

Estimating the Cost of Equity Capital for Commercial Banks in India- A Cross Section analysis

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Abstract

The cost of equity is vividly defined but all of the definitions convey more or less the same meaning. For the purpose of the present paper, we adopt the definitions that the cost of the equity capital is the minimum rate of return that a bank must earn on the ordinary share capital in its capital structure. The objective of this paper to estimating cost of capital for Indian banking industry as a whole as well as size and sector-wise and bring out the bringing out the variations if any according various methodologies in the cost of equity calculated. The study has brought out that the estimates of cost of equity according CAPM method falls between two extremes of dividend yield and earning yield. It is obvious from the study that while dividend yield model underestimates the cost of equity, the earning model gives over-estimation. Hence, it is recommended that CAPM is the right methodology to compute cost of equity in banking industry.

Key words: CAPM, Indian Banking Industry, Dividend yield, Growth, Earning Yield

Backdrop

The Basel accord attempted to link the capital that the banks must set aside with the risks they are running ideally, banks would have to increase their holdings of capital as the riskiness of their assets increase. Resultantly after the adoption of the Basel Accord for capital adequacy for banks and financial institution in India, a large number of banks have issued share capital so as to meet the requirement of the regulator (RBI) regarding capital base.

The contribution of accord remains a very difficult task because of the many factors involved, it is clear that changing cost of equity as well as differences in the cost of equity capital for various banks would significantly undermine the effectiveness of the current and new accord in pursuing its objectives of lending the national and international playing field for banks. This paper makes an attempt to estimate cost of equity capital for banking industry in India over the period 2002-2012. The cost of equity capital is by far, conceptually speaking, the most difficult and controversial cost to measure.

The coupon rate of interest, which forms the basis of calculation of the cost of the debt, can be estimated with a high degree of accuracy since interest payments as

well as the return of the principal are contractual obligations. In contrast, the return to the equity holders solely depends upon the direction of the company management. Prime facie, it may appear that equity capital does not carry any cost. However, this is not true since like other sources of funds, equity capital certainly involves a cost to the firm. When equity shareholders invest their funds, they also expect return in the form of dividend. The market value of shares is a function of the return that shareholders expect and get. Infact, the cost of equity capital is relatively highest among the all sources of funds.

The cost of equity is vividly defined but all of the definitions convey more or less the same meaning. For the purpose of the present paper, we adopt the definitions that the cost of the equity capital is the minimum rate of return that a bank must earn on the ordinary share capital in its capital structure. The return for the banks is influenced by a variety of macro and micro variables. Important among these variables includes market trends, performance of banking industry, level of competition, plough back of profit, monetary policy issued by the RBI, volatility in the foreign exchange and capital market, interest rate trends etc.

Research Methodology

Objectives of Study

This paper intends to achieve the following objectives:

1. To estimating cost of capital for Indian banking industry as a whole as well as size and sector-wise;
2. To bringing out the variations in cost of equity worked out accordingly to across various methodologies; and
3. To study the trends, if any, captured by cost of equity among banks over the study period.

Hypothesis

In the view of the above objectives, the paper tries to test the null hypothesis (H₀) that the cost of equity does not differ across size and ownership pattern of the banks.

Database and Sampling

The result of the study are based on secondary data over 2002-2012 periods. The data is taken form 'Prowess' database of Centre for Monitoring Indian Economy (CMIE). The sample size ranges from 7 to 29 banks in the various years. Only listed banks are considered for the study because listed and traded banks are having share price data which is used to calculate equity cost using Capital Asset Pricing Model (CAPM). Detailed sample plan is available in Appendix-I of the paper.

