# Goldman Sachs

# Fortnightly Thoughts

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Editor: Directors of Research:

Hugo Scott-Gall

Richard Tufft | Goldman Sachs International | John Sawtell | Goldman Sachs International

# Africa's turn

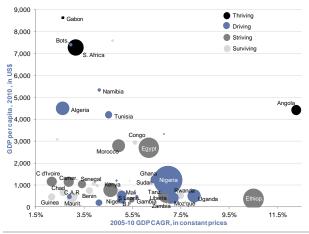
**From the editor:** In this edition, we explore Africa and its rapid growth as it takes its turn in the sequence of the world's economic evolution and realignment. There is both meaningful growth and change, and consumer companies in particular will need an Africa strategy sooner rather than later. Our interviews and the pieces from our analysts reinforce this view.

What's inside

In the early 1990s, few European or American companies would have been quizzed on their strategies for China or Asia. Now it's often the first item on the agenda. Our investigation in this edition is into Africa, and it might provoke déjà vu: is now the time for multi-nationals to be investing in Africa? In short, our conclusion is yes. Africa's exceptionally robust growth over the last decade is probably understated (informal parts of economies are very big), but not being able to measure this growth precisely shouldn't detract from Africa's potential, which is about much more than resources as it evolves and climbs the consumption, urbanisation and perhaps industrialisation curves that the BRICs have climbed. We believe meaningful opportunities for western consumer companies exist as Africa's household consumption grows rapidly (it is already greater than some of the BRICs) and that failure to invest now will see others rush in. Capital flows and trade flows into Africa are a microcosm of the changing world, with the BRICs already there, notably in commodities. We have interviews with investors and Standard Bank and Tiger Brands that paint a picture of rapid and misunderstood change, and pieces from our consumer staples, mining and insurance analysts that reinforce this.

## Rapid growth on a low base

African economies by GDP growth, bubble is population size



Source: World Bank.

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Insuring growth: Colin Simpson on the

nascent insurance industry

Hugo Scott-Gall hugo.scott-gall@gs.com +44 (20) 7774 1917 Goldman Sachs International Sumana Manohar sumana.manohar@gs.com +44 (20) 7051 9677 Goldman Sachs International

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# Africa's turn

In a sense, Africa's growth can be described as a logical sequencing in the world's economic evolution. Resources have become more scarce, and hence valuable, as more of the world is industrialized, and there are more people alive than ever before. As Africa is very long some resources (it exports 11% of the world's fuel and mining resources), this is obviously going to benefit it. But that isn't enough; previous scrambles for Africa didn't produce lasting economic benefits. However, there are contributing factors creating a happy confluence that has produced some startling economic growth (14 African countries grew their GDP by more than 6% pa on average over the last 5 years). Improved governmental competence and stability has helped, there are fewer wars and skirmishes (helped by the end of the cold war which was partly played out in Africa), and some signs of a reversing of the diaspora that saw talent leave. Demographics are becoming very favourable and will be the envy of the world in 20 years time.

#### Good news from Radio Africa

But most of all, wealth is being created and is beginning to be distributed less unevenly than before. And the internet and mobile communication revolutions have transformed everyday life. The private sector usually manages to find a way, and Africa is no different. Clearly there are many risks, from climate to corruption, from competence to capital, but recently it seems that more is going right than ever before. And it seems that the level of growth and Africa's heterogeneity is often misunderstood (most Europeans would scowl at the suggestion that Europe is one country, and that must be doubly true for Africans, given the continent is larger than China, India, the US, Japan and most of Western Europe put together). Africa then is something investors have to think about; for long-term growth (either participating in it or missing it), for its economic implications for the world, and for the need for Africa to succeed in order to enable it to supply the world with scarce resources.

We're going to break down this article into four parts and kick off first with a question - will Africa, en masse, become the next 'next' big consumer story? It is difficult to answer precisely, given the sheer scale and diversity of African economies. By 2030, c.10% of the African population is expected to be in the middle class (our economists define this as those who earn US\$6-30k pa), similar to how India is expected to look like in five years, or how China looked ten years ago. Within that, a select group including Nigeria and South Africa look more likely to enjoy faster growth in their consumer class. Supporting that consumption will be the world's best demographics; Africa could have the world's largest workforce by the middle of this century. Who could make money from that? We would argue that US and European consumer companies have plenty of advantages enabling them to take a meaningful slice of that revenue. But if they don't, others will, with Indian companies making serious inroads, particularly on the East coast. There is very likely a huge amount of unmet demand; it's not just people wanting to upgrade to better products, the products themselves aren't currently available.

What are the barriers to entry? Language mostly isn't one, as a result of Africa's history; more than half of the respective populations in 8 and 10 African countries can speak English and French. As the banking system matures credit growth can enable faster consumption growth as well. Important to the speed of consumption growth is the adoption of technology, which is helping Africans skip ahead on the consumer curve, doing so without established public infrastructure in several cases. While

the process of getting a landline remains cumbersome in most of these economies, mobile phone penetration rates imply improved connectivity nonetheless. The banking system in many countries may still be nascent, but the adoption of mobile data is making it easier to transact money, even without bricks and mortar branches (and ensures that people get their full wages on time). M-Pesa, a mobile banking service launched in 2007, sees up to 2 mn daily transactions in Kenya and has 9 mn subscribers in Tanzania.

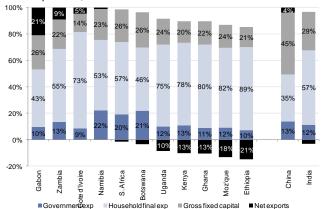
Of course, entry into Africa won't be straightforward for staples, beverages, HPC, autos and other consumer-facing businesses. They will need to build distribution networks and hire local talent, along with understanding local consumer behaviour and constraints. More often than not, M&A in Africa has been done with the aim of acquiring distribution networks. Walmart's US\$2.4 bn acquisition of South Africa's Massmart comes to mind.

### The shapes of good hope

The 'ideal' African country to invest in would have a healthy reserve of diverse resources, and a stable government that not only fairly distributes resource wealth to a young population, but also encourages them to spend it, by investing in infrastructure. In essence, we are looking ideally for commodities, infrastructure and consumption growth, ably supported by political and economic stability. While finding such an economy in Africa today would be quite difficult, it is equally true that many are far from teetering on the brink of disintegration. African countries are in fact scattered across these two extremes, with diverse opportunities and constraints. We very broadly classify them under four categories: Thriving, Driving, Striving and Surviving.

### Understanding the diversity

GDP components, 2010



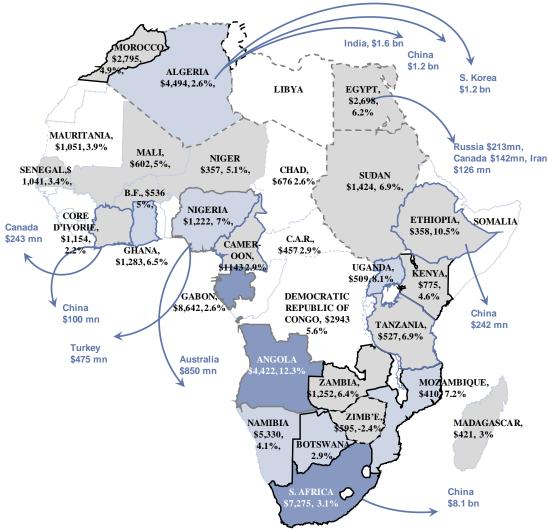
Source: Open data for Africa.

The first contains South Africa, Gabon and Angola. South Africa stands apart as the most developed African economy, well positioned to benefit from the emergence of the rest of the continent, and with a diverse portfolio of exports, a good infrastructure and mature consumers. Gabon boasts strong oil reserves and is looking to leverage its literate young population to build a stronger services industry in order to diversify its profile. Angola still has to sustainably resolve its political issues, but it has one of the most attractive portfolios of resources (oil, gold, diamonds and copper) which has driven most of its annual double-digit growth over the last decade.

The second category contains countries that we expect to be "Driving" Africa's growth potential over the next decade. They enjoy good resources, attractive demographics and an increasing focus on agriculture. But, they have to improve their governance,

#### Breaking it down...

The Thriving, Driving, Striving and Surviving economies (in dark blue, light blue, grey and white respectively), with 2010 per capita GDP and 2005-2010 GDP CAGR; borders according to major exports – mining (black), oil (grey) and agriculture (blue); recently volatile economies have dotted borders; major external trade flows in blue, 2010



Source: World Bank, IMF, CIA Factbook, UN comtrade.

infrastructure and education (among other factors) to be able to improve their per capita GDP. Finally, the "Striving" category contains countries that lag on the development and wealth curve, but could be lifted along with the region's broader enrichment, provided that they maintain social stability. The ones left are mostly the big, land-locked countries in the centre that need to be less politically volatile to progress.

It is essential to look at these countries separately because they score quite differently on infrastructure metrics, and quite often, are comparable to China and India. Nigeria's internet connectivity is driving its consumption (apart from Indian movies, Nigerian cinema is the only other genre that is awarded a separate category in Youtube's movie platform), while Angola's basic hygiene facilities, on average, beat China's and India's score. Gabon and Ghana boast good literacy rates, while South Africa's power infrastructure and banking penetration is better than the global average.

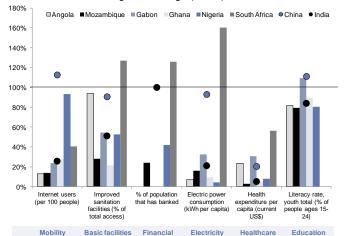
### Out of Africa

As always trade flows paint an instructive picture. Inter-Africa trade has grown at a CAGR of 19% over the last ten years and shows the underlying robustness of the economy, despite the fact that passing through African borders can often be a slow and expensive

process. Also, Africa has very high trade tariffs (though they are now falling) partly as a result of policies elsewhere in the world. The biggest intra African trade flows feature Egypt more often than not. Over the last 10 years, within the continent Ethiopia's exports to South Africa and Sudan (also China externally) have grown the most, while South Africa's imports from Egypt and Ghana have also increased substantially. In terms of trade out of Africa, the US continues to be a significant export partner, while China alone accounts for c.12% of Africa's total 2010 trade, versus 3% ten years ago. Western Europe, (particularly Portugal, Italy and Belgium, given their historical presence there) is still a huge portion of total trade, owing to its size and proximity, but has declined considerably in prominence. We believe that over the next decade the Africa-Asia containerized trade route will grow 25% pa versus the US to Europe route at 7% pa. Africa's exports are still made up substantially of mining and oil resources, but agricultural and manufacturing exports are also growing, versus their small bases. It would be wrong to think of Africa as a major trading region though. It makes up less than 3.5% of the world's exports and imports (albeit up from 2.5% two decades ago). But it is becoming more connected. Emirates, Etihad and Qatar Airways' traffic to African destinations grew at a 25% CAGR from 2000 and 2011.

#### The infrastructure scorecard

Percentile score versus global average (100%), 2010 or latest



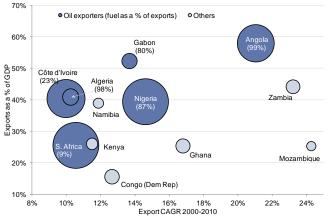
Source: World Bank, Open data for Africa, Goldman Sachs estimates.

But Africa has a major role to play in resolving the world's commodity, food and labour constraints in the near, medium and long term. In terms of resources, Zambia and Morocco have copper, while Ghana and Botswana also benefit from precious metals. Zimbabwe and Tunisia boast of iron ore reserves. Botswana and Zimbabwe dominate nickel, along with South Africa, which is a major exporter of all of these commodities. Sub-Saharan oil exporters of course are Nigeria, Angola and Gabon.

Agriculture is an obvious source of high potential for exports. Africa sits on vast tracts of the world's uncultivated land and also has a lot of existing agricultural land. The world needs Africa to substantially improve its agricultural yields, and we suspect it will require private capital to help it here, along with government support and sponsorship, as has been seen in the BRICs, with Brazil a very good example. Africa's crop yields are about a third of the world's average, and a fifth of China's, its system of small holdings inefficient, its consumption of fertilizers is minimal and its choice of crops to grow probably equally inefficient. Solving all of this will take time, patience, education and capital.

### Fuelling exports

Export profiles, bubble size is 2010 exports



Source: World Bank, Open data for Africa, GS estimates.

All of this equals opportunity, and countries like Nigeria, Ethiopia, Cameroon and Ghana have a lot of potential to meaningfully raise their output. But aside from the risks we have mentioned, there are risks related to climate, and in particular, water. Access to water is critical and without better water infrastructure, particularly

in the east, water may jeopardize the blossoming of agriculture. In manufacturing, while Africa is still a long way from creating the centrally planned industrial powerhouse of China and other Asian countries, in time, if labour productivity improves, it may attract more manufacturing, given its proximity to the rest of the world. More consumption, better infrastructure and fewer trade restrictions will only boost its trade profile.

### Build it and they will come

As we have already said, the main impediment to growth is infrastructure. Moving goods around Africa takes longer and costs more than in most places in the world. On top of this, Africa scores very badly in terms of number of power outages and poorly on transport infrastructure per capita. Nigeria and Angola rank close to the bottom among countries with reliable power infrastructure and in the bottom quintile for road and port infrastructure. Correcting this will need the funding mix to shift away from governments, which do most of the funding at the moment (though we acknowledge that there should be a positive trickle down effect from resource-rich countries) towards more private sector involvement, especially foreign capital. For countries like South Africa, where the installed power infrastructure is extensive but ageing, it will need higher prices to incentivize investment.

At the moment Africa lags the BRICs in terms of infrastructure investment and penetration, and removing this brake on growth is essential. Tying resource deals to infrastructure investment has helped, with China in particular being a major funder here -Chinese FDI into Africa has increased by 46% per year in the last decade. If nascent moves towards privatizations in some countries are persisted with, this will help (for example AP Moller-Maersk of Denmark owns eight port concessions on the west coast). The final point on infrastructure is that urbanization has all sorts of positive consequences for countries, from improving agricultural productivity to improving overall labour productivity, to benefits of scale. Africa's level of urbanization is c.40% according to the UN, greater than India but lagging China at 50%. It has more cities with 1 mn people than North America. The suppliers to urbanization that benefited form China's surge should also feel the benefits from Africa's, but we suspect Africa will be indifferent as to who the suppliers are and where they come from. If it is Indian and Chinese money part funding, and their companies building, rather than US or European ones, we doubt this will trouble Africa.

