



Evolution of Commercial Banking

Presentation to MUBS Yr 1 Master of Science in Banking & Investment Students

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Agenda

- 1. What is a Commercial Bank?**
- 2. Banking Innovations / Evolution**
- 3. Bank Failures**
- 4. Bank Capital**
- 5. Emerging Issues & Trends in Banking**

1. What is a Commercial Bank?

A commercial bank is a financial institution that accepts deposits from the public and provides loans for various purposes. They play a crucial role in the economy by facilitating financial transactions, mobilizing savings, and providing credit

Key Functions



Accepting Deposits: Commercial banks accept deposits from individuals and businesses in the form of savings accounts, current accounts, and fixed deposits. These deposits serve as the primary source of funds for lending activities.



Granting Loans: Banks lend money to individuals and businesses for various purposes, such as home mortgages, auto loans, business loans, and personal loans. Interest charged on these loans is a major source of income for banks



Providing Financial Services: Beyond traditional banking services, commercial banks offer a wide range of financial services, including:

- **Investment Banking:** Providing advisory services on mergers and acquisitions, initial public offerings (IPOs), and other corporate finance activities.
- **Wealth Management:** Offering personalized financial planning and investment advice to high-net-worth individuals.
- **Insurance Services:** Providing insurance products like life insurance, health insurance, and property insurance

Facilitating Payments: through various channels, such as:

- **Check Clearing:** Processing and clearing checks.
- **Electronic Funds Transfer (EFT):** Enabling electronic transfer of funds between accounts.
- **Debit and Credit Cards:** Issuing debit and credit cards for convenient transactions



Importance of Commercial Banks



Mobilizing Savings: They collect savings from individuals and businesses, which are then channeled into productive investments



Providing Credit: Banks provide credit to businesses, which helps stimulate economic growth and job creation



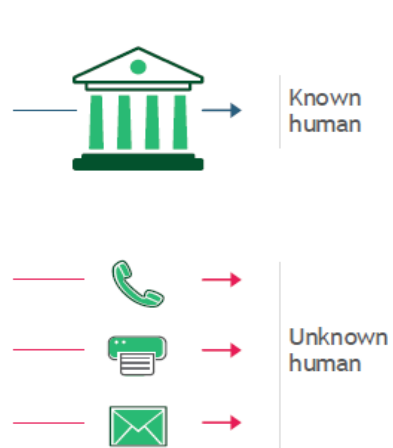
Facilitating Economic Transactions: They facilitate smooth financial transactions, making it easier for businesses to operate and individuals to manage their finances



Promoting Economic Stability: Banks play a crucial role in maintaining financial stability by managing liquidity and credit risk

2. Banking Innovations (Evolution) (1/3)

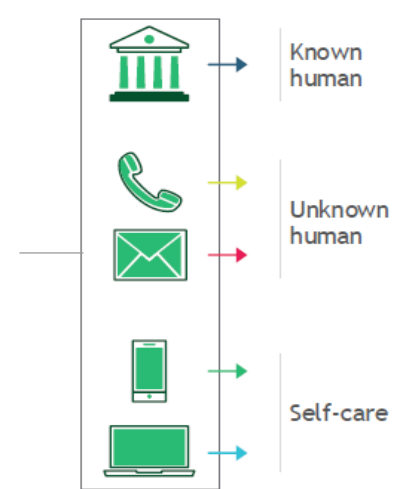
According to BCG, the Banking sector is evolving in several ways, e.g. retail banks are moving from branch-centric & multichannel models to multi-journeys with differentiated delivery for customers



