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A Comparative Study on the Performance of Selected Public Sector and Private Sector Banks in India

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ABSTRACT

Banks are active player in the economy. Banks mobilizing the idle saving of the people and channeling them to a productive purpose which is necessary for the economic development of the country. The main objective of this study is to compare the Financial Performance of Selected Public and Private Banks in India. Those banks government holds a major portion of the share known as public banks owned by private lenders known as private banks. In this research study, the top thirty banks of India according to market capitalization were considered. They further divided into two parts: fifteen public sector banks and fifteen private sector banks. The data used in the study secondary in nature. This study covers the time periods from 1 April 2008 to 31st March 2018. To compare the financial performance of the public and private banks following parameters i.e. Capital Adequacy Ratio, Return on Assets, Return on net worth, Cash deposit ratio, Interest income, and total fund ratio, Advance to loan fund ratio & Credit deposit ratio has used. Independent T-test and Mean was used to compare the financial performance of selected Public and Private sector banks in India.

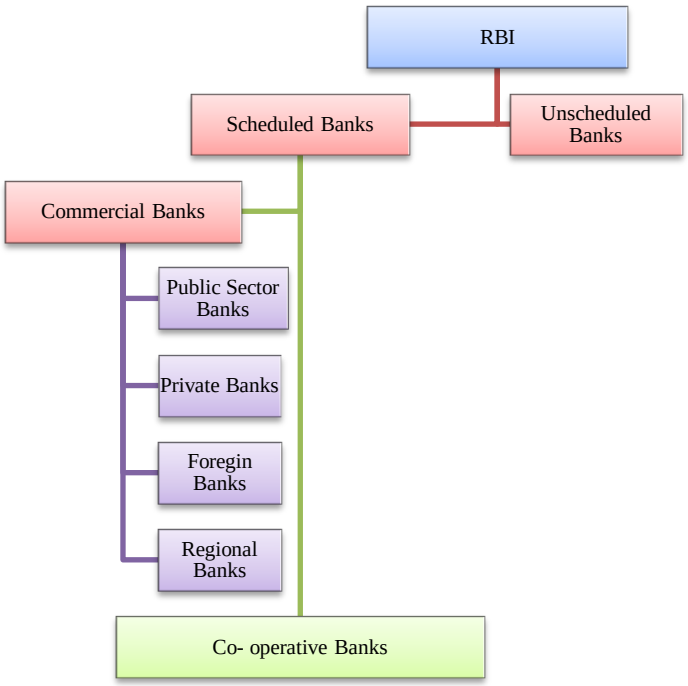
Keywords: Financial Performance, Return on Assets, Capital Adequacy Ratio, Return on Net worth.

INTRODUCTION:

A bank is a monetary body which controls the financial activities of individuals and commercial institutions on their behalf; amongst the broad spectrum of activities conducted in banks on daily basis, the most elementary task includes receiving deposits and advancing credits to earn profit. Banks can be considered as blood streams of the nation as it helps feed the economy by playing the important role to the businesses that keep their operations running on the daily basis, help them grow via offering loans and make future investments to further their business prospects bother nationally and internationally. Indian banking history has been quite diverse; just like the diverse culture of our nation many banks have been established throughout the years to meet the varied needs of our growing economy. The foremost operational bank in India was established in 1839 known as the "Union Bank of India". However, it failed to withstand the brutal economic crisis of 1848-49 faced by our Indian economy."Bank of Upper India" encountered the similar fate as it also could not survive and closed it operation in 1913. The timeline of establishment of some other banks are as follows; Bank of Bombay 1840, Bank of Madras 1843, and Bank of Calcutta 1806 (later renamed as Bank of Bengal in 1809). These three banks later in 1921 collaborated into one bank renamed as Imperial Bank of India. Since, the independence of India in 1947 the largest and most rapidly growing bank has been State Bank of India; established in 1955. SBI has successfully managed to overcome and survive numerous economic challenges faced by our nation. Nevertheless, not being the only bank to face such a turmoil; Allahabad Bank (established 1865) has also forged its name in Indian banking history as being the oldest surviving bank of India and it has managed to do so till

the date. Indian banking sector is mainly divided into two classes: scheduled and nonscheduled banks. Reserve Bank of India being the head governing body initiates the financial policies and procedures. Those banks that are included under second schedule of Reserve Bank of India Act 1934 are known as "scheduled banks". These banks are further classified under nationalized bank, Regional Rural Banks, Foreign banks and other private banks. The following chart gives the hierarchical representation of the Indian banking structure.

