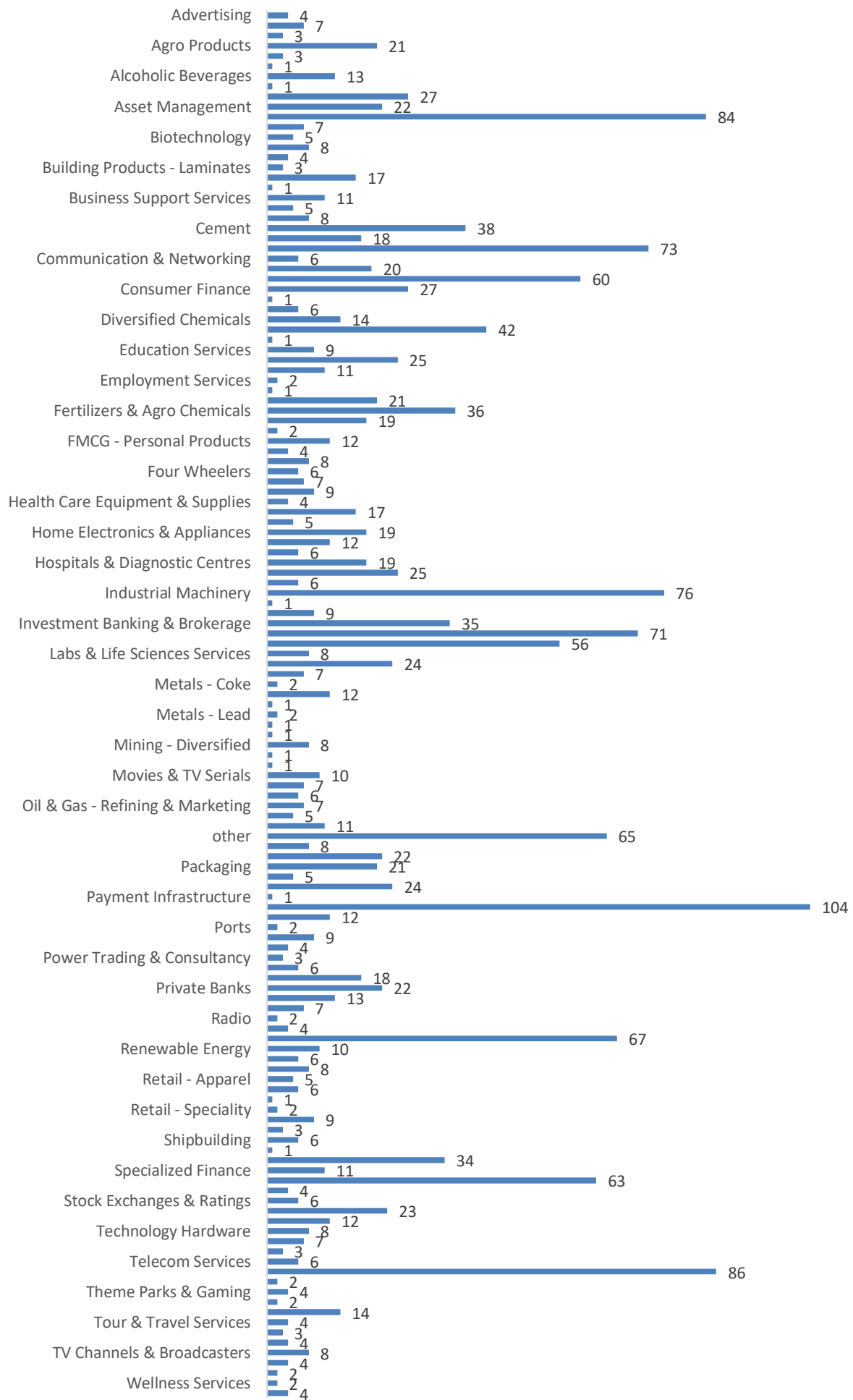Firstly, screen the companies and visualise them according to sub-sectors using a pie chart or a bar charts.