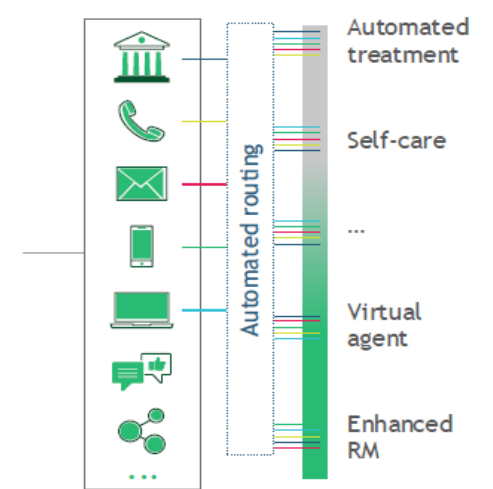
- Branch as the pivot of the client-bank relationship
- Other channels support or back-up



- Different channels are available to the customer, yet **with limited interconnections**
- Customer picks a channel, as each one gives access to a specific delivery option
 - **Branch:** known human
 - **Contact Center:** unknown human
 - **Web/mobile:** selfcare



- **Interconnected channels:** clients navigating from one channel to another based on their preference for a given action, or due to technical constraints
- Customer switches between channels to access the right delivery option
 - **Branch:** known human
 - **Contact Center:** unknown human
 - **Web/mobile:** selfcare



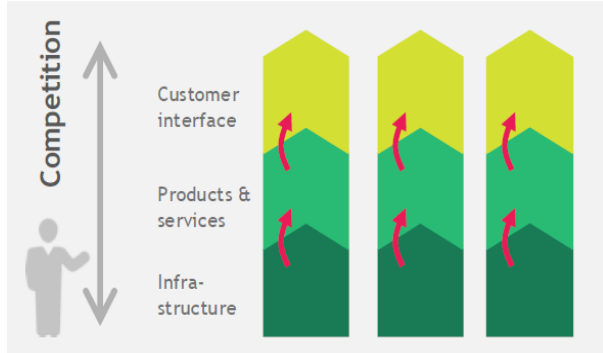
- **Multiplication of contact points** (e.g., new devices and/or APIs)
- Customer has **interactions along the journey** according to his/her contact preferences: **Requests are automatically routed** to the most relevant delivery options
 - From 100% automated to human assisted by machine
 - Automated routing leveraging AI, based on cost to serve, client preferences, nature of request

Majority of East African banks are here

2. Banking Innovations (Evolution) (2/3)

Banking value chains are being broken up into “stacks” due to decreasing transaction costs

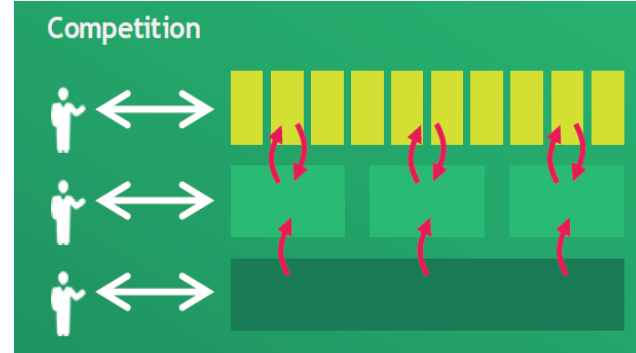
1990s: Value Chains



A **value chain** is a linear sequence of activities that a company performs to create value. It breaks down a business process into primary activities (that create / deliver a product / service) and secondary activities (support the primary activities).



Future: “Stacks”



A **stack** is a layered architecture where different components or services are built on top of each other. Each layer provides specific functionalities and can be replaced or upgraded independently.

