



Comparative Study of Selected Quantitative Parameters of SBI and HDFC Bank

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Abstract

This study investigates the comparative growth trends of size, scale, and outreach parameters of State Bank of India (SBI) and HDFC Bank during the decade 2014–15 to 2023–24. The analysis is centred on six core indicators: customer base, total deposits, loans and advances, number of domestic branches, number of ATMs, and employee strength. These parameters collectively reflect the capacity, reach, and institutional presence of the two banks in the Indian financial landscape. The research applies trend indices, compound annual growth rates (CAGR), and statistical tests to assess whether the differences in growth trajectories between SBI and HDFC Bank are significant. The null hypothesis (H_{01}) assumes no significant difference in the growth trends of these outreach parameters, whereas the alternative hypothesis (H_{11}) posits the existence of such differences. Preliminary evidence suggests that while SBI continues to dominate in terms of absolute scale and nationwide outreach, HDFC Bank demonstrates faster growth in deposits, advances, and customer acquisition, reflecting its aggressive expansion strategy and technological edge. The findings of this hypothesis test are expected to enrich the understanding of public versus private sector banking dynamics in India and provide meaningful insights for policymakers, banking strategists, and investors.

Keywords:

State Bank of India (SBI); HDFC Bank; Size and Scale; Outreach Parameters; Customer Base; Deposits; Loans and Advances; Branch Network; ATMs; Employees; Comparative Growth; Indian Banking Sector

1. Introduction:

The Indian banking sector has undergone a remarkable transformation in the past decade, driven by regulatory reforms, technological adoption, and intensifying competition between public and private sector banks. State Bank of India (SBI), the largest public sector bank, and HDFC Bank, the largest private sector bank, provide an ideal comparison for evaluating the dynamics of size, scale, and outreach in Indian banking. While SBI commands a historical legacy with the widest branch and ATM network across the country, HDFC Bank has expanded aggressively through technology-driven customer acquisition and service delivery (**Reserve Bank of India [RBI], 2023**).

The parameters of size, scale, and outreach—including customer base, deposits, loans and advances, number of domestic branches, ATMs, and employees—represent critical indicators of the ability of banks to mobilise resources and deliver services across diverse geographies (**Indian Banks' Association [IBA], 2022**). SBI's dominance in outreach is reflective of its role as a systemically important financial institution,

mandated to balance commercial performance with public sector obligations (Joshi & Ghosh, 2019). In contrast, HDFC Bank's growth trajectory highlights the private sector's emphasis on efficiency, innovation, and customer-centric strategies (Ramakrishnan & Rajesh, 2021).

Several comparative studies have highlighted that while public sector banks retain dominance in absolute scale, private sector banks often demonstrate superior growth rates and efficiency levels (Choudhury, 2020; Dhanraj & Sinha, 2021). By empirically testing the hypothesis that there is no significant difference in the growth trends of size, scale, and outreach between SBI and HDFC Bank, this research contributes to understanding whether the scale advantages of public banks continue to prevail or whether private banks have managed to close the gap through faster growth momentum.

2. Review of Literature:

Several scholars have highlighted the distinctive roles of public and private sector banks in India's financial ecosystem. Joshi and Ghosh (2019) observed that SBI, as the largest public sector bank, has maintained dominance in outreach through its extensive branch and employee network, though it often faces challenges of higher operational costs.

In contrast, Ramakrishnan and Rajesh (2021) emphasised that HDFC Bank has consistently outperformed many public sector peers in terms of deposit mobilisation and loan portfolio expansion, largely due to its technology-driven customer engagement and lean operational structure.

Choudhury (2020) compared public and private banks and concluded that private sector banks demonstrate higher efficiency ratios and faster growth in deposits and advances, while public sector banks retain their supremacy in absolute customer base and rural penetration.

Dhanraj and Sinha (2021) found that although SBI's deposit base and advances remain unmatched in absolute terms, HDFC Bank's compound annual growth rate in both parameters is significantly higher, suggesting a narrowing gap in scale and competitiveness.

Recent regulatory reports, such as the Reserve Bank of India (2023) have also underscored the systemic importance of SBI alongside the rapid expansion of private sector banks like HDFC, which collectively account for a significant share of India's banking sector growth.

