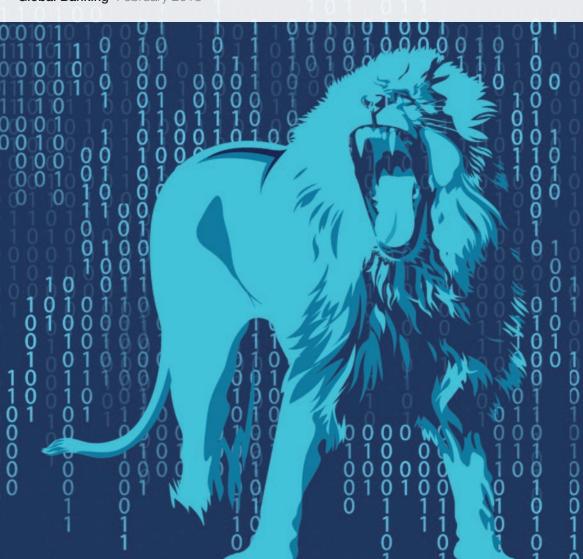
Roaring to life: Growth and innovation in African retail banking

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Authored by: Mutsa Chironga Luis Cunha Hilary De Grandis Mayowa Kuyoro



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Executive Summary

Africa's banking markets are among the most exciting in the world. The continent's overall banking market is the second-fastest-growing and second-most profitable of any global region, and a hotbed of innovation. The retail banking sector in particular is a locus of new business models, emerging in response to challenges including low levels of banking penetration, heavy use of cash, sparse credit bureau coverage, and limited branch and ATM networks.

In this fast-growing, complex market, there are vast differences in performance between leading and lagging banks. This report focuses on the drivers of these differences—and explores five themes that separate winners from losers:

- 1. Draw the right map. Geography matters.

 About 65 percent of African banks' profitability (measured by return on equity, or ROE) and 94 percent of their revenue growth, are attributable to their geographic footprint. Importantly, there is a shift underway in exchange rate-adjusted revenue pools towards North Africa, East Africa and Francophone West Africa, and away from South Africa and Central Africa. There are also huge variations in growth and profitability at the country level, with nations such as Côte d'Ivoire, Ghana, Kenya, Mali, and Morocco featuring positively.
- 2. Right segments, compelling offers. Our research indicates that 70 percent of the growth in Africa's retail banking revenue pools to 2025 will come from the middle segments, defined as individuals with annual income between \$6,000 and \$36,000. The mass market—individuals earning less than \$6,000 per annum—will account for just 13 percent of this revenue-pool growth, but it is the fastest-growing segment and one to watch. Whichever segments banks choose to serve, it is critical that they develop compelling propositions targeted to those consumers. We surveyed 2,500 customers across

- six African countries, and found that price and convenience are the leading factors in customers' choice of bank, followed by service. There is also huge room for growth in meeting unmet needs for borrowing, saving, investing, and protecting: fewer than 20 percent of African banking customers hold products such as lending, deposits, insurance, and investments.
- 3. Leaner, simpler banking. Africa has the second-highest cost-to-asset ratio of any region in the world, at 3.6 percent—and this has worsened in the recent past. High margins have tended to protect African banks from a dramatic worsening of cost-to-income (CTI) ratios, but margins are likely to come under pressure in the years ahead. In response, banks must act now to create simpler, leaner banking models. It can be done: This report spotlights eight banks in Africa that have made dramatic improvements in cost-to-asset ratios, through a combination of end-to-end digital transformation, sales productivity, and back-office optimization.
- **4. Digital first.** Some 40 percent of the African banking customers we surveyed prefer to use digital channels for transactions, roughly the same share as those who prefer branches. In four of the continent's major banking markets, the share of customers who prefer digital channels is significantly higher than the share preferring the branch channel. Banks can adopt one of four distinct digital strategies: The first is to digitally transform their existing operations, to increase their share of digital sales and transactions to beyond 60 to 70 percent on each measure, as Kenya-based Equity Bank has done. Second, banks can partner with telcos or fintechs to deliver mobile financial services to their clients at a cost below that of the branch network. An example, also from Kenya, is M-Shwari, the mobile-based loans application formed in partnership between Commercial Bank of Africa and Safaricom. The third digital

strategy is to build a digital bank from scratch—as Nigeria's Wema Bank did in launching ALAT, Africa's first fully digital bank, in 2017. Finally, banks can build an ecosystem or platform of banking and non-banking services. Alipay in China and the Commercial Bank of Australia have applied this approach at scale in areas such as travel and hospitality (Alipay) and homebuying (CBA).

5. Innovate on risk. African banking still has the second-highest cost of risk in the world, not least because of a paucity of credit bureaus, combined with immature risk management practices in many banks. A number of exciting innovations in credit risk management are emerging, however. Bank-telco partnerships like M-Shwari are one example: the platform delivers 80,000 consumer loans per month, but just 1.9 percent of its loan book is nonperforming. Another option is partnering with fintechs like Jumo, which aggregates data and algorithms to enable its partners, such as Barclays Africa and Old Mutual, to grant 50,000 loans per day between them. A third approach to credit risk management is the use of payroll lending to secure repayments. One example is Letshego, which has more than 340,000 borrowing customers across 11 African countries. Such innovations on risk will help unlock the consumer

credit opportunity in Africa: today only 17 percent of African banking customers have consumer loans, compared to over 97 percent with a transactional product.

Technology makes rapid progress in many of these themes attainable. Robotics are offering ever-cheaper ways to automate processes; machine learning can process massive data lakes to support higher sales productivity or improved credit assessment; mobile technology is continually reducing the marginal costs to serve customers; and cryptocurrencies raise the potential for very low-cost payments processing.

We are privileged to be part of the exciting growth story of African banking. This report draws on the experience of our partners and colleagues serving banks across the continent. It also draws on McKinsey's Global Banking Pools research; a proprietary database of the financial performance of 35 of Africa's leading banks; a survey of executives from 20 banks and financial institutions across Africa; and the broad-based survey of 2,500 customers mentioned above.

Africa's retail banking markets are ripe with potential and present huge opportunities for innovation and further growth. The following pages offer an up-close tour of those opportunities, in all their richness and diversity.



Overview: African banking's next growth frontier

Globally, the banking industry is facing disappointing returns and sluggish growth. For seven consecutive years its ROE has been stuck in a narrowly defined range, between 8 percent and 10 percent—a level that most consider the industry's cost of equity. At 8.6 percent for 2016, ROE was down a full percentage point from 2015. Moreover, the industry's global revenue growth rate slowed to 3 percent in 2016, down from an annual average of 6 percent over the preceding five years.¹

Africa's banking sector provides a refreshing contrast. Its markets are fast-growing and nearly twice as profitable as the global average. Although competition is heightening and regulation is tightening, there is still much room to grow: Africa's retail banking penetration stands at just 38 percent of GDP, half the global average for emerging markets.

Africa's banks face challenges aplenty, including low income levels in many countries, widespread use of cash in most economies, and poor coverage of credit bureaus. But some banks are already tapping the opportunities inherent in these challenges, for example harnessing Africa's widespread mobile-phone coverage to create low-price offerings and innovative distribution models. Driven by such innovation, African retail banking's revenue growth could accelerate significantly in the next five years.

Africa's fast-growing, profitable banking markets

Global media reports are more likely to highlight Africa's social and political problems than its rise as a business market. Yet the reality is that the continent is in the midst of an historic acceleration that is lifting millions out of poverty, creating an emerging consumer class, and propelling rapid economic growth in many economies. Re-

flecting this broader economic progress, Africa today is the second-fastest-growing banking market in the world, taking both retail and whole-sale banking together. Between 2012 and 2017, African banking revenue pools grew at a compound annual growth rate of 11 percent in constant 2017 exchange rates. We expect the African banking market to remain a growth leader going forward, growing at a rate of 8.5 percent over the next five years.²

Africa is also the global banking industry's second-most profitable region: the ROE of its banks in 2017 stood at 14.9 percent, second only to Latin America and comparable to other regions such as Emerging Asia and the Middle East (Exhibit 1). The ROE of African banks was more than double the 6 percent achieved by banks in developed markets. African banks' profitability in 2016 was marginally higher than in 2012, driven by improved margins—although these gains were largely offset by higher risk costs. Indeed, as we will see later, African banks increased their margins by 0.9 percentage points over this period to 6.8 percent, while globally, margins remained flat at 3.8 percent.

In terms of size, Africa's banking market is today approximately \$86 billion in revenues before risk cost. Our projected growth for Africa banking revenue pools of 8.5 percent a year between 2017 and 2022 will bring the continent's total banking revenues to \$129 billion. Of that total, \$53 billion will be in retail banking—up from \$35 billion in 2017 (Exhibit 2)—an absolute growth in retail banking revenues of \$18 billion.³

Another notable feature of Africa's banking landscape is the staggering growth in the number of

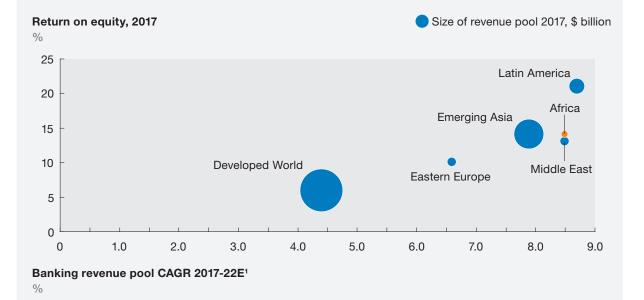
¹ The Phoenix Rises: Remaking the Bank for An Ecosystem World, McKinsey Global Banking Annual Review, October 2017.

² African currencies typically depreciate over time versus international currencies such as the US dollar and the euro. When the impact of currency movements is considered, the growth rate projected for 2017-22 of 8.5 percent is reduced to 4.5 percent.

³ These figures and growth rates are in fixed US dollars. If past and projected depreciation of African currencies are considered, growth rates would be lower.

Exhibit 1

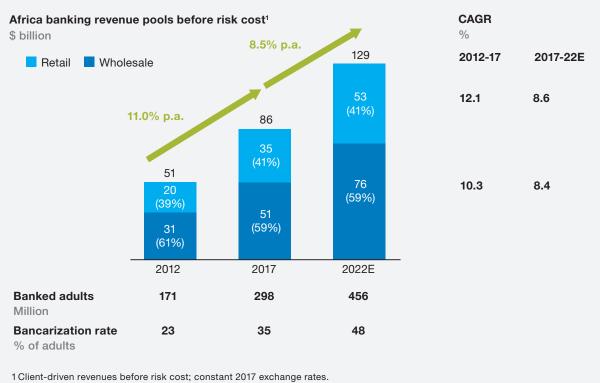
Africa's banking market is the second-fastest in terms of growth, and the second-most profitable



¹ Client-driven revenues before risk cost; constant 2017 exchange rates. Source: McKinsey Global Banking Pools

Exhibit 2

Africa's banking revenue pools are projected to grow 8.5% per year until 2022, with similar growth rates in retail and wholesale



¹ Client-driven revenues before risk cost; constant 2017 exchange rates.

Source: EFInA; Finscope; FSD Kenya; McKinsey Global Banking Pools; World Bank Findex

people becoming banked. As of 2017, there are almost 300 million banked Africans, up from 170 million in 2012. By 2022, we project 450 million banked Africans. By 2022, close to half of Africans will be banked, compared to just over one-third today.

African banking is a rich tapestry of 54 country markets. Below, we look closely at the different types of markets.

A varied geographic landscape

Africa's banking markets show stark differences in size, infrastructure, bancarisation (or banking penetration), and use of digital, to name but a few variables. We have identified four archetypes among African banking markets—each with markedly different per capita income, banking penetration, revenue growth, profitability, and financial infrastructure (Exhibit 3).

The first is the **relatively mature market**, which includes countries such as Egypt and South Africa, with higher GDP per capita and asset penetration. These markets have higher branch penetration—17 branches per 100,000 adults, versus the African average of five. They also have higher credit bureau penetration of 22 percent of adults, double the African average. Retail banking tends to be a higher share of the revenue pool in these markets, and more sophisticated financial services such as asset management and mortgages are also more prevalent. This is partly because the share of adults earning more than \$5,000 per annum is higher at 51 percent on average, versus 15 percent for Africa as a whole.

