

MG403: Application of Corporate Finance Concepts

SBI Life Insurance

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1 Corporate Governance Analysis

1.1 Objective

- To assess the company's corporate governance structure
- Examine the relationships between different stakeholders in the business (society, bondholders, and financial markets)

1.2 Methods

- Examine whether there is a separation between the management of a business and its owners. If so, also assess how much power owners have in monitoring management and influencing decisions.
- If the firm has borrowed money, either in the form of banks or in the form of bonds, evaluate the potential for conflicts of interest between the equity investors and lenders and how it is managed.
- Evaluate the company's standing as a corporate citizen, by looking at its reputation (good or bad) in society.

1.3 Corporate Governance

1.3.1 Ownership Structure

- Start by looking at the proportions of the outstanding stock held by institutions, insiders, and individuals.

Shareholding Pattern - SBI Life Insurance Company Ltd.

Holder's Name	No of Shares	% Share Holding
NoOfShares	1000478775	100%
Promoters	555037374	55.48%
ForeignInstitutions	239075071	23.9%
NBanksMutualFunds	119871347	11.98%
Others	59276146	5.92%
GeneralPublic	24099486	2.41%
FinancialInstitutions	3119351	0.31%

Figure 1: Ownership Structure: Credit- The Economic Times

1.3.2 Top shareholders

- Look at the top ten to twenty holders of the company's shares. In addition to check to see how many are institutions, look for the presence of founders and activist investors on the list. (You are trying to see whether these stockholders will be willing to stand and contest management if they feel that their value is being put at risk.)

NAME	%	Shares	NO OF HOLDERS
State Bank Of India	55.46	555,000,000	
Mutual Funds	11.69	116,947,066	36
Icici Prudential Esg Fund	3.16	31,654,152	-
Hdfc Mutual Fund - Hdfc Nifty50 Equal Weight Index	1.82	18,212,991	-
Sbi Psu Fund	1.29	12,952,904	-
Foreign Portfolio Investors	24.33 *	243,437,185	703
Government Of Singapore	3.44	34,407,045	-
Insurance Companies	2.64	26,420,504	30
Icici Prudential Life Insurance Company Limited	1.34	13,407,824	-
Nps Trust Fund	1.01	10,116,718	-
Individual share capital in excess of Rs. 2 Lacs	0.34	3,414,961	42
2			
Any Other	0.09	895,733	9,132
Huf	0.06	601,272	-
Trusts	0.02	207,261	-
Clearing Members	0.01	87,200	-
Macritchie Investments Pte Ltd	1.51	15,100,000	-

Figure 2: Top shareholders : Credit- <https://trendlyne.com/>

- I do not think that there exist any investor with significant holdings who can act as an activist investors, the public holding is significantly low 3%, further any possibility can be discarded by the fact that the firm is a PSU.

1.3.3 CEO & Top Management

- **Que.** Look at the background of the CEO and examine how he or she got to the position. In particular, check for tenure (how long he or she been CEO), whether the CEO came up through the ranks or from another organization, his/her age, and connections to the ownership of the company. If you can, ask the same questions about the rest of the top management team.
- **Ans.** Manish Kumar Sharma is the current CEO of Sbi life insurance.
- He is the CEO for about **5yrs and 10 months** now
- He rose up to the ranks in SBI, the parent company of SBI life insurance before coming into SBI Life and joining in as MD and CEO of the firm.

Mr. Mahesh Kumar Sharma
MD & CEO

Mr. Sharma joined State Bank of India as Probationary Officer in the year 1990 and has held several assignments in all areas of Banking. During a span of more than 29 years in the Bank, he has served in various geographical locations both in India and abroad. He was posted as DGM (B&O), Jaipur & DGM, LHO Delhi. He was also posted as Chief Executive Officer, State Bank of India, Tel Aviv Branch. Till March, 2020 he was posted as Regional Head, East Asia, Hong Kong.

Close

Mr. Abhijit Gulanikar
President - Business Strategy

Abhijit holds a Bachelor's degree in Commerce, and he has completed his Postgraduate Diploma in Management from the Indian Institute of Management, Ahmedabad. He is also an associate of the prestigious Institute of Chartered Accountants of India and Institute of Cost and Works Accountants of India.

Abhijit has a collective experience of 22 years in the life insurance, general insurance, banking, and corporate finance sector. He became a part of the SBI Life family back in 2009, and has played a key role in the growth story of SBI Life.

Abhijit is an avid reader, and his favourite genre is non-fiction. He enjoys playing golf and badminton on the weekends. His interest is not limited to just the Indian market but also markets across the world.

Close

Mr. M. Anand
President (Zone 1)

Mr M. Anand is the President (Zone I), responsible for the geographic businesses in five out of sixteen regions of SBI Life.

Mr M. Anand joined SBI Life in July 2014. He has an overall experience of twenty eight years in the Banking and Insurance industry. Prior to assuming this role at SBI Life, he was worked with HDFC Life as Senior Vice President – Bancassurance, TATA AIA Life Insurance as Chief of Partnership Distribution, and in various other capacities which involved heading business channels, managing businesses P&L at the national level.

Before moving to the Insurance industry, he had a stint of fourteen years in the banking sector with ANZ Grindlays Bank and Standard Chartered Bank. He worked in diverse roles across branch banking, wealth management and customer value management. Prior to banking he had a 1 year stint with Larsen & Toubro.

He is a Science graduate from University of Kolkata and has specialised in Finance with a post graduate degree in Management from NMIMS, University of Mumbai.