Sub-Sector	No. of company
Advertising	4
Aerospace & Defense Equipments	7
Agricultural & Farm Machinery	3
Agro Products	21
Airlines	3
Airports	1
Alcoholic Beverages	13
Animation	1
Apparel & Accessories	27
Asset Management	22
Auto Parts	84
Batteries	7
Biotechnology	5
Building Products - Ceramics	8
Building Products - Granite	4
Building Products - Laminates	3
Building Products - Pipes	17
Building Products - Prefab Structures	1
Business Support Services	11
Cable & D2H	5
Cables	8
Cement	38
Commodities Trading	18
Commodity Chemicals	73
Communication & Networking	6
Conglomerates	20
Construction & Engineering	60
Consumer Finance	27
Cycles	1
Debt	6
Diversified Chemicals	14
Diversified Financials	42
Dredging	1
Education Services	9
Electrical Components & Equipments	25
Electronic Equipments	11
Employment Services	2
Environmental Services	1
Equity	21
Fertilizers & Agro Chemicals	36
FMCG - Foods	19
FMCG - Household Products	2
FMCG - Personal Products	12
FMCG - Tobacco	4
Footwear	8
Four Wheelers	6
Gas Distribution	7
Gold	9
Health Care Equipment & Supplies	4
Heavy Electrical Equipments	17
Heavy Machinery	5
Home Electronics & Appliances	19

Home Financing	12
Home Furnishing	6
Hospitals & Diagnostic Centres	19
Hotels, Resorts & Cruise Lines	25
Housewares	6
Industrial Machinery	76
Infra REIT	1
Insurance	9
Investment Banking & Brokerage	35
Iron & Steel	71
IT Services & Consulting	56
Labs & Life Sciences Services	8
Logistics	24
Metals - Aluminium	7
Metals - Coke	2
Metals - Diversified	12
Metals - Iron	1
Metals - Lead	2
Mining - Coal	1
Mining - Copper	1
Mining - Diversified	8
Mining - Iron Ore	1
Mining - Manganese	1
Movies & TV Serials	10
Oil & Gas - Equipment & Services	7
Oil & Gas - Exploration & Production	6
Oil & Gas - Refining & Marketing	7
Oil & Gas - Storage & Transportation	5
Online Services	11
other	65
Outsourced services	8
Packaged Foods & Meats	22
Packaging	21
Paints	5
Paper Products	24
Payment Infrastructure	1
Pharmaceuticals	104
Plastic Products	12
Ports	2
Power Generation	9
Power Infrastructure	4
Power Trading & Consultancy	3
Power Transmission & Distribution	6
Precious Metals, Jewellery & Watches	18
Private Banks	22
Public Banks	13
Publishing	7
Radio	2
Rail	4
Real Estate	67
Renewable Energy	10
Renewable Energy Equipment & Servic	6
Restaurants & Cafes	8
Retail - Apparel	5
Retail - Department Stores	6
Retail - Online	1

Retail - Speciality	2
Roads	9
Seeds	3
Shipbuilding	6
Soft Drinks	1
Software Services	34
Specialized Finance	11
Specialty Chemicals	63
Stationery	4
Stock Exchanges & Ratings	6
Sugar	23
Tea & Coffee	12
Technology Hardware	8
Telecom Equipments	7
Telecom Infrastructure	3
Telecom Services	6
Textiles	86
Theatres	2
Theme Parks & Gaming	4
Three Wheelers	2
Tires & Rubber	14
Tour & Travel Services	4
Tractors	3
Trucks & Buses	4
TV Channels & Broadcasters	8
Two Wheelers	4
Water Management	2
Wellness Services	2
Wood Products	4

Industry bar chart (series: Total)