Indian Banking Structure :



There are certain tools that are used to compare the information on financial performance of a particular institution. For the purpose of this paper "ratio analysis" is considered as the appropriate tool. It will be used to evaluate efficiency, liquidity, profitability and solvency of thirty banks selected for comparative study.
Section II look deep into the literature review showcasing the study already conducted to compare the performance of Indian banks. Furthermore Section III presents objectives and research hypothesis along with data analysis and interpretation in Section IV. Finally the paper concludes with findings in the last chapter.

REVIEW OF LITERATURE:

Meena and Dhar (2014) debated over the liquidity ratio and asset liability management in topmost three public, private and foreign banks in India. The outcome exhibited that largely banks in India have a very decent short-term liquidity position.
Agrawal and Yadev (2015) showed a relative study amongst the growth rate of PNB and HDFC bank. In this paper subsequent factors were used i.e. Net profit growth, Net assets growth, ROA and NPA. The scholars determined that HDFC growth is healthier than PNB bank.
Bhatia et al (2015) discussed that private banks concentrated on marketing tasks to alert the countryside residents about the facilities. Individuals are extra pleased with the secluded sector banks rather than public banks due to its better services.
Gupta and Sundram (2015) inspected the public and private bank for this education major information was used. In this revision subsequent limits were used i.e. assets, net profit, interest expenditure, interest income, deposits. The consequence presented that the complete performance of selected private banks is enhanced than public banks.
Balaji and Kumar (2016) examined the monetary presentation of designated public and private banks. The outcome presented that effectiveness of both bank were augmented but the development rate was greater in private banks as compared to public banks.
Kumar (2017) detected that CRM approach directly effects on client area from the examination and private sector banks preserve better association in advertising methods as compared to public sector banks.

OBJECTIVE OF THE STUDY:

The main objective of this study is to compare the Financial Performance of Selected Public and Private Banks in India through the ratio analysis.

Research Hypothesis:

H_0: There is no significance difference in the Financial Performance of Public and Private Sector Banks in India.
H_1: There is Significance difference in the Financial Performance of Public and Private Sector Banks in India.

RESEARCH METHODOLOGY:

Sample Unit:

This study include total thirty banks which further classified into fifteen Public sector Banks and fifteen Private sector Banks in India. Top Public as well as Private sector Banks on the basis of market capitalization/ Income as per year 2017 will be selected for this study.

Scope of the study:

The analysis was conducted for the following parameters:

- Capital Adequacy Ratio: The Capital Adequacy Ratio (CAR) is a degree of a bank's accessible capital stated as a proportion of a bank's risk-weighted credit exposures. It is used to guard investors and encourage the steadiness and effectiveness of monetary organizations. Rendering to Basel III standards, it is set at 8percent. RBI standards for Indian commercial banks uphold CAR 9 percent in contrast to Indian public sector banks that uphold CAR at 12percent.CAR is mostly used to quantify the monetary power through its wealth and properties. Generally, bank with great CAR is reflected as more secure and probable to meet its monetary debt.
- Net worth Ratio: This shows the profit that stockholders possibly will collect on their stock in an enterprise, if entire of the revenue received were to be delivered straight to them. Consequently, the ratio is established from the viewpoint of the stockholder, not the enterprise, and is used to examine depositor revenues. The ratio is beneficial as a degree of how healthy an enterprise is using the stockholder stock to generate revenues for them. Return on net worth is used to quantify the profitability of the corporation in the form of percentage. It clarifies the effectiveness of the stockholders wealth to produce income. It specifies how much revenue has been produced for each dollar of equity stock. This proportion is precisely represented as: RONW= Net Income/ Shareholders' Equity
- Interest Income to Total Fund Ratio: Net interest refers to the variance amongst the income that is produced from a bank's possessions and the expenditures related with compensating out its obligations, once it is divided by overall funds, it is named as net interest income to total funds ratio. It clarifies about the entire net margin as a fraction over the assets of the banks.
- Return on Assets Ratio: It is a gauge of exactly how moneymaking an enterprise is comparative to its entire assets. This provides a supervisor, stockholder, or predictor awareness as to how effective a business's administration is at spending its assets to produce incomes.ROA is a monetary ratio that displays the fraction of revenue a business receives in relation to its total resources. Net income is cultivated from revenue report of a business and is the profit after tax. This proportion is applied in equating those businesses, which have identical level of capitalization. Greater the ROA healthier the organization. It is Net Income/ Total Assets
- Advance to Loan Fund Ratio: Advances to loan fund refers to any advance made on an upcoming obligation or compensation. The term, advance funding, is used generally, fluctuating from individual or venture loans to upcoming promised expenditures.
- Credit Deposit Ratio: It is proportion of how far a bank offers out of the credits it has mobilized. A very little percentage specifies banks are not making complete use of their supplies. This ratio provides the suggestion concerning the strength of the bank. Credit deposit ratio is fixed at 75 per cent for banking segment, on the other hand, for the Indian banking it is fixed at 70 per cent. If proportion is excessively great, it means that bank might not have sufficient liquidity to conceal any unexpected fund necessities and on the other hand if the proportion is excessively small, the bank might not be earning as much as it might be.
- Cash Deposit Ratio: CDR is the ratio of how much a bank lends out of the deposit it has mobilized. It demonstrates how much bank's main reserves are being used for advancing. It can furthermore be well-defined as Total cash in hand with RBI/ Total deposits.