There are multiple risks to Africa's economic evolution, but it seems to us a reasonable guess that it is set to become a much bigger seam of consumer demand. Therefore, consumer-facing companies that get it right could see meaningful revenue benefits over the next decades. Outside the resource sectors and the sectors supplying them, there are few African plays on European or US equity markets. This, of course, was true for China too as it developed. As we said at the start, it's hard to precisely enumerate the quantum of growth. But knowing the probability of it happening, and its approximate potential size, we suggest that the revenue pools from consumer-facing industries, from infrastructure, from agriculture and from resources are considerable, and that it is a reflection of the world's economic evolution and realignment.

### Hugo Scott-Gall

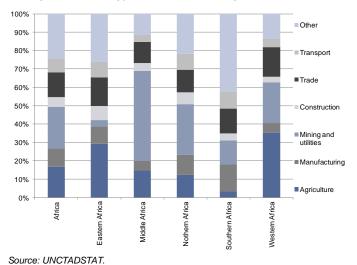
### Editor

email: hugo.scott-gall@gs.com Tel: +44 (0) 20 7774 1916 Goldman Sachs International

# Six African highlights

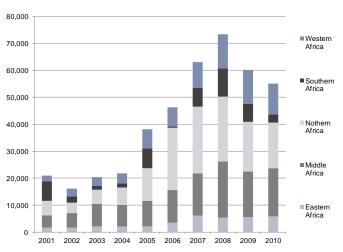
### Big differences

GDP by value added type of economic activity



## Faster flows

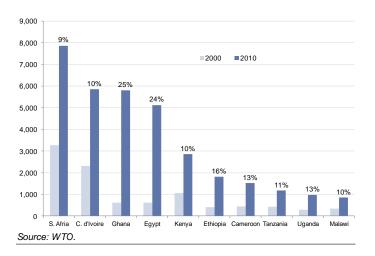
Inward foreign direct investment flows (US\$ mn)



Source: UNCTAD.

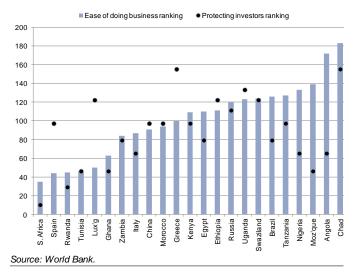
### Out of Africa

Exports of agricultural products, 2000-2010 (and CAGR)



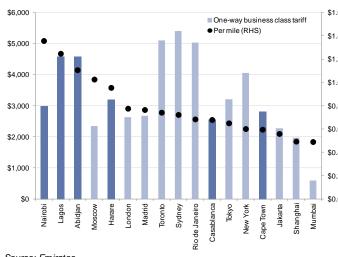
### Still room for improvement

Ranked by World Bank, 2010



### A passage to Africa isn't cheap

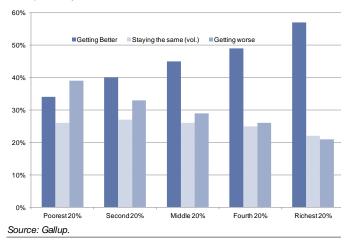
Cost of air travel, from Dubai, for June 1, 2012



Source: Emirates.

## Right now, do you feel your standard of living is getting better or worse?

Gallup survey in Africa, 2010



# Interview with...Thushen Govender

Tiger Brands Limited is a branded consumer packaged goods company that operates mainly in South Africa and selected emerging markets. Thushen Govender is Head of Tiger Brands' Group Business Development. His responsibilities include spearheading Tiger Brand's entry into new markets via acquisitions.

Hugo Scott-Gall: How do you think about expanding across the continent? How do you decide which countries are attractive?

Thushen Govender: To begin with, we perform a significant amount of quantitative analysis. We assess socio-economic factors, consumer-driven factors, GDP, GDP per capita, population, etc. Countries such as Nigeria feature quite highly given their improving macro and socio-economic conditions. Egypt and Ethiopia will feature highly because of their populations, and this is of importance to consumer-driven organisations over the medium to longer term. If one were to consider growth alone, Angola, Ethiopia, and Nigeria would all feature highly.

We have fairly specific criteria with regards to our acquisitions. A good local management team is fundamental. We try to refrain from managing the organisation solely with an expat team. It's also very important for us to have a strong local partner which isn't necessarily management, but rather a local shareholder who is of some influence in the local market. This provides an element of social legitimacy. We don't want to be seen as a South African company going out there and conquering the world.

In terms of physical assets, we look for basic hygiene products, a base to build on and improve. Having said that, we appreciate that not all of the assets we see are going to be in keeping with the standards we are accustomed to in South Africa. In certain cases, there's a lot of work to be done to create a sustainable platform for future growth and expansion.

A route to market is also central to our decision making. As you go from east to west, the nature of FMCG channels changes quite dramatically. In East Africa, you'll find that the channels are more formal in nature, with established supermarket chains. But as you cross to West Africa, it's a lot more informal. So your ability to service these informal markets becomes critical.

Finally, you have to bear in mind that the opportunities available in the FMCG market space are very fragmented. Four to five years ago, when Tiger commenced its acquisitive strategy, we looked to Nigeria first and foremost. But the opportunities were limited in terms of assets readily available for sale, or those that met our acquisition criteria. Kenya was the location of our first deal in Africa, and that was purely for opportunistic reasons, rather than a focused entry strategy. An organisation needs to allow for an element of flexibility within its African expansion strategy.

So, returning to how we analyse these markets. I mentioned we have a fairly quantitative approach. This approach will guide us in one direction, but whether we follow that path is dependent on the market and timing, and whether there is a readily available acquisition opportunity. The empirical research guides you towards the larger and fast-growing economies, but ultimately our decisions are driven by the qualitative aspects that surround the opportunity.

Hugo Scott-Gall: Is it fair to say that most of your growth has come from acquisitions?

We view acquisitions as a springboard, insofar as the acquisition creates the base for future expansion. For example, in Kenya we acquired a stationery and home and personal care company. This acquisition met certain of the criteria that we look for. The business

operates within categories we participate in, has a good local management team, and an element of local brand equity. Given that some of these fundamental deal criteria were met, we concluded the acquisition. We intend to use this business as a platform to launch the broader Tiger product portfolio. Hence we view acquisitions as a springboard for future organic expansion.

When we began our acquisitive strategy in Africa, Africa wasn't really the big buzz market, it was more about BRICs. At the time, approximately 6% or more of our revenues were generated outside South Africa. We were exposed to this single geography, and so we needed to diversify our geographic portfolio. Hence, we had to scale-up our international portfolio quickly, and acquisitions were the fastest way to do that. Over four years, we've managed to move from an approximate 4% contribution from international operations to approximately 15%.

Hugo Scott-Gall: How constrained are you by African infrastructure, a lot of isn't in great shape?

Thushen Govender: I think it's wrong to paint the continent with a broad brush. The challenges vary, and the level of intensity varies as you move from country to country. For example, in Kenya the infrastructure is significantly better in urban areas than other African countries. But as you move towards the outlying areas, it becomes a lot less developed and hence results in a costly service model, as transportation costs increase as well as the involvement of more people in your distribution network. For example, when we are servicing the Nairobi market we can deal directly with key accounts, for instance Nakumatt, the supermarket. However, as we service the outlying areas we must deal with major distributers which in turn deal with the smaller format stores that are typical of rural areas or small towns.

Hugo Scott-Gall: In the FMCG space, there are many massive multi-nationals with strong balance sheets and strong cash flows eyeing up Africa. Does competition for assets worry you?

Thushen Govender: There are two issues here. First, if a quality asset comes up for auction there are usually two or three multinationals bidding, so we really don't have much of a chance to conclude the deal. And it's not because of their bigger wallets. Right now, we could raise up to US\$1 bn of debt financing quite easily. It's really about whether the investment makes sense. It's easy for someone with a broader geographical portfolio to decide that their strategy for Africa over the next five to ten years is going to be about investment. They can forego profit, and continue to invest in order to grow their market share. Being an African company, we can't take that view. Our investments need to make sense, and they need to generate returns over the short to medium-term and not just in year eight and nine.

Second, if we have concluded the deal, and we want to expand organically, then we don't really have balance sheet constraints on that. We can do it just as well as any other multinational. The second phase of expansion or growth in these markets, which is organic, is something we are happy to invest in, provided the opportunity and the investment make sense. But in the initial stages, I find if we were to go head-to-head in an auction, we

wouldn't fare too well, mostly because we have a different view on when the investment case should deliver in Africa.

Hugo Scott-Gall: How do you think Africans view brands. We've seen the importance of brands in Asia, not just brand acceptance but also a thirst for brands, and an appreciation of brands, Do you think this is going to be similar in Africa?

Thushen Govender: Certainly there is the aspirational factor. If you look at the socio-economic demographics across all countries in Africa, what's really driving growth is the emerging middle class. And given the increasing exposure to the western world the emerging middle class is increasingly going to look for branded offerings.

If you look at Unilever's strategy, they have their top 100 brands that they want to grow globally. At Tiger, we think there is a place in African countries for local brands. The latest buzzword now in Africa is 'the bottom of the pyramid'. The bottom of the pyramid refers to low-income earners and on the African continent this really is the majority of the population. How do you target these consumers? Your product needs to be value engineered to suit their lower levels of disposable income, and more than likely this will be launched under a local brand.

So, if you're looking for high profitability, global brands have a role to play. But you're not necessarily going to generate large sales volumes from these brands. Products targeted at the lower-income segment of the market need to be affordable, but will generate higher volumes of sales although at lower margins. Ultimately, one could say that a dual brand strategy will have to prevail over time. Local brands can be positioned as value brands and regional or international brands positioned as premium offerings.

Hugo Scott-Gall: In China, there seems to be a phenomenon of western brands being very sought after because there is a mistrust of local brands. Do you worry about that happening in Africa?

Thushen Govender: After some of our acquisitions, we have come across product quality issues. But for us, it's not really about re-launching products under another brand, because there's inherent brand equity there. Take for example the Nigerian partnership we formed last year. It produces a processed meat sausage roll that can be sold in ambient temperatures as a result of the preservatives contained within the product. The brand has been in existence for over 30 years, and has become a national institution. You don't just discontinue that because you may have come across some product formula issues. You reformulate it, you get it right, and you meet consumer expectations.

Hugo Scott-Gall: How much do you worry about agricultural prices going up, and therefore supply becoming more constrained? In a world where you see growth in emerging market demand, is there an input cost challenge for you?

Thushen Govender: Absolutely. As a food processing company, that's a huge concern for us. We have developed a model in South Africa which has seen us form strategic alliances with local farmers. We have agricultural scientists working together with our local farmers to enhance crop yields, the longevity of the product, and the quality of the product.

The next step is to focus on how we can partner with local government and local farmers outside South Africa, and create sustainable supply but with a more commercially slanted view. We would want to make sure that we have access to the yields from the farms we partner with. So, it's really about strategically backward-integrating into the agricultural side, without necessarily

owning the farms. Whether we can do this quickly enough, and whether the infrastructure or the existence of established farms on the continent allows us to do it as effectively as we do in SA, remains to be seen.

Hugo Scott-Gall: When it comes to the skills of your workforce, do you find it difficult to attract talent? Also, how do you see your workforce changing as your business develops?

Thushen Govender: As you progress your operations into more high-tech systems and processes, you're going to have to become an organisation that is focused on training and development. In certain markets, technical skills are very difficult to come by. If you look across the continent, there is a high level of expats in senior technical roles, and you want to change that overtime. I don't think the expat model is sustainable. I think you have to prove to the regulators and the governmental authorities that you are committed to development. You have a social responsibility as a local corporate citizen. So training and development has become absolutely core to success on the continent.

At Tiger, we set up training and development academies, or we leverage the training and development academies we have created in South Africa. We have a marketing academy where we fly in various marketing staff from across the continent, introduce them to best practices, and harness their current skills and improve upon them. We also have a manufacturing academy where we do the same for our technical staff.

There is a huge amount of talent out there. All that is necessary is to develop and hone those skills, and our academies have helped us take that raw talent and use it as a base to develop from. Our employees are eager to learn, they understand their local environment, and they are able to take world class best practices and unfold them into the local market quite seamlessly, not only because they have the talent and the level of education to grasp what we say, but also because they have a fundamental and deep understanding of the local market.

Hugo Scott-Gall: On consumer behaviour, do all consumers behave pretty much the same way, or will a Nigerian consumer behave differently from a Kenyan, or a South African?

Thushen Govender: I think there are the cultural nuances. As a food company, we have to have an understanding of the local palette, because the ethnic food that you would find in Kenya is very different from that in South Africa or Nigeria etc. For example, in South Africa we sell a product called Chakalaka. It's vegetables that are chopped up, pickled and then canned. It's very popular here, but the rest of Africa probably hasn't heard of it.

The complexity arises when you consider whether you should tailor products to different markets. I think in certain cases you will have to. The taste profile for bread in Nigeria is very different to South Africa, so if you are serious about the category and you want to get it right, then you would have to engineer that product to ensure it meets the local taste requirement. You see Coke doing that across the world. The level of sweetness changes with the Coke product. In the US Coca Cola is a lot sweeter than in South Africa.

We tend to continuously refer to the opportunity out there as 'Africa', but there are over 50 countries in Africa. You can't just consolidate the entire continent and say that's the opportunity. You have to realise that one size does not fit all across this diverse continent and there in itself lies the challenge.

# The African consumer opportunity?

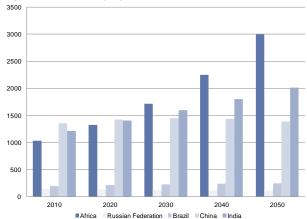
## Alexis Colombo, from our consumer staples team, highlights Africa's potential as the next big consumer opportunity

### The demand story is clear - 3 bn consumers by 2050

While Africa does not often feature heavily in consumer company discussions of emerging market strategies, there is clearly massive potential from a population that the UN forecasts will grow from 1 bn people today to 3 bn by 2050. For perspective, by that time the Indian population is forecast to be 2 bn, China will have already peaked at 1.4 bn in 2020 and will be in decline, and Brazil and Russia will consist of 240 mn and 105 mn people respectively. Importantly, Africa's working population will become the world's largest by 2040 at 1.1 bn vs. 500 mn today.



Population forecasts (mn) over time



Source: United Nations.

### Nearly a BRIC-size market already but where to focus?

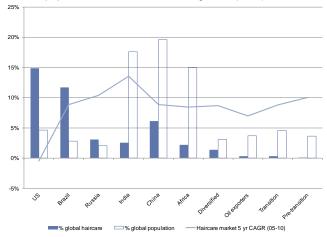
A sizeable long-term population is a start, but how quickly are spending levels growing towards levels worthy of investment for consumer companies? And how to address the opportunities across such a vast continent?

