2	12.9
DPS (USD)	1.01	1.05	1.13	1.22	1.33
Yield (%)	2.3	2.1	2.0	2.2	2.4

Source: Deutsche Bank estimates, company data

Model updated:24 July 2014

Running the numbers

Europe

United Kingdom

Beverage

SABMiller

Reuters: SAB.L Bloomberg: SAB LN

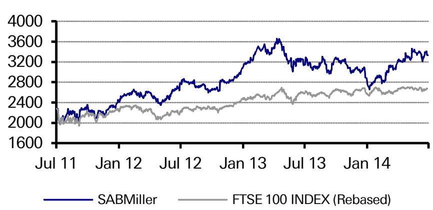
Hold

Price (28 Jul 14)	GBP 3,330.00
Target Price	GBP 3,500.00
52 Week range	GBP 2,661.00 - 3,460.00
Market Cap (m)	GBPm 53,135
	USDm 90,197

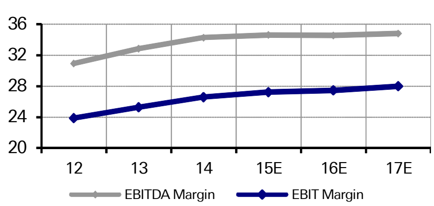
Company Profile

SABMiller is a global brewer with a strong bias towards emerging markets, having expanded rapidly over the last two decades from its South African roots into the US, Latin America, Africa, Europe and Asia. In addition to its beer business, the group is a large Coca-Cola bottlers, with significant operations in Africa and, through its stake in Efes, exposure to Coca-Cola Icecek. SAB also owns some legacy hotel and gaming assets in South Africa. Key international brands include Peroni, Pilsner Urquell, Miller Genuine Draft and Grolsch.

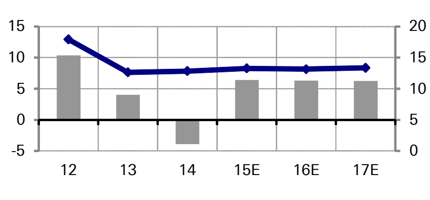
Price Performance



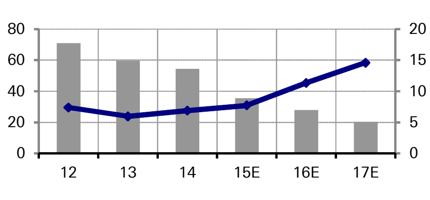
Margin Trends



Growth & Profitability



Solvency



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Fiscal year end 31-Mar	2012	2013	2014	2015E	2016E	2017E
Financial Summary						
DB EPS (USD)	2.13	2.34	2.39	2.57	2.78	3.02
Reported EPS (USD)	2.64	2.02	2.09	2.30	2.51	2.75
DPS (USD)	0.91	1.01	1.05	1.13	1.22	1.33
BVPS (USD)	15.8	16.6	16.5	18.6	20.1	21.7
Weighted average shares (m)	1,583	1,590	1,597	1,596	1,598	1,600
Average market cap (USDm)	57,608	70,189	79,821	90,197	90,197	90,197
Enterprise value (USDm)	60,940	68,339	74,328	80,770	79,075	77,146
Valuation Metrics						
P/E (DB) (x)	17.1	18.8	20.9	22.0	20.3	18.7
P/E (Reported) (x)	13.8	21.9	23.9	24.6	22.5	20.5
P/BV (x)	2.54	3.18	3.03	3.03	2.81	2.60
FCF Yield (%)	5.8	5.0	3.7	3.9	4.2	4.6
Dividend Yield (%)	2.5	2.3	2.1	2.0	2.2	2.4
EV/Sales (x)	3.6	3.9	4.4	4.5	4.2	3.8
EV/EBITDA (x)	11.8	12.0	13.0	13.1	12.1	11.0
EV/EBIT (x)	15.3	15.6	16.7	16.7	15.2	13.7
Income Statement (USDm)						
Sales revenue	16,713	17,385	16,704	17,778	18,901	20,088
Gross profit	10,088	10,657	10,424	11,258	11,991	12,798
EBITDA	5,169	5,709	5,720	6,149	6,527	6,989
Depreciation	909	867	854	880	906	933
Amortisation	273	450	427	429	431	433
EBIT	3,987	4,392	4,439	4,841	5,190	5,623
Net interest income(expense)	-540	-738	-645	-628	-459	-386
Associates/affiliates	1,152	1,213	1,226	1,203	1,282	1,363
Exceptionals/extraordinaries	1,004	-188	-197	0	0	0
Other pre-tax income/(expense)	0	0	0	0	0	0
Profit before tax	4,451	3,466	3,597	4,213	4,732	5,237
Income tax expense	1,126	1,192	1,173	1,405	1,632	1,796
Minorities	256	237	269	293	315	341
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	4,221	3,250	3,381	3,718	4,067	4,463
DB adjustments (including dilution)	-821	522	484	436	436	436
DB Net profit	3,400	3,772	3,865	4,154	4,503	4,899
Cash Flow (USDm)						
Cash flow from operations	4,844	4,969	4,364	5,172	5,555	6,000
Net Capex	-1,523	-1,445	-1,415	-1,688	-1,793	-1,847
Free cash flow	3,321	3,524	2,949	3,484	3,762	4,153
Equity raised/(bought back)	124	85	24	0	0	0
Dividends paid	-1,324	-1,517	-1,640	-435	-1,864	-2,020
Net inc/(dec) in borrowings	8,861	-460	-1,244	-3,935	-1,695	-1,929
Other investing/financing cash flows	-11,189	-279	-180	886	-203	-203
Net cash flow	-207	1,353	-91	0	0	0
Change in working capital	*304*	*-39*	*168*	*-8*	*-18*	*-16*
Balance Sheet (USDm)						
Cash and other liquid assets	745	2,171	2,081	2,081	2,081	2,081
Tangible fixed assets	9,299	9,059	9,065	9,569	10,141	10,729
Goodwill/intangible assets	30,029	29,497	27,029	26,688	26,350	26,014
Associates/investments	10,600	11,119	11,531	10,825	11,221	11,628
Other assets	4,978	4,448	4,045	4,232	4,406	4,612
Total assets	55,651	56,294	53,751	53,396	54,198	55,063
Interest bearing debt	19,226	18,548	17,047	13,112	11,418	9,488
Other liabilities	10,412	10,286	9,222	9,249	9,253	9,292
Total liabilities	29,638	28,834	26,269	22,361	20,671	18,780
Shareholders' equity	25,073	26,372	26,319	29,754	32,121	34,741
Minorities	940	1,088	1,163	1,280	1,406	1,542
Total shareholders' equity	26,013	27,460	27,482	31,034	33,527	36,283
Net debt	*18,481*	*16,377*	*14,966*	*11,031*	*9,337*	*7,407*
Key Company Metrics						
Sales growth (%)	10.4	4.0	-3.9	6.4	6.3	6.3
DB EPS growth (%)	11.7	10.3	2.0	7.4	8.3	8.7
EBITDA Margin (%)	30.9	32.8	34.2	34.6	34.5	34.8
EBIT Margin (%)	23.9	25.3	26.6	27.2	27.5	28.0
Payout ratio (%)	34.1	49.4	49.6	48.5	47.9	47.7
ROE (%)	17.9	12.6	12.8	13.3	13.1	13.3
Capex/sales (%)	9.8	8.5	8.9	9.5	9.5	9.2
Capex/depreciation (x)	1.7	1.6	1.6	1.8	1.8	1.8
Net debt/equity (%)	71.0	59.6	54.5	35.5	27.8	20.4
Net interest cover (x)	7.4	6.0	6.9	7.7	11.3	14.6

Source: Company data, Deutsche Bank estimates

Model updated:24 July 2014

Running the numbers

Europe

United Kingdom

Beverage

SABMiller

Reuters: SABJ.J Bloomberg: SAB SJ

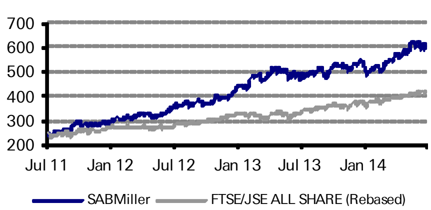
Hold

Price (28 Jul 14)	ZAR 597.90
Target Price	ZAR 630.00
52 Week range	ZAR 471.26 - 627.36
Market Cap (m)	ZARm 954,039
	USDm 90,930

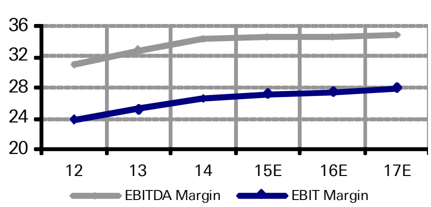
Company Profile

SABMiller is a global brewer with a strong bias towards emerging markets, having expanded rapidly over the last two decades from its South African roots into the US, Latin America, Africa, Europe and Asia. In addition to its beer business, the group is a large Coca-Cola bottlers, with significant operations in Africa and, through its stake in Efes, exposure to Coca-Cola Icecek. SAB also owns some legacy hotel and gaming assets in South Africa. Key international brands include Peroni, Pilsner Urquell, Miller Genuine Draft and Grolsch.

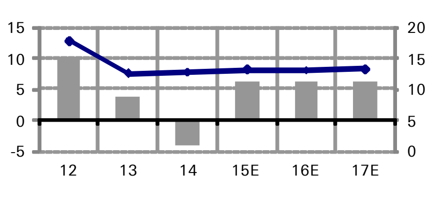
Price Performance



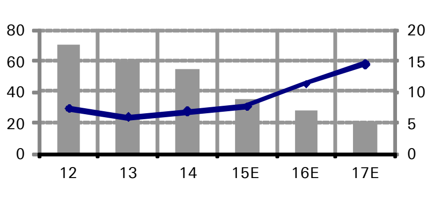
Margin Trends



Growth & Profitability



Solvency



Harold Thompson
+44 20 754-51886 harold.thompson@db.com

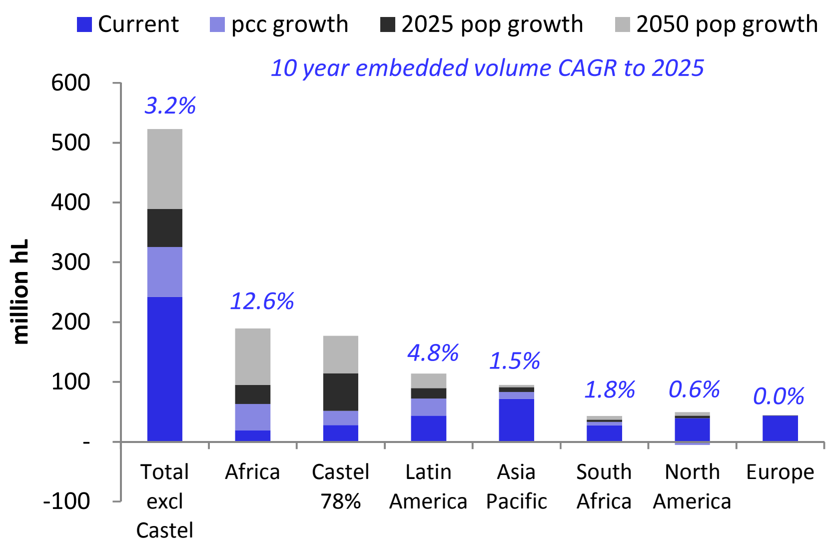
Fiscal year end 31-Mar	2012	2013	2014	2015E	2016E	2017E
Financial Summary						
DB EPS (USD)	2.13	2.34	2.39	2.57	2.78	3.02
Reported EPS (USD)	2.64	2.02	2.09	2.30	2.51	2.75
DPS (USD)	0.91	1.01	1.05	1.13	1.22	1.33
BVPS (USD)	15.8	16.6	16.5	18.6	20.1	21.7
Weighted average shares (m)	1,583	1,590	1,597	1,596	1,598	1,600
Average market cap (USDm)	57,461	70,153	79,545	90,930	90,930	90,930
Enterprise value (USDm)	60,793	68,303	74,052	81,503	79,808	77,879
Valuation Metrics						
P/E (DB) (x)	17.1	18.8	20.8	22.2	20.5	18.9
P/E (Reported) (x)	13.8	21.8	23.8	24.8	22.7	20.7
P/BV (x)	2.53	3.19	3.03	3.06	2.84	2.63
FCF Yield (%)	5.8	5.0	3.7	3.8	4.1	4.6
Dividend Yield (%)	2.5	2.3	2.1	2.0	2.1	2.3
EV/Sales (x)	3.6	3.9	4.4	4.6	4.2	3.9
EV/EBITDA (x)	11.8	12.0	12.9	13.3	12.2	11.1
EV/EBIT (x)	15.2	15.6	16.7	16.8	15.4	13.9
Income Statement (USDm)						
Sales revenue	16,713	17,385	16,704	17,778	18,901	20,088
Gross profit	10,088	10,657	10,424	11,258	11,991	12,798
EBITDA	5,169	5,709	5,720	6,149	6,527	6,989
Depreciation	909	867	854	880	906	933
Amortisation	273	450	427	429	431	433
EBIT	3,987	4,392	4,439	4,841	5,190	5,623
Net interest income(expense)	-540	-738	-645	-628	-459	-386
Associates/affiliates	1,152	1,213	1,226	1,203	1,282	1,363
Exceptionals/extraordinaries	1,004	-188	-197	0	0	0
Other pre-tax income/(expense)	0	0	0	0	0	0
Profit before tax	4,451	3,466	3,597	4,213	4,732	5,237
Income tax expense	1,126	1,192	1,173	1,405	1,632	1,796
Minorities	256	237	269	293	315	341
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	4,221	3,250	3,381	3,718	4,067	4,463
DB adjustments (including dilution)	-821	522	484	436	436	436
DB Net profit	3,400	3,772	3,865	4,154	4,503	4,899
Cash Flow (USDm)						
Cash flow from operations	4,844	4,969	4,364	5,172	5,555	6,000
Net Capex	-1,523	-1,445	-1,415	-1,688	-1,793	-1,847
Free cash flow	3,321	3,524	2,949	3,484	3,762	4,153
Equity raised/(bought back)	124	85	24	0	0	0
Dividends paid	-1,324	-1,517	-1,640	-435	-1,864	-2,020
Net inc/(dec) in borrowings	8,861	-460	-1,244	-3,935	-1,695	-1,929
Other investing/financing cash flows	-11,189	-279	-180	886	-203	-203
Net cash flow	-207	1,353	-91	0	0	0
Change in working capital	*304*	*-39*	*168*	*-8*	*-18*	*-16*
Balance Sheet (USDm)						
Cash and other liquid assets	745	2,171	2,081	2,081	2,081	2,081
Tangible fixed assets	9,299	9,059	9,065	9,569	10,141	10,729
Goodwill/intangible assets	30,029	29,497	27,029	26,688	26,350	26,014
Associates/investments	10,600	11,119	11,531	10,825	11,221	11,628
Other assets	4,978	4,448	4,045	4,232	4,406	4,612
Total assets	55,651	56,294	53,751	53,396	54,198	55,063
Interest bearing debt	19,226	18,548	17,047	13,112	11,418	9,488
Other liabilities	10,412	10,286	9,222	9,249	9,253	9,292
Total liabilities	29,638	28,834	26,269	22,361	20,671	18,780
Shareholders' equity	25,073	26,372	26,319	29,754	32,121	34,741
Minorities	940	1,088	1,163	1,280	1,406	1,542
Total shareholders' equity	26,013	27,460	27,482	31,034	33,527	36,283
Net debt	*18,481*	*16,377*	*14,966*	*11,031*	*9,337*	*7,407*
Key Company Metrics						
Sales growth (%)	10.4	4.0	-3.9	6.4	6.3	6.3
DB EPS growth (%)	11.7	10.3	2.0	7.4	8.3	8.7
EBITDA Margin (%)	30.9	32.8	34.2	34.6	34.5	34.8
EBIT Margin (%)	23.9	25.3	26.6	27.2	27.5	28.0
Payout ratio (%)	34.1	49.4	49.6	48.5	47.9	47.7
ROE (%)	17.9	12.6	12.8	13.3	13.1	13.3
Capex/sales (%)	9.8	8.5	8.9	9.5	9.5	9.2
Capex/depreciation (x)	1.7	1.6	1.6	1.8	1.8	1.8
Net debt/equity (%)	71.0	59.6	54.5	35.5	27.8	20.4
Net interest cover (x)	7.4	6.0	6.9	7.7	11.3	14.6

Source: Company data, Deutsche Bank estimates

Embedded growth with the option to add more

SABMiller embedded growth rate of 3.2% in volume over the next ten years. It has the potential to add 145 million hl by 2025 and 280 million hl by 2050. Should SABMiller find an opportunity to consolidate Castel in its numbers, this would add another 180 million hl of embedded volume by 2050 led by markets Ethiopia, DRC, and Madagascar.

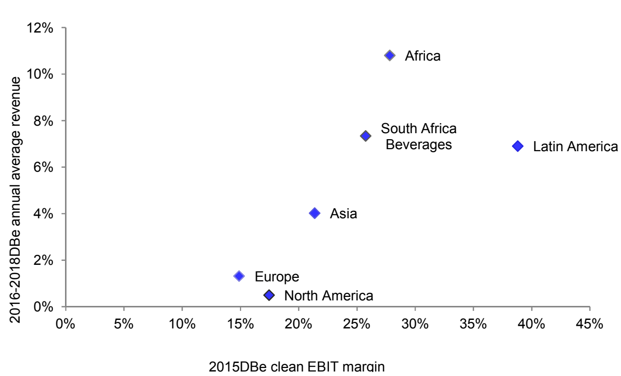
Figure 55: SABMiller embedded growth profile to 2050



10 Year CAGR assumes steady state per capita consumption growth to potential on 2014DBe volume.
35 year CAGR assumes full per capita consumption potential on 2014DBe volume.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

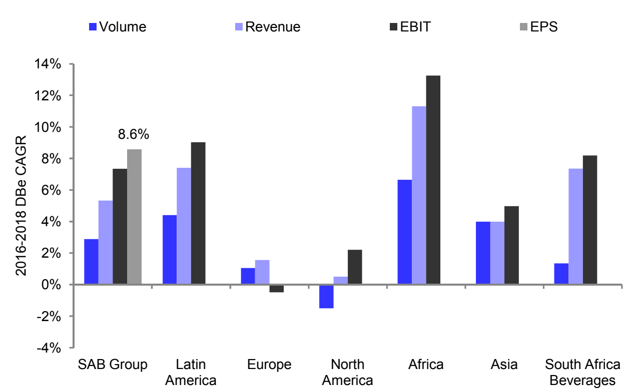
SABMiller should deliver EBIT and EPS growth ahead of the staples sector. Our model sees annual EPS growth of 8% in the next 3 years.

Figure 56: 2016-2018DBe revenue growth on 2015DBe



On SABMiller financial year end of March 31
Source: Deutsche Bank estimates

Figure 57: 2016-2018DBe growth on 2015DBe



On SABMiller financial year end of March 31
Source: Deutsche Bank

Valuation

We base our price target on a DCF-model, the core assumptions behind which are a WACC of 7.89% (incorporating a levered beta of 1.18, net debt / EV ratio of 20%, risk-free rate of 4.00% and 4.30% cost of debt), medium-term cash flow growth of 5% a year, and a post year-10 terminal growth rate of 2.0% . We view our terminal growth rate of 2% as conservative number below the company's embedded volume growth rate of 2.5%.

Figure 58: SABMiller target price sensitivities

TP per Share (£pence)							WACC
Terminal Growth Rate	7.14%	7.39%	7.64%	7.89%	8.14%	8.39%	8.64%
2.75%	4,606	4,345	4,113	3,905	3,717	3,547	3,394
2.50%	4,400	4,162	3,948	3,756	3,583	3,426	3,282
2.25%	4,212	3,994	3,798	3,620	3,459	3,312	3,178
2.00%	4,042	3,841	3,659	**3,494**	3,344	3,207	3,081
1.75%	3,886	3,700	3,531	3,377	3,237	3,108	2,990
1.50%	3,742	3,570	3,412	3,268	3,137	3,016	2,904
1.25%	3,610	3,449	3,302	3,167	3,043	2,929	2,823

Source: Deutsche Bank

Our upside/downside risks include government taxation, consumer sentiment in Latin America and Africa, developed markets competitive pressures and M&A, real and perceived.

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Affordability drives growth

Beer is a luxury for many consumers. The alternatives drunk by most EM consumers are priced below beer and often illicit and unhygienic products. This market is particularly sizable in Africa, and to a lesser extent in Asia and Latin America, giving brewers an addressable illicit alcohol market from which to gain share. The key barrier to gaining this share is affordability where two hours of work to afford a beer is the inflection point for beer market growth.

Beer is a luxury product

Beer is first luxury product most consumers can afford

To the vast majority of the world's consumers, beer is a luxury product and an entry point to commercially branded goods. Unlike most staples, beer serves an already established need provided by alcohol and offers a safer and more hygienic choice to illicit alcohol. The barrier for consumers to enter the category is a factor of price and income.

Beer is expensive relative to alternatives

Beer is expensive, especially compared to alternatives in the illicit alcohol area. Those alcohol types that do tend to be commercial priced below beer often do not pay the full complement of taxes or follow regulations to the letter. As indicated in Figure 60, the pricing ladder in alcohol is logarithmic. Unfortunately, for most consumers, their income growth is not.

Figure 60: Emerging market pricing ladder (mainstream beer =100)

Price index to absolute alcohol equivalent		Tanzania example
5000	Premium scotch	Johnny Walker Blue
2000	Standard scotch	Johnny Walker Black
500	Entry level international scotch	Johnny Walker Red
300	Local entry level international spirit	Jameson's
250	Imported international premium	Heineken
160	Locally brewed international premium	Peroni
140	Taxed local spirits	Konyagi
130	Regional premium beer	Castle Lager
120	Local premium beer	Ndovu/Tusker
110	Mainstream beer in premium pack	Kilimanjaro one way
100	Mainstream beer	Safari Lager
80	Economy barley beer	Kibo lager
70	Local adjunct clear beer	Eagle Extra
60	Non-tax paid local spirits	IMFL sachets
50	Commercial sorghum beer	Chibuku
30	illicit sorghum beer	Busaa
20	illicit fruit wine	Urwaga
10	illicit distilled alcohol	Chang'aa

Source: Deutsche Bank estimates, company report, market visits

Figure 59: Sorghum beer Busaa

Source: Deutsche Bank, personal collection

The movement between alcohol categories requires a multiple of one's income. The gap between illicit spirits and mainstream beer has a multiple of two to three times. The gap between beer and international spirits has an additional factor of 5 times and up.

The addressable alcohol market for the taking

A world of non-commercial alcohol

Almost every market has a form of non-commercial alcohol produced locally. Often, these are rooted in local traditions and norms and very much priced below beer.

Local, often illicit alcohol tends to be priced significantly below beer

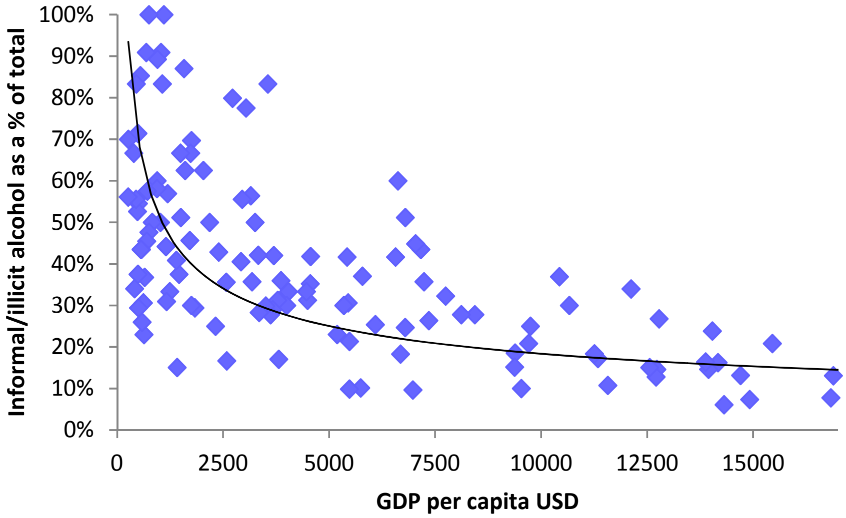
North America has had Rye Whiskey and Gin historically in the Appalachians; Latin America is known for its distilled spirits made from sugarcane such Aquardiente or Cachacha. Russia is known for its Samogon Vodka. Eastern and Southern Europe have their various fruit brandies such as Palinkas; India has palm wine in the form of Arrack and their own form of neutral spirit from molasses collectively known as Indian Made Foreign Liquor; and Africa has a multitude of concoction from fruit wines to local millet as in Figure 61.

Figure 61: Millet beer in Uganda

Source: Deutsche Bank, personal collection.

The size of the illicit alcohol market is a function of national income. In Figure 62, we reviewed 156 markets and found illicit unrecorded alcohol most prevalent in countries with a low GDP per capita. The outliers with high illicit alcohol compared to their relatively high income such as Iraq, Turkmenistan and Botswana tend to have restrictions on commercial alcohol products- perhaps an unintended consequence of public policy.

Figure 62: Unrecorded/illicit alcohol as a function of income



In poorer markets, the non-commercial alcohol market is 80% of alcohol consumption

Source: Deutsche Bank estimates, WHO, World Bank

Africa has the largest addressable market for alcohol

The biggest market for illicit and non-commercial alcohol is sub-Saharan Africa. The alcohol drunk in most of these markets are long alcohol drinks with alcohol content similar to lager beer, 3% to 6%. These drinks are consumed in social situations as seen in Figure 63.

Figure 63: Malwa beer consumption Uganda-

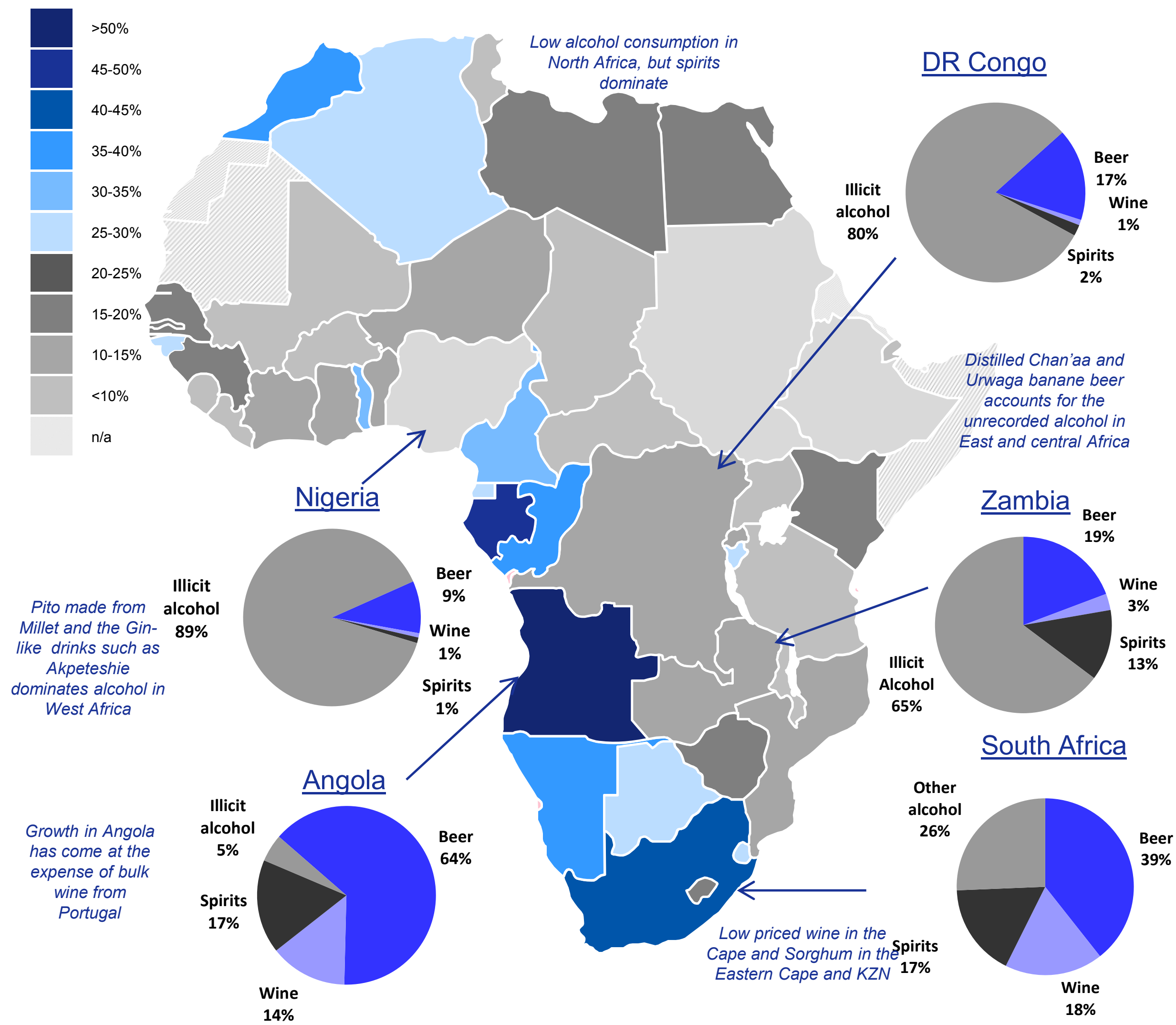
Non-commercial alcohol is drunk in the similar social occasions as with beer

Source: Deutsche Bank, personal collection courtesy of Richard Scott

In Uganda, this social ritual takes the form of sharing a pot of Malwa, a fermenting porridge beer made from Maize with long straws. This well entrenched social drinking culture is inherently favorable to the sociability occasion in beer.

As per Figure 64, the informal, non-commercial alcohol market in sub-Saharan Africa is four to five time larger in absolute alcohol terms to the formal market.