Methods Used to Calculate Cost of Equity

There are various computational methodologies adopted by financial researchers and analysts to estimate the cost of capital (or cost of ordinary share capital). But the frequently used computational methods in finance literature are as follows and they are adopted to estimate the cost of ordinary capital to the sample banks:

1. The Dividend Yield = $\frac{\text{Dividend per Share}}{\text{Market price per share}} \times 100$
2. The dividend yield plus share price growth rate.
3. The dividend yield plus an allowance for growth, based on the growth rate of dividend per share.
4. The Earnings Yield = $\frac{\text{Earning per Share}}{\text{Market price per share}} \times 100$
5. The earnings yield plus an allowance for growth, based on growth rate of earnings,

Growth Rate: The growth rate (as suggested by Fatokun, 2004) of earning and dividend are calculated as the geometric variant of the computed annual growth, the earnings and dividend per share of a banks are expected to rise continuously over the study period. The geometric year-to-year change as well as reinvestment. With growth rate of earnings and dividend denoted by g_e and g_d respectively as:

$$g_e = \sqrt[4]{\sum_{i=1}^4 \frac{(EPS_t - EPS_{t-1})}{(EPS_{t-1})}}$$

and

$$g_d = \sqrt[4]{\sum_{i=1}^4 \frac{(DPS_t - DPS_{t-1})}{(DPS_{t-1})}}$$

Where,

EPS_t = Earnings per Share in year t

DPS_t = Dividend per Share in year t

t = 1 = 2001

t = 2 = 2002

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t = 11 = 2011

If the term

$$\frac{\sum[(EPS_t - EPS_{t-1})]}{(EPS_{t-1})}$$

Is negative, the 4th root of its absolute value is taken with the negative sign noted.

So that if

$$\frac{\sum[(EPS_t - EPS_{t-1})]}{(EPS_{t-1})}$$

Is, say, -1.58, than $g_e = \sqrt[4]{-1.58} = -1.12$ and this means a negative growth rate.

Share Price Growth: this is computed as follows

$$g_e = \frac{\sum_{t=1}^4 (PPS_t - PPS_{t-1})}{PPS_{t-1} \cdot 4}$$

Where,

PPS_t = Price per share in year t

t = 1 = 2001

t = 2 = 2002

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t = 11 = 2011

Note: Non-geometric growth is adopted for share price growth because the current share price has little or no influence on future share prices as noted on the floor of NSE market.

6. Capital Asset pricing Model (CAPM)

The cost of equity (K_e) can be calculated using Capital Assets Pricing Model (CAPM). According to this model, K_e is the shareholder expected return and this expected return (R_i) is as follows:

$$R_i = R_f + \beta_i (R_m - R_f)$$

Where,

R_f = risk free rate of return

R_m = Market rate of return, and

β_i = Sensitivity of the share price in relation to market return.

In India 364 days Treasury bill (T-bill) return has been considered as proxy for risk free rate of return.

The market return can be calculated using the daily closing value of Bank Index. The market returns measured as the continuously compound daily percentage change in the average price of bank index in order to avoid the influence of extreme values. The daily market return has been calculated by taking logarithm of prices instead of:

$$R_t = \frac{P_t - P_{t-1}}{P_{t-1}}$$

Where,

R_t = Daily bank Index return
 P_t = Current Index closing price
 P_{t-1} = Previous day closing price.

The β_i coefficient in the standard regression equation (referred as to beta in this case) measures the sensitivity of dependent variable to per unit change in independent variable.

For the purpose of ascertaining the cost of equity, the individual bank equity share price has been taken as the depended variable and the return on the market (computed as daily return of bank index) has been taken as the independent variable. To find out receptiveness of individual bank’s equity return (taken as proxy for the cost of equity) to the market rate of return, the Beta coefficient has been calculated as follows:

$$\beta_i = \frac{COV_{im}}{\sigma_m^2}$$

Where,

β_i = the beta of the security in the question,
 COV_{im} = covariance between return of the bank equity and market return of the bank index,
 σ_m^2 = variance of the market return.

In order to test the null hypothesis considered under the study, independent t-test with assumption of equal variance of population has been applied.