Taking haircare as an example of a staples category which is relatively early on the adoption curve of the EM consumer, we can see in the following exhibit that Africa as a whole is already similar in market size to the BRICs (2% of global market vs. 3%-12% for BRICs) with clear upside vs. its share of population that will grow over time as discussed above. The obvious challenge is that the continent is too big a market to be addressed as a whole — consumer companies need a way to segment the opportunity and focus their efforts.

A useful approach is that used by the McKinsey Global Institute; this clusters African countries into four groups depending on their level of economic development, challenges and risks. These groups are diversified economies (this includes the biggest, more developed economies of South Africa, Egypt and Morocco), oil exporters (including Nigeria, Algeria), transition economies (those with lower GDP per capita than the first two groups but that are seeing steady and high GDP growth of c.7%, the biggest being Kenya, Cameroon, Tanzania) and pre-transition economies, which are sizeable but still seeing volatile growth often as a result of political instability (including DRC, Ethiopia).

#### Looks like a BRIC

Share of population, share of market and growth (2010)



Source: United Nations, Euromonitor

Returning to haircare, we see clear differences between these clusters, with consumption skewed to diversified economies (c.60% of the African market; South Africa is 40%) where GDP per capita is higher than average (US\$3-7k) and there is a developing middle class (90% of households have some discretionary income). While GDP levels are also relatively high in the oil exporters, the markets are less well developed (making up c.15%-25% of staples categories in Africa), likely owing to more concentrated wealth. The other two clusters have much lower GDP and are less well-developed, although the transition economies already make up 5%-15% of staples categories in Africa. It should be noted that all clusters still have low per capita consumption in global terms, and all are seeing typical emerging market levels of category growth of 7%-10% from penetration and premiumisation.

Thinking about African consumer markets in this way helps segment what is already a sizeable opportunity into more focused target markets requiring differing approaches. This appears to line up quite well with how consumer staples companies have approached Africa (i.e. most are in diversified economies and oil exporters with some more patchy exposure across the sector to transition economies — SAB in Kenya, Cameroon and Uganda; Ghana is the second biggest African market for Unilever etc.).

### Constraints and catalysts?

Even compared to other EMs, the lack of reliable infrastructure is clearly a limit on accessing growth for a reasonable return.

## Logistics still holding back growth

Metrics supporting growth in Africa vs. BRICs

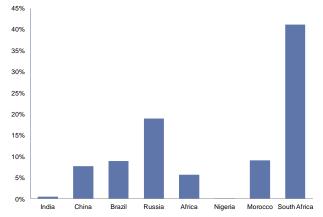
			Ease of doing business (world rank)	Mobile penetration (per 100 people)
Brazil		3.2	127	90
Russia		2.6	123	162
India		3.1	134	45
China		3.5	79	56
Africa		2.5	117	54
Diversifie	d	2.6	76	79
Oil Expor	ters	2.4	156	69
Transition	n	2.5	114	39
Pre-trans	ition	2.3	146	21
Source: VI	Vorld Ban	ık.		

Looking at some key World Bank indicators, the continent as a whole, and especially the diversified cluster, screens well on ease of doing business vs. BRIC counterparts, but poorly across the board on logistics performance, towards the bottom of the typical

2.5-3.5 range for emerging markets. Moving product across borders, especially between regional trade blocs, is also difficult, making initial geographic expansion from existing strongholds more challenging. Relying on retailers to distribute products is again not a clear option, as this remains relatively undeveloped outside South Africa (exhibit below). It's notable that Walmart's recent acquisition of Massmart (South Africa's largest wholesaler) may indicate increasing international interest in African retail, which could act as a catalyst for growth and consolidation in the sector, and provide a more efficient route to market for consumer goods companies.

### Retail penetration still low

Modern retail penetration vs. BRICs



Source: Planetretail.

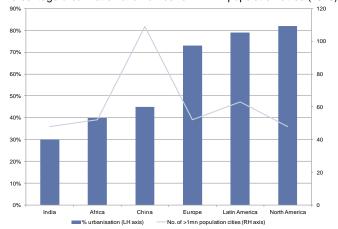
The high distribution costs that this lack of infrastructure implies could act to compress margins, increase working capital and dampen returns. So, consumer companies need to keep other costs down by sourcing and manufacturing locally (e.g. SABMiller brewing cassava and sorghum-based beers) and use alternative distribution methods to access hard-to-reach consumers (e.g. Unilever currently experimenting with rolling out its successful 'Shakti' microfinance scheme from India to Kenya and Nigeria that enlists women in remote villages to sell to their community door to door). The challenges are clear, but there are also some positive developments that could open up markets and catalyse growth. Mobile phone penetration, which is progressing faster than in many other emerging markets (already at similar levels to India and China), and the use of non-physical credits to pay for goods has the potential to accelerate development of consumer markets, while the natural mineral and agricultural land resources Africa possesses, and the foreign investment they are generating, should act to stimulate economies and consumer spending.

### A tale of many cities?

While less is written about urbanisation in Africa than in other emerging markets, it is taking place at pace. In 1980, only 28% of Africans lived in cities, but that had risen to 40% by 2010 (62% in South Africa) with over 50 cities of over a million people, and is forecast to be 50% by 2030. Given the ongoing challenges with infrastructure discussed previously, and likely higher modern retail penetration, thinking about cities rather than countries may prove to be a higher return way of targeting the African consumer. This could start to make Africa attractive to businesses with more global sourcing, or those targeting the more premium consumer (higher-value categories such as luxury goods, spirits and to a lesser extent personal care).

#### Better off targeting cities?

Percentage urbanization and number of >1 mn population cities (2010)



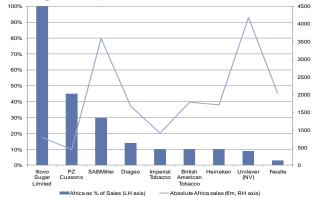
Source: United Nations, McKinsey Global Institute.

### How do I get exposure?

Several large-cap staples companies have been long-term investors in Africa and have built distribution that likely acts as a barrier to entry in difficult-to-access markets. The most obvious exposure to African consumer growth is via beverages, especially SABMIller which has 30% sales in the region spread across 35 African markets and the potential to increase its exposure in the medium term in many of those markets. Heineken and Diageo also have meaningful African exposure. The tobacco companies also have significant exposure with long-term trading-up potential. Within food, Unilever is most exposed and Nestle also has significant absolute scale. HPC companies are relatively under-exposed, though L'Oreal recently added to its South African presence with subsidiaries in Egypt and in Kenya as a hub to serve East Africa. It also acquired the Softsheen-Carson Ethnic haircare business, noting black women in the UK spend 6x as much as white women on haircare products, signalling potential upside as the African middle class emerges. In addition, PZCussons, a midcap HPC stock with a significant Nigerian distribution network, holds strategic asset value within the HPC subsector.

### Who is ahead of the game?

Percentage sales exposure to Africa and absolute size of Africa (2011E)



Source: Company data, Goldman Sachs Research estimates.

### Alexis Colombo

### European Consumer Staples analyst

email: alexis.colombo@gs.com Goldman Sachs Research International.
Tel: +44-20-7552-3629

# Interview with...Runa Alam

Runa is a Co-Founding Partner and CEO of DPI. She has 28 years emerging market entrepreneurship and private equity experience. She holds an MBA from the Harvard Business School. Runa is a co-Chair of the African Venture Capital Association Board of Directors and a member of the Emerging Market Private Equity Association Africa Council.



Hugo Scott-Gall: Have you seen increasing interest for Africa, from investors?

Runa Alam: Let's consider three types of investors – firstly those who invest in listed assets, secondly Foreign and Direct Investment, i.e. corporates investing in Africa and finally private equity. All three have been growing over the last ten years. From the first

bucket of investors, there was a big inflow in 2006-08, but a lot of money went out in 2008 and hasn't fully come back yet. Having said that, stock markets are developing all over Africa and it's the local money that is driving stock market capitalization growth. There are more local pension funds, insurance companies investing and asset management companies growing across Africa. The African Venture Capital Association, where I am co-Chair, along with the Commonwealth Business Council, are training African pension fund trustees to accelerate this trend.

In the last six months, we have had five major brand name corporations approach us, saying that they have global presence, but haven't done anything in Africa and want to partner with a group that knows the region. A few of them have been in and out of Africa for the last 25 years. But most of them have never looked at Africa before and now are interested in expanding to Africa.

In the private equity area, there's a trend of more money coming into Africa. On the transaction side, we are finding not only more transactions but better companies across different industries. And as more multi-nationals invest, there are going to be more exits.

Hugo Scott-Gall: With all that capital coming into Africa, is it sufficient to fund infrastructure needs?

Runa Alam: The simple answer is no. We see private equity capital flows increasing, but these are going into companies in the consumer industries or resources. Foreign direct investment is going into development of corporate assets. Of course, there is building going on in the infrastructure area, but not enough and not fast enough.

Hugo Scott-Gall: Is it just insufficient foreign investment, or is it also that there isn't enough infrastructure to tap domestic savings?

Runa Alam: There is not enough foreign investment, and on the domestic side there's a lack of structure and products to channel savings into infrastructure projects. Of course, this channelling can be done through tax collections and government spending on infrastructure, but there is also not enough of this yet. What I mean by this is exemplified with what happened in the mobile phone industry in Africa. Because cellular investments are perfect for private equity funds, and can also at a later stage be funded in the capital market, GSM telecommunication developed very quickly in Africa. However, the same cannot be said of road and port development, where the investment size can be much larger and the time frame longer. The good news is that the banking sectors and capital markets in Africa are rapidly developing. In addition, the

Chinese government or Chinese parastatals are building infrastructure in Africa in return for certain oil and gas or mineral rights.

Hugo Scott-Gall: How do you think about consumption growth or the consumer curve moving from one income bracket to the next? Is it similar to China, for example?

Runa Alam: Consumption growth is happening. This is led by the growth of the African middle classes. Currently, Africa's middle class amounts to 313 mn people, or 34.4% of the population. This is as large a middle class as exists in India. The growth in size of the middle class means that there is opportunity to invest in emerging middle class industries, as our fund does. For example, McKinsey estimates that household spending on consumer goods, and the telecommunications and banking industries will grow from US\$860 mn in 2008 to US\$1.4 tn over the next decades. Our private equity fund has invested in these sectors and we are seeing how fast these companies are growing.

Hugo Scott-Gall: Do you think technology is being adopted much faster in Africa than elsewhere, based on mobile take-up?

Runa Alam: It absolutely happens a lot faster. By the time a business model comes to Africa, it has been tested elsewhere and the cost has come down. That's what happened in telecoms. People knew what business models worked, the cost of phones and telecommunications technology had come down, and governments knew how to give up licenses. When it has happened, it has happened unbelievably quickly. So when the industry developed in Africa, it happened quicker than elsewhere. Africa is the fastest-growing mobile market in the world, and is the biggest after Asia, and the number of subscribers on the continent has grown almost 20% each year for the past five years.

Hugo Scott-Gall: African governments tend to have a bad reputation. Is that a constraint? Are you seeing Africans with overseas education and experience returning to counter that?

Runa Alam: The reputation of African governments, in my experience, is worse than the reality. As a practical matter, we look to invest through excellent, private sector, management teams in Africa. These managers know how to grow a business while avoiding unsavoury practices. Many of these managers are Africans with western education and work experience. However, just as many have been educated in excellent African schools and universities.

Overall, the overriding trend in Africa is for governments to commit to "enabling private sector investing environments" and leaving companies that follow the local laws and regulations alone to get on with their businesses.

Hugo Scott-Gall: Are more Africans looking outwards as well?

Runa Alam: Absolutely. The education and the information that Africans have about global practises and the rest of the world versus what the rest of the world knows about Africa is skewed. That means that there are enough well trained managers and sophisticated people running fairly large companies. If you look at

the world's billionaires, a good portion of them are now coming from Africa. There is good talent on the ground.

The best thing that Africans are doing is looking outwards for business models and technology and then adapting it to local conditions. The Letshego (one of our fund's portfolio companies) story is illustrative: Letshego lends to the lower end of the middle class using best banking practices, but executing faster, and is geared toward its customers. Letshego is profitable and growing because banks are not banking the lower middle class in many countries in Africa, while Letshego is, using banking technology and best practices.

Hugo Scott-Gall: Do you think that China's and India's huge investment in Africa, especially infrastructure, could prove disadvantageous to African companies in the long run?

Runa Alam: I am not troubled by China and India focusing on Africa. What we are seeing generally is that China is investing through the government parastatal companies and focusing on African oil and gas and mineral resources. India is coming in through its private sector companies. An example of the latter is Bharti buying Zain, one of Africa 's large GSM telecommunications companies, and successor company to Celtel, a private equity led cellular company.

But in both cases, African countries, companies and investors are increasingly on the radar of the Chinese and Indians, which cannot be a bad thing. If, in the long run, these deals don't work, they will unwind. But this is no different than ventures with local entities or other foreign nationalities.

Hugo Scott-Gall: Is there a lack of capital in resources too?

Runa Alam: No, resources have always been different. Oil and mining companies go where the resources are.

Hugo Scott-Gall: What about agriculture? Is there now a bigger focus on productivity?

Runa Alam: Yes, both with companies and farmers. There are several agro business funds that have developed, or are developing, large plots of land. There are also governments, multilateral agencies and NGO's working with farmers throughout Africa. AGRA, headed by Kofi Annan, is an example. What is undeniable is the vast amount of arable land in Africa, which is why agribusiness is a growth industry on the continent.

Hugo Scott-Gall: And finally, what impact does corruption have?

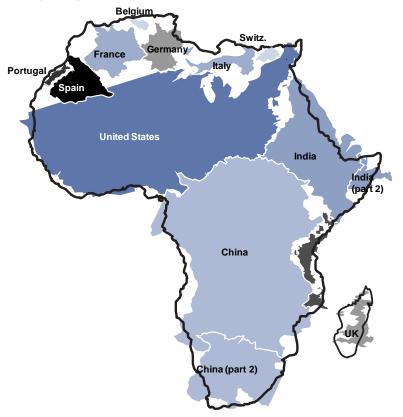
Runa Alam: Most investors we work with ask about corruption. The short answer is that I have successfully invested for over a decade in Africa without having corruption affect the investments.

At DPI we abide by both the OECD and UK anti-bribery codes and all Fund's Portfolio companies do too.

In Africa there is a term, "new generations managers". These are corporate managers who run companies without corrupt practices as they seek best practices, local and international capital.

### Bigger than you think

Africa's area vs. area of major countries (fitted in) - Identical scale



Source: www.flowingdata.com; DPI.

