

FINC460: Homework 1

1 Healthcare Partners

1. Suppose that different hospitals within the Partners system choose different mixes of the 'risk-free' STP and the baseline STP, whose future expected return and risk characteristics are shown in Exhibit 3.
 - (a) Plot the mean return and volatility of different portfolios that can be formed by allocating funds between the STP and baseline LTP. What determines the slope of this line?
 - (b) In contrast, what would the risk-return opportunities be for hospitals restricted to invest only in the STP and US Equities?
2. Plot the curve for the risks and returns of the optimal portfolio combinations
 - (a) for the baseline case plus REITs (Exhibit 6)
 - (b) for the baseline case plus Commodities (Exhibit 7)
 - (c) for the five asset case (Exhibit 8)
3. Let's compare this to the baseline three-asset case (Exhibit 5).
 - (a) Consider the hospital that is fully invested in the LTP, with its current standard deviation, and wishes to maintain this level of risk. How does the introduction the real assets (REITs versus Commodities) help, if at all?
 - (b) What is the maximum fee they are willing to pay to be allowed access to REITs or Commodities?
 - (c) Consider the hospital that wishes to invest in the STP and LTP, such that its expected return is 6%. How does the introduction of real assets alter the risk and composition of their most attractive portfolio?

- (d) Overall, how much does each of the real assets (REITs versus Commodities) improve the potential investment opportunities for the hospitals investing in the baseline LTP plan? What are the important factors that determine the degree of improvement?
4. Discuss the hidden assumptions behind the one-size fits all solution. In particular, suppose that a particular hospital within the Partners system plans to build a series of new clinics. In the process, it intends to acquire a number of nearby buildings. These investment outlays are partly forecastable, but an important component is uncertain, since it depends on the real estate prices in the area. Discuss qualitatively how would this expansion plan would affect the hospital's asset allocation decision, and in particular the relative attractiveness of REITs to other asset classes.