Yearly data are used to calculate cost of equity of various banks under study have been computed. To bringing out the significant differences, if any, in cost of equity accordingly to across various methodologies, ownership and size are tested with the help of independent samples t-test where,

$$t = \frac{(\bar{X}_1 - \bar{X}_2) - (\mu_1 - \mu_2)}{Sp \left[\left(\frac{1}{n_1} \right) + \left(\frac{1}{n_2} \right) \right]^{\frac{1}{2}}}$$

$$S_p^2 = \frac{n_1 S_1^2 + n_2 S_2^2}{n_1 + n_2 - 2}$$

And

Where S_p^2 is pooled variance, n_1 is number of observations in sample 1 and n_2 is number of observations in sample 2, $(\mu_1 - \mu_2)$ is the difference between two population means and $(\bar{X}_1 - \bar{X}_2)$ is the difference between sample means.

The variations in the cost of equity of various banks under study have been computed through standard deviation. To being out the trends, if any, in the cost of equity over the years, the cross-sectional analysis technique has been applied.

Main Findings

The computation of cost of equity capital of sample banks according to the mentioned methodologies reveals the following interesting results as:

Dividend yield method: The overall level the average dividend yield for banking industry works out at percent. The dividend yield kept an increasing during 2002-2007 period. While the yield declined in 2008 and 2009 to 6.24 and 6.23 percent respectively, it registered a rising trend thereafter. The above pattern is true in case of public sector and large size banks. On an average, dividend yield is higher in PSBs (6.98 percent) than that of PBs (4.29 percent). Similarly, the dividend yield in case of large banks 6.47 percent is more than that of small size bank 5.36 percent.

The result of t-test as in Table - 2 reject the null hypothesis that there is no difference in the yield of Public Sector Banks (PSBs) and Private Banks (PBs), hence the dividend yield of former is significantly higher than that of the latter category of banks. However, the dividend yield does not differ significantly between large and small size banks.

Table - 1 Cost of Equity from Dividend Yield Method

Banks Years	Public Sector		Private Sector		Large Size		Small Size		All Banks	
	K_e	S.D (σ)	K_e	S.D (σ)	K_e	S.D (σ)	K_e	S.D (σ)	K_e	S.D (σ)
Mar-02	3.62	1.46	1.61	0.41	1.81	2.56	1.61	0.41	2.11	1.06
Mar-03	5.31	1.19	2.81	1.54	3.36	2.76	3.15	1.54	3.22	1.72
Mar-04	5.38	2.11	4.06	2.30	4.51	2.31	5.21	2.27	4.72	2.19
Mar-05	7.56	3.32	5.77	3.34	5.36	3.74	7.02	3.11	6.19	3.43
Mar-06	8.01	2.16	5.13	4.14	5.79	4.10	6.70	3.79	6.25	3.86
Mar-07	8.47	3.14	6.06	3.49	6.72	4.80	7.72	2.96	7.19	3.96
Mar-08	8.31	4.47	4.88	3.56	6.33	4.79	6.14	3.60	6.24	4.19
Mar-09	6.91	4.30	5.15	4.39	6.40	4.13	6.00	4.64	6.23	4.26
Mar-10	8.50	10.28	4.49	4.77	7.59	9.46	5.76	5.55	6.84	8.02
Mar-11	6.37	9.83	3.20	5.18	9.79	20.34	4.24	5.81	7.53	16.11
Mar-12	8.37	13.71	4.12	6.76	13.51	29.13	5.39	7.32	10.21	22.95

Table - 2 Independent Samples t-Test of Cost of Equity from Dividend Yield Method According to Ownership and Size-wise of Sample Banks

GROUP	N	Mean	Std. Deviation	Std. Error Mean	t- value	Sig. (Two-tailed)
Public Banks	11	6.98	1.63	0.49	4.22*	0.00
Private Banks	11	4.29	1.33	0.40		
Large Banks	11	6.47	3.14	0.95	1.02	0.31
Small Banks	11	5.36	1.78	0.54		

* Significant at 0.001

Dividend yield plans growth rate in dividend per share: This is also known as dividend growth model of calculating cost of equity capital. As expected, the cost of equity according to this method is more or less similar to that produced by dividend yield approach as depicted in Table - 3. The cost of equity for PSBs has ranged between 3.39 percent and 8.40 percent. In it has varied between 1.45 percent and 6.03 percent in case of private banks during the last ten years.

