

BANKING SECTOR PERFORMANCE ANALYSIS

31 March 2024

- A Comparative Analysis of HDFC, ICICI, SBI, Kotak, & Axis Bank



We understand your world



KEY INDICATORS

- LOAN GROWTH
- DEPOSIT GROWTH
- COST-INCOME
- RETURN ON ASSETS
- GROSS NPA %



INTRODUCTION



- **Objective:** Evaluate & compare five leading Indian banks using key financial indicators.
- **Relevance:** Importance of financial analytics in assessing banking performance.
- **Scope:** Analysis of Loan Growth, Deposit Growth, Cost-to-Income Ratio, and ROA, and Gross NPA.

Bank Overview

Bank	ROA (%)	Loan Growth (%)	Deposit Growth (%)	Cost-to-Income Ratio (%)	Gross NPA (%)
HDFC	8.50	55.30	26.36	20.6	1.25
Kotak	2.60	17.56	23.68	46.0	1.40
ICICI	8.86	16.16	19.63	23.58	1.30
SBI	7.55	15.77	11.13	26.74	1.33
Axis	8.92	14.18	12.92	26.72	1.35

- The Indian banking sector plays a crucial role in economic growth, financial stability, and credit distribution. It is dominated by both public and private sector banks, each contributing uniquely to the financial ecosystem.
- HDFC Bank, ICICI Bank, SBI, Kotak Mahindra Bank, and Axis Bank are among the top financial institutions in India, representing a mix of public and private banking models with varying operational strategies.
- Public vs. Private Sector Banks:
 - SBI (Public Sector Bank): India's largest bank with government backing, catering to mass banking and financial inclusion.
 - HDFC, ICICI, Kotak, Axis (Private Sector Banks): Known for digital banking, customer-centric services, and strong profitability.
- Financial Comparison:
 - The table below presents key financial metrics, including total assets, deposits, loans, and net profit, to compare their financial health and performance.
- These metrics provide insights into each bank's size, financial strength, and operational efficiency.
- The current study is of top five banks based on market capitalization.

GRAPHICAL ANALYSIS OF KEY METRICS

LOAN GROWTH RATIO

DEPOSIT GROWTH RATIO

COST-TO-INCOME RATIO

RETURN ON ASSETS

GROSS NPA %

COMBINED ANALYSIS

LOAN GROWTH RATIO

» What It Means:

- Measures how much a bank's loan portfolio has grown compared to the previous year. Higher growth suggests expansion and increased lending.

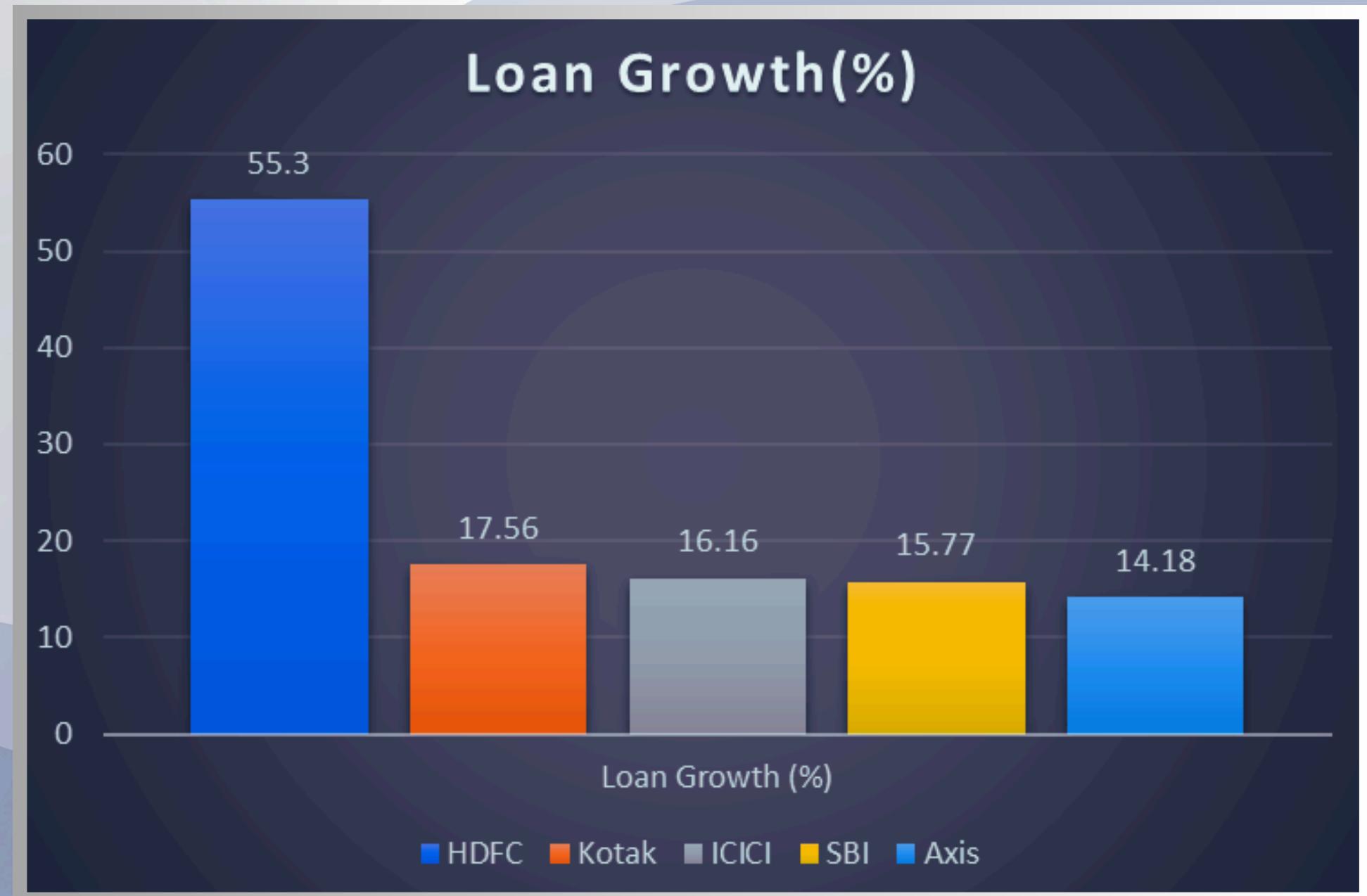
» Best Performing Bank:

- HDFC (55.3%) (Significantly higher than industry avg. 19.7%)

» Industry Standard: 19.7%

» Key Insight:

- HDFC's loan growth is nearly 3x the industry average, suggesting aggressive expansion.
- Kotak (17.6%) & ICICI (16.2%) are near industry levels.
- SBI (15.8%) & Axis (14.2%) lag behind.
- Higher loan growth can mean more profits but also increased credit risk.