The second archetype market is the **fast-grow-ing transition market**, which covers countries like Ghana, Cote d'Ivoire, and Kenya, where banking penetration is ahead of the curve. These are competitive retail banking markets, with high levels of mobile banking and other innovations. The growth rate is relatively high in these markets, with an annual average of 14

percent between 2011 and 2016. Profitability is also the highest in this archetype, with ROE at 17 percent in 2016.

Third are the **sleeping giants** such as Angola and Nigeria, large markets where banking penetration is lower than would be expected at their income levels. Notably, the sleeping giants are all oil exporters. The prominence of oil in a national economy often steers banks away from lending more to other sectors, or to the consumer market. In these markets we also see credit bureau coverage of only three percent—the lowest of the four archetypes—and less innovation in arenas such as mobile money.

The final archetype is the **nascent market**, which includes countries such as Ethiopia and Tanzania, where both GDP per capita and asset penetration are still low. These markets present the biggest challenge for foreign players seeking positive returns; indeed, some nascent markets, such as Ethiopia, restrict or prohibit entry of foreign banks. However, some nascent markets have very large populations—for example, around 100 million in Ethiopia and 60 million the Democratic Republic of Congo—and are fast growing, and thus represent outsized potential for banks that can negotiate regulatory approval to enter, and create winning business models.

A competitive landscape, with clear winners

Within this challenging and varied landscape, competition in the African retail banking landscape is increasingly fierce. In this environment, some banks are proving to be true African lions—standing head and shoulders above the rest in terms of profitability, revenue growth, efficiency, and credit control. Others are struggling.

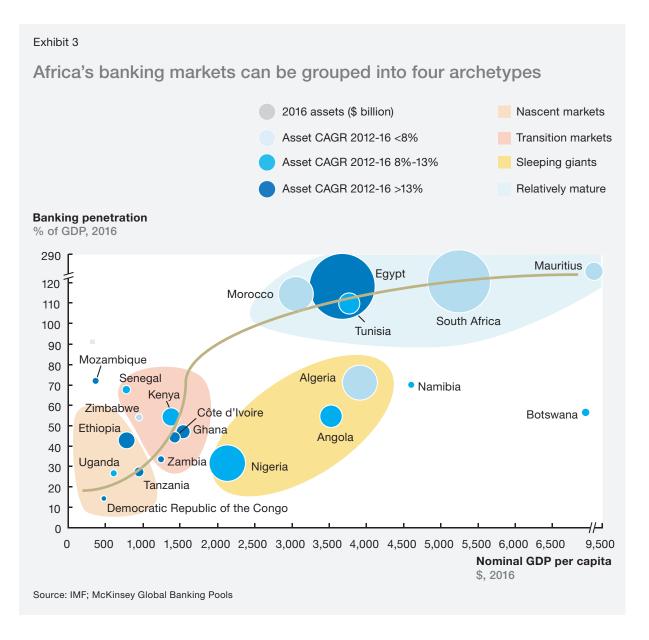
No trade-off between profitability and growth in African banking

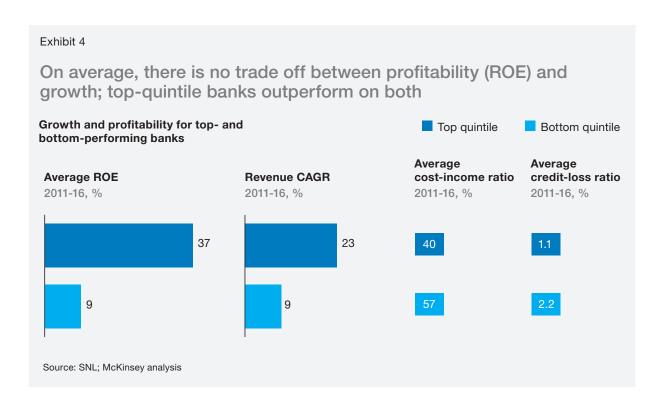
We analyzed the performance of 35 of Africa's largest banks in the continent's key markets over a five-year period from 2011 to 2016. One of the

most striking findings is that there is no trade-off between profitability and growth in African banking. Banks in the top quintile of ROE achieved 37 percent ROE over this period, roughly four times the 9 percent ROE achieved by banks in the bottom quintile (Exhibit 4). The top-quintile banks in terms of ROE grew revenues at 23 percent per annum, almost 2.5 times the 9 percent of banks in the bottom ROE quintile. It seems the traditional view of a trade-off between ROE and growth is a myth, at

least in Africa. Banks can set ambitious goals for both profitability and market share growth.

Perhaps less surprisingly, the top-performing banks on ROE were also impressively lean: their average cost-to-income ratio over this period was 40 percent, versus 57 percent for bottom-quintile banks. They also manage risk better—their average credit loss ratio, at 1.1 percent, was exactly half that of the low performers. There will of course be varia-





tions based on a bank's geographic spread, but these figures can help Africa's banks benchmark themselves and set aspirations.

Five challenges, five winning practices

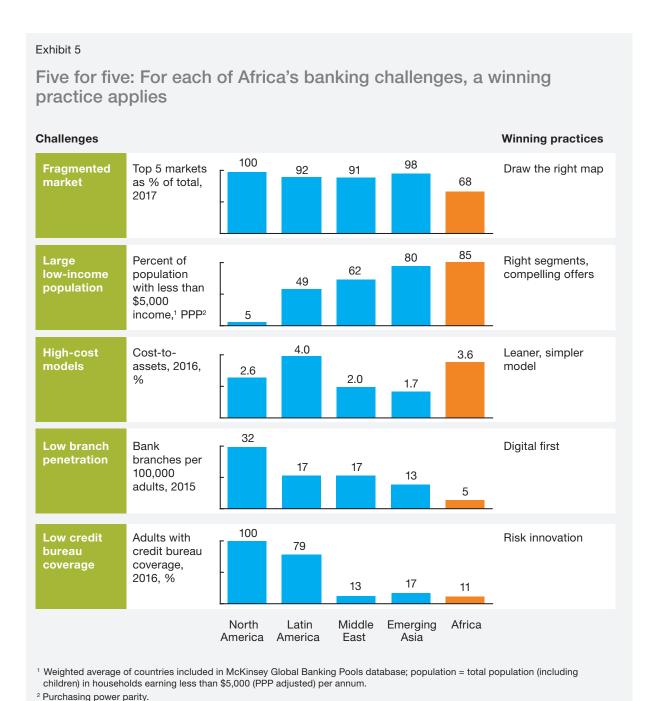
What drives the stark differences in performance we noted earlier between the top- and bottom-quintile banks? Winning banks in Africa display one or more of five winning practices, and these practices are direct responses to five specific challenges that all African banks face (Exhibit 5).

Fragmented market. Africa is a continent of 54 countries, leading to some inevitable fragmentation of the banking opportunity. We estimate that the top five banking markets in Africa—South Africa, Nigeria, Egypt, Angola, and Morocco—account for 68 percent of the total banking revenue pool, compared to over 90 percent for the top five regions such as North America, Latin America, Middle East, and Emerging Asia. For Africa, this means that the remaining 49 countries represent only 32 percent of the revenue pool. Furthermore, Africa's banking markets exhibit high variation in growth

and profitability. It thus becomes extremely important for banks to *draw the right map*—the first of the winning practices we believe will be crucial to success in the coming years.

First National Bank (FNB) is arguably the best-performing retail bank in the continent's largest retail banking market, South Africa. First Rand, FNB's parent company, had an ROE of 25 percent in 2016, compared to the county's other "big four" banks, which had ROEs of 14 to 15 percent. FNB has been relatively selective in its expansion into other markets. For example, they have a top-four presence in neighboring Namibia and Botswana, and have also expanded to three other promising markets—Ghana, Zambia, and Tanzania. In each case, they have successfully brought their digitally focused proposition to customers; in Zambia, for example, they grew their market share from 0 to 8 percent within the five years of entering the market.

Large low-income population. While African incomes are rising steadily, its population on average remains poor by global standards. Fully 85 percent



Source: IMF; Canback Income Distribution Database; McKinsey Global Banking Pools; McKinsey Global Payments Map; World Bank

of individuals have incomes below \$5,000 a year—compared to 80 percent in Emerging Asia and 49 percent in Latin America. The implications are twofold: first, banking revenue pools are relatively concentrated in the middle- and higher-income

segments; second, African customers have a strong need for affordable financial solutions, which points directly to the second winning practice in African retail banking: targeting the right segments with compelling offers.

Nigeria's GTBank is a good example of this second winning practice. The bank's average ROE of 30 percent between 2011 and 2016 outperformed Nigeria's other top five banks, which posted ROEs of 11 to 22 percent. GTBank has had great success in Nigeria's affluent segment, based on high service levels. It has been rated best in class in terms of CSAT, a measure of client experience. Focusing on the higher-income segments has also enabled GT to keep their branch network smaller relative to those of their competitors. The results are compelling: GTBank has almost doubled customer numbers from 4.7 million in 2012 to 8.6 million in 2016, and grown market share from 10 to 12 percent in that time.

High-cost models. African banks benchmark poorly on productivity. The cost-to-assets ratio for African banks is second-highest in the world at 3.7 percent. (Latin American banks are at 4 percent.)

African banks generally have more manual processes, more tellers, and more cash-related costs relative to international peers. Indeed, across Africa, more than 90 percent of all transactions are carried out in cash. The only region with comparable cash usage is Emerging Asia. (By way of a global benchmark, cash usage is 41 percent in North America.) The high cash usage adds costs to the African banking system. The third winning practice in African banking is therefore the move toward leaner, simpler banking.

Poland's mBank is a good example of the leaner, simpler bank. It was the first fully Internet-based bank in the country, and now has more than four million retail clients, and a six percent market share. mBank aspires to be a "paperless bank," and to "simplify, streamline, automate, and digitise" all processes. As an example, customers can secure loan approvals in 30 seconds through mobile phones, or discuss mortgage options with sales agents on Skype. mBank has also achieved high levels of self-service on mobile channels, with 55 percent of clients logging in via the mobile app in 2017, almost double the 28 percent that did so in

2015. Simplicity seems to be paying off for mBank—in 2016 and 2017, it sustained a cost-to-income ratio of 46 percent, compared to a 2016 CTI ratio of 58 percent for the overall Polish banking industry.

Very few bank branches. Bank branch coverage in Africa is by far the lowest in the world. There are just five branches per 100,000 adults compared to 13 in Emerging Asia and 17 in Latin America or the Middle East. On the other hand, mobile penetration is very high; winning banks therefore need to take a digital-first approach to distribution.

Kenya-based Equity Bank is a good example of digital-first. Equity has achieved high shares of transactions (66 percent) and loan sales (85 percent) on the mobile channel. The bank partnered with a telco, Airtel, to deliver Equitel, a mobile virtual network operator that gained two million clients within 18 months of launch. At the same time, recognizing the continued dominance of cash, Equity Bank developed a network of 30,000 agents. This allows the bank to deploy a variable-cost form of physical distribution to enable clients to cash in and cash out—as opposed to using branch and ATM infrastructure, which comes with a large fixed-cost component. Beyond simple cash in and cash out with agents, Equity Bank clients can open accounts, pay bills, and make deposits.

In Nigeria, Diamond Bank partnered with mobile operator MTN in 2014 to launch its "Y'ello" product, a bank account that provides financial and lifestyle benefits through mobile banking. There are 30,000 Diamond Y'ello agent locations. In three years, Diamond gained seven million new customers through this partnership.

Low credit bureau coverage. Only 11 percent of Africa's population have their credit information recorded by private credit bureaus, compared to 17 percent in Emerging Asia and 79 percent in Latin America. This puts a major brake on consumer lending and creates a need for alternative

consumer credit models, and points to our fifth winning practice: *risk innovation*.