Table – 3 Dividend Yield plus Allowance for Growth Rate of Dividend per Share

Banks Years	Public Sector		Private Sector		Large Size		Small Size		All Banks	
	K _e	S.D (σ)	K _e	S.D (σ)	K _e	S.D (σ)	K _e	S.D (σ)	K _e	S.D (σ)
Mar-02	3.39	1.78	1.45	0.56	2.51	1.23	1.36	0.75	1.93	1.07
Mar-03	5.07	1.93	3.07	1.07	3.17	1.67	3.65	0.99	3.41	1.26
Mar-04	5.37	2.27	4.02	2.18	4.53	2.37	5.09	2.25	4.70	2.22
Mar-05	7.51	3.50	5.17	3.85	4.77	4.43	6.85	3.09	6.10	4.06
Mar-06	7.97	1.99	5.25	3.94	5.87	3.89	6.66	3.73	6.87	4.16
Mar-07	8.40	3.12	6.03	3.52	6.60	4.85	7.68	2.92	7.19	3.97
Mar-08	8.20	4.67	5.16	3.67	6.48	4.74	6.20	3.90	6.48	4.25
Mar-09	6.73	4.49	4.97	4.67	6.11	4.31	5.95	4.89	6.12	4.44
Mar-10	8.32	10.49	4.30	5.12	7.29	9.70	5.71	5.79	6.70	8.21
Mar-11	6.19	10.05	3.13	5.51	9.59	20.36	4.19	6.09	7.53	16.11
Mar-12	8.20	13.93	3.87	7.17	13.18	29.21	5.34	7.60	9.93	23.04

While the difference between the cost of equity for Public Sector Banks and Private Banks is found significant, but it turns to be insignificant based on large and small size as presented by Table - 4.

Table – 4 Independent Samples t-Test of Cost of Equity from Dividend Yield plus Allowance for Growth Rate of Dividend per Share According to Ownership and Size-wise of Sample Banks

GROUP	N	Mean	Std. Deviation	Std. Error Mean	t- value	Sig. (Two-tailed)
Public Banks	11	6.85	1.66	0.50	4.12*	0.001
Private Banks	11	4.22	1.31	0.39		
Large Size Banks	11	6.37	2.98	0.90	0.994	0.334
Small Size Banks	11	5.33	1.7	0.53		

Dividend yield plus share price growth. : This is another version of dividend model used to compute cost of equity capital. Table - 5 indicates that all sample

banks registered increasing trends up to 2008 and thereafter shows decline in 2009 and then again registered increasing trends up to study period the same pattern is depicted by both group i.e. one is ownership and size. This method also reveals absolute resemblance to the estimates given by the dividend yield plus dividend growth model.

Table – 5 Dividend Yield plus Share price growth Rate

Banks Years	Public Sector		Private Sector		Large Size		Small Size		All Banks	
	K_e	S.D (σ)	K_e	S.D (σ)	K_e	S.D (σ)	K_e	S.D (σ)	K_e	S.D (σ)
Mar-02	3.56	1.46	1.48	0.50	1.7	2.6	1.48	0.50	2.18	1.25
Mar-03	5.25	1.19	3.12	1.49	3.3	2.8	3.72	1.09	3.54	1.60
Mar-04	5.32	2.12	3.98	2.29	4.4	2.3	5.16	2.23	4.65	2.20
Mar-05	7.49	3.31	5.68	3.33	5.3	3.8	6.93	3.08	6.11	3.42
Mar-06	7.95	2.15	5.04	4.14	5.7	4.1	6.61	3.78	6.17	3.86
Mar-07	8.39	3.12	5.98	3.50	6.6	4.8	7.63	2.95	7.11	3.95
Mar-08	8.22	4.47	4.79	3.57	6.2	4.8	6.05	3.59	6.15	4.19
Mar-09	6.79	4.32	5.07	4.40	6.3	4.1	5.93	4.65	6.14	4.27
Mar-10	8.38	10.30	4.42	4.78	7.5	9.5	5.68	5.55	6.75	8.03
Mar-11	6.25	9.85	3.12	5.19	9.7	20.4	4.16	5.80	7.43	16.12
Mar-12	8.26	13.73	4.04	6.77	13.4	29.1	5.32	7.32	10.11	22.96