Furthermore to validate the hypothesis described in the former section, t-test were conducted using spss software.

Time period of the study:
This paper covered the time period of ten years from 1st April 2008 to 31st March 2018.

Data Collection:
The data has been collected from secondary sources i.e. Reserve Bank of India, banks websites, annual reports of the respective banks. Fifteen Private sector and fifteen Public sector banks were selected on the basis of their market capitalization.

DATA ANALYSIS AND INTERPRETATION:

Capital adequacy Ratio:

Table 1: Capital Adequacy Ratio for selected Public and Private Sector Banks (in per cent)

Public Banks	Mean	Standard Deviation
SBI	13.01	0.72
BOB	12.96	1.33
PNB	12.31	1.42
Canara	12.61	1.67
BOI	11.69	0.98
CBI	11.65	0.80
IB	13.14	0.36
IDBI	11.92	1.26
Union	11.69	1.00
Syndicate	11.93	0.78
IOB	11.69	1.92
Vijaya	12.55	1.02
Allahabad	11.54	1.56
UCO	12.20	1.43
Corporation	12.28	1.82
Private Banks		
HDFC	16.04	0.90
Kotak	17.91	1.39
ICICI	17.89	1.27
Axis	15.07	1.38
IndusInd	14.47	1.32
Yes	17.18	1.71
Federal	15.83	2.25
RBL	24.28	15.06
City Union	14.46	1.55
Karur	13.89	1.02
DCB	14.35	1.05
SIB	13.35	1.22
J & K	12.95	1.49
Karnataka	12.70	0.58
Lakshmi Vilas	11.68	1.61
Group CAR Public Banks	12.2187	0.54131
Group CAR Private Banks	15.4759	3.06555

Source: Annual Reports of Banks & moneycontrol.com
F=10.108, Sig = .001 < 0.05

The above table shows that CAR is highest for SBI among public sector banks, having mean value of 13.01 and is highest for RBL bank in case of private sector banks having value of 24.28. Both these banks have CAR mean value more than average CAR value for the respective groups of banks. This means that financial strength

for these two banks is very strong. These banks are therefore interpreted to be safest of the respective groups. Same value is least for Allahabad and Lakshmi Vilas bank in the respective sector. However, all of the private sector banks expect Lakshmi Vilas bank have higher CAR than average CAR for the entire public sector.
The important p- value of Levene's test is .004<0.05then equal variance not assumed is .001<0.05 then hypothesis Ho is rejected. It specifies that there is noteworthy dissimilarity in financial performance amongst Public and Private Sector banks in Capital Adequacy Ratio.