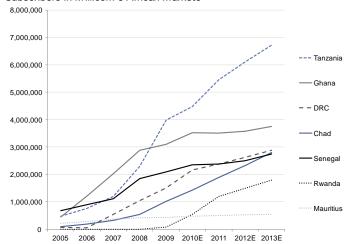
# The last frontier for telecom

# Sachin Salgaonkar, our Africa/emerging telco analyst sees huge growth opportunity

Africa remains the "last frontier" for telecom operators looking for growth opportunities as over a billion Africans embrace mobile phones. Currently we estimate there are c.400 mn subscribers in African with a majority of them being in high population markets like South Africa, Nigeria, Kenya, and Ghana. The penetration of mobile broadband/3G is less than 10% creating a huge opportunity in the future to tap the mobile data market as well. In addition, we believe that the mobile money opportunity is an area which telco operators could tap given the relatively underdeveloped banking system in Africa. In our view, the operators who are best positioned to tap this growth opportunity over the next few years are MTN, Bharti and Millicom.

The single biggest driver for the operators in terms of subscriber additions is increasing affordability for African consumers, with a majority of the African people living on less than US\$ 2 per day. Africa's population growth and urbanisation rates are among the highest in world and hence we consider it to be a huge growth opportunity as consumer spending increases with increases in GDP (currently c.US\$2.6 trn)





Source: Country telecom regulators.

## Competition is low; tariffs likely to fall with decline in costs

African countries either have 3-4 operators each or have a significant supply of spectrum (10MHz+ spectrum in 900MHz, 1800 MHz and 2.1 GHz bands) per operator, and so we do not see the risk of a material and prolonged price war in any of the African countries. In addition, the cost structure in Africa is relatively higher as compared to other geographies given the weaker infrastructure and transportation means. This tends to discourage operators from dropping tariffs significantly, preventing price wars. Even quality of service levels in Africa are inferior when compared to other emerging markets. Also, average tariffs in Africa are 6-7 US cents when compared to 1-2 US cents in emerging Asia.

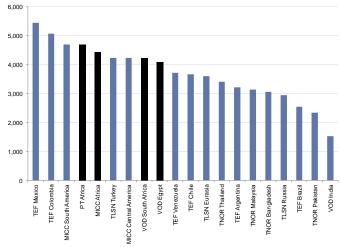
Another unique issue in emerging Africa is that diesel costs account for c.10%-15% of operator costs given the increasing

dependence of towers on diesel as power outrages are common. We are seeing signs of operators moving towards a hybrid model (battery/diesel) and depending more on solar power to reduce the dependence on diesel and hence reduce the overall cost structure.

Over time with improvement in infrastructure in Africa and increasing focus on sharing costs (for tower/fibre rollout, etc), we see room for a decline in cost structure in Africa. This would likely lead to lower RPM and thus help operators target a larger subscriber base in Africa. Also with declining costs, cell phones are expected to be more affordable in coming years, thus helping operators target the untapped market.

#### Favourable market structures

Herfindahl-Hirschman Index for concentration



Source: Goldman Sachs Research estimates.

### However Africa is not without political and corruption risks

With elections expected in a majority of the African markets in the next 12-18 months, political uncertainty remains a key risk for operators. Risk of civil unrest also remains high in an increasingly inflationary environment as a large population lives on under US\$ 2 income per day. Most of the African counties score low on Transparency International's Corruption Perceptions Index. In our view all these risks are reflected in lower PE/EBITDA multiples of African telcos (10x-11x/4x-5x) vs. 12x-14x/5x-6x for other emerging markets despite estimated strong earnings growth.

# Operators looking for opportunities to expand in Africa: Bharti was the latest one

Companies like Vodafone, Millicom, Etisalat, France Telecom have been some of the earlier foreign operators to target the growth opportunity in Africa. Most of these operators followed a greenfield rollout approach and were largely successful in gaining traction in Africa. In the last few years, some of the emerging market operators like Bharti and Reliance Communications were interested in expanding their footprint in Africa.

After two failed attempts by Bharti to enter Africa by acquiring/trying to have a JV with MTN, it finally decided to acquire Zain's assets in 15 countries for US\$10.7 bn in 2010. Bharti paid a one-year forward EV/EBITDA multiple of 9.4x (vs. EMEM average of 5x. The company's net debt/EBITDA increased from 0.03x to 2.6x. Bharti decided to enter Africa through the acquisition route (rather than greenfield rollout) as it wanted to tap the African market when penetration was low.

#### Knowing your competition

Operators in Millicom's different African markets

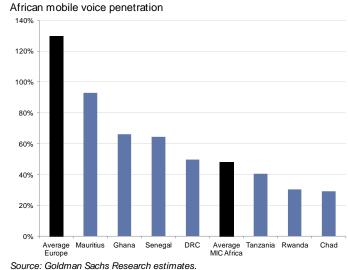
	Number of operators	MIIIicom position	Bharti	Vodacom	MTN	Orange	TEF	AMX	Digicel
Honduras	4	1							
El Salvador	5	1							
Guatemala	3	1							
Paraguay	4	1							
Bolivia	3	2							•
Colombia	3	3							
Tanzania	7	2							•
Senegal	4	2							
Ghana	5	2		1 [			<del>-</del>		
Mauritius	3	2							
Rwanda	3	2		Г			_		
DRC	5	1				<del>_</del>			
Chad	2	2							

Source: Goldman Sachs Research estimates.

In our view, Bharti remains interested in further expanding its footprint in some of the nearby markets in Africa (where regulators are giving 2G licenses) and then leverage its bargaining power over vendors for greenfield rollout at the pre-decided competitive prices.

While the going was not exactly smooth for Bharti, the company was able to replicate its hugely successful "minutes model" of India in Africa. Additionally we believe Bharti underestimated the cost structure, infrastructure issues and the availability of ecosystem (outsourcing partners) in Africa. While still in the early days, the company in our view has quickly adopted to the African market and is executing well (evident from qoq improvement in revenues and margins).

### More to go



# Bharti entry leads to increasing affordability at lower costs (led by tower sharing)

Bharti's entry in Africa helped increase affordability in certain markets like Kenya as other operators followed Bharti in declining tariffs and passed on the full benefits of interconnect rate cuts to consumers.

In addition Bharti's entry led to an increase in tower sharing activities which led to reduction in capex investments and an increase in mobile coverage. Bharti is also keen to make mobile phones more affordable and creating job opportunities in Africa wherever applicable (like outsourcing in Africa).

In our view the company also did not face any integration issues as only few senior management personnel came from India and a majority of the employees are the old Zain employees. In fact unlike Zain which had its headquarters in Bahrain, Bharti shifted its headquarters to Kenya and thus is closer to on the ground operations.

### Further M&A not ruled out; Chinese vendors also keen

With potential success of Bharti in its African Safari through acquisition route we do not rule other operators also following the acquisition route to tap the growth potential in the "last frontier" market.

We also expect proliferation of Chinese vendors like Huawei and ZTE in Africa as they are not laggards when compared to the European vendors in tapping the 2G and 3G market in Africa. We believe Africa also presents a huge opportunity to a handset vendor that can come with a low cost handset/smartphone given the low affordability in this market.

### Sachin Salgaonkar

Emerging markets/Africa telecom analyst

email: sachin.salgaonkar@gs.com Tel: +91 22 661 69169 Goldman Sachs India

# Africa poised to deliver on its promise

# Eugene King, of our European mining team, unearths Africa's resource potential

#### Africa has virtually limitless resource potential

The scale of the opportunity for mining in Africa is, in practical terms, almost limitless. Every major mineral group from iron ore and copper through platinum and gold, to the esoteric mineral sands and rare earths is in abundant supply in Africa.

Even though, in our view, Africa remains under-explored relative to other regions, in terms of resource in the ground we estimate Africa has 90% of the world's remaining platinum, c.35% of its gold, c.30% of its copper, c.20% of its iron ore and c.25% of its coal. In simple terms, Africa has significant under-explored resources and we will be relying on its growth in production to meet global demand in the decades ahead.

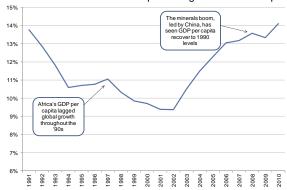
## Resources play a key role in the development of emerging economies

The classical development curve for emerging economies sees them exploiting natural resources to grow GDP, bring in foreign currency, educate the population, start low-level manufacturing and work towards developing a virtuous cycle – improved education and higher-value jobs leading to further GDP expansion. The starting point of this process of moving towards economic prosperity is typically making the most of a strong position in natural resources.

For Africa, this virtuous cycle has proved elusive. While the continent is massively resource-rich, it has so far failed to move up the economic development curve. As the exhibit below shows, GDP per capita declined throughput the 1990s as a percentage of world GDP, which given the low-base was a reflection of a lack of investment in Africa. After the resources boom took hold in 2001, GDP per capita has returned to its 1990 level, which demonstrates the key role that inbound investment in mining can play.

### Resources rebound

Sub-Saharan African GDP as a percentage of world GDP per capita



Source: World Bank.

Why has this happened? The are two potential answers: (1) Africa hasn't made the most of its natural resources, either as a result of mismanagement or by failing to attract the necessary investment; or (2) the governments of the day have mismanaged the proceeds. Possible answer number two is likely better addressed by economists and politicians – here we'll consider how well Africa has done maximising the opportunity presented by its natural resources.

### Mining is nomadic...it always follows the money

Human nature and economic rationalism have ensured that mankind has always mined its easiest or most profitable resources first. History's various gold rushes began because the gold was, quite literally, lying on the ground. Logic dictates that we mine the shallow, high-grade deposits close to population centres first. And the mining industry did this throughout the previous century of industrialisation.

But as with all natural resources, mining deposits are finite. Mines get deeper, grade falls and labour costs tend to increase as a result of wider economic benefits. As a rule, older mines generally become less profitable over time.

Logically, miners seek out new lower-cost mines for replacement or growth. Initially, expansion takes place close to current operations, but in time across borders and then across oceans. Its a truism that mining capital follows the money.

#### Globalism and the rise of risk

To use a blackjack analogy, in 2012 there are few cards left to be dealt from the shoe of available mining projects. The easy ones are done, meaning newer projects necessarily face lower grades, are deeper (or are at higher altitude) and use increasingly complex technology. Critically, they face increased risk.

Risk can be distilled to how to price the unknown; the further away from the comforts of "home" projects are, the harder it gets to accurately price risk.

Beyond commodity price risk which applies to all projects, specific project risk can roughly be divided into three sub-categories:

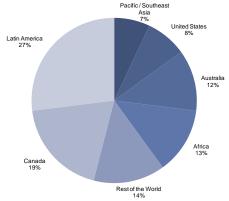
- Technical / execution;
- Fiscal: increase in royalties and tax;
- Sovereign: the risk of uncontrolled change of ownership (e.g. repossession, civil war / military coup).

### Africa has under-exploited its resources over the past 40 years

So, to return to where we started. One reason why Africa's GDP has failed to grow as a proportion of global GDP over the last decade has been that as a continent it has under-exploited its natural resources, proving unable to attract (or in some cases retain) the foreign investment required to develop mineral deposits. The following exhibit shows that the global mining industry invested about half the level of exploration spend in Africa that it invested in Latin America in 2010.

### Africa surprisingly low

Worldwide non-ferrous exploration budgets by region



Source: Metals Economic Group.

#### We point to three factors:

- 1. Of the total capex of our EMEA mining coverage, over the last 10 years less than 15% has been spent in Africa, and the vast majority of this has been spent in South Africa.
- 2. Outside South Africa (and small positions in Namibia and Mozambique), BHP Billiton and Rio Tinto, the two largest diversified miners have no producing assets in Africa. South Africa historically has been the exception but this is a result of its colonial past and perhaps distortion resulting from apartheid.
- 3. Aside from strong positions driven by geological anomalies (e.g., PGMs) Africa's share of major commodity production remains under 15% (copper 8%, seaborne iron ore 7%, gold 14%).

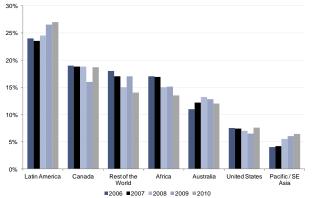
### Unstable government & fiscal uncertainty have driven the gap

We believe the delivery gap reflects the value mining companies have assigned to fiscal and sovereign risk in Africa. Risk is effectively a cost, and while there is little doubt that on a marginal cash cost basis, or on a returns basis, that many African projects have outstripped their developed market alternatives, the reluctance for major miners to pile into Africa and put capital to work is because the value assigned to fiscal and sovereign risk more than closes the value gap. Put simply, the value of this risk is the delta that can make an African project seem less attractive than a developed market alternative.

The drivers of fiscal and sovereign risk are government policy and stability. The exhibit below shows the decline in exploration spend in Africa from 2005 through to 2010, in contrast to growth in most other regions.

### Who is spending?

Exploration budgets by region 2006-2010 (% of annual exploration)



Source: Metals Economic Group.

Zimbabwe perhaps demonstrates the gap best. It borders South Africa, and has abundant resources in PGMs, gold, diamonds and coal. But aside from Impala's huge investment in Zimplats there is no significant capital inflow: the value of risk appears to offset the economic benefit of the high-grade, shallow mining on offer.

Perception of risk is interesting. Compared to the UK and the US miners, South African companies have long been willing to invest in continental Africa. The umbrella relationships that the South African government provides and the relatively shorter distances mean the perceived risk is a lower cost for South African companies.

China has also been a prime mover in African mining over the last 10 years, willing to enter countries seemingly deemed too risky by almost all other miners, often supporting emerging governments'

infrastructure programmes while developing mines. China's evaluation of African risk needs to be seen in the context of an alternative risk, the risk of having to pay higher prices for the output of foreign mining companies.

#### Africa's time has come

In the past c.18 months we have started to see a big increase in both exploration and project capex in Africa, which clearly suggests that its time might finally have come. The reasons for this are somewhat intertwined.

First, many African projects have returns which on an un-risked basis are now too hard to ignore. Grades are high and mines are shallow, offering returns that beat available projects in more developed markets. In our analysis of the next 25 major copper mines the projects in Africa have lower capital intensities and higher returns.

The second major factor is the cost of African risk; we believe that this is falling in a significant number of countries, creating an increasing number of investable countries for foreign capital. Logically, a country with a stable government and a clear fiscal policy is more attractive to a mining company wanting to make a multi-billion dollar investment with a 20 year payback. And while good governance is definitely a major factor, formal agreements on fiscal stabilisation (covering tax and royalties for 20 years) and a demonstrable track record of democratic elections go a long way toward lowering risk.

As a result of these factors, there is a real and accelerating marketplace for African mining projects, leading to significant momentum for mining in Africa. Miners need to secure the next generation of low-cost, long-life assets to maintain returns. And governments of African countries are now competing for foreign investment dollars, taking note as their neighbours offer tax holidays, capital offsets and stabilisation agreements.