DEPOSIT GROWTH RATIO

» What It Means:

- Shows how much deposits (a bank's main funding source) have grown.

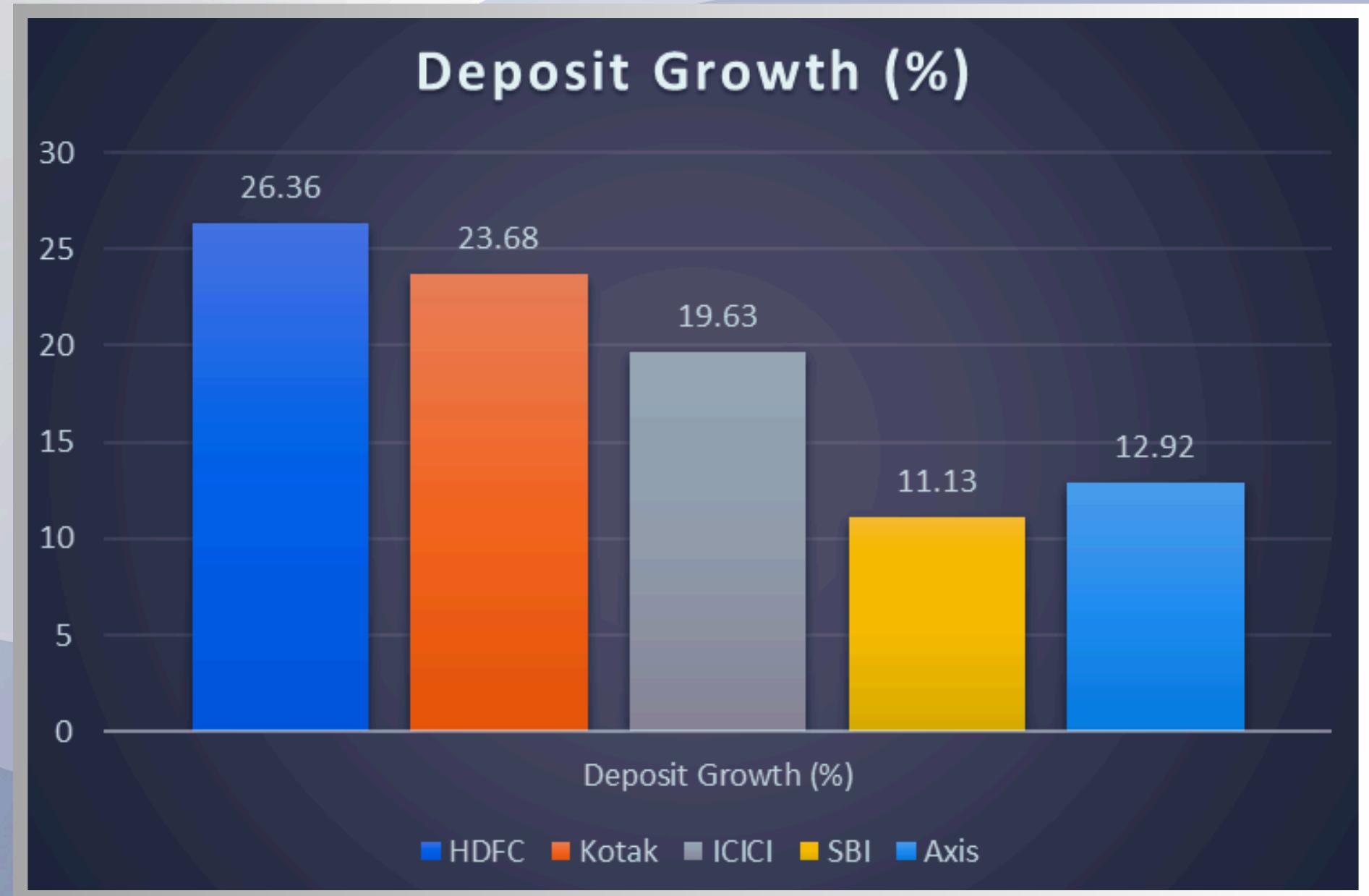
» Best Performing Bank:

- HDFC (26.3%)

» Industry Standard: 14.0%

» Key Insight:

- HDFC & Kotak (23.7%) have strong deposit growth, securing funds for lending.
- SBI (11.1%) & Axis (12.8%) are below industry average, indicating a slower deposit collection rate.
- A higher deposit growth rate allows banks to increase lending capacity without external borrowing.



SOURCE: RBI DATABASE

As of year ending 31st march 2024

COST-TO-INCOME RATIO

» What It Means:

- Measures efficiency—lower values indicate better cost management.

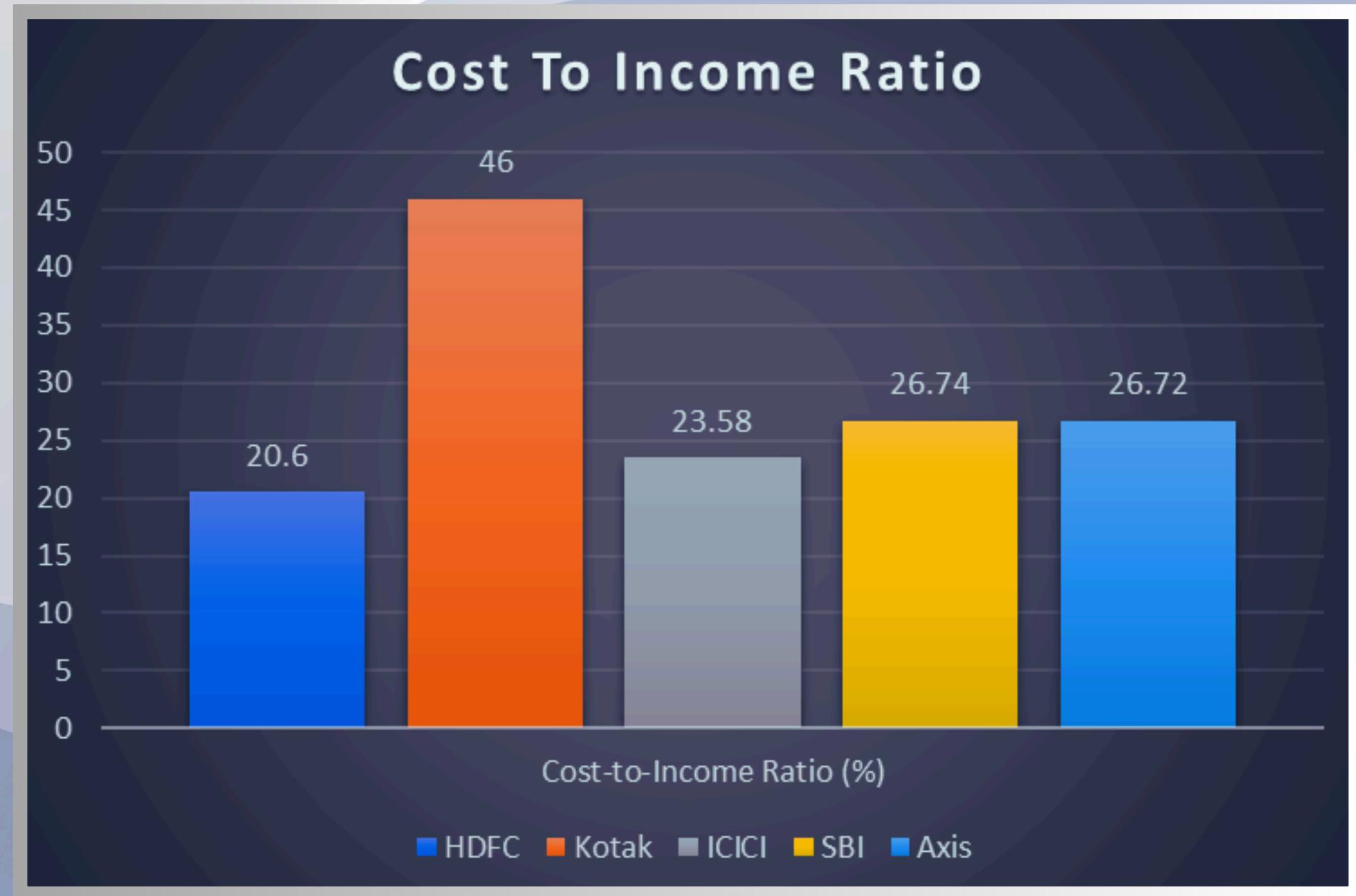
» Best Performing Bank:

- HDFC (20.6%) (Lowest)

» Industry Standard: 30.5%

» Key Insight:

- HDFC is the most efficient bank in managing expenses.
- Kotak (46%) is the worst, meaning higher operational costs relative to income.
- SBI (26.74%) & Axis (26.72%) are similar in efficiency but still behind HDFC.
- Banks with lower cost-to-income ratios generate higher profits from revenue.



RETURN ON ASSETS

» What It Means:

- Measures how efficiently a bank converts assets into profits.

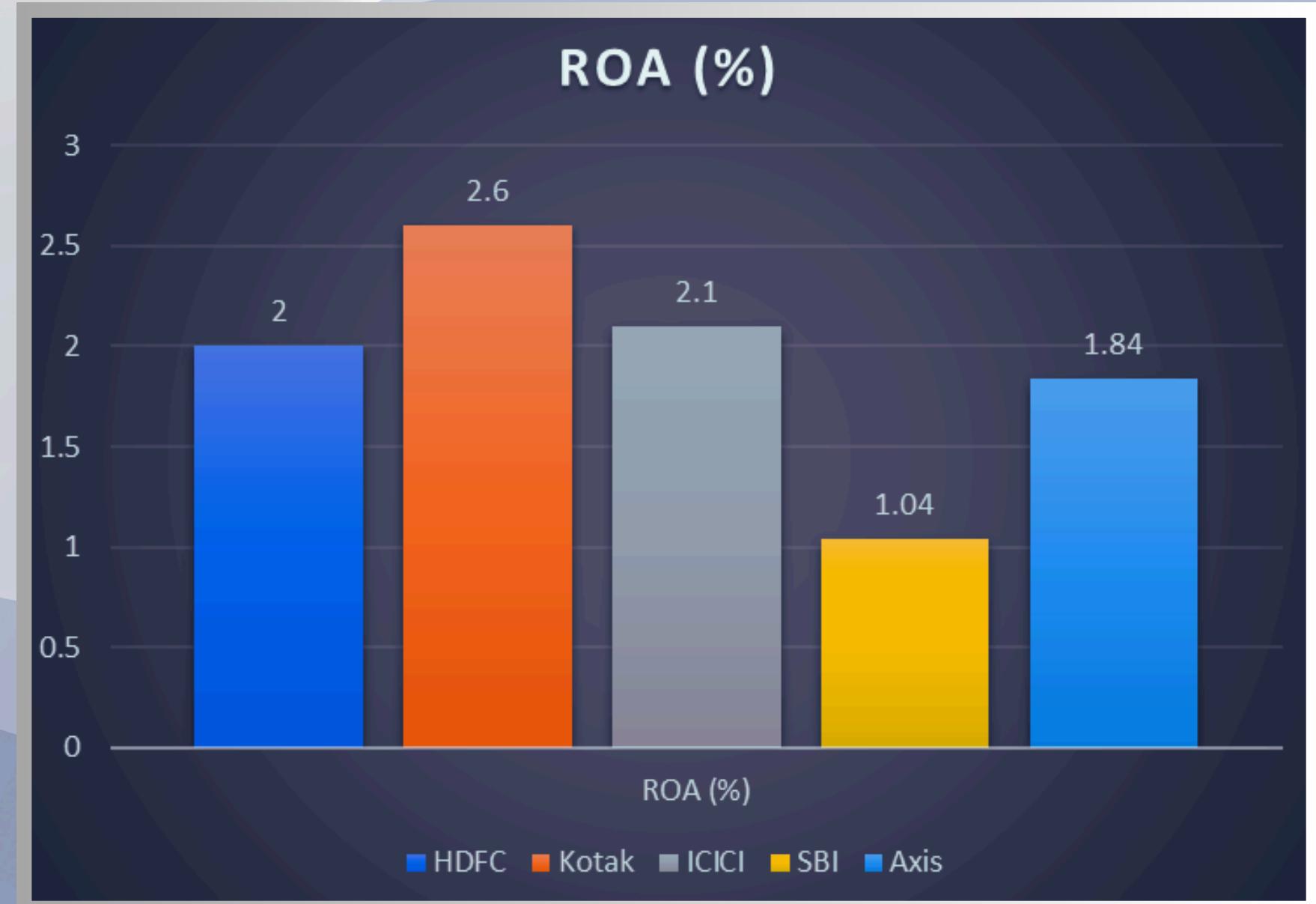
» Best Performing Bank:

- Kotak (2.6%)

» Industry Standard: 1.2%

» Key Insight:

- Kotak (2.6%) has the highest ROA, indicating strong profitability.
- HDFC (2.0%) & ICICI (2.1%) also perform above the industry average, showing efficient asset utilization.
- SBI (1.04%) is below the industry standard, reflecting weaker asset returns.
- Higher ROA suggests a bank is making better use of its assets to generate income.



