THE ECONOMY IN PERSPECTIVE

A HALF YEAR REVIEW BY BGL PLC

The global economy continues to reel from the shock of the near meltdown in the Eurozone in 2011. In the following piece, BGL Plc, one of Nigeria's leading financial conglomerates, offers a review of the performance of the Nigerian Economy in the first half of 2012.

The turbulence in the global economy has persisted well into 2012. Growth in many advanced economies has stalled; Emerging Market leading-lights stutter while others have entered a double dip recession as a result of sustained deleveraging by economic agents. And the impact is spreading to Pioneer markets and developing countries as demand gets weaker and prices decelerate.

At home, the challenges of managing significant insurgencies in the northern part of the country continue to pose great risk to the political environment- despite stolid stability in the south and middle-belt of Nigeria, while vacillating global demand and its impact on commodity prices is threatening fiscal sustainability via the skew to the oil economy (below 15% of Gross Domestic Product, but up to 90% of Federal Government forex revenues).

Despite these challenges however growth, remained above average- albeit at a slightly lower pace. Confidence may be low but the commitment of the fiscal and monetary authorities to sustaining a stronger financial system, as shown by the progress made thus far in the reforms of the banking sector offers respite. Regarding fiscal policy, the battle to rein-in fiscal excesses, the rising and burgeoning domestic debt profile, and corruption remain key points of success to the management of the economy. We have also seen greater effort with regards to rebuilding infrastructure, sustaining the power sector reform via the resolution of gas infrastructure challenges and privatisation, and reforming agriculture for the much needed diversification of the economy.

Euro zone crisis remains a clog in the wheel of global economic progress

Global growth essentially stalled in the second quarter of 2012, and still looks bleak in the second half of the year. The deepening euro zone crisis has had an undeniable effect on the US and Chinese economies and, by extension, on much of the rest of the world. Europe's debt crisis has veered sharply from one deadline, one election, one bank near-failure, one bailout to another. The Euro zone has survived despite increasing speculations about a possible Greek exit. We have also seen Spain become the fourth euro economy to seek bailout, and Finland and Netherland threatening to exit the euro in protest against the decision on direct bond buying by the ESM bailout fund, although with less than 15% of the voting rights, they may not have enough clout to stop it.

The crisis is spreading rapidly to the emerging markets and developing countries

Despite the increasing role of domestic demand in many developing countries, most cannot grow at anything approaching trend rates if economic activity remains chronically slow in the advanced economies. Many emerging markets, especially in Latin America and Africa, are currently being hurt as the demand for commodities falls, bringing prices down globally. China is currently facing a deceleration in consumer prices. As the threat of a slump in commodity prices increases, countries such as Brazil, South Africa and Nigeria face the possibility of reduced capital inflows, weaker currencies and slower economic growth.

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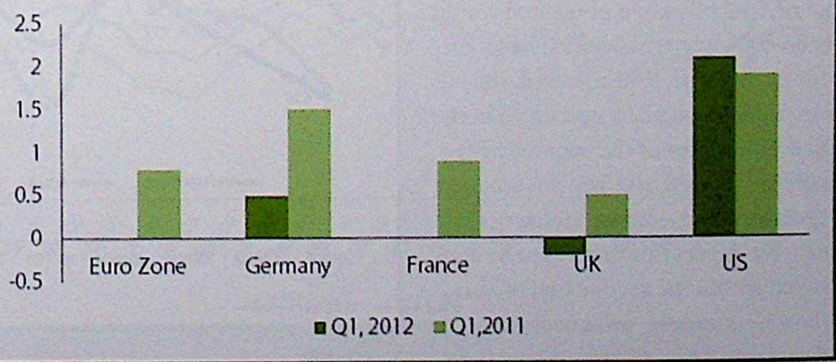
Domestically, dealing with rising insurgence, public resources management and a lot more has kept the hands of the government full in the face of higher public expectation

The first half of the year was characterised by increased agitation for transparency in governance, efficient public service delivery, and effective justice and security systems by the citizenry. While the attitude of government officials may not have changed significantly in response. The increasing debates around government policies and actions suggest a higher level of awareness that could ultimately deepen democracy in Nigeria.

In this respect, a semblance of robust parliamentary activities was witnessed in the National Assembly as the two chambers increased their oversight functions via public hearings and probes of various matters of contention. From the fuel subsidy regime probe, the capital market probe, and the pension probe to the public hearing on the proposed revision of the Central Bank of Nigeria act, revelations on the weaknesses in governance and the democratic structure as well as the strength of our legislative system have been on display. Some of these have resulted in the recovery of a substantial amount of money being held illegally or outside the consoli-

Flattening Growth in the Core Euro and UK Economies (Q1, 2012 Vs Q1, 2011) %



Source: The Economist

dated revenue account back into the coffers of the federal government.

The increased number of terror attacks and sporadic violence by the "Boko Haram" insurgencies and Middle-belt ethno-religious unrests in the Northern part of the country, and the crash of the Dana airline plane that claimed the lives of over 150 people were the low points of the period under review. The persistent incidence of oil bunkering, pipeline vandalism and illegal refining in the Niger Delta region - apparently costing the nation an estimated 17% of revenue via production losses- also came to the fore. All these put pressure on the nation's security infrastructure; suggesting justification for a likely increased spending on security in addition to the current allocation of 20% of the 2012 appropriation.

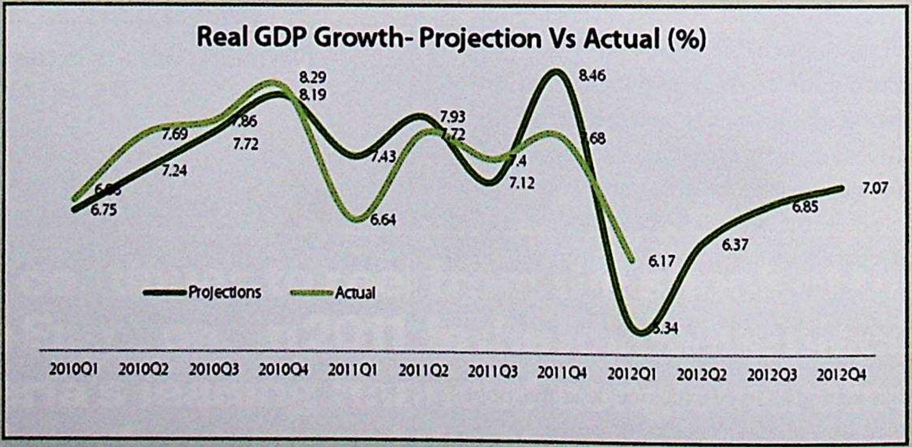
Additionally, the fuel subsidy rumpus and the subsequent probe by the Federal Government- which uncovered up to US$3billion in questionable claims- have slowly headed toward resolution. One of the fiscal issues that the subsidy probe threw up is the challenging governance regime in the Oil & Gas sector of the economy. Fortunately, many of these issues could be addressed by the stern investigative stance of the executive and legislative deliberation on the stalled Petroleum Industry Bill (PIB) which the last parliament was unable to pass into law because of underlying complexities to overhauling a decades-old law. The special committees set up by the Ministry Of Petroleum Resources to review and possibly revise the bill completed the task during the period under review. We are optimistic that the revised bill when presented would receive speedy treatment by the current parliament. When passed, the bill is expected to signal a new dawn in the Oil & Gas sector of the economy especially in tackling the key governance, regulatory and commercialisation issues. We expect this process to be concluded within the second half of 2012.