Research Gap

While prior studies have broadly compared public and private sector banks in India, relatively fewer have undertaken a focused, decade-long, parameter-specific comparison between SBI and HDFC Bank—the two leading representatives of their respective ownership groups. Existing literature either examines efficiency and profitability broadly or limits the analysis to short periods, without systematically analysing size, scale, and outreach parameters such as customer base, deposits, advances, branches, ATMs, and employees.

This gap justifies the present study, which is designed to provide a quantitative, hypothesis-driven comparative analysis of SBI and HDFC Bank across these outreach indicators over the ten-year period 2014–15 to 2023–24. By testing whether there is a significant difference in growth trends between the two banks, the study offers fresh insights into the evolving dynamics of India's public versus private sector banking landscape.

3. Research Objectives:

This study aims to comparatively assess the growth trends of size, scale, and outreach parameters—customer base, deposits, loans and advances, number of branches, ATMs, and employees—between SBI and HDFC Bank during the research period.

4. Research Methodology:

Research Design

The present study adopts a descriptive and analytical research design, aimed at evaluating and comparing the growth trends of State Bank of India (SBI) and HDFC Bank over a ten-year period. The design is quantitative in nature and relies exclusively on secondary data to analyse the structural and operational dimensions of the two banks.

Data Source

The study is based on secondary data extracted from the published Annual Reports of SBI and HDFC Bank for the years 2014–15 to 2023–24. Supplementary references from official websites and regulatory filings were

also consulted to validate accuracy.

Period of Study

The period selected for analysis spans ten financial years, from 2014–15 to 2023–

24. This timeframe captures a full decade of performance, covering phases of economic expansion, regulatory changes, and digital transformation in Indian banking.

Parameters Considered

To represent the dimensions of size, scale, and outreach, six key parameters were selected:

1. Customer Base (in crores)
2. Deposits (₹ crore)
3. Loans and Advances (₹ crore)
4. Number of Branches (Domestic)
5. Number of ATMs
6. Number of Employees

Data Treatment

- All parameters were normalised to a base value of 100 for the year 2014–15, and trend values were computed up to 2023–24.
- This approach ensured comparability across banks despite differences in absolute scale.
- For each parameter, mean trend values across the ten-year period were calculated for SBI and HDFC Bank.

Statistical Tools and Techniques

To test the hypothesis:

- An Independent Sample t-Test was employed to compare the mean trend values of the two banks across each parameter.
- The test was conducted at the 5% level of significance ($\alpha = 0.05$).
- A p-value below 0.05 was considered evidence to reject the null hypothesis.
- Statistical analysis was carried out using SPSS software, ensuring robust computation of t-statistics and p-values.

Scope of Methodology

This methodology provides both **trend analysis** (through descriptive statistics and graphical representation) and **inferential validation** (through hypothesis testing). The combination allows assessment of not just absolute differences, but also the statistical significance of relative growth trajectories of the two banks.

5. Hypothesis:

- **H₀₁ (Null Hypothesis):** There is no significant difference in the growth trends of size, scale and outreach parameters between SBI and HDFC Bank during the research period.
- **H₁₁ (Alternative Hypothesis):** There is a significant difference in the growth trends of size, scale and outreach parameters between SBI and HDFC Bank during the research period.

6. Data Analysis:

The size, scale, and outreach of a bank constitute the foundational dimensions of its institutional capacity, national presence, and systemic relevance in the economy. These indicators reflect the bank's ability to mobilise resources, extend credit, and deliver financial services to diverse demographic and geographic segments. Evaluating them provides insights into operational magnitude, outreach strategy, and the extent of market penetration.

For this study, six sub-parameters have been selected to represent the structural and operational dimensions of the State Bank of India (SBI) and HDFC Bank. The customer base highlights the breadth of clientele served, while deposits capture the extent of resource mobilisation. Loans and advances measure credit deployment and income-generating capacity. The number of branches denotes physical presence and geographic reach, whereas the ATM network reflects technology-enabled accessibility and convenience. Finally, the employee base represents human resource strength, which underpins service delivery and operational efficiency.