As of year ending 31st march 2024

GROSS NPA (%)

» What It Means:

- Percentage of bad loans that are unlikely to be repaid.

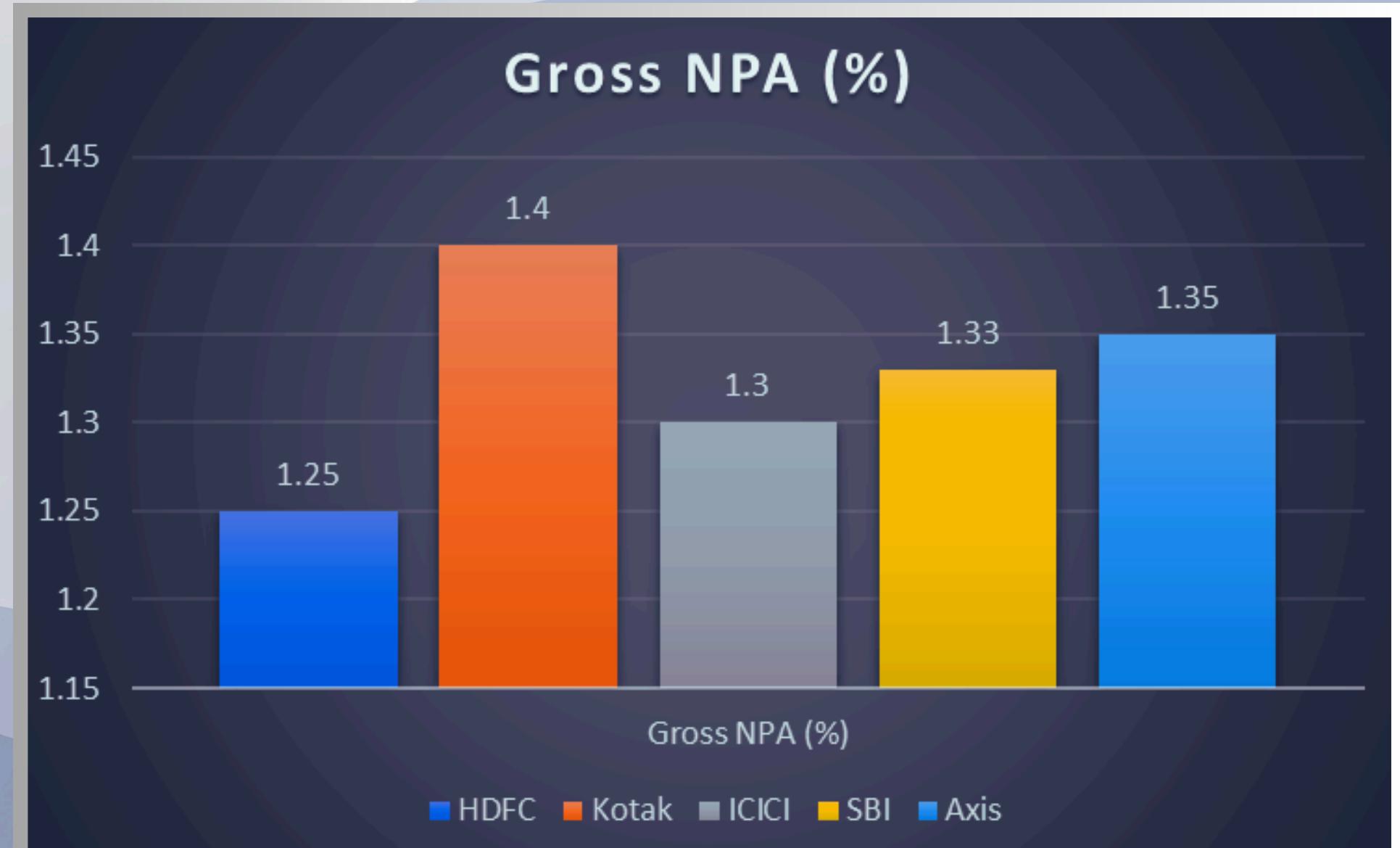
» Best Performing Bank:

- HDFC (1.25%)(Lowest)

» Industry Standard: 2.8%

» Key Insight:

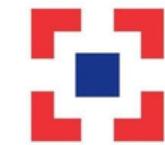
- All banks have NPAs below the industry average, meaning better credit quality.
- Kotak (1.4%) has the highest NPA, suggesting weaker loan quality compared to peers.
- Lower NPAs indicate stronger risk management & lending policies.



SOURCE: RBI DATABASE

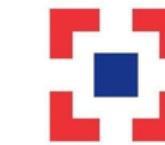
As of year ending 31st march 2024

BEST PERFORMERS



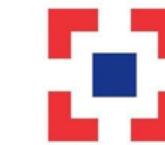
HDFC BANK

LOAN GROWTH (%)



HDFC BANK

DEPOSIT GROWTH (%)



HDFC BANK

COST-TO-INCOME (%)



ROA (%)



HDFC BANK

GROSS NPA (%)

COMPARING KEY METRIC PAIRS

ROA & LOAN GROWTH
RATIO

LOAN ADVANCES & GROSS
NPA

ROA & COST-TO-INCOME
RATIO

LOAN GROWTH &
DEPOSIT GROWTH RATE

ROA & LOAN GROWTH RATIO

» Use of Relationship:

