CLOSED END FUNDS

Fall 2002
Closed end funds are companies who raised money and used the proceeds to buy financial assets. Think of them as mutual funds with shares that trade.

Terms:

1. **Net asset value (NAV)**: The per share value of the assets in the investment portfolio.

2. **Share price**: Value of a share in the fund.

3. **Discount**: The difference between share price and NAV divided by share price.
Effect of Discount on Return

A. No change in discount.

Dollar return per share:

\[ R_{NAV} \cdot NAV \]

Return on one share:

\[ R_s = \frac{\text{dollar return}}{\text{price}} = \frac{R_{NAV} \cdot NAV}{\text{Price}} \]

\[ \frac{\text{Price} - NAV}{\text{Price}} = d \]

\[ 1 - \frac{NAV}{\text{Price}} = d \]

\[ \frac{NAV}{\text{Price}} = 1 - d \]
\[ R_S = R_{NAV} (1 - d) \]

if discount 20%

\[(1 - d) = 1 - (-.20) = 1.20\]

\[ R_S = 1.2 R_{NAV} \]

B. Effect of a change in discount depends where change occurs. If at the end of the period, add change in discount to return.
What affects discount? Various theories are:

1. Performance

2. Tax Overhang

3. Ability to buy assets directly

4. Sentiment