

## A STUDY OF ASSET ALLOCATION AND REBALANCING

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**Introduction :** It is important to remember that asset allocation is an approach to help management investment risk. It does not guarantee against investment loss. The ultimate objective of an asset allocation program is to develop an investment portfolio that is properly aligned with your investment objectives and risk tolerance. A well-diversified portfolio will rarely outperform the top asset class in any given year, but over time, it has often been one of the most effective ways to pursue your long-term financial goals.

An asset allocation fund is a mutual fund that provides investors with a portfolio of a fixed or variable mix of the three main asset classes - stocks, bonds and cash equivalents - in a variety of securities. Some asset allocation funds maintain a specific proportion of asset classes over time, while others vary the proportional composition in response to changes in the economy and investment markets.

The investments in a portfolio will perform according to the market. As time goes on, a portfolio's current asset allocation will drift away from an investor's original target asset allocation (i.e., their preferred level of risk exposure). If left unadjusted, the portfolio will either become too risky, or too conservative. If it becomes too risky, that will tend to increase long-term returns, which is desirable. But when the excessive risks show up in the short term, the investor might have a tendency to do the worst possible thing at the worst possible time (i.e., sell at the bottom),<sup>[1]</sup> thus dramatically diminishing their ending wealth. If the portfolio is allowed to drift to a too conservative status, then excessive short-term risk is less likely, which is desirable. However, long-term returns would also tend to be lower than desired. It is best to maintain a portfolio's risk profile reasonably close to an investor's level of risk tolerance.

**Asset Allocation:** The key to effective portfolio management is the long-term mix of assets. Asset allocation is based on the understanding that different types of assets do not move in concert, and some are more volatile than others. Asset allocation seeks to optimize the risk/return profile of an investor by investing in a mix of assets that have low correlation to each other. Investors with a more aggressive profile can weight their portfolio toward more volatile investments. Investors with a more conservative profile can weight their portfolio toward more stable investment.

**Diversification:** The only certainty in investing is it is impossible to consistently predict the winners and losers, so the prudent approach is to create a basket of investments that provide broad exposure within an asset class. Diversification is the spreading of risk and reward within an asset class. Because it is difficult to know which particular subset of an asset class or sector is likely to outperform another, diversification seeks to capture the returns of all of the sectors over time but with less volatility at any one time. Proper diversification takes place across different classes of securities, sectors of the economy and geographical regions.

**Rebalancing:** This is a method used to return a portfolio to its original target allocation at annual intervals. It is important for retaining the asset mix that best reflects an investor's risk/return profile. Otherwise, the movements of the markets could expose the portfolio to greater risk or reduced return opportunities. For example, a portfolio that starts out with a 70% equity and 30% fixed-income allocation could, through an extended market rally, shift to an 80/20 allocation that exposes the portfolio to more risk than the investor can tolerate. Rebalancing almost always entails the sale of high-priced/low-value securities and the redeployment of the proceeds into low-priced/high-value or out-of-favor securities. The annual iteration of rebalancing enables investors to capture gains and expand the opportunity for growth in high potential sectors while keeping the portfolio aligned with the investor's risk/return profile.

**Objectives of The Study:**

To Study the risk in investment asset class in mutual fund schemes and getting risk adjusted return.

1. The Primary objective of the study of asset allocation is to develop an investment.
2. To diversify investment in various asset class.
3. To analyses the risk factor in investments.
4. To study volatility measures.
5. To study risk hedging tools.
6. To asset allocation and rebalancing and its impact on portfolio

**Research Methodology**

**Data Collection: 1.Primary Data :**The primary data are those which are collected a fresh and for the first time and thus happen to be original in character. However, there are many methods of collecting the primary data; all have not been used for the purpose of this project.

**2.Secondary Data :**The researcher collected the entire data from the secondary source i.e.,

Company Profile

**NJ INDIA INVEST PVT LTD.****Built On Trust**

A evolving, emerging & enterprising group with its' roots in the financial services sector and today expanding into newer horizons with great passion. The vision of the group is to be leaders in businesses driven by customer satisfaction, commitment to excellence and passion for continued value creation for all stakeholders. This vision has helped us grow and build the trust of our customers and associates which is at the cornerstone of everything we do. Trust is also at the heart of our success and the driver for passion for our success.