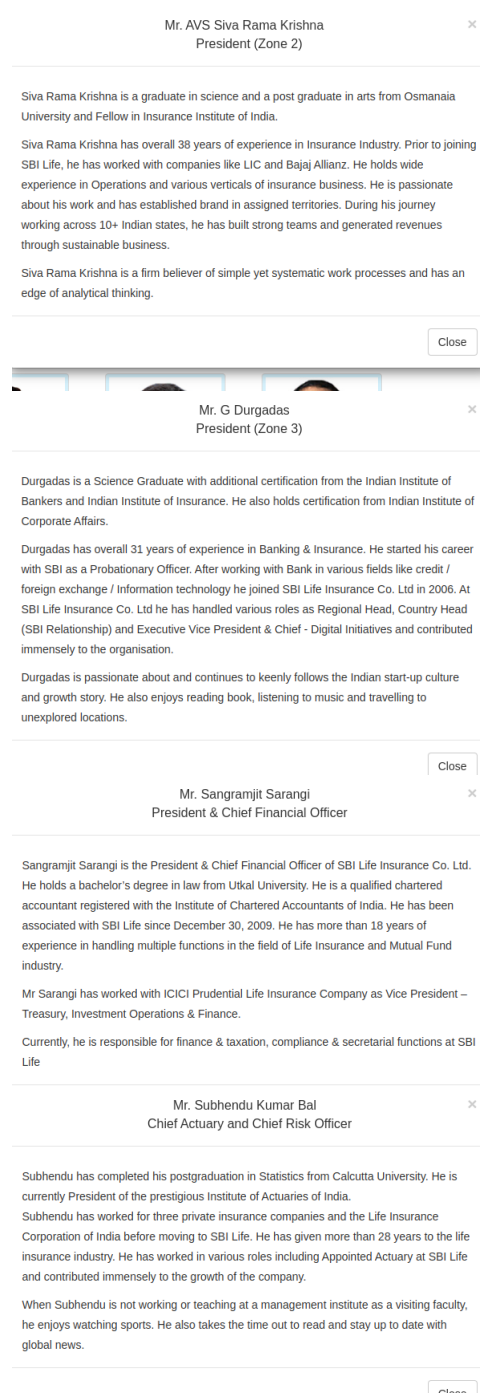


Figure 3: **Top Management and their description : Credit- www.sbilife.co.in/**

- As we can make out from the description provided above that while some of the top management were sbi employees from beginning and rose up through the ranks in either the parent or subsidiary.
- Most of them were earlier working outside the firm eg. ICICI etc., and switched their firms somewhere in the career.
- They later rose up in the company to reach their respective positions.

1.3.4 Board of directors

- **Que.** Look at the composition of the board of directors and in particular at connections that the directors may have to the top management and, in particular, to the CEO. Check to see whether there are external assessments of the board's independence and quality and also check news stories to evaluate whether there is evidence that the board is willing to stand up to management.
- **Ans.** Dinesh Kumar Khara is the current Chairman of Sbi life insurance.
- He is the chairperson of the entire SBI Group for about **2yrs** now
- Khara joined SBI in 1984 as a Probationary Officer. He has held several key positions such as MD (Global Banking Subsidiaries), MD (Associates Subsidiaries), MD & CEO (SBI Mutual Funds) and Chief General Manager – Bhopal Circle He was also posted in SBI, Chicago for an overseas assignment.

Mr. Dinesh Kumar Khara Chairman	
Mr. Dinesh Kumar Khara is the Non-Executive Chairman of SBI Life. He holds a degree in Masters in Business Administration from FMS, New Delhi and is a post graduate in Commerce. He is also a Certified Associate of Indian Institute of Bankers. Mr. Khara joined State Bank of India as a Probationary Officer in 1984 and has over 36 years of experience in all facets of commercial banking such as retail credit, international banking operations, branch management, etc. Currently, he is the Chairman of State Bank of India.	
Mr. Swaminathan Janakiraman Nominee Director	
<p>Mr. Swaminathan Janakiraman is the Managing Director (Corporate Banking and Subsidiaries) of State Bank of India ('SBI'). In a career spanning over 33 years with SBI, he has held various assignments across Corporate and International Banking, Retail and Digital Banking, Finance and Assurance functions.</p> <p>In his current assignment as MD (Corporate Banking and Subsidiaries), he oversees the Large Corporate and Commercial Credit business of the Bank along with Associates & Subsidiaries of the Bank. This includes major non-bank business like Credit cards, Mutual Fund, Life & General Insurance, Capital Markets, Custodial Services etc.</p> <p>Prior to this assignment, as MD (Risk, Compliance and SARG), he was looking after the Risk Management functions as well as Regulatory Compliance framework for the Bank. Earlier, as DMD Finance, he looked after Budgeting, Capital Planning, Financial Reporting, Taxation, Audit, Economic Research, Investor Relations and Secretarial Compliance. As Chief Digital Officer of SBI, he served as the head of Digital & Transaction Banking verticals of the Bank. Prior to that, as a CGM, Mr. Swaminathan was the head of the SBI's Hyderabad Circle overseeing the Bank's business in the State of Telangana.</p> <p>During his stint in SBI's International Banking Group, Mr Swaminathan served as General Manager (FIG), Corporate Centre Mumbai, which handles SBI's Correspondent banking relationships. As a DGM, he was head of Global Trade Services, responsible for Trade Finance business and Trade Operations of SBI's overseas offices. He was also Head of Trade Finance at SBI's Branch in New York. As SBI's nominee, he served on the Board of Bank of Bhutan, an SBI JV in Bhutan.</p> <p>As SBI's nominee, Mr. Swaminathan was a Director on the boards of Yes Bank, NPCI, NPCI International and Jio Payments Bank. Mr Swaminathan also was the SBI's nominee director and Chairman of the Board of SBI Payments Services Pvt Ltd, an SBI Hitachi JV. He is a Certified Anti-Money Laundering Specialist (CAMS) as well as Certified Documentary Credit Specialist (CDCS).</p>	
Mr. Deepak Amin Independent Director	
Mr. Deepak Amin holds a Bachelor's Degree in Technology (Computer Science & Engineering) from IIT, Mumbai and a Master's Degree in Science (Computer Science) from Rhode Island, USA. He was Director, Central Board, State Bank of India and member of the Central Board, the Executive Committee of the Central Board and various Committees of the Board. He is Founder and Promoter of Light Microfinance Pvt. Ltd., a rapidly growing professionally run Non-Banking Finance Company-Microfinance company based in Gujarat. He has also worked at Microsoft for many years as a lead engineer in Microsoft Windows Networking teams and was a senior engineer in the original Internet Explorer browser team at Microsoft, USA.	

Mr. Narayan K. Seshadri Independent Director	×
<p>Mr. Narayan K. Seshadri has more than 30 years of experience in the field of accounting, auditing, litigation support etc. and industry experience includes manufacturing, process, health care, financial services, utilities, infrastructure and technology.</p> <p>Mr. Seshadri worked with some large Fortune 500/FTSE 100 companies to small start-ups in various international jurisdictions.</p>	
Dr. Tejendra M. Bhasin Independent Director	×
<p>Dr. Tejendra Mohan Bhasin holds a Bachelor's Degree in Laws from University of Delhi and a Master's Degree in Business Administration from FMS, Delhi. Dr. Bhasin has pursued his Advanced Financial Enterprises Management Programme at Kennedy School of Government, Harvard University. University of Madras has conferred Ph.D. Degree in Management. He is an associate of the Indian Institute of Bankers.</p> <p>Dr. Bhasin is presently the Chairman, Advisory Board for Banking and Financial Frauds. He was appointed as the vigilance commissioner in central vigilance commission by the President of India. He has over 42 years of experience in administration, banking and finance industry.</p> <p>Dr. Bhasin joined Oriental Bank of Commerce as a Probationary Officer in June 1978 and rose to the rank of General Manager. He served as Executive Director in United Bank of India and elevated as the Chairman and Managing Director (C&MD) of Indian Bank.</p>	

Figure 4: **Board of Directors and their description** : Credit- www.sbilife.co.in/

- As we can analyze from the data above the CMD if the group is a employee of SBI, probably a colleague of the current CEO.
- As the CMD is a government employee there can hardly be an instance of disruption without the government of India's intervention.
- In particular the board would not find itself in a position to stand up as the director and CEO are both government employees and are further under the direct control of GOI.
- Further the independent and nominee director are all appointed by the state and hence, they can put there grievance before them, thereby averting any turn upside down situation.