Table – 6 Independent Samples t-Test of Cost of Equity from Dividend Yield plus Share price growth Rate According to Ownership and Size-wise of Sample Banks

GROUP	N	Mean	Std. Deviation	Std. Error Mean	t- value	Sig. (Two-tailed)
Public Banks	11	6.89	1.62	0.49	4.224*	0.000
Private Banks	11	4.25	1.30	0.39		
Large Size Banks	11	6.37	3.14	0.95	0.964	0.347
Small Size Banks	11	5.33	1.71	0.52		

The results presented by Table - 6 same as that cost of equity computed according to dividend yield plus share price growth rate turn to be significant differences between public sector banks and private sector banks, but it is insignificant on the basis of size.

Table No. -7 Estimated Cost of Equity from Earning Yield Method
(Figures are in percentage)

Banks Years	Public Sector		Private Sector		Large Size		Small Size		All Banks	
	K _e	S.D (σ)	K _e	S.D (σ)	K _e	S.D (σ)	K _e	S.D (σ)	K _e	S.D (σ)
Mar-02	10.36	3.56	12.23	6.10	8.07	4.69	15.14	2.25	11.61	5.08
Mar-03	12.81	2.75	13.65	8.71	10.63	4.25	15.84	7.00	13.23	6.11
Mar-04	15.75	8.97	14.75	11.33	11.78	7.07	20.53	11.50	15.28	9.77
Mar-05	28.90	13.22	11.23	30.44	21.77	13.12	16.58	32.58	18.80	25.68
Mar-06	36.71	15.69	22.52	21.64	25.80	15.90	30.91	23.37	28.69	20.20
Mar-07	40.84	29.56	40.26	26.45	26.93	21.59	53.10	26.78	40.54	27.39
Mar-08	30.25	24.26	17.07	25.74	22.43	21.06	24.89	29.97	23.66	25.41
Mar-09	43.29	20.20	26.84	22.53	34.64	19.89	38.15	26.13	36.16	22.45
Mar-10	22.77	9.53	13.52	14.35	19.89	10.17	17.29	15.40	18.76	12.53
Mar-11	11.73	5.08	2.19	10.83	10.74	4.78	3.49	12.03	7.60	9.26
Mar-12	8.85	4.75	5.20	6.84	8.68	4.89	5.42	6.83	7.27	5.93

The Earning Yield Approach: Table - 7 reveal clearly that the earning yield for Indian banking industry has been rising continuously from 2002 through 2007. The earning yield for the whole industry has rises to 40.54 in year 2007 from 11.61 percent in 2002. However, the earning yield has declined from 36.16 percent in 2003 to 7.27 percent in 2012. The banking industry has given the best earning yield during 2006-09 periods in India. In recent years earning yield has declined significantly.

Table No. – 8 Independent Samples t-Test of Cost of Equity from Earning Yield Method According to Ownership and Size-wise of Sample Banks

GROUP	N	Mean	Std. Deviation	Std. Error Mean	t- value	Sig. (Two-tailed)
Public Banks	11	23.84	12.81	3.86	1.50	0.148
Private Banks	11	16.31	10.52	3.17		
Large Size Banks	11	18.30	8.86	2.67	-0.71	0.484
Small Size Banks	11	21.94	14.40	4.34		

Earning Yield plus Allowance for Growth in Earnings: -The results calculated from earning yield plus allowance for growth in earnings method as depicted in Table – 9 shows that there is increasing trends in the cost of equity of sample banks up to 2007 than it decline in 2008 to 22.01 percent and thereafter also registered declining trend up to the end of the study period. The same pattern is in the case of public, private, large and small banks case. It important to mention here that the pattern and size of cost of equity capital as obtained according to ‘earning yield plus growth in earnings’ are almost similar to that obtained under earning yield method.

