CHAPTER III

ASSET UTILISATION

As concluded in the previous chapter, banks can improve their 'spread ratio' by improving their interest earnings through better asset utilisation. We feel that the assets allocation policy and the assets mix of a bank directly affect its profitability as there is a positive correlation between the 'degree of asset utilisation' and 'profitability' subject to a uniform degree of expenditure control, exercised by it. The profitability of a bank, therefore, is determined by the degree of its asset management efficiency which can be monitored and improved through a simultaneous evaluation and analysis of the assets mix which directly affects the earnings of a bank related to its aggregate assets. The asset utilisation analysis, thus helps in the identification of strong and weak asset utilisation elements. A bank should try to evaluate, its own asset management efficiency relative to others in its own stratum and to the banking system as a whole from time to time with a view to monitor, its asset utilisation and profitability. For this purpose an attempt has been made in this chapter to develop a suitable Asset Management Efficiency Model (AME Model) for determining the degree

of asset management efficiency of the nationalised banks for identifying their strong and weak asset management elements.

The AME Model

For the purpose of a comparative analysis of the efficiency of asset utilisation, it is imperative to provide it a quantifiable meaning. An asset utilisation indicator has, therefore, been developed to serve the purpose of identifying the relative asset management efficiency of a nationalised bank. The term 'asset utilisation' means the relationship of gross income of a nationalised bank from its assets to its total assets. The Asset Utilisation Indicator (AUI) thus is the ratio (%) of gross income of a bank to its total assets averaged out for a defined period of time and is given by,

$$AME = AUI = \frac{G.R}{AA} \times 100$$

Where,

G.R. or gorss revenue is the total income of a bank during the defined period of time and

AA or Average Assets is the average of total assets of a bank during the same period of time, arrived at either on the basis of weekly, fortnightly or monthly data.

The AUI obtained from the above AME identity can be used to understand the asset management efficiency of a bank. Through it, a bank management can evaluate its asset management efficiency over time and relative to other individual banks as well as the banking system as a whole. Since bankers would like to know their weak and strong asset management elements also, this model can be refined to identify the gross return from each major asset category of a bank, as given by

$$AME = AUI = \frac{r_1}{a_1} W_1 + \frac{r_2}{a_2} W_2 + \frac{r_3}{a_3} W_3 + \frac{r_n}{a_n} W_n + \frac{OI}{AA}$$

Where,

r_1 = Gross operating revenue from cash and balances,

r_2 = Income from investments,

r_3 = Interest and discount earned on loans and advances,

r_n = Income from n assets

OI = All other incomes which cannot be related to a particular category of assets,