Figure 64: Beer share of total alcohol in Africa



Share of Absolute Alcohol assuming a beer equivalency of 5% alcohol by volume
Source: Deutsche Bank estimates, WHO, Euromonitor, Plato Logic

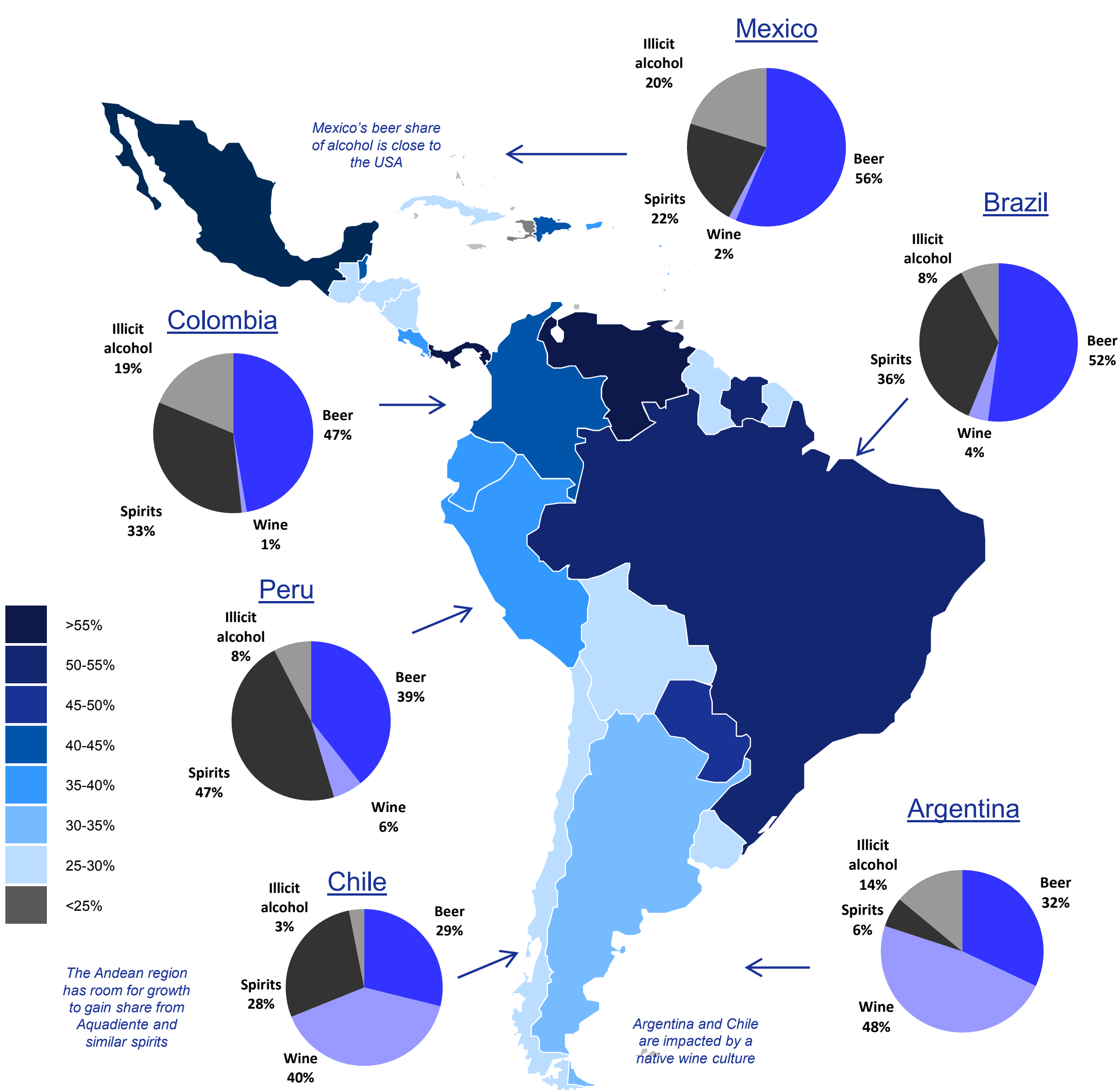
Illicit alcohol variety in Africa from Angola to Zambia

Until recently, Angola was mostly a wine market- concentrated wine was primarily imported from Portugal, diluted to 12% and often mixed with Coca Cola to hide the flavor and make a local concoction named Catemba. In the last decade, the shift to beer has made Angola one of the highest per capita markets in Africa. However, in most markets from Zambia to Nigeria, illicit alcohol is more than 60% of the segment giving beer a large addressable market.

Latin America's addressable market more formalized

Latin America's local alcohol market is more defined, with fewer illicit alcohol operators and a more formalized local spirits industry. Though the sector has professionalized with decent packaging and drink offerings, tax collection and hygienic standards remains an issue

Figure 65: Beer share of total alcohol in Latin America



Share of Absolute Alcohol assuming a beer equivalency of 5% alcohol by volume
Source: Deutsche Bank estimates, WHO, Euromonitor, Plato Logic

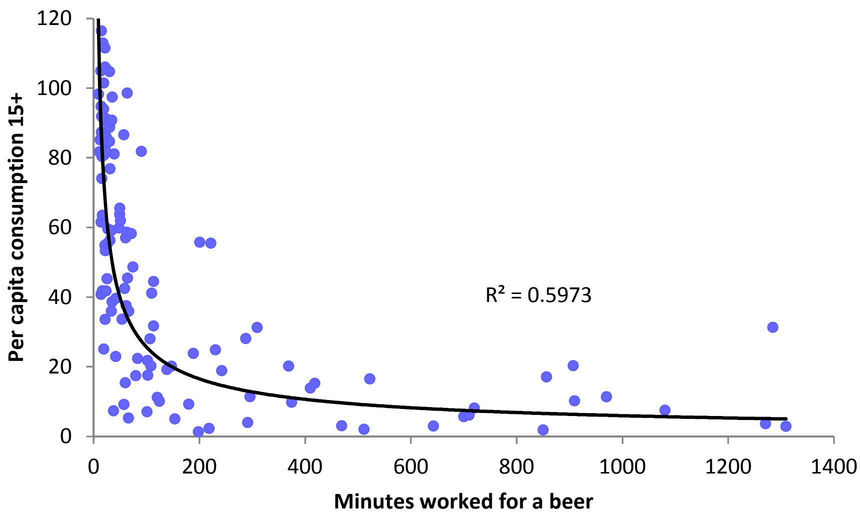
The opportunity is less moving consumers into the beer category, but rather expansion of more occasions where beer is relevant. The white spirits are preferred at both festivals and at-home consumption- an opportunity for brewers to expand their reach.

Satisfying reward after a hard day's work

How much do you have to work for your beer?

Blocking the entry from alcohol into the beer category is affordability. It is a question of how long one has to work for a beer. The amount of work required for a beer is strongly correlated to the per capita consumption in a market.

Figure 66: Minutes worked for a 50cl beer in all 134 markets

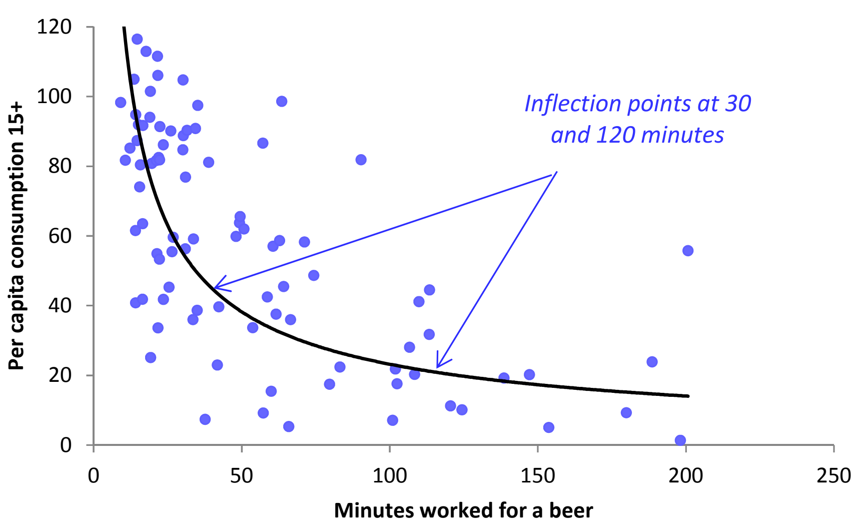


Adjusted to exclude Islamic nations. Based on national income and ILO standards for working hours.
Source: Deutsche Bank, World Bank, Euromonitor, Plato Logic, ILO

As per Figure 67, at around 120 minutes, beer consumption in market hits an inflection point. Consumption accelerates as more consumers within a market enter the category and more occasions become relevant to beer moments.

120 and 30 minutes of work for a beer are key inflection points for per capita beer growth

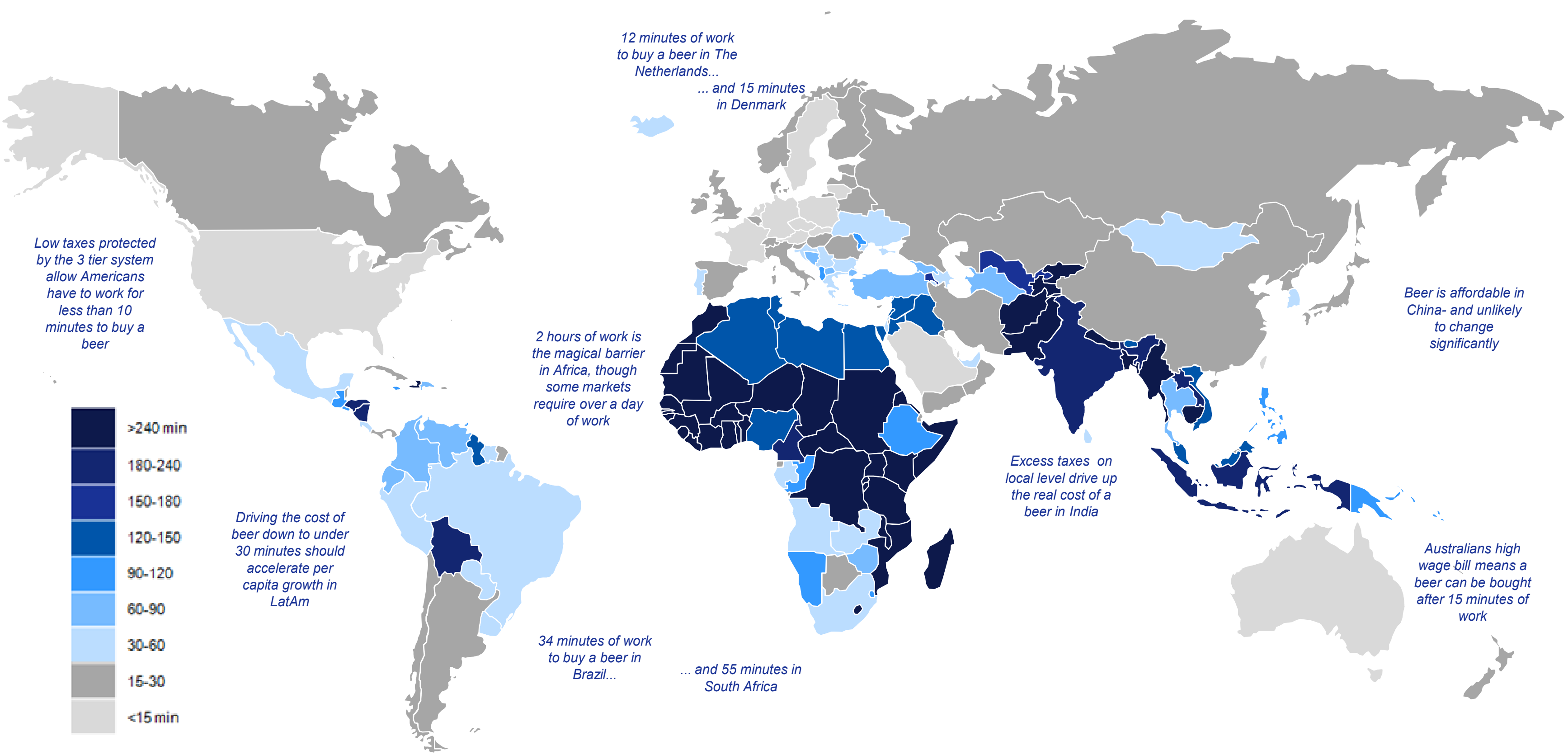
Figure 67: Minutes worked for a 50cl beer - inflection points



Adjusted to exclude Islamic nations. Based on national income and ILO standards for working hours.
Source: Deutsche Bank, World Bank, Euromonitor, Plato Logic, ILO

At 30 minutes, another inflection point of acceleration as habits are entrenched and wider portfolio choices become an option including premium beers.

Figure 68: Minutes worked to afford a 50cl beer



Based on national income and ILO standards for working hours.
Source: Deutsche Bank, World Bank, Euromonitor, Plato Logic, ILO

Africa and parts of Asia and Latin America require long hours…

The global overview in Figure 68 finds that in most African markets, consumers must work more than two hours up to full day or longer to afford a decent beer at the end of the day. Similarly in India and part of Asia, beer finds itself unaffordable. In the case of India, this is a function of income, but also absolute pricing due to excessive excise taxation and lack of scale. Latin America appears to be sitting in a space of acceleration- most market require between 30 and 90 minutes of work. This also bodes well for the development of the premium market which is currently underrepresented on the continent.

…and the US, Europe and Australia spare a few minutes for a beer

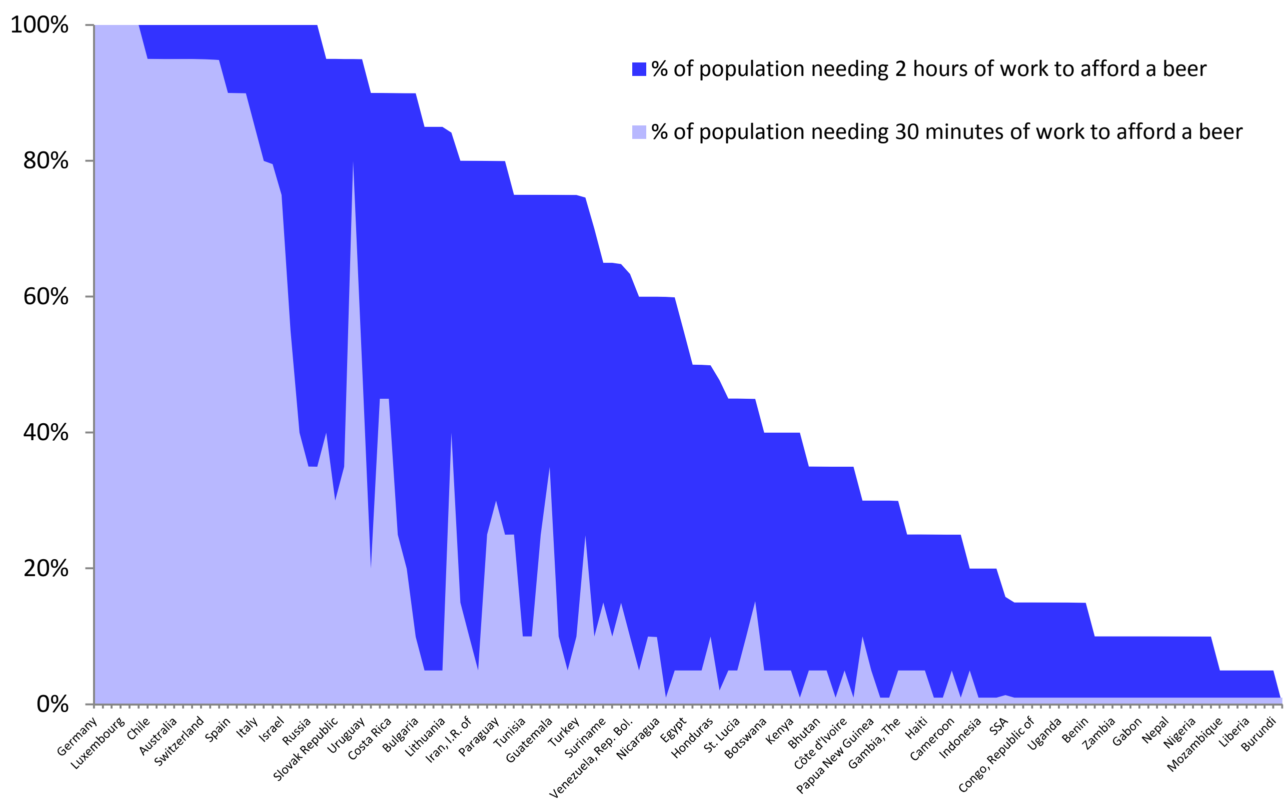
Expectedly, in developed markets, beer is seen affordable. This is both a function of income such as in Australia where high wages offset the relative high beer pricing, but also a feature of compressed competitive pricing seen in Eastern Europe and low excise regimes such as in the US. The favorable excise treatment for the US beer market means an American has to work less than 10 minutes for his beer. However, it is unlikely that the average Texan is willing to pay more just because someone in Burkina Faso has to do so.

Affordability is also relative- the price for a beer outside their own country is not necessarily relevant to a consumer

National variation drives portfolio development

Within markets variation exist on the affordability of a beer, with income disparity exacerbated in emerging markets with high GINI/income disparity.

Figure 69: Affordability disparity within a country for a 50cl beer in a 134 markets



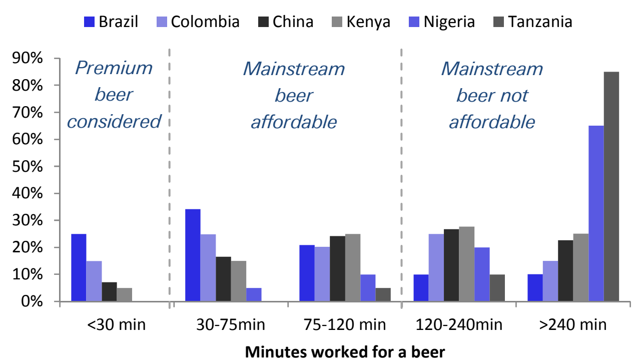
Based on national income and ILO standards for working hours .Income profiles in vintiles.
Source: Deutsche Bank estimates, World Bank, Euromonitor, Plato Logic, ILO, GIDD

In about a fifth of the markets in Figure 69, a beer is comfortably within reach of over 90% of the population for two hours of work or less. For the remaining 80% of the countries in the world, a significant slice of the population cannot. Additionally, within every market there is a slice of the population who can afford a beer for less than 30 minutes of work and for whom a premium beer is a serious option. In two thirds of the world, at least 5% of the population can be considered in that category- enough to make a premium brand viable.

A willingness to sacrifice pricing for volume

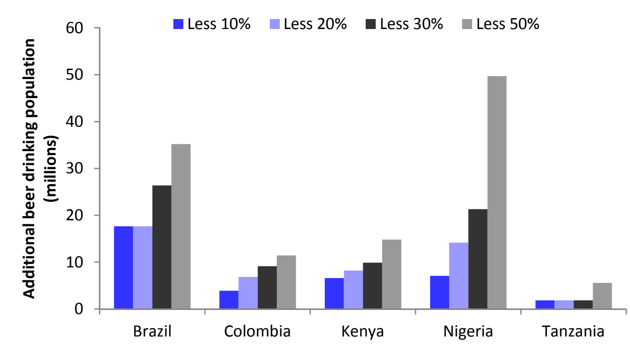
Figure 70 shows the proportion of the population in a selection of markets who can comfortably afford a beer for a certain amount of time worked. In the case of Nigeria, the two hour inflection point indicates 15% of the drinking population are in the category.

Figure 70: Proportion of population that can afford a beer



Based on national income and ILO standards for working hours .
Source: Deutsche Bank, World Bank, Euromonitor, ILO, GIDD

Figure 71: Additional consumers with price reductions



Based on national income, 2 hours of work to afford a beer and ILO standards for working hours .
Source: Deutsche Bank, World Bank, Euromonitor, ILO, GIDD

With a beer price reduction of 10% as in Figure 71, in the case of Nigeria, another 5% of consumers would be able to afford to enter the category –that equates to an additional 7 million consumers for Nigeria.

As discussed further on, pricing below inflation or finding alternative routes to deliver more accessible products enables more consumers to enter the beer category. It also requires the brewers to be ruthlessly efficient to ensure that leverage is captured and margin expands with the additional volume, despite the lack of dynamic pricing.

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Drivers & limits of growth

There simply being more people drives more growth in staples, which holds true for beer. However, the population growth effect for beer is greater in certain geographies. There also a limit to how much the human body can drink, and per capita beer and alcohol consumption moderates at a certain point. Additionally, cultural and religious barriers need consideration when assessing the potential of a market.

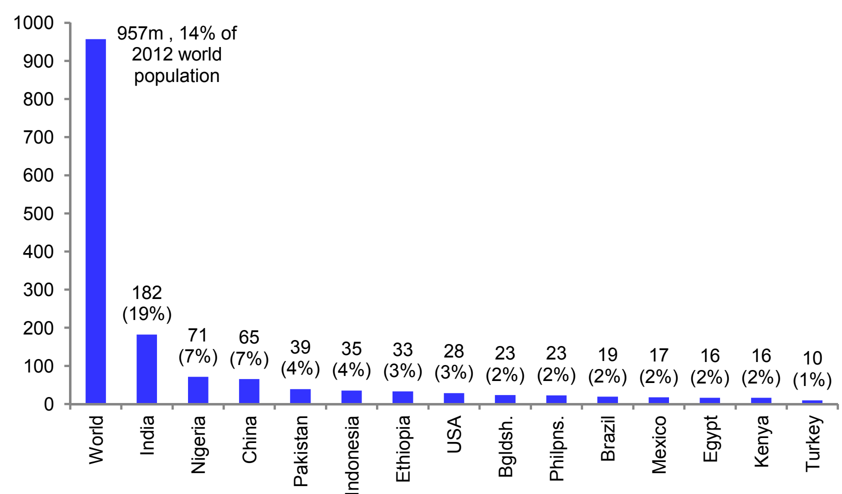
Population growth as a driver of beer

More people = more consumption

As we discussed in our note *Emerging Exposure*, population growth benefits consumer staples. The World Bank estimates world population will grow by 960m -14% between 2012 and 2025; from 7.05bn to 8.00bn.

Population growth is the single biggest driver of staples growth

Figure 72: Global population growth to 2025



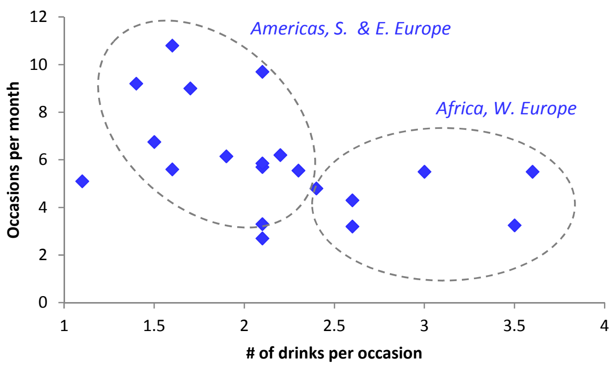
Source: Deutsche Bank, World Bank. Data for each country is m people population growth and % in parenthesis is contribution to world population growth of 957m people.

However, not all population growth is equal and relevant to beer. For the brewers, how many of the 950m will be relevant to the beer category? Taking into account physical and cultural limitations, which markets are actually relevant to the brewers?

Population growth in the right age cohort

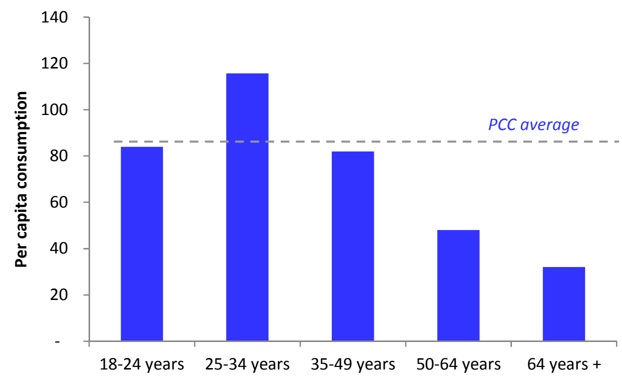
A typical beer consumer has around 7 occasions per month for drinking beer and drinks an average of 2 beers each time. Variation exists among markets with sunnier climates over-indexing on frequency of occasions and colder and poorer markets over-indexing on intensity and volume per occasion as per Figure 73.

Figure 73: Frequency & intensity of beer-drinking occasions



Data in 21 markets from TNS Synovate omnibus
Source: Deutsche Bank estimates based on regular beer consumption usage. TNS, mixed years

Figure 74: Per capita consumption South Africa



Source: Deutsche Bank estimates based on regular beer consumption usage, TNS Synovate mixed years.

We would expect that during the lifespan of a typical beer consumer in the developed market (>150 liters per annum, one beer per day), he or she would drink around 3500 liters in their lifetime. With most large breweries producing over 10,000 liters per single brew cycle, there are few who are able to drink a brewery dry, despite valiant efforts.

Population growth in the 20-34 age cohort drives beer volume growth

Three-quarters of a consumer's lifetime beer consumption occurs between the ages of 20 and 40 years. Both the number of occasions for beer consumption and the intensity per occasion peak during that period.

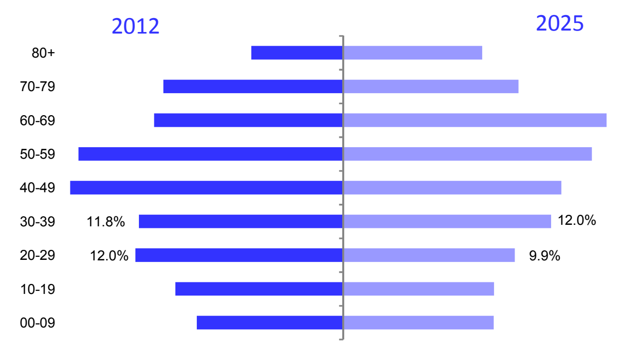
The relevance of population growth to brewers is the 20 to 34 year old cohort. Lifetime consumption habits are entrenched, brand loyalty is developed, and the greatest amount of volume is consumed. Those brewers in areas with a growing population profile in this cohort will have an advantaged position with embedded growth.

Most developed markets in a negative space

Beer drinkers in Western Europe are dying, literally. The key cohort of drinkers in markets such as Germany, Italy and Japan is declining at a rapid pace. As in Figure 75 and Figure 76, population age pyramids with a "broad shoulder" profile show an older population twice the size of the more relevant key younger drinkers. By 2025, 20 to 29 year olds only make up less than 10% of consumers in a declining overall population.

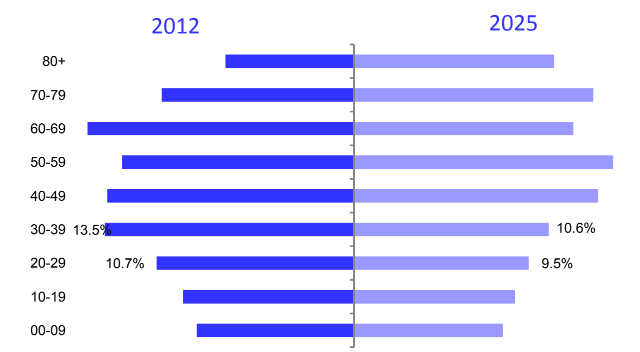
Most developed markets have negative population dynamics as it relates to beer

Figure 75: Germany 2012 and 2025 population profile



Source: Deutsche Bank, World Bank

Figure 76: Japan 2012 and 2025 population profile

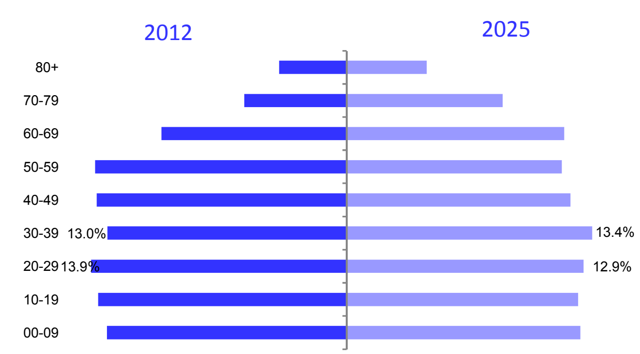


Source: Deutsche Bank, World Bank

Positive immigration enhancing key developed markets

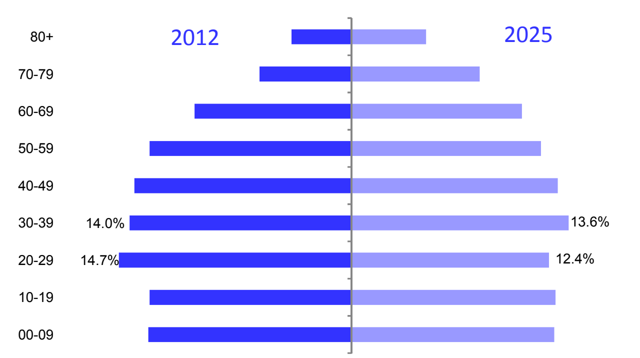
There are a few developed markets which are forecast to grow their populations and more importantly, maintain the vital 20-29 year old cohort. Immigration from beer drinking cultures creates a "beehive" profile.

Figure 77: USA 2012 and 2025 population profile



Source: Deutsche Bank, World Bank

Figure 78: Australia 2012 and 2025 population profile



Source: Deutsche Bank, World Bank

Beer manufacturers in the USA benefit from favorable growth amongst Hispanic consumers, particularly in the sun-belt states. Both the United Kingdom and Australia benefit from immigration from beer drinking cultures.

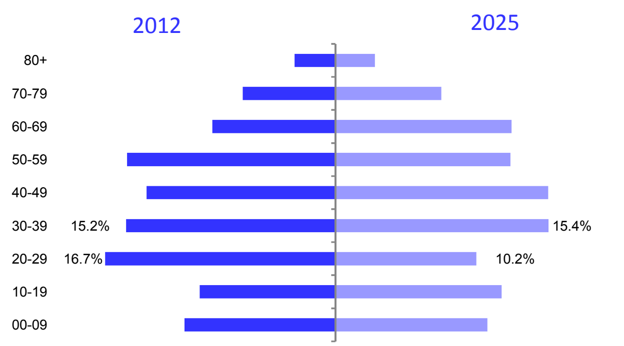
Eastern Europe not a good place to be for brewers

Eastern Europe is not a good place to be for brewers. Though nominally seen as emerging markets, for brewers, these markets have hit their peak and will likely see further reductions. By 2025, we expect Russia (143m to 131m; -12m/-8%), Ukraine (45.6m to 39.8m; -5.8m/-13%), and Poland (38.5m to

Eastern Europe is seeing real declines in the 20-34 age cohort

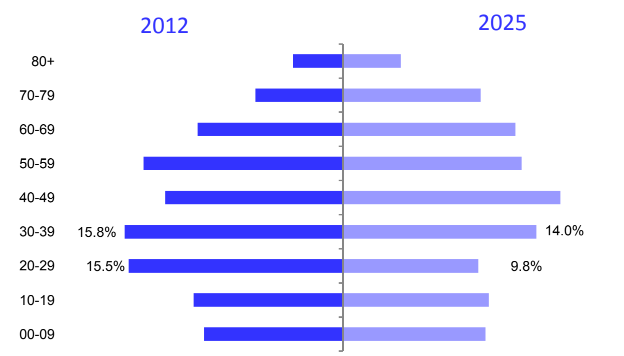
36.9m; -1.6m/-4%) to show a real population decline. Furthermore, the numbers of drinkers in the key age groups will likely decline and their age profiles more closely resemble that of Japan and Germany.

Figure 79: Russia 2012 & 2025 population profile



Source: Deutsche Bank, World Bank, World Bank

Figure 80: Poland 2012 & 2025 population profile



Source: Deutsche Bank, World Bank

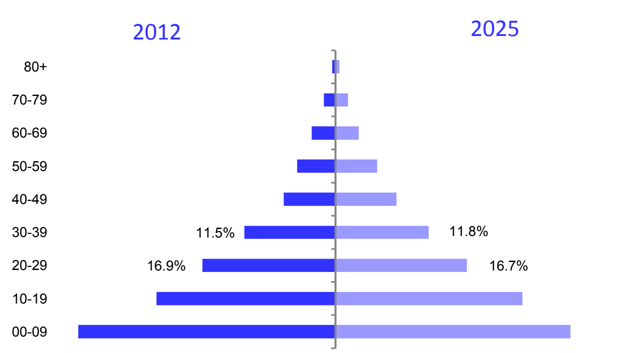
Of particular concern are Poland and Russia - both markets which are significant to three of the four big brewers. It is unlikely that real volume growth will return to those markets.