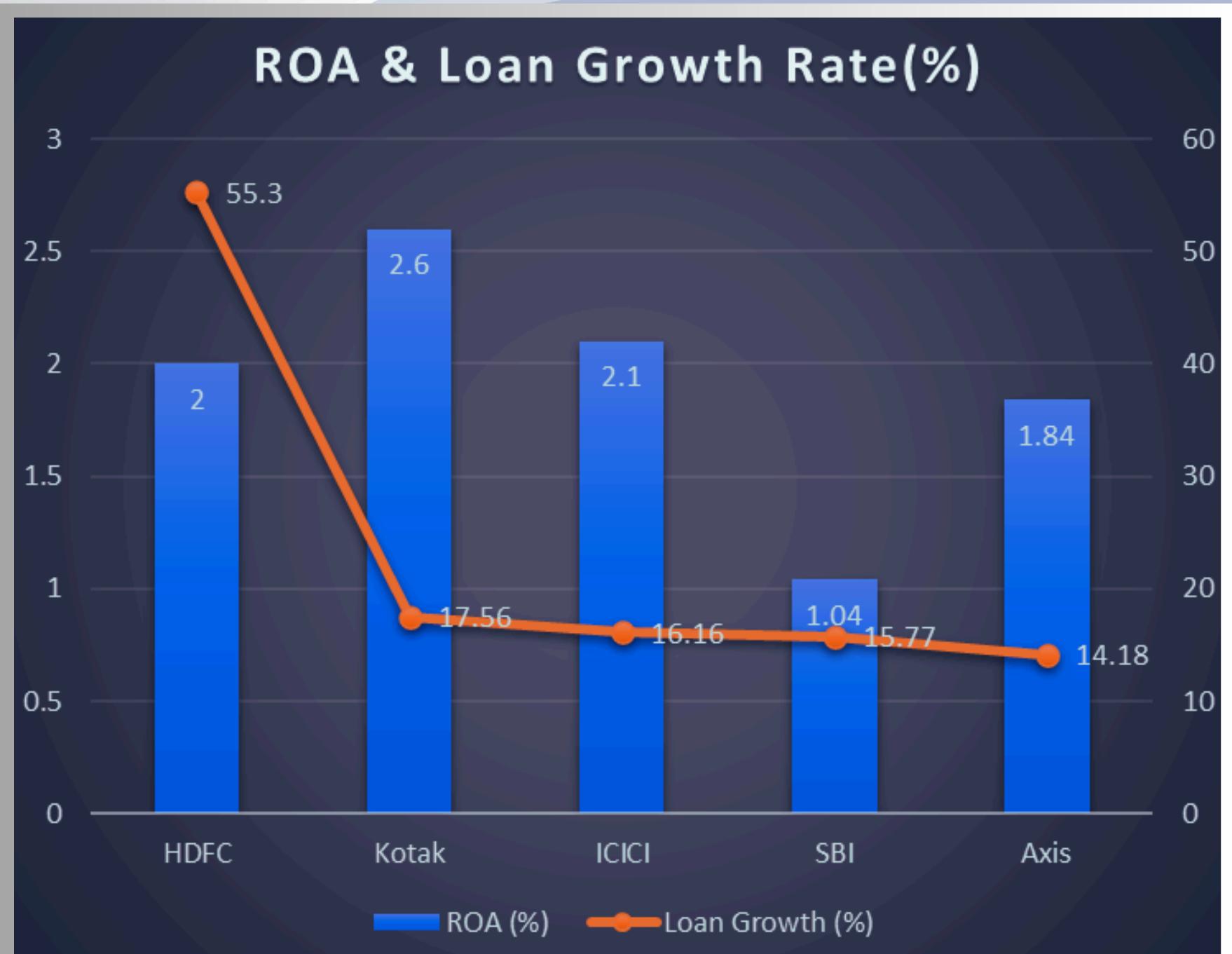
- If high loan growth translates into higher ROA, it shows efficient lending.

» Best Performing Bank:

- ICICI (2.1% ROA, 16.2% Loan Growth)

» Key Insight:

- HDFC has the highest loan growth (55.3%) but ROA is only 2.0%, meaning it is expanding aggressively but not maximizing returns.
- Kotak has the highest ROA (2.6%) but lower loan growth (17.6%), indicating profitability but limited expansion.
- ICICI balances both well—16.2% loan growth and 2.1% ROA—making it the most stable performer in this combination.



As of year ending 31st march 2024

LOAN ADVANCES & GROSS NPA

» Use of Relationship:

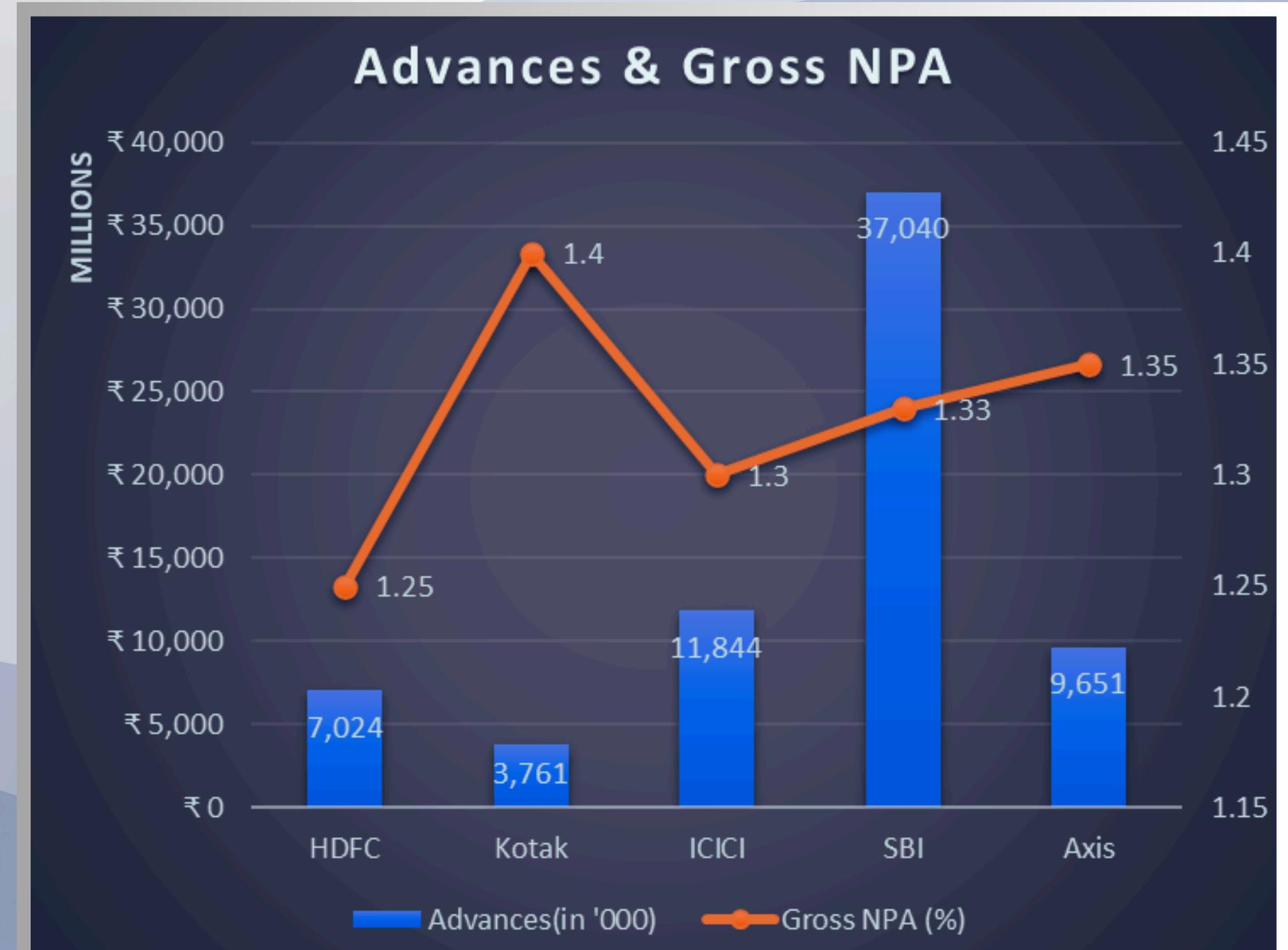
- If a bank has high loan growth but also high NPAs, it suggests risky lending.