a_1 = Average of cash and balances during the period,

a_2 = Average of Investments,

a_3 = Average of loans and advances,

a_n = Average of n assets,

AA = Average of total assets,

W_1 = Percentage of cash and balances in the total assets,

W_2 = Percentage of investments in total assets,

W_3 = Percentage of loans and advances in total assets,

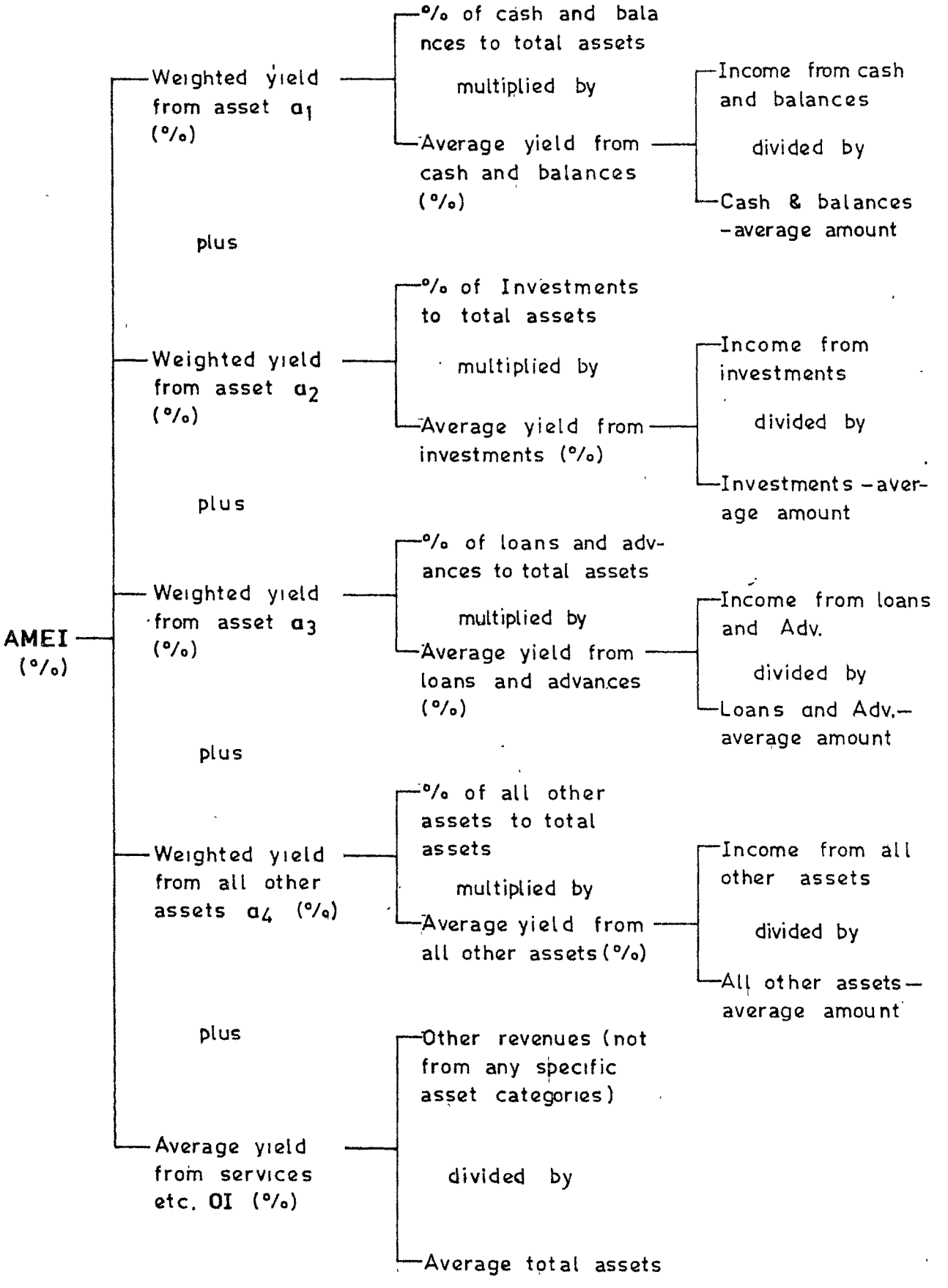
W_n = Percentage of n assets in total assets.

The refined AME model incorporates the relative importance of each major asset category in the total assets and highlights the contribution of each asset category in the gross income or revenue of a bank during the period. Any variation in the AME of a bank over time and relative to other banks and the banking system as a whole is explained by the variations in the weighted yields from different asset categories. This model thereby highlights the strong and weak elements of a bank's asset mix on the basis of which the management of the bank can redesign the asset-mix and correct or further improve their degree of asset management efficiency. The refined AME Model can be presented in the form of an exhibit also. Exhibit 1 shows the system of the model in a very simple manner.

The model can be further refined to enable a bank to identify the weak and strong elements of each major