Key Macroeconomic Indicators	End Q4, 2011	End Q1, 2012	End Q2, 2012
MPR (%)	12.00	12.00	12.00
Infl. Rate (y-o-y) (%)	10.30	12.10	12.7**
Interbank Rate (%)	14.00	14.66	16.06
T-Bill Rate- 90 days (%)	15.35	15.55	15.10
Bond Rate 10Yr (%)	15.55	15.41	15.45
NSE YTD Return %	(16.13)	(0.09)	4.21
M2 (% Change ytd)	22.30	(3.00)	(1.00)
Net Credit to the Economy (% Change YTD)	38.40	8.00	4.00
Net Foreign Assets (% Change YTD)	13.90	(1.00)	9.00
Cons Dep. Rate (%)	6.50	6.56	6.6[illegible]
Prime Lend Rate (%)	17.97	17.28	16.[illegible]
Max Lend Rate (%)	23.30	23.28	23.[illegible]
Official FX (N/US$)	158.27	157.37	156.[illegible]
Interbank FX Spread (N/US$)	1.83	0.08	6.06
Fx Reserve(US$bn)	32.89	35.80	36.70
Total Public Debt (US$bn)	41.91	44.41	45.98
Oil (US$/barrel)	104.70	126.10	95.20

Source: The Economist

Global economic weakness, the lag effects of protracted monetary tightening and other structural constraints may have begun to weigh down on domestic output growth

Although the economy grew, in real terms, by 6.17% in the first quarter of 2012, the growth rate represents a decline from 7.13% in the first quarter of 2011. The slowdown in growth is attributed to the reduction in non-oil sector growth to 7.93% in the first quarter of the year compared to 8.73% in the corresponding period of 2011. Across the non-oil sectors, the performance of the agriculture, manufacturing and wholesale & retail trade sectors especially, declined.



Source: NBS

The National Bureau of Statistics (NBS) in its annual economic outlook report forecasted that economic growth is likely to slow down substantially to 6.5% in 2012 from 7.36% in 2011. The performance of the economy in the first quarter of the year however surpassed the forecast of 5.34% for the quarter. The NBS attributed the projected slowdown in output to the combined impacts of external shocks from subsisting and potential growth concerns from the developed economies especially the US and Europe and a likely reduction in oil production due to the increasing number of supply disruptions.

Falling oil price and production losses compound the risks to fiscal sustainability

While the estimated total revenue for the period may not have been directly affected considering that the oil price was substantially above the US$72 per barrel benchmark, at an average of US$115.5pb and a low of US$90pb between January and June, the accretion to the excess crude account (ECA) narrowed. At the end of the first half of the year, therefore, the total amount in the ECA was estimated at US$5.3 billion, barely sufficient for a two-month buffer in case of a fiscal shock.

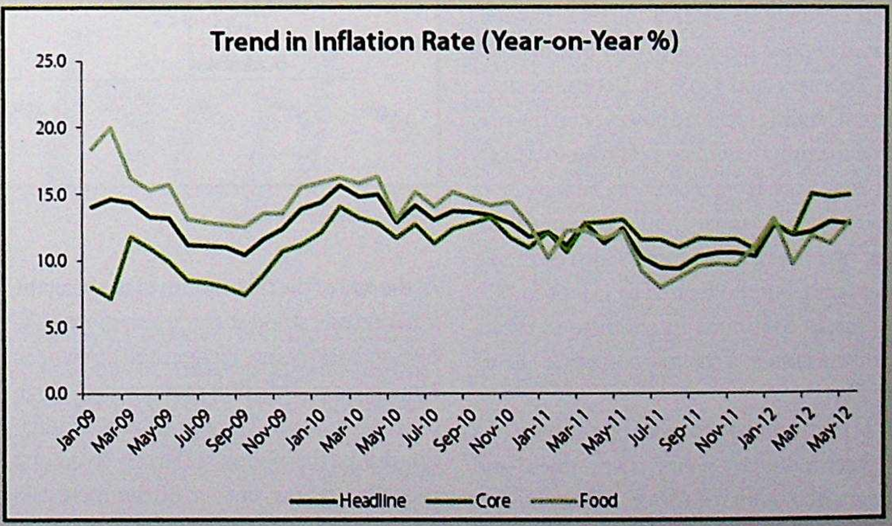
In May, indications emerged that the implementation of the 2012 appropriation act may not be different from the patterns seen last year, especially in relation to the management of subsidy payments. Reports from the Ministry of Finance on the fuel subsidy regime in 2012 indicate that out of the N888 billion budgeted for subsidy payments in 2012, a total of N468 billion was expended in the first five months of the year out of which N451 billion was payment for the 2011 subsidy arrears. This is 48% higher than the N232 billion budgeted for the payment of the 2011 subsidy arrears in the 2012 Appropriation Act. The Ministry therefore suspended further fuel subsidy payments and concentrated on the audit of the subsidy regime in order to unearth the source of the leakages.

Central Bank of Nigeria headquarters, Abuja

It has been estimated that an additional N634 billion may be required to fund the fuel subsidy in 2012.

While improved agricultural production and hopefully positive oil economy may help to boost output in 2012, the potential high inflationary impact might depress real output

Inflation is projected to reach an average of 13.7% or higher in 2012. This has been attributed to the lingering effects of the partial removal of the fuel subsidy on food and non-food prices as a result of higher transportation costs. If the downstream oil sector is fully deregulated and the subsidy is fully removed, inflation rates could trend even higher towards the end of the year. The prohibitive fiscal policy on rice, wheat grains and wheat flour, starting from July 1, 2012, in the bid to promote the domestic productive competitiveness of these staple food items is another potential source of cost push inflationary pressure.



Source: NBS

At the end of the fifth month of the year, the inflation rate stood at 12.7% year on year (y-o-y), 10 basis points higher than its value in January 2012. Inflation rate reached a high of 12.9% in April. The key drivers of inflation during this period are largely structural propelled by the impact of the increased fuel price via the transportation channel. It would be recalled that the inflation rate spiked from 10.3% y-o-y in December 2011 to 12.6% y-o-y in January 2012 for the same reason.

The sluggish performance of monetary aggregates during the period under review reinforces the fact that the inflationary trend is largely structurally induced

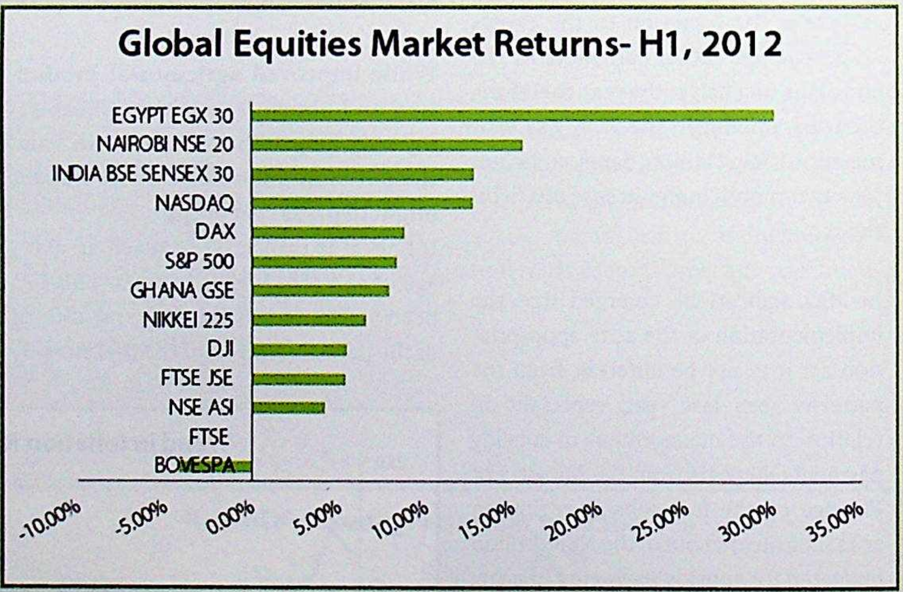
At the end of May, broad money and narrow money declined by 1% and 3% respectively, suggesting that the total systemic balances declined over the period under review. It is instructive to note that currency in circulation declined by 5% over the same period and this may not be unconnected to the implementation of the cashless policy and the rising use of electronic payment systems. However, while the net credit to the economy grew by a mere 4% over the period, the net foreign assets rose by 9% suggesting a build-up of likely hedging against the naira. In 2011, broad money, net credit to the economy and net foreign assets grew by 15.8%, 38.4% and 13.9% respectively.

Government debts and high interest rates contribute to crowding out of private sector borrowing

Our estimate shows that the retail consolidated deposit rate rose to 6.56% from 5.88% in February and 5.51% in December 2011. Retail lending rates are however on the rise. The maximum lending rate rose to 23.44% in May 2012 from 23.01% in January 2012 and 21.75% in January 2011. The prime lending rate rose to a 20-month high of 17.28% in March, but moderated to 16.87% in May as banks continued to compete to create prime assets in a shallow corporate clients market.