» Best Performing Bank:

- HDFC (55.3% Loan Growth, 1.25% NPA)

» Key Insight:

- HDFC has the best balance—high loan growth (55.3%) but low NPA (1.25%), indicating strong risk management.
- Kotak (17.6% loan growth, 1.4% NPA) has the highest NPA, showing weaker credit quality.
- SBI (15.8% loan growth, 1.33% NPA) & Axis (14.2% loan growth, 1.35% NPA) have lower loan growth but relatively higher NPAs, making them less efficient.

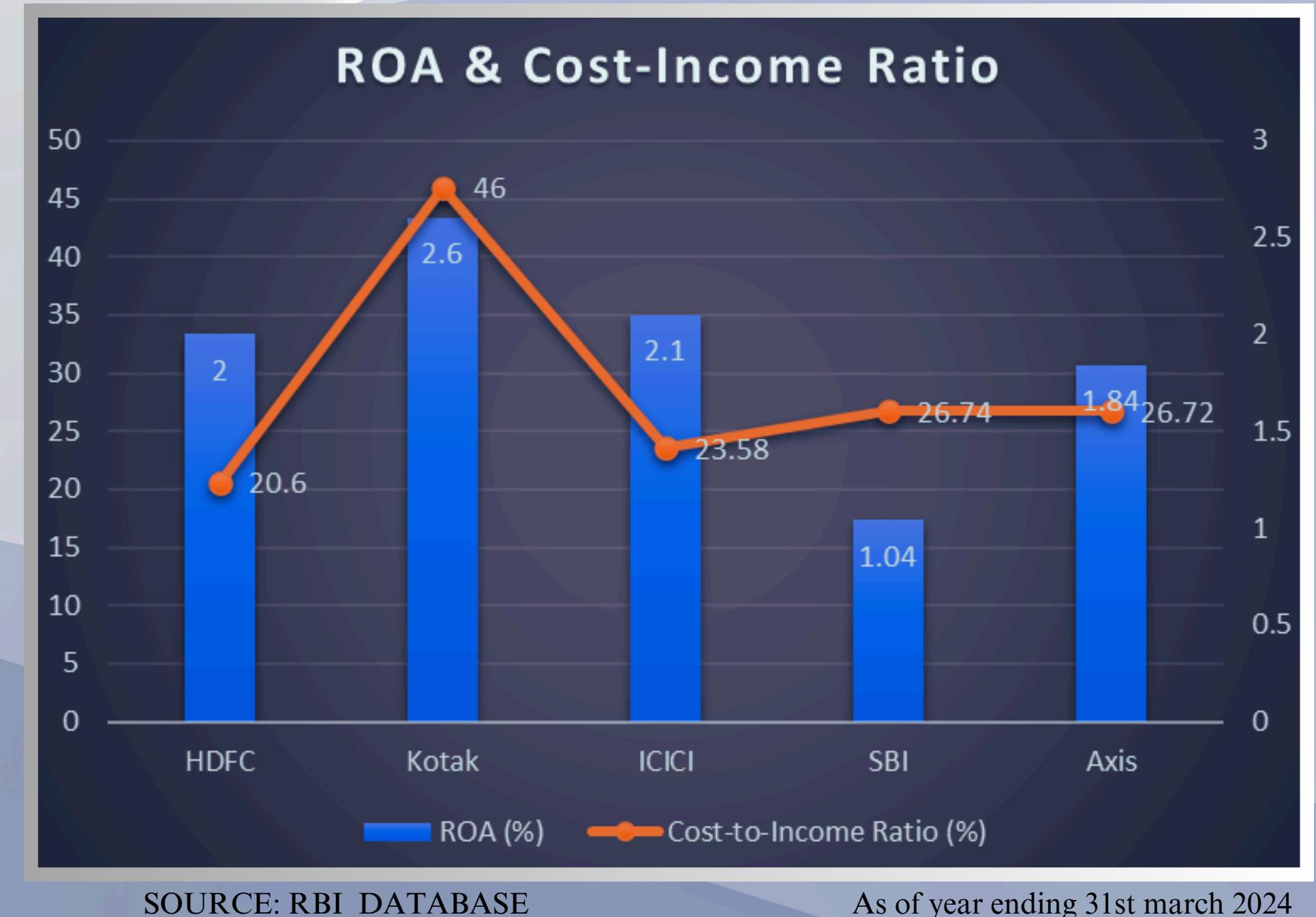


SOURCE: RBI DATABASE

As of year ending 31st march 2024

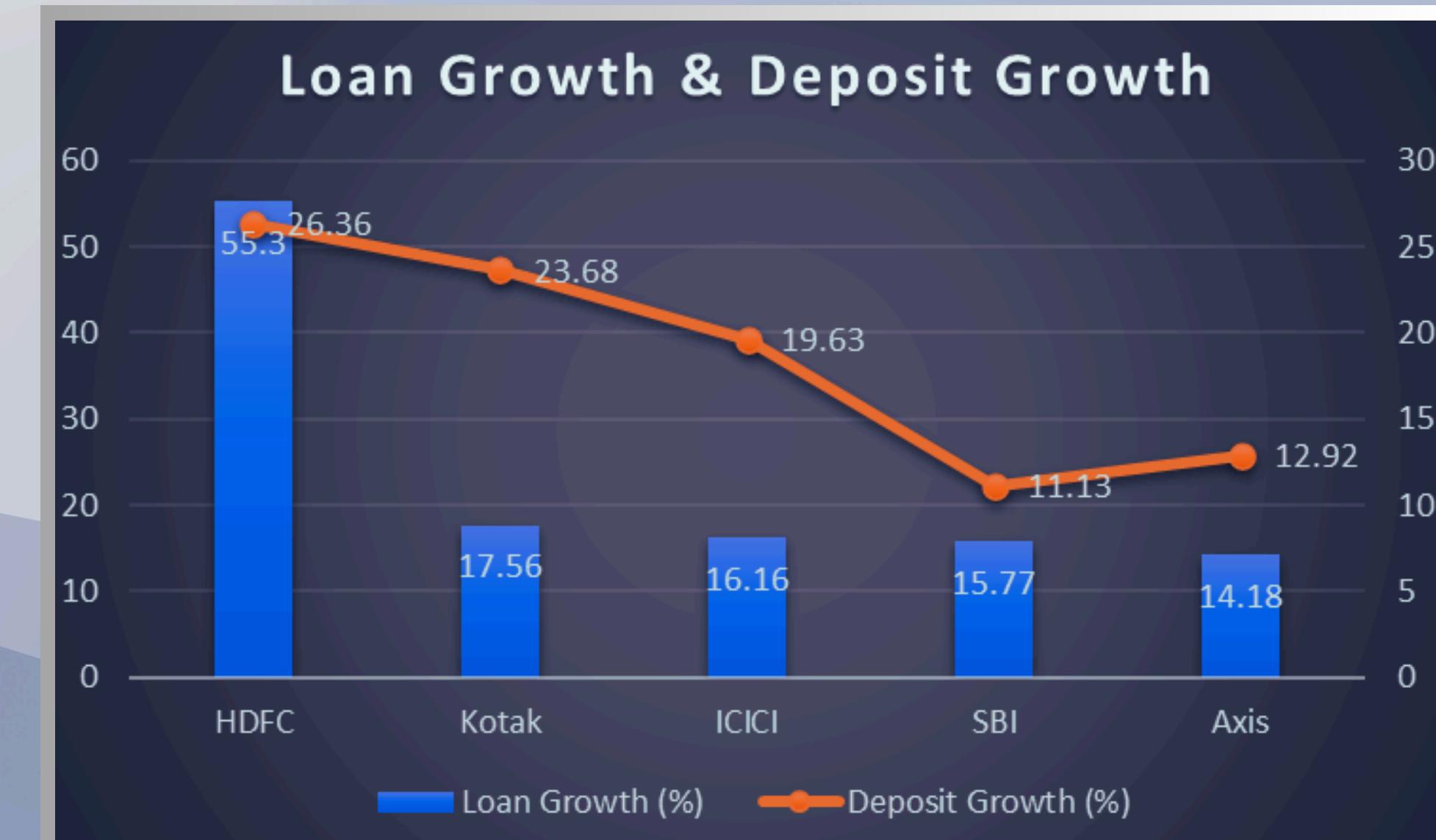
ROA & COST-INCOME RATIO

- » **Use of Relationship:**
 - High ROA with low cost-to-income means a bank is highly efficient and profitable..
- » **Best Performing Bank:**
 - HDFC (2.0% ROA, 20.6% Cost-to-Income Ratio)
- » **Key Insight:**
 - Kotak has the highest ROA (2.6%) but also the highest cost-to-income ratio (46%), making it the most inefficient bank.
 - ICICI (2.1% ROA, 23.58% cost-to-income) has better profitability than HDFC but is slightly less efficient.
 - HDFC is the most balanced performer—high ROA (2.0%) with the lowest cost-to-income ratio (20.6%), meaning it is the most efficient at generating returns.



LOAN GROWTH RATE & DEPOSIT GROWTH RATE

- » **Use of Relationship:**
 - Banks fund loans through deposits—higher deposit growth should ideally lead to strong loan growth.
- » **Best Performing Bank:**
 - HDFC (55.3% Loan Growth, 26.3% Deposit Growth)
- » **Key Insight:**
 - HDFC has the strongest balance—high deposit growth (26.3%) supports high loan growth (55.3%).
 - Kotak (23.7% deposits, 17.6% loans) is collecting deposits but lending more conservatively.
 - SBI (11.1% deposits, 15.8% loans) & Axis (12.8% deposits, 14.2% loans) are slower in both metrics, meaning they are either conservative or facing funding limitations..



As of year ending 31st march 2024

BEST PERFORMERS



ROA & LOAN
GROWTH



GROSS NPA &
LOAN GROWTH



LOAN GROWTH &
DEPOSIT GROWTH



ROA & COST-TO-
INCOME

CORRELATION & REGRESSION ANALYSIS

ROA - LOAN GROWTH

GROSS NPA - LOAN GROWTH

ROA - COST TO INCOME

LOAN GROWTH - DEPOSIT

ROA-LOAN GROWTH RATE

ROA & Loan Growth (X No Strong Relationship)

» Key Metrics:

- $R^2 = 0.0396$ (Very Weak Relationship)
- β_1 (Slope) = 0.0302 (Positive but Insignificant)
- P-value = 0.748 (Not Statistically Significant)

» Interpretation:

- Loan Growth does not have a strong impact on ROA.
- P-value > 0.05, meaning the relationship isn't statistically significant.
- Banks with higher loan growth don't necessarily have higher ROA, possibly due to differences in profitability models, risk management, or cost structures.