Net worth Ratio:

Table 2: Return on Net worth Ratio for selected Public and Private Sector Banks (in per cent)

Public Banks	Mean	Standard Deviation
SBI	9.87	5.61
BOB	9.55	11.48
PNB	8.06	18.01
Canara	9.46	13.21
BOI	4.94	15.20
CBI	1.2	16.59
IB	13.99	6.64
IDBI	-3.03	22.14
Union	10.18	12.99
Syndicate	8.01	15.53
IOB	-5.28	21.45
Vijaya	10.34	3.52
Allahabad	3.13	24.20
UCO	0.67	27.96
Corporation	6.27	18.21
Private Banks		
HDFC	16.59	1.64
Kotak	11.68	2.25
ICICI	10.31	2.50
Axis	14.07	5.84
IndusInd	15.03	2.18
Yes	18.63	2.70
Federal	10.71	2.60
RBL	7.07	2.94
City Union	17.51	3.09
Karur	14.86	4.85
DCB	4.77	11.04
SIB	13.44	4.67
J & K	10.19	15.05
Karnataka	10.06	2.97
Lakshmi Vilas	6.19	12.03
Group Net worth Ratio for Public Banks	5.8273	5.46219
Group Net worth Ratio for Private Banks	12.1156	4.13250

Source: Annual Reports of Banks & moneycontrol.com
F=1.256, Sig =0.001< 0.05

Among public sector banks, IDBI clocks highest net worth ratio of 13.99 whereas IDBI and IOB have negative net worth ratio among public banks. Yes Bank in the private sector group leads the tally with highest net worth ratio of 18.63. Group net worth ratio for the public banks is far less as equated to the same ratio of private sector banks. There is not a single private sector bank having negative net worth ratio. This reflects that stakeholders of the private banks are in sound position than stakeholders for the public banks.
The important p- value of Levene's test is .272>0.05then equal variance assumed is .001<0.05 then hypothesis Ho is rejected. It designates that there is noteworthy dissimilarity in financial performance amongst Public and Private Sector banks in Net worth Ratio.

Interest Income to Total Fund:

Table 3: Interest Income to Total Fund Ratio for selected Public and Private Sector Banks (in per cent)

Public Banks	Mean	Standard Deviation
SBI	7.91	0.61
BOB	6.84	0.68
PNB	8.2	0.72
Canara	8.26	0.72
BOI	7.34	0.85
CBI	7.81	1.23
IB	8.63	0.71
IDBI	7.99	0.61
Union	8.29	0.67
Syndicate	8	0.58
IOB	10.02	3.13
Vijaya	8.55	0.57
Allahabad	8.47	0.81
UCO	7.9	0.81
Corporation	8.24	0.53
Private Banks		
HDFC	9.32	1.24
Kotak	10.15	1.05
ICICI	7.25	1.30
Axis	8.42	1.00
IndusInd	9.77	0.73
Yes	9.36	1.13
Federal	9.14	0.74
RBL	8.31	0.56
City Union	9.9	0.54
Karur	9.8	0.5
DCB	9.39	0.78
SIB	9.1	0.64
J & K	8.62	0.50
Karnataka	9.16	0.73
Lakshmi Vilas	9.6	0.79
Group Interest Income to Total Fund Ratio for Public Banks	8.1673	0.68935
Group Interest Income to Total Fund Ratio for Private Banks	9.1685	0.75830

Source: Annual Reports of Banks & moneycontrol.com
F=0.343, Sig =0.001< 0.05

As seen from the table above, the group value for the interest income to total fund ratio for both public and private sector banks do not differ significantly having the value of 8.1 and 9.1 respectively. Kotak bank and IOB lead their respective groups having the value of 10.15 and 10.02. Except BOB every bank in both the sectors have the value higher than 7.0

The significant p- value of Levene's test is .563>0.05then equal variance assumed is .001<0.05 then hypothesis Ho is rejected. It designates that there is noteworthy dissimilarity in financial performance amongst Public and Private Sector banks in Interest Income to Total Fund Ratio.