It is pertinent to note that on the back of a tighter monetary policy environment and financial system regulation, money market yields offered banks little incentive for risk taking during the first half of the year. We have therefore seen the aggregate banking system liquid assets, made up of FGN bonds and Treasury bills, accounting for 75-80% of total assets. In addition to the crowding out effect on private sector borrowing as indicated above, these yields have contributed to the sustained volatility in the equities market during the first half of the year.

Nigerian equities underperformed peers and global indexes in the first half of the year The equities market All Share Index managed to close the first half of the year at 21,542.23 after a volatile month, representing growth of 4.21% for the period. Considering that we have seen the market delivered ytd growth of as high as 9% at in April, it is arguable that considerable volatility was present during the period. However, primary market activities seem to have commenced after almost a three year lull with the listing of Austin Laz Nigeria Plc and Fortis Microfinance Bank Plc on the exchange during the period under review. Benchmarked globally, the performance of the Nigerian equities market is below average.



Source: NSE, Bloomberg

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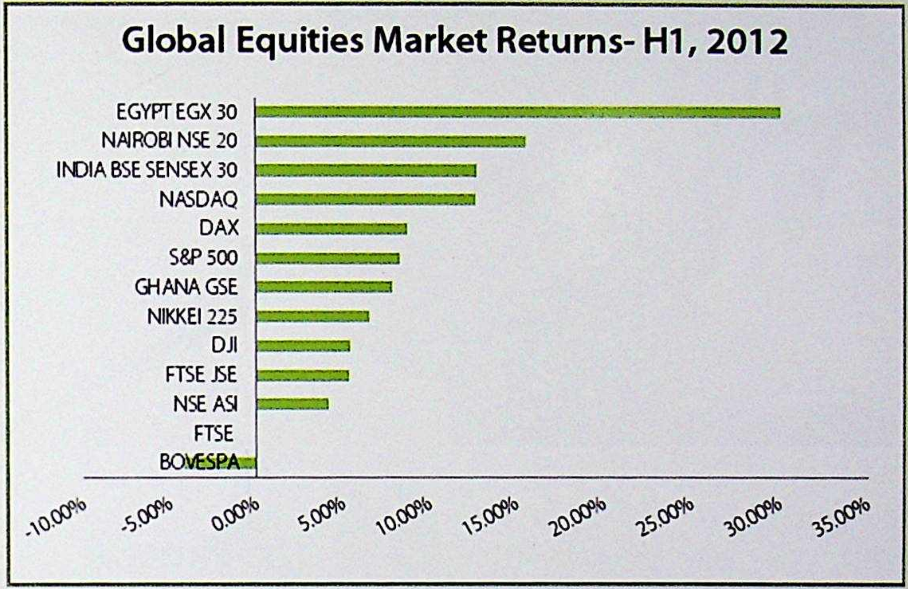

Source: NSE, Bloomberg

And as flight to safety continues to draw liquidity out of riskier assets and regions across the globe, the increase in yield on equities and fixed income instruments in Nigeria would attract more liquidity from foreign investors seeking returns from high yield asset classes.

That effect may have been responsible for the volatility in the foreign exchange markets towards the end of the first half of the year.

The monetary authority expended the foreign reserves to the keep official exchange rate stable; pressure was shifted to the other segments of the market

The earlier part of the year was characterised by stability of the foreign exchange markets. At the Wholesale Dutch Auction System (wDAS) market, volume stabilised at US$120m-US$150m per auction between March and May. It moderated from an average of over US$260m per auction in the first 2 months of the year. Supply rose sharply in June and stayed high at an average of US$375m per auction with attendant pressure on the exchange rates in the different segments of the market which the monetary authority struggled to contain.

The exchange rate at the official end of the market closed the quarter at N156.99/US$ (inclusive of the 1% commission). This represents an appreciation from N157.59/US$ and N158.27/US$ at the end of March and the first trading day in January respec-

Dr. Ngozi Okonjo-Iweala, Coordinating Minister for the Economy/Minister of Finance

tively. This appreciation in the official exchange rate at a time of rising demand as highlighted above is arguably due to the CBN defence of the currency via interventions in the market. This perhaps explains the decline in the foreign reserves from a peak of US$37.6 billion early in June to US$36.9 trillion at the end of that month.

The uncertainties in the global economic environment are likely to persist; implications for Nigeria are mixed
The outlook for key macroeconomic indicators is mixed. The uncertainties in the global economic environment, especially those revolving round the resolution of the Europe debt and growth crises are likely to be prolonged. IMF analysts have argued that household deleveraging, constrained private demand and high unemployment following a debt induced burst tend to drag on for about five years irrespective of policy attempts to address them. The outlook for oil price and demand is therefore mixed with implications for fiscal sustainability in the very short term. If the risk of conflict between Iran and the US/Israel crystalizes, it could be positive for Nigeria's oil economy.

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GDP growth is likely to remain slow as projected by the NBS alongside rising unemployment and high inflation
Slow external balances would further constitute a drag on growth. However, success on the agricultural transformation policy front could boost growth at the end of 2013. We expect the inflation rate to remain high, and as forecasted by the NBS it may rise above 13.7% if the government implements the full removal of the petrol subsidy before the end of the year.

Monetary aggregates are unlikely to see faster growth, especially given the monetary policy actions which might be deployed to keep excess liquidity at bay
It is hard to see an increase in the MPR at the next monetary policy committee meeting in July considering the need to maintain the difficult balance between supporting domestic demand and managing high inflationary pressure. In this respect, we expect the CBN to increase the spate of OMO issues in the second half of the year.
The above trend suggests that the outlook for the capital market is mixed. Considering the inflation expectation for the year, and the CBN commitment to a positive real interest rate as a tool for foreign exchange market stability, it is likely that the bond market yields will remain high. This might therefore keep the required return on equities very high thereby depressing optimism in the market in the short term.

The Federal Government's commitment to fiscal consolidation and domestic debt reduction is expected to be helpful in the short to medium term; immediate reflation of the economy is however essential
Tackling the Boko Haram menace, the increasing oil theft, and corruption are expected to help address the rising risk profile of the economy. We expect the PIB to become an act of parliament before the end of the year and the outcomes of the special committees on governance and refineries should help improve the oil economy in the short to medium term.
It is important to conclude by restating our position on the need to commence the reflation of the economy in the face of the dire situation of global demand and weakening supply capacity at home. Policy makers need to agree that the current inflationary environment is structural and monetary policy tightening can do little to address it. However, fixing supply constraints and boosting domestic productive capacity via the provision of low interest finance as well as appropriate corporate policies would grow domestic demand by reducing unemployment and increasing income. Increased employment and production would ultimately bring inflation back to its long term trend. And of course, systemic liquidity, when threatening could be managed using a combination of other fiscal and monetary tools.

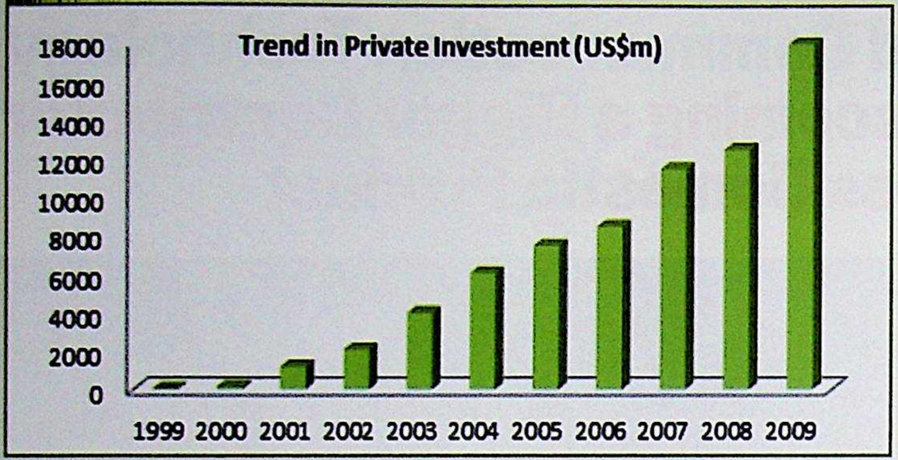
Information and Communication Technology (ICT) Sector: Becoming a Bigger Contributor to Nigerian Gross Domestic Product

The information and communication technology (ICT) sector continues to sustain its position as the fastest growing industry in the Nigeria economy. The sector has grown at an average of 34% per annum over the last 10 quarters driven largely by the rapid expansion in telecommunication following the deregulation of the subsector in [illegible]. However, despite its huge potential, the industry's contribution to GDP is low at 5.96%. With a population in excess of 160 million people, low but rising per capita income and a substantially youthful demographic structure, the ICT industry has the potential to drive the national economic growth at the much desired double digit rate.