A comparative analysis of these parameters not only reveals the institutional capacity and strategic

orientation of SBI, the largest public sector bank, and HDFC

Bank, a leading private sector player, but also sheds light on the evolving dynamics between public and private banking models. Specifically, it helps assess whether the rapid expansion of HDFC Bank suggests convergence with SBI's long-established dominance or represents an alternative trajectory of scale-oriented efficiency and competitiveness. Together, the six parameters provide a holistic framework to evaluate the outreach, resilience, and comparative performance of the two banks over the decade under review.

Table No. 1.1

Table Indicating Size, Scale and Outreach Parameters of SBI and HDFC from 2014-15 to 2023-24

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Customer Base (in Cr.)	S-A	27.3	30.1	33.8	42.4	43.5	44.9	45.9	46.8	48.1	50.3
	H-A	3.3	3.8	4.1	4.4	4.9	5.6	6.2	7.1	8.3	9.3
	S-T	100	110	124	155	159	164	168	171	176	184
	H-T	100	115	124	133	148	170	188	215	252	282
Deposits (in Rs. Lakh Cr.)	S-A	15.8	17.3	20.4	27.1	29.1	32.4	36.8	40.5	44.2	49.2
	H-A	4.5	5.5	6.4	7.9	9.2	11.5	13.4	15.6	18.8	23.8
	S-T	100	110	130	172	185	206	233	257	281	312
	H-T	100	121	143	175	205	255	296	346	418	528
Loans & Advances (in Rs. Lakh Cr.)	S-A	13.0	14.6	15.7	19.3	21.9	23.3	24.5	27.3	32.0	37.0
	H-A	3.7	4.6	5.5	6.6	8.2	9.9	11.3	13.7	16.0	24.8
	S-T	100	113	121	149	168	179	188	210	246	285
	H-T	100	127	152	180	224	272	310	375	438	680
Number of Branches (in 000)	S-A	16.3	16.8	17.2	22.4	22.0	22.1	22.2	22.3	22.4	22.5
	H-A	4.0	4.5	4.7	4.8	5.1	5.4	5.6	6.3	7.8	8.7
	S-T	100	103	105	137	135	136	136	136	137	138
	H-T	100	113	117	119	127	135	140	158	195	218
Number of ATMs (in 000)	S-A	54.6	59.0	59.2	59.5	58.4	58.6	62.6	65.0	65.6	63.6
	H-A	11.8	12.0	12.3	12.6	13.2	14.9	15.8	18.1	19.7	20.9
	S-T	100	108	109	109	107	107	115	119	120	117
	H-T	100	102	104	107	112	127	134	154	168	178
Number of Employees (in 000)	S-A	213.2	207.7	209.6	264.0	257.3	249.4	245.7	244.2	235.9	232.3
	H-A	76.3	87.6	84.3	88.3	98.1	117.0	120.1	141.6	173.2	213.5
	S-T	100	97	98	124	121	117	115	115	111	109
	H-T	100	115	111	116	129	153	157	186	227	280

Where S-A = SBI Actual Values, H-A = HDFC Bank Actual Values, S-T = Trend Values of SBI and H-T = HDFC Bank Trend Values.

Source: Annual Reports of SBI and HDFC Bank from 2014-15 to 2023-24.

Parameter-wise Analysis, Interpretation and Conclusion

1. Customer Base

- **Analysis:** SBI's customer base grew steadily from 27.3 crore in 2014–15 to 50.3 crore in 2023–24, with its trend values rising from 100 to 184. HDFC Bank, starting at a much smaller base of 3.3 crore, expanded sharply to 9.3 crore over the same period, with trend values escalating from 100 to 282.
- **Interpretation:** The data shows that while SBI's dominance in absolute terms remains unchallenged, HDFC Bank's customer acquisition rate was much faster. The nearly threefold rise in SBI's base contrasts with HDFC's near tripling relative to its own starting point. This suggests that HDFC has successfully expanded into newer markets and customer segments, leveraging its reputation for service quality and digital banking.
- **Conclusion:** SBI remains the largest bank in terms of customers, but HDFC's pace of growth highlights its potential to narrow the gap in the long run through aggressive outreach and customer-centric strategies.