Africa *the* place to be

In contrast, the truly exciting markets are in Africa, and to a lesser extent Latin America and parts of Asia. The current 215 million consumers in the 20 to 34 year old age cohort in sub-Saharan Africa are expected to grow by an additional 7 million per year, then expand to over 300 million by 2025 and close to half a billion by 2050.

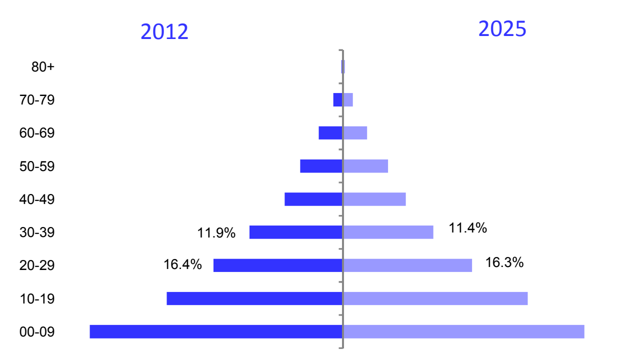
Africa provides the greatest potential for the right population growth desirable to brewers.

Figure 81: Tanzania 2012 & 2025 population profile



Source: Deutsche Bank, World Bank

Figure 82: Nigeria 2012 & 2025 population profile.



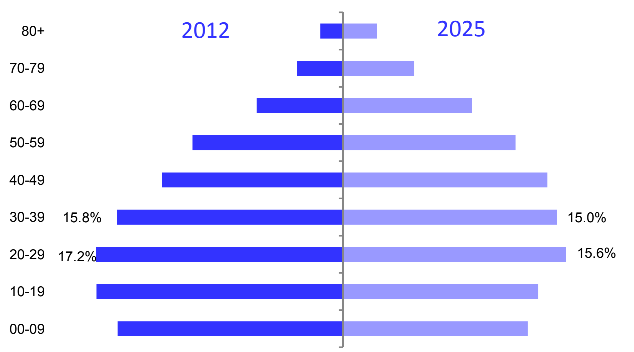
Source: Deutsche Bank, World Bank

Coupled with rising GDP growth and low per capita consumption, we expect population growth in Africa will drive consumer staples growth, with the prime beneficiary being brewers.

Mixed profiles at home

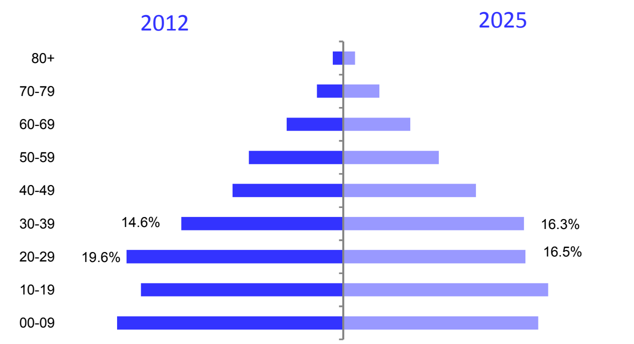
Whilst Heineken and Carlsberg face the typical European profile at home, for ABInBev and SABMiller, their home markets should deliver some upside. Brazil will likely have moderate population growth by 2025, but will start seeing declines as today's unborn will be hitting their thirties in 2050.

Figure 83: Brazil 2012 & 2025 population profile



Source: Deutsche Bank, World Bank

Figure 84: South Africa 2012 & 2025 population profile



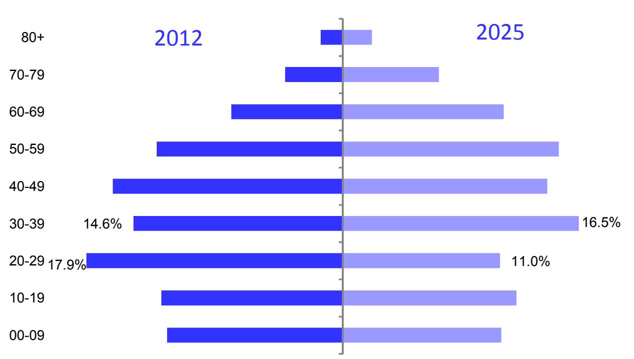
Source: Deutsche Bank, World Bank

South Africa looks better positioned. Though not in line with the type of population growth north of the Limpopo population, growth has rebounded as the "born-frees" drive consumption over the next decade.

Tale of two countries: India and China

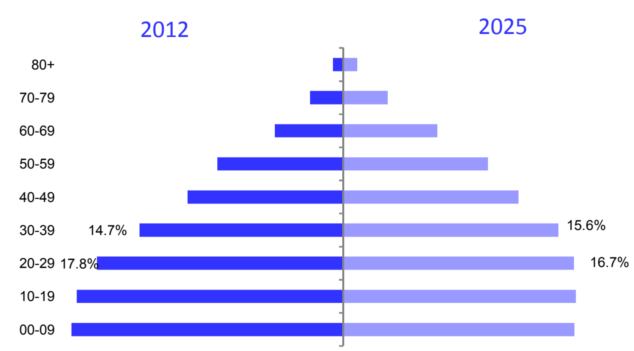
Population growth in the most populous nations will go in contrasting directions, with India expected to surpass China in absolute terms by 2028. Though both markets will continue to have 18% of their populations in the 20 to 29 year age group, shrinkage in younger age profiles in China will likely see a decline in this beer drinking cohort by 2050.

Figure 85: China 2012 & 2025 population profile



Source: Deutsche Bank, World Bank

Figure 86: India 2012 & 2025 population profile



Source: Deutsche Bank, World Bank

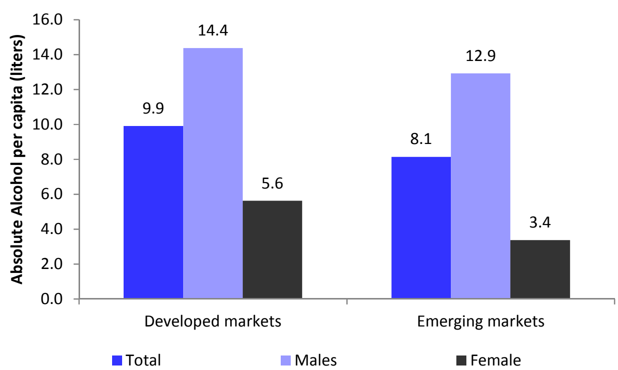
As detailed in the next section, we do not expect India's per capita consumption to expand significantly. However, the sheer magnitude of the population growth does create an attractive proposition for the brewers.

Per capita consumption- what is the physical limit?

How much can one really drink?

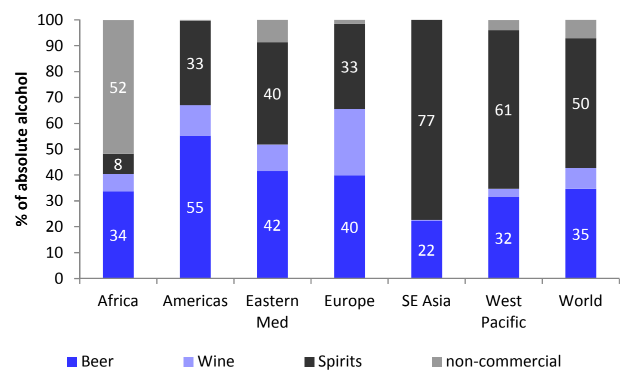
The human body needs approximately 3 liters of liquid a day, or just over 1000 liters per year. Two thirds is normally ingested in the course of the day ranging from food to brushing one's teeth. The remaining third of this is normally commercial drinks ranging from bottled water to strong spirits. Pure alcohol forms approximately 1% of the total liquid intake. In those markets where alcohol is available, around 10 liters per annum of pure absolute alcohol gets ingested per year.

Figure 87: Absolute alcohol per annum



Source: Deutsche Bank estimates, WHO data adjusted to exclude alcohol restrictive markets

Figure 88: Share of alcohol



Source: Deutsche Bank estimates, WHO using UN geographical splits

The range of alcohol consumption varies greatly between males and females with the highest countries reaching close to 25 liters of pure alcohol for males, though the average for most beer drinking nations tends to fluctuate between 10 and 15 liters.

Figure 89: Absolute Alcohol and equivalents in select markets

	Absolute Alcohol Male Ltr	Beer Equivalent Ltr	Wine Equivalent Ltr	White Spirits Equivalent Ltr
Russia	23.9	478	191	9.6
Poland	19.8	396	158	7.9
Czech Republic	18.6	372	149	7.4
South Africa	18.4	368	147	7.4
France	17.8	356	142	7.1
Australia	17.3	346	138	6.9
United Kingdom	16.5	330	132	6.6
Switzerland	15.2	304	122	6.1
Nigeria	14.9	298	119	6.0
Uganda	14.4	288	115	5.8
Brazil	13.6	272	109	5.4
USA	13.5	270	108	5.4

Source: Deutsche Bank estimates, WHO

Every absolute liter of alcohol converts to about 20 liters of beer. Looking at key markets in Figure 89, this would translate to 270 to 480 liters of beer should beer have a 100% of share of throat. Assuming a market like Czech where beer has a 70% share of alcoholic throat, the 19 liters of absolute alcohol a year equates to about 300 liters of beer- reasonably in the range of a typical male beer drinker in the Czech Republic with a daily habit of two mugs of Gambrinus in Kutná Hora.

Bigger people can drink more beer

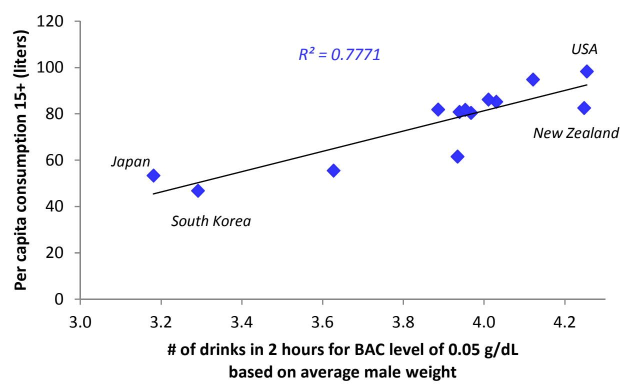
Body weight plays a strong determinant to the level of alcohol which can reasonably be processed. The Widmark formula is used to calculate the estimated peak blood alcohol concentration (BAC) as well as a method set the limit for drinking and driving legislation as detailed in Figure 90. On the scale, the range to reach a level of reasonable inebriation is between 0.05 g/dl to 0.08 g/dl.

Figure 90: Blood alcohol concentration for 80kg males

BAC level	# of drinks for 80kg male	
0.01	1.9	
0.03	2.9	*Impaired concentration*
0.05	3.8	*Relaxation*
0.07	4.8	
0.09	5.8	*Impaired reasoning*
0.11	6.7	*Disinhibition*
0.13	7.7	
0.15	8.6	*Impaired gross motor control*
0.17	9.6	*Over-expression*
0.19	10.6	
0.21	11.5	*Severe motor impairment*
0.23	12.5	*Stupor*

# of drinks in two hours. One drink is 330ml beer or 15ml of pure alcohol
Source: Deutsche Bank estimates using the Widmark formula.

Figure 91: # of drinks for 0.05 BAC correlated to pcc



Widmark formula applied to average male weight in 15 select OECD beer drinking markets-
Source: Deutsche Bank estimates, Euromonitor, Plato Logic, Swedish National Institute of Health

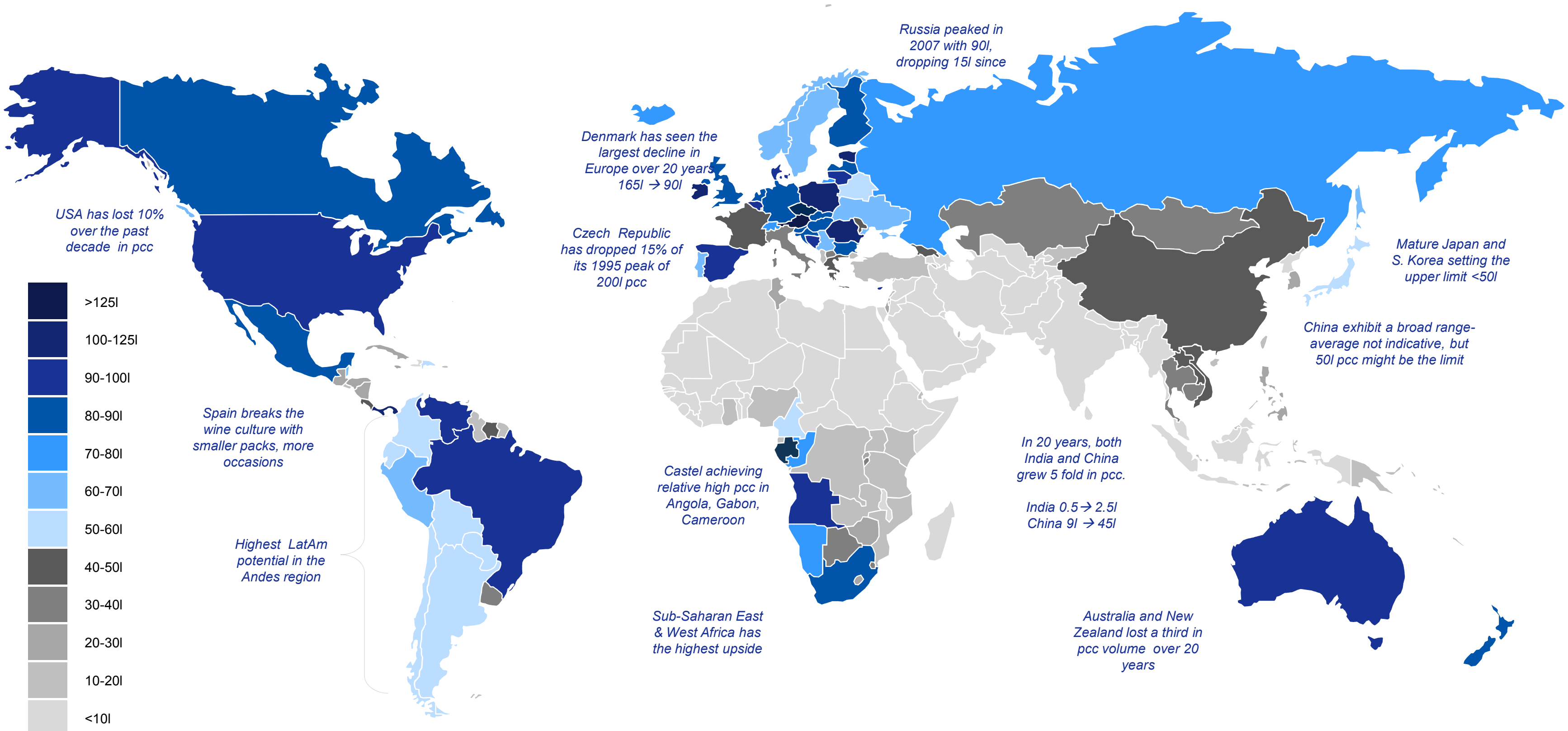
Depending on one's weight, gender and body composition, a BAC of 0.05 is reached when consuming between two to four standard beers in a two hour window.

The average weight in a country is a determinant of beer consumption levels

Applying the formula to a set of developed and mature beer markets only using the average male weight in a market, we find a strong correlation between the number of drinks to hit the "inebriation" point and the per capita consumption in the market. Nations with heavier people drink more beer.

Additionally, further alcohol consumption limits are imposed by the presence in the body, the proportion, and also the mutations of alcohol dehydrogenases (ADH). ADH is the enzyme for the conversion between alcohols and aldehydes as it reduces nicotinamide adenine dinucleotides (NAD^+ to NADH) - the breakdown of alcohols in the liver and the lining of the stomach. Its presence and form varies amongst different population groups.

Figure 92: Global per capita consumption or production, consumers 15+



Source: Deutsche Bank estimates, Mixed 2011-2013 data, Euromonitor, Plato Logic, Canadean, National excise regulators

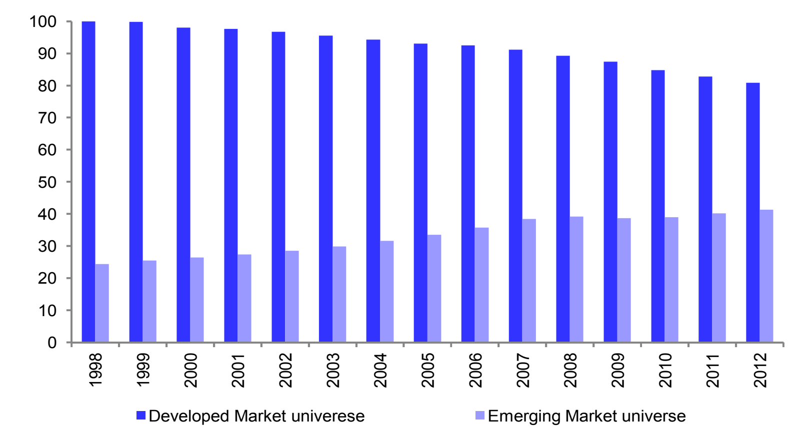
The range of per capita beer consumption

In Figure 92, we observe a wide range of per capita consumption. Notable is its mirror image to Figure 70- markets where beer is more affordable tend to have higher per capita consumption. The Czech Republic still leads globally in consumption with a 170liters pcc - this is however a 15% drop from its peak.

Meet me in the middle of Switzerland?

In recent note, *Emerging Exposure*, we cited the possibility that all beer markets, both developed and developing, may eventually meet in the middle.

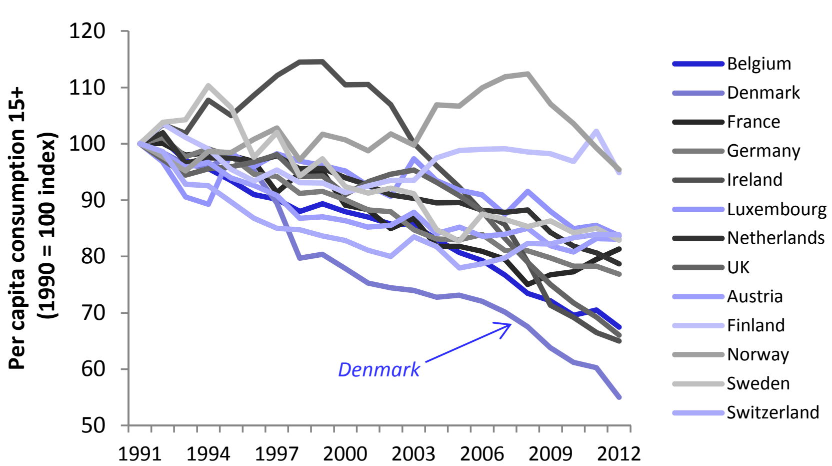
Figure 93: Indexed per capita beer consumption- meet in the middle?



Source: Deutsche Bank, Euromonitor, index takes DM in 1998 as the base at 100

Most developed markets have been on a decline in per capita consumption since their peak year. Belgium peaked in 1974, the UK and USA in 1981. Western Europe and the Nordic regions have seen on average a total decline of 20% in per capita consumption over the past two decades.

Figure 94: Indexed per capita consumption in western Europe



Source: Deutsche Bank, Euromonitor, Plato Logic

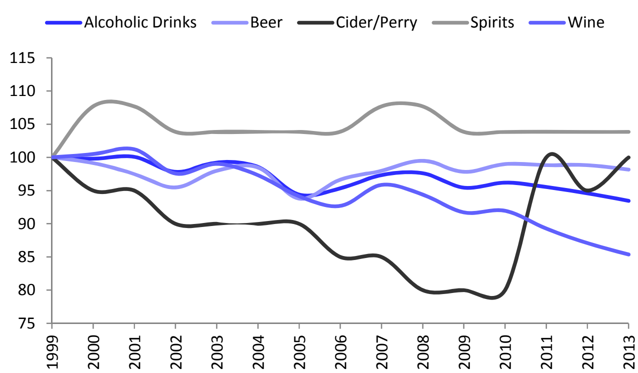
Denmark has seen the largest relative decline in per capita consumption over the last two decades

As in Figure 94, the worst performance has been Denmark which has seen per capita consumption almost halve.

Perhaps, the midpoint of convergence for all markets will be Switzerland which has all the hallmarks of the perfect mature market. Being one of the highest GDP per capita markets, it is no longer dependent on GDP growth for beer consumption nor is it in danger of losing share to other forms of alcohol.

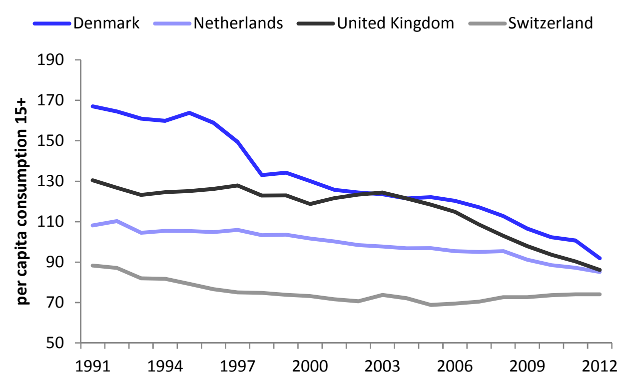
Being somewhat Germanic, Switzerland has a strong beer culture. At the same time, it has a well entrenched wine culture, both local and imported. In addition, there is a stable local spirit presence, with each canton proudly proclaiming a world famous concoction which to the astonishment of the local populace is yet to transcend cantonal borders. The result is stability in shares of alcohol.

Figure 95: Switzerland share of alcohol indexed



Source: Deutsche Bank, Euromonitor

Figure 96: Moving towards Switzerland



Source: Deutsche Bank, Euromonitor, Plato Logic

The market also has a stable duopoly with two global players – Carlsberg and Heineken – engaged in a rational pricing environment leading to solid margins. The market has a healthy international premium market with Heineken and Carlsberg brewed locally and accounting for 20% share, but the bulk of the market remains in mainstream and local premium variants such as Feldschlossen and Eichof. Despite the ubiquitous presence of cheap German brewers across the border and a market dominated by a few retailers, private label beer has hovered around 10%. The much cited regulations from drunk driving to opening hours have been rationally enacted.

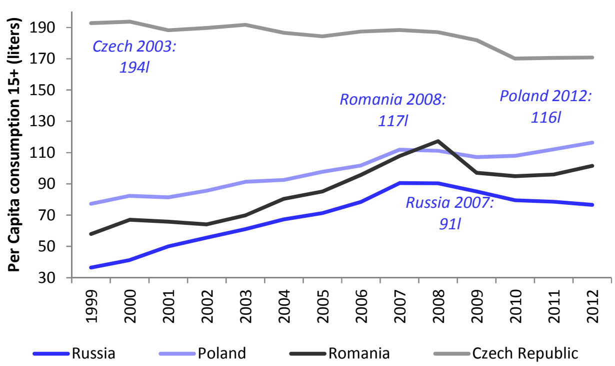
Switzerland can be seen as the future norm for European beer markets

The end result is a stable beer market where capita consumption has hovered between 70 and 80 liters over the last decade and beer has maintained a consistent share of alcohol. We would therefore assume that most core beer markets will eventually settle within that range as they mature.

Central/Eastern Europe and Russia beyond maturity

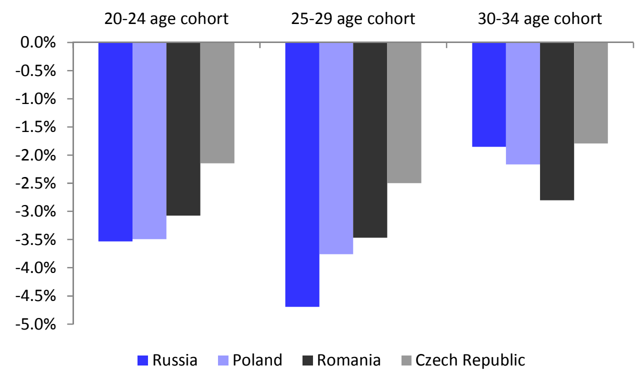
Central Europe has an entrenched beer culture. The entry of the global brewers in the post-communist era and the subsequent professionalization of the brewing industry accelerated the category switch from local, often unregulated vodka in Eastern Europe. Today, per capita consumption has matched and often exceeded developed markets.

Figure 97: Eastern European markets per capita 15+



Source: Deutsche Bank, Plato Logic, Euromonitor

Figure 98: Expected annual population decline to 2025



Annual expected population decline to 2025
Source: Deutsche Bank, World Bank

It is unlikely the East European markets will return to their pre-recession peaks. Population dynamics are inherently negative. As in Figure 97, the key drinking age cohort of 20 to 34 years olds will shrink 2 to 4% per year. Combined with the structural shift of beer consumption from the on-premise/out of home to the organized off-premise retail, the brewers' ability to directly influence the consumer's purchasing behavior will further diminish. As Eastern Europe progresses further, legislative pressure from marketing to sales restriction to packaging restrictions as most vividly illustrated in Russia will further inhibit any per capita growth. The road to Switzerland is not far off.

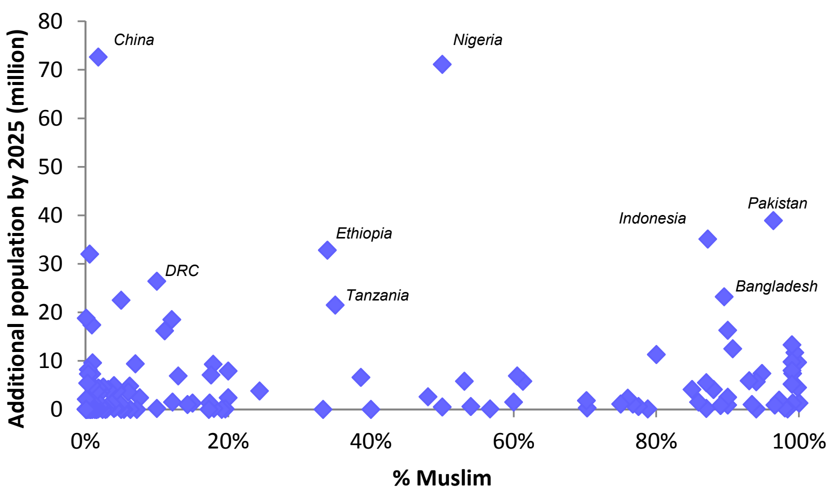
Per capita consumption in Eastern Europe is on a negative trajectory

Cultural limits on beer

The limitations of religion

Beer misses out on the large swaths of the growing population normally attractive to consumer staples. Of the one billion new consumers by 2025, 35% are in Islamic markets. Large markets such as Indonesia, Pakistan, and Bangladesh who together will add almost 100 million new consumers can be considered off-limits for the alcoholic portfolio of the brewers.

Figure 99: Population growth by 2025 and Islam



Excludes India (182 million additional population by 2025; 13% Muslim)
Source: Deutsche Bank, CIA world fact book, Pew forum, World Bank

The Islamization of Northern Africa can also be a limiting factor. With the expectation that Nigeria will add more than 70 million people by 2025, half the population of Nigeria is Muslim. The belief system, however, is primarily from the less restrictive Sunni of the Maliki school established in the early parts of the 19th century as part of the Sokoto Caliphate. Strict adherence to alcohol usage is somewhat limited with most Nigerians taking a more liberal interpretation.

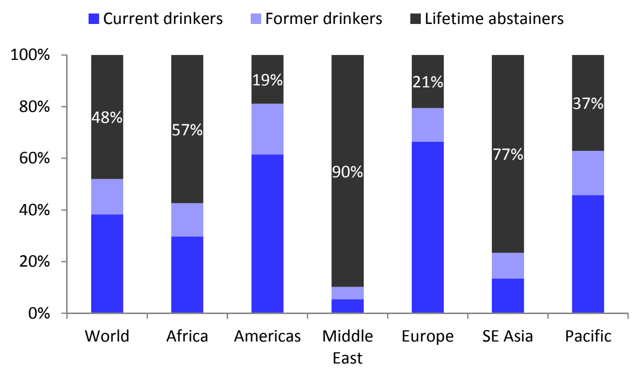
The Islamization of Africa restricts beer growth to an extent

It is also notable that in some African markets, beer is used as a tool to differentiate population groupings. As part of establishing their national identity and to differentiate themselves from their Islamic, northern counterparts, the new nominally Christian nation of South Sudan desired a brewery even before officially becoming a country. Going around Juba in South Sudan, the bars are known as "Pork & Beer" shops firmly entrenching their non-Islamic belief system.

Committed abstainers from alcohol

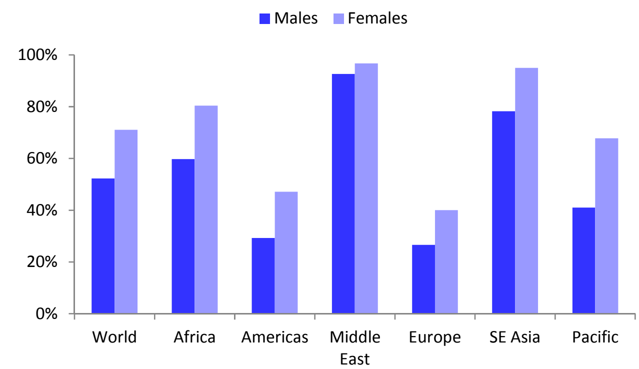
The correlation of abstention from alcohol is heavily correlated to religious influence but extends further among women. As per Figure 100, 60% of the global population does not drink alcohol, primarily concentrated in the Middle East and Asia. Figure 101 shows that 71% of women have not drunk alcohol in the last 12 months versus 52% of men. The spreads tend to be largest in south East Asia where 95% of women abstain.

Figure 100: Abstention from alcohol



Source: Deutsche Bank, WHO

Figure 101: Male & Female non drinkers last 12 months



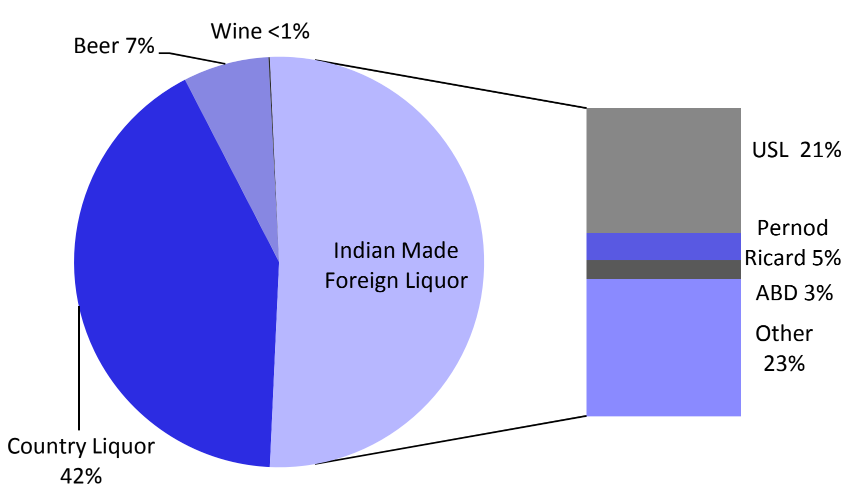
Source: Deutsche Bank, WHO

Many limits to growth in India, but still attractive

Formal and informal cheap spirits make up the vast majority of alcohol consumption in India. 93% of alcohol consumption mostly two types of molasses type spirit drinks known either as Indian Made Foreign Liquor (IMFL) or Country Liquor. The former has some of the major spirits groups taking part including Diageo taking ownership of USL including one of the world's largest whiskey brands, Bagpiper, though their definition of whiskey may be debated.