Table 1: Cross Country Information and Communication Data				
Countries	Population	Per capita income	Internet penetration	Mobile penetration
Brazil	203m	10,710	37.8%	114.9%
China	1,336m	4,393	36.3%	67.1%
India	1,189m	1,477	8.5%	71.6%
South Africa	49m	7,275	13.8%	82.9%
Russia	138m	10,440	42.8%	154.5%
USA	313m	47,184	77.3%	96.0%
UK	62m	36,100	82.5%	122.9%
Nigeria	162m	1,222	28.5%	58.5%

Source: www.internetworldstats.com, World Bank Data, NCC

Nigeria has made good progress in expanding mobile communication signal coverage. The percentage of Nigeria's population living within range of a GSM signal has expanded rapidly, reaching 60% in 2006 and nearly 70% in 2009. At 155.5m installed subscribers capacity in August 2011, conservative estimate suggests that Nigeria's population living within coverage range of mobile communication is close to 80%. According to Nigerian Communications Commission (NCC), private investment in the sector reached US$18 billion in 2009, more than half of the US$28 billion in private capital that went into the development of new mobile networks across Africa in that year.

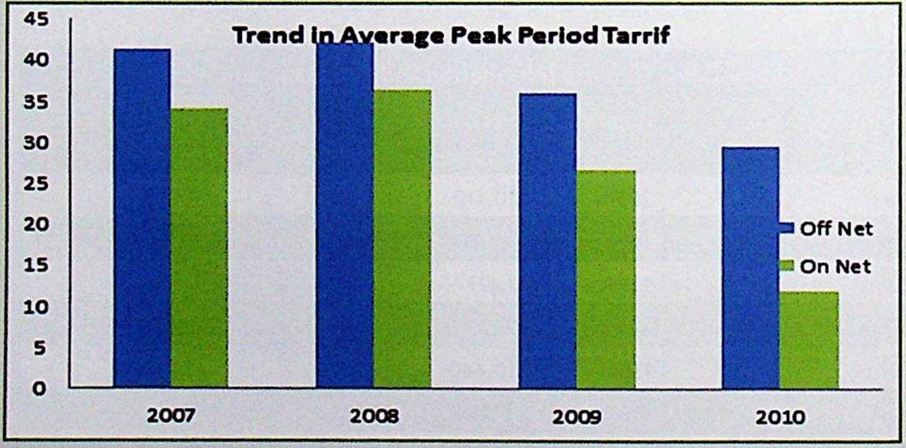


Source: www.internetworldstats.com, World Bank Data, NCC

Intense competition leads to price war amongst operators

Nigeria has an actively competitive fixed-line sector which is being driven by market liberalisation. At the moment, there are 16 fixed wireless operators most of which are providing service using only fixed-wireless technology. While few of the top operators have been competing head on with the GSM operators by providing full mobility functionality, the competitive landscape has been too tough for others who continue to survive on the fringe. The stagnating national incumbent Nigerian Telecommunications Limited (NITEL) has been unable to compete as only a minority of fixed-line subscribers are associated with its platform. Till date, several attempts to privatise NITEL and reposition it for competition have failed.

Intense competition in the mobile and fixed-line segments has driven prices down. Nevertheless, the 2009 prices of a monthly fixed-line subscription (US$9) and prepaid mobile subscription (US$11) were only average compared with other Sub-Saharan African countries. By 2010, there had been significant tariff reductions due to lower interconnection rates introduced by the regulator. This, combined with the depreciation of the Naira, should make ICT services more affordable. It however exerts substantial pressure on the average revenue per user (ARPU) of the firms in the industry. The situation has forced the mobile network operators (MNO) to develop new revenue stream such as 3G mobile broadband, mobile payments/banking etc. The effects include the big mobile players displacing existing small niche private telecom operators (PTOs) through product/price differentiation.



Source: NCC, BGL Research Estimates

Despite rapid expansion and intense competition, some inefficiency remains

Nigeria still faces a substantial market-efficiency gap in the mobile market. While the current level of GSM signal coverage is impressive, certain areas in the country are yet to be covered due to the cost of providing and maintaining telecommunication infrastructure which, according operators cannot be easily recovered. Their argument is based on the low income earning capacity of the dwellers in these areas and the dwindling ARPU. Simulations, including infrastructure outsourcing and co-location among others, however suggest that the GSM signal can be profitably extended to the entire national population. It is puzzling that coverage is not greater, given that with nine mobile operators, Nigeria arguably has the most competitive mobile market on the continent. The price of mobile licenses, coupled with the challenge of extending infrastructure in a large country, however, pushes up operators' costs. The absence of electricity in rural areas further inflates the costs of network rollout.

The downward pressure on the industry ARPU is creating substantial room for the growth of the telecom infrastructure space. The industry has come to realise that outsourcing the ownership and management of mobile towers and other telecom infrastructure to infrastructure companies could save them substantial costs considering the high cost of installation, security and provision of power to báse stations. Telecom infrastructure firms own, manage, and lease space on their mobile towers to telecom companies, helping to bring down costs, expand coverage, accelerate technology rollouts and improve the quality of service for subscribers. This subsector has also attracted substantial investment into the sector and by extension the economy.

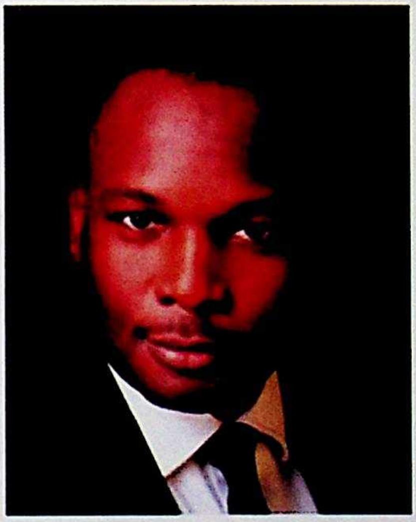
Even cheaper communication experience is available on the fibre-optic network

Nigeria has also made great progress in the development of a national fibre-optic network by harnessing private sector investment. Nitel's monopoly on fibre bandwidth on the SAT-3 system ended in 2010 with commercial operations of Globacom's Glo-1 and MainOne cable. Many African countries have pursued publicly sponsored national fibre-optic backbone networks, some of them quite expensive and of relatively low quality. Nigeria, on the other hand, has taken full advantage of the scale of its market. By liberalising the market for fibre-optic infrastructure, the country has seen substantial private sector investment in this area, leading to the development of a solid backbone network interconnecting the major cities. Multiple parallel cables have been laid on the highest-traffic routes, which has resulted in intense competition and lower costs.

Evidently the private sector will not of its own accord extend cables into smaller towns and rural areas where a business case does not exist. But by first allowing the private sector to develop the major components of the backbone, the government can limit the use of public funds to areas where no other solution is possible, thereby saving significant fiscal resources. The same is applicable to the rural telephony initiative which is yet to effectively take off.

Data transfer through the internet has just been made easier

The price of internet access remains high, but can be expected to fall with the arrival of new submarine cables. Internet access is relatively expensive considering that Nigeria has access to the SAT-3 submarine cable. But NITEL has had a de facto monopoly over the international gateway. The launch of the Main One undersea fibre-optic cable in 2010, with landing stations in Nigeria and Ghana, was forecast to reduce wholesale prices by 50%. The arrival of additional submarine cable projects along the West African coast has placed downward pressure on costs. If costs effectively fall, Nigeria could emerge as a leading regional bandwidth supplier. According to the World Bank, evidence from across Africa suggests that only when there is competitive access to submarine cable infrastructure are the full cost advantages felt by consumers.