NJ Group is a leading player in the Indian financial services industry known for its' strong distribution capabilities. The journey of NJ began in 1994 with the establishment of NJ India Invest Pvt. Ltd., the flagship company, to cater to investor needs in the financial services industry. Today, the NJ Wealth Distributor Network, earlier known as the NJ Fundz Network, started in 2003 is among the largest networks of financial products distributor in India.

Over the years, NJ Group has diversified into other businesses and today has the presence in businesses ranging from financial products distributor network, asset management, real estate, insurance broking, training & development and technology. Our rich experience in financial services, combined with executional capabilities and strong process & system orientation, has enabled us to shape a rising growth trajectory in our businesses.NJ Group is based out of Surat in Gujarat (India) and has presence in 94\* locations in India and has over 1,100+\* employees.

**Data Analysis :** The data which is collected from the secondary source are analyzed and interpreted by using statistical techniques such as Sum, Mean, Standard Deviation and Returns in the following manner

**Asset Allocation Without Rebalancing For Kotak Select Focus Fund**

Year	Inv Value	Absolute Return	Equity	70		Debt	30			
Jan 2012	100		Kotak Select Focus Fund	Q Start	Q End	Kotak Floater Short Term	Q Start	Q End	X-X'	(X-X')^2
March 2012	109.8	9.76	12.89	70.0	79.0	2.45	30.0	30.7	5.56	30.88
June 2012	111.5	1.61	1.26	79.0	80.0	2.5	30.7	31.5	-2.59	6.73
September 2012	119.2	6.88	8.66	80.0	86.9	2.35	31.5	32.2	2.68	7.16
Dec 2012	126.4	6.01	7.44	86.9	93.4	2.15	32.2	32.9	1.81	3.27
March 2013	119.5	-5.40	-8.03	93.4	85.9	2.07	32.9	33.6	-9.60	92.13
June 2013	123.5	3.32	3.76	85.9	89.1	2.18	33.6	34.4	-0.89	0.78
September 2013	123.5	0.04	-0.85	89.1	88.4	2.34	34.4	35.2	-4.16	17.34
Dec 2013	135.1	9.38	12.16	88.4	99.1	2.39	35.2	36.0	5.18	26.82
March 2014	143.0	5.83	7.14	99.1	106.2	2.24	36.0	36.8	1.63	2.67
June 2014	165.2	15.52	20.12	106.2	127.6	2.23	36.8	37.6	11.32	128.03
September 2014	178.1	7.82	9.49	127.6	139.7	2.17	37.6	38.4	3.62	13.12

Dec 2014	195.8	9.91	12.04	139.7	156.5	2.17	38.4	39.3	5.71	32.59
March 2015	201.0	2.66	2.78	156.5	160.9	2.19	39.3	40.1	-1.54	2.37
June 2015	202.2	0.62	0.25	160.9	161.3	2.08	40.1	41.0	-3.59	12.86
September 2015	203.3	0.55	0.18	161.3	161.6	1.99	41.0	41.8	-3.65	13.36
Dec 2015	203.7	0.19	-0.26	161.6	161.1	1.93	41.8	42.6	-4.01	16.09
March 2016	199.8	-1.95	-3	161.1	156.3	2.02	42.6	43.5	-6.15	37.85
June 2016	216.3	8.26	10.01	156.3	171.9	1.98	43.5	44.3	4.06	16.50
September 2016	231.3	6.95	8.28	171.9	186.2	1.8	44.3	45.1	2.75	7.57
Dec 2016	<b>222.2</b>	<b>-3.92</b>	<b>-5.28</b>	<b>186.2</b>	<b>176.4</b>	<b>1.67</b>	<b>45.1</b>	<b>45.9</b>	<b>-8.13</b>	<b>66.03</b>
	<b>Sum</b>	<b>84.03</b>								<b>534.14</b>
	<b>Mean</b>	<b>4.20</b>								
	<b>Std Dev</b>	<b>5.30</b>								
	<b>Returns</b>	<b>6.11</b>								