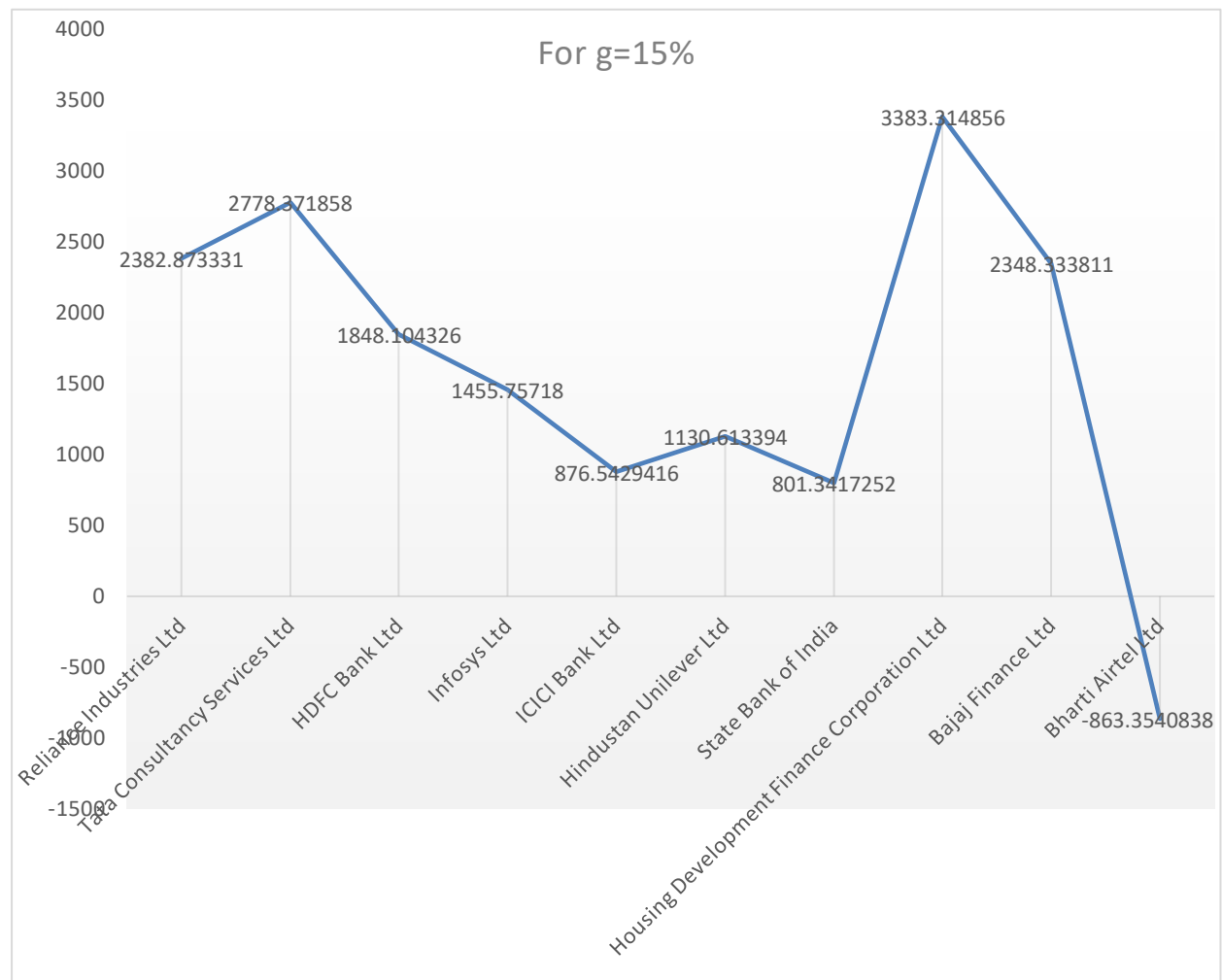| Category	Values
Advertising	4, 7
Agro Products	3, 21
Alcoholic Beverages	3, 13, 1
Asset Management	27, 22, 84
Biotechnology	7, 5, 8
Building Products - Laminates	4, 3, 17
Business Support Services	1, 11, 5
Cement	8, 38, 18
Communication & Networking	73, 6, 20
Consumer Finance	60, 27, 1
Diversified Chemicals	6, 14, 42
Education Services	1, 9, 25
Employment Services	11, 2
Fertilizers & Agro Chemicals	21, 36, 19
FMCG - Personal Products	2, 12, 4
Four Wheelers	8, 6, 7
Health Care Equipment & Supplies	9, 4, 17
Home Electronics & Appliances	5, 19, 12
Hospitals & Diagnostic Centres	6, 19, 25
Industrial Machinery	6, 76, 1
Investment Banking & Brokerage	9, 35, 71
Labs & Life Sciences Services	56, 8, 24
Metals - Coke	7, 2, 12
Metals - Lead	1, 2, 1
Mining - Diversified	8, 1, 1
Movies & TV Serials	10, 7, 6
Oil & Gas - Refining & Marketing	7, 5, 11
other	65, 8, 22
Packaging	21, 5, 24
Payment Infrastructure	1, 104, 12
Ports	2, 9, 4
Power Trading & Consultancy	3, 6, 18
Private Banks	22, 13, 7
Radio	2, 4, 67
Renewable Energy	6, 10, 6
Retail - Apparel	8, 5, 6
Retail - Speciality	1, 2, 9
Shipbuilding	3, 6, 1
Specialized Finance	34, 11, 63
Stock Exchanges & Ratings	4, 6, 23
Technology Hardware	12, 8, 7
Telecom Services	3, 6, 86
Theme Parks & Gaming	2, 4, 2
Tour & Travel Services	14, 4, 3
TV Channels & Broadcasters	4, 8, 4
Wellness Services	2, 4

Total

Secondly, visualise the companies by segregating them according to Market Cap in three categories: Large Cap(>20,000 crore), Mid Cap (5,000 to 20,000 crore) & Small Cap(<5,000).