Kenya's Commercial Bank of Africa partnered with a telco, Safaricom, to deliver M-Shwari, a product that, among other things, offers loans through the mobile channel, leveraging telco data for underwriting. M-Shwari processes 80,000 loan applications daily, with an average ticket size of \$32 and an average loan duration of 30 days. M-Shwari enjoys a non-performing loan (NPL) ratio of 1.9 percent, versus an industry average of 5.3 percent.

. . .

How fast Africa's retail banking penetration increases in the years ahead will depend on how bold its banks are in innovating to overcome the challenges they face. In our **base-case sce-nario**, retail banking revenues across the continent will grow at a compound annual rate of 8.5 percent between 2017 and 2022. If more banks emulate the winners and roll out low-cost models and innovative partnerships, growth will be even faster. In this **aggressive growth scenario**, we project an increase in the banked population of five percentage points per year, versus the historic rate of three percentage points per year. We

also see potential for growth in consumer finance as more innovation occurs in underwriting techniques. As a result, in this aggressive growth scenario, we expect retail banking revenue growth to increase to 12 percent a year (2017 to 2022) versus our base projection of 8.5 percent per year. Attaining this higher growth trajectory will require more innovation, and for more African banks to enter the ranks of the "winners."

Our analysis and experience suggest winners in Africa's retail banking landscape will focus on one or more of the following winning practices:

- 1. Draw the right map
- 2. Right segments, compelling offers
- 3. Leaner, simpler banking
- 4. Digital first
- 5. Innovate on risk

The remainder of the report explores each of these drivers of success in African retail banking in greater detail.



Chapter 1. Draw the right map

Geography matters

Where you are in Africa matters—in a big way. Our analysis of 35 leading banks, and the difference between top-quintile and bottom-quintile banks in terms of growth and profitability, resulted in some striking insights.

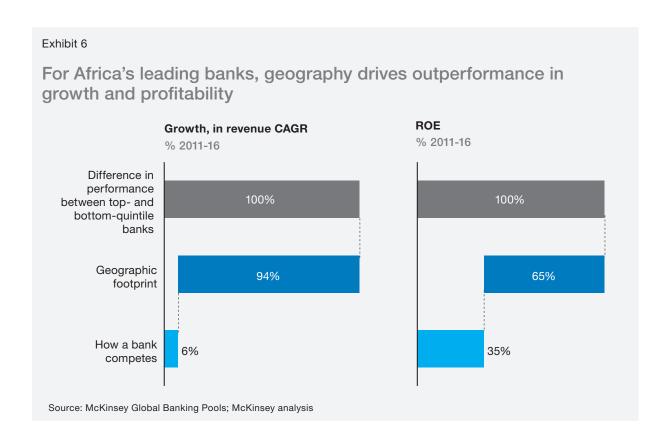
Ninety-four percent of the difference in revenue growth between top- and bottom-quintile banks is determined by the markets they operate in; only 6 percent is attributable to gaining market share in those markets (Exhibit 6). Furthermore, 65 percent of the differences in profitability between top- and bottom-quintile banks is attributable to the stark differences in profitability across markets, with the remaining 35 percent driven by banks' performance versus peers in their market.

Because "drawing the right map" matters so much, we looked into which countries and regions of Africa's banking market offer the greatest prospects for banking growth and profits.

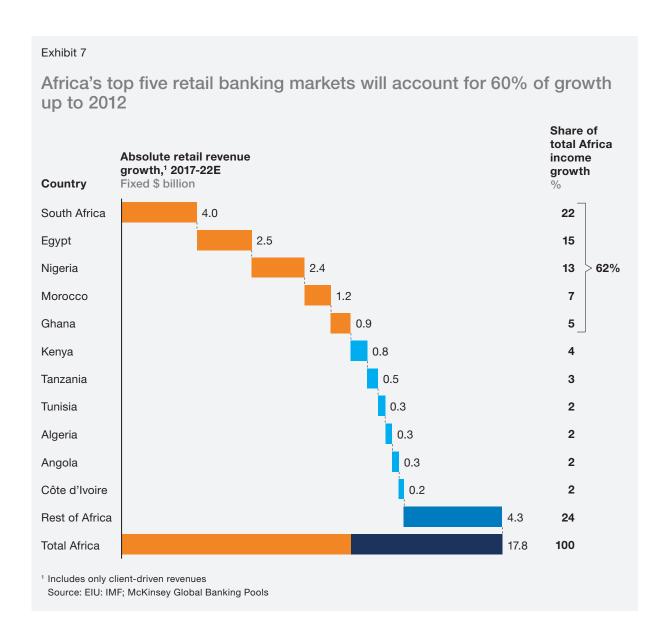
Pinpointing the Africa banking opportunity

In the opening chapter, we noted that we expect Africa's banking revenue pools to grow at 8.5 percent a year between 2017 and 2022, bringing the continent's total banking revenues to \$129 billion (before risk cost). Of that total, \$53 billion will be in retail banking—up from \$35 billion in 2017, an absolute growth of \$18 billion.⁴

Three quarters of the \$18 billion in absolute retail revenue growth will be concentrated in 10 countries. In absolute terms, the greatest growth will be in South Africa, which will account for \$4 billion, or



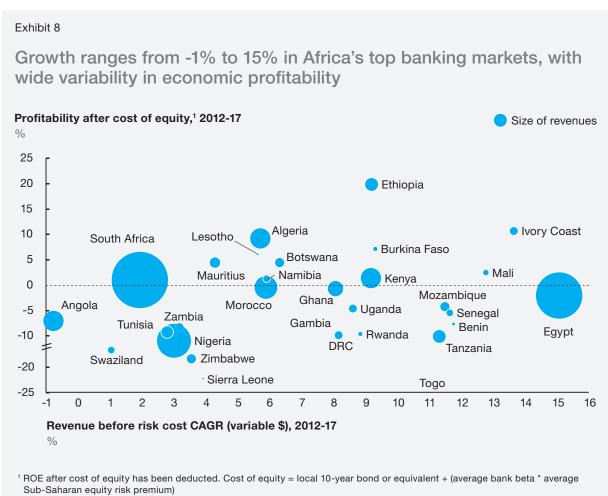
⁴ These figures and growth rates are in fixed US dollars. If past and projected depreciation of African currencies are considered, the growth rates would be lower.



well over one-fifth of African retail banking growth (Exhibit 7), by 2022. Other leading growth markets include Egypt, Nigeria, Morocco, Ghana, and Kenya.

Stepping back to look at Africa's 30 largest banking markets gives another perspective on varying growth and profitability dynamics (Exhibit 8). Three of the 11 largest banking markets—Algeria, Cote d'Ivoire, and Kenya—have shown strong profitability through the cycle, delivering ROE

above cost of equity (COE). These markets are also projected to grow by 5 percent per annum or more, adjusting for currency, for the next five years. Three additional large banking markets—Morocco, Ghana, and Egypt—have also grown by 5 percent per annum or more, but have narrowly missed returning their cost of equity. South Africa, the largest market, has slightly outperformed its cost of equity, and is expected to grow at a steady 2 percent in currency-adjusted terms. Markets such as Angola, Tunisia, and Nigeria

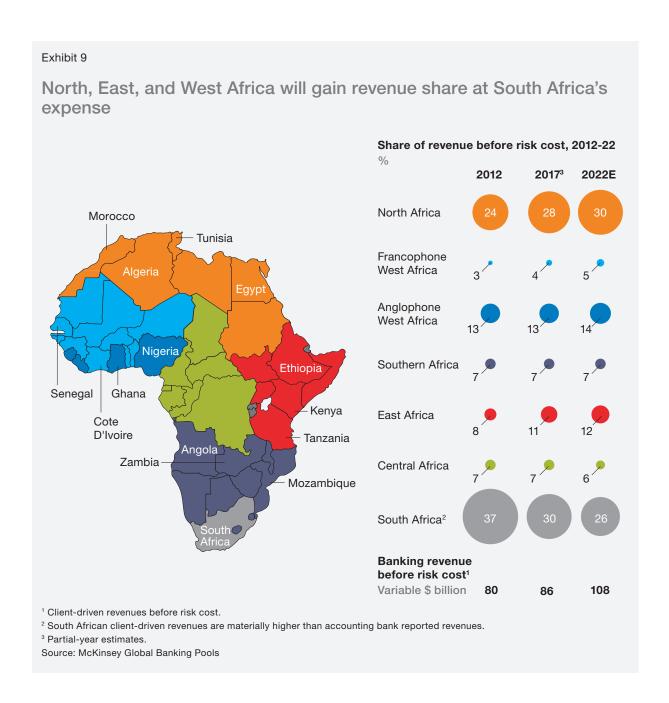


Source: Central Bank Reports; McKinsey Global Banking Pools; PWC Valuation Survey

have had returns well below COE, and are projected to grow at 4 percent or less. Finally, Tanzania, while fast growing (11 percent per annum currency adjusted growth), has also fallen short in terms of profitability.

There are other fast-growing, profitable African markets like Mali and Ethiopia, along with a group that show strong growth (6 percent or more) but which have failed to return their COE; these include Uganda, Mozambique, and Senegal. All told, profitability after cost of capital across Africa's banking markets ranges from -20 percent to +20 percent, and growth ranges from -1 to 15 percent.

These varying growth rates are resulting in a marked rebalancing of Africa's retail banking revenues (Exhibit 9, page 18). Adjusting for actual (2012-17) and projected (2017-22) exchangerate movements, it becomes clear that North Africa will have grown dramatically from 24 to 30 percent of currency-adjusted revenue pools over the decade between 2012 and 2022. Similarly, dramatic increases are seen in East Africa (8 to 12 percent over the same period). A milder increase is seen in Francophone West Africa (3 to 5 percent), which benefits from both high GDP growth rates and a currency that is pegged to the euro.



Adjusting for currency, the big loser in terms of banking revenues will be South Africa, which accounted for 37 percent of the African revenue pool in 2012, and will account for 26 percent in 2022. This reflects not only real economic growth that is slower than the rest of the African continent, but also steep depreciation in the South African Rand over this period. Foreign investors in

South African financial services companies that are listed in London, such as Barclays PLC and Old Mutual PLC, have been selling down their investments in part because they need to return hard currency returns to UK investors, even while the South African economy's growth relative to the rest of Africa and the world diminishes. Readers should note that at the time of writing, South

Cross-border banking

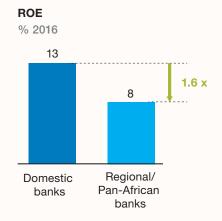
On average, banks in Africa with significant regional or pan-African footprints have not performed as well as their domestic peers. Average ROE in 2016 for the 13 regional banks in our sample was 8 percent, compared to 13 percent for the 26 domestic banks (Exhibit 10). Furthermore, domestic banks grew faster between 2011 and 2016—their average revenues increased at an annual rate of 20 percent, compared to 14 percent for regional banks.

For a few reasons, it is unsurprising that cross-border banks attain lower ROEs than domestic players. Cross-border cost synergies are limited, especially in retail banking, as each country requires some form of physical distribution. Furthermore, pan-African banks have to deal with multiple markets developing at varying speeds, with different regulators, and various

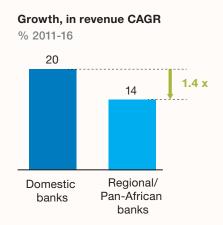
infrastructure challenges. This heterogeneity makes it very difficult for pan-African banks to effectively control their operations and deploy coherent business models in all the markets they serve.

There are of course many strategic reasons for being a regional bank—including pursuing growth opportunities, diversifying earnings risk, and creating a network for cross-border corporate clients. More than half (55 percent) of bank executives we surveyed said geographic expansion was "somewhat" or "very" important to their growth strategies, accounting for 10 percent or more of their projected growth over the next three years. However, our analysis is a vivid reminder that banks need to tread carefully in selecting markets for expansion, and then develop a profitable cross-border operating model.

Domestic banks have outperformed regional banks in terms of both profitability and growth



Note: Number of banks: domestic (26); regional (13). Source: McKinsey Global Banking Pools; McKinsey analysis



We conducted a survey of banking executives 20 financial institutions from across Africa in the fourth quarter of 2017, asking for their perspectives on the retail banking opportunity in Africa. Eighty-five percent of respondents were from banks, and 15 percent from nonbank attackers. Thirty-five percent were from Southern Africa, 25 percent from East Africa, 20 percent from West Africa, 15 percent from Angola, and 5 percent from an international (non-African) bank operating in Africa. The respondents were typically the heads of retail, or in some cases, the CEO of the bank.