**Asset Allocation With Rebalancing For Kotak Select Focus Fund**

Year	Inv Value	Absolute Return	Equity	70		Debt	30			
Jan 2012	100		Kotak Select Focus Fund	Q Start	Q End	Kotak Floater Short Term	Q Start	Q End	X-X'	(X-X')^2
March 2012	109.8	9.76	12.89	70.0	79.0	2.45	30.0	30.7	5.65	31.90
June 2012	111.5	1.63	1.26	76.8	77.8	2.5	32.9	33.8	-2.48	6.14
September 2012	119.1	6.77	8.66	78.1	84.8	2.35	33.5	34.3	2.66	7.06
Dec 2012	126.1	5.85	7.44	83.4	89.6	2.15	35.7	36.5	1.74	3.04
March 2013	119.8	-5.00	-8.03	88.2	81.2	2.07	37.8	38.6	-9.11	82.99
June 2013	123.7	3.29	3.76	83.8	87.0	2.18	35.9	36.7	-0.82	0.68
September 2013	123.8	0.11	-0.85	86.6	85.9	2.34	37.1	38.0	-4.00	16.02
Dec 2013	135.3	9.23	12.16	86.7	97.2	2.39	37.1	38.0	5.12	26.21
March 2014	142.9	5.67	7.14	94.7	101.4	2.24	40.6	41.5	1.56	2.43
June 2014	164.0	14.75	20.12	100.1	120.2	2.23	42.9	43.8	10.64	113.28
September 2014	176.0	7.29	9.49	114.8	125.7	2.17	49.2	50.3	3.18	10.14
Dec 2014	192.0	9.08	12.04	123.2	138.0	2.17	52.8	53.9	4.97	24.69
March 2015	197.0	2.60	2.78	134.4	138.1	2.19	57.6	58.8	-1.51	2.27
June 2015	198.5	0.80	0.25	137.9	138.2	2.08	59.1	60.3	-3.31	10.96
September 2015	200.0	0.72	0.18	139.0	139.2	1.99	59.6	60.7	-3.39	11.47
Dec 2015	200.8	0.40	-0.26	140.0	139.6	1.93	60.0	61.1	-3.71	13.79
March 2016	197.8	-1.49	-3	140.5	136.3	2.02	60.2	61.4	-5.60	31.40
June 2016	212.8	7.60	10.01	138.4	152.3	1.98	59.3	60.5	3.49	12.19
September 2016	226.3	6.34	8.28	149.0	161.3	1.8	63.8	65.0	2.23	4.96
Dec 2016	<b>219.0</b>	<b>-3.20</b>	<b>-5.28</b>	<b>158.4</b>	<b>150.0</b>	<b>1.67</b>	<b>67.9</b>	<b>69.0</b>	<b>-7.30</b>	<b>53.36</b>
	<b>Sum</b>	<b>82.20</b>								<b>464.98</b>
	<b>Mean</b>	<b>4.11</b>								
	<b>Std Dev</b>	<b>4.95</b>								
	<b>Returns</b>	<b>5.95</b>								

**Asset Allocation Without Rebalancing For DSP BlackRock Micro Cap Fund**

Year	Inv Value	Absolute Return	Equity	70		Debt	30			
Jan 2012	100		DSP BlackRock Micro Cap Fund	Q Start	Q End	DSP BlackRock Liquidity Fund	Q Start	Q End	X-X'	(X-X')^2
March 2012	114.6	14.60	19.84	70.0	83.9	2.36	30.0	30.7	8.18	66.99
June 2012	116.4	1.60	1.29	83.9	85.0	2.45	30.7	31.5	-4.81	23.14
September 2012	126.0	8.20	10.41	85.0	93.8	2.24	31.5	32.2	1.79	3.21
Dec 2012	131.2	4.11	4.81	93.8	98.3	2.05	32.2	32.8	-2.31	5.32
March 2013	116.7	-11.02	-15.39	98.3	83.2	2.06	32.8	33.5	17.43	303.94
June 2013	118.2	1.25	0.92	83.2	84.0	2.06	33.5	34.2	-5.16	26.67
September 2013	116.3	-1.58	-3.13	84.0	81.3	2.23	34.2	35.0	-7.99	63.84
Dec 2013	137.8	18.48	25.44	81.3	102.0	2.3	35.0	35.8	12.07	145.77
March 2014	149.0	8.12	10.21	102.0	112.4	2.15	35.8	36.5	1.71	2.91
June 2014	189.9	27.50	35.72	112.4	152.6	2.2	36.5	37.3	21.09	444.79
September 2014	216.2	13.82	16.68	152.6	178.1	2.13	37.3	38.1	7.41	54.90
Dec 2014	244.5	13.10	15.45	178.1	205.6	2.13	38.1	38.9	6.69	44.75
March 2015	261.9	7.09	8.04	205.6	222.1	2.1	38.9	39.8	0.68	0.47