Source: BCG research

Existing models

Newer models

	Digitized Full-Service Bank	Open Bank	Ecosystem	Product Engine	Direct Bank	Neobank	Specialist Provider	Marketplace
Description	Offers closed catalog of own products through own best-in-class digital channels and own branch network	Manufactures & distributes own products but extends reach by participation in marketplaces / ecosystems	Orchestrates products / services including in non-banking customer journey through extensive partnerships	Manufactures best-in-class products to be distributed mainly through third party channels	Offers features of Full-Service Bank but without branch network; primarily focused on securing deposits	Built for mobile on new tech stack. Narrow product focus (e.g. transaction acct); imports products and services from 3rd parties	Orchestrates products / services including in non-banking customer journey through extensive partnerships	Manufactures best-in-class products to be distributed mainly through third party channels
Legend	 In-House Outsourced							
Customer interface	[Solid Green]	[Green] [Grey]	[Solid Green]	[Grey] [Grey] [Grey] [Grey]	[Solid Green]	[Solid Green]	[Green] [Grey] [Grey] [Grey]	[Solid Green]
Products and services	[Solid Green]	[Green] [Grey]	[Grey] [Grey] [Grey] [Green]	[Solid Green] [Grey]	[Solid Green]	[Grey] [Green] [Green] [Green] [Grey]	[Green] [Grey] [Grey] [Grey]	[Grey] [Grey] [Grey] [Grey] [Grey]
Infrastructure	[Solid Green]	[Solid Green]	[Grey] [Grey] [Grey] [Green]	[Green] [Grey] [Grey] [Grey]	[Solid Green]	[Grey] [Green] [Green] [Grey]	[Green] [Grey] [Grey] [Grey]	[Grey] [Grey] [Grey] [Grey]

2. Banking Innovations (Evolution) (3/3)

“Stacks” Case study: AliPay has built a full ecosystem of financial services

2004

Today

Starting from payments...

“

Initially, Alipay was just created to facilitate our E-commerce, since sellers & buyers didn't trust each other

Alibaba insider

”

AliPay is becoming one of the largest payment actors in the world

- \$ 600bn in online transaction value (50% m.s. in China)
- \$ 750bn in mobile transaction value (80% m.s. in China)

... Alibaba built a complete new financial ecosystems

	Product	Description
Loan	Ant Micro Loan	<ul style="list-style-type: none"> • Loans for micro & small enterprises • >1.7M business customers & RMB 450bn loan amount
	Ant Check Later (Huabei)	<ul style="list-style-type: none"> • Credit-based late payment service • Transaction amount limit: RMB 5k
Savings	Yu'e bao	<ul style="list-style-type: none"> • Investment product with 226M users • Yu'e bao now ranks the second money market fund in world & the first in China (> RMB 6Tn size)
Credit	Sesame Credit	<ul style="list-style-type: none"> • 3rd-party credit evaluation institution
P2P	Zhaocaibao	<ul style="list-style-type: none"> • P2P platform with > 7M users & > RMB 270bn transaction scale
Bank	MYBank	<ul style="list-style-type: none"> • Online bank targeting SMEs & individuals • Expected to reach 10M business clients and hundreds of millions retail clients within 5y • Business valued at around \$ 5.5bn

3. Banking Failures

Bank failures are complex events often stemming from a combination of factors

Poor Risk Management:

- **Subprime Mortgage Crisis (2007-2008):** Many banks, including Lehman Brothers and Washington Mutual, made risky bets on subprime mortgages. When the housing market collapsed, these banks suffered significant losses.
- **Excessive Lending:** Banks may lend too much money (loan-to-deposit ratio >100%), especially to risky borrowers. If these loans default, the bank's financial health can deteriorate.

Economic Downturns

- **Great Depression (1929-1933):** A severe economic downturn led to widespread bank failures as businesses and individuals defaulted on loans.
- **COVID-19 Pandemic:** Economic shutdowns and uncertainty caused many businesses to struggle, leading to increased loan defaults and bank failures.