### Going last gives Africa some advantages

Looking through history, companies and governments in Africa have not always been able to achieve the trickle down wealth creation among local populations, as subscribers to the 'resource curse' theory are willing to point out.

While the future is far from certain, it's seems fair to say that African countries are now operating with a far greater understanding of how to structure deals with international partners. Miners too have learned some valuable lessons on how to operate in Africa, and how getting things wrong can negatively impact their valuations.

Countries wishing to make the most of the opportunity will go out of their way to offer competitive deals with enshrined stability and will also demonstrate a strong political process. Miners that succeed in extracting value for their shareholders will honour their agreements and engage the community.

It's a healthy tension, because as in all good partnerships, both parties need each other.

### Eugene King

### Metals and Mining analyst

email: eugene.king@gs.com Tel: +(44) 20-7774-2447 Goldman Sachs International

# Interview with... Peter Schmid

Peter Schmid grew up in South Africa and has worked in South African private equity for 18 years; at Actis he has been responsible for the operational management of the African and Latin American private equity businesses, working from Johannesburg.



Hugo Scott-Gall: Let's start with Africa's consumption. Do you think Africa's consumption curve could mimic China's and those of the other BRICs?

Peter Schmid: Yes, I suspect Africa will follow the same upward trend.
Consumption has been growing, following the rise in commodity prices.
There are basically three countries that are likely to determine the success of Africa in the long-term - South Africa, Nigeria and Egypt. Arguably you could

add 'East Africa', - Kenya, Uganda, Tanzania etc – to that list too. That's where the big populations are and that's where the bulk of our deals are done. And if you look at all of them, they've got unique advantages particularly around minerals and oil and gas.

Also, critically, those areas are stable. Most of the states in Africa which are now democracies were dictatorships in the past. I am not saying they are entirely free and fair, but it makes a huge difference. Plus, there is increasing pressure on the leadership in Africa to deliver a better life for everyone. That means more cash is trickling down and not ending up in the Swiss bank accounts of the elites. Stability and a desire for a higher quality of life are the two key factors driving consumption.

People speak about US\$10,000 of annual income – the middle class here would include those earning half of that.

Hugo Scott-Gall: How easy is it for people to spend their wages then?

Peter Schmid: It's quite difficult. In Africa, you are starting from a very low base of spending. People speak about \$10,000 of annual income - the middle class in Africa would include those earning half of that. Also, it's pretty much still a cash economy. The consumer base has only recently started to move towards card payments. If you think about the fact that there are 500 million mobile phones, serving 1 billion customers across the continent it's clear mobile payments are going to become an increasingly sensible solution, and as a consequence a high growth sector. At Actis we expect payments growth to be the next transformational industry this decade, just as mobile shaped the last. With the right infrastructure it becomes easier for people to spend their money, which of course fires up the economy over time.

The current challenge – and opportunity – is actually a lack of supply of goods and services. We see Chinese, Lebanese, and in some case Indian, businesses are bringing in goods and services often at substantially higher margins on their goods than in their home countries.

Hugo Scott-Gall: How could that change? What are the constraints faced by entrepreneurs in Africa today?

Peter Schmid: Africa faces, in my view, two challenges. First, is the lack of infrastructure. South Africa has probably got the best infrastructure on the continent and is certainly more developed. If Nigeria could improve its infrastructure, and the governments are very focused on doing it, it would be a game changer. The country is already growing at around 5-6% per annum - although economists are predicting a dip in 2012/2013, yet you could double that growth by putting the right infrastructure in place. That also means that Africa needs to get its regulatory requirements right. Take fuel pricing for instance. Nigeria just had a fuel strike because the government is trying to regularise things and remove the subsidies so that people are prepared to put up the oil refineries and so forth.

The second constraint is a shortage of management and entrepreneurial talent. It's one of the chief risks we face in our business. Educated, qualified, competent managers are in demand. Until we can change that it's going to be an uphill struggle. The good news is that more and more corporates are now investing in training local staff.

There is a serious lack of educated, qualified, and competent managers. Until you change that it's going to be a battle.

Hugo Scott-Gall: On this point about human capital, do you think a reverse diaspora is happening? Is talent coming back?

Peter Schmid: Definitely. With the downturn in Europe, Western Europe and the US, there's no doubt there has been a reversing of the diaspora, but so far it's still a trickle. Africa needs to attract entrepreneurs and multinationals into the region to set up high growth businesses. Over the short term talent in-flow can form part of the solution, but over the longer term systemic investment in education is the answer. The other challenge we see is that it is often the case that the best people in Africa tend to work in the civil service. Making the private sector every bit as attractive as public service would make a sizable difference.

Hugo Scott-Gall: You mentioned China. What do you see as the consequences of China investing so heavily in African resources and infrastructure?

Peter Schmid: One can't be sure. Currently, Africa needs capital, the Chinese are welcome and the implications are purely positive; Governments get tax revenue, employment is created and money flows in. Over the longer term we can see China securing a stronghold on mineral and resources. Meanwhile Indian businesses are building out consumer-oriented businesses with distribution networks into Africa. Over the next decade this trend will accelerate which can only be good news for Africa.

Hugo Scott-Gall: Does that mean there is a lot of capital chasing scarce quality assets in Africa?

Peter Schmid: Yes, but that has not pushed bid prices up. Buying a quality consumer businesses in Brazil, India or China, would cost you a double digit EBITDA multiple. But in Africa you can still buy or control some of these businesses for less. Competition for these assets is relatively limited. That will change.

Hugo Scott-Gall: How would you price risk for African assets? And related to that, do you think foreign investors misunderstand the level of risk in Africa?

Peter Schmid: I don't think the risks in Africa are very different from other emerging markets. It's true that in certain countries within Africa corruption is a challenge, but that is not the case for the whole continent. It is easier to become a market leader in Africa than in deeply competitive markets like China and India where you will have 20 competitors snapping at your heels. African assets are cheaper too, as we discussed. We've already spoken about the biggest fundamental risk, the talent gap and the shortage of quality managers. Ultimately, many emerging markets share similar macro drivers and it would be an over simplification to say that one region is riskier than another.

Hugo Scott-Gall: If its infrastructure improves, why couldn't Africa become the world's manufacturing hub, given its human resources?

What Africa can excel in is food production. It's got such fantastic advantages in this area, especially Central Africa. There is no reason why Africa can't become the world's food basket.

Peter Schmid: Manufacturing is a stretch until the management bench strength widens and deepens (although some countries clearly have an advantage here, like Egypt). What Africa can excel at – especially Central Africa -is food production. There is no reason why Africa can't become the world's food basket. You need world-class farming techniques and processing plants to really get things moving. But, with a serious ramp up and investment of capital agriculture has huge scope to succeed.

Hugo Scott-Gall: Do you think, given the rapid adoption of mobile phones, Africa can develop faster than other emerging markets? Say, China in the 1990s?

Peter Schmid: The growth of mobile payments in Africa has been a really exciting story. The beauty of what has happened with cell phones is that the continent sort of skipped over the whole fixed line system. Africa has no engrained tradition or accepted status quo for payments, since banking penetration remains low, so there are no established habits to break. With mobile handsets serving around 1 billion customers, the opportunity to innovate and unleash the power of that network is significant.

Building out an effective national and pan African payments infrastructure is one of the foundation stones of any sophisticated economy, enabling access to capital and velocity of money throughout the system. Put simply, secure, flexible payment processing builds wealth. If the world wants to see Africa boom, there needs to be an acceleration in infrastructure investment.

With the West heavily in debt who will shoulder the cost? China? India? Latin America? At the moment, the demand for infrastructure clearly outweighs the supply of capital.

At the moment, the demand for infrastructure clearly outweighs the supply of capital.

Hugo Scott-Gall: How can you get more foreign investors to provide capital?

Peter Schmid: At Actis we have already seen a tremendous shift from when we were founded in 2004 – when the number of investors in Africa could fit in the back of a Mini – to today when, with European and US markets in trouble, the smart money is piling into the continent.

Increasingly investors are seeing the huge growth potential in Africa realised. This naturally builds confidence. We know that with the right governance, tax incentives, educational structure and fundamental optimism markets can mature rapidly and sustain that growth. Rwanda is a good example of what can be achieved over a short space of time with the right leadership. Similarly, Ghana is a shining example of a well run country, which has invested in infrastructure. It's been an absolute winner. They have encouraged entrepreneurship and the country has boomed. Individual nations' success stories matter, but ultimately an investment is judged on its own merits: right sector, right company, right price, and great returns. The more investors see those deals become the norm the more mainstream investing in Africa will become.

Hugo Scott-Gall: And would you say there's a clear correlation between either doing business, or government cognisance and regulation, and growth rate across most of Africa?

Peter Schmid: Absolutely, absolutely.

This continent has a billion plus people demanding more goods and services.

Hugo Scott-Gall: Are there any other misconceptions about Africa?

Peter Schmid: I see two assumptions. First, many people perceive Africa to be a single country or region like India and China. This is a big mistake; it is made up of multiple ethnic groups stretched across a vast hinterland and they are very, very different. Second, individuals are quick to focus on volatility, missing the upside. This continent has a billion plus people, rightly demanding high quality and ever more sophisticated goods and services. It is those twin needs – the build out of domestic infrastructure and domestic consumption that Actis responds to. We see world class banks, security systems, payment processing thriving backed with the right capital. Third, don't underestimate the prize: with its rich mineral resources the continent has a constant dollar inflow w hich is exactly what is needed to take Africa to the next level. Any smart investor who recognises the opportunity stands to make very good returns in Africa, as we have.

# Mapping and drilling

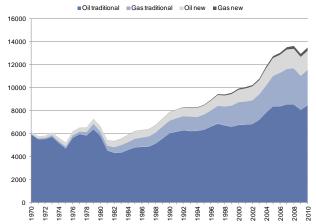
# Christopher Jost, our Oil E&P analyst, explores the opportunities that lie in Africa

# Exploration success drives opportunities in African hydrocarbon industry

Africa currently accounts for c.12% of global oil production and over 6% of global gas production. Of this, the vast majority is from a relatively small number of countries with established hydrocarbon industries: Nigeria, Libya, Egypt, Angola and Algeria accounted for over 85% of total hydrocarbon production in 2010. In recent years, however, material new discoveries in East Africa, Ghana, Uganda and pre-salt prospects in Angola have invigorated the continent's oil and gas industry outside these traditional hubs, creating major investment opportunities and changing the outlook for the industry in the region. While we believe that the traditional hubs of oil and gas production on the continent will remain important, we believe this recent exploration success will result in the emergence of new areas and an increasing focus on gas rather than historically more important oil. While we expect challenges monetizing this newly discovered resource, we believe concerns over these challenges can be overplayed, and that Africa as a region should not be regarded as operationally inferior to those other regions of the world typically regarded as more stable.

# African production has historically been dominated by Nigeria, Libya, Angola, Egypt and Algeria

Oil and gas production – "traditional" production = Nigeria, Libya, Angola, Egypt & Algeria (Production kboe pd)



Source: BP Statistical Review, 2011.

# Exploration success is reinvigorating the continent; the new wave of African hydrocarbons suggests a shift to new basins

Since 2007, a wave of new exploration success has hit the continent with discoveries of fields of over 300 mn barrels of oil equivalent (boe) alone contributing almost 15 bn boe in added resources. Of the discoveries made in these giant new fields, almost 90% of the reserves have been found outside the traditional basins of Nigeria, Angola, Libya, Algeria and Egypt. Of particular note have been: (1) gas discoveries made in the deepwater offshore East Africa (Mozabique and Tanzania); (2) oil discoveries in onshore east Africa (Uganda); (3) oil in the West Africa Transform Margin (Ghana with further exploration potential in Cote d'Ivoire, Sierra Leone an Liberia); and (4) oil in the pre-salt basins of Angola.

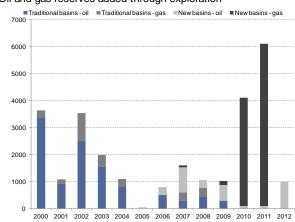
We believe the best place to find oil and gas is around where it has already been found, and with the focus of the industry firmly on these new areas, and with large areas of exploration acreage having been partly de-risked by the first wave of discoveries, further exploration success is likely in these regions in our view – a significant benefit for companies with quality exposure to these emerging exploration plays. Although the development of these reserves will take time, we believe the level of recent exploration success will lead these regions to become increasingly more important contributors to the region's hydrocarbon output. While development brings its own challenges, we believe that the commerciality of these new basins is still attractive.

# Economic and geological attractions of new African projects generally offset the political risks

We are positive on the long-term commercial attractiveness of the new African projects, despite the emerging market-nature of African economies leading us to look for a higher return than is the case in more established, OECD economies. When assessing the economic viability of the new wave of African hydrocarbon developments, we measure their ability to generate a rate of return of 13%-15% (vs. 11% for OECD developments). Despite these higher hurdle rates relative to other parts of the world, however, we believe that the oil and gas prices required by these projects are still competitive when set against the global oil and gas development opportunity and our long-run estimates for oil and LNG prices. Relatively attractive fiscal regimes in some regions (i.e. Ghana, Mozambique), designed to attract exploration capital to frontier areas help returns in countries with no previous hydrocarbon industry, while the apparent size and quality of the hydrocarbon assets in other regions (e.g. pre-salt Angola and Uganda) results in commercially viable projects despite relatively punitive fiscal terms. As a result, we believe that these are projects that will be developed and will ultimately prove to be commercially attractive.

## Exploration success has picked up in recent years, with new hydrocarbon regions emerging

Oil and gas reserves added through exploration



Source: Goldman Sachs Research estimates.

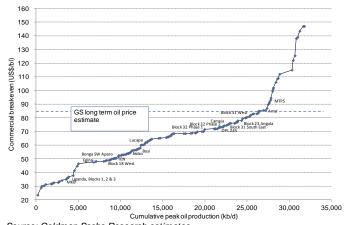
# Delivery of African hydrocarbon potential has generally been in line with global averages

Despite the recent exploration success on the continent, we would caution that discoveries of reserves can take significant time to translate into production and cashflows. Inevitably, a number of hurdles, operational, economic and political need to be crossed in order to develop and monetize a resource.

Although the African continent presents its own challenges to oil and gas developers, there is significant variation from country to country, and operating environments cannot easily be bracketed into a "one size fits all" description of the challenges. While political disruption in the North of Africa, fiscal renegotiations and local content in Nigeria, administrative bottlenecks and local content in Angola and political delays in Uganda have delayed developments and impacted production, there have also been some notable success stories. Despite some technical issues currently with its production ramp up, the Jubilee field in Ghana is a good example of what can happen in developing oil industries on the continent; the discovery taking only three years from discovery to first oil.