Return on assets Ratio:

Table 4: Return on Assets Ratio for selected Public and Private Sector Banks (in per cent)

Public Banks	Mean	Standard Deviation
SBI	0.64	0.35
BOB	0.56	0.92
PNB	0.55	0.99
Canara	0.73	0.84
BOI	0.28	0.78
CBI	-0.064	0.75
IB	0.99	0.50
IDBI	-0.08	1.13
Union	0.55	0.68
Syndicate	0.39	0.68
IOB	-0.12	1.06
Vijaya	0.52	0.16
Allahabad	0.32	0.95
UCO	0.08	0.98
Corporation	0.62	0.94
Private Banks		
HDFC	1.75	0.28
Kotak	1.62	0.32
ICICI	1.37	0.34
Axis	1.41	0.59
IndusInd	1.55	0.45
Yes	1.54	0.15
Federal	1.11	0.29
RBL	0.96	0.25
City Union	1.5	0.13
Karur	1.19	0.38
DCB	0.49	1.04
SIB	0.85	0.29
J & K	0.77	1.08
Karnataka	0.75	0.18
Lakshmi Vilas	0.37	0.70
Group ROA for Public Banks	0.3989	0.08491
Group ROA for Private Banks	1.1537	0.43317

Source: Annual Reports of Banks & moneycontrol.com
F=2.018, Sig = 0.000< 0.05

HDFC gives highest return on assets when it comes to private sector banks. ROA is 1.75 for the HDFC bank and 0.37 for Lakshmi Vilas bank. There is also big difference between the group ROA value for the public and private sector. In public sector, some of the banks like CBI, IDBI and IOB have negative return on their assets. Such banks need to improve their ROA to gain the confidence of their investors. Higher value for the private sector banks indicates that if a shareholder would have to choose a bank for the investment purpose then private banks prove to be the safest bet among all.

The significant p- value of Levene's test is .166>0.05then equal variance assumed is .000<0.05 then hypothesis Ho is rejected. It designates that there is important dissimilarity in financial performance amongst Public and Private Sector banks in Return on Asset Ratio.

Advance to loan fund:

Table 5: Advance to Loan Fund Ratio for selected Public and Private Sector Banks(in per cent)

Public Banks	Mean	Standard Deviation
SBI	77.18	3.59
BOB	73.9	4.83
PNB	74.79	4.68
Canara	71.44	5.01
BOI	71.77	6.93
CBI	66.49	9.30
IB	75.26	3.20
IDBI	67.7	7.15
Union	74.59	3.59
Syndicate	76.01	3.95
IOB	69.56	7.64
Vijaya	69.54	2.94
Allahabad	71.84	2.14
UCO	66.8	8.68
Corporation	68.57	5.68
Private Banks		
HDFC	79.54	5.08
Kotak	81.77	6.14
ICICI	71.16	5.37
Axis	75.04	2.58
IndusInd	76.17	7.68
Yes	75.17	10.29
Federal	75.92	3.53
RBL	79.75	13.96
City Union	78.02	5.82
Karur	77.39	1.85
DCB	77.52	9.78
SIB	75.15	3.04
J & K	66.91	3.52
Karnataka	69	4.16
Lakshmi Vilas	77.2	2.89
Group Advance to Loan Fund for Public Banks	71.6992	3.48981
Group Advance to Loan Fund for Private Banks	75.7153	4.02285

Source: Annual Reports of Banks & moneycontrol.com
F=0.000, Sig=0.007< 0.05

SBI leads the pack for the public sector bank group having highest value of 77.18 for the advance to load fund ratio while Kotak bank leads the private sector having the value of 81.77. There is not much significant different when the group values for the respective banks are compared. Almost all of the banks, let it be public or private, have similar values ranging from 66 to 81.

The significant p- value of Levene's test is .988>0.05then equal variance assumed is .007<0.05 then hypothesis Ho is rejected. It shows that there is substantial dissimilarity in financial performance amongst Public and Private Sector banks in Advance to loan Fund Ratio.

Credit deposit ratio:

Table 6: Credit Deposit Ratio for selected Public and Private Sector Banks (in per cent)

Public Banks	Mean	Standard Deviation
SBI	80.71	4.545258
BOB	72.24	1.87767
PNB	74.71	3.444978
Canara	70.65	1.524155
BOI	73.55	3.46001
CBI	67.51	8.455318
IB	72.44	2.159167
IDBI	83.78	7.776726
Union	75.55	3.683739
Syndicate	77.15	3.49
IOB	73.3	4.68
Vijaya	68.6	2.39
Allahabad	72.05	0.86
UCO	71.1	10.85
Corporation	69.69	3.18
Private Banks		
HDFC	79.03	5.92
Kotak	93.9	5.37
ICICI	97.1	5.63
Axis	81.08	8.85
IndusInd	83.97	8.76
Yes	80.76	8.20
Federal	74.36	2.32
RBL	77.44	13.28
City Union	73.88	4.39
Karur	75.16	3.48
DCB	78.75	5.55
SIB	71.46	2.69
J & K	65.13	4.08
Karnataka	65.8	4.025
Lakshmi Vilas	73.23	2.81
Group Credit Deposit Ratio for Public Banks	73.5414	4.38949
Group Credit Deposit Ratio for Private Banks	78.0748	8.82355