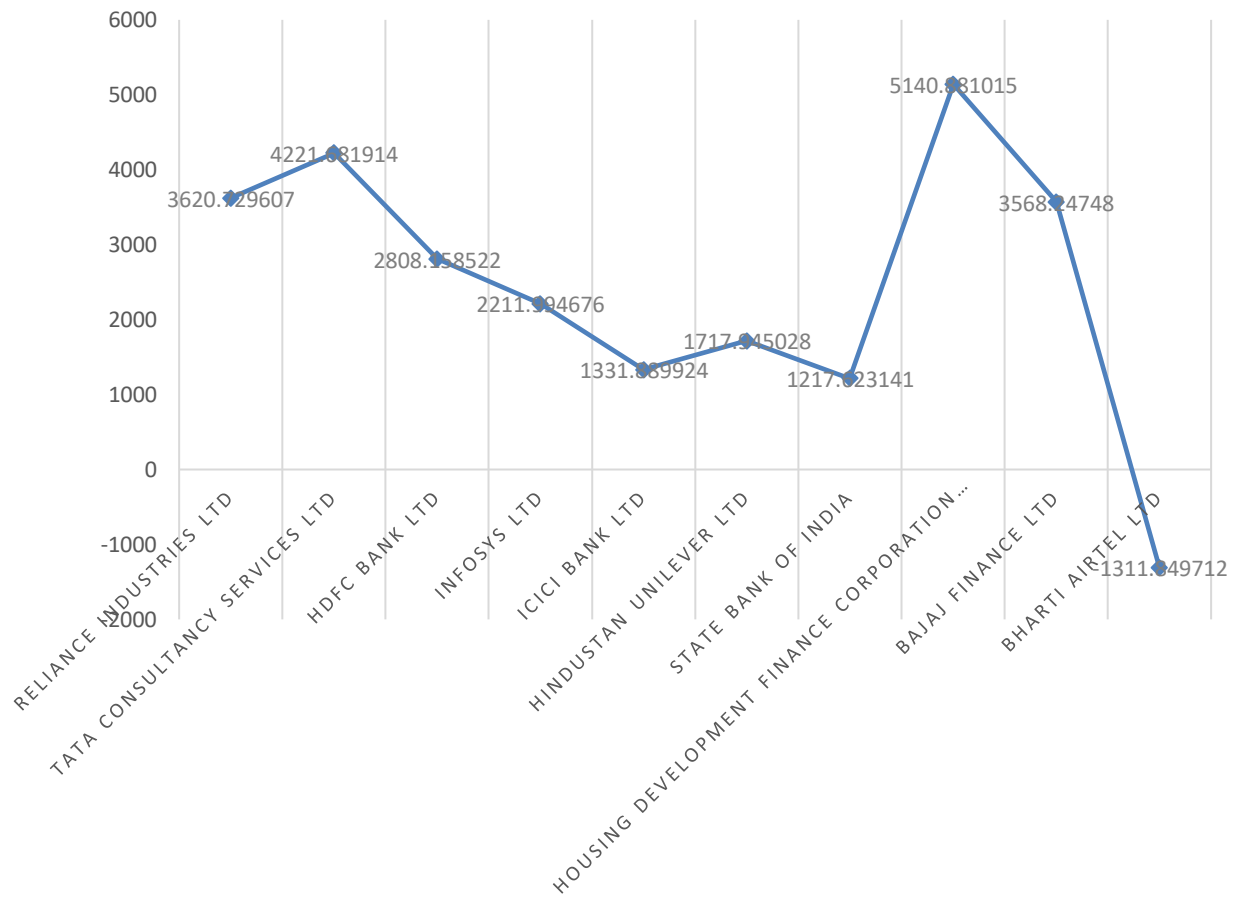|	Range for market cap	Count
Small cap	<5000	1494
Mid cap	5000-20000	281
Large cap	>20000	225
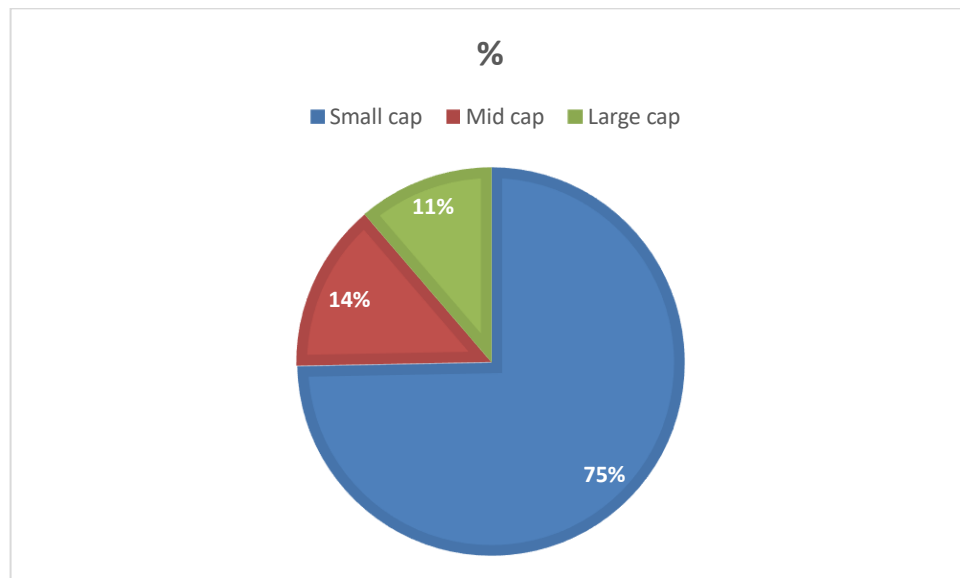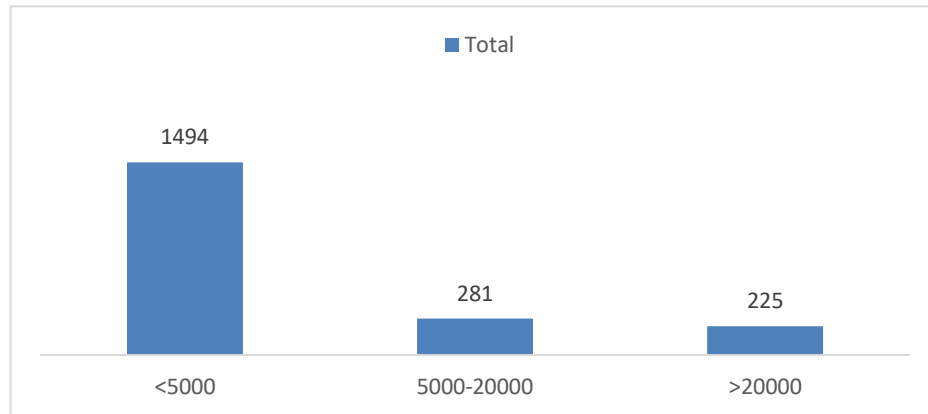
Thirdly, pick 10 random companies from the entire group and visualise the following through a line chart