EXHIBIT III.1

ASSET MANAGEMENT EFFICIENCY MODEL

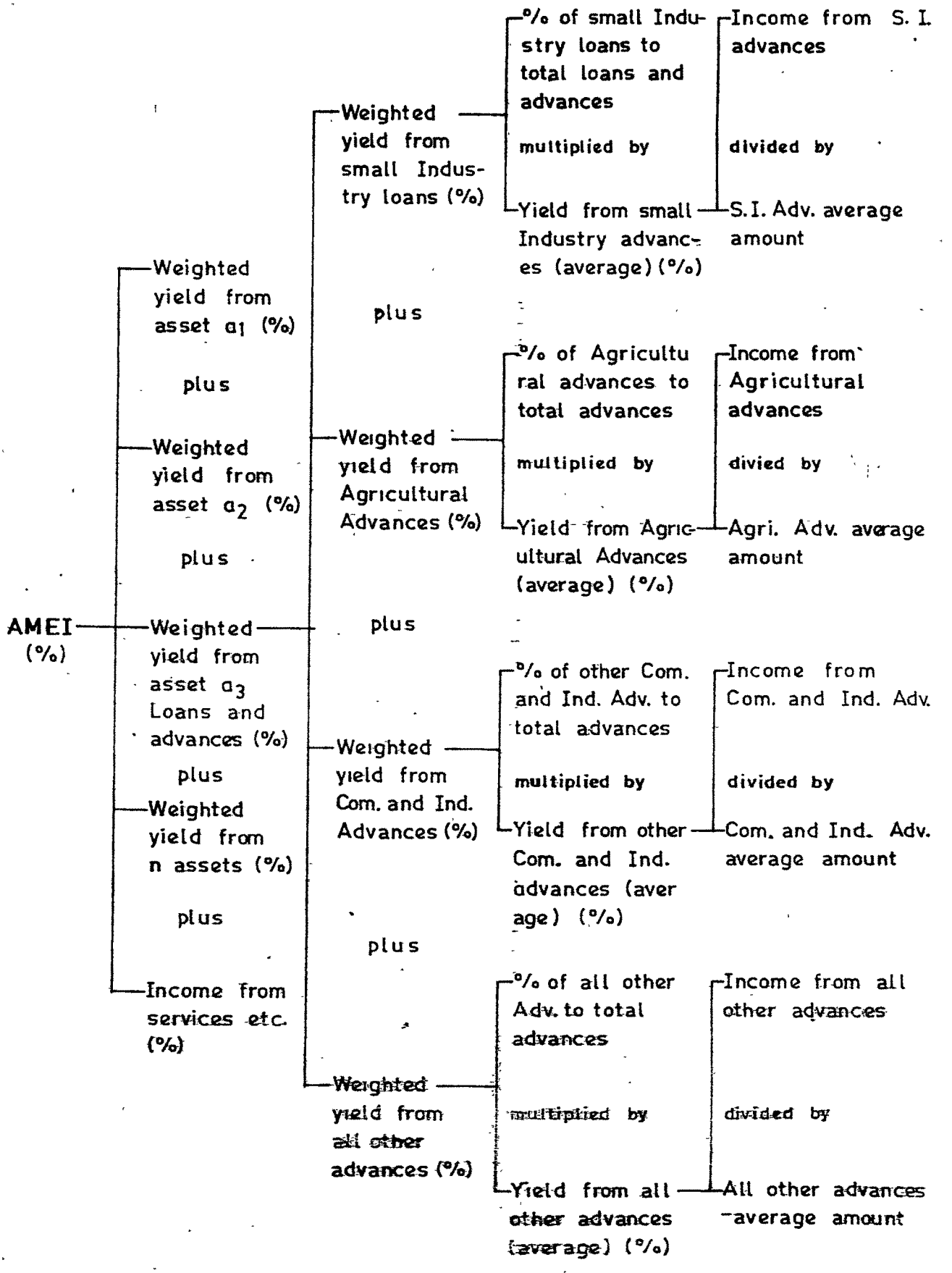


category of assets. This may be done by separating major asset categories with their specific components. For illustrative purposes only, this refinement is shown in respect of 'Loans and Advances' category of assets in Exhibit 2.

Refinement in respect of other asset categories can also be done in the same manner as it has been shown in Exhibit 2 in respect of loans and advances. But such a refined model can be used only when fine and detailed break-up of gross income is available for each component of each category of assets. At present, such data are not available in India. Even the annual published financial statements of banks do not contain detailed break-up of the gross income. In view of this difficulty, an attempt has been made in the following part of this chapter to examine the changes in the assets-mix of nationalised banks during 1972-1982 and relate them with the changes in their profitability. The basis of this approach has already been made clear in the AMEI identity which shows that any change in the assets-mix of a bank is bound to proportionately change the AMEI.