Indeed, when assessing how delivery of discoveries to production in Africa compares to expectations, we find that the performance of the continent has been in line with the oil industry in other parts of the world. While African production for 2011 has disappointed vs. our expectations from previous iterations of our Top Projects to Change the World database, this disappointment has averaged only c.20%, comparable with the industry in other parts of the world. Asia Pacific and North America have markedly worse records.

# New African oil project break evens generally require less than our long-run oil price assumption to be commercial Commercial break even price of pre-sanction mega projects (oil).

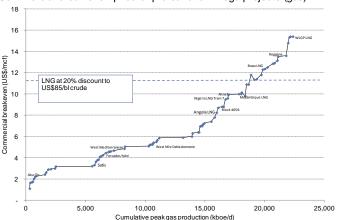


Source: Goldman Sachs Research estimates.

Exposure to emerging African hydrocarbon provinces

As a result, while investors should note the risks involved with bringing the new wave of African projects online, we do not believe these operational, social or political risks are significantly worse than they are in other parts of the world. Instead, these risks should be seen in the context of an industry that continues to disappoint rather than a region with structural deficiencies.

### East African gas projects also sit attractively on the cost curve Commercial break even price of pre-sanction mega-projects (gas)



Source: Goldman Sachs Research estimates.

#### Investing in exposure to the continent

The companies with high exposure to these emerging hydrocarbon areas of Africa are diverse, with a mix of high impact exploration and strong cash flows, small firms with significant re-rating potential and major oil companies. Below we include a summary of the emerging regions within the continent and the companies through which this exposure can be targeted.

### **Christophor Jost**

### European Oil and Gas analyst

email: christophor.Jost @gs.com Goldman Sachs International Tel: +(44) 20-7774-0014

Region	Angola pre-salt	East Africa gas	West Africa Transform Margin	East Africa oil	High impact exploration
Regional characteristics	Cobalt and Maersks discoveries have helped partially de-risk this new frontier area, which could contain material potential upside in other prospects in the region, although further drilling is required to determine ultimate potential. Operators in the region believe that the Angolan pre-salt plays are geologic analogues to some Brazilian pre-salt discoveries.	Recent exploration has led to the discovery of vast (multi tcf) reserves offshore Mozambique and Tanzania. The region benefits from excellent reservoir characteristics and should represent an important diversity of supply away from Australia. Challenges are focused on proving additional reserves in Tanzania and commercial monetisation	Opened up by Andarko & Tullow with discoveries in Ghana and Sierra Leone. Chana is now a producing hydrocarbon province with significant exploration upside remaining. Exploration driling in the rest of the area has been encouraging, finding working hydrocarbon systems but a second commercial hub is still to be discovered.	The first major discovery in the region was made in 2006 in the Lake Albert Rift Basin in Uganda which has since grown into a major project which will likely produce well in excess of a billion barrels of oil. Drilling is taking place in other nearby countries such as Kenya and Ethiopa during 2012. Pipelines will generally be required for export.	A number of relatively underexplored regions exist on the continent. Exploration risk is high, with few commercial discoveries made in the regions, but the rerating potential in the event of success is high. Main areas of interest being drilled in 2012 include Mauritania, offshore Kenya and Namibia
Major company exposure (>US\$20bn market capitalisation)	ENI BP Repsol Statoil Conoco	ENI Statoil Exxon Mobil BG	Anadarko Repsol Tullow Chevron	TOTAL Tullow CNOOC	Tullow BG
Small / mid-cap company exposure ( <us\$20bn captialisation)<="" market="" th=""><th>Cobalt Enersis</th><th>Ophir Cove* Bharat Petroleum</th><th>Kosmos African Petroleum Corp.</th><th>Africa Oil</th><th>HRT Chariot Premier Pan Continental Afren</th></us\$20bn>	Cobalt Enersis	Ophir Cove* Bharat Petroleum	Kosmos African Petroleum Corp.	Africa Oil	HRT Chariot Premier Pan Continental Afren

\*Cove has received proposed offers from Shell and PTTEP. Source: Company data, Goldman Sachs Research estimates.

# Interview with...Simpiwe Tshabalala

Simpiwe Kenneth Tshabalala is Deputy Chief Executive Officer of Standard Bank Group Limited and Chief Executive of Standard Bank of South Africa. Previous to this, he held executive positions at Stanbic Africa Holdings since 2001. He graduated from the University of Notre Dame with a Master of Law. Standard Bank is a South African bank that has operated an on-the-ground franchise on the African continent for 20 years.



Hugo Scott-Gall: How do you identify the countries in which you'd like to expand?

Simpiwe Tshabalala: We first think about the business environment. If we consider the environment complicated and difficult, we begin by opening a rep office or a joint venture, and then perhaps an acquisition. Angola is an example, we went in greenfield and applied for a rep office. We followed that by applying for a banking licence. Then

we entered into a partnership with locals. We now have a banking licence and are rolling out operations organically. When we have knowledge of the environment, and consider it less risky, acquisition is more straightforward. Take Uganda: we had a small operation coming out of the ANZ Grindlays' network, and we knew Uganda very well. We bought the largest bank in Uganda, and merged it with our entity there and we now have high market share.

In thinking about the various countries, we also look at demographics. There are interesting demographic stories to be told in Africa. The demographics of Nigeria for example are fascinating; life expectancy is improving, health and education are improving, the work force is getting bigger, and it is getting better educated. So consumer-facing businesses are going to do really well there. And therefore, over time retail banking in Nigeria is clearly going to do very well.

Likewise infrastructure is an issue. In most of Sub-Saharan Africa infrastructure has all but collapsed, or is limited. It has to be rebuilt, so there are massive opportunities in project finance. A lot of infrastructure will be refurbished, mainly with support from the Brazilians and the Chinese. The link we have with ICBC also helps us identify opportunities and execute on them. In our case, ICBC is a 20% shareholder. We have a cooperation agreement to identify Chinese corporates and SOEs that are looking for opportunities on the continent, and we have businesses and people on the ground who can react to that.

The risks are obviously commensurate with the returns, but the returns and the increase in the customer base taken together with GDP growth are stunning.

Hugo Scott-Gall: How quickly is it going to change? Can banking penetration increase fast enough to provide sufficient deposits versus the demand for capital?

Simpiwe Tshabalala: The rate of penetration increase will be different country by country. Some countries have better credit

bureaus, and better legal systems, so you are able to foreclose if you need to, whereas in other countries it is impossible, meaning that your lending strategy will always lag your liability strategy. In some countries it will take time to improve the legal systems, and to have the capital markets to be able to absorb that rate of growth. Having said that, the margins are quite thick and the return on equity is high. The risks are obviously commensurate with the returns, but the returns and the increase in the customer base taken together with GDP growth are stunning.

# There are interesting demographic stories to be told about Africa.

Hugo Scott-Gall: What could you do as a very large player to change penetration. Does the fact that mobile phones are so ubiquitous make that easier?

Simpiwe Tshabalala: The rate of growth of cellphone and Internet penetration is staggering. And that obviously creates an opportunity, first to reduce the cost of product and service delivery. This puts us in a position to include a larger number of people in the banking system at a faster rate than we could otherwise.

In countries like Kenya for example the speed with which people entered the banking system from the moment M-Pesa was launched is mind boggling. We think in a couple of years the penetration of cellphones in Africa will be close to 100%, and the implications of that for payment, advancing credit through cellphones etc. are amazing. Inside Standard Bank we have a division called inclusive banking, which does precisely that. We've set up cellphone banking to provide distribution channels and community structures that give us an ability to generate savings, deposits, and loans far more cheaply than bricks and mortar prices.

Our traditional branches and our legacy distribution networks are changing as a result of communications, and also changing because it's too expensive to have branches that carry cash. So everybody is moving towards cashless branches, having self-service at those branches and reducing infrastructure requirements. In addition, because you can use agency banking or other people's shops and distribution networks, all you need is a point of sale terminal and a card and you can do the same things as you would in a branch. The consequence of that is that the capital intensity of these businesses is much less than traditional banks. And that is the story of Africa. The ability to distribute product and services through agency or correspondent banking using point of sale terminals and cellphones is revolutionising banking.

Hugo Scott-Gall: Do you have a view on the sophistication curve of people's saving? How quickly can it change, so that there is more demand for more sophisticated products?

Simpiwe Tshabalala: At the risk of making big generalisations, in many countries people have had appalling experiences with banks,

for example banks collapsing because of fraud. The consequence of that can be that a lot of the money sits outside the banking system. In addition, in many countries banking infrastructure is inadequate and capital markets hardly exist. Now the rate at which capital markets develop, and people increase their disposable income are two big factors in increasing banking penetration and deepening financial activity. How long that takes again depends on the level of sophistication in the countries. So South Africa is far down that path while Nigeria far behind, but the pace at which the banking system and the capital markets in Nigeria are developing is phenomenal, in large measure because the authorities are quite determined to change the legal and regulatory environment for the better as quickly and effectively as is possible. They are working towards building yield curves, disposable income is increasing, they have introduced laws and regulations that compel contractual savings, and the pension fund system is improving.

Africa needs about US\$93 bn a year to deal with its infrastructure backlog. At the moment it is raising about US\$72 bn.

Hugo Scott-Gall: Is it a worry that when things are going well consumer credit might grow too fast and prove destabilising?

Simpiwe Tshabalala: Excluding South Africa, in most markets consumer credit hardly exists, so most banks operating on the continent are liabilities banks. They take deposits, they would typically buy government paper, and they provide people with the ability to save and make payments. But consumer lending is hugely underdeveloped. And it will take some time in my view for consumer lending to become a large component of banks' balance sheets on the continent. For example, it's only recently that Uganda has created a deeds registry and upgraded its courts; mortgage lending is starting to accelerate as a consequence. As authorities build the infrastructure, the legal, regulatory and market infrastructure, lending will pick up.

In South Africa the story is slightly different and lending is highly penetrated at about 80%. South Africa has credit bureaus, it has a very sophisticated legal regime, it is easy to foreclose, and the capital markets are well developed. The components one needs to have proper consumer lending in South Africa are there and they are quite strong.

Hugo Scott-Gall: What is the funding mix for infrastructure on the continent?

Simpiwe Tshabalala: Africa needs about US\$93 bn a year to deal with its infrastructure backlog. At the moment it is raising about US\$72 bn. This is coming from a combination of sources: taxes, the banking system, and a large chunk is coming from outside – risk capital. The banking system in each of those countries does not have the capacity to fund all of those activities, so there will be a lot of reliance on international capital markets and the international banking system. At Standard Bank, we are trying to position ourselves as intermediators by having operations in London, New York and Hong Kong. There is momentum building, as an example we have just assisted Tanzania raising a syndicated loan of US\$250 mn. We are assisting some sovereigns to raise bonds. For example, we have taken the South African sovereign to the international capital markets and we are doing the same for several others. And there is interest from insurance companies and

pension funds to invest in government bonds, which are created to finance infrastructure. People who are willing to take direct exposure to projects.

Hugo Scott-Gall: What do you think is stopping more capital coming to Africa? Do you think people are becoming more comfortable with the risk?

Simpiwe Tshabalala: There probably isn't enough knowledge of the magnitude of the opportunity on the African continent. Also, the perceptions of risk are still inconsistent with reality. We think that over time people's expectations will become more consistent with the real risks. However, the reality is that Africa needs to upgrade its own infrastructure, fix its own governance and fiscal policy, and rule of law; and then educate people about it. It's true that governance and financial management on the continent has improved. But there is still quite a way to go.

Hugo Scott-Gall: Is there enough talent in the employee pool?

Simpiwe Tshabalala: There is not enough right now, but if trends continue then it may become quite exciting. The number of schoolage children that are actually at school is increasing, and the education system is improving. More people are coming back from the diaspora. One has to draw the conclusion that, in due course, the workforce will improve, putting Africa in a position to attract employees.

Hugo Scott-Gall: What worries do you have?

Simpiwe Tshabalala: A number of things worry me. First, the challenges in Europe. They have a materially adverse impact on this continent. More than 25% of South Africa's bilateral trade is from the EU. If GDP in Europe slows that would mean fewer goods on the high seas from the African continent, and we are going to feel it.

Second the magnitude of the regulation that we have to cope with. For example, we have operations in New York and so we are having to grapple with the Dodd Frank Act.

Third the sophistication of financial crime is mind boggling and it is something that one worries about, particularly in a big complicated multi-jurisdiction and multi-product organisation.

Finally, we also worry about losing our head start here in Africa. We worry about how much longer we can enjoy the heritage we have in the face of the environment getting ever more competitive.

Hugo Scott-Gall: On the topic of competition, have you seen South Africa starting to lose its competitive edge as an entry point for investment into Africa?

Simpiwe Tshabalala: As a South African I would love to believe in the sustainability of the country's national competitive advantage as an entry point to the African continent. Increasingly, people are able to go directly to Kenya and Nigeria, for example, without going through South Africa, because these countries are building the necessary hard infrastructure and the required financial and legal infrastructure. So people will be able have their head office in Nairobi and use Nairobi as a base to compete in Africa.

That said, we do think that South Africa retains competitive advantages, it does have the infrastructure, the roads, the financial structure, the legal structure and the people that make it possible for people to be able to compete on the continent. But the competitive advantage is diminishing as the rest of the continent develops.

# Insuring growth

# Colin Simpson, our Insurance analyst looks into the potential for financial services growth in Africa

### Insurance in Africa: Commercially attractive, socially beneficial

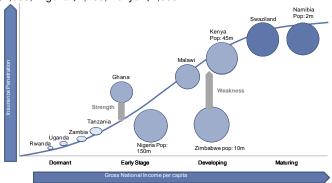
With average life expectancy of just under 54 years, funerals in sub-Saharan Africa happen all too often. HIV/AIDS has reduced life expectancy over the past 30 years, according to the UN Human Development Index, leaving many families without a breadwinner. As is common in Africa, a funeral is considered an opportunity to honour the deceased with a lavish ceremony, widely attended by members of the community. The cost of a funeral is significant, and often forces families to borrow money, compounding the financial impact of the bereavement. This has created a need for funeral cover, a simple regular-premium life insurance policy with a sum assured sufficient to at least cover funeral expenses (c.£1,500 to £4,000) with the potential for positive ramifications on the lower socio-economic groups of sub-Saharan Africa. Old Mutual, with the largest market share in the South African Mass Foundation segment, and ambitions to replicate its success throughout Africa is a unique opportunity within our European insurance coverage.