Africa was undergoing a political transition, which could reverse some of the recent trends of slowing growth and depreciating currency.

. . .

Drawing the right map is a fundamental step for winners in African retail banking. Beyond this, win-

ners and losers within markets will be determined in large part by how they answer the following questions: Are we competing in the most attractive segments? And do we have a compelling proposition for the customers in that segment? It is to these questions that we turn next.



Chapter 2. Right segments, compelling offers

Opportunities in segments—particularly middle-income

To pinpoint opportunities, African banks need to understand not only the relative growth of different markets but also the dynamics of customer segments. In 2017, just 15 percent of Africa's adult population had an annual income above \$5,000. But this proportion is growing steadily, as is Africa's overall population—with the result that the number of Africans⁶ earning \$5,000 a year or more is expected to increase from 140 million in 2017 to 175 million in 2022.

As some banks (for example, Equity Bank) have demonstrated, there is also considerable opportunity to serve the large majority of Africans earning below \$5,000. We expect the banked population in Africa to swell by more than 150 million people, from nearly 300 million in 2017 to 450 million by 2022, and much of this growth will be at levels of income lower than \$5,000 per year. Finally, Africa's affluent consumers, though they make up only one percent of the population, have significant and fast-growing spending power.

Our analysis of banking revenue growth for four specific customer segments—mass market (income below \$6,000 a year), core middle (\$6,000-\$12,000), middle (\$12,000-\$36,000), and affluent (above \$36,000)—shows that the bulk of the absolute growth in banking revenues will be driven by the middle and core middle segments; together, they will account for 69 percent of absolute revenue growth between 2017 and 2022. Add the affluent group, and 87 percent of growth will come from the top three segments (Exhibit 11). We should note that the growth rate is fastest in the mass and core mid-

dle segments—approximately 11 percent and 13 percent respectively.

The relative growth of different income segments will vary significantly by region. In North Africa, we project that the middle and affluent segments will experience the greatest absolute revenue growth, while the core middle and middle segments will dominate growth in both East and West Africa. Anglophone West Africa will also see significant revenue growth in the mass segment, while South Africa will see most growth in the middle segment, followed by equally strong absolute growth in the core middle and affluent segments.

Compelling offers

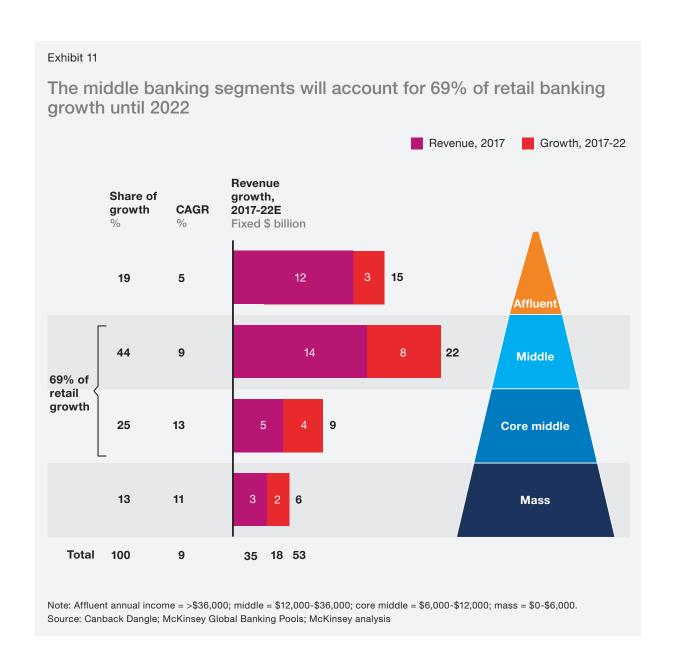
To compete effectively, banks will need to develop compelling value propositions. Those with clear value propositions tend to outperform peers in their respective markets on growth and profitability. But what is a compelling value proposition? What do customers want?

Our customer research,⁷ which covered 2,500 banked adults in six African countries, provides some guidance. When we ask clients to state the reason for choosing their main bank, three factors stand out (Exhibit 12, page 23).

First, price was selected by 25 percent of respondents—unsurprising given Africa's relatively large share of low-income households. Capitec's price-and simplicity-focused value proposition has helped it gain significant share in the South African market. According to our retail banking customer survey, 57 percent of Capitec's customers said pricing was their primary reason for selecting the bank; this compares to percentages ranging from 23 to 33 percent for the other "big four" South African banks.

⁶ Adults in Africa's 20 largest banking markets.

⁷ Respondents were spread across income segments; 77 percent were urban and 23 percent rural; and respondents were split equally between male and female. Approximately 50 percent of the sample were employed, 40 percent self-employed, and 10 percent unemployed.

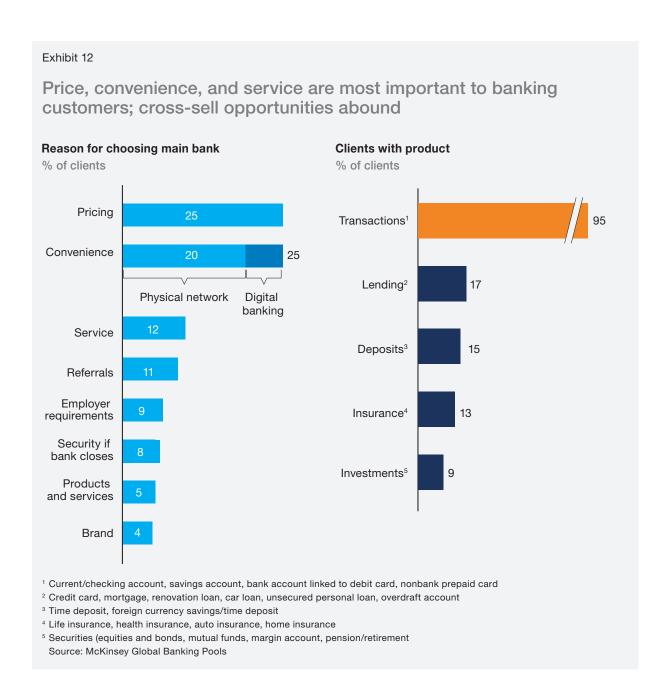


Convenience is an equally important factor in bank selection, also chosen by one in four customers surveyed. Of those, four-fifths described "convenience" as banks with a nearby branch or agency, and the remainder defined it as a great digital banking offer. Equity Bank is a prime example of a bank with a compelling offer in the realm of convenience, delivered through a 30,000-strong agency network, as well as a market-leading mobile banking offering.

The third-most cited factor in bank choice is service. Nigeria's GTBank has had great success in the affluent segment based on its reputation for great client experience, delivered by professional, courteous, and responsive staff.

Cross-sell opportunities: savings, credit, and payments

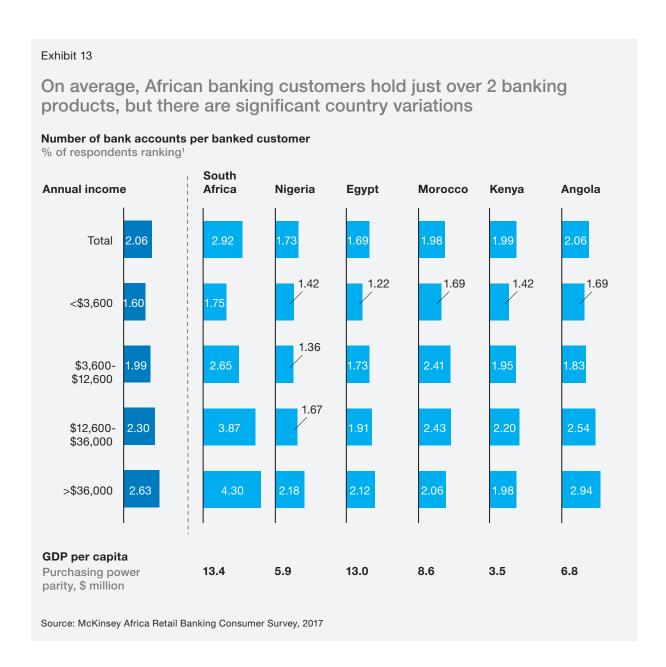
A further finding from our survey is that approximately 95 percent of respondents—all of whom



were already "banked"—had a transactional product, confirming the idea that new banking customers typically start with transactional products (Exhibit 12).

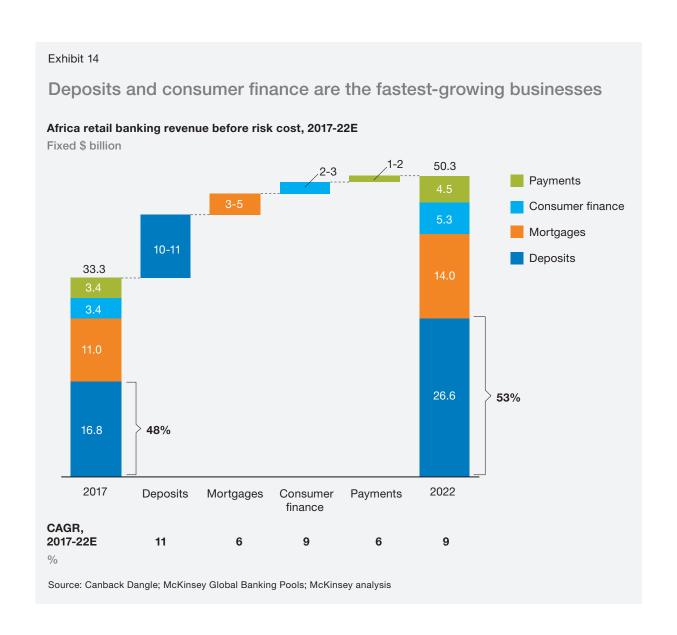
That said, cross-sell opportunities abound across the continent. As we see in Exhibit 12, only 17 percent of banking customers our sample had a lending product, while 15 percent had a deposit product, 13 percent insurance, and 9 percent an investment product. These four product categories therefore represent important growth opportunities for banks.

To put another lens on the cross-sell opportunity, we see that the number of products per customer varies considerably across countries. It is highest in South Africa, at approximately 2.9 products



per customer, roughly 2 in Morocco, Kenya, and Angola, and as low as 1.7 in Nigeria and Egypt (Exhibit 13). These numbers suggest there are some countries where product penetration could be significantly higher. For example, Morocco and Egypt have a higher per capita income than Kenya, but fewer banking products per customer. It also interesting to note that higher-income segments seem to be underpenetrated in countries such as Kenya and Morocco.

Which product areas offer the greatest opportunities in revenue terms over the next five years? Deposits—both from transactional and savings accounts—will be the single-largest contributor to retail banking revenue growth in Africa, contributing approximately \$11 billion to absolute revenue growth between 2017 and 2022 (Exhibit 14, page 26). We estimate that deposits are likely to grow at compound annual rate of at least 11 percent between 2017 and 2022. This rapid growth is



driven partly by the expected increase in the number of Africans who are included in the banking system. It also reflects the relatively high cost of funding in Africa—interbank rates can be 10 percent or more in most African markets—which makes deposits a relatively lucrative product.

The next-largest area of growth is mortgages (approximately \$4 billion of growth), followed by consumer finance (\$2 billion), and payments (\$1 billion). Interestingly, in our survey of executives

from 20 leading African banks and financial institutions, consumer finance was rated as the number one opportunity among the major product categories. It was selected by 55 percent of executives, well ahead of payments and current accounts, selected by 30 percent of executives. Consumer finance is significantly underpenetrated in Africa. As we discuss in Chapter 5, advances in credit assessment—driven by digitization and the use of broader types of data—should fuel growth in the category.

Payments and remittances

Cash usage is still extremely high in many African countries, but the push to digital payments has begun. The volume of cashless transactions in Africa grew by 13 percent per annum between 2014 and 2016, driven by the improved availability, reliability, and security of electronic channels. This made Africa the world's second-fastest-growing payments market after Asia-Pacific; Africa also has the second-highest revenue per cashless transaction.