Name	Market Cap	Earnings Per Share	Y= 7.237%		
			intrinsic value (g=15%)	intrinsic value (g=25%)	intrinsic value (g=-5%)
Reliance Industries Ltd	1679534.2	74.653048914109	2382.873331	3620.729607	-92.8392207
Tata Consultancy Services Ltd	1358569.1	87.0436239569868	2778.371858	4221.681914	-108.2482542
HDFC Bank Ltd	820636.27490988	57.8992684343621	1848.104326	2808.158522	-72.00406466
Infosys Ltd	777500.97598866	45.6074229994011	1455.75718	2211.994676	-56.71781221
ICICI Bank Ltd	500279.04190316	27.4612176128086	876.5429416	1331.889924	-34.1510237
Hindustan Unilever Ltd	493895.83122871	35.4209919264275	1130.613394	1717.945028	-44.04987251
State Bank of India	447926.25289146	25.1052383788831	801.3417252	1217.623141	-31.22110618
Housing Development Finance Corporation Ltd	437634.04331285	105.99588576307	3383.314856	5140.881015	-131.8174619
Bajaj Finance Ltd	423044.10954736	73.5709601450245	2348.333811	3568.24748	-91.49352512
Bharti Airtel Ltd	416050.84589812	-27.0480238274925	-863.354084	-1311.849712	33.63717209

FOR G=25%

Company	Value
RELIANCE INDUSTRIES LTD	3620.929607
TATA CONSULTANCY SERVICES LTD	4221.881914
HDFC BANK LTD	2808.358522
INFOSYS LTD	2211.594676
ICICI BANK LTD	1331.889924
HINDUSTAN UNILEVER LTD	1717.845028
STATE BANK OF INDIA	1217.623141
HOUSING DEVELOPMENT FINANCE CORPORATION...	5140.881015
BAJAJ FINANCE LTD	3568.24748
BHARTI AIRTEL LTD	-1311.049712

For g=-5%