Conclusion

- Overall we can conclude that the management and the owners are not separated but rather part of the same machinery.
- The owners primarily GOI have total influence over the decision-making body.

1.4 Debtholder Concerns

1.4.1 Debt Type

- **Que.** : If your firm borrows money, examine whether it borrows from banks or by issuing bonds. With either one, follow through and find more details on the borrowing.

BalanceSheet - SBI Life Insurance Company Ltd.

Rs (in Crores)					
Particulars	Mar'22	Mar'21	Mar'20	Mar'19	Mar'18
Liabilities	12 Months	12 Months	12 Months	12 Months	12 Months
Share Capital	1001.57	1000.49	1000.03	1000.00	1000.00
Reserves & Surplus	10620.74	12126.76	7743.06	6576.36	5527.82
Net Worth	11622.31	13127.25	8743.08	7576.36	6527.82
Secured Loan	.00	.00	.00	.00	.00
Unsecured Loan	.00	.00	.00	.00	.00
TOTAL LIABILITIES	11622.31	13127.25	8743.08	7576.36	6527.82

Figure 5: Borrowings of SBI Life: Credit- <https://economictimes.indiatimes.com/>

- **Ans.** SBI life insurance has no history of any borrowing through either bonds or Banks

1.4.2 Default risk measures

- **Que.** : If your company has been rated by a ratings agency (S&P, Moody's, Fitch), find out the bond rating and the rating agency's views of the company.

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CRISIL assigns its 'CCR AAA/Stable' to SBI Life Insurance Company Limited; Financial Strength Rating of 'AAA/Stable' withdrawn

Rating Action

Corporate Credit Rating	CCR AAA/Stable (Assigned)
Financial Strength Rating	AAA/Stable (Withdrawn)

1 crore = 10 million
Refer to annexure for Details of Instruments & Bank Facilities

Annexure - Rating History for last 3 Years

Instrument	Type	Current		2020 (History)		2019		2018		2017		Start of 2017
		Outstanding Amount	Rating	Date	Rating	Date	Rating	Date	Rating	Date	Rating	Rating
-	CCR	0.00	CCR AAA/Stable		--		--		--		--	--
Financial Strength Rating	LT	0.00	Withdrawn			17-12-19	AAA/Stable	31-12-18	AAA/Stable	27-12-17	AAA/Stable	AAA/Stable

All amounts are in Rs.Cr.

Figure 6: Credit ratings provided by Crisil: Credit-<https://www.crisil.com/>

- **Ans.** Given below are the reasons why CRISIL gives the Credit ratings as it has
- Strategic importance to, and expectation of strong support parent, SBI.
- Expected to remain top players within private life insurers
- SBI life has consistently maintained adequate capital position despite showing growth in New Business Premium year on year.

1.5 Society and other Stakeholders

1.5.1 Employee satisfaction

- **Que. :** Look for hard data on employee satisfaction such as employee turnover and compensation numbers for your company, relative to its peer group. Also, look for qualitative assessments of the company as an employer, generally from news stories about the issue.



Figure 7: Employee Ratings of SBI Life and its Peers: Credit- ambitionbox

- **Ans.** Based on the data obtained from figure 7 we can asses the following
- SBI significantly lacks behind its peers when it comes to work life balance and personal growth.
- Amongst the other firms in the life insurance market SBI Life has the worst reputation amongst its employee
- Further its difficult to get a normalized compensation number as these vary significantly with roles and timing of the collected data, better we can look at salary and benefits ratings
- Here too SBI Life performs worse compared to its peers
- As the number of reviews lies in 1000's we can safely assume that the ratings are taken from a diverse range of public opinion and are close to reality

1.5.2 Society

- **Que.** : In general, it is tough to get a measure of how a company stands with society, unless your company is at one of the extremes. In addition to looking for news stories that mention your company is a social context, you can try to see whether the company makes the lists of socially responsible corporations that are published by some external entities (environmental, labor, and political) but recognizes that they may be no consensus, as these groups have different agendas.

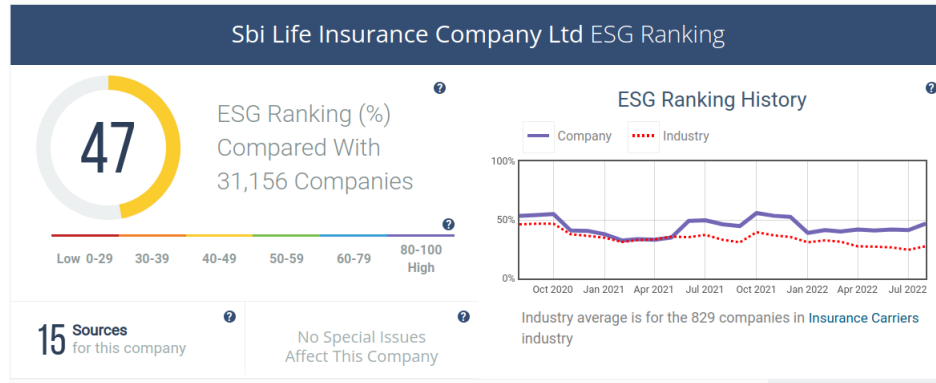


Figure 8: CSR Ratings SBI Life: Credit- csrhub

CSR Financial Details (INR Cr.)				View all
Year	2020-2021	2018-2019	2017-2018	
Actual CSR	26.25 Cr	18.96 Cr	15.36 Cr	
Prescribed CSR	24.93 Cr	18.41 Cr	15.18 Cr	

SBI spends over Rs. 144 Cr on Corporate Social Responsibility (CSR) in FY 2020-21

Figure 9: CSR News about SBI Life: Credit- csrbox, indiacr

- **Ans.** Based on the data obtained from above we can conclude that SBI Life contributes a good amount towards CSR initiatives.
- It significantly lacks amongst its peers as evident from the rating obtained which rates it somewhere at mid in terms of its contributions.