Liquidity Crises

- **Northern Rock (2007):** A liquidity crisis, triggered by concerns about the bank's exposure to the subprime mortgage market, led to a run on the bank by depositors

Bank Failure



Bank Failure

is



A bank's inability to meet its financial obligations

which



Results in its closing down by the federal or state regulators

Regulatory Compliance Issues

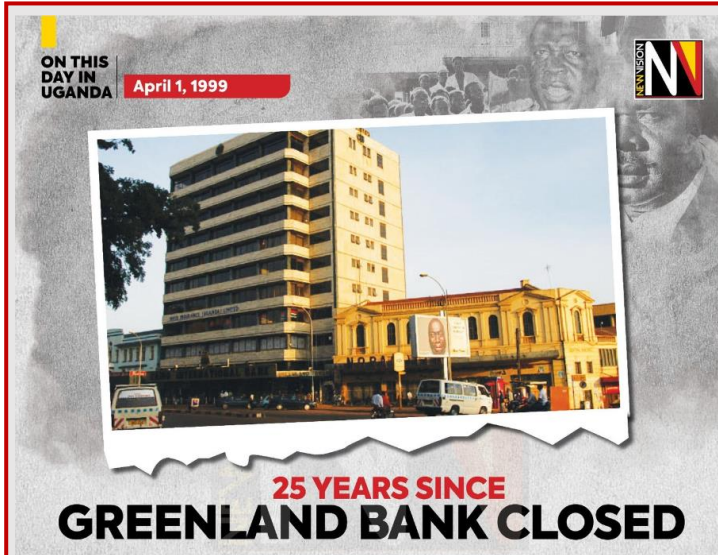
- **Deutsche Bank (Recent Years):** The bank has faced numerous regulatory fines (e.g. \$186Mn in 2023 in US; EUR 50k in 2024 in Germany); and investigations related to money laundering, interest rate manipulation, and other misconduct.

Fraud and Mismanagement:

- **Barings Bank (1995):** A single trader, Nick Leeson, engaged in unauthorized speculative trading, leading to massive losses that ultimately caused the bank's collapse.
- **Wells Fargo (2016):** The bank was embroiled in a scandal involving employees creating millions of fake accounts to meet sales targets

3. Banking Failures

Case Study: 1999 Greenland Bank collapse – Uganda



Key Factors Leading to the Collapse:

- 1. Poor Corporate Governance:**
 - Weak internal controls and risk management systems.
 - Lack of independent oversight and accountability.
 - Ineffective board of directors.
- 2. Insider Lending:**
 - Loans were extended to related parties and insiders without proper due diligence and collateral.
 - These loans often went sour, contributing to the bank's financial distress.
- 3. Lack of Transparency:**
 - The bank's financial statements were not accurate or reliable.
 - Information about the bank's financial health was not disclosed to regulators or depositors.
- 4. Economic Shocks:**
 - The Asian financial crisis of 1997 had a negative impact on the Ugandan economy, leading to increased loan defaults and reduced economic activity.

- Greenland Bank was closed on April 1, 1999 and its Managing Director was arrested and charged with violating Financial Institutions Statutes related to lending practices
- The Bank had exhibited strong growth in the 7 years of its existence and became a prominent player in the Ugandan Banking sector

Lessons Learned for the Banking Sector:

The collapse of Greenland Bank and other Ugandan banks highlighted the importance of strong regulatory frameworks, effective supervision, and transparent corporate governance. The Bank of Uganda has since implemented reforms to strengthen the banking sector, including:

- 1. Enhanced Regulatory Oversight:** Increased scrutiny of banks' financial health and risk management practices.
- 2. Stricter Corporate Governance Rules:** Imposing stricter rules on board composition, executive compensation, and related-party transactions.
- 3. Improved Deposit Insurance:** Strengthening the deposit insurance fund to protect depositors' interests.
- 4. Early Warning Systems:** Implementing early warning systems to identify potential problems and take timely corrective action.

4. Banking Capital (1/4)

There are two main types of bank capital: equity and subordinated debt which can also be classified into Tier I and Tier II capital, respectively

Equity Capital: is the core capital of a bank and represents the ownership stake of shareholders. It includes:

- **Common Stock (Ordinary share capital / Common equity):** Shares issued to investors representing ownership in the bank.
- **Retained Earnings:** Profits that the bank has earned and kept over time.
- **Disclosed Reserves:** Reserves set aside for specific purposes, such as future losses or investments. (e.g. comprehensive income reserve)

Also known as **Tier I capital** as it includes common stock, retained earnings, and disclosed reserves. It is considered the strongest form of capital as it is readily available to absorb losses.