Mr. Albert Okumagba, MD BGL Plc

Broadcasting organisations now rely on modern technology for information dissemination

Broadcasting and media activities have been substantially dominant in the delivery of content in Nigeria. The increased dominance of private broadcasting organisations in the broadcasting space also give credence to the full liberalisation of the information and communication technology sector in Nigeria. While concentration of operators- radio and television is skewed to the urban areas especially in Lagos, Abuja, Port Harcourt and other major cities, the rising integration of media content into mobile telecom devices has increased broadcasting reach since 2001.

Building competence in ICT equipment manufacturing will help the sector further

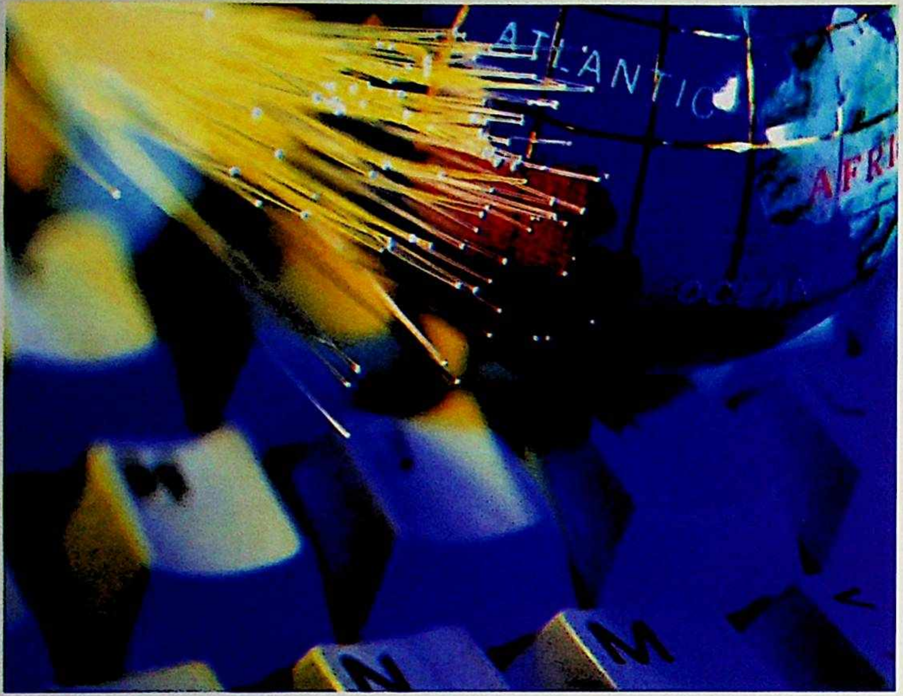
Although the country possesses limited capacity to manufacture and assemble ICT equipment and devices, there is a huge market for ICT equipment in Nigeria which is dominated by companies that have established channel partnership with global manufacturers. Some of the global manufacturers have also established increased presence in Nigeria. This includes Microsoft, Google, LG, Nokia, etc. There is also an increasing grey market for ICT equipment, devices and peripherals, including software development.

Information Communication Technology sector has greatly benefited the country

The growth in the telecommunication sector has had a significant impact on the other sectors of the economy perhaps most significantly, the financial sector. In commercial banking services, the quantum of transactions catalysed by telecommunications services may not have been fully documented and it is arguable that several banks in Nigeria have benefitted. In financing telecommunication projects, the financial sector has done tremendously well as most banks are involved on one loan syndication or another. The recent one being syndication of US$650m by eight Nigerian banks for the mobile operator, Etisalat, which took place in March 2011.

In the area of job creation, it is estimated that the sector currently employs over 6m Nigerians directly and indirectly, yet the sector has failed to significantly impact the institutional and structural development of the economy.

Although the pace of service integration in the ICT industry is gaining speed, it is highly fragmented. This has resulted in weak inter-organisational linkages that are necessary for robust industry productivity. The delivery of data, broadcasting and media, and other services via



mobile devices has expanded substantially in recent times. This promises to deepen content while providing players with opportunities to boost ARPU. The on-going introduction of mobile money technology, promises to expand integration with financial services such that the huge unbanked population can be brought into the financial net. Mobile banking adoption has been unnecessarily delayed considering the success recorded by the initiative in countries such as Kenya.

> **"introduction of mobile money technology, promises to expand integration with financial services such that the huge unbanked population can be brought into the financial net"**

But there are some challenges to harnessing optimum benefit of ICT

The absence of a robust database of subscribers is one of the factors militating against the early adoption of mobile banking. The on-going mandated registration of subscribers is expected to facilitate the success of the mobile money initiative amongst other benefits such as the security of lives and property. The adoption of number portability is expected to support the efficiency of intra sector integration.

The unwieldy nature of the sector has contributed substantially to weak regulatory oversight and the need for the development of a comprehensive ICT policy for the nation. This has hindered the performance of the sector in certain respects. The continuing failure of the nation to develop a robust national identity management database and the inability to effectively adopt electronic voting during the last general election are cases in point in this respect. The low adoption of ICT in the governance and public administration process is another. The government only commenced the implementation of the ICT infrastructure for the federal government and its agencies using the Galaxy Backbone platform recently.

For the discerning investors, there are opportunities that promise potentially huge returns

The huge potential outlined above suggests significant opportunities for players and other stakeholders in the industry. Increasing the participation of Nigerian companies and enhancing the integration of the sector to the national economy is critical. At the sub-sectoral levels, media and broadcasting organisations are set to benefit from the increasing integration of content provision to mobile phones, the competitive landscape is also set to expand the telecom infrastructure service subsector space. Mobile money debut would contribute substantially to banking sector revenue via fees while bringing a lot of people into the financial system net in addition to expanding mobile network operators' sources of revenue. A coordinated and guided ICT policy framework is however required to realise the full potential of the industry. It is for this reason that the creation of the ministry of communication technology by the current administration is a welcome development.

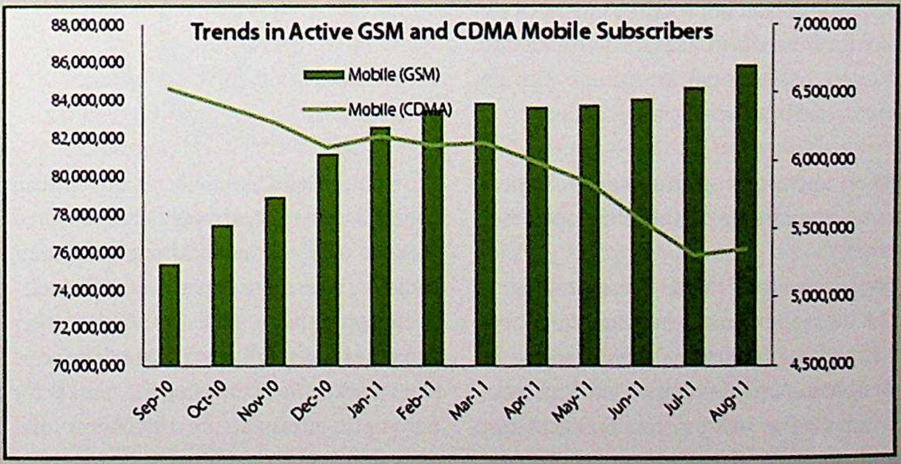
The government must have noted the importance of the sector; hence the creation of the Ministry of Communication Technology

The Ministry of Communication Technology will oversee the regulatory and developmental activities in the ICT industry while the Ministry of Information will be responsible for management and dissemination of information for government. Given the mandate of the ministry, it is expected that a centralised policy framework for the regulation and integration of the ICT sector into the national economy will be developed in the near future. To achieve this, a consolidation of the regulatory authorities has been called for by key stakeholders in the sector especially the merger of NCC and Nigeria Broadcasting Commission (NBC) to drive the efficiency of spectrum allocation. This is in addition to stimulating the broadening and deepening of ICT infrastructure nationwide. This will involve the development of policies and programmes that expand broadband backbone infrastructure, business and household access, and encourage shared access to infrastructure.

The CDMA Telecommunication Sub sector in Nigeria: Evolving from a Stifled pod

In the economics of resource distribution, availability supersedes affordability. After the evolution of the telecommunication sector in Nigeria, the inability of the CDMA operators to make available this technology despite its acclaimed advantages over the GSM sustained the stunted growth of the CDMA telecom subsector space in Nigeria. According to an industry player, the current poor showing of the CDMA subsector is the result of the failure of the pioneer CDMA operators to roll out as aggressively as the GSM operators before the competitive pricing caught up with the industry.