June 2015	264.1	0.88	0.67	222.1	223.6	2.03	39.8	40.6	-5.53	80.63
September 2015	275.2	4.17	4.58	223.6	233.8	1.94	40.6	41.3	-2.24	5.00
Dec 2015	289.5	5.22	5.82	233.8	247.4	1.85	41.3	42.1	-1.19	1.41
March 2016	272.1	-6.03	-7.39	247.4	229.1	1.98	42.1	42.9	12.44	154.71
June 2016	310.1	13.98	16.24	229.1	266.4	1.92	42.9	43.8	7.57	57.28
September 2016	332.2	7.10	7.98	266.4	287.6	1.76	43.8	44.5	0.69	0.48
Dec 2016	<b>324.3</b>	-2.38	-3	287.6	279.0	1.65	44.5	45.3	-8.79	77.22
	<b>Sum</b>	<b>128.22</b>								<b>1513.42</b>
	<b>Mean</b>	<b>6.41</b>								
	<b>Std Dev</b>	<b>8.92</b>								
	<b>Returns</b>	<b>11.21</b>								

**Asset Allocation With Rebalancing For DSP BlackRock Micro Cap Fund**

Year	Inv Value	Absolute Return	Equity	70		Debt	30			
			DSP BlackRock Micro Cap Fund	Q Start	Q End	DSP BlackRock Liquidity Fund	Q Start	Q End	X-X'	(X-X')^2
Jan 2012	100									
March 2012	114.6	14.60	19.84	70.0	83.9	2.36	30.0	30.7	8.54	72.94
June 2012	116.5	1.64	1.29	80.2	81.3	2.45	34.4	35.2	-4.42	19.51
September 2012	125.7	7.96	10.41	81.5	90.0	2.24	34.9	35.7	1.90	3.62
Dec 2012	130.8	3.98	4.81	88.0	92.3	2.05	37.7	38.5	-2.07	4.30
March 2013	117.5	-10.16	-15.39	91.5	77.4	2.06	39.2	40.0	16.21	262.78
June 2013	119.0	1.26	0.92	82.2	83.0	2.06	35.2	36.0	-4.79	22.98
September 2013	117.1	-1.52	-3.13	83.3	80.7	2.23	35.7	36.5	-7.58	57.42
Dec 2013	138.8	18.50	25.44	82.0	102.9	2.3	35.1	36.0	12.44	154.82
March 2014	149.6	7.79	10.21	97.2	107.1	2.15	41.6	42.5	1.74	3.02
June 2014	188.0	25.66	35.72	104.7	142.2	2.2	44.9	45.9	19.61	384.49
September 2014	211.2	12.32	16.68	131.6	153.6	2.13	56.4	57.6	6.26	39.18
Dec 2014	235.4	11.45	15.45	147.8	170.7	2.13	63.4	64.7	5.40	29.14
March 2015	250.1	6.26	8.04	164.8	178.0	2.1	70.6	72.1	0.20	0.04
June 2015	252.8	1.08	0.67	175.1	176.2	2.03	75.0	76.6	-4.98	24.78
September 2015	262.4	3.79	4.58	177.0	185.1	1.94	75.8	77.3	-2.27	5.14
Dec 2015	274.5	4.63	5.82	183.7	194.4	1.85	78.7	80.2	-1.43	2.03
March 2016	262.0	-4.58	-7.39	192.2	178.0	1.98	82.4	84.0	10.63	113.09
June 2016	293.2	11.94	16.24	183.4	213.1	1.92	78.6	80.1	5.89	34.67
September 2016	311.2	6.11	7.98	205.3	221.6	1.76	88.0	89.5	0.06	0.00
Dec 2016	<b>306.2</b>	-1.60	-3	217.8	211.3	1.65	93.4	94.9	-7.66	58.68
	<b>Sum</b>	<b>121.11</b>								<b>1292.65</b>
	<b>Mean</b>	<b>6.06</b>								
	<b>Std Dev</b>	<b>8.25</b>								
	<b>Returns</b>	<b>10.31</b>								