Table No. – 9 Earning Yield plus an Allowance for Growth on the Rate of Earnings

Banks	Public Sector		Private Sector		Large Size		Small Size		All Banks	
	Ke	S.D (σ)	Ke	S.D (σ)	Ke	S.D (σ)	Ke	S.D (σ)	Ke	S.D (σ)
Mar-02	10.30	3.56	12.33	6.32	7.92	4.82	15.38	2.00	11.65	5.25
Mar-03	12.75	2.75	14.55	9.93	10.52	4.35	16.79	8.05	13.65	6.94
Mar-04	15.69	8.97	15.33	11.25	13.27	7.40	18.39	12.30	15.51	9.83
Mar-05	28.84	13.22	12.89	31.00	23.25	12.83	17.08	32.70	19.72	25.76
Mar-06	36.65	15.69	23.93	20.67	27.13	14.13	31.26	23.03	29.46	19.37
Mar-07	35.49	21.86	41.68	24.90	28.02	20.64	48.57	21.62	38.71	23.21
Mar-08	28.37	16.89	18.49	25.91	24.92	17.67	21.95	26.32	23.43	22.01
Mar-09	41.15	18.10	28.26	21.65	35.38	18.63	35.81	23.34	35.56	20.42
Mar-10	22.69	9.52	14.93	14.75	20.63	9.80	17.63	15.55	19.33	12.46
Mar-11	11.65	5.07	3.61	11.79	11.48	5.22	3.84	11.87	8.17	9.39
Mar-12	8.77	4.74	6.61	7.75	9.42	5.37	5.77	6.80	7.84	6.20

Table – 10 Independent Samples t-Test of Cost of Equity from Earning Yield plus an Allowance for Growth on the Rate of Earnings According to Ownership and Size-wise of Sample Banks

GROUP	N	Mean	Std. Deviation	Std. Error Mean	t- value	Sig. (Two-tailed)
Public Banks	11	22.94	11.77	3.55	1.137	0.269
Private Banks	11	17.51	10.59	3.19		
Large Banks	11	19.26	9.20	2.77	-0.388	0.702
Small Banks		21.13	13.01	3.92		

An effort also has been made to test a hypothesis that there is no significant difference in cost of equity calculated according to 'earning yield plus growth in earnings method across size and ownership. An insignificant p-value associated with t-test result in the both the cases i.e. ownership-wise and size-wise. The null hypothesis is true, that there was no significant difference in the cost of equity offered by public, private, large and small banks, with 1.137 and -0.388 of t-value.

Capital Asset Pricing Model (CAPM): Capital Asset Pricing Model (CAPM) method is considered relatively better method of computing cost of equity capital. So, we have computed cost of equity in banking industry of India by using this approach. The results are shown in Table No - 11. It is evident from the table that there is no pattern obtained by the cost of equity capital during 2002-06. However, a rising trend in cost of equity is obtained since 2007. Interesting, the above phenomenon is found true irrespective of both the ownership pattern and size of banks.