To sustain this momentum, Africa will need faster roll-out of point-of-sale (POS) infrastructure, which supports around 70 percent of the continent's retail electronic payments. Although the volume of POS transactions increased at an annual rate of 14 percent between 2012 and 2016, the number of POS devices increased at only 5 percent a year over the same period.

Payments are still dominated by banks, but a sizeable opportunity outside banking has emerged as a result of disruptive digital innovations. For example, Nigeria-based fintech

Paga allows customers to make money transfers and online shopping payments via their mobile phones; since its launch in 2009 it has signed on nearly six million active users. Mobile money application M-Pesa, launched by Kenyan mobile operator Safaricom in 2007, today has over 26 million customers. Newer players include Nigeria-based Paystack, which enables users to make payments via social media. Banks have responded with their own innovations, such as South Africa-based FNB's GeoPayments application, which allows payments between any users within 500 meters of one another; it has gained 1.5 million active users since its launch in 2012.

International remittances are an adjacent and profitable line of business. We expect the African international remittance market to bounce back in 2018 after currency devaluation in markets such as Egypt and Kenya put it under pressure in 2015 and 2016. Formal remittances are forecast to reach \$66 billion in 2018, up from \$61 billion in 2016. Of that, more than 80 percent is made up of remittances from outside Africa.



Chapter 3. Leaner, simpler banking

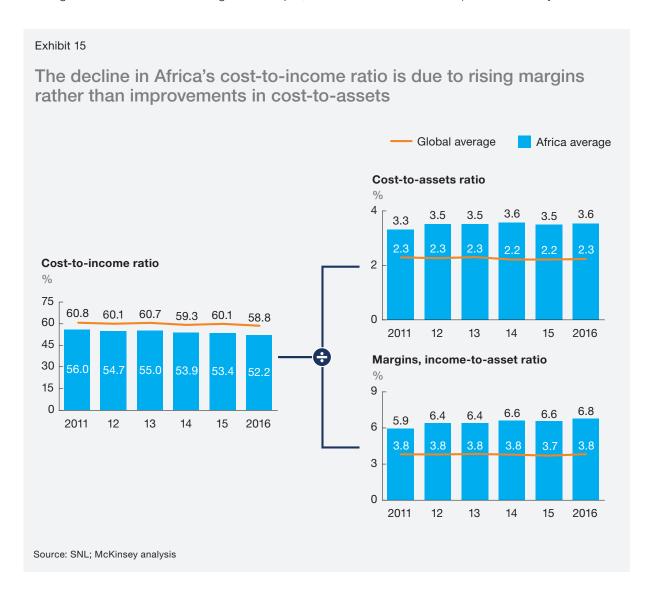
Though African banking as a whole is enjoying buoyant growth and profits, there is a wide gap between the leaders and the rest of the industry. If more banks are to achieve healthy profitability, they will need to make significant gains in productivity. In fact, we see productivity as the next frontier of improvement for African banking—with digitization, sales productivity, and back-office rationalization as the key thrusts.

Some progress on costs, but more work needed

African banks have made progress in reducing their cost-to-income (CTI) ratios in recent years. Among the African banks in our global sample,

CTI ratios fell from 56 percent in 2011 to 52 percent in 2016. This is lower than the global average of 59 percent, and significantly better than the average for banks in North America and Europe. It is also in line with CTI ratios in other emerging markets, such as the Middle East (47 percent in 2016), Latin America and Caribbean (48 percent), and Asia-Pacific (50 percent).

Africa's reductions in CTI are encouraging, but only tell part of the story. The reality is more sobering: Africa's improved CTI ratios have been driven by widening margins (measured by income-to-assets ratio) rather than by consistent





2011

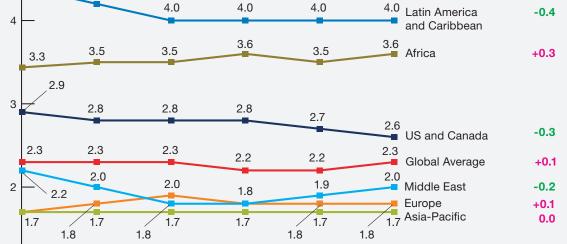
2012

At 3.6%, African banks have the second-highest cost-to-asset ratio in the world









2015

2016

2014

progress in improving productivity, as measured by cost-to-assets (Exhibit 15, page 29). In fact, at 3.6 percent Africa has the second-highest cost-to-assets ratio in the world. Eventually, margins will fall in Africa as they are doing in the rest of the world. African banks should therefore not be complacent. They need to improve their underlying efficiency.

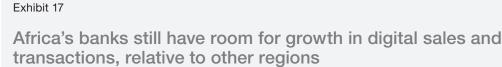
2013

The trend line is also worrying: Africa's cost-toassets ratio is going in the wrong direction (Exhibit 16). In all other regions, with the exception of Europe, productivity as measured by cost-toassets improved over the last five years. But then Europe is at already less than half Africa's level. Africa is falling behind on productivity, and banks need to act to arrest the decline.

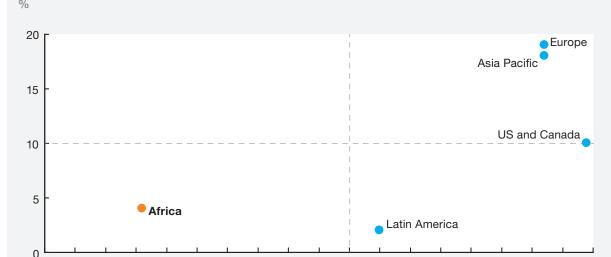
Three levers to improve productivity

Our analysis, together with our survey of African retail banking executives, points to three main levers for improving productivity.

¹ Local currency ratio, weighted by \$ income for each year. Note: Banks in sample (947): LatAm and Caribbean (6); Africa (35); US and Canada (625); Middle East (19); Europe (142); Asia-Pacific (120) Source: SNL



Share of total sales that are digital, 2016



Share of total transactions that are digital,² 2016

25

30

20

40

45

50

55

60

65

70

75

80

85

90

35

End-to-end digitization

0

10

15

The first lever is the digitization of customer journeys, which includes migrating transactions and sales from physical to digital channels, and automating processes from end-to-end. Nearly three-quarters (74 percent) of the executives in our survey identified these two elements as among the most important ways to increase productivity.

Africa's banks have a long way to go, as digital sales and transactions remain a very small proportion of the total (Exhibit 17). Just 16 percent of Africa's banking transactions in 2016 were digital—compared with 55 percent in Latin America

and 82 percent in Asia-Pacific. Similarly, just 4 percent of African banking sales were digital in 2016, compared to 18 percent in Asia-Pacific.

Banks can take number of actions to drive these numbers higher. The first step, of course, is to make services available on digital channels; then comes the work of educating clients about digital channels, pricing digital transactions attractively compared to those in physical channels, providing rewards programs for increased use of digital channels, and so on. Progress can be dramatic in a short period of time: McKinsey's Finalta benchmark on digital in banking shows that the five

¹ Core products include current accounts, deposit accounts, credit cards, unsecured personal loans, non-life insurance, and mortgages.

² Financial transactions include all customer-initiated third-party payments and inter-account transfers, including set up of standing orders and direct debits. Actual subsequent automated transactions are excluded. Source: Finalta; SNL

most improved banks globally on share of digital sales improved this measure by seven percentage points per annum over a five-year period.

Automating core processes from end-to-end must run in parallel with growth in the share of digital sales and transactions. McKinsey analysis suggests most banks run about 600 processes. However, automating the top 20 processes is likely to capture 45 percent of the benefits of digitization. Processes that typically offer disproportionate rewards from end-to-end automation include account opening, mortgage onboarding, personal loan applications, credit card issuing, cash handling, and basic client inquiries, such as balance requests.

Frontline productivity

Nearly one-third of the executives we surveyed tagged improvements in frontline productivity, leveraging analytics and data as a priority. African banks are often below emerging market benchmarks on measures such as on cross-selling, acquisition rates, and active accounts as a percentage of the total. Advanced analytics and frontline productivity can help banks meet and exceed these benchmarks.

We have seen several successful approaches. A bank in Kenya launched a series of data-driven cross-sell campaigns that achieved conversion rates of around 20 percent, about five times the previous rate. The same bank introduced a simpler cross-sell process at onboarding, resulting in an increase in the number of products sold at onboarding from 1.5 to 2.5. Banks in South Africa and Kenya have introduced specialists to support frontline staff in selling more sophisticated products, such as investments and insurance. A Nigerian bank introduced a service-to-sales initiative encouraging all staff in the branch to turn simple enquires or teller transactions into opportunities to surface client needs and introduce sales opportunities.

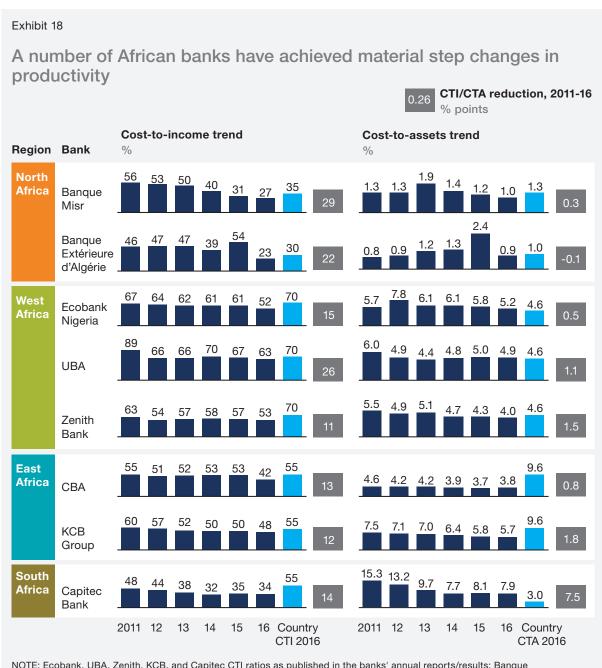
A final emerging trend in raising frontline productivity is personalization in marketing. Here, banks use advanced analytics to predict the "next-best product" for each customer. They then offer personalized product features; in the case of a loan, for example, a personalized interest rate and loan amount. The best banks globally will also make the offer on a digital platform, with a customized marketing message. For example, having observed the client searching home-renovation sites, the message might read: "Hi Kwame, ready for your next home renovation? You're two clicks away from a loan of \$5,300 at an exclusive interest rate of 12.5 percent."

Consolidate head- and back-office costs

Many African retail banks have excessive back offices in branches, often with as many staff in the branch back office as there are in the branch front office. The staff often labor under paperheavy, manual processes. Furthermore, relative to benchmarks, African banks often have a higher share of their total staff in support functions such as IT, risk, marketing, HR, and finance.

First, African banks need to consolidate operational processes in "factories," from their current decentralized presence across branches and product lines. This source of synergy, long captured by banks in the developed world, is not used to its full potential by African banks. Second, demand management and process redesign can eliminate redundant steps that bring little value to clients. Third, technologies such as robotics and artificial intelligence (AI) can deliver striking benefits. Robotics can be used to automate most repetitive operational tasks at little cost, while AI-enabled chat bots can handle up to 50 percent of client communication in call centers.

Finally, banks can do more to optimize non-staff costs. An example is the use of building space. Many banks have multiple "head offices" in one



NOTE: Ecobank, UBA, Zenith, KCB, and Capitec CTI ratios as published in the banks' annual reports/results; Banque Misr, Bank Extérieure d'Algérie, and CBA CTI ratios, and all individual bank cost-to-assets (average assets), calculated using bank annual report/results data extracted via SNL. Central bank data used to calculate country averages. Source: Bank annual reports and results presentations; Central bank supervision reports; SNL; McKinsey analysis

city—and often in the more expensive parts of town. Consolidating the number of head offices, reducing square meters used per person through initiatives such as open-plan seating, and shifting to lower-cost locations, can all contribute to reducing costs. Another example is procurement in categories such as IT, where virtualization can save 30 to 50 percent of data storage costs, and marketing, where return on marketing investment optimization can deliver 15 to 20 percent savings.