The potential of India severely inhibited by cultural and regulatory hurdles

Figure 102: India share of alcohol 2013



Source: Deutsche Bank estimates, Company reports, Euromonitor, India Statistical Office

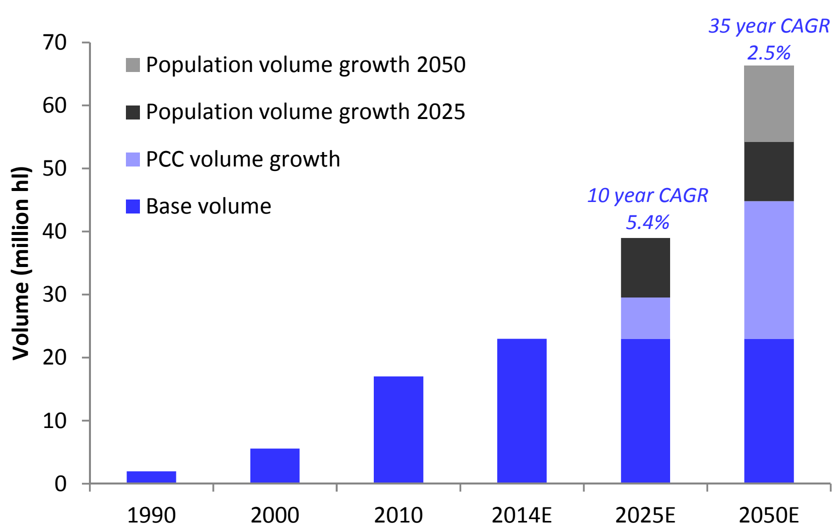
Spirits will continue to be the prime form of alcohol in India

These forms of liquor will likely continue to dominate as the primary occasion for drinking in the lower income groups in India is one that centers on quick consumption to attain the effect from alcohol, rather than as part of an extended social occasion. It also fundamentally changes the beer market - there has been a notable shift from mild beer (<5% alcohol) to strong beer (>5%, usually around 7.5% alcohol), which currently accounts for 75% of beer consumption India.

More fundamental in the conversion of local and illicit alcohol to beer is the presence of key beer drinking occasions. As a publicly bought and publicly consumed good, the primary occasion for beer consumption is refreshment in a social setting. This typically involves mostly male bonding while drinking alcohol. As incomes rise, there is a natural movement from illicit drinks in a social setting towards beer.

The absence of such an occasion as is the case in India makes a similar pattern unlikely. In such a situation, conversion from prevalent country liquor and other homemade products to beer will probably not happen as these drinks are often not drunk in social and public settings.

Figure 103: India embedded growth potential



Strong population growth and a doubling of per capita consumption on a very low base will likely drive beer volume growth in India

Source: Deutsche Bank estimates, UN Population, Plato Logic, World Bank, Euromonitor

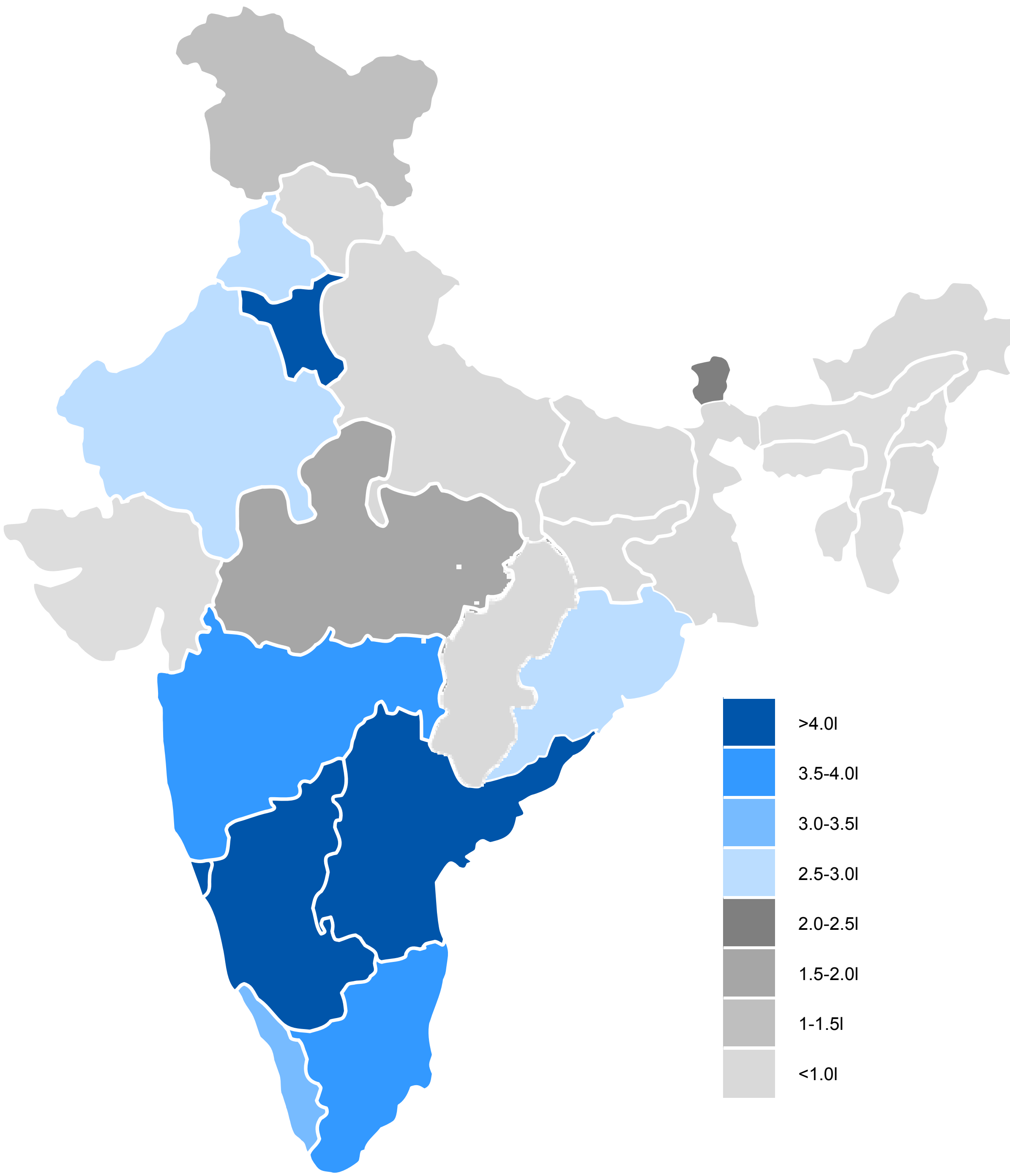
The lack of retail outlets selling alcohol coupled with heroic corruption limits growth further. India has around less than one outlet selling alcohol per 20,000. In contrast, for most European and Latin American markets this ratio exceeds one per thousand.

We do not expect the type of per capita consumption seen in Europe or China in the next 10 years, 20, or 50 years. Aside the above mentioned lack of occasions, tight regulations and vested interests will continue to hamper growth and limit a brewer's ability to leverage scale across state borders. We would modestly assume that overall per capita consumption will double by 2050 from the current base of 2.5 liters.

However, despite the low per capita growth, the sheer population growth in India should drive embedded volume growth. India is projected to add over 30 million new consumers by 2025 in the key beer drinking age 20 to 35 year old cohort. As per Figure 103, we see a 10 year CAGR of 5.4% making it an attractive market to the brewers despite the limitation.

We estimate India has a ten year embedded volume of CAGR 5.4%

Figure 104: India per capita production by state

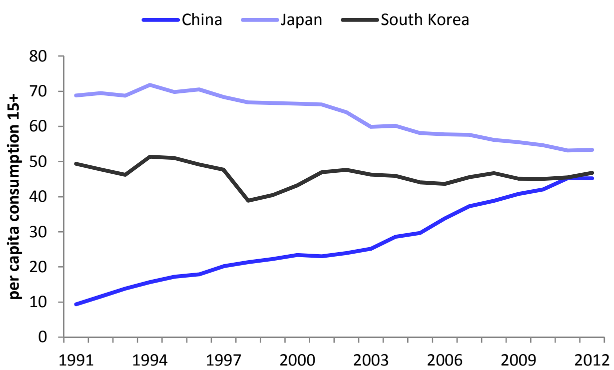


Source: Deutsche Bank estimates, Canadean, company presentations, India Statistical Office

Chinese growth halted

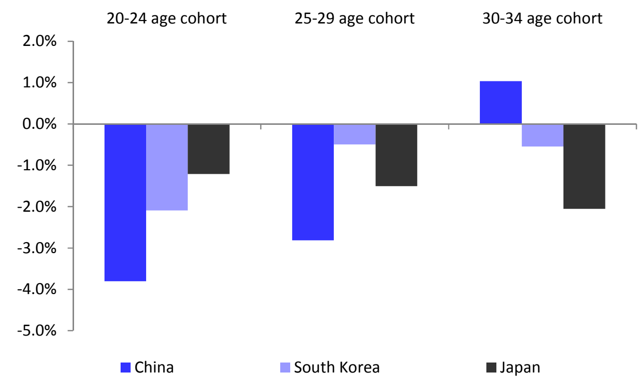
Chinese beer consumption has grown strongly (per caps compounding at 23% pa) over 15 years off an extremely low base. Much of this historic growth has been driven by occasions involving food - relatively low alcohol and low bitterness of Chinese beer sees beer play a prime role as an accompaniment in daily meals. Per caps of around 45 liters are hitting the normalized rates of developed Asiatic markets such as Japan at 55 liters. There is a high differential between the different provinces in China, with high levels of consumption very much geared towards the coastal areas and the industrial provinces.

Figure 105: China, Japan, South Korea per capita growth



Source: Deutsche Bank, Euromonitor, Plato Logic, NBS China

Figure 106: Expected annual population decline to 2025



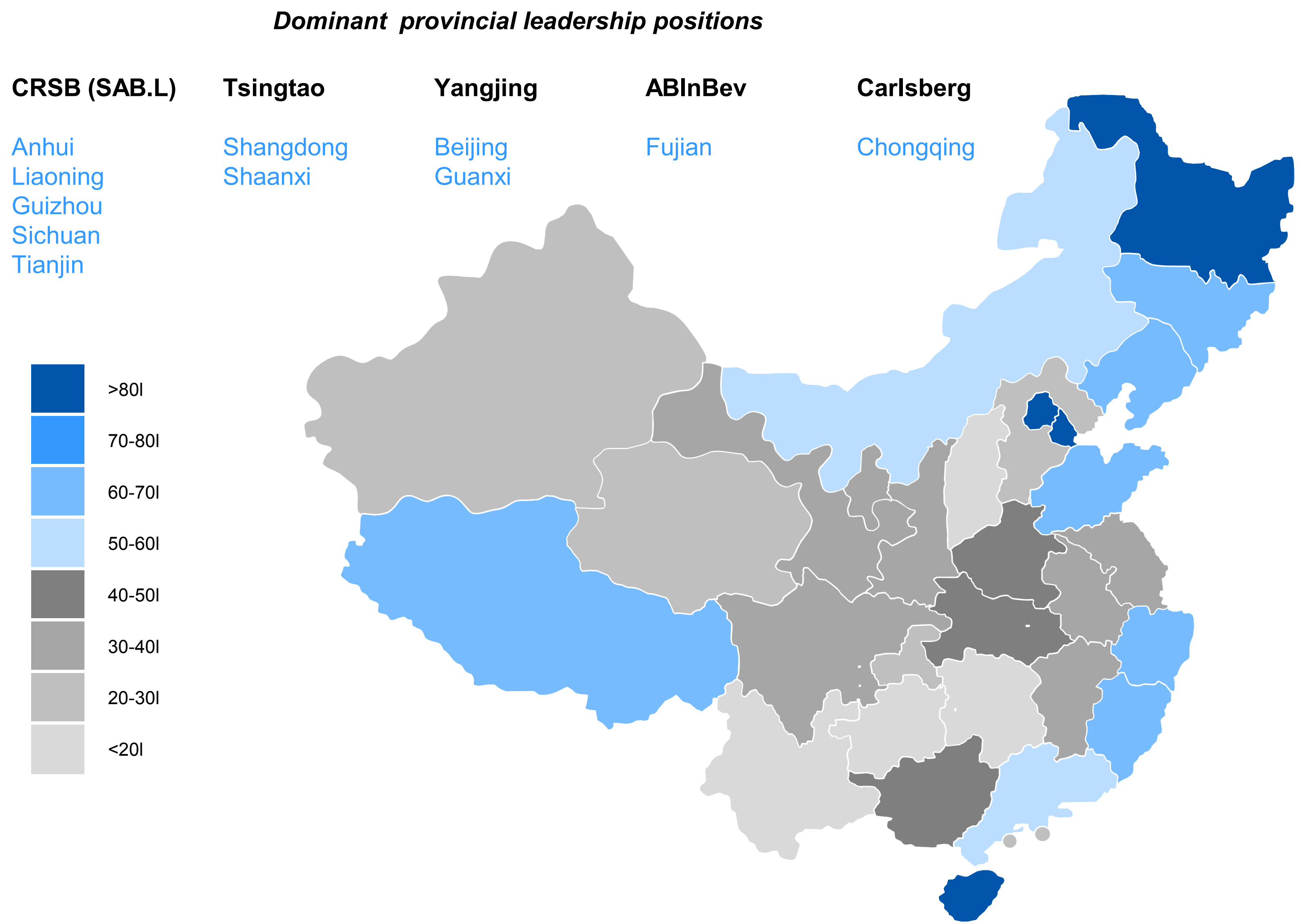
Source: Deutsche Bank estimates, World Bank

We expect that population dynamics will negatively impact growth - the one child policy and urbanization has effectively reduced population growth among the 20-34 year olds vital for beer - a 2 to 3% decline. The younger cohort is decelerating faster than South Korea and Japan as per Figure 106.

Limited per capita growth and population control limit the upside on volume for China

Whereas India's beer market will most likely grow based on population, China has an opportunity to better leverage scale, especially on the top line. Dominant positions enable a shift of margin in the value chain from distributors and retailers to brewers. Markets where the brewers achieve 70% provincial share, margins are more normalized and in the 20 to 30% range. Those brewers who have clear leading positions in the provinces are best positioned to leverage their market power.

Figure 107: China per capita production by province 2012



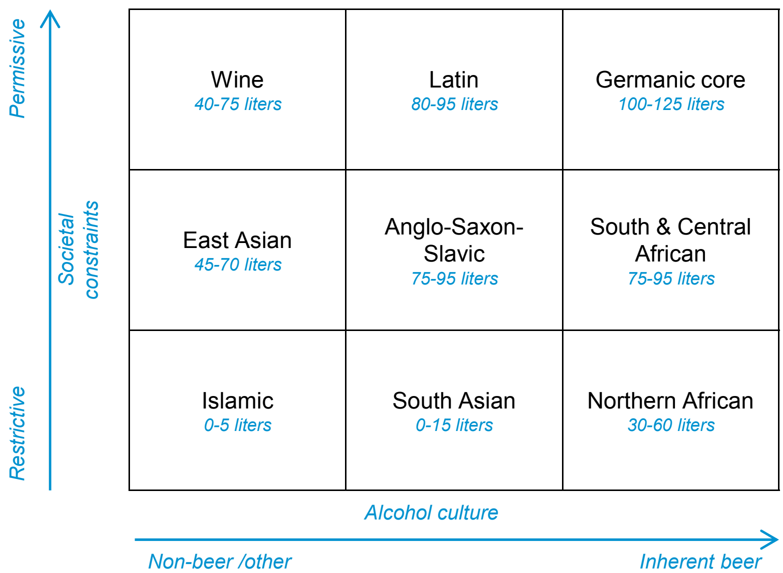
Dominant leadership positions based on 2x size of next competitor
Source: Deutsche Bank estimates, China National Bureau of Statistics Company reports

Beer market typologies

We reviewed the potential and limitations of each beer market. When combining the potential to gain share of alcohol, particularly from informal, non-commercial alcohol, the level of affordability and the societal limitations imposed by culture, physicality and religion, we established nine types of beer market typologies for beer markets as per the table in Figure 108 and Figure 109 .

We defined 9 beer market typologies based on their per capita beer consumption potential

Figure 108: Beer market typologies and per capita consumption potential



Source: Deutsche Bank estimates and assessment. Per capita consumption for 15 years +.

Figure 109: Potential embedded per capita consumption market typologies

Market typology	Potential PCC range (15+ in liters)	
Core beer cultures	100-125	Germanic beer tradition - Czech, Germany, Poland
Anglo-Saxon-Slavic	75-95	Europe and Anglo immigrant nations
Latin American	80-95	Latin American markets gaining from other alcohol
South & Central Africa	70-95	Sub Saharan Africa with beer low % of alcohol
East Asia	45-70	Asian markets with Japan as beacon
Wine culture	40-75	Southern Europe & parts of Latin America
North Africa	30-60	Large Islamic populace such as Nigeria & Ethiopia
South Asia	0-10	Cultural and regulatory challenges- India
Alcohol restricted markets	0-5	Mostly strong Islamic markets

Source: Deutsche Bank

Combined with consumer insights and expert interviews, we used the typologies to assess the potential per capita consumption potential of 194 global markets. Along with the population dynamics, we have developed an embedded growth model of each market which helps determine the global volume potential for each of the brewers under our coverage.

The embedded growth

Taking our beer market typologies and population dynamics into account in 194 markets, we have modeled the embedded volume growth of our brewers based on their current market share and find Heineken and SABMiller as the brewers with the most advantageous profile. We think ABInBev and Carlsberg are more limited in their potential growth.

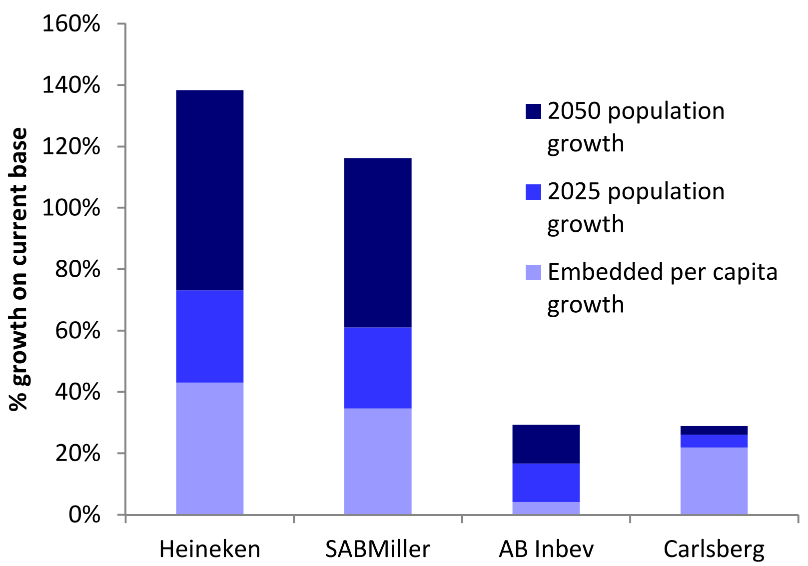
Who has the embedded growth?

Embedded growth makes beer a company call

The specificity of the potential indicates that growth in beer is more a company rather than a sector call.

We think Heineken and SABMiller are best positioned for embedded growth

Figure 110: Brewers embedded volume growth on current base

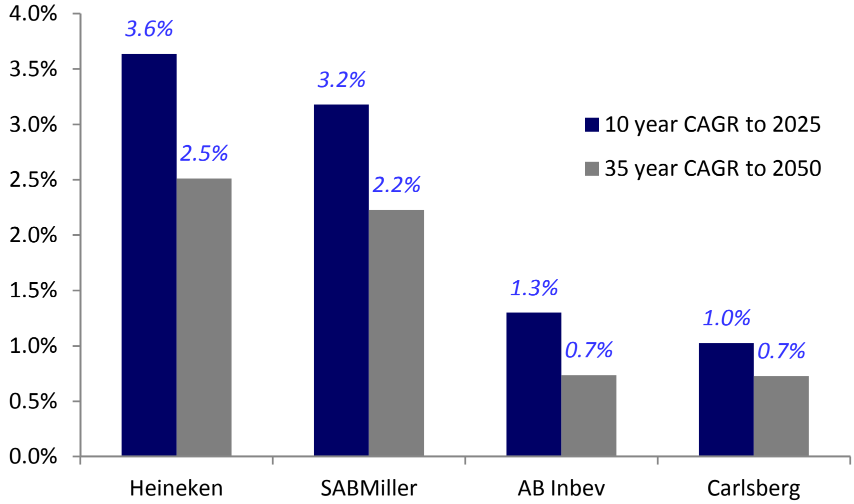


Source: Deutsche Bank estimates, UN, Plato Logic, World Bank, Euromonitor

We think Heineken is the best positioned listed brewer to grow their current platform with 138% embedded growth by 2050. The potential suggests a 10 year CAGR volume growth of 3.6% to 2025. Both growth in population as well per capita consumption drives the potential.

We estimate SABMiller is able to double the current volume base by 2050. Should they be in a position to consolidate the remaining 78% of the privately owned Castel Group business in Africa, the potential would increase to 150%.

Figure 111: Embedded volume CAGR



10 Year CAGR assumes steady state per capita consumption growth to potential on 2014DBe volume.
35 year CAGR assumes full per capita consumption potential on 2014DBe volume.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

We estimate Heineken and SABMiller have 10 year embedded CAGRs of 3.6% and 3.2% respectively.

Figure 112: Embedded volume CAGR

CAGR	Castel	Heineken	SABMiller	ABInbev	Carlsberg	Molson Coors
Population growth to 2025	7.5%	2.7%	2.4%	1.2%	0.4%	0.6%
Population 2026- 2050	3.1%	1.3%	1.2%	0.7%	-0.5%	0.8%
Per capita growth to 2050	2.4%	1.0%	0.9%	0.1%	0.6%	-0.2%
10 year CAGR to 2025	9.3%	3.6%	3.2%	1.3%	1.0%	0.5%
35 year CAGR to 2050	5.3%	2.5%	2.2%	0.7%	0.7%	0.3%

10 year CAGR assumes steady state per capita consumption growth to potential on 2014DBe volume.
35 year CAGR assumes full per capita consumption potential on 2014DBe volume.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

We estimate ABInBev and Carlsberg have 10 year embedded CAGRs of 1.3% and 1.0% respectively

We think ABInBev has limited embedded growth. We see a ten year CAGR of 1.3% volume growth and a 30% total upside by 2050. Similarly Carlsberg is in the same position, with population shrinkage resulting in real beer consumption declines in key markets.

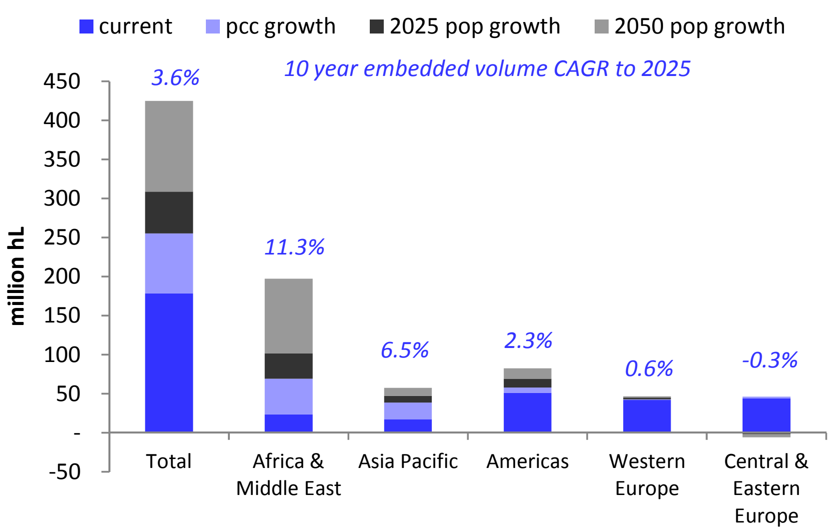
Heineken best positioned to double its volume

We see Heineken having an embedded growth of 130 million hectoliters by 2025 and 245 million hectoliters by 2050, more than doubling its current volume. A third of its growth is defined by the opportunity to increase per capita consumption; the right population growth in Africa and Mexico drives the bulk of the remaining growth potential.

Its African exposure is enhanced by its strong position in Nigeria, the Democratic Republic of Congo and Ethiopia. Additionally, Heineken is well positioned with a 5 to 10% market share throughout the continent driven by the Heineken brand. Our analysis excludes its current licensed brands by the Castel group which should provide further upside.

We estimate Heineken has a 10 year embedded volume CAGR profile of 3.6%

Figure 113: Heineken embedded growth profile



10 Year CAGR assumes steady state per capita consumption growth to potential on 2014DBe volume.
35 year CAGR assumes full per capita consumption potential on 2014DBe volume.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, , company reports

Figure 114: Heineken embedded volume growth profile

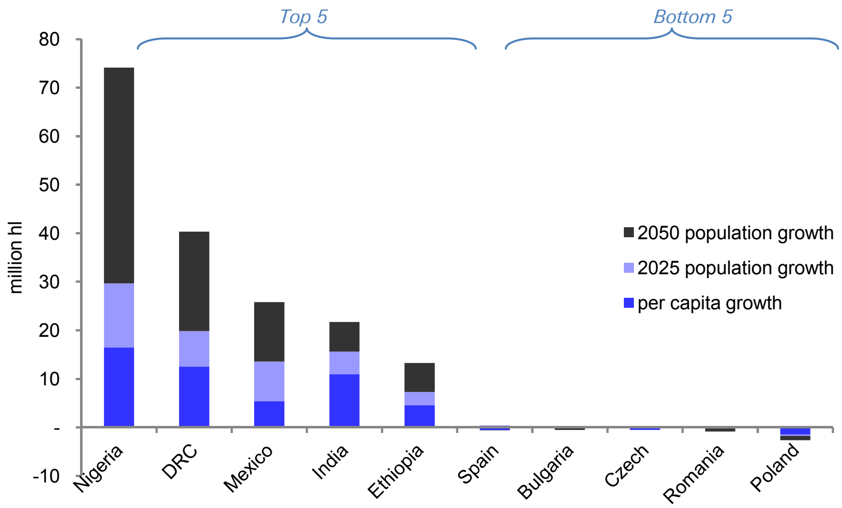
	Total	Americas	Western Europe	Central & Eastern Europe	Africa & Middle East	Asia Pacific
Population growth to 2025	2.7%	2.0%	0.6%	-0.4%	9.2%	4.2%
Population growth to 2026-2050	1.4%	0.7%	0.1%	-0.3%	4.8%	1.3%
Per capita growth to 2050	1.0%	0.4%	0.0%	0.1%	3.2%	2.3%
10 year CAGR to 2025	3.6%	2.3%	0.6%	-0.3%	11.6%	6.5%
35 year CAGR to 2050	2.5%	1.4%	0.3%	-0.3%	6.3%	3.5%

10 Year CAGR assumes steady state per capita consumption growth to potential on 2014DBe volume.
35 year CAGR assumes full per capita consumption potential on 2014DBe volume.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, , company reports

In Asia, Heineken benefits from being overexposed in markets with population growth such as Australia and Papua New Guinea whilst not suffering the decline in population which will likely be seen in China. Though we do not expect India to see significant growth in per capita consumption as detailed earlier (we model consumption of 5 liters per capita by 2050), the sheer population growth provides significant upside.

The drag on Heineken's embedded growth profile is Eastern and Southern Europe. We model flat to slight declines in per capita, but significant population declines impact markets such as Poland and Spain.

Figure 115: Embedded volume in key Heineken markets



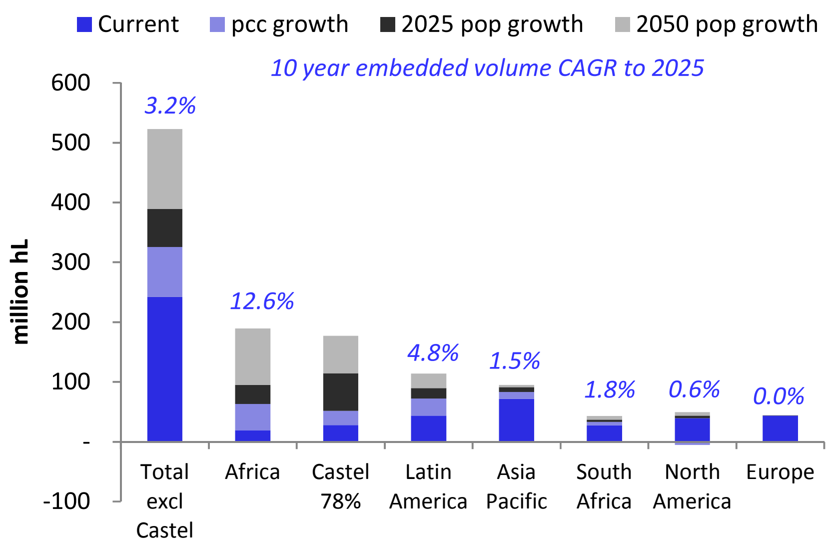
Source: Deutsche Bank estimates, World Bank, Plato Logic, World Bank, Euromonitor

SABMiller with potential for more in Africa

We think SABMiller embedded growth has the potential to add 145 million hl by 2025 and 280 million hl by 2050. Should SABMiller find an opportunity to consolidate Castel in its numbers, we calculate this would add another 180 million hl of embedded volume by 2050 led by markets Ethiopia, DRC, and Madagascar.

We estimate SABMiller has a 10 year embedded volume CAGR profile of 3.2%

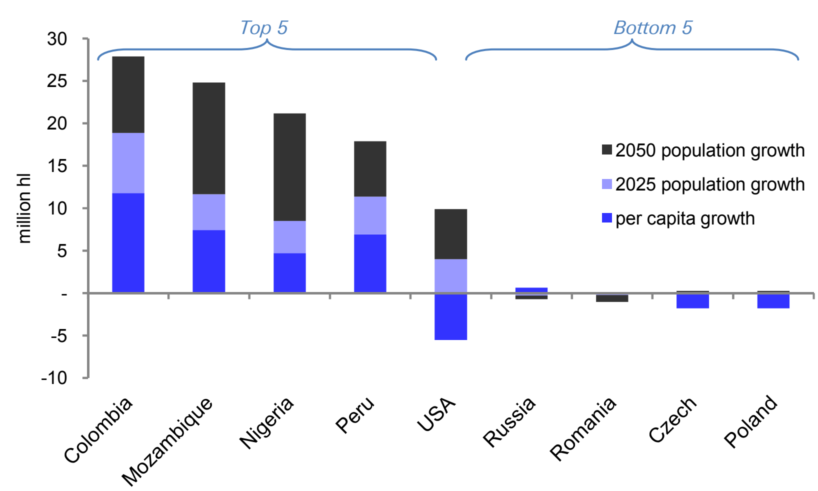
Figure 116: SABMiller embedded growth profile



10 Year CAGR assumes steady state per capita consumption growth to potential on 2014DBe volume.
35 year CAGR assumes full per capita consumption potential on 2014DBe volume.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

Africa and the Andean region drive the potential, and like Heineken, a third is driven by the per capita consumption. We believe the bulk of the population driven growth will be found in Africa.