**Asset Allocation Without Rebalancing For Reliance Pharma Fund**

Year	Inv Value	Absolute Return	Equity	70		Debt	30			
			Reliance Pharma Fund	Q Start	Q End	Reliance Money Manager Fund	Q Start	Q End	X-X'	(X-X')^2
Jan 2012	100									
March 2012	106.7	6.68	8.54	70.0	76.0	2.33	30.0	30.7	2.26	5.10
June 2012	110.9	3.93	4.47	76.0	79.4	2.59	30.7	31.5	-0.49	0.24
September 2012	120.7	8.91	11.54	79.4	88.5	2.27	31.5	32.2	4.49	20.15
Dec 2012	127.3	5.42	6.6	88.5	94.4	2.18	32.2	32.9	1.00	1.01
March 2013	122.3	-3.94	-6.04	94.4	88.7	2.08	32.9	33.6	-8.36	69.87
June 2013	129.3	5.79	7.12	88.7	95.0	2.27	33.6	34.4	1.37	1.87
September 2013	134.3	3.85	4.4	95.0	99.2	2.32	34.4	35.2	-0.57	0.33
Dec 2013	150.1	11.74	15.02	99.2	114.1	2.47	35.2	36.0	7.32	53.54
March 2014	155.7	3.74	4.19	114.1	118.8	2.3	36.0	36.9	-0.68	0.46
June 2014	169.2	8.68	10.68	118.8	131.5	2.23	36.9	37.7	4.26	18.16

September 2014	203.1	20.05	25.19	131.5	164.7	2.09	37.7	38.5	15.63	244.25
Dec 2014	209.5	3.13	3.37	164.7	170.2	2.09	38.5	39.3	-1.29	1.67
March 2015	226.6	8.16	9.54	170.2	186.5	2.19	39.3	40.1	3.74	14.02
June 2015	222.5	-1.81	-2.64	186.5	181.5	2.06	40.1	41.0	-6.23	38.76
September 2015	250.1	12.40	14.72	181.5	208.3	2.13	41.0	41.8	7.98	63.75
Dec 2015	245.8	-1.72	-2.43	208.3	203.2	1.8	41.8	42.6	-6.14	37.71
March 2016	221.4	-9.93	-12.47	203.2	177.9	2.17	42.6	43.5	-14.35	205.98
June 2016	226.1	2.14	2.17	177.9	181.7	2.03	43.5	44.4	-2.28	5.18
September 2016	241.2	6.69	7.77	181.7	195.8	2.26	44.4	45.4	2.27	5.15
Dec 2016	227.9	-5.52	-7.22	195.8	181.7	1.81	45.4	46.2	-9.94	98.79
	<b>Sum</b>	<b>88.37</b>								<b>886.00</b>
	<b>Mean</b>	<b>4.42</b>								
	<b>Std Dev</b>	<b>6.83</b>								
	<b>Returns</b>	<b>6.40</b>								

