

Among all mutual funds (LTF) trading in the market, it was found in 2015 that there are there most profitable funds, including:

- Phatra LTFD of Phatra Asset Management,
- MS-Core LTF of Manulife Asset Management, and
- CG-LTF of UOB Asset Management.

1.1 With price and index data provided in Excel file, the returns of mutual funds and SET Index could be calculated by:

$$Return_{i,t} = \frac{Price_{i,t} - Price_{i,t-1}}{Price_{i,t-1}} \quad \text{and} \quad Return_t = \frac{Index_t - Index_{t-1}}{Index_{t-1}}, \text{ respectively,}$$

where $Price_{i,t}$ is the price of i th fund at period t , similarly for $Index_t$. Calculate sample statistics of the returns by filling your answers into the following table.

(Hint: You may use MS Excel for calculation)

Statistics	SET	Phatra	MSCore	CGLTF
Arithmetic Mean				
Geometric Mean				
Variance				
Standard Deviation				
Semivariance (given $Return_{i,t} \leq \overline{Return_i}$)				
Skewness				
Kurtosis				

1.2 By comparing key statistics, what implication could you draw for risk management?