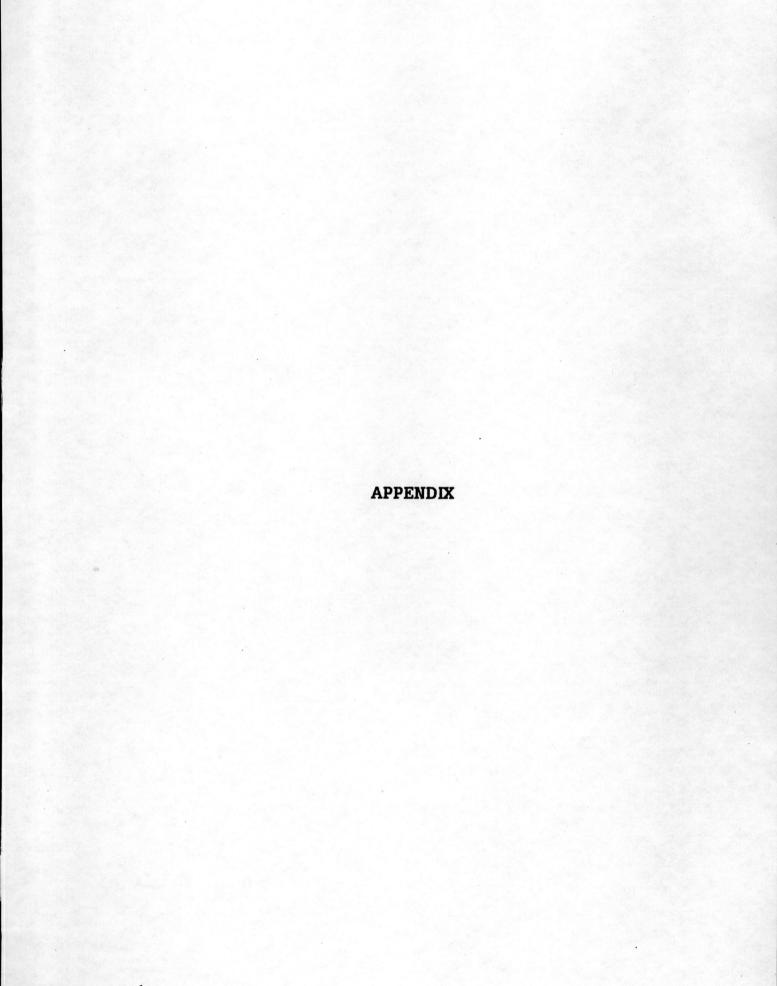# REFERENCES

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APPENDIX

S-ONE BOND INDEX

The S-ONE Bond Index is a value-wighted total return of fixed coupon securities listed in the Bond Dealers Club. The index base of 100 is of November 4, 1994, and moves at a rate equal to the daily returns on the market portfolio of fixed coupon bonds. The S-ONE Bond Index is calculated daily, including holidays, to recognize accumulating interest interest income and decreasing time to maturity.

Steps in computing the S-ONE Bond Index can be briefly described as follows :

1. The price of bond or **P** (where P is the present value of bond's cash flow) is first calculated. In the calculation, the last best bid yield is used and in the event that there is no bid yield quoted for a particular security on that day, the previous last best bid yield will be applied.

2. The return (R_t) of each security (only fixed coupon rates are used) is then calculated from the following equation :

$$R_t = [(P_t + C_t) / P_{t-1}] - 1$$

where R_t = return of particular security

P_t = ending value of particular security at day t

C_t = interest income (coupon) earned at day t

3. The average return of all securities weighted by the market capitalization is calculated as follows :

$$R_{mt} = \frac{\sum R_{i,t} \cdot W_i \cdot P_{i,t-1}}{\sum \cdot W_i \cdot P_{i,t-1}} \quad i=1 \text{ to } n$$

where R_{mt} = average market return

n = number of securities

$R_{i,t}$ = return of security (i) on day t

W_i = the issue size of security I

$P_{i,t-1}$ = price of security i on day t-1

4. Generate S-ONE bond index

S-ONE bond index$_t$ = S-ONE bond index$_{t-1}$ * (1 + Rm$_t$)

where S-ONE bond index$_0$ = index value on November 4, 1994 (base date)

which equal to 100

S-ONE MARKET YIELD

Unlike the S-ONE bond index which is a so-called " return index ", the S-ONE market yield is the yield to maturity of all (fixed coupon) corporate debentures. It reveals the compounded rate of return at prevailing prices, assuming investors hold the shares to maturity.

S-ONE market yield can also be utilized as a leading indicator of general interest rate since it encompasses investors' expectation of interest rates. Therefore, the rise and fall of the S-ONE market yield signals the direction of interest rate.

Trading investors can also benefit from S-ONE market yield. This is because the change in yields affect the capital gains (or losses) realized by an investor who buys and sells an issue prior to maturity. Therefore, the S-ONE market yield can help trading investors assess better market sentiment.

Steps in constructing S-ONE market yield are described as follows :

1. Calculate the present value of each bond by using discounted cash flow method.

2. Calculate the market capitalization by taking the sum of PVs of each bond (from step 1) and multiply it by the number of issues.

$$\text{Market Capitalization} = \sum P_i * W_i$$

where P_i = price of bond i

W_i = number of issues of bond i

3. Simulate future cash flow of the market by putting together a series of future cash flow of all fixed coupon bonds in the market. Each cash flow of each particular bond issues represents its coupon payment multiplied by the number of issues outstanding and includes the final payment of the principal and last coupon payment.

4. A discount rate

$$\text{Market Capitalization} = \sum\sum \frac{C_i * W_i}{(1+Y)^t}$$

where Y = Marekt yield

Cij = Cashflow of bond i at time j

Wi = number of issues of bond i

tij = time interval of bond i from time 0 to flow j

Author's Profile

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