Sample Publication: Stanbic Uganda 2023 Half Year results

Shareholders' equity and liabilities			
Shareholder's equity			
Ordinary share capital	51,188,670	51,188,670	51,188,670
Fair value through other comprehensive income reserve	13,769,315	3,750,939	10,129,128
Retained earnings	1,611,683,236	1,526,147,669	1,536,457,261
Proposed dividends	125,000,000	-	185,000,000
Total shareholders' equity	1,801,641,221	1,581,087,278	1,782,775,059

Minimum Capital Requirements for Commercial Banks in East Africa







	Value	GDP (*2023)
Uganda	USD 41Mn (UGX 150Bn)	USD 49.3Bn
Kenya	USD 7.6Mn (UGX 27.8Bn)	USD 79.2Bn
Tanzania	USD 5.6Mn (UGX 20.5Bn)	USD 107.4Bn
Rwanda	USD 14.6Mn (UGX 53.5Bn)	USD 14.1Bn

Source: *World Bank

How Banks Raise Capital:

Banks can raise capital through a variety of methods:

- **Issuing new shares:** This involves selling new shares of stock to investors. 
- **Retaining earnings:** This involves reinvesting profits back into the bank. 
- **Issuing subordinated debt:** This involves issuing debt that is subordinate to other debt, meaning that it will only be repaid after other creditors have been paid. 
- **Selling assets:** This involves selling assets that are no longer needed or that are not generating a sufficient return. 

4. Banking Capital (2/4)

Tier II capital is considered less reliable than Tier 1 capital as it is more difficult to accurately calculate and is composed of assets that are more difficult to liquidate

Subordinated Debt: is a form of debt that ranks below other forms of debt in terms of priority for repayment. It is considered a secondary source of capital and includes:

- **Hybrid Capital Instruments:** Debt instruments with characteristics of both debt and equity, such as convertible bonds or preferred stock.
- **Subordinated Term Debt (sub-debt):** Long-term debt that is subordinated to other debt obligations

Also known as **Tier II capital** comprising of undisclosed reserves, revaluation surplus, and subordinated debt. It is considered less reliable than Tier 1 capital as it is more difficult to accurately calculate and is composed of assets that are more difficult to liquidate.

Important considerations on Tier II Capital:

- Tier II capital is **subject to certain restrictions and limitations.** For example, the amount of Tier II capital that a bank can hold is typically limited to a certain percentage of its Tier I capital
- Tier II capital is **not as stable as Tier I** capital. This is because it can be more volatile and can be subject to losses in the event of a market downturn
- Tier II capital is **an important part of a bank's overall capital structure.** It helps to ensure that a bank has enough capital to absorb losses and maintain its financial stability

Sample Publication: *with Sub-debt - BOA Uganda

	2015 USHS M	2014 USHS M
CORE CAPITAL (TIER 1)		
SHAREHOLDER'S EQUITY	70,389	49,178
RETAINED EARNINGS	13,998	11,851
INTANGIBLE ASSETS	(4,022)	(3,378)
DEFERRED INCOME TAX ASSET	(15,991)	(10,305)
UNREALIZED FOREIGN EXCHANGE GAINS	-	(4,858)
TOTAL CORE CAPITAL	64,374	42,488
SUPPLEMENTARY CAPITAL (TIER 2)		
GENERAL PROVISIONS	2,856	2,516
SUBORDINATED DEBT	2,549	6,286
TIER 2 CAPITAL	5,405	8,802
TOTAL CAPITAL (TIER 1 AND TIER 2)	69,779	51,290