Showing the way: Africa's productivity leaders

A number of Africa's leading retail banks can serve as real-world examples of how these elements can lead to step changes in productivity. Our analysis identified eight banks across the continent that reduced their CTI and CTA ratios substantially between 2011 and 2016 (Exhibit 18, page 33); most ended up with CTI and CTA ratios significantly below the average in their home countries. Not all of these outperforming banks used all three levers: most were able to drive up productivity by focusing on just one or two. This suggests that even for top performers there may be further potential for improvement.

Consider Nigeria's Ecobank, which reduced its CTI ratio by nine percentage points in a single year-from 61 percent in 2015 to 52 percent in 2016—by focusing on headcount reduction, changes in procurement practices, and closure of branches. These were part of an explicit productivity improvement program the bank developed in response to worsening macroeconomic conditions and declining earnings. Staff numbers were reduced from 10,000 to 6,800 between January 2016 and September 2017, while 50 branches were closed (in part to complete postmerger integration following Ecobank's 2012 acquisition of Oceanic Bank in Nigeria). Ecobank also took an innovative approach to reskilling staff that had lost their jobs; for example, Ecobank partnered with Uber to train 1,500 laid off drivers as Uber drivers. The bank appointed a new procurement team that renegotiated supplier contracts and signed on new suppliers—resulting in a reduction in procurement costs of 40 to 50 percent.

A second example is Kenya Commercial Bank (KCB), which reduced its CTI ratio by 12 percentage points—to 48 percent—between 2011 and 2016. KCB started with a restructuring program in 2011, which included a reduction in directorlevel posts from 22 to 7, and the release of 120 staff. 10 In addition, KCB has been pursuing digitization through automation of front- and bank-end processes, and investment in digital channels. For example, with the introduction of mobile banking, loan applications skyrocketed. New loan disbursements increased to nearly four million in 2015, up from a historical average of approximately 200,000 per year. Although the loan values are small (\$25 to \$30), they contribute significant revenue, and are cost-effective as the bank has reduced loan-processing time from three days to 60 seconds.

. . .

African banks face a productivity challenge. At 3.6 percent, their cost-to-asset ratio is the highest of any region in the world, and has worsened in the recent past. While African banks' productivity challenge is masked by high margins for now, this will not always be the case. Eventually margins will fall. Banks need to take action now, to become significantly more productive—and several trailblazers are already showing the way.

¹⁰ https://www.capitalfm.co.ke/business/2015/04/banks-spend-sh5bn-to-lay-off-900-staff-in-the-past-three-years/



Chapter 4. Digital first

Africa's retail banks have compelling reasons to embrace digital transformation. Firstly, African banking customers are among the most enthusiastic adopters of mobile and digital channels of any developing region. Second, a number of disruptive competitors, including numerous mobile money players and digital attackers such as Tyme Bank in South Africa or Alat in Nigeria, are emerging and posing a threat to revenue share. Third, advances in technology are raising the bar—and the opportunity—for innovation; these include increased affordable computing power for processing big data; the rise of artificial intelligence and machine learning; robotics lowering the cost of automation; and blockchain. Finally, ecosystems, which have emerged most notably in China, are likely to become more of a feature in the African economy, and banks will need to have the digital sophistication to play a role as they develop.

In thinking about digitization in banking, it is important to first understand the voice of the customer; with this in mind, this chapter discusses a few insights into the behavior of the African banking consumer with respect to digital, and then outlines four approaches banks are taking in digital innovation.

African banking consumers have embraced digital

Africa's banking customers are more connected, more "online" than their counterparts in many other developing countries. Our research finds that 52 percent of urban Africans regularly use the Internet—the same proportion as urban Chinese, and well ahead of urban Brazilians (45 percent online) and Indians (24 percent). The large majority of African Internet users access the web via mobile devices—and most of them are young.

One-quarter of urban Africans are online at least 10 hours a week.

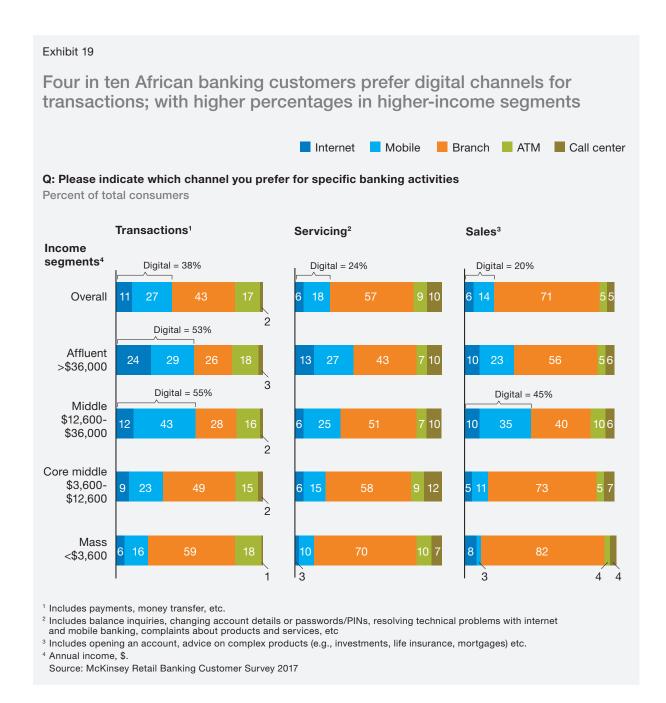
Given how digitally savvy they are, it is no surprise that African consumers express a strong preference for mobile and Internet banking over traditional branches. In our survey of 2,500 banking customers in six African countries, we looked at which channels clients prefer for specific banking activities (Exhibit 19).

The first conclusion is that a significant share of consumers prefer digital channels for transactions (38 percent), servicing (24 percent), and sales (20 percent).¹¹

Second, in some segments and for some activities, digital channels are preferred to the branch channel. For example, for transactions overall, branches have the overall edge, with 43 percent preferring branches, and 38 percent favoring digital. But customers in the two higher-income segments prefer digital. More than half (53 percent) of customers in the affluent segment prefer either Internet or mobile channels, compared to 26 percent that prefer the branch. The story is very similar in the middle market, where even more customers (55 percent) prefer digital channels over the branch (28 percent). Middle market customers are also the biggest fans of digital channels when it comes to sales-45 percent prefer Internet or mobile, compared to 40 percent favoring the branch. The branch is clearly far from dead, but we see a preference for digital channels in certain segments and for certain activities.

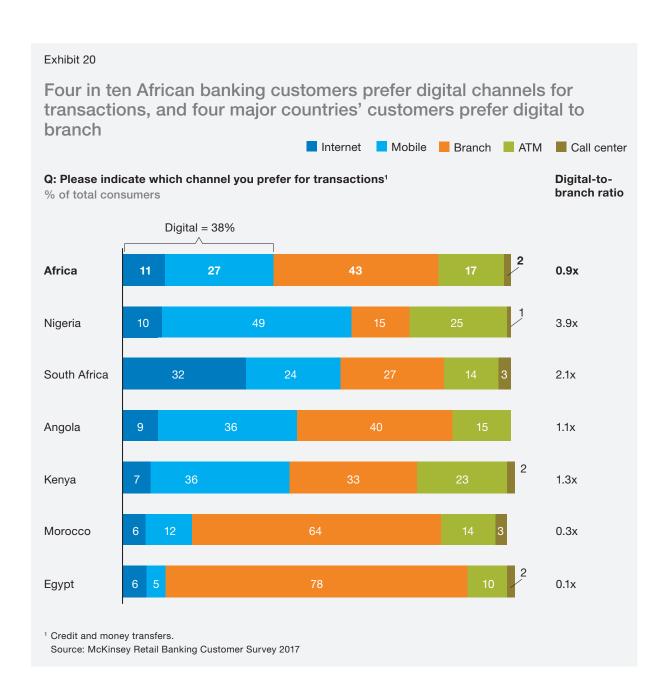
Third, among the digital channels, the future is clearly tilted towards mobile. Two to three times as many clients prefer mobile to Internet channels

¹¹ Transactions in this context include making a payment or transferring money. Service includes balance inquiries, changing account details or passwords/PINs, resolving technical problems with Internet or mobile banking, and complaints about products and services. Sales relates to opening an account or receiving advice on complex products.



across transactions, services, and sales. Mobile is also preferred to Internet banking across segments. This is consistent with data that shows that relative to Africa's population of 1.3 billion, there are just over 1 billion mobile connections in Africa—some Africans, of course, have more than one mobile connection.

Regional differences in client preferences for digital channels are also striking. Almost 40 percent of Africans prefer digital channels for transactions, compared to 43 percent that prefer the branch (Exhibit 20, page 38). Interestingly, in four of the six countries surveyed, more customers prefer digital channels to the branch for transac-



tions. For example, in Nigeria, 59 percent of customers prefer digital, compared to 15 percent that favor branches. Digital channels are also preferred to branches for transactions in South Africa (56 percent of customers versus 27 percent), Angola (45 versus 40 percent), and Kenya (43 versus 33 percent). Conversely, customers in Morocco and Egypt show little preference for digital.

Responding to digital disruption

While there are variations based on geography and level of assets, the overall picture shows that African banking customers are enthusiastic about digital banking channels. The question that follows is whether banks will be able to answer the call and provide these services. This question should be foremost in the minds of banking exec-

utives across the continent, as digital disrupters from outside the traditional banking arena are actively seeking to capture the opportunity—as are several innovative bricks-and-mortar banks. Indeed, fully 50 percent of African banking executives in our banking executive survey cited digital as their number one priority, and an additional 40 percent cited it as "very important."

The level of urgency is high. Banks need a rapid, robust response to digital disruption. We see four approaches open to African banks: end-to-end digital transformation, partnering for digital reach, building a new digital bank, or building an ecosystem.

End-to-end digital transformation

End-to-end digital transformation has two primary objectives: a significant upgrade of customer experience and a radical reduction in costs. To get there, banks must embark on a far-reaching digitization of customer journeys and other bank processes.

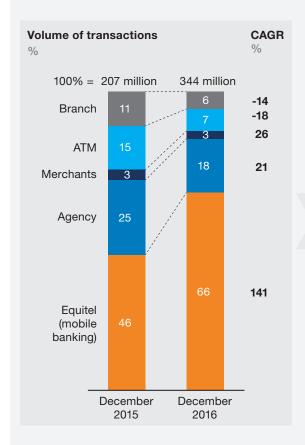
In its end-to-end digital transformation, Lloyds Bank, in the UK, focused on ten customer journeys, using agile delivery, deploying cross-functional customer journeys, and empowering product owners with P&L responsibility. Lloyds also modernized its IT architecture to extend the use of microservices, and cloud environments. The results were dramatic. Between 2014 and 2016, the number of customers using Lloyds' mobile channel grew from five million to eight million. Customer experience (as measured by Net Promoter Score) also improved rapidly, from 44 percent in 2011 to 59 percent in 2015. Finally, Lloyds's cost-to-income ratio fell from 55 percent in 2012 to 49 percent in 2015.

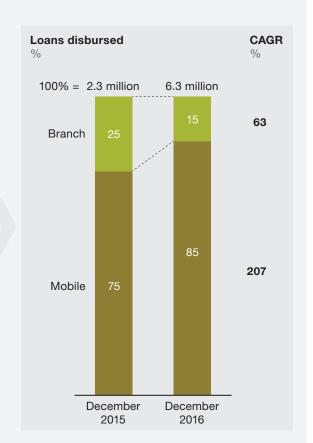
Closer to home, Kenya's Equity Bank successfully pursued its own digital transformation, introducing digital products and platforms including the flagship Equitel mobile banking and telephone service. Equity provides a full range of banking products on its digital channels; for example, Equiloan, a small-size, short-duration loan available on mobile phones. Like Lloyds, Equity also focused on digitizing certain customer journeys—for example, customer onboarding—on an end-to-end basis. In addition, Equity Bank migrated customers to digital channels, launching customer education programs in branches to onboard customers onto the mobile channels, and rapidly expanding the network of merchants who had point-of-sale payments acceptance devices, so there were more places for customers to transact digitally.