Figure 117: Embedded volume in key SABMiller markets



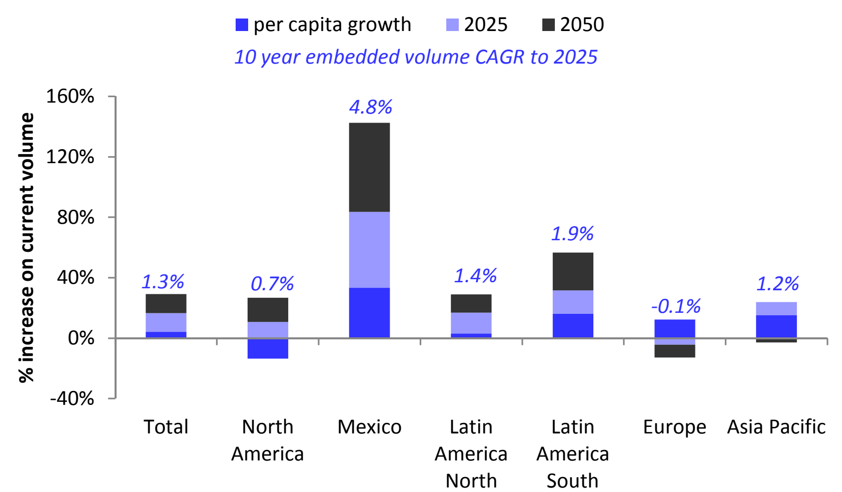
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

Mexico helps ABInBev, but no big chunks of growth left.

Our analysis shows that ABInBev has an embedded growth profile half the size of either Heineken or SABMiller, with an upside of 65 million by 2025 and 145 ml hl by 2050. ABInBev has the lowest per capita gap in our coverage with 14% of volume potential on that measure.

We estimate ABInBev has a 10 year embedded volume CAGR profile of 1.3%

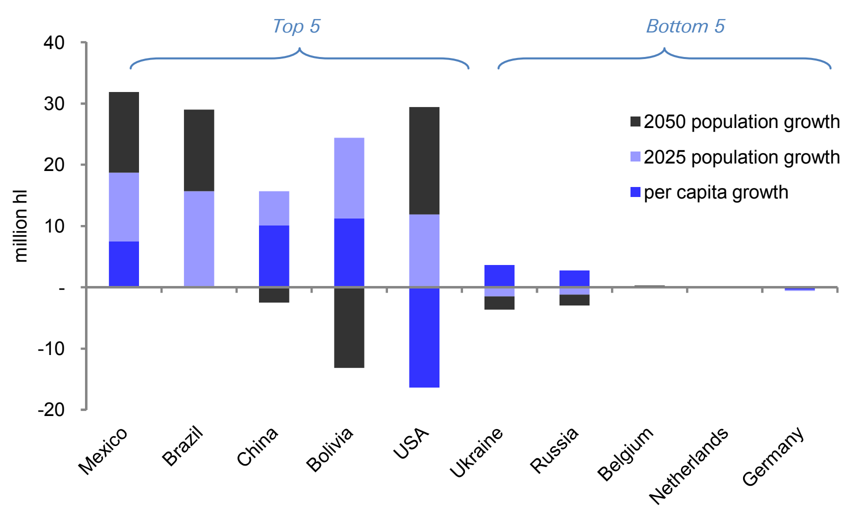
Figure 118: ABInBev embedded growth profile to 2050



10 Year CAGR assumes steady state per capita consumption growth to potential on 2014DBe volume.
35 year CAGR assumes full per capita consumption potential on 2014DBe volume.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

The Latin American South and Mexico regions for ABInBev will continue to drive growth, both due to population upside.

Figure 119: Embedded volume in key ABInBev markets



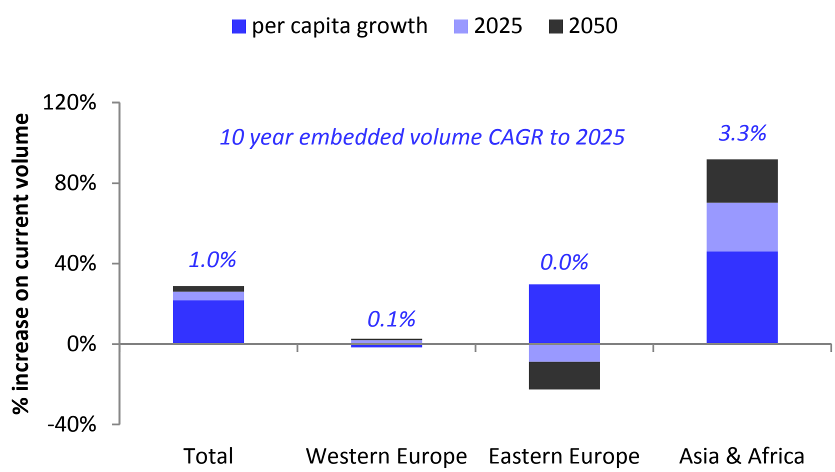
Source: Deutsche Bank estimates, World Bank, Plato Logic, World Bank, Euromonitor.

Carlsberg, don't hope too much from Russia

Negative population dynamics in most of its footprint hampers the growth potential of Carlsberg, with the likes of Poland driving volume declines. We estimate Carlsberg has 32 million hl of embedded growth by 2025 and up to 35 million hl by 2050.

We estimate Carlsberg has a 10 year embedded volume CAGR profile of 1%

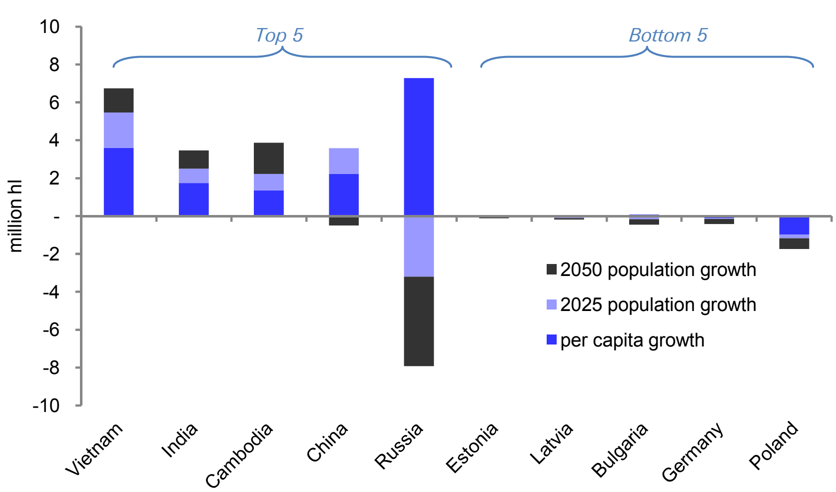
Figure 120: Carlsberg embedded volume growth profile



10 Year CAGR assumes steady state per capita consumption growth to potential on 2014DBe volume.
35 year CAGR assumes full per capita consumption potential on 2014DBe volume.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

The potential for Carlsberg is primarily in driving per capita consumption in its Asian footprint with markets such as their West China exposure, India, and Nepal driving that potential.

Figure 121: Embedded volume in key Carlsberg markets



Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor

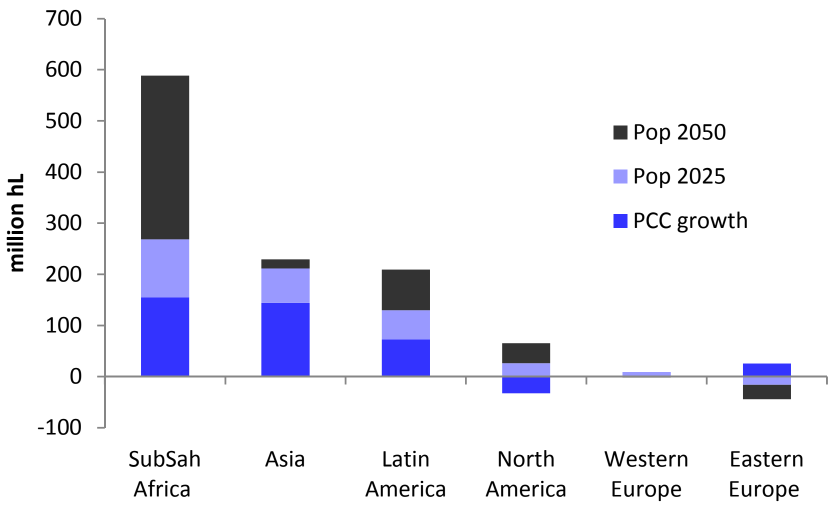
Where is the embedded growth?

An additional 1 billion hectoliters of growth available

Today, the global beer volume is 1.95 billion hectoliters (hl). Summing up the potential of 194 markets, we see an additional 630 million hl by 2025 and 1.1 billion hl by 2050 of embedded untapped volume.

We estimate the global beer markets has an embedded volume 10 year CAGR of 1.8%

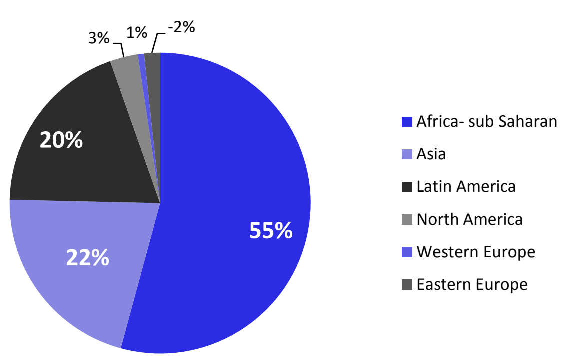
Figure 122: Embedded volume potential by 2050



Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor

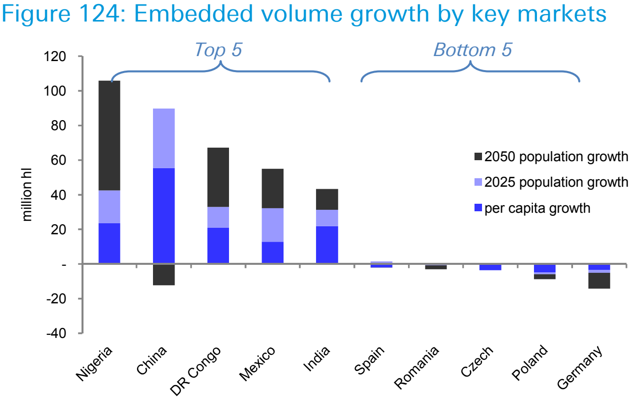
Africa accounts for halve the world's potential growth. Asia and Latin America account for about 20% each of the potential. We think North America and Europe will be treading water, with Eastern Europe expecting real volume declines.

Figure 123: Embedded volume growth potential by 2050



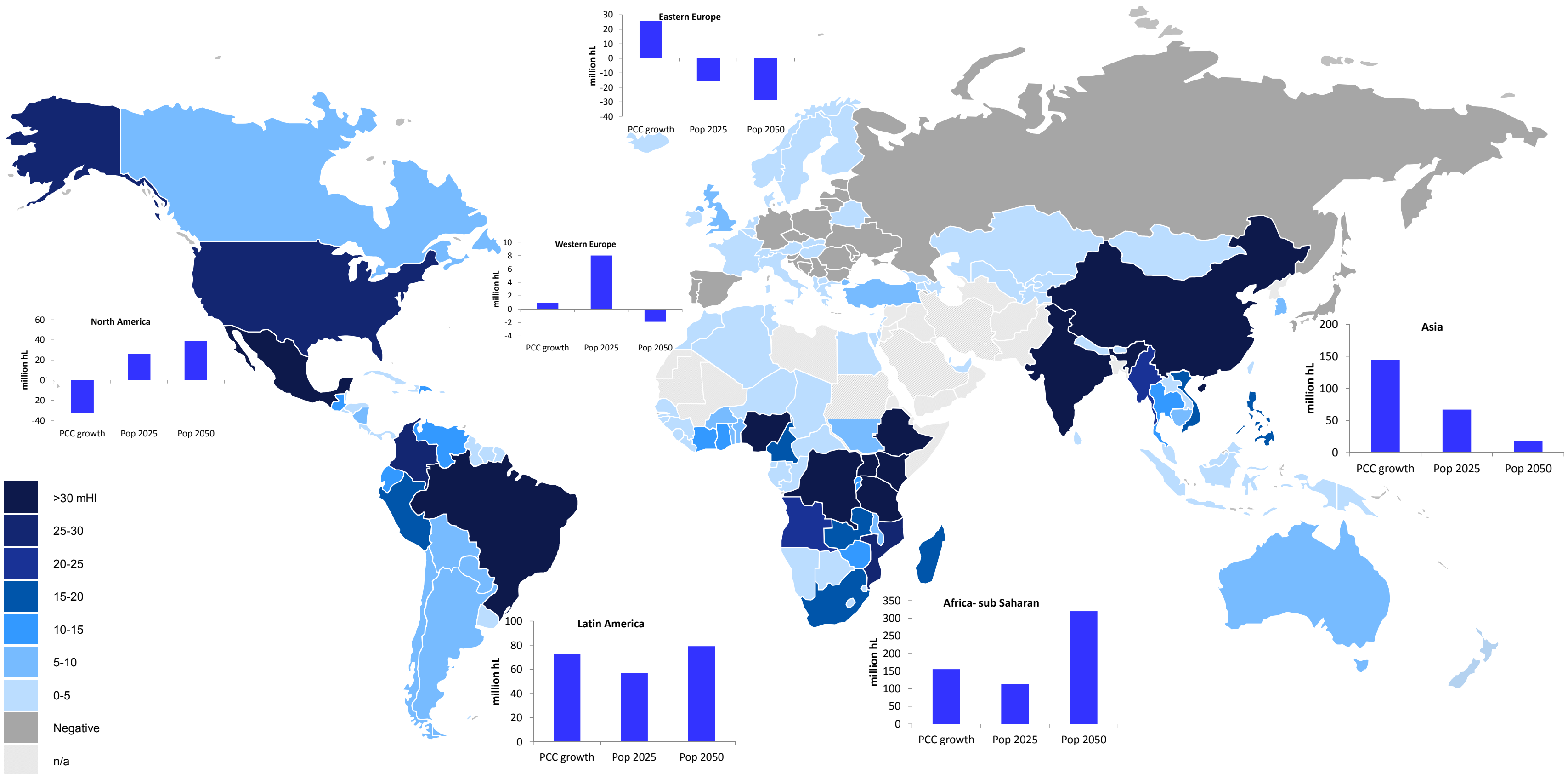
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor

Figure 124: Embedded volume growth by key markets



Source: Deutsche Bank estimates, Plato Logic, World Bank, Euromonitor,

Figure 125: Embedded incremental volume growth potential by 2050



2013 volume: 1.95bn hl
2025 volume: 2.3bn hl
2050 volume: 3.0bn hl
10 year CAGR: 1.8%

10 Year CAGR assumes steady state per capita consumption growth to potential on 2014DBe volume.
35 year CAGR assumes full per capita consumption potential on 2014DBe volume.
Source: Deutsche Bank estimates, World Bank, Plato Logic, Euromonitor, company reports

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The moat around beer

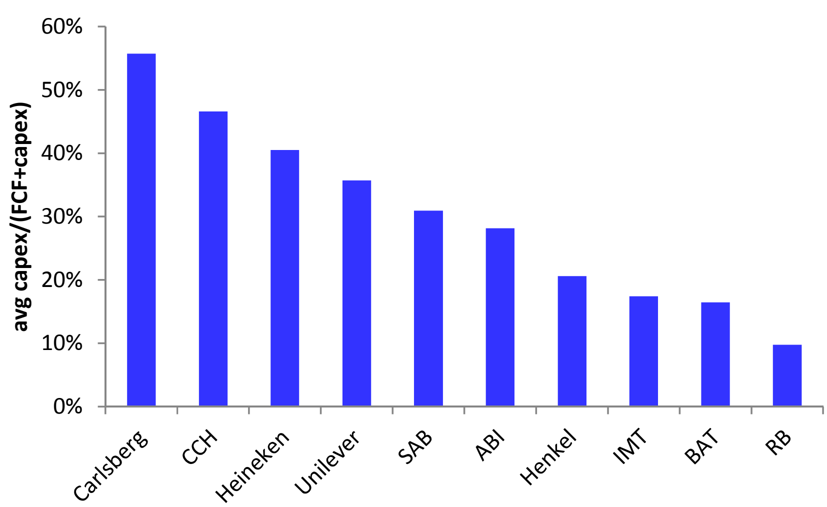
Beer is a fresh, bulky, low value, high volume product. Volume drives leverage and margin expansion and the bulkiness limits the physical range of beer brands. Brand power rooted in local tradition and regulations further makes beer a local business. The localness sustains consistent earnings, providing strong cash flows to invest in growth for both capacity and brands. Having a moat, however, does not necessarily translate into dynamic pricing power.

Beer is a volume business

Beer requires a continual reinvestment in production capacity

Beer is a capital intensive business. As per Figure 126, brewers spend anywhere from 30 to 60% of cash flows on building and maintaining capacity. Brewers consistently invest a ratio which ranges from 6 to 8% of revenue. To maintain a level of necessary production and quality, a recurring ratio of 0.9x depreciation is required, or approximately 4 to 5% of revenue.

Figure 126: Capital expenditures of brewers 2011-2013



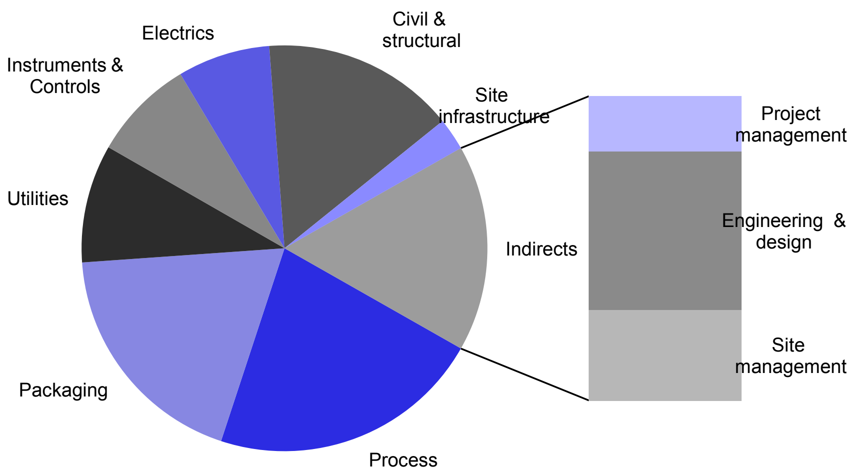
Source: Deutsche Bank, company reports

Building a brewery is costly

The cost of development is very much regionally and size dependent, ranging from \$50/hl in China to \$130/hl in the more remote parts of Africa. As per Figure 127, the heart and large chunk of the costs of any plant, the brew house, is still very dependent on European manufacturers with German engineers being very costly to deploy.

As an example, the German manufacturer Krones Group is the core supplier for packaging expenditures in brewing. In 2013 alone, the Krones group generated €1.3 billion of revenue on selling, installing and maintaining packaging equipment to alcohol manufacturers alone. Brewing, fermentation and storage vessels tend to be more competitive with Chinese manufactures making a significant appearance. The greatest variable in the costs, however, are the civil and structural costs which can be very regionally dependent.

Figure 127: Cost components to a brewery built



Source: Deutsche Bank estimates, Krones, Ziemanns, Hupfmann using a 500,000hl brewery as indicative.

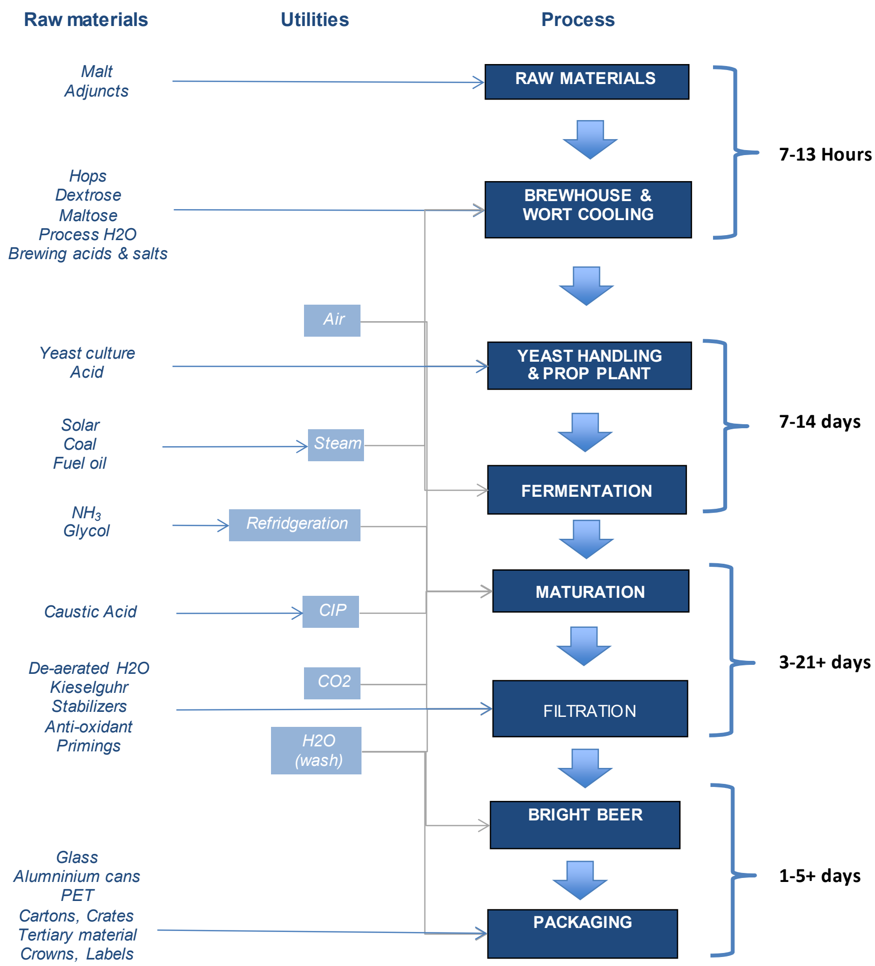
Once a brewery has been sized properly and in situ, expansion is relatively simpler and less costly, furthering entrenching the moat around an existing brewer.

There are no shortcuts in making beer

Beer is a live product and takes time. A decent lager beer needs 18 hours in the brewhouse and anywhere from 12 to 40 days of fermentation and storage for maturing before being available for consumption. The key word is decent.

A good beer needs 15 to 25 days in the production cycle

Figure 128: Beer production cycle

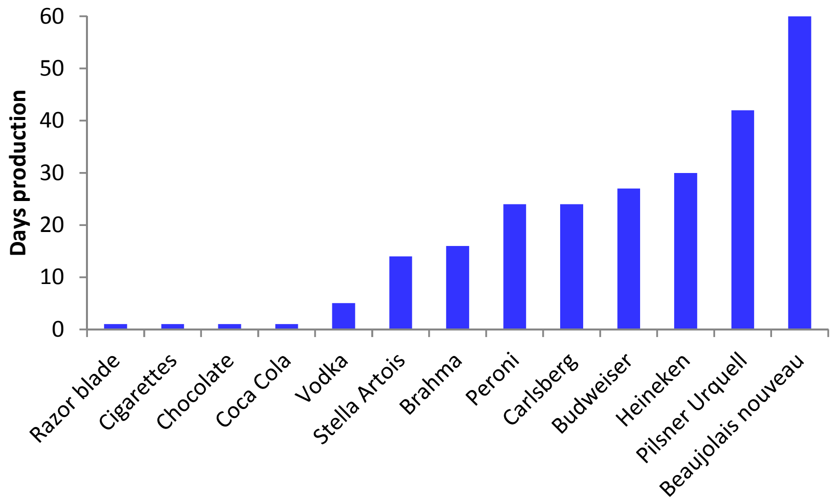


Source: Deutsche Bank estimates, company reports, Ziemanns, Hupfmann using a 500,000hl brewery as indicative.

Many attempts have been made to shorten the process, often resulting in barely palatable concoctions. However, the expansion of the four big brewers in every corner has ensured that good and decent beer is pretty much available anywhere.

The Nathan Method has probably been most effective in reducing the brewing cycle and has been widely adopted by all brewers. Originally implemented in the Cascade Brewery in Hobart in 1927, the method shortened fermentation from 3 months to 12 days by removing direct contact with the air and introducing the conical fermentation vessels. Popularized as a means of managing the oppressive heat in Asia, it removed the need to store and mature beer in icehouses using open horizontal tanks.

Figure 129: Staples and beer production cycles



Source: Deutsche Bank estimates, company reports

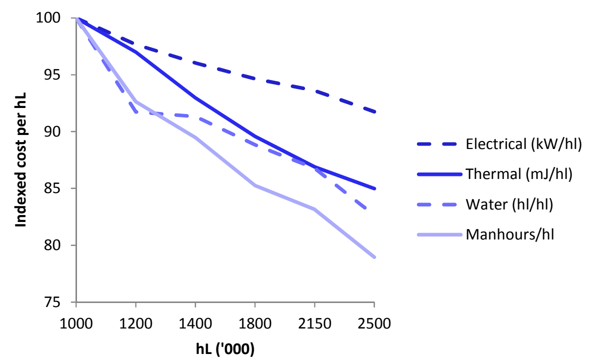
Relative to other staples, the beer production cycle is long

Recent attempts to shorten the brewing process are effective in reducing the cost base of brewing, but do have a noticeable impact on quality. High gravity brewing at around 20° Plato rather than the customary 12° to 14° reduces the amount of utilities and energy required as well as increasing throughput in a brewery. The extensive use of enzymes reduces the production cycle by speeding up fermentation and maturation, but leaves a noticeable aftertaste on the palate. Both items are more common in economy brands, though some brewers use it for their full range of brands, including premium variants.

A need to sweat the assets

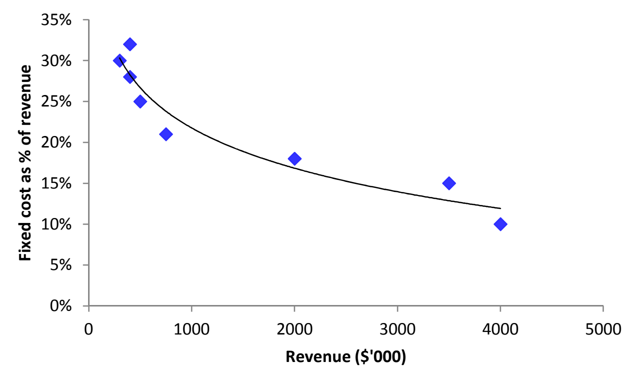
Leverage is a brewer's best friend as more volume through the brewery drives lower costs and margin expansion on a large fixed cost base. Optimal capacity utilization ranges around 85%, but this is very dependent on seasonality.

Figure 130: Illustrative volume leverage impact



Source: Deutsche Bank estimates, illustrative data based

Figure 131: Fixed cost leverage in 8 companies



Source: Deutsche Bank estimates, 2013 company reports of 8 listed subsidiaries and illustrative data

As plant utilization increases, utility efficiencies such as electrical, thermal and water usage improves dramatically. The biggest components of leverage are man-hours and fixed costs, both inside, as well as outside the plant.

To generate a return on investment at the required rate of cost of capital, acceleration of brewery utilization is required. As illustrated in Figure 132, initial margin compression can be expected when new breweries are less than 50% utilized. However, leverage accelerates above that point. More stuff through the plant, the better the margin.

Figure 132: Illustrative leverage impact of a new brewery

Plant peak utilization	30%	60%	90%
Revenue index	100	200	300
Brewing materials	15	28.2	39
Packaging materials	15	30	44
Electrical & thermal	10	19	26
H2O/H2O use	5	9.5	13
Plant fixed costs	10	18.8	25.6
Depreciation	5	5	5
Distribution fixed	4	5	6
Distribution variable	2	4	6
S&D fixed costs	15	20	25
Marketing	10	16	20
EBIT	9	44.5	90.4
EBIT Margin	9%	22%	30%

Source: Deutsche Bank estimates, illustrative data

The more throughput in a brewery, the stronger the margin leverage

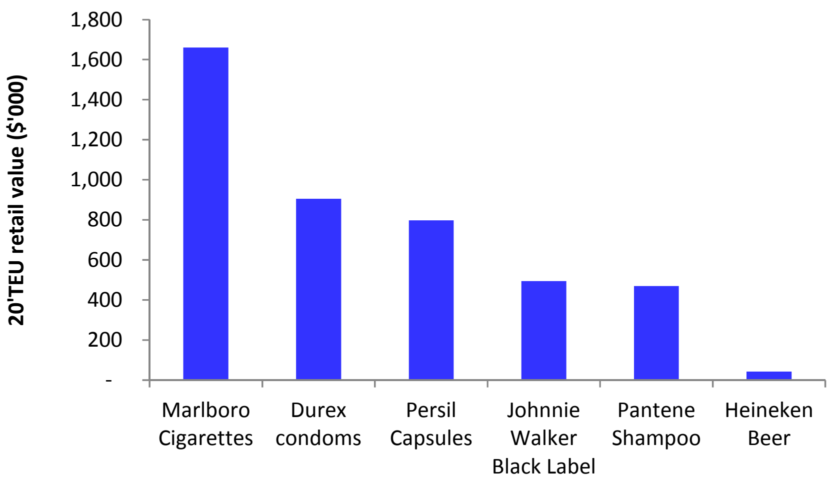
Heavy and local

Beer is bulky

Beer is a bulky business- a low value product which is costly to transport. The bulkiness of the product gives beer a protective moat around its production zone which is difficult to displace. To give an indication of the limitations, the value of transporting a container of beer from Europe to London is 2% of moving cigarettes over the same distance.

Beer is costly to transport

Figure 133: Retail value of a 20ft container transported across the oceans



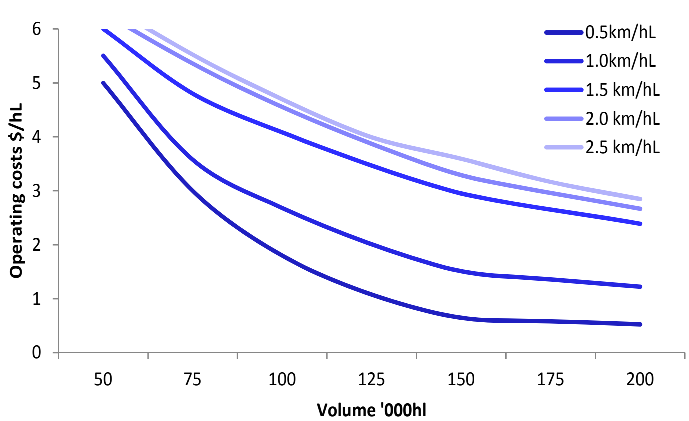
Source: Deutsche Bank estimates, Amazon for retail values, WorldFreight rates

If a 40' container can hold 1450 cases of 340ml beer, it would cost $2000 to move across the Atlantic. This would add roughly $15 to $30 per hl.