2 Stockholder Analysis

2.1 Objective

- To identify the average and marginal investors in the company, with the intent of figuring out how diversified these investors are, and getting a measure of the risk (both amount and type) in your company.

2.2 Methods

- Given the investor breakdown in your company's equity, identify the average investor in your company.
- Develop a risk profile for your company and break the risk down into its component parts: firm-specific and market risks, micro or macro risk, discrete or continuous risks, and small or large risks.
- Get a measure of variability in your company's stock price and a measure of default risk and a measure of default risk for its debt.

2.3 Stockholder Composition

2.3.1 Steps:

- Looking at the breakdown of stock holdings by the type of investor – institutional, individual, and insider, makes a judgment on the “average” or “typical” investor in your company.
- Looking at the list of top holders of stock in your company makes a judgment on the “marginal” investor in your company.
- If you have significant insider holdings in your company, identify who these insiders are and what role they play in the running of the company.

2.3.2 Analysis

NAME	%	Shares	NO OF HOLDERS
State Bank Of India	55.46	555,000,000	
Mutual Funds	11.69	116,947,066	36
Icici Prudential Esg Fund	3.16	31,654,152	-
Hdfc Mutual Fund - Hdfc Nifty50 Equal Weight Index	1.82	18,212,991	-
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Individual share capital in excess of Rs. 2 Lacs	0.34	3,414,961	42
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Any Other	0.09	895,733	9,132
Huf	0.06	601,272	-
Trusts	0.02	207,261	-
Clearing Members	0.01	87,200	-
Macritchie Investments Pte Ltd	1.51	15,100,000	-

Figure 10: Top shareholders : Credit- <https://trendlyne.com/>

QUARTER	NAME	TOTAL NO. SHARES HELD	PERCENT HOLDING	PLEDGED	
				SHARES	%
Sep 2022	Total	400,099,658	39.98%	0	0.00%
Jun 2022	Total	362,065,769	36.19%	0	0.00%
Mar 2022	Total	366,201,092	36.61%	0	0.00%
Dec 2021	Total	364,838,056	36.48%	0	0.00%
Sep 2021	Total	365,447,651	36.53%	0	0.00%
Jun 2021	Total	368,839,318	36.88%	0	0.00%
Mar 2021	Total	374,564,157	37.46%	0	0.00%
Dec 2020	Total	329,214,588	32.92%	0	0.00%
Sep 2020	Total	327,972,565	32.80%	0	0.00%
Jun 2020	Total	331,664,034	33.17%	0	0.00%
Mar 2020	Total	316,131,093	31.60%	0	0.00%
Dec 2019	Total	319,393,844	31.95%	0	0.00%
Sep 2019	Total	306,508,487	30.65%	0	0.00%
Jun 2019	Total	255,645,996	25.56%	0	0.00%
Mar 2019	Total	184,221,492	18.42%	0	0.00%
Dec 2018	Total	92,573,351	9.25%	0	0.00%
Sep 2018	Total	91,936,344	9.20%	0	0.00%
Sep 2022	Icici Prudential Esg Fund	31,654,152	3.16%	0	0.00%
Jun 2022	Icici Prudential Large & Mid Cap Fund	36,421,262	3.64%	0	0.00%
Mar 2022	Icici Prudential Nifty Low Vol 30 Etf	36,492,843	3.65%	0	0.00%
Dec 2021	Icici Prudential Regular Savings Fund	32,207,615	3.22%	0	0.00%
Sep 2021	Icici Prudential Equity Savings Fund	30,944,565	3.09%	0	0.00%
Jun 2021	Icici Prudential Nifty Index Fund	24,524,091	2.45%	0	0.00%
Mar 2021	Icici Prudential Equity Savings Fund	16,919,634	1.69%	0	0.00%
Dec 2020	Icici Prudential Value Fund - Series 14	14,727,262	1.47%	0	0.00%
Sep 2020	Icici Prudential Equity Savings Fund	18,107,392	1.81%	0	0.00%
Jun 2020	Icici Prudential Nifty Next 50 Etf	20,258,316	2.03%	0	0.00%
Mar 2020	Icici Prudential Equity Savings Fund	20,984,960	2.10%	0	0.00%

Figure 11: Institutional investors holding & ICICI prudential holdings : Credit-
<https://trendlyne.com/>

- Looking at all the figures it is likely that Institutional investors are the marginal investors here, amongst them most prominent is **Icici Prudential Esg Fund**, based on the volume of share it trades
- General Public trading these shares are usually an average investor for the firm.
- Although SBI has 55% of the net share it will less likely to trade these as it can put the parent company in minority and as it is a very strategic business SBI would not trade its share

2.4 Risk Profiling

Steps

- Make a list of all of the risks that your company is exposed to in its business and classify these risks into firm-specific, sector wide and market-wide groupings.
- Looking at each risk item in your profile list, consider how that risk will be viewed by managers, the average investor, and the marginal investor, and how each of them may try to manage that risk.

Analysis

- **Firm Specific-** SBI Life works on a public-private model hence it always has the risk that the government forwards its policies like Bima Yojna, Jan Dhan Yojna etc. through government entities. This is beneficial for public but put the equity and debt holders at risk as these policies do not generate revenue and further sometimes a loss-making venture.
- **Sector wide-** As SBI Life is primarily in the insurance sector, it is a highly regulated sector and any regulatory changes could severely impact the business and the financial conditions of the firm.
- **Market wide-** 1) Interest rates play a major role here, if these are low the policy is likely to generate less value for its holders, who will then reduce its purchase, further this will lead to low sales and loss of revenue.
- 2) Another major market-wide risk is from **inflation**, if there is inflation price of the commodities will rise, and insurance companies will have to pay out more for the related compensations. Further, the wage of employees will rise resulting in an overall decline in revenue.

Managers

- For **firm-specific risks**, managers will try to hire professional lobbyists to influence the decision of the lawmakers, by ensuring that laws detrimental to the business are not passed, here an important point to note is that the managers can't invest in another project as it is a life insurance company and it can't change its business because of that.
- For **sector-wide risk**, a good idea for the managers is to diversify business across multiple divisions like life insurance, health insurance, motor insurance etc. so that if a particular unfavorable regulation is passed in relation to say life insurance the firm is not impacted as it has diversified investments in other divisions.
- For **market wide risk** as it cannot be diversified a good idea is to sell that risk, therefore managers will purchase a reinsurance(an insurance for the insurance firms), so that in light of an adverse market scenario they can be secured from the same.