EXHIBIT III.2

REFINED AME MODEL



Thus there is a positive correlation between asset utilisation and profitability. To analyse and examine this the asset utilisation indicator (AUI) has been used to quantify the asset management efficiency of the banks, both at the macro and the micro levels. We have applied the AUI identity at the macro level first to determine the asset management efficiency of all the nationalised banks taken together.

TABLE III.1

Asset Utilisation

(Rs. Lakhs)

Year	G.R	Assets	AUI (%)
1972	38880	554761	7.01
1973	48866	786138	6.22
1974	68194	907843	7.51
1975	85227	1097139	7.77
1976	106748	1410156	7.57
1977	126182	1704720	7.40
1978	144208	2090286	6.90
1979	179010	2507944	7.14
1980	225059	3084056	7.30
1981	281168	3699867	7.60
1982	331323	4247153	7.80

$$AUI = \frac{G.R.}{\text{Total Assets}} \times 100$$

Source: Financial Analysis of Banks 1972-82
Indian Banks' Association,
Bombay.

Table III.1 shows the AUI of the fourteen nationalised banks for 1972-1982. The AUI has increased from 7.01 per cent in 1972 to 7.80 per cent in 1982. Thus, the asset management efficiency of the fourteen nationalised banks has improved during 1972-1982.

Table III.2 shows the asset utilisation of each nationalisedbank during 1972-1982. The asset utilisation indicator reveals an improvement in asset utilisation of each and every nationalised bank in 1982 as compared to 1972. However, the nationalised banks had experienced a decline in their asset utilisation in 1973, 1976 and 1978.

Thus, it can be inferred from the AUI analysis that the asset management efficiency of all the nationalised banks taken together, as well as, of each nationalised bank, has improved during the period covered by the study.

This improvement in AUI should have brought about an increase in the profitability of all the nationalised banks during the period 1972-1982, but contrary to the expectation, we find that the profitability of nationalised banks has declined during the period. This calls for a further probe into the operation of these banks during the period.

TABLE III.2

Asset Utilisation Indicator (AUI)

(In percentage)

Banks	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Central	7.25	6.55	8.14	8.46	8.18	7.77	7.02	7.51	7.58	7.73	7.43
India	6.90	5.93	7.42	7.30	7.22	7.05	6.45	7.06	7.07	7.52	7.72
PNB	6.94	4.92	6.87	6.84	7.27	7.07	6.40	6.40	6.27	6.67	7.39
Baroda	7.08	6.35	7.67	7.99	7.02	6.91	6.88	7.27	7.69	7.85	8.10
UCO	6.52	6.72	8.08	7.17	7.25	6.95	6.60	6.70	6.87	7.71	7.83
Canara	7.11	5.79	7.54	8.58	8.13	8.10	7.24	7.40	7.10	7.29	7.25
United	6.88	6.02	7.04	7.56	7.53	7.77	7.39	7.01	7.52	7.53	7.97
Syndicate	7.00	6.28	7.03	7.92	7.74	7.14	7.00	7.61	7.63	7.50	8.16
Union	7.08	6.20	7.14	7.61	7.48	7.47	7.02	7.35	7.41	7.50	7.69
Dena	7.47	8.21	9.21	8.56	8.66	8.08	7.89	7.82	8.58	8.52	8.81
Allahabad	7.82	4.71	5.62	6.76	8.10	8.13	7.75	6.45	7.03	8.24	8.13
Indian	6.82	6.59	7.95	8.06	7.41	7.47	7.40	7.20	7.82	8.55	8.63
IOB	7.24	6.21	8.31	9.33	7.33	6.92	6.37	6.97	7.43	7.79	7.78
MAHA	7.21	6.35	7.39	7.79	7.57	8.19	7.01	7.56	7.56	7.64	8.04

$$AUI = \frac{G.R.}{\text{Total Assets}} \times 100$$

Source: Financial Analysis of Banks 1972-82. Indian Banks' Association, Bombay.

For the purpose of further analysis, all the operational assets of the nationalised banks have been divided into two categories.

(i) Low yielding assets, and
(ii) High yielding assets.