4. Banking Capital (3/4)

Capital ratios are metrics used to assess the financial health of banks and are monitored by Regulators in the supervision of the Banking Sectors

Ratio (Abbrev)	Definition	Formula	Significance	UG	KE	TZ	RW
Capital Adequacy Ratio (CAR)	Measures a bank's total capital against its risk-weighted assets	(Tier 1 capital + Tier 2 capital) / Risk-weighted assets	A higher CAR indicates a stronger financial position and better ability to absorb losses	Min: 10.5%	Min 14.5%	Min: 12%	Min: 15%
Tier 1 Capital Ratio	Measures the core capital of a bank, which includes common equity and retained earnings	Tier 1 capital / Risk-weighted assets	A higher Tier 1 Capital Ratio reflects a stronger capital base and better risk absorption capacity	Min 14.5%	Min 10.5%	Min: 10%	Min 12.5%
Common Equity Tier 1 Ratio (CET1)	Measures the highest quality capital, including common equity and retained earnings.	CET1 capital / Risk-weighted assets	A higher CET1 ratio reflects a stronger capital base and better ability to absorb losses	n/a	n/a	Min 8.5%	n/a
Leverage Ratio	Measures a bank's capital against its total assets	Tier 1 capital / Total assets	A higher leverage ratio indicates a lower level of risk	Min 6%	Min 5%	Min 7.7%	Min 6%

*Key definitions & distinctions

- **Risk weighted assets:** These are assets assigned different weightings based on their perceived risk of default. The higher the risk, the higher the weight assigned to the asset (e.g. loans, securities, FX positions etc.)
- **Fixed assets:** tangible assets that a bank owns and uses for its operations. They are not readily convertible into cash

Feature	Risk-Weighted Assets	Fixed Assets
Purpose	To assess a bank's risk profile and capital adequacy	To support the bank's operations
Valuation	Based on risk assessment and market value	Based on historical cost or depreciated value
Regulatory Significance	Crucial for regulatory capital requirements	Less significant for regulatory purposes
Liquidity	Generally less liquid, especially loans	Typically less liquid, but can be sold or leased

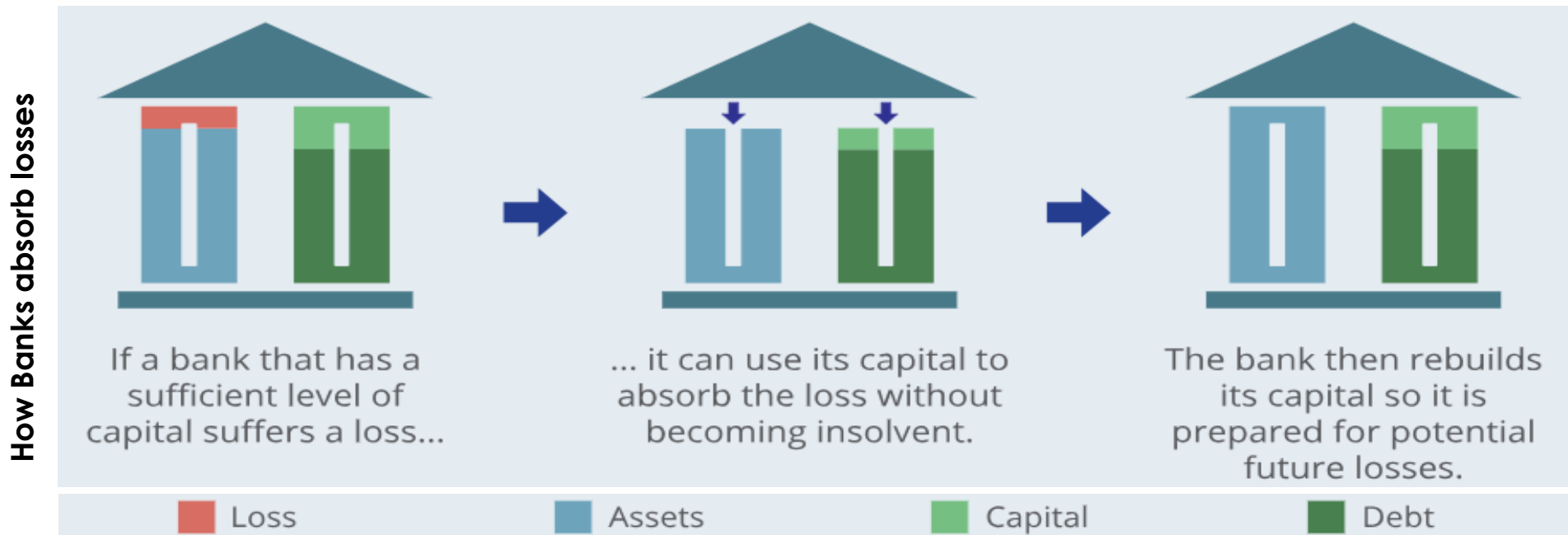
4. Banking Capital (4/4)