The results of Equity Bank's digital transformation are dramatic (Exhibit 21, page 40). By December 2016, Equity Bank had moved two-thirds (66 percent) of its transactions to the mobile channel, from just 46 percent a year earlier—an increase of 141 percent, given total transactions themselves significantly rose from 207 million to 344 million in the same period. For the Equiloan product, Equity moved 85 percent of loan disbursements to digital channels, from 75 percent the preceding year. This represented an annual increase in loans disbursed in the digital channel of 207 percent. In both transactions and loans disbursed, the mobile channel is far eclipsing the branch and other channels at Equity Bank. Banks across Africa can look to Equity Bank as an example of how quickly these metrics can be shifted.

Our experience suggests three main success factors for end-to-end digitization. The first factor is fundamental but often overlooked: a robust digital strategy that is a top priority of the bank's leadership. Leadership needs to be intricately involved in crafting the strategy, and then serve as role models and ambassadors for the transformation. Second, digital transformation requires true excellence in execution, often based on the introduction of agile methodology. ING in the

Equity Bank is rapidly migrating both transactions and sales to digital channels





Source: Equity Bank financial reports and website; press articles

Netherlands is the seminal example of how to introduce agile into an organization at scale. Third, successful digital transformations depend on adapting or adding to a bank's existing IT systems in multiple ways; for example, introducing a library of microservices or APIs, using cloud computing at scale, and leveraging technologies such as robotics and artificial intelligence.

Partnering for reach and innovation

The second response to digital disruption involves a bank partnering with a telco or a fintech

to transform its reach and accessibility to customers, and in product innovation. Partnerships can make sense for banks seeking a cost-effective model to serve low-income segments. It is a less resource-intensive option, making it a suitable play for a bank facing constraints in financial resources or talent.

Commercial Bank of Africa (CBA) is a high-end bank in Kenya that focuses on the corporate sector and high-income individuals, with a hightouch service model. CBA decided to enter the mass market, but with a low-cost model. The result was a partnership with Safaricom, Kenya's largest mobile network operator, and the launch of M-Shwari in 2012. M-Shwari combines interest-bearing savings, payments, and microloans. The account is issued by CBA, but must be linked to an M-Pesa account (M-Pesa is a mobile wallet offered by Safaricom) in order to withdraw and deposit funds. M-Shwari innovatively solved three challenges banks often face in serving the mass market—all through the power of the mobile phone as a channel for financial services.

- Cashing in and cashing out. Withdrawals and deposits must be done through M-Pesa via Safaricom's network of 130,000 agents. Thus, the cost of payments and cash remain variable to CBA, which is spared the huge fixed cost of deploying an extensive branch network and hundreds of tellers to serve the transactional needs of Kenya's mass market.
- Onboarding and KYC. Onboarding onto M-Shwari is a seamless process for existing M-Pesa clients. They simply find the M-Shwari application in the menu of their M-Pesa service and apply. The account is activated within 30 minutes. CBA cross-references existing KYC records collected by Safaricom and M-Pesa with the national ID system.
- Credit scoring. Credit scoring is done using a combination of transaction history and telco usage data. M-Shwari offers a 30-day loan with an average loan size of \$32, and a 7.5 percent facilitation fee. Application is via phone; if approved, the loan can be disbursed in seconds. M-Shwari can process 80,000 loan applications daily, and has kept nonperforming loans to a creditable 1.9 percent; in consumer finance this ratio can easily reach 7 to 8 percent.

The results of this partnership have been impressive. Total registered M-Shwari users have climbed

from 2.9 million in 2012 to 17.3 million, an annual increase of 56 percent. Total deposits connected to the product have grown on average 100 percent per annum (2012-16) to reach \$90 million.

CBA was one of the best-performing banks in Kenya between 2012 and 2016 (Exhibit 22, page 42), with growth of 23 percent per year during the period, second only to Bank of India, which has a small presence in the market. Profitability at CBA has also been robust, with ROE averaging 25 percent—among large banks, only Equity had a higher ROE during the period. Non-interest revenues have grown 21 percent per year, and profit before tax has surged to \$76 million after remaining below \$50 million the preceding four years. While CBA's performance cannot be solely attributed to M-Shwari, the innovative product clearly had an important role.

Elsewhere in Africa, Nigeria's Diamond Bank forged a partnership with MTN to launch the Diamond Y'ello account in 2014. The service offers financial, telecom, loyalty, and lifestyle benefits, and allows Diamond to reach unbanked and underbanked customers in Nigeria at reasonable cost. Financial products offered include an interest-bearing account; microloans; transfers, deposits and withdrawals, and bill payment.

Diamond Bank's number of customers trebled to 12 million between 2014 and 2017. Seven million of the 12 million had joined through the mobile channel, a clear demonstration of Y'ello's impact. Similar to CBA's experience with Safricom's agent network in Kenya, Diamond Bank benefited greatly from access to MTN's 50,000-agent force in Nigeria. There were also benefits for MTN's 58 million customers—including cheaper call rates for MTN-Y'ello users, and the opportunity to earn loyalty points by transacting on Y'ello. By 2017, Diamond Bank had reached a remarkable level of 80 percent of overall transactions through digital channels.



Building a digital bank

A third response to digital disruption is to create a standalone digital bank—that is, a bank where most transactions, sales, and servicing is done through digital channels. Digital banks typically have a very limited branch footprint, relying instead on digital channels and partner merchant or agent networks for distribution.

The digital bank option is most relevant for universal banks seeking to disrupt the market with a new brand without changing their own; or for banks seeking to accelerate their digital transformation without the cumbersome challenge of doing so on their legacy IT platforms. A digital bank can rapidly be designed and launched within 12 to 18 months, without having to compete with other priorities, and is usually staffed by new, specialist talent.

ALAT, Africa's first fully digital bank, was launched in May, 2017 by Wema Bank in Nigeria. ALAT targets the youth segment based on the three pillars of convenience, simplicity, and reliability. Customers need never enter a bank branch: they can open an account via mobile phone or Internet in under five minutes. Debit cards are delivered anywhere in Nigeria within two to three days, free of charge. ALAT also promises "no paperwork": photos of KYC documents can be uploaded via mobile app or website. Products include simple, automated savings plans that are goal-based and earn annual interest of 10 percent—triple the typical bank rate. Wema/ALAT was named Nigeria's "Best Digital Bank" and won "Best Mobile Banking App" in Nigeria in the 2017 World Finance Digital Banking Awards.

Another example is Air Bank, in the Czech Republic, launched in 2011 with the goal of becoming "the first bank that people like." The bank aims for transparency and simplicity. There is a one-page price list with no small print, no hidden fees, and just five basic products—a current account, a savings account, a debit card, and loan and mortgage offerings. There are 34 stylish, cashless Air Bank branches in high-profile locations across the Czech Republic, most open from 9am to 9pm, seven days a week. With its innovative but simple approach, Air Bank became profitable within three years of launch and captured 4 percent of the market within five years.

Building or joining an ecosystem

McKinsey's 2017 Global Banking Annual Review went into depth about "platform companies" that aggregate multiple producers of different products or services to make it easy for consumers to purchase them, typically on their smartphones. Platform companies such as Uber, Amazon, and Alibaba are blurring traditional industry boundaries, creating "ecosystems" in areas such as housing, education, healthcare, B2C market-places, travel, and hospitality.

Platform companies that orchestrate these ecosystems will become the de facto interface for customers across multiple services; and financial services players are at risk of being reduced to white-label manufacturers for the platform player. Already, in China, digital attackers managed \$6.5 trillion in transactions in 2015, five times the level just two years earlier, and exceeding the \$6 trillion in offline point-of-sale transactions handled by traditional banks in 2015. Similarly, digital attackers increased their share of the unsecured

lending market in China from 1 percent in 2013 to 25 percent in 2016.

Alipay, which builds on Alibaba's ecosystem, is a "one-stop lifestyle app" that gives customers access to several services, including travel, hospitality, taxis, and mobile payments at merchants. Alipay grew from 100 million users in 2012 to 451 million users in 2015. In the same period, Alipay grew transactions from \$0.3 trillion to \$1.8 trillion. Alipay commands 48 percent market share of online payments, and 68 percent market share on in-store mobile payments.

Banks seeking to participate in the ecosystem economy can take one of several approaches. They can participate in an existing ecosystem as a provider of financial services, such as payments, credit, or savings. More ambitiously, banks can orchestrate providers involved the end-to-end customer journey in a particular area; in housing, for example, the journey would include searching for property, obtaining finance, moving services, renovations and more. Banks such as Denmark's Danske and Australia's CBA have taken this approach. Finally, and most ambitiously, banks can seek to build their own ecosystem, and coordinate the partners required across multiple ecosystems.

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Digital transformation is a must for Africa's retail banks. Customers prefer digital. Disruptive competing offers are emerging in country after country. The technologies to accelerate digital transformation are readily available at increasingly reasonable costs. Retail banking leaders now need to decide which path to take in their digital transformation, then execute.

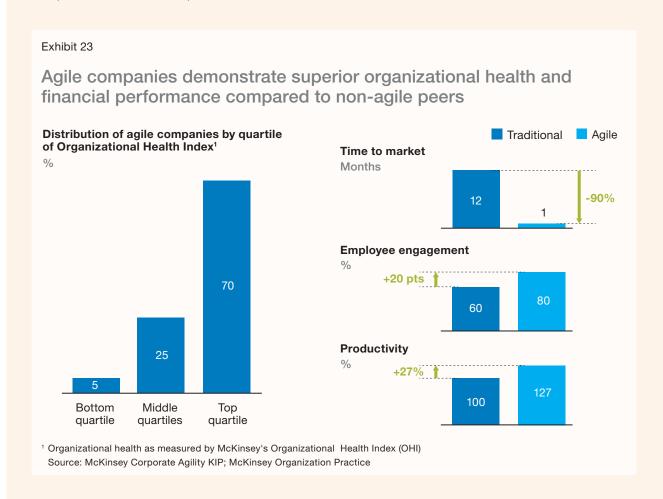
The role of agile in digital transformation

To succeed in their digital transformation, Africa's incumbent banks must strive to emulate the speed, dynamism, and customer-centricity of digital players. In other words, they require a high degree of organizational *agility*—the ability to quickly reconfigure strategy, structure, processes, people, and technology toward value-creating and value-protecting opportunities.¹²

Previous McKinsey research has shown that 70 percent of "agile" companies rank in the top quartile in terms of organizational health, as measured by McKinsey's Organizational Health Index (OHI) (Exhibit 23). This translates into significantly better operational results compared to traditional

peers. For example, an agile organization's average time to market is one month versus 12 for traditional companies; productivity is 30 percent higher at an agile company than a traditional company; and employee engagement is one-third higher.

In 2015, inspired by companies such as Google, Netflix, and Spotify, ING initiated a shift to an agile model. ING's own executives define *agility* as "flexibility and the ability of an organization to rapidly adapt and steer itself in a new direction. It's about minimizing handovers and bureaucracy, and empowering people."



 $^{^{\}rm 12}$ "How to create an agile organization," McKinsey & Company, October 2017

In developing its agile model, ING focused on the "delivery" part of the organization; that is, on the people that make digital and non-digital "products" for customers. They excluded sales, support functions, and operations. The bank established about 350 nine-person multidisciplinary "squads" that comprise a mix of marketing specialists, product and commercial specialists, user-experience designers, data analysts, and IT engineers—all focused on solving a specific customer problem. The squads are organized in 13 "tribes," each with an average of about 150 people.

Each tribe has a mission. For example, the mortgage tribe might have a mission to help customer's find, finance and move into their dream homes, with peace of mind, speed, and a great experience. The tribe will then have a number (e.g., 15) squads delivering products that relate to that mission. Each squad needs to deliver a product every quarter. And every quarter, there is a ceremony where the tribe leads explain the accomplishments of the squads in their tribe, what the tribe will focus on for the next quarter, and any dependencies the tribe has on other tribes.

ING has already improved time to market, boosted employee engagement, and increased productivity. 13 Adopting the agile approach has helped ING position itself as the leading mobile bank in the Netherlands. The bank releases software on a two-to-three-week basis, rather than the previous five or six times a year. Customer satisfaction and employee engagement scores are up several points.