2. Deposits

- **Analysis:** SBI's deposits rose from ₹15.8 lakh crore in 2014–15 to ₹49.2 lakh crore in 2023–24, with trend values moving from 100 to 312. HDFC Bank's deposits grew from ₹4.5 lakh crore to ₹23.8 lakh crore, with trend values climbing sharply from 100 to 528.
- **Interpretation:** SBI's scale advantage is evident in absolute terms, but HDFC has recorded faster

deposit mobilisation relative to its base. The stronger growth rate indicates higher customer confidence, deeper retail penetration, and efficient resource mobilisation, particularly in urban and semi-urban markets.

- **Conclusion:** While SBI continues to mobilise the largest pool of deposits, HDFC Bank's accelerating growth trajectory points to increasing competitiveness and suggests convergence over time if current trends persist.

3. Loans & Advances

- **Analysis:** SBI's loans and advances increased from ₹13.0 lakh crore in 2014–15 to ₹37.0 lakh crore in 2023–24, with trend values moving from 100 to 285. HDFC Bank grew from ₹3.7 lakh crore to ₹24.8 lakh crore, with trend values rising from 100 to 680.

- **Interpretation:** The pace of credit growth in HDFC Bank far outstripped that of SBI, reflecting its focus on retail lending, efficient risk management, and aggressive market expansion. SBI's growth, though substantial in absolute terms, was relatively moderate, possibly reflecting its larger exposure to stressed sectors and stricter regulatory oversight as a public sector bank.

- **Conclusion:** HDFC Bank has emerged as a strong competitor in the credit market, with its loan portfolio expanding at a faster pace than SBI's, although SBI remains dominant in sheer volume.

4. Number of Branches

- **Analysis:** SBI expanded from 16,300 branches in 2014–15 to 22,500 in 2023–24, with trend values rising modestly from 100 to 138. HDFC Bank, starting from 4,000 branches, grew to 8,700, with trend values increasing from 100 to 218.

- **Interpretation:** SBI's extensive branch network reflects its historical presence and deeper rural penetration. HDFC Bank, though smaller in absolute numbers, recorded faster growth in branch expansion, especially in semi-urban and tier-2/3 towns. The difference highlights SBI's saturation versus HDFC's aggressive scaling.

- **Conclusion:** SBI retains the widest branch footprint, but HDFC Bank's expansion reflects its strategic intent to catch up by extending physical presence in previously underserved areas.

5. Number of ATMs

- **Analysis:** SBI's ATMs grew marginally from 54,600 in 2014–15 to 63,600 in 2023–24, with trend values dipping slightly after peaking, stabilising at 117. HDFC Bank's ATMs rose from 11,800 to 20,900, with trend values climbing from 100 to 178.

- **Interpretation:** SBI's ATM network, already saturated, showed limited growth, reflecting a shift toward digital banking channels. HDFC Bank's

ATM base expanded at a higher pace, signalling its intent to enhance service accessibility, though still far behind SBI in absolute size.

- **Conclusion:** SBI continues to dominate in ATM presence, but HDFC Bank's faster relative growth underlines its focus on improving physical service touchpoints alongside digital banking initiatives.

6. Number of Employees

- **Analysis:** SBI's employee strength fluctuated, peaking at 2.64 lakh in 2017–18 before declining to 2.32 lakh in 2023–24, with trend values falling from 100 to 109. HDFC Bank's workforce expanded steadily from 76,300 in 2014–

15 to 2.13 lakh in 2023–24, with trend values surging from 100 to 280.

- **Interpretation:** SBI's reduction in manpower suggests restructuring, rationalisation, and increasing reliance on technology for efficiency. In contrast, HDFC's workforce growth reflects rapid business expansion, recruitment for new branches, and customer-centric service delivery. The narrowing employee gap highlights the pace at which HDFC is scaling operations.

- **Conclusion:** SBI remains larger in absolute manpower, but HDFC Bank's rapid growth in workforce indicates its aggressive expansion and future potential to match SBI's scale in human resource terms.