Today, with only about 5 million active subscribers, a number that is declining, it has become harder for operators in the CDMA market space to benefit from scale efficiency in costs per user while average revenue per user is falling. The success factors are painfully linked to the ability of the existing players to put a CDMA phone or CDMA technology dependent devise in every hand and household. While this is a tall ambition, it is not insurmountable.



Source: NCC

Despite rapid expansion and intense competition, some inefficiency remains

Nigeria still faces a substantial market-efficiency gap in the mobile market. While the current level of GSM signal coverage is impressive, certain areas in the country are yet to be covered due to the cost of providing and maintaining telecommunication infrastructure which, according operators cannot be easily recovered. Their argument is based on the low income earning capacity of the dwellers in these areas and the dwindling ARPU. Simulations, including infrastructure outsourcing and co-location among others, however suggest that the GSM signal can be profitably extended to the entire national population. It is puzzling that coverage is not greater, given that with nine mobile operators, Nigeria arguably has the most competitive mobile market on the continent. The price of mobile licenses, coupled with the challenge of extending infrastructure in a large country, however, pushes up operators' costs. The absence of electricity in rural areas further inflates the costs of network rollout.

The downward pressure on the industry ARPU is creating substantial room for the growth of the telecom infrastructure space. The industry has come to realise that outsourcing the ownership and management of mobile towers and other telecom infrastructure to infrastructure companies could save them substantial costs considering the high cost of installation, security and provision of power to base stations. Telecom infrastructure firms own, manage, and lease space on their mobile towers to telecom companies, helping to bring down costs, expand coverage, accelerate technology rollouts and improve the quality of service for subscribers. This subsector has also attracted substantial investment into the sector and by extension the economy.

Even cheaper communication experience is available on the fibre-optic network

Nigeria has also made great progress in the development of a national fibre-optic network by harnessing private sector investment. Nitel's monopoly on fibre bandwidth via the SAT-3 system ended in 2010 with commercial operations of Globacom's Glo-1 and MainOne cable. Many African countries have pursued publicly sponsored national fibre-optic backbone networks, some of them quite expensive and of relatively low quality. Nigeria, on the other hand, has taken full advantage of the scale of its market. By liberalising the market for fibre-optic infrastructure, the country has seen substantial private sector investment in this area, leading to the development of a solid backbone network interconnecting the major cities. Multiple parallel cables have been laid on the highest-traffic routes, which has resulted in intense competition and lower costs.

Evidently the private sector will not of its own accord extend cables into smaller towns and rural areas where a business case does not exist. But by first allowing the private sector to develop the major components of the backbone, the government can limit the use of public funds to areas where no other solution is possible, thereby saving significant fiscal resources. The same is applicable to the rural telephony initiative which is yet to effectively take off.

Outlets for hooking up to GSM services abound

"By liberalising the market for fibre-optic infrastructure, the country has seen substantial private sector investment in this area"

Data transfer through the internet has just been made easier

The price of internet access remains high, but can be expected to fall with the arrival of new submarine cables. Internet access is relatively expensive considering that Nigeria has access to the SAT-3 submarine cable. But NITEL has had a de facto monopoly over the international gateway. The launch of the Main One undersea fibre-optic cable in 2010, with landing stations in Nigeria and Ghana, was forecast to reduce wholesale prices by 50%. The arrival of additional submarine cable projects along the West African coast has placed downward pressure on costs. If costs effectively fall, Nigeria could emerge as a leading regional bandwidth supplier. According to the World Bank, evidence from across Africa suggests that only when there is competitive access to submarine cable infrastructure are the full cost advantages felt by consumers.

Broadcasting organisations now rely on modern technology for information dissemination

Broadcasting and media activities have been substantially dominant in the delivery of content in Nigeria. The increased dominance of private broadcasting organisations in the broadcasting space also give credence to the full liberalisation of the information and communication technology sector in Nigeria. While concentration of operators- radio and television is skewed to the urban areas especially in Lagos, Abuja, Port Harcourt and other major cities, the rising integration of media content into mobile telecom devices has increased broadcasting reach since 2001.

Building competence in ICT equipment manufacturing will help the sector further

Although the country possesses limited capacity to manufacture and assemble ICT equipment and devices, there is a huge market for ICT equipment in Nigeria which is dominated by companies that have established channel partnership with global manufacturers. Some of the global manufacturers have also established increased presence in Nigeria. This includes Microsoft, Google, LG, Nokia, etc. There is also an increasing grey market for ICT equipment, devices and peripherals, including software development.

Information Communication Technology sector has greatly benefited the country

The growth in the telecommunication sector has had a significant impact on the other sectors of the economy perhaps most significantly, the financial sector. In commercial banking services, the quantum of transactions catalysed by telecommunications services may not have been fully documented and it is arguable that several banks in Nigeria have benefitted. In financing telecommunication projects, the financial sector has done tremendously well as most banks are involved on one loan syndication or another. The recent one being syndication of US$650m by eight Nigerian banks for the mobile operator, Etisalat, which took place in March 2011.

In the area of job creation, it is estimated that the sector currently employs over 6m Nigerians directly and indirectly, yet the sector has failed to significantly impact the institutional and structural development of the economy.

Although the pace of service integration in the ICT industry is gaining speed, the industry is highly fragmented. This has resulted in weak inter-organisational linkages that are necessary for robust industry productivity. The delivery of data, broadcasting and media, and other services via mobile devices has expanded substantially in recent times. This promises to deepen content while providing players with opportunities to boost ARPU. The on-going introduction of mobile money technology, promises to expand integration with financial services such that the huge unbanked population can be brought into the financial net. Mobile banking adoption has been unnecessarily delayed considering the success recorded by the initiative in countries such as Kenya.

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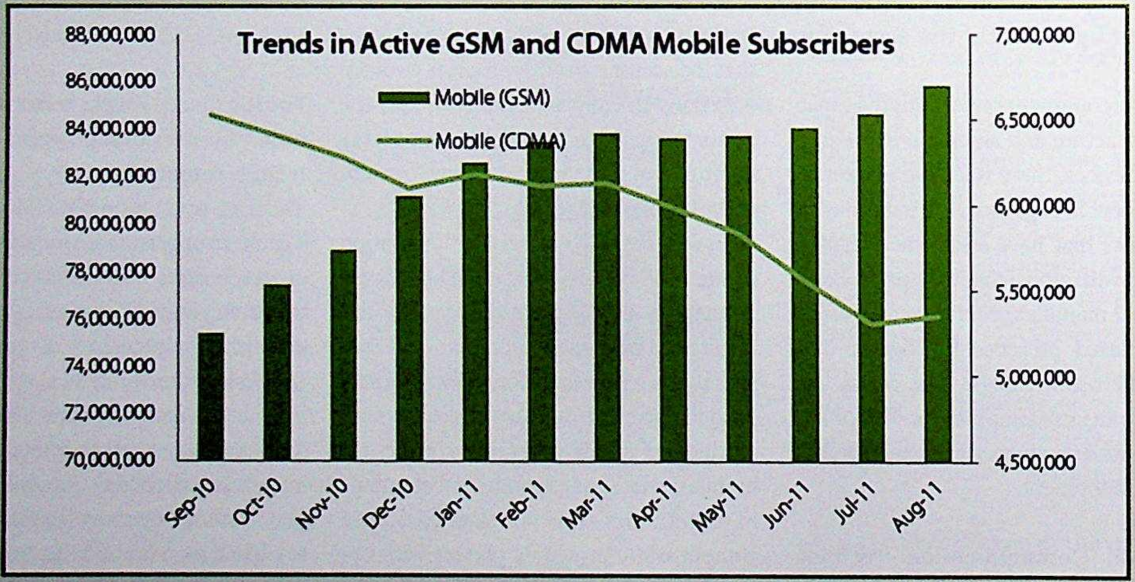
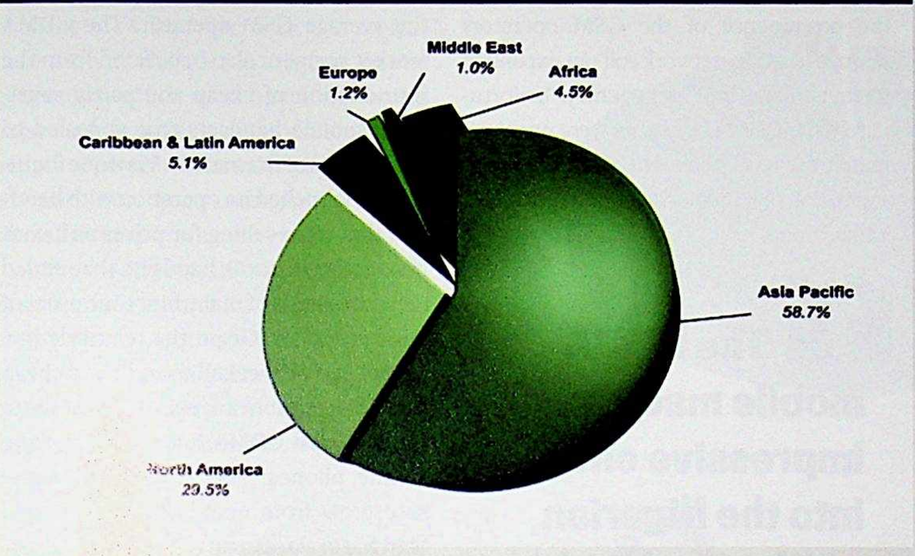