✓ Conclusion: DO NOT prioritize this relationship for financial decision-making.

SUMMARY OUTPUT ROA-Loan Growth

Regression Statistics	
Multiple R	0.199052773
R Square	0.039622007
Adjusted R Square	-0.280503991
Standard Error	3.028441212
Observations	5

ANOVA

	df	SS	MS	F	Significance F
Regression	1	1.135151471	1.135151471	0.123770037	0.748241874
Residual	3	27.51436853	9.171456176		
Total	4	28.64952			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%
Intercept	6.567984394	2.449417972	2.681446968	0.074956657	-1.227156781
Loan Growth (%)	0.03017633	0.085774593	0.35180966	0.748241874	-0.242796706

GROSS NPA-LOAN GROWTH RATE

Gross NPA & Loan Growth (\triangle Moderate Relationship, Needs Caution)

» Key Metrics:

- $R^2 = 0.546$ (Moderate Relationship)
- β_1 (Slope) = -0.0023 (Negative Relationship)
- P-value = 0.153 (Not Statistically Significant)

» Interpretation:

- Loan Growth shows a moderate negative relationship with Gross NPA.
- P-value > 0.05 , so this relationship is not statistically significant.
- A negative β_1 suggests that higher loan growth slightly reduces NPAs, possibly because fast-growing banks manage risks better.
- However, with only 5 observations, this may not hold across the entire industry.

✓ Conclusion: Further investigation is needed, but it's worth keeping an eye on for risk analysis.

SUMMARY OUTPUT						
Gross NPA- Loan Growth						
Regression Statistics						
Multiple R		0.739159312				
R Square		0.546356489				
Adjusted R Square		0.395141986				
Standard Error		0.043510982				
Observations		5				
ANOVA						
	df	SS	MS	F	Significance F	
Regression	1	0.006840383	0.006840383	3.613122261	0.153507213	
Residual	3	0.005679617	0.001893206			
Total	4	0.01252				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	
Intercept	1.381737462	0.035191894	39.26294681	3.63504E-05	1.269741149	
Loan Growth (%)	-0.002342501	0.001232362	-1.90082147	0.153507213	-0.006264428	

ROA- COST TO INCOME RATIO

ROA & Cost-to-Income Ratio (✓ Strong Negative Relationship - Very Important)

» Key Metrics:

- $R^2 = 0.923$ (Very Strong Relationship)
- β_1 (Slope) = -0.2575 (Negative Relationship)
- P-value = 0.009 (Highly Significant)

» Interpretation:

- Strong inverse relationship → As Cost-to-Income Ratio increases, ROA decreases significantly.
- P-value < 0.05, meaning the relationship is highly statistically significant.
- For every 1% increase in Cost-to-Income Ratio, ROA drops by 0.26%, showing that operational efficiency directly impacts profitability.