Average investor

- An average investor of the firm in India hardly has any influence over the board or any decisions of the firm, so for all the above points all he can do is diversify the portfolio over multiple sectors so that any particular investment doesn't impact severely. Assuming the average investor would hardly have any financial understanding other discussions would be unmeaningful here because they would hardly realize the risk, very rare to avoid them.

Marginal investor

- For **firm-specific risks**, assuming the marginal investor has a good chunk of the share, he can influence the decisions of the board and make them device plans to avoid those risks, further if he can't act on changes he can sell his stock or challenge the firm with other board members to safeguard their interests.
- For **sector-wide risk**, a good idea for the marginal investor is to diversify their investments across sectors but assuming the initial assumption that a marginal investor is well diversified there is not much he can do.
- For **market-wide risk** as it impacts all the investments equally there is not much he can do to avoid those risks.

Risk Measures

Steps

- Estimate the standard deviation in your company's stock, if publicly traded. Compare to the standard deviations of other stocks in your peer group and in the market.
- If your company's debt is rated by a ratings agency, obtain the bond rating. If it is rated by multiple agencies, examine differences in the ratings and see whether you can find reasons for those differences.

	SBI	HDFC	LIC		
Mean					
	1010.22059	607.8348485	363.6323529		
Standard Deviation					
	183.5556683	71.62453818	63.54596058		
SBI	(value-mean)^2	HDFC	(value-mean)^2	LIC	(value-mean)^2
994.099976	259.8551738	540.35	4549.5025	405.3	1736.3889
890.400024	14356.82665	530.05	6045.0625	413.85	2522.0484
641	136323.4084	575.1	1069.29	409.2	2076.6249
726.849976	80298.5705	555.55	2730.0625	386.15	507.1504
768.650024	58356.0533	550.2	3317.76	327.35	1316.2384
806.450012	41522.20801	599.3	72.25	378	206.4969
912.849976	9480.921574	582.5	640.09	378.7	227.1049
827.75	33295.3009	538.25	4837.2025	358.95	21.9024
811.450012	39509.50813	523.15	7165.6225	343.05	423.5364
769.150024	58114.73333	622.95	229.5225	385.35	471.7584
846.049988	26951.79284	648.8	1681	369.65	36.2404
904.25	11229.6409	677.65	4879.0225	372.1	71.7409
864.450012	21248.8894	680.4	5270.76	406.85	1867.9684
866.900024	20540.61552	722.6	13179.04	427.05	4022.0964
880.849976	16736.60311	717.7	12078.01	402.25	1491.5044
928.700012	6645.508444	665.1	3283.29	410.45	2192.1124
975.650024	1195.083241	686.4	6177.96	470	11314.5769
1008.150024	4.284800641	666.4	3433.96	466.25	10530.8644
1098.599976	7811.020158	665.2	3294.76	405.7	1769.8849
1192.050049	33062.16672	695.75	7735.2025	428.2	4169.2849
1215.099976	41975.80457	701.4	8760.96	429.5	4338.8569
1145.550049	18314.22216	677.8	4900	395.7	1028.4849
1160.550049	22599.12363	676.3	4692.25	361.25	5.6644
1196	34514.2084	647.65	1588.0225	329	1199.2369
1233.25	49742.3809	589.9	320.41	282.95	6509.2624
1060.150024	2493.007297	561.2	2171.56	275.8	7714.1089
1121.449951	12372.102	574.95	1079.1225	301.3	3885.0289
1105.5	9078.2784	627.2	376.36	262.5	10227.2769
1174.150024	26873.05277	549.15	3439.8225	265.05	9718.0164
1081.599976	5095.100974	523.1	7174.09	239.55	15395.8464
1294.400024	80758.28604	500.9	11427.61	283.25	6460.9444
1329.099976	101684.4391	441.6	27622.44	235.3	16468.5889
1250.449951	57710.42936	544	4070.44	320.25	1881.8244
1265.949951	65397.80784			437.7	5486.3649

Figure 12: Standard deviation calculation for SBI & peers : Credit-
<https://finance.yahoo.com/>

Analysis

- SBI Life standard deviation is highest amongst its peers, that doesn't make it a bad investment, it just makes it a little more riskier, if the investor is getting appropriate returns he can go for it.
- Further as the stock price of SBI Life is higher, the standard deviation is ought to be higher so it is a good thing that investors normalize it against the mean to get the normalized deviation.

may 20, 2018 | **CRISIL assigns its 'CCR AAA/Stable' to SBI Life Insurance Company Limited; Financial Strength Rating of 'AAA/Stable' withdrawn**

Rating Action

Corporate Credit Rating	CCR AAA/Stable (Assigned)
Financial Strength Rating	AAA/Stable (Withdrawn)

1 crore = 10 million
Refer to annexure for Details of Instruments & Bank Facilities

SBI Life Insurance Company Limited

May 17, 2018

Summary of rated instruments

Instrument	Current Rated Amount (Rs. crore)	Rating Action
Claims paying ability rating	-	IAAA; reaffirmed

Rating action

ICRA has reaffirmed the IAAA (pronounced I triple A) claims paying ability rating of SBI Life Insurance Company Limited (SBI Life)¹.

Figure 13: Credit Ratings as provided by CRISIL and ICRA & peers : Credit- CRSISL, ICRA

Ratings analysis by different firms

- As almost all the credit rating agencies are providing the same rating it hardly makes sense to do further analysis, the reason for such a rating is also the same across all firms as I have listed above in an earlier question.

3 Risk and Return: Analysis for the firm


3.1 Methods

- Looking at the stock price history of your company, evaluate both its riskiness and its performance as an investment, relative to the market and after adjusting for risk.
- Develop a measure of equity risk in the company and compute a cost of equity for it.
- Find a measure of default risk in the company and compute a cost of debt for it.

3.2 Estimating risk-free rate and equity risk premium

Estimate risk-free rate for India

- If there is an AAA-rated entity issuing long-term bonds, you can use the interest rate on those bonds as your risk-free rate. If not, you will have to subtract out the default spread for the entity (government, for example) from the interest rate on the entity's bonds to get to a risk-free rate.

COUNTRY •  INDIA

Last Update: 15 Nov 2022 6:15 GMT+0

The **India 10Y Government Bond** has a **7.272%** yield.

10 Years vs 2 Years bond spread is 32.2 bp.

Normal Convexity in Long-Term vs Short-Term Maturities.

Central Bank Rate is 5.90% (last modification in September 2022).

The India credit rating is **BBB-**, according to Standard & Poor's agency.

Current 5-Years Credit Default Swap quotation is **107.14** and implied probability of default is **1.79%**.