Source: NCC

The Code Division Multiple Access (CDMA) Technology

Code Division Multiple Access (CDMA) is "spread spectrum" technology, allowing many users to occupy the same time and frequency allocations in a given band/space. CDMA assigns unique codes to each communication to differentiate it from others in the same spectrum. In a world of finite spectrum resources, CDMA enables many more people to share the airwaves at the same time than with alternative technologies. According to the CDMA Development Group (CGD), CDMA promises better security, fewer dropped calls, and more efficient infrastructure than the GSM technology because of its unique technology features. Unfortunately, with the exception of the United State of America (USA) where the use of CDMA exceeds that of GSM technology, its adoption globally has been muted, with only 575m subscribers worldwide. It is estimated that there are over 5 billion GSM subscribers globally.

Global Distribution of CDMA subscribers



(Source: http://www.cdg.org/worldwide/cdma_world_subscriber.asp)

According to CDMA operators, GSM will eventually converge with the CDMA technology

It has been argued on two fronts that the CDMA technology is better than the GSM technology. CDMA phones have slightly more refined methods for handling off calls from tower to tower such that the occurrence of drop calls is lower on CDMA platforms than the GSM platforms. Secondly, in CDMA technology, data and voice are separated from signals using codes and then transmitted using a wide frequency range. Because of this, there is more space left for data transfer. It is one of the reasons why CDMA is the preferred technology for the 3G generation, which involve broadband access and the use of big multimedia messages. 14% of the worldwide market on 3G goes to CDMA. However, while GSM phones can send and receive data packets while making a call, most CDMA networks may not be able to. It has been argued that GSM will migrate to CDMA since CDMA is more advanced and it has been chosen as the 3G generation technology.

> **"While GSM phones can send and receive data packets while making a call, most CDMA networks may not be able to"**

CDMA can compete favourably with the GSM technology despite some drawbacks

CDMA is the primary mobile technology competitor for GSM and is typically referred to CDMA Evolution-Data Optimised (EV-DO). It is designed to deliver high-quality voice and high-speed data. It is an efficient wireless technology for circuit-switched voice communications and it supports packet data speeds of up to 153.6 kbps in a single 1.25 MHz radio channel. Over the years, CDMA technology has matured with the introduction of a number of new technology advancements that have enabled increased capabilities, an enhanced user experience and improved economics, including new speech coders, advanced antenna techniques, interference cancellation and the aggregation of radio channels. It however has a major drawback: it doesn't support simultaneous voice and data transmissions. The newest revision of EV-DO called Revision B (Rev. B) however makes concurrent voice and data usage possible.

Another drawback is the fact that while GSM phones use a chip called a SIM card which can be removed and inserted into other GSM phone, the CDMA phone's chip is locked to one network, and can only be switched to another with the cooperation of both the old and new carriers if you change provider. However, the CDMA standard utilises something similar to SIM (Subscribers Identification Module), called the RUIM (removable user ID module). CDMA phones can potentially draw more power than GSM handsets, shortening their battery life.

CDMA trials in Africa show strong potential for cost reduction without compromising on quality

As shown by the first CDMA technical trials in South Africa in 2009, organised by Qualcomm and Ericsson and in association with MTN and Transtel, 3G CDMA technology has the potential to bring cost-effective, high-quality voice communications and high speed data connectivity to both the urban and rural populations of Africa. In Africa, the challenge for CDMA however remain with the GSM which is the de-facto global standard as it is also dominant in the rest of the world. GSM is by far the most widespread cellular technology in Africa offering voice communication facilities to millions of people who are not able to receive a reliable landline service.

Entry of CDMA technology to the Nigerian market recorded good success

In Nigeria, CDMA based system of telecommunication entered the industry on the fixed wireless platform. Their boom rode on the failure of NITEL on its fixed telecom infrastructure. The subsector was characterised by about 13 CDMA operators including the likes of Multilinks Telkom, Starcomms, Reliance Telecom, and had a combined subscriber base of 8.6 million users. Multilinks and Starcomms were leading industry players with renowned performance excellence in data services alongside the fixed wireless services. They operated on regional licenses that allowed them to sell data services in addition to fixed wireless telecommunication services. The introduction of the unified access services licenses (UASL) in 2006 removed their geographical barriers in addition to permitting them to compete both in the fixed and mobile telecom market.

The CDMA mobile made an impressive entry into the Nigerian market and with the entry of Visafone, the subscriber base grew astronomically from just 380,000 in 2007 to more than 6m by the end of 2008 - and from a mere 1% to 9.6% of all mobile lines in just one year. Throughout 2008 and the first half of 2009, the CDMA operators continued to grow in importance, led by Starcomms , with the total CDMA market share growing to more than 10% by the end of 2008. 2009 saw much slower growth for the CDMA operators and by June 2009 their share of the market had only risen to 10.9%.

Increased investment in GSM operation in the second half of 2009 reversed the influence of CDMA

In the third quarter of 2009, Nigeria's CDMA operators as a group actually lost around 229,000 subscribers. Active subscriber base began to decline while the prominence of the GSM operators strengthened as network roll out expanded further inland into the country. Unfortunately, the CDMA operators were unable to match the level of investment in network expansion that their GSM counterparts embarked upon.

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According to Pyramid Research Country Intelligence Report on Nigeria in 2008, mobile CDMA service accounted for an estimated 6.3% of the market's US$8.6 billion in total revenue, and was expected to grow to 11% by 2013. It was also expected that barring major changes in market conditions, CDMA operators will grab 20% of mobile subscriptions by 2014. However, the current performance trend of the industry does not support this projection. Of course there were major changes in market conditions which further depressed the ability of the operators in the CDMA segment to grow.

In term of cost to users, CDMA operators are very competitive

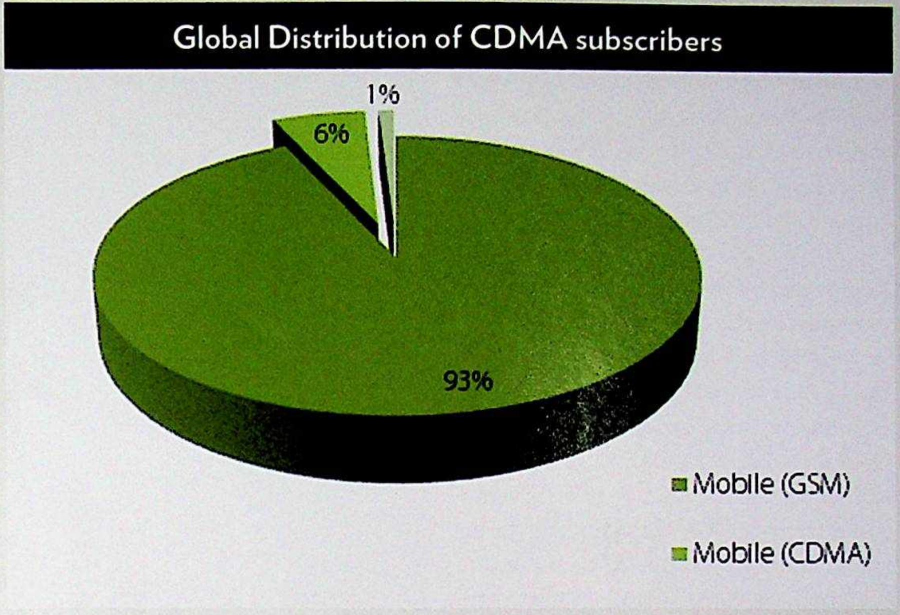
A major advantage that Nigeria's CDMA operators have is that they are able to offer lower on-net and off-net call rates than GSM operators. In addition, the fact that they have considerably fewer subscribers reduces the strain on their networks; resulting in better service quality than the average GSM operator. The CDMA market segment also benefitted from the introduction of cheap and partly subsidised mobile handsets that appealed to the low end of the market. Visafone for instance, launched its operation with handsets that were selling for prices as low as N2,000.00 in 2008; handsets that ended up in the hands of many first time users of mobile phones. Given the relatively low on-net and off-net call charges and cheap handsets, a number of existing GSM users also adopted CDMA lines as alternative mobile phones. Visaphone's subscriber base grew from 60,000 at inception in March, 2008 to 2.25m at the end of 2008.