✓ Conclusion: Highly relevant for banks – focus on improving cost efficiency to enhance profitability.

SUMMARY OUTPUT ROA-Cost to Income						
Regression Statistics						
Multiple R	0.960835467					
R Square	0.923204795					
Adjusted R Square	0.897606394					
Standard Error	0.856377205					
Observations	5					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	1	26.44937425	26.44937425	36.06493919	0.009249226	
Residual	3	2.200145752	0.733381917			
Total	4	28.64952				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	
Intercept	14.68368877	1.290000094	11.38270365	0.00145478	10.57833274	
Cost-to-Income Ratio (%)	-0.257507963	0.042879337	-6.00540916	0.009249226	-0.393969151	

LOAN GROWTH - DEPOSIT GROWTH RATE

Loan Growth & Deposit Growth (Moderate Positive Relationship, Not Significant)

» **Key Metrics:**

- $R^2 = 0.467$ (Moderate Relationship)
- β_1 (Slope) = 1.825 (Positive Impact on Loan Growth)
- P-value = 0.202 (Not Statistically Significant)

» **Interpretation:**

- Loan growth tends to increase when deposit growth increases, but the relationship isn't strong enough to be statistically significant.
- Since banks fund loans using deposits, this result is logical, but other factors (like external borrowing, investments, or liquidity policies) also play a role.

✓ **Conclusion:** Important relationship, but more data needed to confirm causality.

SUMMARY OUTPUT						
Loan Growth-Deposit Growth						
Regression Statistics						
Multiple R		0.683972				
R Square		0.467817697				
Adjusted R Square		0.290423596				
Standard Error		14.87065398				
Observations		5				
ANOVA						
	df	SS	MS	F	Significance F	
Regression	1	583.1732703	583.1732703	2.637166032	0.202852209	
Residual	3	663.4090497	221.1363499			
Total	4	1246.58232				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	
Intercept	-10.41865839	22.09246961	-0.4715932	0.669394789	-80.72675666	
Deposit Growth (%)	1.825259197	1.123972819	1.623935353	0.202852209	-1.751723948	

FINAL VERDICT: BEST BANK & LEARNINGS

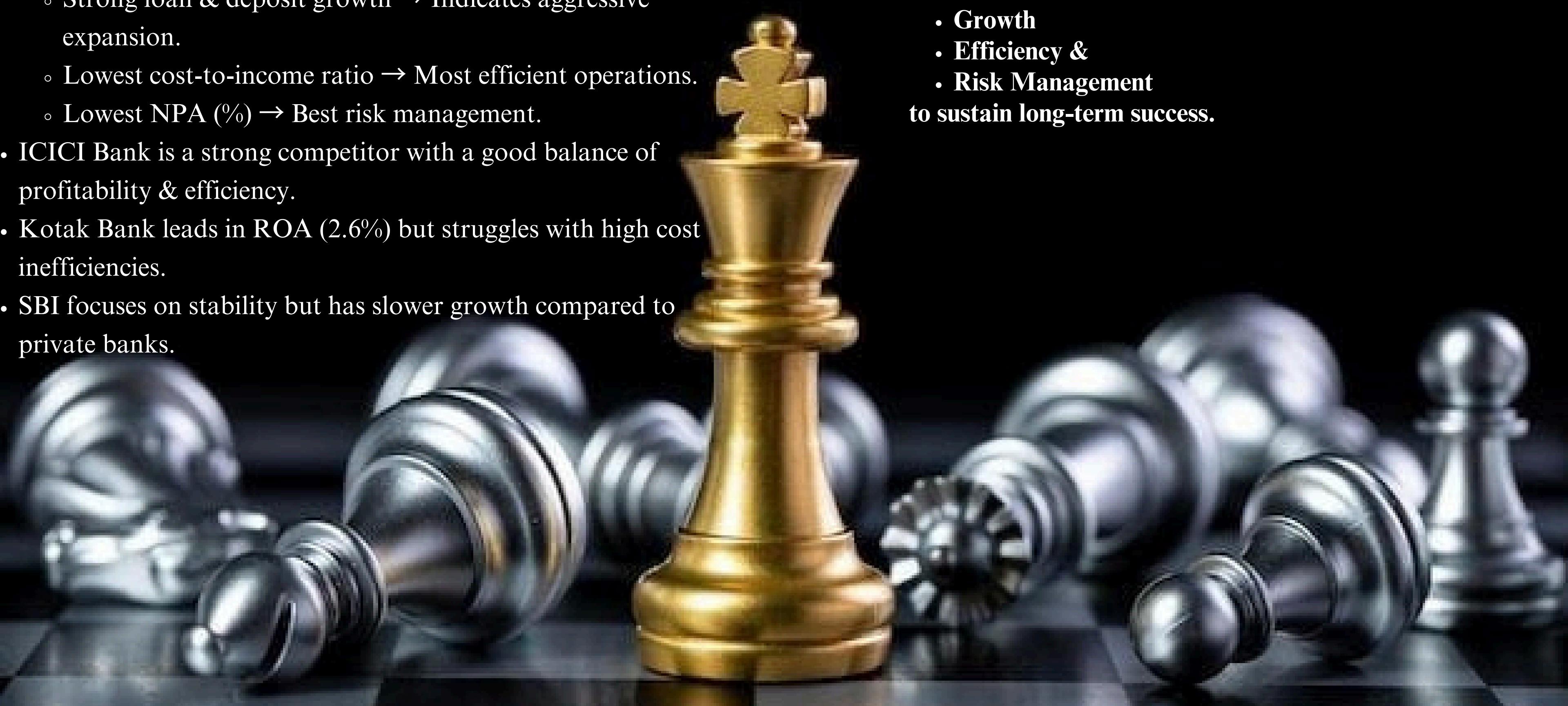
- HDFC Bank emerges as the overall best performer due to:
 - Strong loan & deposit growth → Indicates aggressive expansion.
 - Lowest cost-to-income ratio → Most efficient operations.
 - Lowest NPA (%) → Best risk management.
- ICICI Bank is a strong competitor with a good balance of profitability & efficiency.
- Kotak Bank leads in ROA (2.6%) but struggles with high cost inefficiencies.
- SBI focuses on stability but has slower growth compared to private banks.

Final Thought:

Banks must balance

- Growth
- Efficiency &
- Risk Management

to sustain long-term success.



THANK YOU!