Figure 14: Estimating risk free rate: Credit- <http://www.worldgovernmentbonds.com>

$$\text{R.F.R} = \text{Govt. Bond Rate (7.272\%)} - \text{BBB -ve default spread (1.79\%)} = 5.482\%$$

Estimating risk premium for the company

- **Que.** Based on the geographical risk exposure of your company, estimate an equity risk premium for the company. You should be able to find at least a revenue breakdown by region, in your company's financial reports, and sometimes asset and income breakdowns. You can find riskfree rates and equity risk premiums for individual countries, as well as regions, on <http://www.damodaran.com> (under updated data).
- **Ans.** SBI life has earns almost 100% of its revenue from India only
- According to the website of Prof. Damodaran ERP of India at start(Q1) of 2022 stands at **6.42%**

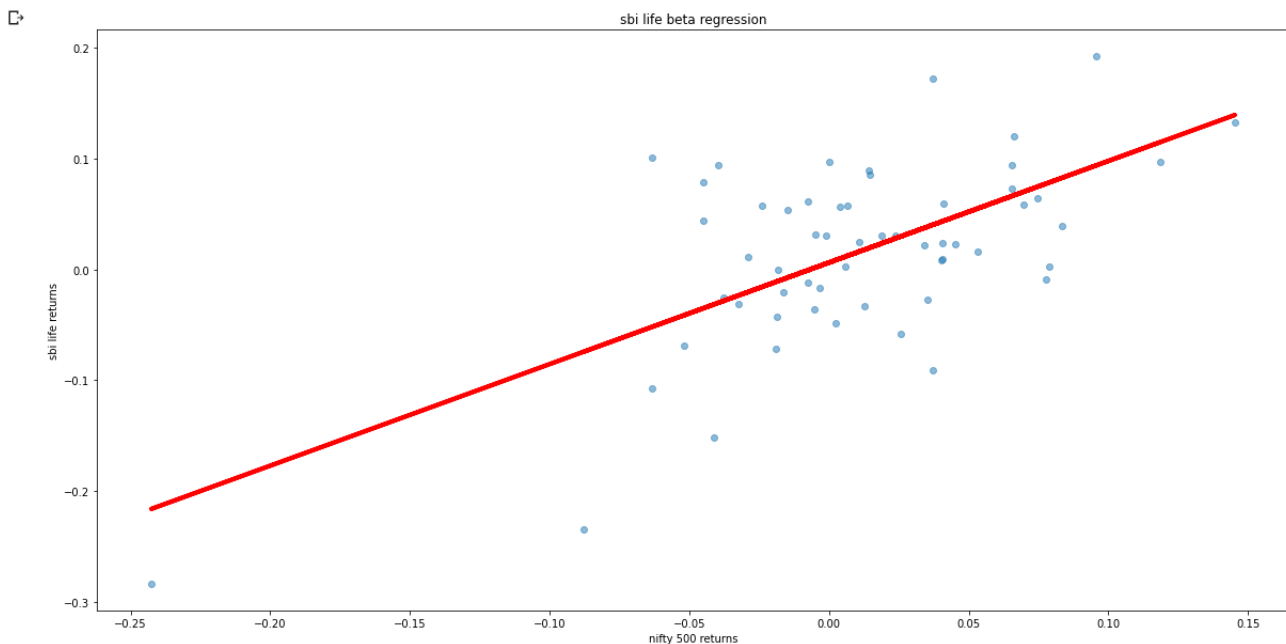
3.3 Estimating relative risk

Regression Model

- Below are the regression graphs plotted for sbi returns(dividend adjusted) vs market returns regressed for periods of 57months, 30 months, 10 months
- Different estimation periods are selected to get a rough idea of how beta is changing, and also to see the effect of short term volatility and long term firm characteristic changing

Listing 1: A small code to implement regression

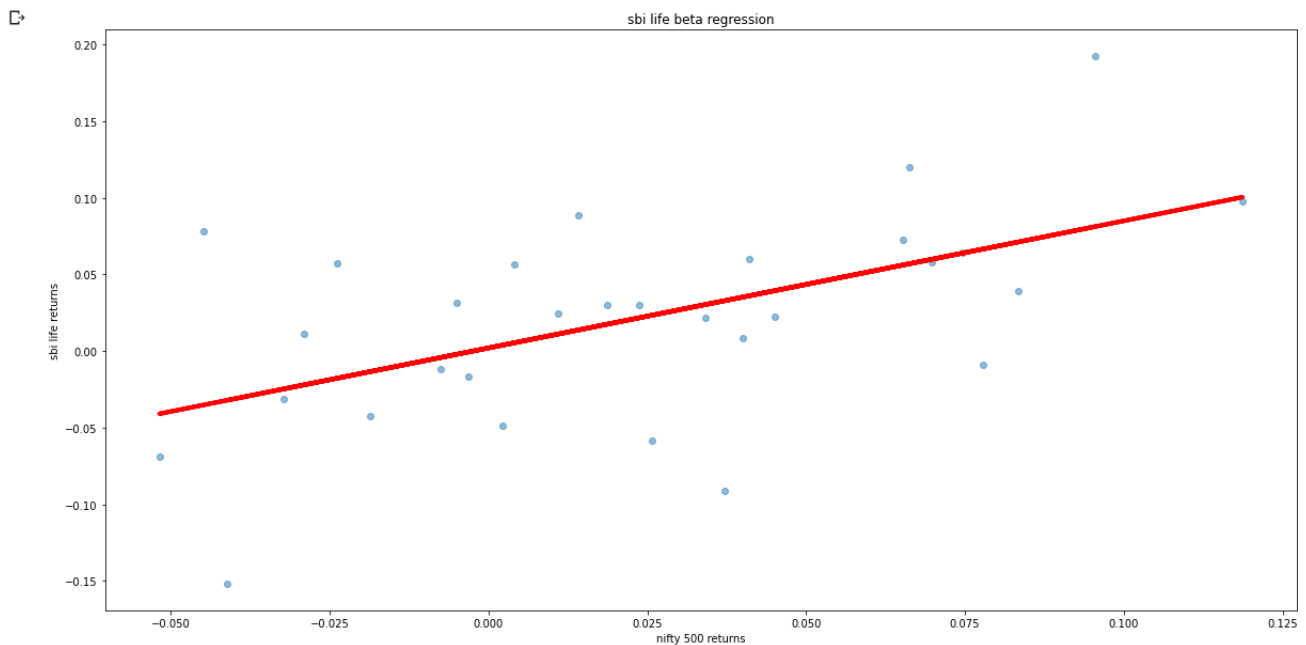
```
pl.figure(figsize=(20,10))
pl.scatter(x,y,alpha=0.5)
pl.title('sbi_life_beta_regression')
pl.xlabel('nifty_500_returns')
pl.ylabel('sbi_life_returns')
regression=LinearRegression()
regression.fit(x,y)
pl.plot(x,regression.predict(x),color='red',linewidth=4)
pl.show()
```



```
[ ] print("a= ", regression.intercept_)
    print("beta= ", regression.coef_)
```

```
a= [0.00613367]
beta= [[0.91673322]]
```