Source: Annual Reports of Banks & moneycontrol.com
F=3.625, Sig=0.090> 0.05

IDBI maintains its credit deposit ratio at 83.78 in the public sector banks and ICICI maintains this value at 97.1 in the private sector banks. This indicates that these two banks are making the best use of their resources to generate income. The group credit deposit ratio for the private banks is slightly on the higher level than the public sector banks. The significant p- value of Levene's test is .067>0.05then equal variance assumed is .086>0.05 then hypothesis Ho is accepted. It designates that there is no noteworthy dissimilarity in financial performance amongst Public and Private Sector banks in Credit Deposit Ratio.

Cash deposit ratio:

Table 7: Cash Deposit Ratio for selected Public and Private Sector Banks (in per cent)

Public Banks	Mean	Standard Deviation
SBI	6.77	1.44
BOB	4.45	1.11
PNB	5.56	1.49
Canara	5.18	1.12
BOI	5.53	0.92
CBI	9.01	4.71
IB	5.62	1.55
IDBI	6.41	2.02
Union	5.63	1.44
Syndicate	6.02	1.89
IOB	5.73	0.70
Vijaya	5.55	2.01
Allahabad	5.15	0.82
UCO	4.79	1.32
Corporation	6.71	1.26
Private Banks		
HDFC	7.54	2.38
Kotak	5.62	1.39
ICICI	7.7	2.19
Axis	6.54	0.94
IndusInd	6.36	0.85
Yes	5.89	1.09
Federal	5.39	0.92
RBL	7.15	2.03
City Union	5.89	1.44
Karur	5.64	0.76
DCB	5.39	0.95
SIB	4.84	0.78
J & K	5.27	1.27
Karnataka	5.76	0.91
Lakshmi Vilas	6.05	1.39
Group Cash Deposit Ratio for Public Banks	5.8778	1.07924
Group Cash Deposit Ratio for Private Banks	6.0724	0.84182

Source: Annual Reports of Banks & moneycontrol.com
F=0.115, Sig=0.587>0.05

The banks namely, CBI in the public sector having cash deposit ratio at 9.01 and ICICI having cash deposit ratio at 7.7 are the leaders in their respective segment. The group value however are approx. same for both the sectors. Similar values indicate that both these sectors are mobilizing similar value of their main reserves for advancing the loans to their customers. The significant p-value of Levene's test is .737>0.05then equal variance assumed is .586>0.05 then hypothesis Ho is accepted. It designates that there is no noteworthy dissimilarity in financial performance amongst Public and Private Sector banks in Cash Deposit Ratio.

CONCLUSION:

The values of sig the t-test are lesser than 0.05 for all the parameters accept for the cash and credit deposit ratio. This means that there is no significant difference between the private and public sector banks when it comes to these two ratios. This reflects that both the private and public sector banks are doing equally well to carry out their lending activities to their customers. By using the independence T-test it is clear that there is noteworthy

dissimilarity in financial performance amongst Public and Private Sector banks in Capital Adequacy Ratio, Interest Income to total Fund Ratio, Return on Asset Ratio, and Advance to loan Fund Ratio. There is no noteworthy dissimilarity in financial performance between Public and Private Sector banks in Credit Deposit Ratio, Cash Deposit Ratio. The return on net worth is ratio is far better for the private banks than public sector banks having the mean value of 12.11 as equated of 5.8 of public sector banks. This would mean that private banks are using the investor's money in a better way to generate income. This is reason of worry for the public sector banks since their returns are lesser than private banks. Public sector banks need to upgrade their net worth ratio to lure the stakeholders. Another significant difference is obtained for return on assets ratio which is 1.15 for private sector banks and 0.39 public sector banks. This means that they private sector banks are generating higher returns against their assets.

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