### **Demographics**

Our economists forecast South African real GDP growth of only 2.7% in 2012, below most other EMs and only 60 bp above the US. However, within this there exists an economically vibrant emerging black middle class that has grown significantly over the past decade. Over the past six years there has been a 45% increase in those earning c.US\$100-300 a month, referred to as the Mass Foundation market by Old Mutual (which has the largest market share in this segment). Outside South Africa, growth is likely to come more from a combination of economic growth, with the IMF forecasting a 5.2% increase in real 2012 GDP for sub Saharan Africa, and an increase in insurance penetration from very low levels. There are, however, marked differences between countries (see below), which we believe necessitates careful planning before embarking on a wide-scale expansion into Africa.

# Outside South Africa, different countries pose significantly different opportunities

GDP/capita (US\$): South Africa: \$10,000, Namibia: \$6,900, Swaziland: \$4,500, Nigeria:\$2,400, Kenya: \$1,600



Source: Company data, Goldman Sachs Research estimates.

### Distribution and administration

Funeral cover premiums are typically small, making large loadings for sales and distribution impossible. Direct sales are also difficult

as the product's target market may not have experience with financial services products and there is unlikely to be sufficient trust to initiate a sale. Within South Africa, Old Mutual has established relationships with trade unions that allow it to sell its products in the workplace, and act as a barrier to entry to other insurers. Old Mutual pays mostly fixed salaries to its distribution force, which we believe limits mis-selling and introduces significant operational leverage. Outside South Africa, distribution is limited by undeveloped infrastructure, with limited access to the internet, a fixed line telephone or even a bank account. Old Mutual has circumvented these issues by selling insurance and collecting premiums using a mobile phone (as in Kenya) or straight off the supermarket shelf in a pay-as-you-go arrangement. Another barrier to entry for its competition is the admin-intensive nature of funeral cover. Claims must be settled within 48 hours for funeral expenses to be met, which requires an efficient claims handling process.

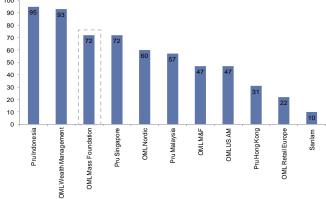
### **Cross-selling potential**

A funeral cover product is among the most basic in Old Mutual's portfolio and is quite likely to be the first insurance product bought by the emerging middle class. However, once a relationship is built there is the potential to up-sell higher sum assured life insurance, savings or general insurance products. In South Africa, Old Mutual has set up an unsecured lending division specialized in loan consolidation for the poorer socio-economic groups. As long as the individual is employed and passes a credit check, Old Mutual is able to consolidate outstanding loans, bringing down interest costs. A plan is then drawn up to see how the client can improve their financial position, which tends to also include the purchase of an appropriate level of insurance. Within South Africa, household debt-to-disposable income remains stubbornly high at 76.8% and Old Mutual's consolidation initiative has grown significantly.

# After starting up in the 1970s OML's Mass Foundation business now generates significant profits

## 1H11 IFRS adjusted operating profit for OML & Prudential

FY10 IFRS operating profit for Sanlam Entry Level unit (£ mn)



Source: Company data.

The insurance opportunity in Africa is unique. Demographics present a growth opportunity that is relatively uncorrelated with the investment markets. Though numerous challenges exist, including inadequate infrastructure and a nascent regulatory regime, OML has spent over 30 years building its Mass Foundation business, which we believe positions it well to expand into the rest of Africa.

### Colin Simpson

### Insurance analyst

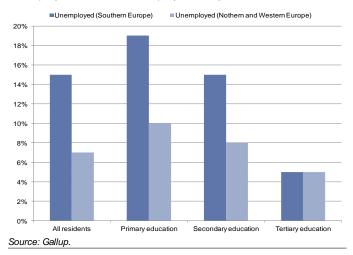
email: colin.simpson@gs.com Tel: +(44) 20-7552-2852 Goldman Sachs International

# Six of the best – our favourite charts

In our six of the best section, we pull together a pot pourri of charts that we hope you find interesting. They will be different in each edition but hopefully always of note.

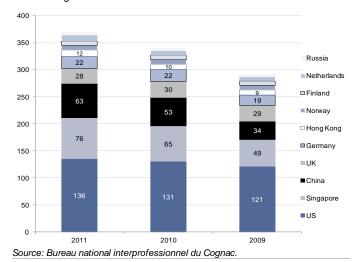
### Degrees of difficulty

Unemployment and underemployment, by education level



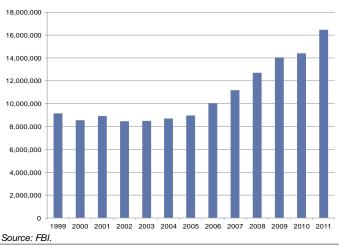
# Asian spirits...

#### Sale of Cognac in hectoliters



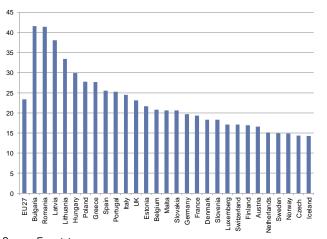
### On the rise

Total background checks for firearms initiated, US



### Where poverty is high

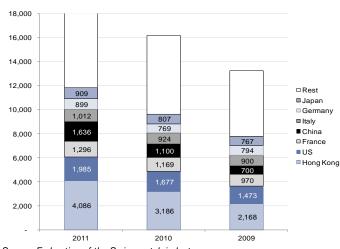
% of persons at risk of poverty or social exclusion 2010



Source: Eurostat.

### ... worth watching

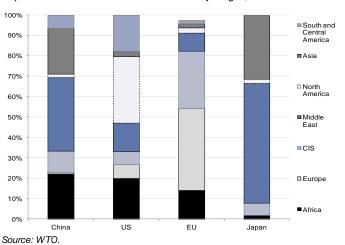
Sales of Swiss watches



Source: Federation of the Swiss watch industry

### Where the world buys its oil

Imports of fuels of selected economies by origin, 2010



# Five African plays

Key data				Curre
Price (p)				2,22
12 month price target (p)				2,75
Upside/(downside) (%)				2
Market cap (£ mn)				5,919
Enterprise value (£ mn)				6,344
	12/10	12/11E	12/12E	12/13
Revenue (£ mn)	1,229.9	1,389.2	1,692.6	1,865
EBIT (£ mn)	314.5	343.0	404.9	479
EPS (p)	80.08	87.39	106.59	128.7
EV/EBITDA (X)	7.9	11.9	10.0	8
P/E (X)	16.9	25.5	20.9	17
Dividend yield (%)	1.4	1.0	1.1	1
FCF yield (%)	3.3	(8.0)	2.0	2
CROCI (%)	21.5	19.2	19.2	19
CROCI/WACC (X)				
EV/GCI (X)	1.8	2.4	2.1	1

### Powering ahead

Aggreko is the most exposed company in the business services sector to the faster-growing economies in Africa, which we estimate accounted for c.19% of group's revenues in 2010. Through its International Power Project division, Aggreko has been operating temporary power plants in many African countries, alleviating the plague of power outages: the World Bank (2009) estimates that Africa requires investment in power generation of US\$41 bn pa to meet its infrastructure spending needs. Furthermore, Aggreko's broader geographical exposure, not only to Africa, but to other faster-growing economies in Asia, South America and the Middle East, is a key factor supporting our Conviction Buy on the stock: in our view the supply/demand imbalances in power generation in these regions will continue to fuel superior earnings growth and double-digit returns for Aggreko's IPP business (48% of group sales) despite current macroeconomic uncertainty.

We forecast an EPS CAGR through 2011-13 of 21% and 2012 CROCl of 19%, fully funded through internally generated cash – the company has a conservative balance sheet, with a medium-term target leverage ratio of 1.0x. These forecasts compare with historical average organic growth pa through the last cycle (2004-10) of 17%, improving CROCl from 12% to 22%, and an average net debt/EBITDA ratio over the period of 0.8x.

Our 12-month price target of 2,755p implies 24% potential upside and is derived from a 11.0x EV/EBITDA target multiple applied to our 2013 forecasts. Our target multiple is above the top quartile range during the previous cycle (7.2x), however, we believe this is justified by an improved and more diversified business mix. Aggreko is a Q1 scoring company in the business services sector under the GS SUSTAIN framework. At our price target, the 2013E EV/GCI is 2.1x which compares favourably to our 2013E CROCI of 19%, and to the current (2011E) EV/GCI of 2.3x.

Key risks to our price target include the entry of further competition into market, loss of contracts and US dollar weakness.

Analyst details: Charles Wilson; Tel: +44-20-7774-3023; email: charles.wilson@gs.com - Goldman Sachs International.

Prices as the close of February 27, 2012.

Old Mutual				
Key data				Current
Price (p)				159.9
12 month price target (p)				208
Upside/(downside) (%)				30
Market cap (£ mn)				9,106.3
Debt/EV (%)				16.9
	12/10	12/11E	12/12E	12/13E
Pretax profit (£ mn)	996.1	1,238.2	1,459.6	1,782.6
Net income (£ mn)	808.4	1,166.4	1,245.4	1,458.9
		21.08	21.32	23.66
EPS (p)	15.96	21.00	21.32	23.00
EPS (p) ROEV (%)	15.96 9.8	8.7	8.1	8.0
** *				
ROEV (%)	9.8	8.7	8.1	8.0
ROEV (%) Dividend yield (%)	9.8 2.5	8.7 14.2	8.1 3.9	8.0 4.2
ROEV (%) Dividend yield (%) P/E (X)	9.8 2.5 10.0	8.7 14.2 7.6	8.1 3.9 7.5	8.0 4.2 6.8
ROEV (%) Dividend yield (%) P/E (X)	9.8 2.5 10.0	8.7 14.2 7.6	8.1 3.9 7.5	8.0 4.2 6.8

## A new identity

Management has successfully reshaped the business: Following a decade of rapid international expansion culminating in large losses in its US and Bermudian businesses in 2008, Old Mutual's management has taken significant steps towards de-risking, reducing debt and focussing on emerging markets, drawing on its experience as South Africa's largest life insurer. Disposals of its US Life and Nordic businesses in the last 2 years have improved the Group's capital flexibility and allowed for both an increase in its 2012 debt reduction target to £1.7bn and propose a payment of a £1bn special dividend. Should the Nordic disposal complete at the end of 1Q12 as planned, 74% of Old Mutual's operations will be in emerging markets according to our SOTP valuation. Further simplification of the group could come through the disposal of the Group's 53% stake in Nedbank (management has commented on numerous occasions that banking is "not in their DNA"), an IPO of its US asset management business

or disposal of parts or all of its European wealth management division.

Emerging market businesses underappreciated: Old Mutual possesses a strong brand in South Africa and has the number one market share in the mass foundation segment of the population (i.e. those earning less than R12,000 or £1,000 a month). We expect this business, primarily focussed on the sale of funeral cover, to grow earnings by 15% per annum as it continues to benefit from economic growth and rising levels of wealth. The group has intensified its focus on the rest of Africa, where there is much lower insurance penetration and better GDP growth prospects.

Valuation attractive, balance sheet flexibility improved: We have a 12-month MCEV/ROIC-based 208p price target for the stock, offering 30% potential upside. Despite having what we believe to be superior growth prospects and lower interest rate and asset risks, the shares are still currently trading below 8x our 2012E EPS (vs. our coverage median of 8.3x). Key risks to our price target include a decline in the South African rand, significant equity market falls and an increase in credit impairments at Nedbank, in which the Group has a 53% stake.

Analyst details: Colin L. Simpson; Tel: +44-20-7552-2852; email: colin.simpson@gs.com – Goldman Sachs International.

Prices as the close of February 27, 2012.

MTN Group				
Key data				Current
Price (R)				132.74
12 month price target (R)				157.00
Upside/(downside) (%)				18
Market cap (R mn)				250,152.4
Enterprise value (R mn)				300,362.7
	12/10	12/11E	12/12E	12/13E
Revenue (R mn)	114,684.0	122,231.8	143,129.2	150,628.5
EBIT (R mn)	32,137.0	38,455.7	46,114.4	47,827.2
EPS (R)	7.75	10.96	14.14	15.00
EV/EBITDA (X)	5.6	5.5	4.6	4.3
P/E (X)	15.0	12.1	9.4	8.9
Dividend yield (%)	4.3	5.4	7.5	8.5
FCF yield (%)	5.8	3.8	8.2	8.8
CROCI (%)	21.4	21.6	22.4	21.0
CROCI/WACC (X)	1.6	1.7	1.7	1.6
EV/GCI (X)	1.5	1.5	1.3	1.2

## Making the right call

Exposure to a structural growth theme: MTN is exposed to the underpenetrated markets of Africa and the Middle East which we believe contributes to the sustainability of its top-line growth. We forecast that MTN's revenues will grow by 7.1% and 7.5% in 2012 and 2013 (assuming stable FX rates) as a result. Moreover, MTN's leading positions in a number of markets helps it generate a superior return on capital, which justifies its valuation premium to CEEMEA telecoms, in our view. We do not expect a considerable acceleration of competition in Nigeria, the biggest and the most profitable market for the company, owing to high barriers to entry and economies of scale which favour MTN. However, news flow on Nigerian regulation (regarding SIM card registration, network quality, potential MNP introduction and removal of fuel subsidies) may raise investors' concerns about the outlook for growth in Nigeria. Additionally, political tension between the US and Iran and Syria may elevate concerns about MTN's

exposure to these countries.

MTN generates healthy cash flow: We forecast that MTN will generate US\$3.0 bn (ZAR25 bn) of FCF in 2012, giving a FCF yield of 8% and we forecast it will increase to 11% by 2015. After a revision of the company's strategy in mid-2010, we believe MTN is highly committed to shareholder remuneration, which should help see cash flow generation translate into payout increase. We believe low leverage (we expect MTN to have US\$1.8 bn of net cash in 2012) will contribute to sustainable dividend growth from MTN.

Premium valuation is justified: MTN is on the GS SUSTAIN Focus List: Our 12-month SOTP-based price target of R157 (18% upside potential) is based on target EV/EBITDA multiples, calculated according to the cash-flow generation potential of the countries in which it has operations. The stock trades at a 2012E EV/EBITDA of 4.6x, a premium to the sector average, which we think is justified by its top-quartile industry positioning and superior returns generation. Key risks to our view and price target are a lower payout ratio, M&A activity in the region; a deteriorating competitive and regulatory environment in key markets.

Analyst details: Alexander Balakhnin; Tel: +7-495-645-4016; email: alexander.balakhnin@gs.com - OOO Goldman Sachs Bank.

Prices as the close of February 27, 2012.

