

## Report on Portfolio Analysis of Investors:

After analysing portfolio of all the six Investors, we can conclude that Diversified Portfolio is better than a Single Asset Portfolio.

Statistical Information:	Share Price	Share Return
Expected Return	121.9016	-0.0015
Variance	402.6148	0.0005
Skewness	0.7861	-0.8389
Kurtosis	-0.3000	3.0007
Standard Deviation:	20.0653	0.0229

Portfolio of Investor B

Expected Return	0.93385592
Variance on Return	486.2933272
Correlation	0.214049826

Portfolio of Investor D

From the above statistical information, we can say that Average return of investor D (0.93385592) is better than Average return of Investor B (-0.0015). Therefore, we can come to an end that Diversified Portfolio gives higher Expected Return than Single Asset Portfolio.

Investor B is supposed to have negative return from stocks of ONGC Limited whereas Investor D will gain the benefit of diversification even though he also planned to invest in ONGC Limited in addition to HDFC Limited.

### What is Diversification?

Diversification is an investing strategy used to manage risk. Rather than concentrate money in a single company, industry, sector or asset class, investors diversify their investments across a range of different companies, industries and asset classes. When you divide your funds across companies large and small, at home and abroad, in both stocks and bonds, you avoid the risk of having all of your eggs in one basket.

### Why do we need Diversification?

You need diversification to minimize investment risk. If we had perfect knowledge of the future, everyone could simply pick one investment that would perform perfectly for as long as needed. Since the future is highly uncertain and markets are always changing, we diversify our investments among different companies and assets that are not exposed to the same risks.

Statistical Information:	Share Price	Share Return
--------------------------	-------------	--------------

<b>Expected values (<math>\mu</math>)</b>	1524.5768	-0.0004
<b>Variance</b>	5208.5596	0.0002
<b>Skewness</b>	0.2442	-0.3621
<b>Kurtosis</b>	-0.4122	2.3291
<b>Standard Deviation</b>	72.17035133	0.013991322

**Portfolio of Investor A**

<b>Statistical Information:</b>	<b>Share Price</b>	<b>Share Return</b>
<b>Expected values (<math>\mu</math>)</b>	79.4061	0.0017
<b>Variance</b>	84.3937	0.0007
<b>Skewness</b>	0.6727	-0.2791
<b>Kurtosis</b>	0.4109	2.6790
<b>Standard Deviation</b>	9.18660	0.02591

**Portfolio of Investor C**

<b>Expected Return</b>	0.0926
<b>Variance on Return</b>	14.51290458
<b>Correlation</b>	0.186706648

**Portfolio of Investor E**

<b>Expected Return</b>	0.5924
<b>Variance on Return</b>	476.0548787
<b>Correlation</b>	0.212291134

**Portfolio of Investor F**

From the above information we can conclude that all diversified portfolio are expected to provide positive return whereas single asset portfolios provides negative return in most of the cases. Investor D is supposed to gain the highest returns from a diversified portfolio.

## **Planning of the project:**

Our team of three members, Rohit Dubey, Devin Gupta & Disha Dubhir, has completed the project by dividing the tasks equally between us. The task 1 & 4 was completed by Rohit Dubey, Tasks 2 & 5 were assigned to Devin Gupta & Disha Dubhir completed task 3.

The Report on Portfolio Analysis of Investors was made by a collaborative effort. All the members of the team showed interest and dedication towards the project. We have used the High values of the stocks to calculate, compare and analyse all the statistical information. We used articles from Investopedia and Forbes to study about Diversification.

Group Members:		
	Name	Roll No
1	Rohit Dubey	19
2	Disha Dubhir	20
3	Devin Gupta	21