Table No. – 11 Capital Assets Pricing Model

Banks Years	Public Sector		Private Sector		Large Size		Small Size		All Banks	
	K_e	S.D (σ)	K_e	S.D (σ)	K_e	S.D (σ)	K_e	S.D (σ)	K_e	S. D (σ)
Mar-02	30.24	0.51	30.30	5.85	29.68	5.43	29.12	6.04	30.28	4.78
Mar-03	35.37	9.85	28.34	2.06	32.67	9.82	28.78	2.08	31.46	7.23
Mar-04	5.71	0.41	5.59	0.19	5.65	0.36	5.66	0.30	5.65	0.32
Mar-05	24.77	5.92	23.21	3.07	25.29	4.93	22.00	3.72	23.87	4.42
Mar-06	31.51	7.80	28.53	6.89	31.63	7.18	27.97	7.18	29.80	7.26
Mar-07	13.88	7.46	9.77	1.87	13.36	6.95	9.77	1.90	11.74	5.61
Mar-08	11.66	2.79	13.50	1.40	12.26	2.63	13.10	2.01	12.58	2.35
Mar-09	16.93	3.66	13.93	2.37	16.35	3.84	14.07	2.46	15.64	3.47
Mar-10	24.96	5.22	17.32	3.53	23.14	5.55	17.77	3.39	21.69	5.92
Mar-11	26.86	4.32	21.43	3.20	25.62	4.53	21.68	3.10	24.43	4.68
Mar-12	33.61	7.27	27.16	5.16	32.51	7.90	26.48	5.41	30.72	7.10

Table – 12 Independent Samples t-Test of Cost of Equity from Capital Assets Pricing Model According to Ownership and Size-wise of Sample Banks

GROUP	N	Mean	Std. Deviation	Std. Error Mean	t- value	Sig. (Two-tailed)
Public Banks	11	23.23	9.79	2.95	0.850	0.406
Private Banks	11	19.92	8.43	2.54		
Large Size Banks	11	22.56	9.31	2.81	0.773	0.449
Small Size Banks	11	19.67	8.18	2.46		

To test a hypothesis that there is no significant difference in cost of equity calculated according to ‘Capital Asset Pricing Model (CAPM)’ method across size and ownership. An insignificant p-value associated with t-test result in the both the cases i.e. ownership-wise and size-wise. The null hypothesis is true, that there was no significant difference in the cost of equity it does not differ across sector and size of banks in India.

Conclusion

The study has brought out that the estimates of cost of equity according CAPM method falls between two extremes of dividend yield and earning yield. It is obvious from the study that while dividend yield model underestimates the cost of equity, the earning model gives overestimation. However, the cost of equity capital as measured by CAPM approach falls between these two methods. Hence, we recommended that CAPM is the right methodology to compute cost of equity in banking industry.

Reference

Fatokun,S.(2004).Estimating the Cost of Ordinary Share Capital to Quoted Nigerian Banks. *Journal of Social Science*, 9(1), pp 37-41

APPENDIX-1: List of Sample Banks According To Ownership and Size

Name of Banks	Ownership	Size
Allahabad Bank	Public	Large
Andhra Bank	Public	Large
Bank Of Baroda	Public	Large
Bank Of India	Public	Large
Bank Of Rajasthan Ltd.	Private	Small
Canara Bank	Public	Large
Centurion Bank Of Punjab Ltd.	Private	Small
City Union Bank Ltd.	Private	Small
Corporation Bank	Public	Large
Dena Bank	Public	Large
Dhanalakshmi Bank Ltd.	Private	Small
Federal Bank Ltd.	Private	Small
H D F C Bank Ltd.	Private	Large
I C I C I Bank Ltd.	Private	Large
I N G Vysya Bank Ltd.	Private	Small
Indian Overseas Bank	Public	Large
Indusind Bank Ltd.	Private	Small
Jammu & Kashmir Bank Ltd.	Private	Small
Kotak Mahindra Bank Ltd.	Private	Small
Oriental Bank Of Commerce	Public	Small
Punjab National Bank	Public	Large
South Indian Bank Ltd.	Private	Small
State Bank Of Bikaner & Jaipur	Public	Small
State Bank Of India	Public	Large
State Bank Of Travancore	Public	Small
Syndicate Bank	Public	Large
U T I Bank Ltd.	Private	Small
Union Bank Of India	Public	Large
Union Bank Of India	Public	Large
Vijaya Bank	Public	Large