**Asset Allocation With Rebalancing For Reliance Pharma Fund**

Year	Inv Value	Absolute Return	Equity	70		Debt	30			
			Reliance Pharma Fund	Q Start	Q End	Rel Money MgtFund	Q Start	Q End	X-X'	(X-X')^2
Jan 2012	100		8.54	70.0	76.0	2.33	30.0	30.7	2.36	5.59
March 2012	106.7	6.68	4.47	74.7	78.0	2.59	32.0	32.8	-0.41	0.17
June 2012	110.8	3.91	11.54	77.6	86.5	2.27	33.3	34.0	4.45	19.76
September 2012	120.6	8.76	6.6	84.4	90.0	2.18	36.2	37.0	0.96	0.92
December 2012	126.9	5.27	-6.04	88.8	83.5	2.08	38.1	38.9	-7.92	62.68
March 2013	122.3	-3.60	7.12	85.6	91.7	2.27	36.7	37.5	1.35	1.83
June 2013	129.3	5.66	4.4	90.5	94.5	2.32	38.8	39.7	-0.54	0.29
September 2013	134.1	3.78	15.02	93.9	108.0	2.47	40.2	41.2	6.94	48.19
December 2013	149.2	11.26	4.19	104.5	108.9	2.3	44.8	45.8	-0.69	0.48
March 2014	154.7	3.62	10.68	108.3	119.8	2.23	46.4	47.4	3.83	14.68
June 2014	167.3	8.15	25.19	117.1	146.6	2.09	50.2	51.2	13.95	194.51
September 2014	197.8	18.26	3.37	138.5	143.1	2.09	59.3	60.6	-1.33	1.76
December 2014	203.7	2.99	9.54	142.6	156.2	2.19	61.1	62.4	3.02	9.13
March 2015	218.6	7.33	-2.64	153.0	149.0	2.06	65.6	66.9	-5.54	30.73
June 2015	215.9	-1.23	14.72	151.2	173.4	2.13	64.8	66.2	6.63	43.95
September 2015	239.6	10.94	-2.43	167.7	163.6	1.8	71.9	73.2	-5.47	29.97
December 2015	236.8	-1.16	-12.47	165.8	145.1	2.17	71.0	72.6	-12.39	153.54
March 2016	217.7	-8.08	2.17	152.4	155.7	2.03	65.3	66.6	-2.19	4.78
June 2016	222.3	2.13	7.77	155.6	167.7	2.26	66.7	68.2	1.80	3.25
September 2016	235.9	6.12	-7.22	165.1	153.2	1.81	70.8	72.1	-8.82	77.87
December 2016	225.3	-4.51								
	<b>Sum</b>	<b>86.26</b>								<b>704.08</b>
	<b>Mean</b>	<b>4.31</b>								
	<b>Std Dev</b>	<b>6.09</b>								
	<b>Returns</b>	<b>6.26</b>								

**FINDINGS : On the basis of the above calculations following are the findings**

**Calculation of Mean (X̄) & Standard Deviation (σ)**

**For Kotak Asset Allocation Without Rebalancing**

$$\bar{X} = \frac{\sum X}{N}$$

$$\bar{X} = \frac{84.03}{20}$$

$$\bar{X} = 4.20$$

$$\sigma = \sqrt{\frac{\sum (X - \bar{X})^2}{N - 1}}$$

$$\sigma = \sqrt{\frac{534}{20 - 1}}$$

$$\sigma = \sqrt{28.11}$$

$$\sigma = 5.30$$

### For Kotak Asset Allocation With Rebalancing

$$\bar{X} = \frac{\sum X}{N}$$

$$\bar{X} = \frac{82.20}{20}$$

$$\bar{X} = 4.11$$

$$\sigma = \sqrt{\frac{\sum(X-\bar{X})^2}{N-1}}$$

$$\sigma = \sqrt{\frac{464.98}{20-1}}$$

$$\sigma = \sqrt{\frac{464.98}{19}}$$

$$\sigma = \sqrt{24.47}$$

### For DSP BR Without Rebalancing

$$\bar{X} = \frac{\sum X}{N}$$

$$\bar{X} = \frac{128}{20}$$

$$\bar{X} = 6.41$$

$$\sigma = \sqrt{\frac{\sum(X-\bar{X})^2}{N-1}}$$

$$\sigma = \sqrt{\frac{1513}{20-1}}$$

$$\sigma = \sqrt{79.63}$$

$$\sigma = 8.92$$

### For DSP BR Asset Allocation With Rebalancing

$$\bar{X} = \frac{\sum X}{N}$$

$$\bar{X} = \frac{121}{20}$$

20

$$\bar{X} = 6.06$$

$$\sigma = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$$\sigma = \sqrt{\frac{1292}{19}}$$

$$\sigma = \sqrt{68}$$

$$\sigma = 8.24$$

### For Reliance Asset Allocation Without Rebalancing

$$\bar{X} = \frac{\sum X}{N}$$

$$\bar{X} = \frac{886}{200}$$

10

$$\bar{X} = 4.42$$

$$\sigma = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$$\sigma = \sqrt{\frac{886}{19}}$$

$$\sigma = \sqrt{46.63}$$

$$\sigma = 6.82$$

### For Reliance Asset Allocation With Rebalancing

$$\bar{X} = \frac{\sum X}{N}$$

$$\bar{X} = \frac{88}{20}$$

4.4

$$\bar{X} = 4.31$$

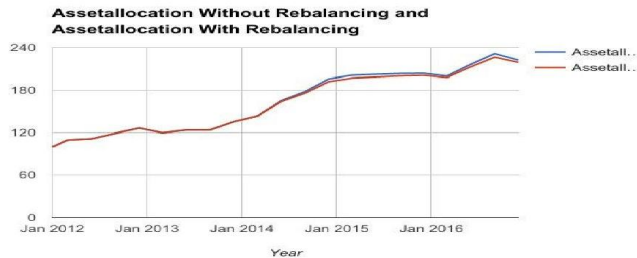
$$\sigma = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$$\sigma = \sqrt{\frac{704}{19}}$$

