The final verdict can be difficult to give without running a proper optimizer as now it involves a lot of subjective stance towards the given problem of portfolio construction. However, I have reached to a conclusion that I will give 50% weight to S and P 500, with 15% each in EAFE, EM and 20 % in KSE 100. The five reasons are simple:

**1-Safe Yet High Returns:**

Even though my final calculations for expected returns for each of the financial instruments shows that S and P 500’s expected returns are not the highest but if you see the fig.8 which shows the distribution of S and P 500’s overall returns, its clearly visible that S and P 500 returns are close to normal as compare to other financial instrument’s distribution. This, in turn, indicates that S and P 500 returns are showing less variability as compared to other indexes returns (see fig 9,10,11). Less variability means in the long run, higher weight of S and P 500 will make our portfolio’s returns also to remain within the 2 sigma boundaries and hence we will be earning more safe and consistent returns.

**2-Beta Consideration:**

One of the main reasons why I have given higher weight to KSE 100 as compare to EAFE and EM is due to its encouraging BETA results. Under both the CAPM model and Fama-French Factor Regression, the β1(Mkt-rf) has been considerably lower as compared to other financial indexes (see pdf). Now, this could be due to exchange rate adjustment rather than the actual performance of the market for the KSE-100. However, I as a risk-averse investor would be willing to sacrifice some return for such a lower beta even if its attributable to exchange rate variations. However, note from my calculations that S and P 500 performs best in Fama-French Factor Regression with betas of [ 0.21696953(β1) -0.03494916(β2) 0.0222487(β3) ], so again I tilted to give higher weight to s and p 500 as compared to the other financial instruments.

**3-Correlation Factor:**

By now, you must have guessed that I want to make a portfolio which not only gives a high return but also gives added importance to riskiness. Therefore, in my calculations (see the pdf file), I have not only made a correlation table (see table 4 excel file) and but also created a heatmap (see fig4) for better visualisation for these correlation factors (please note that correlation table consist of both returns and indexes points with and without dollar adjustment). Even though I won’t go in explaining the whole heatmap, but I will explain the motivating factor for my portfolio. If you see table 4 excel file (only the highlighted cells in excel file), the S and P 500 return has a lower correlation with EAFE, KSE, EM dollar adjusted returns as compare to EAFE and EM correlation with other instruments. The reason why I am taking only taking dollar adjusted returns as a metric for this correlation table is that I want to make a portfolio which takes advantage of the changing exchange rate and also the measurements should in the same unit. Further, the fact that KSE and S and P have a correlation factor of only 0.013 makes both a sound investment, as they both will normalise my overall return of portfolio in longer-run which again mean more consistent returns

**4-Market Perceptions:**

One of the main reasons as to why I gave higher weight to S and P 500 is because of its general goodwill. S and P 500 has a market cap of US$13 trillion which is large. Further, the recent expansion of technology in Silicon Valley with Google and FB reaching new milestones, make me optimistic about the performance of Silicon Valley. Similarly, KSE 100 might prove to be a better investment due to the recent interest in the CPEC operations. With China also growing, both KSE 100 and EM might perform better which also explains their not so low correlation factor.

**5-Exchange Rate Consideration:**

One of the main reasons why I did not give higher weight to KSE and EM was due to volatility present in the exchange return market of developing countries. Even though ,I said earlier that I wanted to take advantage of these variations but giving any higher weight to KSE or EM might have proven risky, as shown in table 4 that EM(without dollar adjustment) and EM(with dollar adjustment) have a correlation factor of 0.95 which means that their returns could easily be disrupted by sudden change in the exchange rate. The same case also stands for KSE\_100. However, EAFE is an index for a developed country and therefore consideration in terms of the exchange rate is lower.