¹³ "ING's agile transformation," McKinsey Quarterly, January 2017.

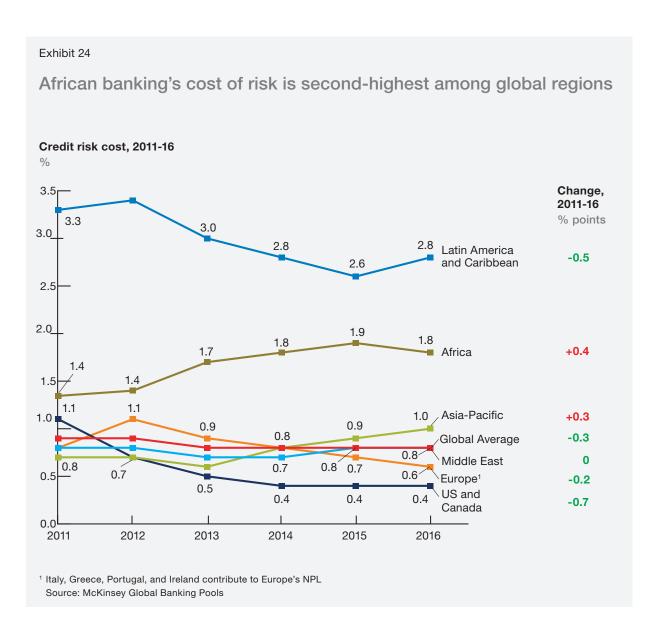


Chapter 5. Innovate on risk

As large numbers of African households have entered the consuming class for the first time, and businesses across the continent have grown their footprints, banks have expanded their loan books rapidly. But credit risk management practices have lagged behind, across the major steps of the credit value chain, including defining risk appetite, underwriting, loan monitoring, and collections. Nonperforming loans (NPLs) are thus a significant issue for Africa's banks. Some banks are now taking decisive action to improve their credit risk and rein in NPLs.

African banks trail other regions in credit risk

Despite the buoyant performance of Africa's banks, they have the second-worst cost of risk in the world, at 1.8 percent of assets in 2016—up from 1.4 percent in 2011. Only Latin America's banks have a higher risk cost, at 2.8 percent of assets. The uptick in African banks' risk cost is particularly concerning given that banks in most other regions have reduced risk cost over the past five years (Exhibit 24).



Africa also has the second worst NPL ratio of any region, at 5.1 percent of all bank loans. Reflecting the recent slowdown in several of the continent's largest economies, African banks' NPL ratio has crept up by 0.7 percentage points over the past three years.

A five-year view reveals strong geographical differences both on current risk cost and the trajectory in different parts of Africa. Between 2011 and 2016, banks in West Africa experienced a sharp increase in risk cost—from 2.3 percent to 4.1 percent. The increase reflects declining demand for commodities and reduced oil prices that have put a strain on economies, resulting in high NPLs. East Africa, too, has seen risk cost roughly double to 1.7 percent. In 2016, for example, the Central Bank of Kenya tightened supervision of lending practices in nation's banks, a move that saw three banks go into receivership. North Africa also saw cost of risk roughly double to one percent, with high NPL ratios resulting from several major corporate bankruptcies in the oil, real estate, and maritime transportation sectors—but the situation is improving. In South Africa, the risk cost and NPL picture actually improved in the five years to 2016, thanks to the country's recovery from the 2008 financial crisis.

A new approach to credit risk management

Our survey of African banking executives shows that better credit risk management is a key priority for banks—including making improvements in credit monitoring, adjusting risk appetite, and strengthening credit underwriting. Forty-three percent of executives said better credit monitoring was the most important area to strengthen, while 38 percent cited better credit underwriting, and 19 percent said adjusting risk appetite was most important.

The survey also shows that banks across Africa have implemented a wide range of credit underwriting innovations in recent years. The most commonly adopted innovations are the use advanced analytics, including machine learning (cited by 63 percent of respondents), and the use of nonbank

data (52 percent). Fully 47 percent reported using social media data in their credit underwriting, while 37 percent use telco data. To manage and mitigate credit risk losses effectively, banks must continue to innovate and implement improvements across the credit value chain.

We see three main avenues for innovation for banks seeking to profitably serve the growing consumer lending opportunity in Africa:

Underwriting

To improve underwriting, banks can partner with telecom operators to gather additional data on their customers' airtime purchase and consumption patterns. Advanced analytics models can draw on customer data from both external and internal sources and provide input for improved underwriting.

At least three Kenyan banks are taking this route. CBA, Equity Bank, and Kenya Commercial Bank (KCB) have each partnered with a telecom company to use borrowers' mobile data, voice services, and mobile money usage as an indicator of their income and ability to repay. This has allowed the banks to underwrite loans for the mass markets with credit loss rates well below the industry average.

Other innovations of note include the use of retail store purchase data to run digital credit assessment (DCA) for loan underwriting. A Central American bank used granular purchase data—including the location of purchase, the mode of payment, the item bought, and the price paid—as an indicator of borrowers' income and ability to repay loans. This helped the bank unlock growth in a new lending market, and reduce its credit losses by 30 percent.

In India, a nonbank financial institution used customer data such as age, marital status, residence ownership, total credits to account, balance fluctuations, and obligations to build a sophisticated

underwriting model that determined the total credit it should underwrite for each customer.

Payroll lending

Several African banks are offering loans to salaried employees of governments or reputable companies, under a signed agreement to deduct the loan payment from the employee's pay, at the time the employer pays it to the employee. The maximum loan tenure for these "payroll" or "scheme" loans is typically determined by the borrower's employment status (i.e., whether they are on a permanent or a fixed contract) and their years to retirement age. The loan amount is usually calculated according to the client's "affordability"—some fraction (e.g., 50 percent) of the client's disposable income after tax and other deductions. The interest rate is typically negotiated between the bank and the employers.

Several banks and microfinance institutions are notable examples. Access Bank in Nigeria, which issues loans of up 75 percent of an employees' net annual salary, achieved a remarkably low NPL ratio of 2.14 percent in 2016—compared to an industry average of 14 percent in West Africa. Letshego, headquartered in Botswana, issues smaller loans across 11 African countries, and its 2016 NPL ratio was just 3.2 percent. Bayport offers payroll lending in seven African countries, and two in Latin America.

Portfolio monitoring and collections

Other African banks are proactively managing credit risk and the collections of NPLs. An East African bank that was experiencing high NPL ratios and high NPL growth—caused in part by historical debt that had gone into arrears—took action by instilling proactive credit management practices across the credit value chain—helping the bank reduce its credit risk cost by 50 percent and double the amount recovered. Key steps in achieving these outcomes included:

 Improving credit monitoring and portfolio controls. The bank segmented clients in early arrears to prioritize them efficiently, and ensured that the strongest collectors were assigned to the largest loans. The bank also expanded its early arrears team and strengthened their capabilities; improved its process for acting on early arrears; and made greater use of automated SMSs and emails to encourage customers to make repayments.

Enhancing collection strategies. The East African bank boosted the size and capability of its NPL recovery team, and engaged external debt collectors. It also improved the cadence of NPL recovery to improve performance; for example, it introduced a daily "check in" and "check out" for its recovery team, to review daily accomplishments and priorities. Finally, an incentive program for the recovery team recognized and awarded the highest collectors on a weekly basis. Beyond this example, there have been significant advances in collections stemming from the profusion of customer touch points e.g., digital, SMS —and analytics that pinpoint which customer profiles to contact, and the type, timing, and tone of the contact. Latin American banks, in particular, have some of the most technologically advanced collections techniques to be found in emerging markets.

. . .

Africa's banks have performed poorly on risk cost. They have seen cost of risk rise from 1.4 to 1.8 percent between 2011 and 2016, a level that is second only to Latin America at 2.8 percent. All other regions, bar Asia-Pacific, saw risk costs decline in this period. This rise in risk costs has coincided with huge opportunities for African banks in consumer finance, as discussed earlier. Innovating on risk therefore becomes critical—in underwriting, monitoring, and collections. Data and analytics are opening new possibilities for profitable business models, especially when combined with the use of mobile as a channel for consumer lending.

The regulatory scene

Africa's banks need to keep a close watch on changing regulations and strengthen their compliance processes. Across the continent, regulators are increasing the volume, frequency, and enforcement of regulatory changes—leading many banks to rethink their revenue-generation models. In our executive survey, senior managers of African banks identified capital adequacy, consumer protection, and know-your-customer (KYC) regulations as the areas most likely to impact profits over the next five years. Recent banking regulation in Africa has focused on five categories (Exhibit 25):

- Anti-money-laundering/KYC. The Central Bank of Nigeria introduced anti-money-laundering regulations in 2013, with enforcement in 2017. South Africa's Financial Intelligence Centre Act (FICA) was updated in 2016 to ensure banks had sufficient controls to prevent money laundering and the financing of terrorism.
- Increased consumer protection. In 2016, Kenya capped interest rates at four percentage points above the central bank's reference rate while requiring that deposit rates must be at least 70 percent of the central bank reference rate.
- Reduction of public-sector deposits. In 2017, the government of Tanzania directed that billions of shillings held in commercial banks by ministries, public corporations, and local government authorities be immediately transferred to the Bank of Tanzania. Under Ghana's Public

Financial Management Act 2016, the government set up a unified structure of government bank accounts, enabling consolidation and optimum utilization of government cash resources.

- Increasing capital adequacy. In 2017, Tanzania increased the capital adequacy ratio (CAR) by 2.5 percent to 12.5 percent and 14.5 percent for core and total CARs respectively. Nigeria, in 2016, increased CAR to between 15 and 16 percent for systemically important banks.
- IFRS9. Under this new accounting standard, banks will have to recognize credit losses sooner than under previous reporting standards. While South African banks are adopting IFRS9 in 2018, most African countries are still in preparation mode; Kenya banks, for example, have been granted a five-year grace period

We analyzed the impact of some of these regulations in the countries where they have been applied, to gauge potential impact (in the absence of any mitigating actions by the banks). For example, Kenya's capping of interest rates in 2016 provides a taste the impact of increasing consumer protection: in the first half of 2017, Kenyan banks saw their income from interest fall by a reported 16 percent and profits decline by 11 percent. If unmitigated, the impact on Kenyan banks' ROE could be as high as 4 to 4.5 percent. Also if unmitigated, We estimate similarly high impacts of regulation related to reduction in public

¹⁴ "Interest rates cap shaves Sh26bn off banks' income," Business Daily Africa, September 12, 2017.

deposits, and increased capital adequacy requirements. A lower impact, in the range of 1 to

1.5 percentage points of ROE, is expected from AML/KYC and IFRS 9 regulations.



Conclusion

Africa's banking markets are roaring to life. They will grow robustly over the next five years, and as a group, Africa's banks are the second-most profitable on a global level. At the same time, Africa's banking markets continue to present a set of challenges—including large numbers of low-income customers, high usage of cash, and low levels of physical distribution—and are also highly varied, from the relatively advanced markets of South Africa and Morocco, to the nascent markets of Ethiopia and DRC.

Against this complex backdrop, there is a clear delineation between the winners and the alsorans. Leading banks are significantly outperforming their peers in terms of growth and profitability,

and are characterized by their focus on one or more of five themes: drawing the right map; selecting the right segments and offering compelling propositions; offering leaner, simpler banking; putting digital first; and innovating on risk.

If more African banks were to focus effectively on these themes, we would expect retail banking to grow at 12 percent per year, versus the baseline projection of 8.5 percent. We look forward to this future of greater, more widespread innovation and growth in Africa's banking markets. The technologies that enable this growth have never been more widely available, and the market needs remain as large as ever.

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For more information about this report, please contact:

Mutsa Chironga

Partner, Johannesburg mutsa_chironga@mckinsey.com

Luis Cunha

Senior Partner, Johannesburg luis_cunha@mckinsey.com

Hilary De Grandis

EMEA Banking Practice Manager, Johannesburg hilary_de_grandis@mckinsey.com

Mayowa Kuyoro

Consultant, Lagos mayowa_kuyoro@mckinsey.com