The inefficiency of distributing a bulky product also creates leverage points as the operating costs of delivery are a function of distance as well as volume.

An optimal range of beer distribution is around 300km from the center of production

Figure 134: Operational distribution vs volume and distance



Source: Deutsche Bank estimates, expert interviews

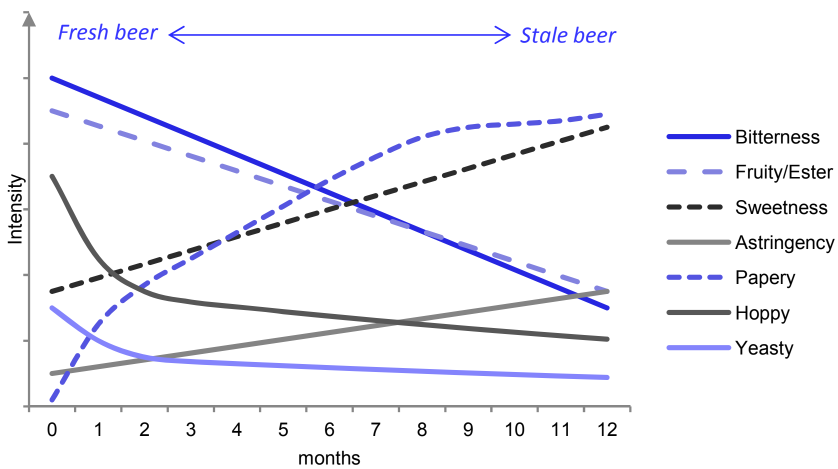
An optimal range of 300km from production plant drives the lowest operating costs with the packaging format an additional consideration.

Beer has to be fresh

The best lager beer is fresh beer. Though the “Born on Date” campaign by Anheuser-Busch to indicate the freshness did not necessarily have the desired sales impact, they did have a point. Like bread which has similar ingredients and unlike wine and spirits, beer does not get better with age; it deteriorates the moment it leaves the brewery gates. Core notes in beer such as bitterness and hoppiness deteriorate immediately while astringency and the cardboard taste one recognizes in stale beer come to the forefront.

Good beer has a short shelf life limiting its range of distribution

Figure 135: Flavor intensity of core beer notes

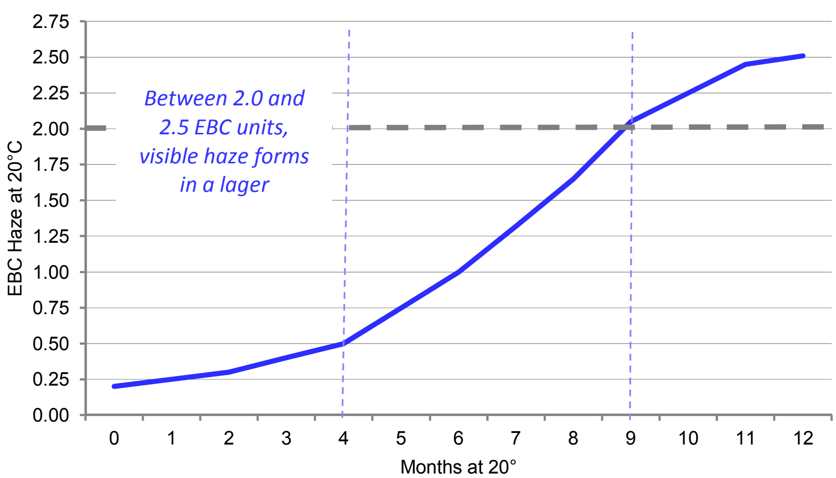


Source: Deutsche Bank estimates, MBCo beer university, Siebel Institute of Brewing Technology

Colloidal stability is the measure used in determining the expiration dates of beer. Proteins in beer eventually conglomerate and sink to the bottom of the bottle. The colloidal haze formed by polyphenols and protein interaction does not impact the taste nor beer quality at that point, but most consumers drink with their eyes.

Colloidal stability determines the commercial shelf life of a lager, but the taste has already been long compromised

Figure 136: Beer colloidal stability



Source: Deutsche Bank, Sigrist, Siebel Institute of Brewing Technology

Though the taste has already been compromised by the second month, the colloidal stability remains stable for several months until it reaches a point where it is no longer commercially acceptable - 3 to 12 months on average.

Why international premium works, sort of

A profitable exception to the above rules can exist if it implies the following:

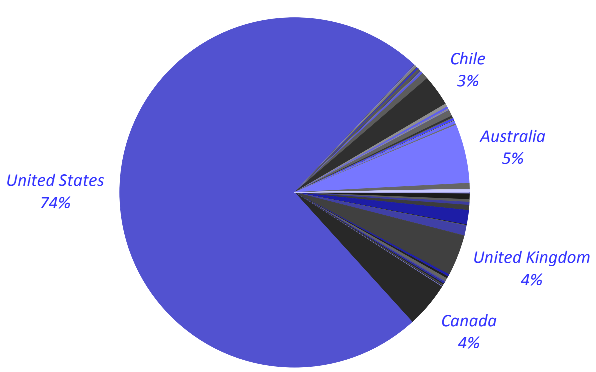
- Significantly cheaper production and labor costs
- Beers flavor profiles that are less impacted by time
- Premium pricing
- Insignificant transport costs

Corona and Guinness have been able to overcome export barriers in beer

Historically, Diageo and the Guinness brand have ticked 3 out of the 4 boxes above and have been able to mitigate the last one, transportation by splitting the production. The company benefits from favorable tax treatment in Ireland lowering real cost of production. The heavy and robust profile of a stout, especially with Guinness FES at 7.5% alcohol in Africa, hides flavor inconsistencies. As is common with bulk wine and coca cola, transport costs have been mitigated by separating the Guinness wort and shipping it from Ireland before being 'diluted' in situ.

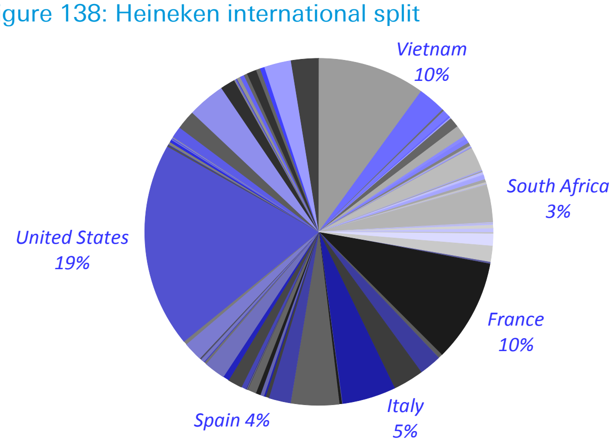
Corona ticks all four boxes comfortably. Being based in Mexico, it has low production costs for a beer. Any inconsistency in flavor profile is masked with a lemon or lime. Three quarters of its international volume travels 14km from the Piedras Negra brewery. The long tail of markets with small volumes is mostly managed by entrepreneurs who are more flexible in their cost structure.

Figure 137: Corona international split



Based on 2013 data
Source: Deutsche Bank estimates, Euromonitor Plato Logic, Canadean. Excludes Mexican volume.

Figure 138: Heineken international split



Based on 2012 data
Source: Deutsche Bank estimates, Euromonitor, Plato Logic, Canadean. Excludes Netherlands volume.

For Heineken, exports are a two stage model. Stage one is seeding the brand through exports at a premium index of 250 to mainstream. Once established, local production can be found from Nigeria to Curacao. The USA remains the exception to the model where all beer is imported as part of its Dutch provenance - a hangover from the 1970's when imported beers brewed locally nosedived due to perceived quality issues. It remains to be seen whether ABInBev's current experiment of brewing Beck's locally in the USA will eventually be applied to Stella Artois and Heineken.

Regulation driven locally

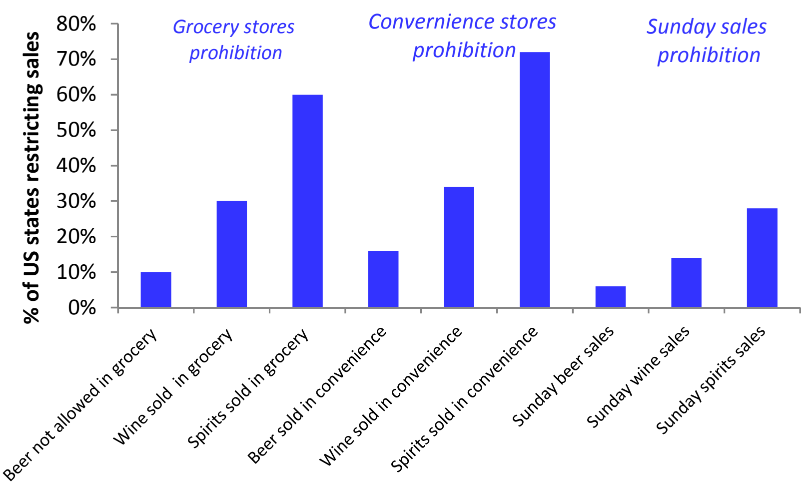
Beer is a visible product. It is consumed in public occasions and tends to be consumed leisurely. It is also one of largest tax contributors to governments, particularly in more developing societies. It is the local communities who determine the rules of the game ranging from opening hours to bar licensing to taxation. Regulations are determined locally, not globally.

Beer's visibility makes it a magnet for regulation

Not a tobacco scenario

In terms of the regulatory environment, alcohol is often described as the next tobacco. The pressures are different for beer due to its local nature. In contrast to tobacco, alcohol and beer is a local issue due to its visibility in the community and local control of taxes.

Figure 139: Local beer selling restrictions in US states



Source: Deutsche Bank, Beer Institute

Regulation in beer is driven by local, rather than global agendas

Despite attempts by the WHO to similarly demonize alcohol, their Framework on Alcohol Policy is more moderate and its adoption very much limited. The stated purpose also differs significantly. Recognizing that alcohol plays a role in a quality of lifestyle and even can have some health benefits, the purpose of the framework is to reduce harmful use of alcohol by 10%, rather than the abolition and total reduction sought for tobacco.

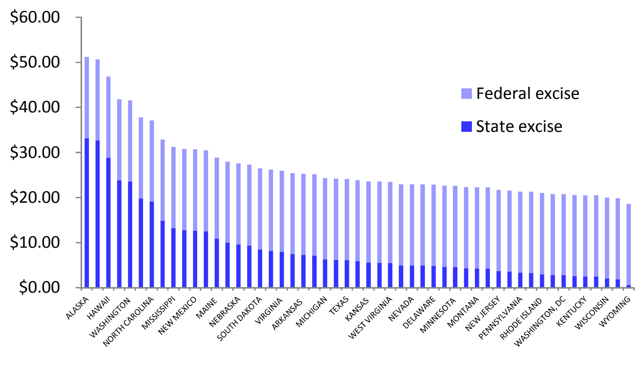
Excise is a local game

Taxation of beer is a national, and increasingly a state and community affair. In markets where federal structures exist such as the USA, India, and Brazil, excise and licensing laws are determined at a state level.

Prime driver of local regulation is excise duty

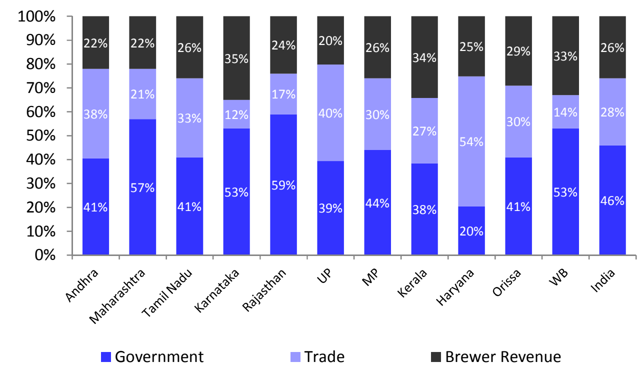
US federal excise rate is $18 per barrel, last raised in 1991 when it doubled. State excise is on average is around $8.30, Ranging from $0.59 in Wyoming to $33 in Alaska. The three tier system helps assure that the 435 US congressmen protect entrenched rights of the local beer distributor. In the 2013 election cycle alone, 64 of the 100 Senators received sizable donations from the industry, led by the senior senator from Texas, John Cornyn of Texas with $167,000 in total from the various alcohol lobbies. Texas also has some of the most favorable legislation for entrenched beer distributors. In Congress, 389 of the 435 of the member of congress received donations, led by Speaker of the House John Boehner with $161,000.

Figure 140: US federal and state excise



Source: Deutsche Bank, Beer Insitute

Figure 141: India local excise and tax impacts



Source: Deutsche Bank estimates, SABMiller company presentation

State level excise and regulation will hamper India's beer growth for the foreseeable future

Similarly in India, beer regulation is, and will continue to be, determined at a state level. The visibility that accompanies the social consumption of beer makes it more vulnerable to regulation in a country where religious sensitivities must be taken in to account. There are over 30 different excise regimes, which remain varied and unpredictable.

Excise seen as a cost of sale

Though all the major brewers now report their revenues net of excise duties, the difference between gross and net revenues can (and must) be managed. Excise is a cost of sale whose implication is borne by the consumer and the same discipline that is applied to fixed cost management can be applied to government relations. This cost of sale is determined locally, not by a global procurement department, and determines the rules of the game in which brewers play.

Brand loyalty stronger in beer

Publicly bought, publicly consumed

All the brewers use similar methodologies to get to the essence of their brands. As an emotional thought on a rational differentiator, a beer brands' functional attributes and benefits of a product are laddered to an emotional benefit and create deeper loyalty to the brand as in Figure 142.

For beer, core functional attributes tend to focus from either an input which tends to be geographically defined or a process which is able to travel further. Within the vast majority of beer, provenance provides a core common threads providing a reason to believe why the beer might be superior - even Italian beers are able to command a sizable premium despite the profound lack of history or culture associated with the beer category.

Figure 142: Consumer staples brand ladders

	Heineken	Dove	Dettol
Social benefit: Appear...	...like I know my way around		
Emotional benefit: Feels...	...worldly and I can navigate life	...as beautiful as I am	...nurturing to my loved ones
Rational benefit: Does...	...global refreshment	...real results on real women	...dis-infectment reassuringly
Product attributes: Has...	International ubiquity Dutch provenance Green star bottle	Soft active ingredients ¼ moisturizing cream	Antispectic smell Chloroxylenol Medicinal packaging
Consumer insight	*Nobody wants to be a provincial amateur*	*There are unrealistic expectations for female beauty*	*Health is a priority when my loved ones get hurt*

Source: Deutsche Bank estimates, company reports, Cannes Lions entries

The functional attributes ladder up to benefits ranging from easy drinking refreshment in the core of the beer category to deeper flavor, and perhaps challenging profiles.

Beer has greater emotional and social currency than other consumer staples

Where beer significantly differs from other staples is the depth of the emotional connection (the alcohol helps) as well as its ability to fulfill social needs. Unlike toothpaste and dishwashing tablets, that ultimate moment of consumption is most likely to occur in front of friends in a moment of judgment. It is as much a moment of badging as it is also a moment to prevent embarrassment.

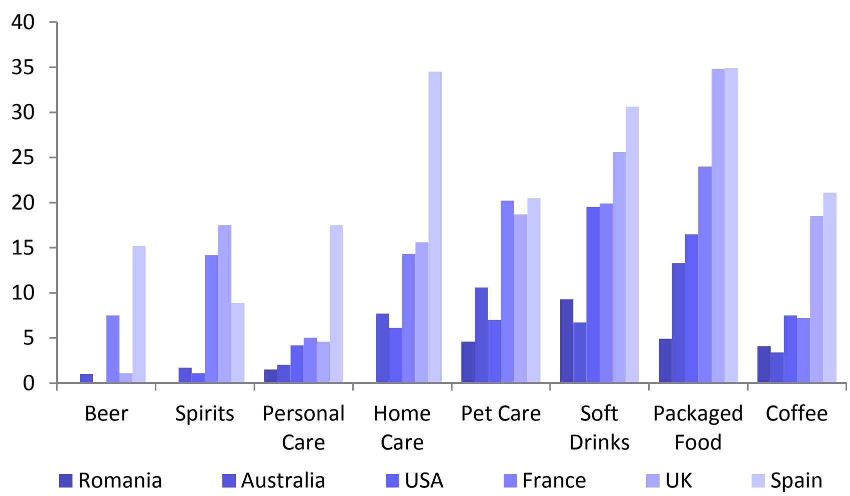
Beer is one of the few consumer staples which are both publicly bought as well as publicly consumed. It also means that beer has much deeper emotional and social currency than other consumer staples categories and as such a more entrenched franchise more difficult to displace.

Private labels unable to commoditize beer

Beer strongly under-indexes in private label penetration

The emotional strength of beer brands can be demonstrated by the lack of private label penetration in the category. Markets where there has been a level of penetration tend to either lack an inherent beer culture, such as Spain, or have had a significant shift towards the discounter off-premise purchasing. The consumer who drinks from a 2.5 liter PET bottle of beer at home watching football on the television on his own while comfortably dressed tends to be less discriminating on the social currency of their brand choice.

Figure 143: Consumer staples private label penetration



Source: Deutsche Bank, Euromonitor

Local roots will continue to drive the core of beer

Globally, consumers believe their local brand is superior

Beer is rooted to in history. Based on tax records, Zatec brewery in the Czech Republic claims to have been around since 1004 A.D. (Where there is a brewery, there tends to be a local tax authority.) As markets hit a level of sophistication and more importantly consumers have to work less than 30 minutes to afford a beer, regional and international premium will continue to grow ahead of global mainstream. However, the heartland of beer is very much rooted locally.

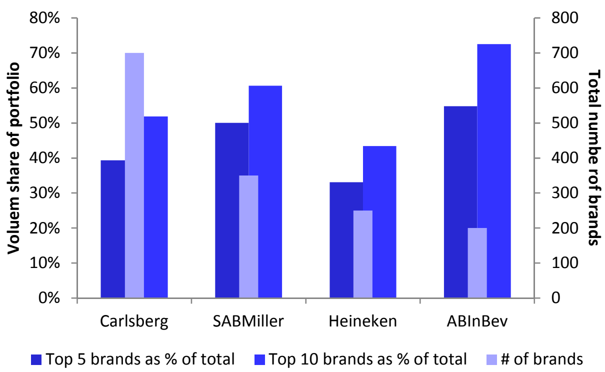
As in Figure 143, despite consolidation over the past decade, the brewers still have over 250 brands for a single category with Carlsberg leading the pack.

The heartland of beer territory tends to also be the heartland of national identity. Budweiser and Bud Light represent Americana, Brahma the passions of Brazil and Tyskie a self-depreciating Polish identity. Though the international brands do have unrivaled quality credentials, most consumers around the world believe that the beer in their native market is superior.

With the exception of a handful of markets, the largest beer in any market is local. The exceptions are instructive by themselves. Amstel is the largest beer brand in Greece, though it can be reasoned the lack of any historic beer culture gave room to that possibility. Carling Black Label which was originally launched as “America’s lustiest beer” on the back of a Marlboro-type cowboy campaign in 1966 is the biggest brand in South Africa, though it can be argued that since then any similarity to the brand in the UK or Canada has been dissipated. In Africa, there are a dozen markets where a regional brand such as

Castle Lager, Primus and Flag lead in smaller countries. It can be argued that the borders in Africa are very much an artificial creation. Even so, in the past decade, smaller local brands such as Maluti in Lesotho are growing ahead of the market sowing the seeds for brands more deeply rooted in their national identity.

Figure 144: Brand concentration



Source: Deutsche Bank estimates, company reports

Figure 145: Leading brand in a 179 beer markets

Leading brand in a market	# of markets	
Local brand	145	Local brand champion
Localized foreign brand	3	Carling Black Label in UK and South Africa
		Mutzig Cameroon
Regional African brand	15	Castle Lager southern Africa
		Flag & Castel west Africa
		Primus central Africa
Global brands in non-beer cultures	10	Arab markets Jordan, Algeria; Greece
Global brands other	6	Carlsberg/Tuborg Malaysia, Malawi, Norway
		Coors Light Canada

Source: Deutsche Bank estimates, company reports

Similarly, South Sudan's largest brand Nile Special comes from neighboring Uganda, though perhaps it can be excused as the nation is only a few years old and its native beer, White Bull, born a year before nationhood.

The handful of exceptions which are difficult to rationalize tend to be Carlsberg markets. What is notable, though, is that all these markets from Norway to Malawi vastly underperform their potential based on the beer market typology and level of income.

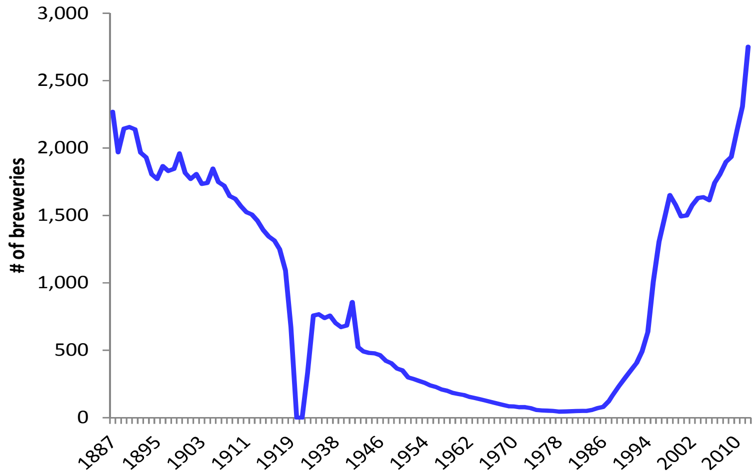
The locality of craft beers and lifestyle choice

The US craft beer phenomenon entrenches local credentials for beer

The craft beer acceleration in the USA has demonstrated an even deeper level of localness. Part of the craft movements in the US can be explained due to some self-inflicted harmful behavior by the established brewers. Over the past 30 years, bitterness has been actively reduced in the main brands not helped by the push behind light beers. The flavor profile in the USA has half to one third the bitterness units of a standard European lager.

Secondly, the importers have damaged the image of beer by making it less special to be from Europe. During the 90's, it became difficult to differentiate the marketing campaigns between premium and mainstream lagers as all beer tended to gravitate to the lowest common denominator of "frat boy" marketing. Instead of international premium lager being special and made by those who have known beer over several centuries (eg, Dutch and German traditions), the guy from the valley next door with hairy knees suddenly became the expert in beer having learned the brewing craft from a manual and a bearded fellow he met in the pub.

Figure 146: US Craft explosion or normalization



Source: Deutsche Bank, Beer Institute

The shift in the taste profile can best perhaps be indicated by the type of raw material usage. Hops as a percentage of raw materials in US brewing have increased from 0.4% in 2000 to 1.8% of raw material input - accompanying the rise of the India Pale Ale and various, stronger, enamel cleansing versions.

Nevertheless, craft beer revitalizes a stale category in the USA and created a resurgence of interest and marketing support behind new launches by both MillerCoors and ABInBev. It is unlikely that the craft aficionado will convert to Third Shift or Shock Top anytime soon. However, a combination of retail dynamics and the core consumer who experiments and is still a volume consumer will drive large brands rather than beer types as category winners.

The craft phenomenon has also brought a wake-up call to the big brewers in other parts of the world. In Europe, variety is being provided in traditional markets, though the Radler phenomenon has the same danger of diluting real beer profiles just as premium lights have done in the USA. In emerging markets, crafts are being established. We expect this localization of beer will ultimately benefit the brewers who have the local scale, knowledge and experience.

Big moat ≠ dynamic pricing power

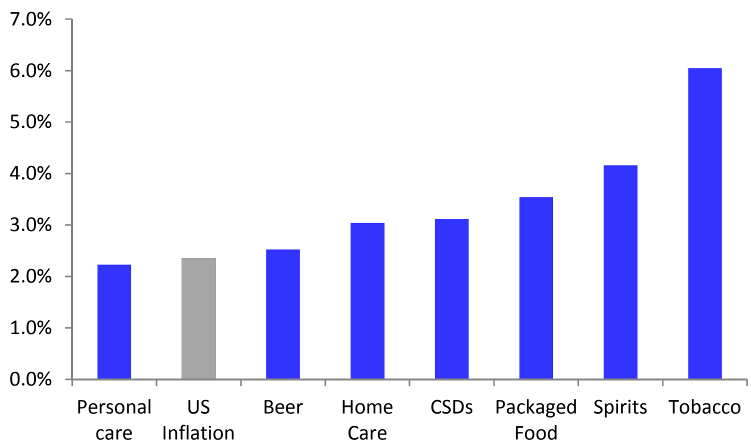
Having a strong moat around operation does not necessarily translate into pricing power for the brewers. Rather the pricing power is static - brewers have the ability to ensure inflationary pricing while leveraging their volume.

Beer an underperformer in staples

Relative to staples, price mix has been weak for the brewers, averaging 2.53% in US$ over the period of 2003-2013. Despite the brewer's exposure to volatile currencies and mixed inflation environments, it has been in line with the US inflation rate over the period of 2.39%.

Beer has historically priced in line with inflation

Figure 147: Average global staples price mix in US$ 2003-2013

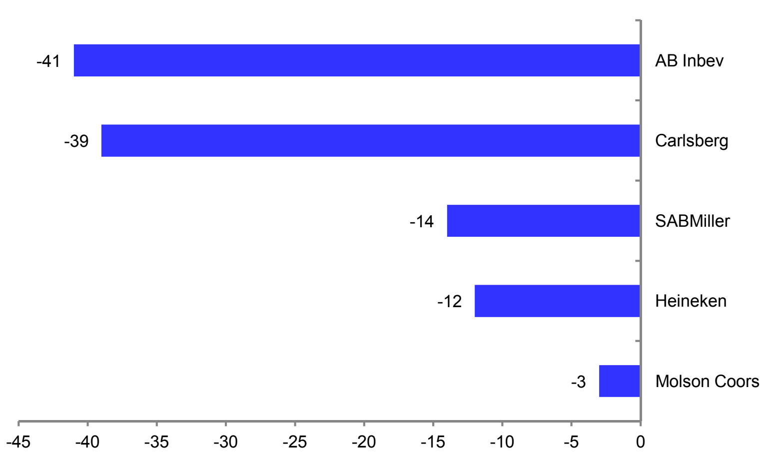


Source: Deutsche Bank, Euromonitor, IMF

Strong growth in developing and lower revenue markets such as China, also have a negative impact. Going forward based on the current growth rates, this is likely to continue as per Figure 148 below.

Growth in emerging markets distorts the price mix

Figure 148: 2014-2018DBe annual geographic mix impact on brewers



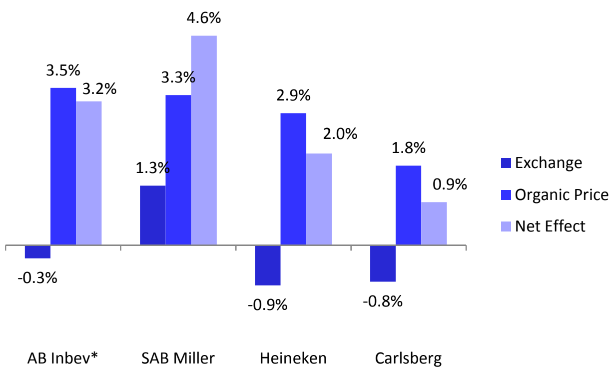
Source: Deutsche Bank, company reports

Pricing with inflation to negate currency impact

The inflationary environment in many emerging markets gives companies a pricing umbrella where regular price increases are ingrained in the market. Both customers and consumers alike have a natural expectation that pricing will increase.

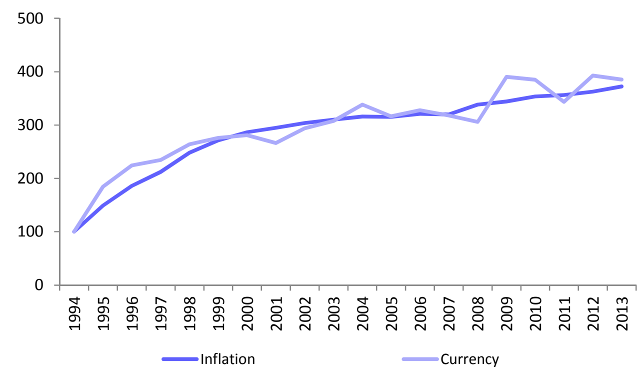
Emerging market currencies fluctuate depending on changes in real interest rates, with inflation expectations driving the differential from nominal rates. The lag between the two results in a temporary mismatch which dissipates over time. The brewers are overexposed to markets with volatile currencies. However, over time, inflation and currency movements balance out. Brewers who exercise the power to price during these inflationary periods are able to maintain a static pricing environment.

Figure 149: Average brewer pricing 2004-2013



Source: Deutsche Bank, national statistics offices

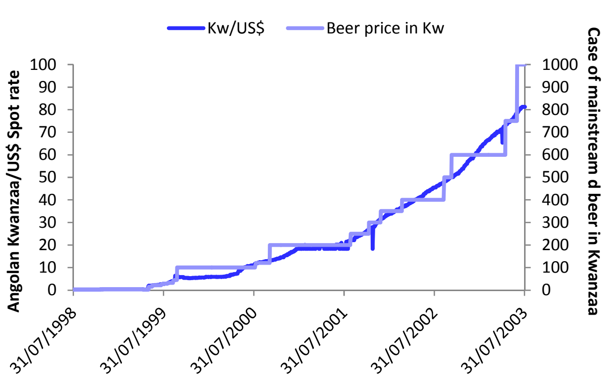
Figure 150: Mexico Peso spot and inflation movements



Source: Deutsche Bank, Datastream

Even the hyperinflationary environment displays solid static pricing power as seen in Angola. The combination of a civil war and plentiful oil led to a rapid devaluation of the official exchange rate in Angola. After dropping a few digits in 1999 where a million Angolan Kwanza equaled one new readjusted Angolan Kwanza, the spot rate stabilized at 0.25/US$.

Figure 151: Angola pricing and currency 1998-2003



Source: Deutsche Bank estimates, Datastream

Figure 152: Roque Santeiro, Luanda Angola 1998

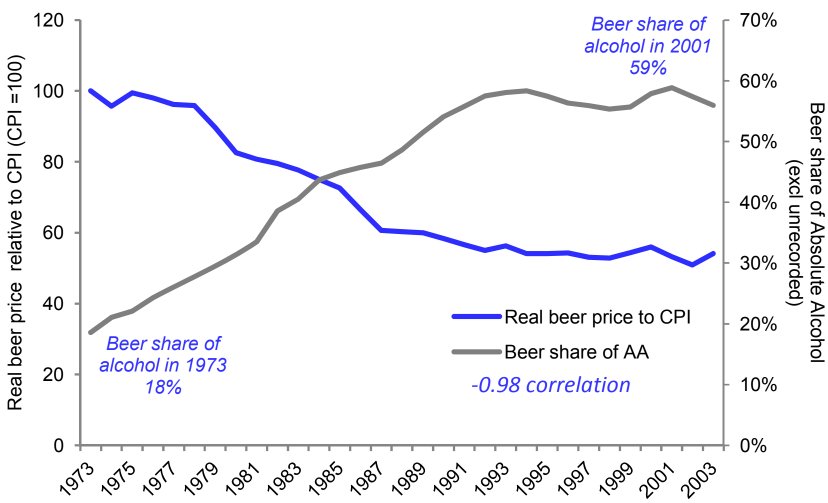
Source: Deutsche Bank, personal collection

Before it closed down in 2010, the heart of Angola's informal economy was the Luanda trading venue of Roque Santeiro which was famous for being the largest market in the world, roughly the size of a square mile. Each so-called retail outlet consisted of a dirt floor and tin sheets or tarp for roof, with abandoned shipping containers sufficing as supply depots. Beer volume traded in the market peaked to over 15 million cases per year. In 1999, the Roque Santeiro selling price for a case of beer stabilized at around Kw2.5, or $10. Devaluation accelerated over the next 4 years as per Figure 152. However, both brewer and real beer pricing in US$ enacted by the 300 beer traders in the market remained stable with pricing at around US inflation rates.