Key data				Curren	
Price (Skr)				740.5	
12 month price target (Skr)					
Upside/(downside) (%)					
Market cap (Skr mn)					
Enterprise value (\$ mn)				13,257.	
	12/10	12/11E	12/12E	12/13	
Revenue (\$ mn)	3,920.2	4,530.0	4,950.4	5,432.	
EBIT (\$ mn)	1,159.8	1,335.0	1,506.8	1,688.	
EPS (\$)	15.54	8.16	7.13	8.5	
EV/EBITDA (X)	5.8	6.4	5.9	5.	
P/E (X)	5.6	13.7	15.7	13.	
Dividend yield (%)	NM	4.3	6.1	6.	
FCF yield (%)	8.7	8.4	7.4	9.	
CROCI (%)	29.9	27.8	28.6	27.	
CROCI/WACC (X)	NM	NM	NM	N	
EV/GCI (X)	1.7	2.1	1.9	1.	

## Connecting Africa

Investment thesis: Millicom has sector-leading industry positioning, driven by: (1) 100% EM exposure; (2) high market shares in concentrated markets with a significant mobile data opportunity in Latin America; and (3) sector-leading mobile penetration growth potential and structurally attractive markets in Africa, where mobile voice penetration is less than 50%. We expect Millicom to achieve sustainable revenue growth of five times the sector average over the next three years; we believe this is more sustainable than its current valuation implies.

Africa: An opportunity to increase consumer wallet share: Mobile data and banking penetration should grow together in Africa, which contributes c.20% of Millicom's EBITDA. With banking penetration of around 10%, we see a clear opportunity to increase share of customer wallet, and expect the role of mobile finance to grow in importance. We also believe that recent

concerns over deteriorating African economics are overdone. Excluding market-specific issues in Ghana and Senegal, African growth is accelerating as operators price more rationally. We also believe that Bharti's focus on cash contribution vs. subscriber share should support the stability of African market structures, and preserve Millicom's stand out ROIC.

Drivers of share price outperformance: (1) We see scope for forecast upgrades as we believe that consensus underestimates the sustainability of growth. We remain 3% ahead of SME Direkt consensus 2013 and 2014 revenue forecasts. (2) Millicom's balance sheet strength and strong FCF growth in our view provide an opportunity to increase shareholder returns by 40% to US\$1.4 bn pa this year and beyond (yielding c.13% annually). (3) We continue to see Millicom as an attractive M&A target for operators seeking greater exposure to sustainable growth.

Valuation and Key risks: Millicom's current valuation implies it trades at an EV/NOPAT discount to our European coverage by 2013E; our analysis suggests that its growth is more sustainable than this. We believe Millicom's EV/EBITDA premium is justified by cash returns that are 75% higher than EM peers, afforded by sector-leading industry positioning. Key risks to our 12-month ROIC-based price target of Skr998 include deteriorating economics in Africa post Bharti's acquisition of the Zain African assets.

Analyst details: Mark Walker; Tel: +44-20-7552-5985; email: mark.walker@gs.com – Goldman Sachs International.

Prices as the close of February 27, 2012.

Schlumberger							
Key data				Current			
Price (\$)				79.11			
6 month price target (\$)				88.00			
Upside/(downside) (%)				11			
Market cap (\$ mn)				106,561.2			
Enterprise value (\$ mn)				110,049.4			
	12/11	12/12E	12/13E	12/14E			
Revenue (\$ mn)	39,540.0	44,952.8	50,742.8	56,549.0			
EBIT (\$ mn)	6,733.0	8,343.0	10,128.0	11,977.0			
EPS (\$)	3.65	4.65	5.72	6.81			
EV/EBITDA (X)	11.6	9.2	7.5	6.1			
P/E (X)	22.1	17.0	13.8	11.6			
Dividend yield (%)	1.2	1.4	1.5	1.7			
FCF yield (%)	2.0	5.2	6.3	7.5			
CROCI (%)	15.5	16.3	17.5	18.6			
CROCI/WACC (X)							
EV/GCI (X)	2.0	1.7	1.5	1.3			

## Digging up value

Premium large cap service company: Schlumberger (Neutral) is the largest oilfield services company and trades at a significant premium to its peers owing to its premier service quality and high market share in the businesses that it competes in. It enjoys the highest market share in offering technically sophisticated services required for deepwater exploration and development, and is as such benefiting from the expected growth in drilling activity in West, East and North Africa. However, we are Neutral on the stock (11% upside potential) as a result of its premium valuation, and favour some of its smaller competitors that are trading at a discount and are competing aggressively to increase their international and deepwater exposure.

Number one market share in high tech, high margin businesses: SLB is positioned well as it is levered to a pick up in international, deepwater,

exploration and seismic activity. The stock has also outperformed peers lately owing to its low exposure to North America, which has seen pressure with current low gas prices. SLB has the least exposure to North American drilling, at approximately 31% of revenues, compared to peers Halliburton (58%), Baker Hughes (52%), and Weatherford (46%). It also has the highest market share in high-tech, high-margin business lines such as logging-while-drilling, directional drilling, wireline, and production testing. Our Neutral rating reflects some concerns regarding market share losses to its smaller competitors. We expect SLB's seismic business and its Europe/CIS/West Africa segment to report strong results in 2012. For the latter, we see 15+% growth driven by Angola's resumption of activity, which is above expectations for the company's peers.

Strong cash flow, but remain Neutral: SLB is still a cash flow machine, and we expect US\$1.8 bn in free cash flow for 2012 despite a 10% dividend increase and an assumption of US\$1.9 bn in share buybacks. Our 6-month price target of US\$88 implies an 8.0x 2013E EV/EBITDA target multiple. We value service companies using EV/EBITDA multiples. Downside risks to our price target include declines in commodity prices, political turmoil in international markets, and rig activity disruptions in Middle East and North Africa. Upside risks include a stronger than expected activity pickup in deepwater, the Middle East, and Russia, and better than expected international pricing.

Analyst details: Waqar Syed; Tel: +1-212-357-1804; email: waqar.syed@gs.com - Goldman, Sachs & Co.

Prices as the close of February 27, 2012.

# Investment list performance

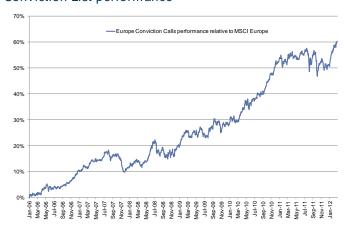
The charts below show the performance of our four key investment lists. Our Conviction List represents our sector analysts' highest conviction ideas (typically making up 10% of their coverage). We show its performance versus our entire coverage and against the MSCI Europe.

The Directors of Research Focus List comprises the "best of the best" Conviction ideas as selected by our Directors of Research. It represents their pick of our strongest Conviction calls and also contains GS SUSTAIN Focus List names.

The GS SUSTAIN Focus List brings together the leaders identified in each global sector, based on objective, quantifiable measures of returns, industry positioning and management quality. Since its launch in June 2007, the GS SUSTAIN Focus List has outperformed the MSCI All Country World index by 37%.

The UK Relative Value List is constructed using our UK conviction call ideas (ex small cap oil E&P). Conviction Buys and Sells are matched against one another and the list looks to create an absolute return.

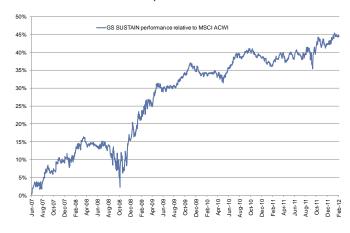
### Conviction List performance



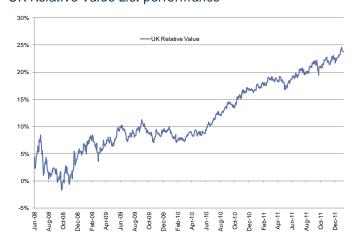
### Directors of Research Focus List performance



### GS SUSTAIN Focus List performance



### UK Relative Value List performance



Source: Goldman Sachs Research.

Note: Results presented should not and cannot be viewed as an indicator of future performance. Performance is calculated on an equally weighted basis relative to the MSCI World index (market-cap-weighted total return series in US\$). Performance calculations assume closing levels with no bid/ask spread and no commission.

## Disclosure Appendix

## Reg AC

I, Hugo Scott-Gall, hereby certify that all of the views expressed in this report accurately reflect my personal views about the subject company or companies and its or their securities. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

### Investment Profile

The Goldman Sachs Investment Profile provides investment context for a security by comparing key attributes of that security to its peer group and market. The four key attributes depicted are: growth, returns, multiple and volatility. Growth, returns and multiple are indexed based on composites of several methodologies to determine the stocks percentile ranking within the region's coverage universe.

The precise calculation of each metric may vary depending on the fiscal year, industry and region but the standard approach is as follows:

**Growth** is a composite of next year's estimate over current year's estimate, e.g. EPS, EBITDA, Revenue. **Return** is a year one prospective aggregate of various return on capital measures, e.g. CROCI, ROACE, and ROE. **Multiple** is a composite of one-year forward valuation ratios, e.g. P/E, dividend yield, EV/FCF, EV/EBITDA, EV/DACF, Price/Book. **Volatility** is measured as trailing twelve-month volatility adjusted for dividends.

### Quantum

Quantum is Goldman Sachs' proprietary database providing access to detailed financial statement histories, forecasts and ratios. It can be used for in-depth analysis of a single company, or to make comparisons between companies in different sectors and markets.

### **GS SUSTAIN**

GS SUSTAIN is a global investment strategy aimed at long-term, long-only performance with a low turnover of ideas. The GS SUSTAIN focus list includes leaders our analysis shows to be well positioned to deliver long term outperformance through sustained competitive advantage and superior returns on capital relative to their global industry peers. Leaders are identified based on quantifiable analysis of three aspects of corporate performance: cash return on cash invested, industry positioning and management quality (the effectiveness of companies' management of the environmental, social and governance issues facing their industry).

## Disclosure Appendix

### Coverage group(s) of stocks by primary analyst(s)

Colin L.Simpson: Europe-Insurance. Waqar Syed: America-Oil Services. Mark Walker: Europe-Media, Europe-Telecom Services. Charles Wilson: Europe-Business Services. Alexander Balakhnin: EMEA New Markets-MENA Non Financials, EMEA New Markets-Media, EMEA New Markets-Telecoms.

EMEA New Markets-MENA Non Financials: Abdullah Abdul Mohsin Al-Khodari Sons Company (Al Khodari), Abdullah Al Othaim Markets Company, Abu Dhabi National Energy (Taqa), Abu Dhabi National Hotels, Advanced Petrochemical Company, Agility The Public Warehousing Company (Agility), Agthia Group, Air Arabia, Aldar Properties, Aldrees Petroleum and Transport Services, Almarai Company, Arab Potash Company, Arabian Cement, Arabtec Holding, Aramex, Bahrain Telecom, Ciments du Maroc, Citadel Capital, Dana Gas, Dar Al Arkan Real Estate Development Company (Dar Al-Arkan), Drake and Scull International, Egyptian Resorts Company (ERC), Elsewedy Electric Company, Emaar Properties, Emaar the Economic City, Emirates Integrated Telecommunications Company (Du), Emirates Telecommunications Corporation (Etisalat), Etihad Etisalat Co, ezzsteel, Fawaz Abdulaziz Alhokair and Company, Galfar Engineering & Contracting, GB Auto, Halwani Brothers, Herfy, Holcim Maroc, Industries Qatar, Jarir Marketing Company, Jordan Phosphate Mines Co., Jordan Telecom, Juhayna Food Industries, Kipco, Kuwait Food Company (Americana), Lafarge Ciments, Maridive and Oil Services, National Industrialization Company (Tasnee), National Petrochemicals Company (Petrochem), Oman Cables Industry, Oman Telecom, Omani Qatari Telecommunication Company (Nawras), Orascom Construction Industries, Orascom Development Holding AG, Palm Hills Developments, Qassim Cement Company, Qatar Electricity and Water Company (QEWC), Qatar Gas Transport, Qatar National Cement Company, Qatar Navigation, Rabigh Refineries and Petrochemical (Petro Rabigh), Ras Al Khaimah Ceramic Company (RAK Ceramics), Red Sea Housing, Renaissance Services, Sahara Petrochemical, Saudi Arabia Fertilizer Company (SAFCO), Saudi Arabian Amiantit Company, Saudi Arabian Mining (Maaden), Saudi Basic Industries Corporation (SABIC), Saudi Cable Company, Saudi Cement Company (SCC), Saudi Ceramic Company, Saudi Dairy and Foodstuff Company (SADAFCO), Saudi Electricity Company (SEC), Saudi Industrial Investment Group (SIIG), Saudi International Petrochemicals (Sipchem), Saudi Kayan., Saudi Steel Pipe, Saudi Telecom Company, Savola Group, Sixth of October Development and Investment Company (SODIC), Solidere, Sorouh Real Estate, Southern Cement, Suez Cement Company, Talaat Mostafa Group Holding Company (TMG Holding), The National Shipping Company of Saudi Arabia (NSCSA), Vodafone Qatar, Yamama Cement, Yanbu Cement Company, Yanbu National Petrochemicals (YANSAB), Zain KSA, Zamil Industrial Investment Company.

EMEA New Markets-Media: Central European Media Enterprises, CTC Media, Mail.ru Group Ltd., Naspers Ltd., TVN S.A., Yandex N.V..

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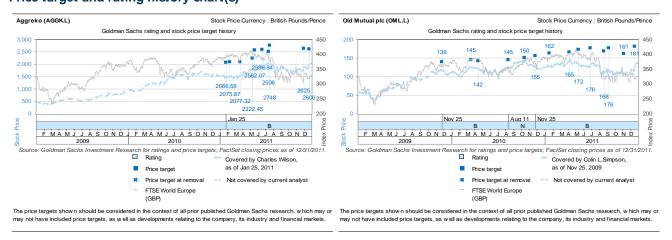
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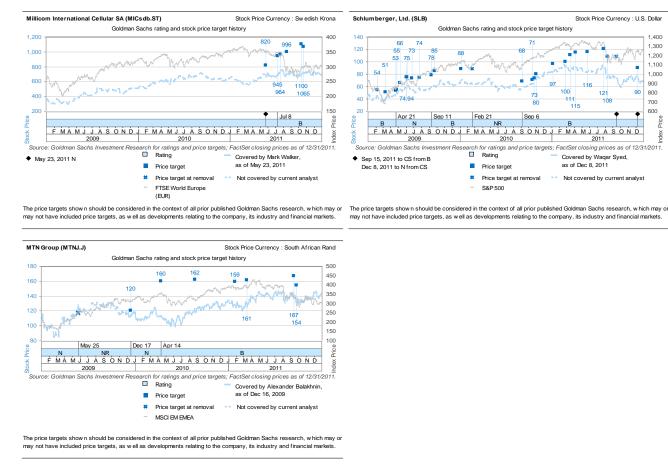
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1,000 900

800 700 600



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