Capital ratios are metrics used to assess the financial health of banks

Importance of Bank Capital: in the financial system:

- **Absorbing Losses:** Capital acts as a buffer to absorb losses from bad loans or other financial risks.
- **Protecting Depositors:** Adequate capital helps ensure that depositors' funds are safe and can be withdrawn when needed.
- **Promoting Financial Stability:** Well-capitalized banks are less likely to fail, which contributes to overall financial stability.
- **Supporting Economic Growth:** Banks with sufficient capital can lend more money to businesses and individuals, stimulating economic activity.

By understanding the different types of bank capital and their roles, you can better appreciate the importance of a strong and well-capitalized banking system.



Emerging Issues & Trends in Banking

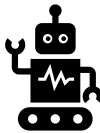
As data proliferates & new monetization models emerge, the demand for secure digital identities is critical all while faced by rising cyber-security risks



Data & Identity

- Monetization and ownership of Data
- Generative AI
- Digital Identity & Cybersecurity

Businesses Implementing Digital Innovations to Improve Services and Cut Cost



Digitization

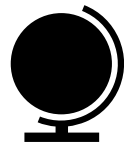
- Automation (Robotics, AI)
- Advanced analytics
- Virtual/Augmented reality

Computing democratized through shared cloud computing resources and distributed ledgers (Blockchain)



Democratized Computing

- Blockchain
- Cryptocurrencies
- Cloud computing



Macro-economic Conditions

- Global capital flows
- Financial Inclusivity
- Rising Inflation
- Rising Interest Rates

Evolution of overall economic landscape caused by greater financial inclusivity, foreign direct investment, and inflationary pressures



Demographic Shifts

- Population growth and diversity
- Changing workforce

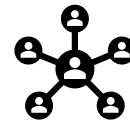
As Africa's population expands, its workforce is increasingly migrating to the service sector, and a growing middle and affluent class is emerging



Evolving Customer Expectations

- Digital Service expectations
- Demand mindsets

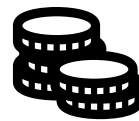
Customers are expecting more sophisticated and personalized service



Global Connectivity

- Internet penetration
- Global platforms & ecosystems
- Prominence of tech giants

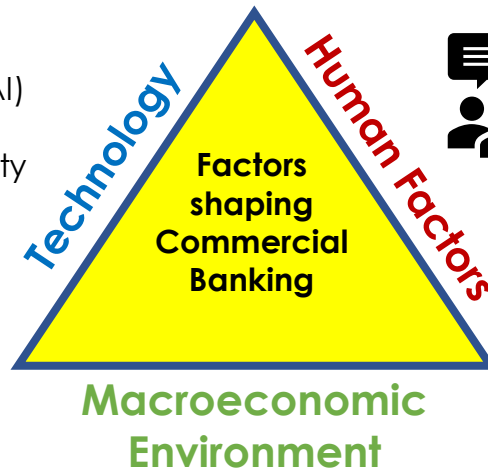
Integrated services that transcend organizational, product, and device boundaries