Beer does not exist in isolation in emerging markets….

The brewers, however, price above inflation at their peril in both developed and developing markets. Making the conscious choice to price below inflation can drive volume as per Figure 71 earlier and gain share from other forms of alcohol. As the pricing gap between illicit alcohol and beer closes, consumers willingly trade up to the more desired lager beer.

Figure 153: South Africa alcohol market share and real beer pricing



Source: Deutsche Bank, SAWIS, SACBA, SAB, ACNielsen

Pricing below inflation in emerging markets brings consumers into the beer category…

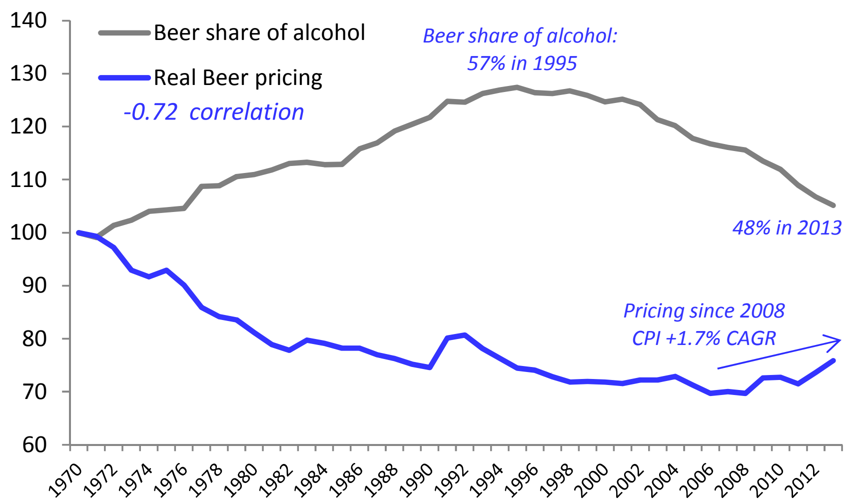
In South Africa illustrated in Figure 153, three decades of pricing below inflation increased beer's share of alcohol from 18% to 59% by 2001. After two decades, the real price of beer was half. Sorghum beer, both commercially produced and illicit, lost the corresponding share. The ability to price below inflation also required the brewery to be ruthlessly efficient and capture the margin expansion delivered by leverage.

…and beer does not exist in isolation in developed markets

Conversely, beer can also gain and lose share of alcohol relative to inflation in developed markets. Beer priced below inflation from 1970 to 2000 drove beer's market share of absolute alcohol in the United States from 45% to 55%. Though not as strong as in emerging markets, we still see a 72% negative correlation between real beer pricing and beer alcohol share.

…and prevents them exiting the category as well.

Figure 154: US real beer pricing and share of alcohol since 1970



Source: Deutsche Bank, Beer Institute

More concerning is when pricing above inflation. Consumers in developed markets have more choice, and occasions for beer consumption will be dropped or replaced when more attractive pricing alternatives are available. A reversal of this pricing dynamic in the United States has seen beer lose share to other alcohol. Since 2008, brewers started pricing on average 1.8% above CPI for their portfolio, with lower end economy brands such as Keystone Light and Busch Light taking price increases of 3 to 5% above inflation. Beer has since lost share of alcohol and now has declined to 48% share of alcohol.

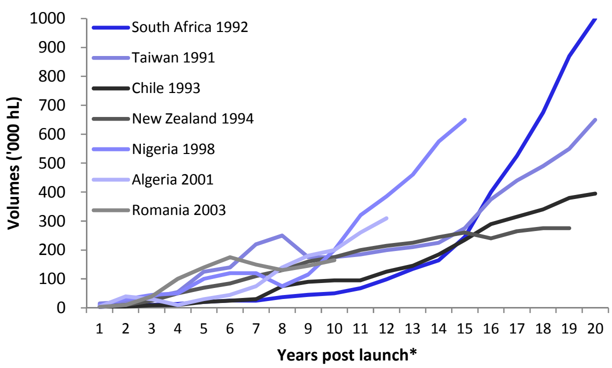
A big moat gives a capacity to suffer gladly

The protective moat around the earnings that the brewers produce also gives an ability to withstand downturns as well as reinvest ahead of demand; they have a capacity to suffer gladly today for the chance to accelerate earnings in the future.

Investing behind brands

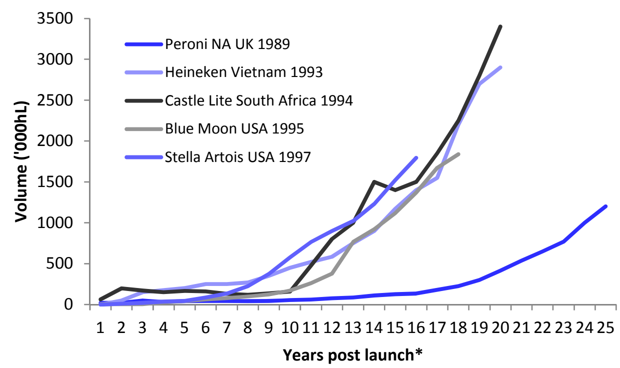
Brand building takes time. Successful new brands endure a long timeline in building their equity. Pre-seeding a brand with the right consumers, the right outlets and marketing properties has become a pre-requisite for sustainability behind new innovations and premium brands.

Figure 155: The patience of the Heineken brand



*Estimated launch year or year volume initially exceeded 5000hl
Source: Deutsche Bank estimates, Plato Logic, Euromonitor

Figure 156: "Overnight" premium brand success stories



*Estimated launch year or year volume initially exceeded 5000hl
Source: Deutsche Bank estimates, Plato Logic, Euromonitor

The brand success stories of today have a seeding platform of five to ten years before accelerating. Blue Moon in the US is often referred to as a 20 year overnight success story. Peroni in the UK seeded into the sub-consciousness of Londoners for 20 years before becoming the leading brand in London. Stella Artois in the USA was nurtured by the former Interbrew team in the right outlets for a decade before benefitting from the ABInBev machinery. Castle Lite in South Africa took 7 years before finding its right marketing mix in 2000 eventually setting it up as a viable alternative to Amstel.

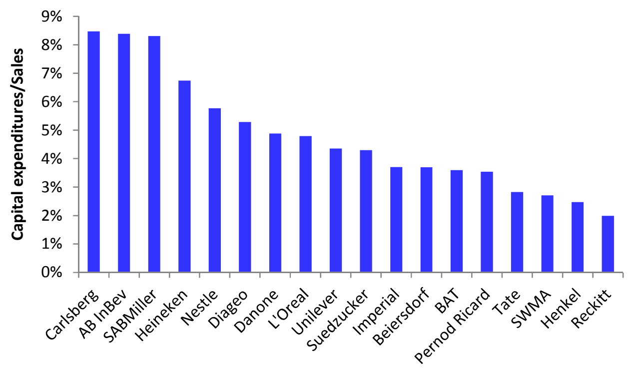
Successful and sustainable premium brands in beer require time and patience

Following his stint at the van Munching & Company in the United States in the 1950's Freddy Heineken left a legacy of patient brand building which remains to this day. Perhaps frustratingly to the shorter term investor, the return on investment in the Heineken brand has a habit of delaying itself beyond the five year horizon. Helped by the awareness created by its global properties, the Heineken brand accelerates after five to ten of seeding, often at the point where the GDP in the market has reached a point where premium brand become viable - when the times worked for a beer is below 30 minutes.

Investing ahead of demand

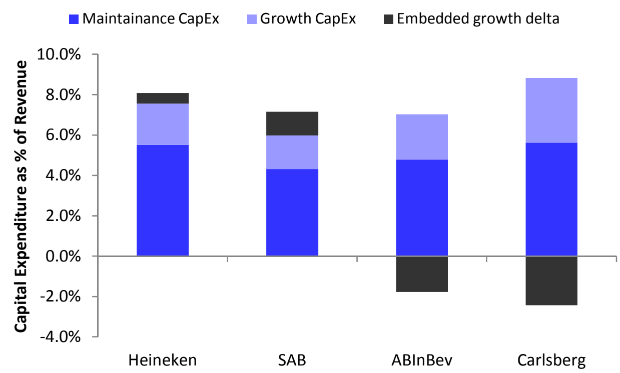
Beer is capital intensive, more so than other staples when looking at a proportion of revenue (Figure 157). The local nature of its business requires a heavy investment in plants, distribution and returnable packaging. The rule of thumb is for brewers to spend 4 to 5% on maintenance and replacement capital expenditure. Another 2 to 3% is expanded on growth projects.

Figure 157: Capital expenditure ratio 2013 in staples



Source: Deutsche Bank, company reports

Figure 158: Required annual growth capital expenditure



Source: Deutsche Bank estimates based on embedded model, company reports

Should we assume that all markets will reach their embedded potential by 2050, this indicates at a building cost of approximately $100 per hl an additional $70 billion needs to be spent in the next 35 years to keep up with demand. This translates to roughly $1.9 billion of growth capital expenditure per annum. For Heineken and SABMiller, this translates to $750 million and $670million per annum - in the range, but below of the current allocated growth capital of both companies.

Investing behind cost savings and future capability?

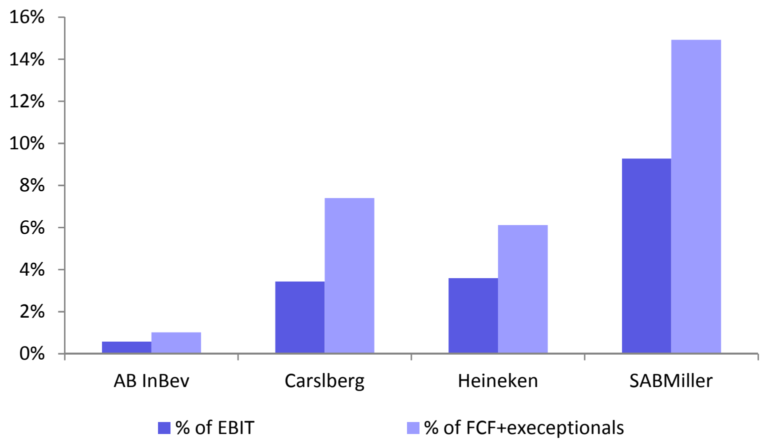
The locality of beer creates stronger entrenched positions, but also limits the ability for the central organizations to add the level of value seen in other consumer staples. Nevertheless, most brewers have been cutting "fat" out of local operations and centralizing more functions under the guise of various programs with 3 initials - ZBB, TCM, F2F, BCP, BSP, GBS, and such.

Cost management and capability have become a commodity and table stake for the big four brewers

The cost programs themselves have become a commodity. To quote ABInBev's Mr. Beto Sicupira, "costs are like fingernails; they always need to be cut." For the four big brewers, benchmarking and cost discipline is becoming the norm. There are perhaps different levels that the savings will be pushed by the different companies – e.g. some of the brewers like clean office windows, others consider it a luxury, and perhaps changing stationary and templates every few years is not the most efficient way of spending shareholder's money. Nevertheless, it is unlikely that the kind of fat that was inherent in Anheuser-Busch, S&N, Fosters and Femsa can be found in the big four.

The current proposed slate of programs may prove to be more costly than the savings they envisage. Building the capabilities both locally and centrally creates a plethora of central resources and initiatives, with more bodies and capital needed locally to implement the programs. Like the supposed savings attained at a Souk in North Africa, the savings claimed are difficult to find on the bottom line.

Figure 159: Exceptional restructuring and programs charges 2008-2013



Average per annum 2008-2013
Non-recurring charges relating to restructuring and transformation programs enterprise resource planning and consolidation initiatives.
Source: Deutsche Bank, Company reports

Brewers have a recurring habit of treating restructuring and capability programs as non-recurring

To fund many of the initiatives, recurring non-recurring items are a common element below the EBIT line. Warren Buffet's "distortion du jour" has been a favorite element for brewers to spend out of sight on cost savings and IT system programs. Looking at restructuring and transformation programs specifically, we find that over the past 5 years, non-recurring charges account for 3% to almost 10% of the EBIT and more of the cash flow that could have rather been reinvested behind capacity or brands – significant in a period where there have been years the brewers beat adjusted EPS numbers by a few pennies.

The capacity to suffer gladly should not be self-inflicted nor hidden. Unilever in 2012 took the decision to ensure that restructuring costs or investments behind new enterprise resource planning systems are simply considered a cost of business rather than non-recurring items. We tend to agree.

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Leveraging scale

Brewers will continue to look at expanding their geographical reach, either by consolidating their associates and partners or with a focus on embedded high growth areas such as Asia. Any combination between the big four brewers is highly unlikely. Rather, we see further opportunity to scale up their businesses locally in new product categories, with soft drinks the core candidate.

The unattractiveness of spirits

High value, low volume with low value, high volume brings dis-synergies

Beer and spirits do not work as a combination

Though there is some opportunity to leverage corporate skills and platforms, especially in emerging markets, a combination of beer and spirits on the same platform proves difficult and has limited benefits. Beer is a low value, high volume item which requires deep penetration into the trade. Premium spirits are high value, low volume items which require a wide top end focus. The lack of synergies is apparent through the value chain:

- Procurement needs differ, especially in packaging and quality of grains;
- Production needs and infrastructure differs, particularly in packaging;
- Warehouse management and distribution most visibly demonstrates the difference between high and low value items. Efficiencies are impacted by the low volume throughput.
- Working capital management differs - stock management for beer is counted in days, with best practice focusing on low to mid single digits. Brown spirits can stay in situ for months, if not years.
- Sales model is inherently different - spirits are about opening one bottle at a time versus pushing and moving multiple crates and returnable beer formats.

Premium spirits are very much a value business that require time and care from production to the sales call. The focus is weighted towards effectiveness. Beer is much more geared towards a volume business which requires speed and depth from production to the outlet. The focus is weighted towards efficiency.

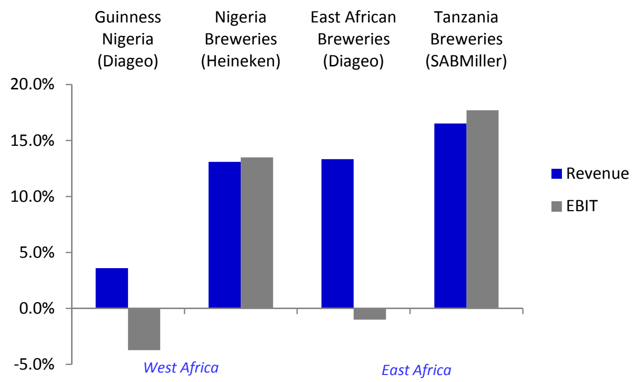
Diageo's mediocre beer track record

Diageo's beer businesses in Africa have strongly underperformed

Diageo maintains its beer operations in Africa as a desirable means to establish a spirits distribution platform. Because Diageo only owns part of the beer businesses in Nigeria and Kenya, but 100% of the spirits businesses that sit on the beer cost base, it works in their favor. Spirits do win in that scenario. Beer, however, has been the loser with particular damage to local shareholders.

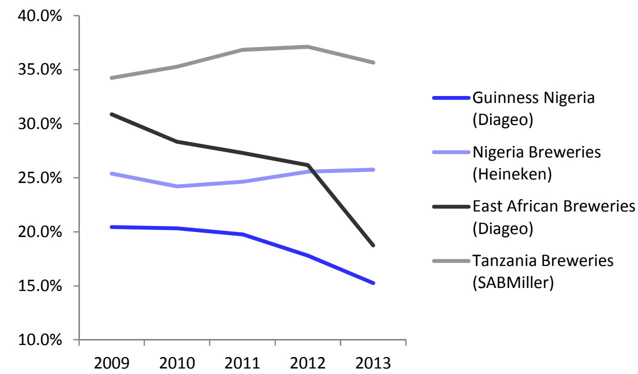
Reviewing the beer operations in Africa in Figure 160 and Figure 161, Diageo has strongly underperformed. In Nigeria, Diageo's 53% owned Guinness Nigeria has seen a negative profit performance in the last five years. Heineken has delivered double digit growth in the same market. For Diageo, margins have declined 500bps over the period.

Figure 160: 5 year CAGR Africa performance (local)



Companies calendarized to full year 2013. Results in Local currency. Guinness Nigeria and Nigerian Breweries in Nigerian Naira. East African Breweries in Kenyan Shillings. Tanzanian Breweries in Tanzanian Shillings.
Source: Deutsche Bank, Bloomberg, Datastream, Company reports.

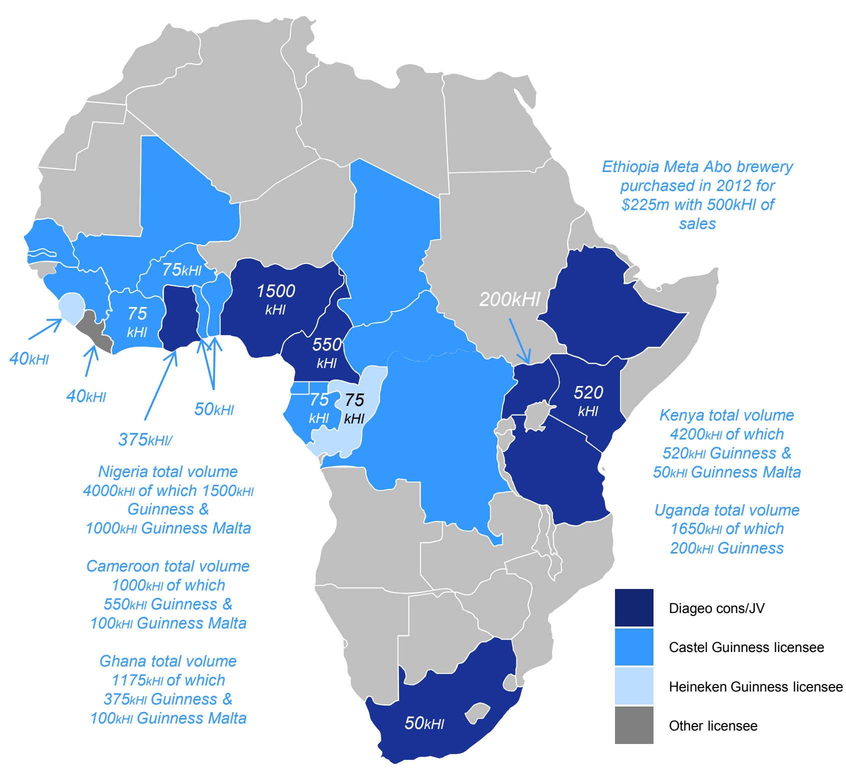
Figure 161: Africa subsidiaries margin performance



Companies calendarized to full year 2013. Results in Local currency. Guinness Nigeria and Nigerian Breweries in Nigerian Naira. East African Breweries in Kenyan Shillings. Tanzanian Breweries in Tanzanian Shillings.
Source: Deutsche Bank, Bloomberg, Datastream, Company reports.

In East Africa, the 50.03% Diageo owned East African Breweries (EABL) has also delivered a negative EBIT CAGR, while Tanzania Breweries has delivered results in the mid-teens. Margins for EABL have dropped 2200bps. Guinness Ghana has seen a similar weak performance with margins in 2013 hitting a paltry 6.6%. The company has also managed to lose almost 25% market share in the past 3 years. The spirits business is doing well. Beer is not.

Figure 162: Diageo Africa beer footprint

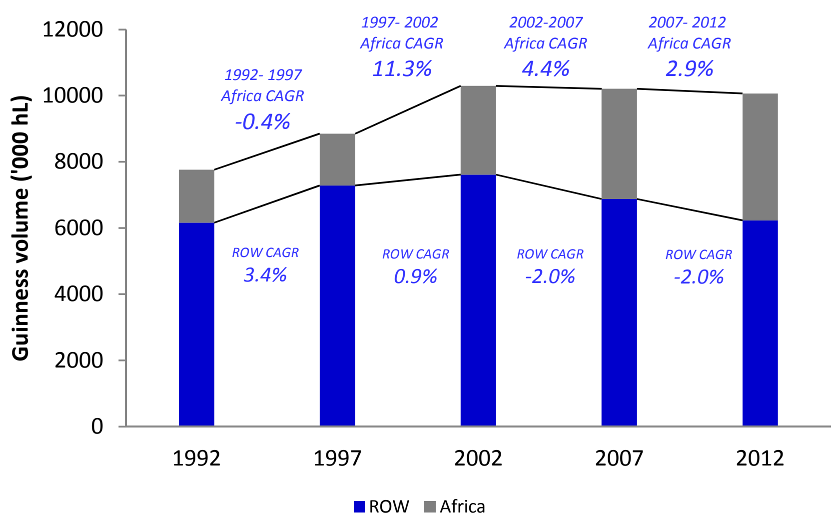


Source: Deutsche Bank estimates, company reports, Euromonitor, Plato Logic

The Guinness brand remains an attractive asset and it is unlikely for both historical as well as more importantly tax benefit reasons Diageo would ever sell it. However, it has woefully underperformed not just globally, but also in Africa with a paltry 3% CAGR since 2007.

For the Guinness brand, thirteen Diageo subsidiaries account for 75% of its volume, with The UK, Ireland, Nigeria, Ireland, and Cameroon its biggest markets. Fourteen breweries are located in Africa`

Figure 163: Guinness brand global growth



Source: Deutsche Bank estimates, Euromonitor, Plato Logic, company reports

The Guinness brand has strongly underperformed globally and in Africa

Since South African Breweries in 1964 was granted the first license to brew Guinness outside Ireland, there are now 66 licensees that are currently active. This group includes 15 instances of Heineken managing the brand and ten by the Castel group, the latter of which all in Africa. While a sale of the brand is unlikely, we do believe that Diageo would be better served by offloading its production assets while maintaining the very profitable license business.

$5 to 6bn for Diageo's Africa beer business

Excluding the Guinness brand, we value the Africa beer business of Diageo to be worth $5 to $6bn

We view the production assets of Diageo as an attractive investment to any of the four brewers, both as a means of consolidating their position or as an entry point into Africa. The Guinness brand itself will have a sizeable premium and we assume Diageo would not part with it. It already has a very profitable licensing model with the extract being supplied inclusive of sizable tax benefits from Ireland.

We estimate a potential sum of the parts value in Figure 164. Based on the EV of the listed entities in Nigeria, Ghana, and Kenya, the purchase price of Ambo in Ethiopia and our estimates in Cameroon, we value the consolidated beer operational footprint of Diageo to be worth between $5 and $6 billion. Based on historical transaction premiums in beer, we assume that any acquirer would pay a 30% premium on enterprise value of the admittedly high local market capitalization.

Figure 164: Sum of the parts valuation of the Diageo Africa beer assets.

		local currency (million)	US$ (million)	
East African Breweries (Kenya, Uganda, Tanzania)				*KSH/US$ 0.0116*
Revenue		60,287	$699	*2013 calendarized*
EBIT		15,268	$177	
D&A		3,126	$36	
EBITDA		18,245	$212	
MV		242,768	$2,816	
EV		245,894	$2,852	
Diageo share of operations	54.3%	133,520	$1,549	
Valuation at premium of	30%	173,576	$2,013	
Guinness Nigeria				*N/US$ 0.0062792*
Revenue		109,532	$688	*2013 calendarized*
EBIT		17,497	$110	
D&A		30,839	$194	
EBITDA		27,695	$174	
MV		301,178	$1,891	
EV		328,873	$2,085	
Diageo share of operations	54.0%	177,690	$1,126	
Valuation at premium of	30%	230,997	$1,464	
Guinness Ghana				*GHc/US$ 0.4863*
Revenue		319.8	$156	*FY to June 2013*
EBIT		25.2	$12	
D&A		31.7	$15	
EBITDA		56.9	$28	
MV		1,003.9	$488	
EV		1,060.8	$516	
Diageo share of operations	52.42%	556.1	$270	
Valuation at premium of	30%	722.9	$352	
Ambo Ethiopia				*US$*
Purchase price 2012			$225	*Purchase price*
Diageo share of operations	100%		$225	
Value at premium of	50%		$338	
Guinness Cameroon				*US$*
Beer volume lager (hL)		950,000		*Estimate*
Revenue (est) @ $175/hl (=Nigeria)			$166	
EBITDA @25% margin (=Nigeria)		25%	$42	
Share	100%		$42	
Valuation at EBITDAx of	18		$748	
Total EV Diageo beer assets				**$5,252**

Source: Deutsche Bank estimates, company reports, Market values as of July 10, 2014.

The attractiveness of soft drinks

Low value, high volume combination driving benefits

Unlike spirits, the combination of beer and soft drinks brings benefits and enables additional value through integration. With a common platform of low value, high volume products, both categories benefit on the cost component and mostly benefit through efficiency and leverage measure which include:

The combination of beer and soft drinks leverages two low value, high volume platforms

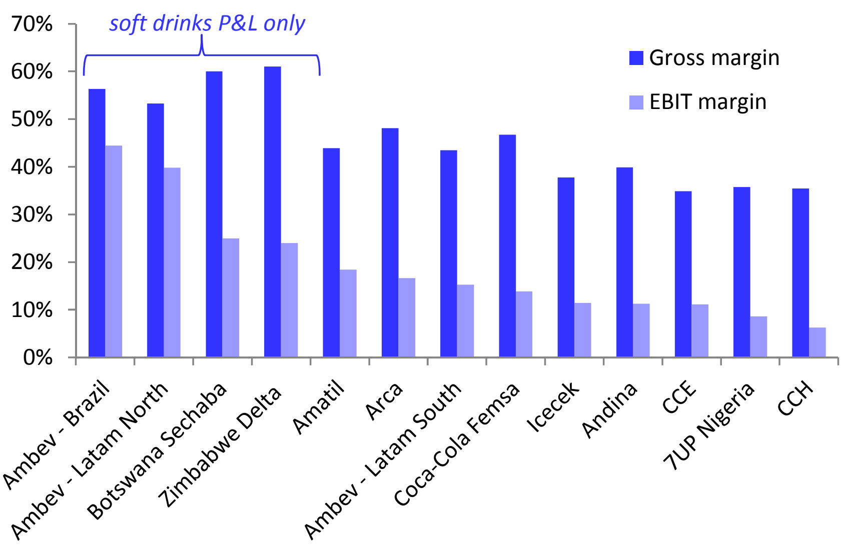
- Leveraging corporate skills and platforms including support services and general management. Particularly in emerging markets this proves beneficial due to the high cost of expatriate personnel;
- Centralized shared services and scale in procurement;
- Production infrastructure, with cost benefits primarily derived from shared management and utilities;
- Distribution facilities, especially depot networks and primary distribution. With an optimal primary distribution range of 300km combining the network reduces the volume per kilometer;
- Off-premise market power, becoming relevant in developed markets as a counterbalance to the growing strength seen by key accounts across Europe;
- On-premise customer service. Where both categories are present, a single delivery is cost effective. The sales call may still have to be differentiated due to the different occasions the categories serve.

The debate focuses on the effectiveness, rather than the efficiency of the combination. Franchise owners like The Coca Cola Company (TCCC) are particularly concerned that the lack of focus will damage the soft drinks portfolio in the same way that the focus on spirits damages beer.

A proven model in emerging market businesses

Combined beer and soft drinks has been common in emerging markets, especially smaller markets where the infrastructure leverage is most tangible.

Figure 165: Soft drink P&L only EBITA and gross margins



Source: Deutsche Bank estimates, company reports

Combining beer and soft drinks in emerging markets has significantly enhanced margins

As seen in Figure 165, operations which have combined have a record of better margin delivery. In the soft drinks P&L, Ambev's operations in Latin America with Pepsico and own soft drinks deliver EBIT margins around 40%.

In Africa, SABMiller's listed subsidiaries in Africa report margins in the 20% range (despite Coca Cola taking broader share of the profit pool than PepsiCo would). In contrast, before delisting in 2011, Coca Cola Hellenic's EBIT margins in Nigeria peaked at 6%. Similarly, but not burdened by the concentrate pricing dynamics, the listed 7-UP bottling company in 2013 reported margins of 8.6%

We think further opportunities for bottler and beer consolidation exist with family bottlers such as SABCo and the Equatorial Bottling Group in Africa as well as Arca and Andina in Latin America.

Not just for emerging markets anymore?

Combining beer and soft drinks in fragmented developed markets can be a route to better profitability

We see further opportunity beyond emerging markets in fragmented developed markets such as Europe. As per Figure 167, the brewers in Europe face margin pressure with high competitive intensity and increased retail power. M&A in Europe among the brewers is unlikely due to the various competition commissions potentially blocking any deal in beer. Similarly, soft drink operators find their business model under pressure as population dynamics and retail power curtails the ability to leverage their heavy cost base and extended production platform.

A potential route to better profitability in Europe is demonstrated by Royal Unibrew - the regional Scandinavian brewer. Their recent purchase of the Hartwall brewery from Heineken in Finland demonstrated an opportunity and ability to leverage both a beer and soft drink platform - the result is better margins and profitability than Heineken has been able to achieve as a standalone business.

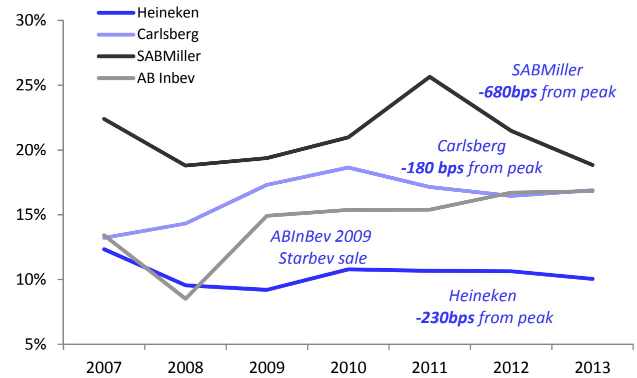
Figure 166: Royal Unibrew Finland acquisition - 2013

	pre (Heineken)	post (Royal Unibrew)
Revenue	2356	2356
EBITDA	377	452
EBIT *	208	283
EBITDA margin	16.0%	19.2%
EBIT margin	8.8%	12.0%
Improvement		+320bps

**excludes contribution from reduced depreciation charges and one off costs of DKK50m*

Source: Deutsche Bank, company reports

Figure 167: Brewers European EBIT margins



Source: Deutsche Bank, company reports, combined European divisions

We estimate that combining the Pepsi business in Finland with the Hartwell brewery will deliver DKK 75m of synergies - a significant amount accounting for a third of profit, though only 3% of revenue. It will also pull Hartwell to deliver an EBIT margin improvement of 320bps.