$$\sigma = \sqrt{37.05}$$

$$\sigma = 6.08$$

**For Kotak Select Focus Fund**



**Findings 1.**

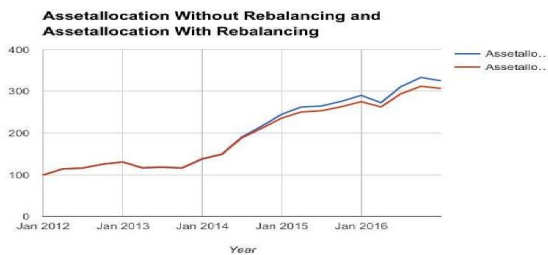
Mean before rebalancing 4.2 has been reduced to 4.11 after rebalancing indicates average return has decreased.

Standard deviation before rebalancing 5.53 which is reduced to 4.95 after rebalancing shows risk has been minimized.

Return before rebalancing 6.11 has been reduced to 5.95 after rebalancing.

**For DSP BlackRockMicro Cap Fund**

	Asset allocation Without Rebalancing			Asset allocation With Rebalancing		
	Mean	Std Dev	5 Year Returns	Mean	Std Dev	5 Year Returns
<b>DSP Black Rock Micro Cap Fund</b>	6.41	8.92	11.21	6.06	8.25	10.31



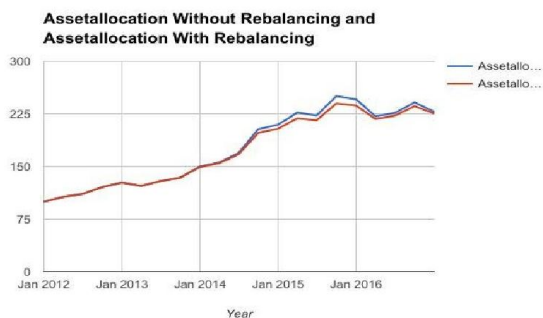
**Findings 2.**

Mean before rebalancing 6.41 has been reduced to 6.06 after rebalancing indicates average return has decreased. Standard deviation before rebalancing 8.92 which is reduced to 8.25 after rebalancing shows risk has been minimized Return before rebalancing 11.21 has reduced to 10.31 after rebalancing.

	Asset allocation Without Rebalancing			Asset allocation With Rebalancing		
	Mean	Std Dev	5 Year Returns	Mean	Std Dev	5 Year Returns
<b>Reliance Pharma Fund</b>	4.42	6.83	6.4	4.31	6.09	6.26



## For Reliance Pharma Fund



### Findings 3

Mean before rebalancing 4.42 has been reduced to 4.31 after rebalancing indicates average return has lowered. Standard deviation before rebalancing 6.83 which is reduced to 6.09 after rebalancing shows risk has been reduced. Return before rebalancing 6.4 has reduced to 6.26 after rebalancing.

### Suggestions

1. Quarterly rebalancing reduces the standard deviation i.e. Risk, Therefore every investor who seeks to have lower risk should follow asset allocation as well as rebalancing
2. With asset allocation of mutual fund you one can achieve a complete investment portfolio in single investment.
3. Also it seems that as Risk Reduces it has made small impact on return, The return of rebalancing portfolio has Reduced too, implies risk is compensated by return. A bullish investor should not go for asset allocation and rebalancing.
4. Rebalanced portfolio falls with lower as compare to without rebalancing and vice versa, An investor with conservative and moderate appetite should go for asset allocation & rebalancing
5. For short term investment an advisor should recommended and investor should go for asset allocation & rebalancing in order to keep principle at lower risk.

### Conclusion

Fixed asset allocation with rebalancing helps in preserving investment value, Portfolio Value does not erode as much as erodes fixed asset allocation without rebalancing. Investor seeking for lower Risk should go for the rebalancing their portfolio. Advisor those looking for manage portfolio with lower volatility should go for rebalancing their clients portfolio on systematic basis.

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