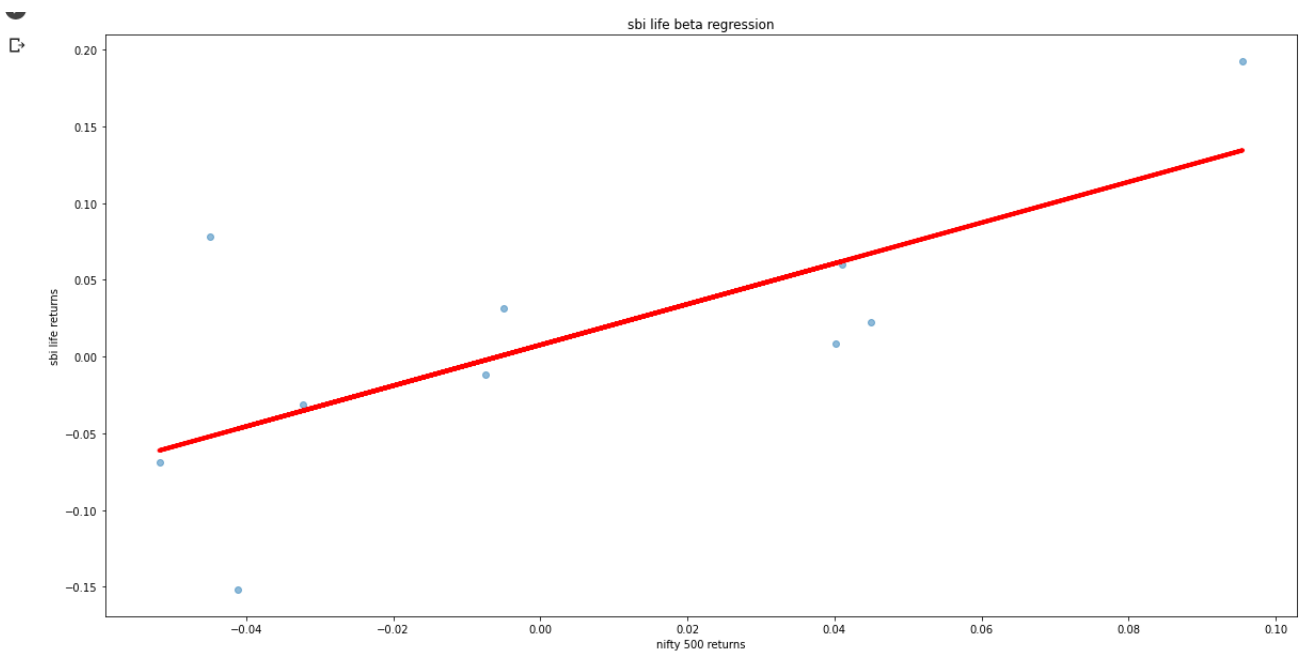
Figure 15: Regression performed for 57 months- Beta 0.92: Credit- Me :)



```
[ ] print("a= ", regression.intercept_)
print("beta= ", regression.coef_)

a= [0.00200973]
beta= [[0.82900893]]
```

Figure 16: Regression performed for 30 months- Beta 0.83: Credit- Me :)



```
[ ] print("a= ", regression.intercept_)
print("beta= ", regression.coef_)

a= [0.0075823]
beta= [[1.32768744]]
```

Figure 17: Regression performed for 10 months- Beta 1.33: Credit- Me :)

- To conclude we take beta for 30 months data as it is neither too short to be volatile or neither too large for the firm to change.
- **BETA= 0.83**

A	B	C	D	E	F	G	H
Date	Price	Open	High	Low	Volume	Chg%	Returns
Oct 2022	15,424.00	14,821.85	15,433.05	14,590.65	1,448	4.01%	0.0401
Sep 2022	14,829.35	15,157.15	15,723.10	14,518.50	1,818	-3.23%	-0.0323
Aug 2022	15,325.05	14,741.40	15,445.50	14,666.20	36,708	4.50%	0.045
Jul 2022	14,665.65	13,335.25	14,677.75	13,192.90	27,238	9.55%	0.0955
Jun 2022	13,387.55	14,132.10	14,300.00	12,855.55	27,888	-5.18%	-0.0518
May 2022	14,119.60	14,647.25	14,798.30	13,389.75	33,008	-4.49%	-0.0449
Apr 2022	14,783.35	14,890.10	15,477.80	14,617.05	34,678	-0.75%	-0.0075
Mar 2022	14,894.50	14,161.70	14,963.40	13,423.55	37,608	4.10%	0.041
Feb 2022	14,307.95	15,073.15	15,304.60	13,747.45	34,908	-4.11%	-0.0411
Jan 2022	14,921.45	15,030.50	15,834.20	14,410.90	39,988	-0.50%	-0.005
Dec 2021	14,996.20	14,743.70	15,280.00	14,128.15	43,938	2.37%	0.0237
Nov 2021	14,648.35	15,179.40	15,664.45	14,402.10	35,428	-2.91%	-0.0291
Oct 2021	15,086.90	14,994.80	16,004.45	14,932.75	50,188	0.23%	0.0023
Sep 2021	15,052.65	14,611.65	15,305.20	14,527.05	54,188	3.41%	0.0341
Aug 2021	14,555.90	13,759.80	14,571.80	13,716.70	41,308	6.53%	0.0653
Jul 2021	13,664.25	13,504.70	13,761.10	13,409.10	40,548	1.42%	0.0142
Jun 2021	13,473.55	13,274.25	13,634.35	13,155.55	57,328	1.87%	0.0187
May 2021	13,226.35	12,256.85	13,244.40	12,210.55	55,098	6.97%	0.0697
Apr 2021	12,364.35	12,401.35	12,659.40	11,923.20	38,798	0.41%	0.0041
Mar 2021	12,313.70	12,316.30	12,816.15	11,939.00	49,538	1.09%	0.0109
Feb 2021	12,181.40	11,396.90	12,724.55	11,304.00	60,158	7.78%	0.0778
Jan 2021	11,302.40	11,535.85	12,167.95	11,273.55	57,658	-1.87%	-0.0187
Dec 2020	11,518.30	10,803.25	11,548.35	10,734.30	55,738	7.46%	0.0746
Nov 2020	10,719.05	9,622.70	10,804.10	9,524.20	43,878	11.87%	0.1187
Oct 2020	9,581.65	9,433.70	9,822.95	9,423.80	34,188	2.57%	0.0257
Sep 2020	9,341.75	9,422.45	9,640.95	8,933.95	48,008	-0.32%	-0.0032
Aug 2020	9,372.05	9,029.60	9,747.05	8,925.05	49,038	3.72%	0.0372
Jul 2020	9,035.75	8,493.75	9,180.70	8,466.70	52,208	6.62%	0.0662
Jun 2020	8,474.80	7,935.70	8,699.55	7,839.15	74,848	8.34%	0.0834
May 2020	7,822.40	7,764.95	7,834.05	7,234.45	43,578	-2.38%	-0.0238
Apr 2020	8,012.90	6,995.55	8,041.05	6,619.55	37,378	14.52%	0.1452
Mar 2020	6,996.75	9,380.40	9,436.50	6,151.60	52,998	-24.25%	-0.2425
Feb 2020	9,236.05	9,844.90	10,071.70	9,214.10	35,018	-6.34%	-0.0634
Jan 2020	9,861.45	9,897.95	10,174.95	9,700.35	35,468	-0.11%	-0.0011