Low investment in CDMA technology infrastructure stifles capacity for competition

The CDMA networks are limited to major cities and towns. Therefore as subscribers begin to realise the limited usefulness of their CDMA phones outside the major cities, they are forced to stick to their GSM phones. Unfortunately, the emergent industry structure, which promotes stifling competition and low investment in infrastructure, restrict the ability of the CDMA players to aggressively expand into rural, underserved communities and provide affordable and effective services that would appeal to the low income earners. Mr Logan Pather, the CEO of Starcomms Plc, a major CDMA operator, pointed out that the failure of the CDMA operators to roll out aggressively in the beginning like the GSM operators is perhaps the major impediment to the subsector's growth. The competitive environment and the difficult terrain in the country made it impossible for co-location in the beginning. Hence operators have to build, own and maintain their infrastructure across the country. In Africa, as a result of huge infrastructural challenges, the costs of building and maintaining telecom base stations are substantially higher than those found in other regions. Four key competitive factors have been responsible for stifling the capacity of the CDMA players to roll out aggressively.

The cost of countrywide expansion could be prohibitive

Firstly, in addition to surmounting the challenges of land use issues, a typical base station has to run on two power generators, which must operate 12 hours a day each as a result of unreliable power supply. Operators must also pay for security and incur huge costs on out-of-station allowances to engineers on periodic maintenance due to difficult access roads. Starcomms Plc, one of the leading industry players, estimated that it requires US$50-US$60m to achieve countrywide expansion of its network; a sum the management of the company felt would be difficult to raise.



Source: NCC

Declining average revenue per GSM user eroding pricing advantage of CDMA technology

Secondly, competition, supported by improved technology, continues to drive the average revenue per user (ARPU) of the GSM segment of the market down to a level which has eroded the costs and pricing advantages the CDMA operators earlier had. At the current and declining call and data service rates being offered by the GSM operators, it is becoming almost impossible for an average CDMA operator to cover costs of additional network rollout; which could take several years to recover. Such projects therefore become impracticable and hence unfundable by any financier given what the average costs per potential user could translate to. For example, according to Mr Steven Evans, the CEO of Etisalat Nigeria, after a huge investment in excess of US$2.45 billion by Etisalat, the latest GSM operator to roll out network expansion, and the achievement of 73% of national coverage, the management estimated that it would take the company another 2-3 years to break-even. This was despite the fact that Etisalat leveraged on opportunities in co-location for its expansion.

.....even the hitherto cheap CDMA-enabled handset is now relatively expensive

The third blow which competition dealt to the capacity of the CDMA operators to expand network coverage is the erosion of the opportunity to put a CDMA phone in an average low end user's hand via the offer of cheaper handsets. Massive competition in the handset producers' segment of the market has resulted in a sharp decline in the price of basic GSM handsets. It is now possible to acquire GSM phones that are cheaper than the cheapest CDMA phones. The cheapest kind of CDMA enabled phone today, according to operators, is about N3,000.00. CDMA operators often subsidise these phones to bring the price down to N2,000, the average price of the cheapest GSM enabled phone.

The berthing of submarine cables in Nigeria would erase any competitive advantage in data services

Fourth, the deployment of two submarine cables is changing the data services landscape and poses another set of competitive challenges for the CDMA operators. Many of the CDMA operators, due to the superior and low cost data capacity of their technology, commanded a sizeable share of the data market until recently. Globacom international undersea cable, Glo 1, offers adequate market edge to support the introduction of new data services that will lock in existing subscribers to its GSM operation and win new ones via its data products. MainOne Cable Nigeria, the independent operators of the second submarine cable, is open to other GSM operators who have leveraged on its services to upgrade their data services at competitive pricing.

The competitive landscape in Nigeria obviously necessitated the exit of Telkom SA

In the light of the above, the unimpressive financial performance of operators which necessitated the exit of Telkom SA from Multilinks and the subsequent merger and acquisition bubble in the subsector becomes obvious. Telkom SA exited its investment in Multilinks Nigeria as a result of continued operating losses despite cost reduction measures taken to shore up its profitability. Telkom SA observed that it became financially difficult for the firm to continue doing business in the CDMA segment because the operating environment in Nigeria was too competitive. Helios Investment eventually acquired Multilinks from Telkom SA for US$10m following a legal battle that favoured the latter on a tower lease disagreement between Helios Investment and Telkom SA.

Regulatory oversight also put extra pressure on the CDMA operators

According to some industry observers, the perceived neutrality of the Nigerian Communication Commission (NCC), the telecom industry regulator, on the regulation of the industry has been disadvantageous to the CDMA segment considering the dwindling fortunes of operators. In their opinion, rather than a uniform regulatory regime, the NCC should not subject the CDMA and the GSM operators to the same tight regulations.

The on-going registration of mobile subscribers has arguably put attendant cost pressures on the CDMA operators. The regulator has directed that they migrate to SIM-based handsets to enable them capture subscribers' details. CDMA operators have therefore had to clear their warehouses of their inventory of non-SIM based handsets at losses.

The CDMA sector can still deliver impressive financial performance

Despite the grim outlook for the CDMA segment of Nigeria's telecommunication sector, the ability to put a cheaper, more efficient CDMA-enabled phone in as many hands and homes as possible remains a competitive advantage. In a country with over 160m people, the CDMA subsector can survive profitably by creating a niche and expanding its businesses and infrastructure to attract the potential additional income from increased number of users.

Operators in the segment can leverage on the evolving opportunities in co-location to manage costs of network expansion. The entrance of independent telecommunication infrastructure companies such as IHS into the sector also offers the opportunity for expansion into difficult terrains. The demand by operators to expand to such locations would create the incentive for infrastructure companies to open up such areas.

> **"The merger of three industry players, Starcomms, Multilinks and Cyancom (formerly MTS) to form a stronger entity known as CAPCOM will offer a change to the fortunes of these CDMA operators in the country"**

But CDMA operators need to be creative in order to change the fortune of the subsector

It is apparent that network expansion by itself cannot ease the stifling competitive landscape for the CDMA operators. The ability of players in the CDMA segment to create and use niche markets for its products will be the game-changer. Therefore their ability to create products that will ensure that an average adult has the need to own a CDMA technology enabled device shall be the Holy Grail of the subsector in the years to come.

The merger of three industry players, Starcomms, Multilinks and Cyancom (formerly MTS) to form a stronger entity known as CAPCOM will offer a change to the fortunes of these CDMA operators in the country. The merger which brings in a capital injection of $200m will seek to resolve the problems of low capitalisation, poor promotion of CDMA technology, subscribers' preference for GSM telephony, and corporate governance issues which have been the hindrances to the success of the industry and to meet the expectations of stakeholders who have been clamouring for the resurrection of the CDMA sector through a bail-out.

The $200 million investment will be used to acquire Multi-Links and MTS; recapitalise Starcomms and provide the new entity with sufficient capital and liquidity to finance its working capital; and to expand its existing network through the introduction of 4G/LTE technology to become a major provider of Broadband services to Nigeria's burgeoning consumers.