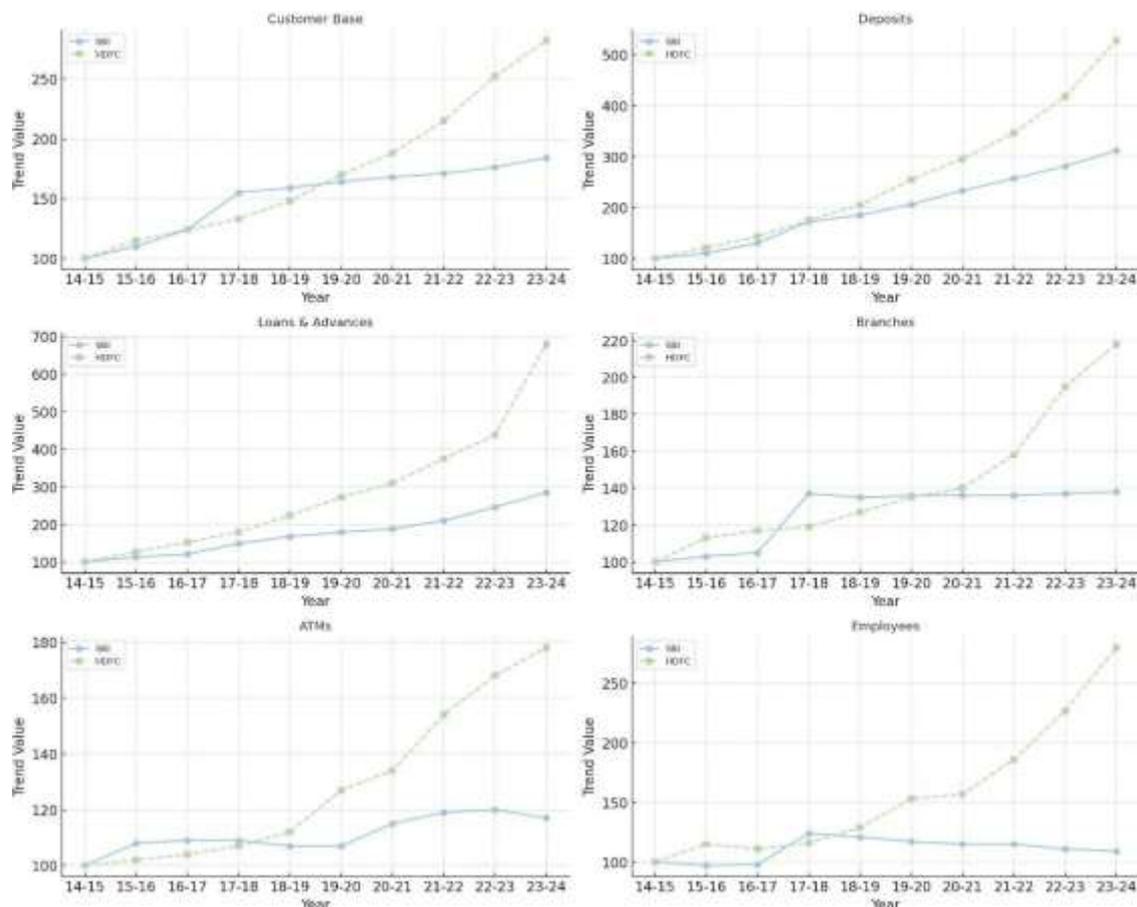


Figure 1.1: Trend Values of Size, Scale and Outreach Parameters of SBI and HDFC Bank (2014–15 to 2023–24)

Note: All values are expressed as trend indices with 2014–15 taken as the base year (100). Trend values highlight relative growth trajectories rather than absolute magnitudes. Data has been compiled from Annual Reports of SBI and HDFC Bank for the period 2014–15 to 2023–24.

Overall Conclusion on Six Parameters

The comparative analysis reveals that SBI continues to dominate in absolute terms across all six parameters owing to its legacy, size, and extensive network. However, HDFC Bank's faster relative growth across deposits, loans, customer base, branches, ATMs, and employees demonstrates its emergence as a formidable competitor. The data suggests that while SBI represents stability and systemic strength, HDFC reflects agility, efficiency, and market competitiveness. If current trends continue, the performance gap between public and private banking models may narrow considerably in the coming decade.

7. Hypothesis Testing:

H_{01} (Null Hypothesis):

There is no significant difference in the growth trends of size, scale and outreach parameters between SBI and HDFC Bank during the research period.

H_{11} (Alternative Hypothesis):

There is a significant difference in the growth trends of size, scale and outreach parameters between SBI and HDFC Bank during the research period.