Despite being located in the Nordics and with a significantly smaller scale than the other brewers in the region, Royal Unibrew has been able to maintain a margin level in the mid teens enhanced by its ability combine soft drinks in both Finland and Denmark.

European bottling assets available and attractive…

Beer and soft drinks have co-existed in the past under one roof, but it has tended to be an uncomfortable relationship. Britvic was spun out from the old Bass brewers, and Vrumona has been acting as the poor cousin to the Dutch Heineken operations. We see an opportunity to revitalize the model more suited to the current pressures evoked by a stronger retail trade and enable the brewers to leverage their assets more efficiently.

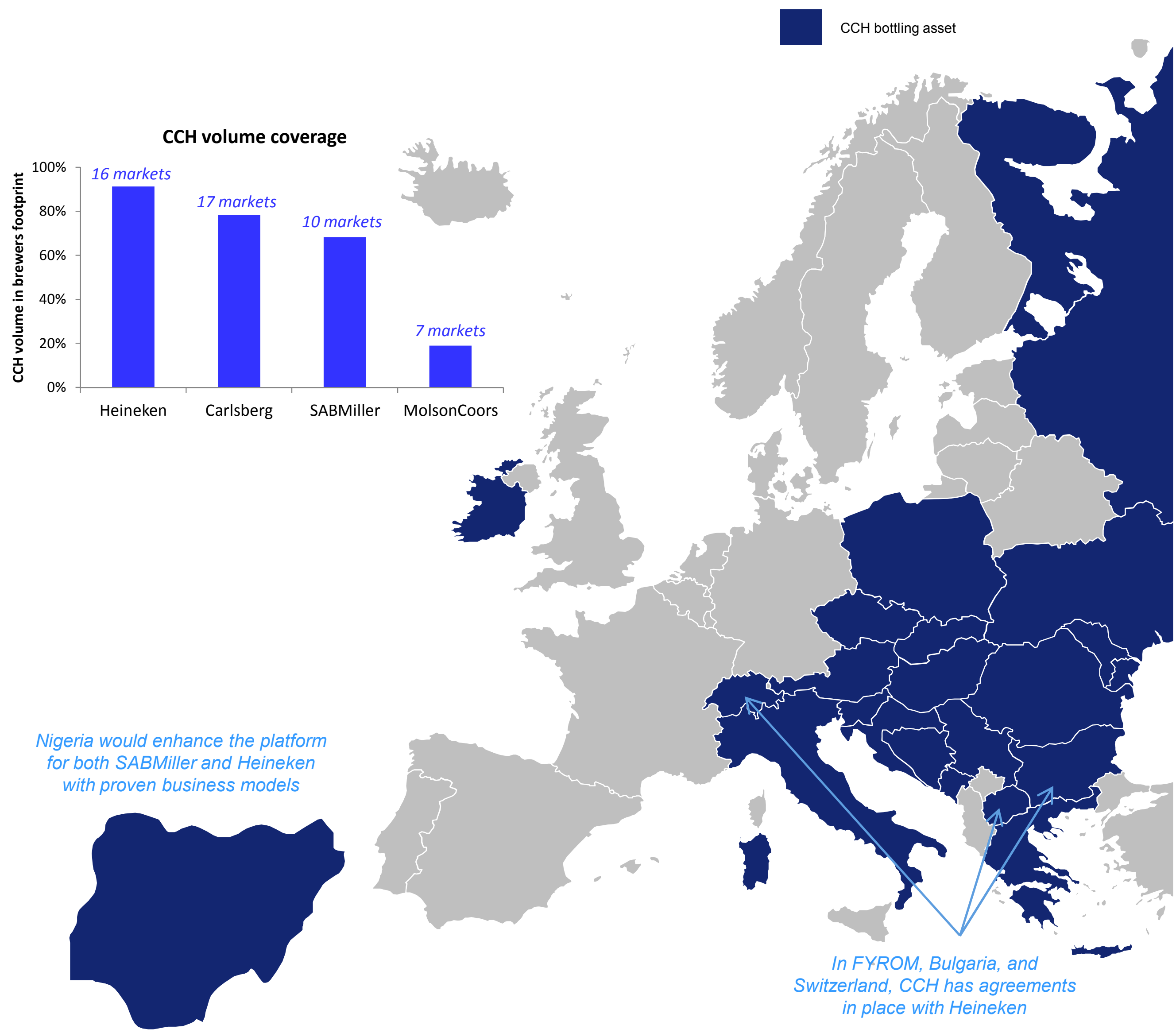
The German assets currently for sale by the Bottling Investment Group of Coca Cola would enable the likes of Carlsberg and ABInBev to leverage their German operations.

Coca Cola Hellenic is an attractive asset for the brewers in Europe

More interesting would be the potential of Coca Cola Hellenic. The company already bottles and distributes beer and soft drinks with Heineken in Bulgaria and the Former Yugoslav Republic of Macedonia as well as more limited distribution in Switzerland. For Heineken, Carlsberg and to a lesser extent SABMiller, there is a strong overlap of operations providing an opportunity for synergies which exceed the 4% of revenue achieved by Hartwell.

The markets of Poland, Italy and Greece are of particular attraction to the brewers to help reduce their cost base. As Coca Cola has higher pulling power as a must stock brand, Russia also provides a platform for better modern trade management which continues to be the fastest growing channel in that market for both categories. Nigeria provides a platform for a proven growth model in Africa for both Heineken and SABMiller.

Figure 168: Coca Cola Hellenic footprint and overlap



Source: Deutsche Bank

…but then there is the Coca Cola company

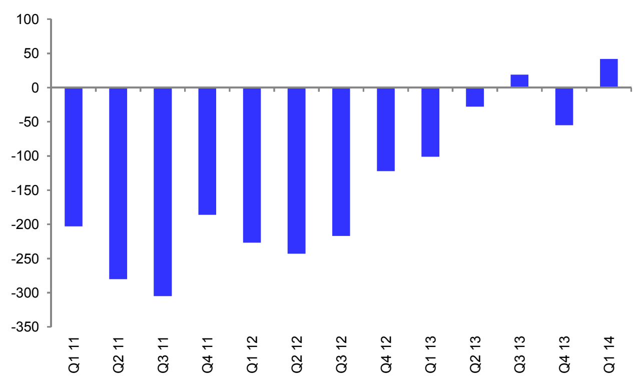
The final say over these matters, though remains The Coca Cola Company (TCCC). Though the combination works in different markets, fundamentally TCCC does not like it and believes beer benefits more than soft drinks. Though the religious fervor inside the company around the sanctity of the Coca Cola brand has abated somewhat to be more realistic, combining soft drinks and alcohol remain a taboo subject.

There is also a question of alignment. The bottlers who have a beer platform large listed tend to "step out of line", are more demanding and questioning of of the quality of marketing execution provided by TCCC, more likely to be cautious in taking on any (margin dilutive) new products, and more aggressive in terms of contract negotiations such as concentrate pricing.

This is in contrast to bottlers who are aligned. The relationship with TCCC is normally one of constructive tension, but also one of constant negotiations. Being aligned weakens the hand. The margins tend to be lower as per Figure 165 and there is a ceiling on the margin - the agreements allow for an increase of concentrate pricing at the discretion of TCCC at any time.

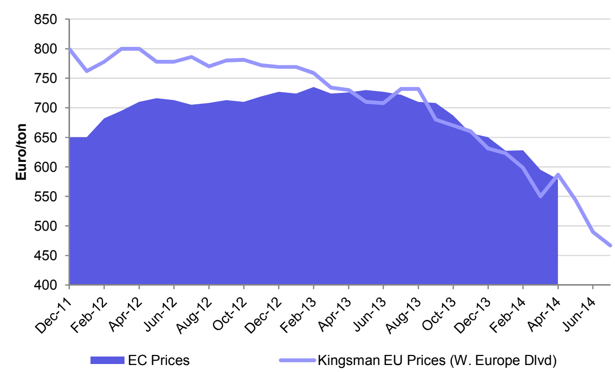
As discussed in our note on Coca Cola Hellenic *Not yet in love* on June 6th, this has proven to be particularly true. Fundamentally we are bears on bottlers and have CCH on a HOLD despite plenty of self help. Recent price weakness, though, and significant sugar cost reduction which accounts for 15% of cost of goods and 10% of revenue indicates a short term opportunity turn around their gross margin declines as per Figure 169 and Figure 170.

Figure 169: CCH gross margin trend



Source: Deutsche Bank

Figure 170: Sugar pricing



Source: Deutsche Bank, Datastream, Kingsman report

Combining CCH with the brewers is value accretive

In our simple model combining CCH assets with any of the three brewers in Europe is both margin and value accretive. We assume that synergies equal to 3% of revenues can be achieved in the production footprint, distribution leverage and to a lesser extent sales force integration. For the three brewers with a sizable European footprint, an all debt transaction at a 30% premium would be accretive in year one, with SABMiller and Heineken remaining below 4x net debt/EBITDA.

Figure 171: Coca Cola Hellenic acquisition accretion analysis

Assumptions						
2014e EV/EBITDA	9.3					
Premium	35%					
EV/EBITDA	12.6				DKK/ EUR	7.456
Enterprise value	10189				EUR/ USD	0.736
Interest Rate		3.5%	3.5%	3.5%	EUR/ GBP	1.262
Synergies		3%	3%	3%	USD/ GBP	1.715
Equity Issued		0	0	0		
Debt Increase		13846	10189	75973		
Share price		58.3	53.8	589		

Brewer full group accretion impact							
	EUR	USD	EUR	DKK	USD	EUR	DKK
		Total Group				Pro-forma	
	CCH	**SAB**	**HEIA**	**CARLB**	**CCH + SAB**	**CCH + HEIA**	**CCH + CARLB**
Sales	6838	27923	19184	65729	37216	26023	116719
EBIT	444	6802	2880	9325	7405	3324	12636
Synergies					279	205	1530
Adj. EBIT	444	6802	2880	9325	7684	3529	14166
Interest/ Other expense	-61	-724	-507	-1518	-1209	-863	-4177
Interest rate		4.3%	4.1%	4.0%	-4.7%	-4.3%	-3.8%
Pretax Profit	383	6078	2373	7807	6476	2666	9989
Taxes	-83	-1558	-688	-1834	-1813	-773	-2347
After tax associates	12		145		12	157	12
Net Income	301	4520	1830	5973	4674	2050	7654
Minorities	0	-379	-218	-502	-379	-218	-502
Attibutable earnings	301	4141	1612	5471	4296	1831	7152
Shares	364.8	1617.6	576.9	153.1	1617.6	576.9	153.1
EPS	**0.82**	**2.56**	**2.79**	**35.74**	**2.66**	**3.17**	**46.72**
Accretion/ (dilution) %					**3.7%**	**13.6%**	**30.7%**
EBIT	444	6802	2880	9325	7405	3324	12636
D&A	367	1813	1565	4102	2313	1932	6842
EBITDA	812	8615	4445	13426	9718	5256	19478
Tax rate	24.0%	28.0%	29.0%	23.5%	28.0%	29.0%	23.5%
EBIT margin	6.5%	24.4%	15.0%	14.2%	20.6%	13.6%	12.1%
D&A/ Sales	5.4%	6.5%	8.2%	6.2%	6.2%	7.4%	5.9%
Current Net Debt	1259	11,690	9994	34621	25535	20183	110593
Net Debt/ EBITDA	1.6	1.4	2.2	2.6	2.6	3.8	5.7

Brewer Europe division only accretion impact							
	EUR	USD	EUR	DKK	USD	EUR	DKK
CCH		European Region only				Pro-forma	
excludes 8.5% Nigeria	**CCH**	**SAB**	**HEIA**	**CARLB**	**CCH + SAB**	**CCH + HEIA**	**CCH + CARLB**
Sales	6257	4561	10628	53755	13064	16886	100410
EBIT	406	534	954	8868	1086	1361	11897
Synergies					255	188	1400
Adj. EBIT	406	534	954	8868	1341	1548	13297
Interest/ Other expense	-56	-51	-274	-1128	-495	-601	-3561
Interest rate		4.3%	4.1%	4.0%	-3.6%	-3.8%	-3.6%
Pretax Profit	351	483	680	7740	847	948	9736
Taxes	-76	-135	-197	-1818	-237	-275	-2288
Net Income	275	348	483	5921	610	673	7449
Shares	364.8	1617.6	576.9	153.1	1617.6	576.9	153.1
EPS	**0.75**	**0.21**	**0.84**	**38.68**	**0.38**	**1.17**	**48.66**
Accretion/ (dilution) %					**75.3%**	**39.4%**	**25.8%**
EBIT	406.3	534.2	954.4	8867.5	1086.3	1360.7	11897.2
D&A	336.2	230	794.2	3437.1	687.1	1130.5	5944.2
EBITDA	742.6	764.3	1748.6	12304.6	1773.4	2491.2	17841.4
Tax rate	24.0%	28.0%	29.0%	23.5%	28.0%	29.0%	23.5%
EBIT margin	6.5%	11.7%	9.0%	16.5%	10.3%	9.2%	13.2%
D&A/ Sales	5.4%	5.0%	7.5%	6.4%	5.3%	6.7%	5.9%
Current Net Debt	1259.1	1,193	6689	28193	13862	16012	97708
Net Debt/ EBITDA	1.7	1.6	3.8	2.3	7.8	6.4	5.5

Source: Deutsche Bank

Addendum: Brewers & Staples

Making brewers play American Football

(A digression and apologies in advance for the heavy use of Rugby/Football/Soccer analogies.)

Rugby is a beautiful game, with some basic fundamentals not changed much over the years. There is a coach who trains the team, let's them get on with it for 40 minutes, has a pep talk, then another 40 minutes. Occasionally, he may get involved by replacing a player or two, but the game itself is pretty much played on the field. With the advent of professionalization beginning in earnest in the early 90's, improvements have been made. Post game beers have been replaced by protein shakes, cotton jerseys replaced with sleek lycra and the rudimentary weight room by state by measured isometric and high intensity regimes. The game itself, however, is still in the field with a strong degree of autonomy required of all 15 players on the field with no respite. Every player has his role, with a degree of specialization. But each one must have a general knowledge and skill level to pick up the ball, irrespective of whether defense or offense is required, and know what to do with it when the time calls for it.

The fluidity of football (soccer) makes it the beautiful game. The game over years has also moved on - it is unlikely that an Arjan Robben would light up a cigarette at halftime like Johann Cruijff used to do and Lionel Messi has a bit more respect for his own body than Maradona ever did. The tactics for the game are set before kickoff and the players are left to execute. The genius of the coach is people management and the taming of egos to deliver as a team. Louis van Gaal's biggest contribution to the Dutch team in the World Cup was to enable a set of eagles to fly in formation and make the right personnel call at the right moment, including the improbable move of changing goalies a minute before penalties.

The beauty in American Football is its strategic component. The coach/manager runs the game, having 45 players to deploy at his will for 11 positions at a time. And he does, frequently. All of them will be specialized to such a degree that it is rare for players to play both on the offense and defense and be on the field for more than ten minutes at a stretch. The genius of a Tom Landry in developing the flex defense and the motion offence brought the NFL to the dizzying (financial) heights it is today. Joe Gibbs took the Washington Redskins to three super bowl titles with three different quarterbacks. It is Vince Lombardi whose name is on the trophy, not Bart Starr. Ultimately, it is a chess game played live where the most important character in the game stands on the side line and pawns are sacrificed (and concussed) on the field for the greater good. Every play can be micro managed every moment outside the field of play, turning a 60 minute game into three hours and the final 2 minutes into 15 minutes.

In corporations, the attraction of creating a similar centralized organization to American Football is strong. With the help of Nielsen data, SAP and Oracle systems, and the increased specialization of roles, micromanagement from the centre by bright employees drive extra growth and efficiency. This practice is supported to the consumer level by Thomas Levitt's disputed theory on marketing - eventually all global consumers have common Maslovian needs which can be codified, managed from the center and be satisfied by global brands. With the help of an army of self-perpetuating management consultants who provide assurance and a guiding hand, this seems to work for many consumer staples products. The most successful cases have been those where the functional benefits are of utmost importance. Dishwashing tablets and razor blades fill a functional need - not much emotion involved.

Beer has found itself a tougher nut to crack. Nobody writes best sellers on the history of toothpaste in Kent or Texas, but they do for beer. It has strong functional benefits - refreshment, taste and yes, the impact of alcohol. The emotional components are stronger. Beer changes your mood. It creates passion, whether on local level, such as indicated by the local passion around crafts, or on a national level which is captured by the brewers under our coverage. To paraphrase Frank Zappa, you can't be a real country unless you have a football (soccer) team and a beer, though a nuclear weapon is known to help.

The consequence has been that the beer companies have relied and trusted on people and the values they hold to take ownership and ensure that locally things get done. Success has followed the ones who have the capability to react swiftly on the ground to ever changing (and perhaps irrational) emotions. Local swiftness is required to deal with issues ranging from emotive regulations to changing consumer tastes and channel dynamics. Determining the local emotional content for beer brand management in Papua New Guinea or Kathmandu from Amsterdam or Copenhagen will always be a tough task.

Professionalization of the industry has and will continue to go apace as best practice and specialists build capability for local teams in the same way that rugby has upped its practices. However, the danger is to leave the rugby playing field and to apply the rules and systems more suited for a different game. Attempting to turn the Springboks into the Dallas Cowboys or Oranje into the New York Giants may do more damage than good.

The authors of this report wish to acknowledge the contributions made by Shwetha Ramachandran, Archit Agarwal and Meera Mohan, employees of Irevna Limited, a third-party provider to Deutsche Bank of offshore research support services.

Appendix 1

Important Disclosures

Additional information available upon request

Disclosure checklist

Company	Ticker	Recent price*	Disclosure
Anheuser-Busch InBev	ABI.BR	81.63 (EUR) 28 Jul 14	1,7,14,15,17
Carlsberg	CARLb.CO	559.00 (DKK) 28 Jul 14	14
SABMiller	SAB.L	3,330.00 (GBp) 28 Jul 14	14,15,17
Heineken	HEIN.AS	53.71 (EUR) 28 Jul 14	1,7,14,15

*Prices are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is sourced from Deutsche Bank and subject companies

Important Disclosures Required by U.S. Regulators

Disclosures marked with an asterisk may also be required by at least one jurisdiction in addition to the United States. See Important Disclosures Required by Non-US Regulators and Explanatory Notes.

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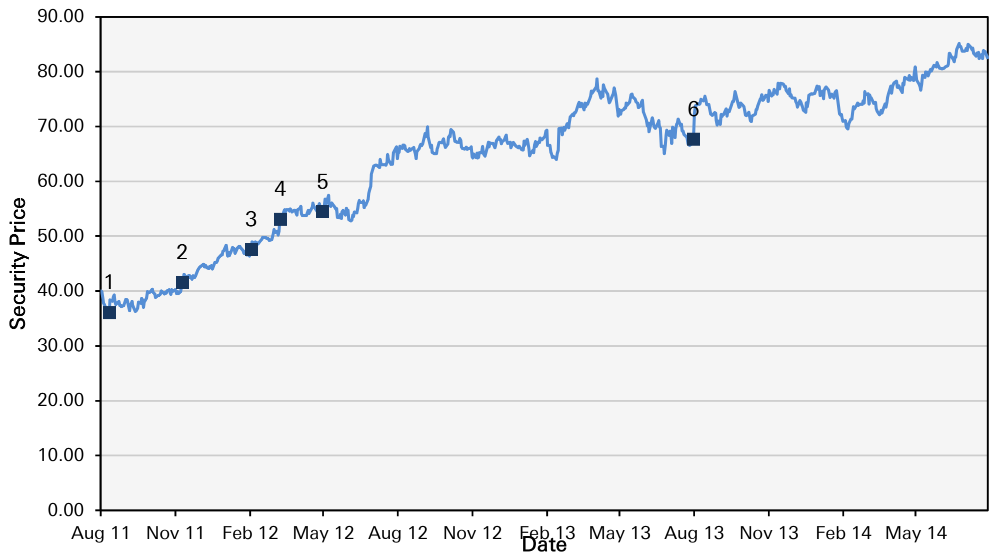
Historical recommendations and target price: Anheuser-Busch InBev (ABI.BR)

(as of 7/28/2014)



Previous Recommendations

Strong Buy
Buy
Market Perform
Underperform
Not Rated
Suspended Rating

Current Recommendations

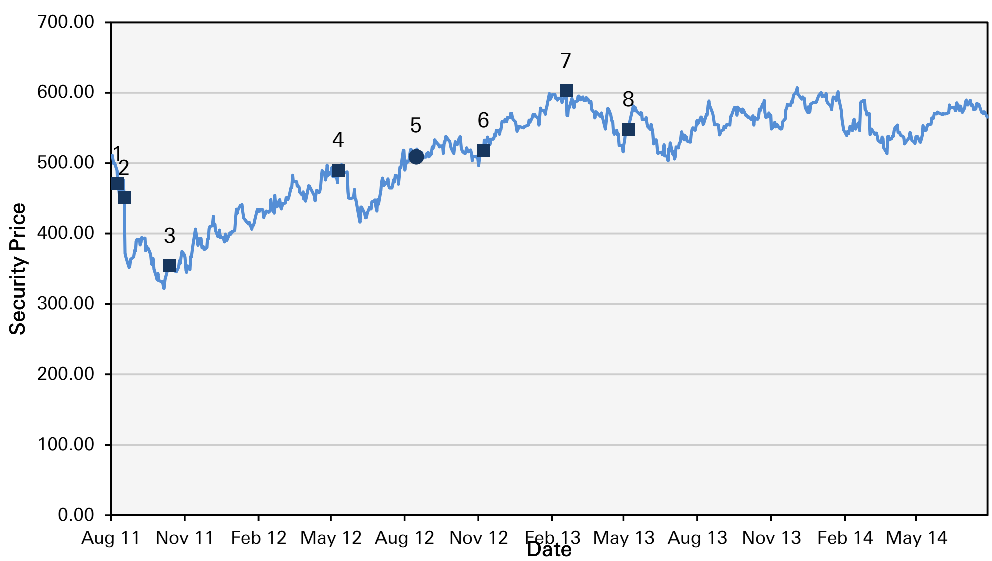
Buy
Hold
Sell
Not Rated
Suspended Rating

*New Recommendation Structure as of September 9,2002

1.	11/08/2011:	Hold, Target Price Change EUR41.00	4.	09/03/2012:	Hold, Target Price Change EUR51.00
2.	09/11/2011:	Hold, Target Price Change EUR43.00	5.	30/04/2012:	Hold, Target Price Change EUR54.00
3.	02/02/2012:	Hold, Target Price Change EUR46.00	6.	31/07/2013:	Hold, Target Price Change EUR70.00

Historical recommendations and target price: Carlsberg (CARLb.CO)

(as of 7/28/2014)



Previous Recommendations

Strong Buy
Buy
Market Perform
Underperform
Not Rated
Suspended Rating

Current Recommendations

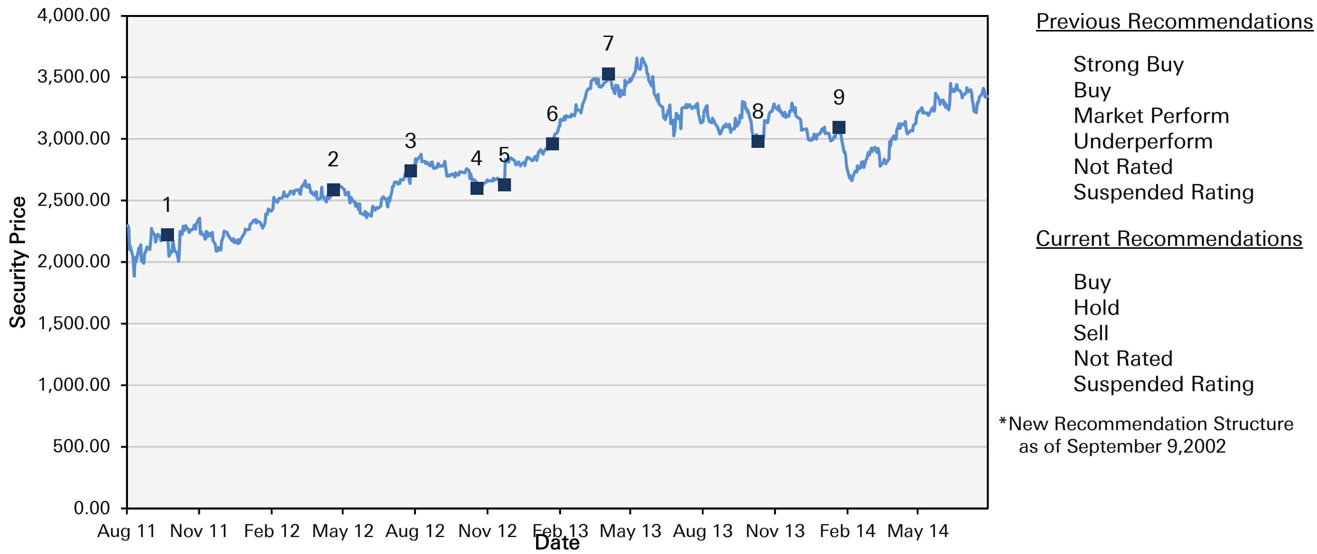
Buy
Hold
Sell
Not Rated
Suspended Rating

*New Recommendation Structure as of September 9,2002

1.	09/08/2011:	Buy, Target Price Change DKK625.00	5.	15/08/2012:	Downgrade to Hold, DKK540.00
2.	17/08/2011:	Buy, Target Price Change DKK575.00	6.	07/11/2012:	Hold, Target Price Change DKK560.00
3.	13/10/2011:	Buy, Target Price Change DKK525.00	7.	18/02/2013:	Hold, Target Price Change DKK575.00
4.	10/05/2012:	Buy, Target Price Change DKK540.00	8.	07/05/2013:	Hold, Target Price Change DKK600.00

Historical recommendations and target price: SABMiller (SAB.L)

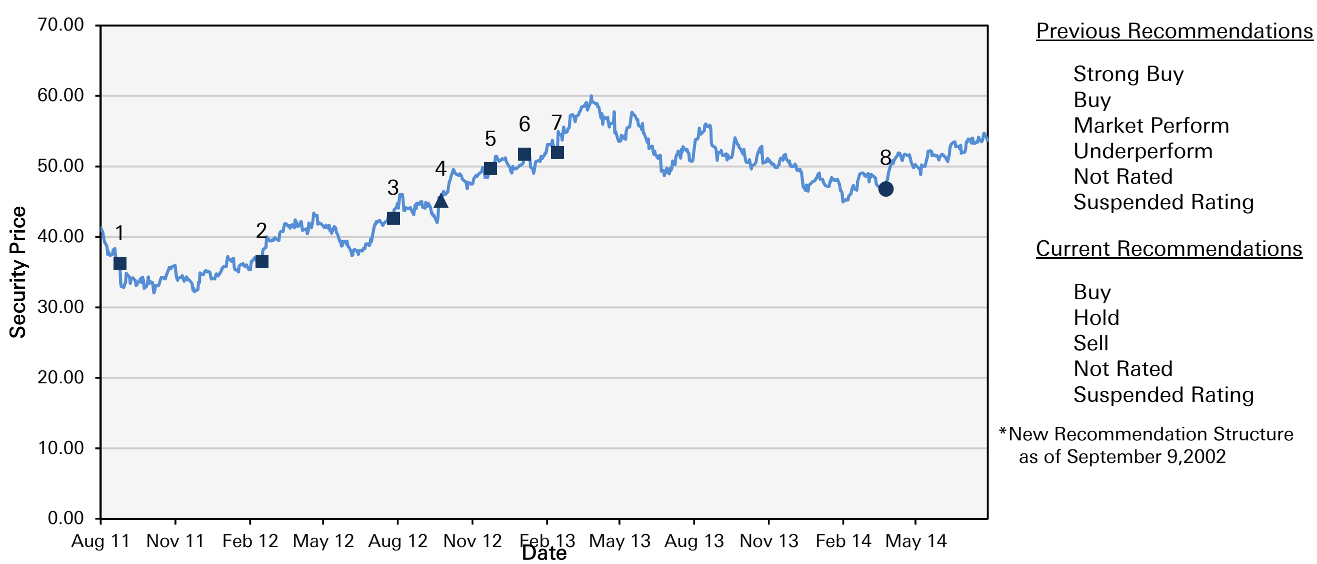
(as of 7/28/2014)



1.	21/09/2011:	Hold, Target Price Change GBP2,300.00
2.	19/04/2012:	Hold, Target Price Change GBP2,500.00
3.	26/07/2012:	Hold, Target Price Change GBP2,600.00
4.	18/10/2012:	Hold, Target Price Change GBP2,700.00
5.	22/11/2012:	Hold, Target Price Change GBP2,800.00
6.	22/01/2013:	Hold, Target Price Change GBP2,900.00
7.	03/04/2013:	Hold, Target Price Change GBP3,400.00
8.	10/10/2013:	Hold, Target Price Change GBP3,100.00
9.	21/01/2014:	Hold, Target Price Change GBP3,000.00

Historical recommendations and target price: Heineken (HEIN.AS)

(as of 7/28/2014)



1.	24/08/2011:	Hold, Target Price Change EUR39.00
2.	15/02/2012:	Hold, Target Price Change EUR40.00
3.	26/07/2012:	Hold, Target Price Change EUR44.00
4.	23/09/2012:	Upgrade to Buy, Target Price Change EUR52.00
5.	23/11/2012:	Buy, Target Price Change EUR53.00
6.	04/01/2013:	Buy, Target Price Change EUR55.00
7.	13/02/2013:	Buy, Target Price Change EUR60.00
8.	25/03/2014:	Downgrade to Hold, Target Price Change EUR50.00

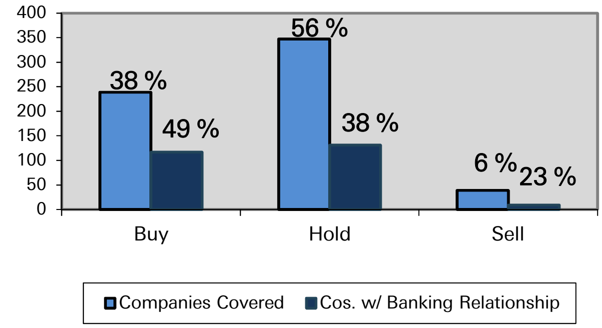
Equity rating key

Buy: Based on a current 12- month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus pro-jected dividend yield) , we recommend that investors buy the stock.
Sell: Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock
Hold: We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.
Notes:

1. Newly issued research recommendations and target prices always supersede previously published research.
2. Ratings definitions prior to 27 January, 2007 were:

   Buy: Expected total return (including dividends) of 10% or more over a 12-month period
   Hold: Expected total return (including dividends) between -10% and 10% over a 12-month period
   Sell: Expected total return (including dividends) of -10% or worse over a 12-month period

Equity rating dispersion and banking relationships



European Universe

Regulatory Disclosures

1. Important Additional Conflict Disclosures

Aside from within this report, important conflict disclosures can also be found at https://gm.db.com/equities under the "Disclosures Lookup" and "Legal" tabs. Investors are strongly encouraged to review this information before investing.

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