Evolution of Capitalism

- Social license
- Government and politics
- Regulatory environment

Western Capitalism evolving towards a multi-stakeholder model evidenced by growing regulatory compliance demands and demands for a "social license"



Emerging Issues in Banking *(summarized for further exploration)

Demographic Shifts	Customer Expectations	Global Connectivity	Democratized Computing	Digitization	Data & Identity	Evolution of Capitalism
<p>Population growth: Africa will have an additional 1.3B consumers by 2050, with growth largely in young and working age populations</p>	<p>Increased service expectations: "Customers are now able to instantly summon a cab, rent a garment, stream entertainment and pay for it all with a tap of a button"</p>	<p>Growth of internet connected Africans: ~50% internet penetration is forecast by 2025, with 360M smartphones in use</p>	<p>Blockchain use cases tested widely across companies including banks and regulators. A growing proportion of Fintech investments in blockchain going towards non-cryptocurrency areas</p>	<p>Automation: Firms rapidly adopting technology to automate low value tasks and transform their cost structure e.g., N26 is a fully digital bank with 5-10x lower cost base than traditional banks¹</p>	<p>Monetization and ownership of data: Explosion of data (90% of existing data created in the last two years alone) and proven monetization models leading to battle for control and access</p>	<p>Social license: Eroding trust in institutions² and widening gap between rich and poor prompting society to favor businesses that build trust and contribute to society in meaningful ways</p>
<p>Changing workforce across sectors: Over the last 15 years the proportion of employees in the agriculture sector has dropped, mostly shifting to the Services sector</p>	<p>Changing mindset: Customers are looking for solutions, rather than financial products, and are shifting from paying to purchase an asset to billing for access an asset</p>	<p>Global platforms and ecosystems: Controlled by very few players are becoming key markets in which other firms compete, e.g., Amazon capturing ~40% of US online shopping</p>	<p>Cryptocurrencies attracting attention from the public and firms, e.g., Ripple tested by UBS, Santander and other banks for cross-border transfers</p>	<p>Advanced analytics and AI: Applied in complex environments to enhance decision making and deliver personalized experiences e.g., product recommendations, Robo-advisers</p>	<p>Digital identity: Growing need for a commonly accepted, secure and seamless digital identity. Australia Post launched digital identity service in 2017 to unlock +\$11B p.a. economic value</p>	<p>Government: Banks, who have traditionally operated in a privileged market with a government guarantee, are seeing signs of disintermediation e.g., in payments, crowdfunding and peer-to-peer services</p>
<p>Large companies are diverse: The top 500 African companies (with turnover greater than \$200M) are a diverse group of companies, spread across the continent and industry sectors</p>	<p>Trust in institutions: Financial Services was ranked the least trusted industry sector with 54% trust rating in a general population survey²</p>	<p>Tech giants: are expanding into new industries, e.g., Apple into payments, Google into cars and Alibaba into money market funds</p>	<p>Cloud computing is increasing access to powerful computing resources and advanced tools, e.g., AWS¹ is offering machine learning, VR, AR and IoT services and is growing fast (42% sales growth to reach \$4.6 bn in Q3 '17)</p>	<p>Virtual experiences: VR and AR headset shipments more than doubled in 2017², reaching 22 million, prompting firms to explore applications e.g., BNP Paribas launched VR-based retail banking app</p>	<p>Cyber-security: Cyber attacks are increasingly pervasive and sophisticated, with the global cost of cybercrime exceeding \$445 billion a year² and projected to increase</p>	<p>Regulatory environment: More onerous regulations and penalties are being imposed on financial institutions, with worlds' biggest banks fined a total \$321 billion since the Global Financial Crisis¹</p>

The End

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Thank You