Figure 18: Nifty500 returns data : Credit- <https://in.investing.com/>

Date	Open	High	Low	Close	Adj Close	Volume	Price.End- Price B	Adding dividends	Returns								
2018-02-01	665	733.25	660.5	694.5	686.934204	8611585		29.5	0.04436090226								
2018-03-01	695.900024	711	647	678.25	670.861145	4519381		-17.650024	-0.0253628731								
2018-04-01	681	774.599976	674	743.099976	735.004761	13907716		62.099976	0.09412624963	Announcement Date	Ex-Date	Dividend Type	Dividend (%)	Dividend (Rs)	Remarks		
2018-05-01	743.099976	757.650024	647	689.799988	684.286499	9859726		-53.299988	-0.0717265371	15-03-2022	05-04-2021	Interim	20	2.5 %	Interim Dividend		
2018-06-01	688.900024	729.900024	658.049988	674.349976	668.959961	10729486		-14.550048	-0.02112069603	23-03-2021	03-04-2019	Interim	20	2 %	Interim Dividend		
2018-07-01	675.299988	711.700012	628	686	680.516846	4190140		10.700012	0.01584482777	19-03-2019	03-04-2018	Interim	20	2 %	Interim Dividend		
2018-08-01	691.099976	708.25	644	672.400024	667.025574	3455990		-18.699952	-0.02705824432	14-03-2018	03-04-2018	Interim	20	2 %	Interim Dividend		
2018-09-01	668.599976	686.849976	508	511.600006	507.510864	8918376		-156.99997	-0.2348189884								
2018-10-01	512	599.799988	485	560.400024	555.920837	11257812		48.400024	0.09453129688								
2018-11-01	558	590.900024	557.5	571.400024	566.832886	4291489		13.400024	0.02401437993								
2018-12-01	565.200012	607.150024	540.349976	597.849976	593.071411	5960423		32.649964	0.05776709715								
2019-01-01	595.25	649.75	590	595	590.244202	5886176		-0.25	-0.00041999160								
2019-02-01	600	604	555	578.549988	573.925659	5545656		-21.450012	-0.03575002								
2019-03-01	581.950012	634.900024	515.549988	583.400024	578.737	25814650		1.450012	0.002491643561								
2019-04-01	584.900024	644.799988	583.400024	639.849976	634.735718	14344831		54.949952	0.09736698523								
2019-05-01	639.849976	704	594.650024	694.25	690.999878	13882230		54.400024	0.08501996724								
2019-06-01	687	744	669.5	723.700012	720.312012	27192939		36.700012	0.05342068705								
2019-07-01	724.799988	808.5	716.049988	797.549988	793.816284	23907306		72.75	0.1003725182								
2019-08-01	790.349976	862.450012	752.549988	838.700012	834.773621	20560694		48.350036	0.06117547601								
2019-09-01	838.700012	851.599976	777.099976	846.400024	842.437561	24798181		7.700012	0.00918088934								
2019-10-01	846	1030	804	991.5	986.858276	33053519		145.5	0.1719858156								
2019-11-01	993.299988	1026	916	960.049988	955.555542	146352925		-33.25	-0.03347427806								
2019-12-01	959.150024	1011.700012	924.5	961.599976	957.089267	28234310		2.449952	0.002554294886								
2020-01-01	965	1020	958	994.099976	989.446106	13409094		29.099976	0.03015541554								
2020-02-01	998	1012.900024	856.650024	890.400024	886.231628	24562158		-107.599976	-0.1078156072								
2020-03-01	895.150024	914	519.400024	641	637.999146	31185235		-254.150024	-0.2839189155								
2020-04-01	641.900024	795	627.299988	726.849976	723.447205	23494248		84.949952	0.1323414065								
2020-05-01	726.849976	783	675.5	768.650024	765.051575	36893472		41.800048	0.05750849471								
2020-06-01	776	820.5	728.75	806.450012	802.674622	38441682		30.450012	0.03923970619								
2020-07-01	814.950012	921.75	802	912.849976	908.576477	33795432		97.899964	0.1201300234								
2020-08-01	911	911	818.549988	827.75	823.874878	28695455		-83.25	-0.0913830955								
2020-09-01	825	876	780	811.450012	807.651184	39295409		-13.549988	-0.01642422788								
2020-10-01	817	836	755.25	769.150024	765.549255	29886300		-47.849976	-0.05856790208								
2020-11-01	771	868.700012	762.200012	846.049988	842.089172	27638589		75.049988	0.09734109987								

Figure 19: SBI life returns data with dividends adjusted: Credit- <https://finance.yahoo.com/>

3.3.1 Calculating the cost of equity

$$\text{Expected Return} = \text{Risk-free rate} + \text{Beta} \times \text{Market Risk Premium}$$

$$\text{Expected Return} = 5.482 + 0.83 \times 6.42 = 10.81\%$$

3.4 Estimating default risk and cost of debt

- **Que.** If your company is rated, find the bond rating and estimate a default spread based on the rating. Add the default spread to the risk-free rate to estimate a pretax cost of debt.

$$\text{Cost of debt} = \text{risk free rate} + \text{default spread}$$

- As referring to the earlier figure by CRISIL we have a credit rating of SBI life as **AAA** with a default spread of **0.67**.

$$\text{Cost of debt} = 5.482 + 0.67 = 6.152\%$$