Under the 'low yielding assets' cash balances and reserves, investments in government securities, lending to the priority sectors, and such other assets (like DRI advances) yielding income equal to or less than the cost of funds to the banks have been included. In the 'high yielding assets' mainly loans and advances given to commercial and industrial sectors which yield a higher return compared to the cost of funds to the banks, have been included.

Based on a priori reasoning, it can be hypothesised that "the profitability of a bank Cetirus Paribus will be more if the weightage of high yielding assets in the total assets of the bank is higher and vice-versa."

In order to test the above hypothesis in the context of the earnings expressed through AUI, of nationalised banks during the period of the study, we would now examine the changes in the composition of assets of these banks in India, and interpret their

impact on the earnings of these banks in relation to their assets.

As stated earlier, the main components of Low Yielding Assets (LYA) are 'cash balances and cash reserves' and 'investments in government securities', governed and resulted mainly by Reserve Bank of India through its CRR and SLR policies. Any change in these two is bound to affect proportionately the share of LYA in the total assets or in other words, change the share of High Yielding Assets (HYA) in the total assets. In order to test the hypothesis, therefore, it is imperative to analyse the changes in the cash and reserves and in the investments in government securities and relate them with changes in the earnings per rupee of assets of these banks.

The following part of this chapter is devoted to this analysis.

Cash Balances and Reserves

An analysis of changes in the cash balances and reserves as percentage to total assets has been made for the fourteen nationalised banks for the period 1972-1982. Table 3 shows that the cash balances and reserves as percentage to total assets of the fourteen nationalised banks taken together has increased from

TABLE III.3

Cash Balances and Reserves as Percentage to Total Assets

(Rs. Lakhs)

Banks	1972			1982		
	Cash in hand with RBI, SBI and other Banks	Total Assets	Cash Balances as percentage to Total Assets	Cash in hand with RBI, SBI and other Banks	Total Assets	Cash Balances as percentage to Total Assets
Central	6956.26	85484.04	8.14	48969	458245	10.69
India	6626.77	73190.61	9.05	46976	515578	9.11
PNB	5031.39	65621.97	7.67	55608	501696	11.08
Baroda	6797.82	64294.92	10.57	74264	502778	14.77
UCO	5221.06	45165.08	11.56	37814	299168	12.64
Canara	4366.90	38928.35	11.22	46414	370718	12.52
United	4013.40	30730.32	13.06	24298	197912	12.28
Syndicate	2742.99	29917.94	9.17	29740	301191	9.87
Union	2157.87	27886.92	7.74	25849	237613	10.88
Dena	2142.27	24129.31	8.88	15332	123900	12.37
Allahabad	1455.26	19061.21	7.63	18248	139213	13.11
Indian	1210.70	18140.23	6.67	16748	180263	9.29
IOB	2090.59	16781.62	12.46	25039	290446	8.62
MAHA	1165.96	15428.77	7.56	15028	128433	11.70
Total	51979.24	554761.20	9.37	480327	4247154	11.31

Source: Financial Analysis of Banks 1972-82, Indian Banks' Association, Bombay.

9.37 per cent in 1972 to 11.31 per cent in 1982. This change has taken place not only at the aggregate level but also at the level of each and every bank in the stratum. It can thus be presumed that the ratio of cash and reserves in the total assets has improved on account of a policy change.

Investments

This increase in the weightage of Cash and Reserves in the total assets of the nationalised banks should have adversely affected the AUI, but some other operational factors must have counter acted and compensated for the decline, as a result of which, we find that inspite of an increase in LYA ratio, the AUI has increased during the period 1972-1982.

We shall now, examine the changes in the ratio of 'Investments in government securities' to the 'total assets' of these banks during 1972-82, mainly with a view to ascertain, if this operational variable has played some positive role in measuring the AUI during the period.