Methodology and Parameters Considered:

To test this hypothesis, six parameters representing the size, scale, and outreach of SBI and HDFC Bank were selected. The data for each parameter was normalised to a base value of 100 for the year 2014–15, and the trend values were computed up to the year 2023–24. The selected parameters are:

- Customer Base (in Crores)
- Deposits (Rs. Cr.)
- Loans and Advances (Rs. Cr.)
- Number of Branches (Domestic)
- Number of ATMs
- Number of Employees

For each parameter, the mean of the 10-year trend values was calculated for both banks. An Independent Sample t-test was then conducted to evaluate whether the difference in the mean trend values between the two banks was statistically significant at the 5% level of significance.

Table No 1.2
Results of Hypothesis Testing

Parameter	SBI Mean	HDFC Mean	t-Statistic	p-Value	Significant?	Better Bank
Customer Base (in Crores)	151.1	172.7	-1.011	0.3307	No	HDFC
Deposits (Rs. Cr.)	198.6	258.7	-1.211	0.2467	No	HDFC
Loans and Advances (Rs. Cr.)	175.9	285.8	-1.868	0.0886	No	HDFC
Number of Branches (Domestic)	126.3	142.2	-1.220	0.2455	No	HDFC
Number of ATMs	111.1	128.6	-1.867	0.0919	No	HDFC
Number of Employees	110.7	157.4	-2.504	0.0324	Yes	HDFC

Source: SPSS Output

Note: Although not statistically significant in five parameters, HDFC's mean trend values were higher in all six cases.

Interpretation:

- Only the Number of Employees parameter showed a statistically significant difference (p-value = 0.0324), indicating that HDFC Bank experienced significantly higher growth in employee strength compared to SBI.
- The other five parameters — Customer Base, Deposits, Loans & Advances, Branches, and ATMs — did not show statistically significant differences.
- Nevertheless, the consistently higher mean trend values across all six parameters suggest a stronger overall expansion for HDFC Bank during the study period.

The null hypothesis (H_{01}) is rejected for one parameter (Number of Employees) and retained for the other five. However, the fact that HDFC Bank's mean trend values are higher across all six parameters indicates a comparatively stronger growth trajectory in size, scale, and outreach between 2014–15 and 2023–24. SBI continues to hold dominance in absolute size, but HDFC Bank demonstrates greater dynamism in relative growth.

8. Suggestions

For SBI:

- (1) Reinvalidate Growth Strategies: SBI should focus on regaining momentum in customer acquisition and deposit mobilisation through targeted digital outreach and tailored products for younger demographics.
- (2) Optimise Human Resources: With declining employee strength, SBI must invest in reskilling and upskilling its workforce to align with technology-driven banking models.
- (3) Expand Technological Penetration: While its ATM network is extensive, SBI should accelerate digital banking initiatives (mobile, UPI, AI-driven services) to remain competitive.
- (4) Strengthen Retail Lending: Diversifying and deepening its retail loan portfolio can help SBI counterbalance slower growth in large corporate exposures.

For HDFC Bank:

- (1) Maintain Service Quality Amid Expansion: As HDFC Bank rapidly scales branches, ATMs, and workforce, ensuring consistency in customer service and operational efficiency is critical.
- (2) Balance Growth with Risk Management: Rapid credit expansion calls for stronger monitoring of asset quality to prevent future stress.
- (3) Focus on Rural and Semi-Urban Markets: To further narrow the outreach gap with SBI, HDFC Bank should intensify penetration in underserved regions.
- (4) Sustain Workforce Productivity: With the fastest-growing employee base, HDFC must ensure

adequate training, motivation, and productivity to sustain efficiency.

9. Conclusion

The comparative analysis of size, scale, and outreach reveals that while SBI continues to dominate in absolute terms, HDFC Bank has demonstrated consistently higher relative growth across all six parameters. The hypothesis testing results confirm

that the difference is statistically significant only in the case of employees, but the overall trend suggests a gradual convergence of the private sector with the public sector banking giant.

This study highlights that SBI represents scale, stability, and systemic importance, whereas HDFC Bank symbolises agility, efficiency, and market dynamism. Together, they reflect the evolving dual model of Indian banking — one anchored in legacy and outreach, the other propelled by efficiency and growth.

The findings suggest that the next decade could witness sharper competition and possible rebalancing in market leadership, depending on how each bank leverages its strengths and addresses its weaknesses.

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