An analysis of investments as percentage to total assets has been given in table 4 which reveals that the investments as percentage to total assets of all the banks taken together has declined from 29.85 per cent

TABLE III.4

Investments as Percentage to Total Assets

(Rs. Lakhs)

Banks	1972			1982		
	Investments	Total Assets	Investments as Percentage to Total Assets	Investments	Total Assets	Investments as Percentage to Total Assets
Central	27943.05	85484.04	32.69	116608	458245	25.45
India	19814.98	73190.61	27.07	94104	515578	18.25
PNB	24773.80	65621.97	37.75	124839	501696	24.88
Baroda	16785.48	64294.92	26.11	95960	502778	19.09
UCO	13994.43	45165.08	30.00	54983	299168	18.38
Canara	10503.54	38928.35	26.98	88421	370718	23.85
United	8348.05	30730.32	27.17	55875	197912	28.23
Syndicate	7699.71	29917.94	25.74	63414	301191	21.05
Union	7558.44	27886.92	27.10	60899	237613	25.63
Dena	8411.51	24129.31	34.86	34662	123900	27.98
Allahabad	5207.39	19061.12	27.32	34055	139213	24.46
Indian	4539.35	18140.23	25.02	39452	180263	21.89
IOB	5355.84	16781.62	31.91	57071	290446	19.65
MAHA	4640.54	15428.77	30.08	32586	128433	25.37
Total	165576.11	554761.20	29.85	952929	4247154	22.44

Source: Financial Analysis of Banks 1972-82, Indian Banks' Association, Bombay.

in 1972 to 22.44 per cent in 1982. The investments as percentage to total assets have also recorded a fall in case of each and every individual bank during 1972-82.

Further, we find that the LYA ratio* viz., LYA Ratio = $\frac{CR + I}{TA}$, has also declined by 5.47 percentage points in 1982 as compared to 1972. Thus, the fall in the percentage share of low yielding assets viz., cash balances and reserves and investments in total assets has been responsible, to some extent at least, for the increase in the earnings of the nationalised banks, for the period 1972-82.

It can thus be finally concluded that the adverse effect of an increase in cash and reserves ratio has been nullified by the positive effect of a decline in the investment ratio.

However, it cannot be ignored that the increase in the AUI is only marginal although the ratio of LYA has declined to improve the weightage of total advances in the total assets of these banks. This calls for a further probe into the advances-mix of these banks, after dividing the total advances into (i) Low Yielding Advances and (ii) High Yielding Advances. The DRI advances and the other priority sector advances constitute

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* Cash balances and reserves and investments taken together as percentage to total assets.

the LYAd while C and I advances constitute the HYAd. A change in the advances-mix resulting out of an increase in the LYAd is bound to pull down the AUI and vice-versa. For ascertaining the reality in the matter, we have analysed the changes in the LYAd ratio during the period 1972-82.

Low Yielding Advances Ratio

The asset allocation policy followed by the nationalised banks under the RBI and Government of India directives has been geared mainly to improve the share of bank credit to the hitherto neglected sectors/priority sectors of the economy. As a consequence thereof the share of C and I advances in the total advances of all the banks taken together has declined. While the share of priority sector advances in the total advances of all the banks taken together has increased. Table 5 shows that the share of priority sector advances to total advances has increased from 22.9 per cent in 1972 to 37.42 per cent in 1982.

This increase has nullified the positive effect of a decline in the Cash and Investment Ratio, mainly because the earnings per rupee of these advances are much less compared to the C and I advances.

TABLE III.5

Advances to Priority Sectors

(Rs. Lakhs)

Year	Total Advances	Advances to Priority sector	Share of priority sect. advances to total advances (%)
1972	4880	907	22.9
1973	5430	1292	25.00
1974	6692	1688	25.00
1975	7654	1999	26.00
1976	9928	2528	25.00
1977	11643	3146	27.00
1978	13364	4001	30.00
1979	17287	5947	34.00
1980	1460941	456153	31.22
1981	1530747	581045	37.96
1982	1784899	667924	37.42

Source: Government of India, Economic Survey, Various Issues.

Financial Analysis of Banks 1972-82, Indian Banks' Association, Bombay.

In the final analysis, it can be inferred that the AUI of nationalised banks has increased during 1972-82 due to, amongst other factors, a decline in the Cash and Investment ratio but the increase has not been substantial due to an increase in the weightage of Low Yielding Advances in the total advances.

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