

Mutual Fund

Lecture-3

3.1 Net Asset Value

The net asset value (NAV) represents the net value of an entity and is calculated as the total value of the entity's assets minus the total value of its liabilities. Most commonly used in the context of a mutual fund or an exchange-traded fund (ETF), the NAV represents the per share/unit price of the fund on a specific date or time.

Theoretically, any suitable business entity or financial product that deals with the accounting concepts of assets and liabilities can have a NAV. In the context of companies and business entities, the difference between the assets and the liabilities is known as the net assets or the net worth or the capital of the company. The term NAV has gained popularity in relation to the fund valuation and pricing, which is arrived at by dividing the difference between assets and liabilities by the number of shares/units held by the investors.

3.2 NAV for Mutual Funds

Unlike a stock whose price changes with every passing second, mutual funds don't trade in real-time. Instead, mutual funds are priced based on the end of the day methodology based on their assets and liabilities. Thus, the NAV of a Mutual Fund scheme is computed after each day of the active stock market. It's based on the stocks of the companies the Mutual Fund holds in its portfolio, and their closing market price. If you wish to buy a Mutual Fund, your orders will be executed as per the NAV of those schemes on that particular day.

The **assets of a mutual fund include** the total market value of the fund's investments, cash and cash equivalents, receivables and accrued income. The market value of the fund is computed once per day based on the closing prices of the securities held in the fund's portfolio. Since a fund may have a certain amount of capital in the form of cash and liquid assets, that portion is accounted for under the cash and cash equivalents heading. Receivables include items such as dividend or interest payments applicable on that day, while accrued income refers to money that is earned by a fund but yet to be received. The sum of all these items and any of their qualifying variants constitute the fund's assets.

The **liabilities of a mutual fund typically include** money owed to the lending banks, pending payments and a variety of charges and fees owed to various

associated entities. Additionally, a fund may have foreign liabilities that may be the shares issued to non-residents, income or dividend for which payments are pending to non-residents, and sale proceeds pending repatriation. All such outflows may be classified as long-term and short-term liabilities, depending upon the payment horizon. The liabilities of a fund also include accrued expenses, like staff salaries, utilities, operating expenses, management expenses, distribution and marketing expenses, transfer agent fees, custodian and audit fees, and other operational expenses.

To compute the NAV for a particular day, all these various items falling under assets and liabilities are taken as of the end of a particular business day.

3.3 Calculation of NAV

We can calculate the NAV of a mutual fund by dividing the total net assets by the total number of units issued. To get the total net assets of a fund, subtract any liabilities from the current value of the mutual fund's assets and then divide the figure by the total number of units outstanding. The resulting figure is the NAV of the mutual fund.

The Formula for Net Asset Value (NAV) is:

$$\text{NAV} = (\text{Assets} - \text{Liabilities}) / \text{Total number of outstanding shares}$$

Example-1

An investment firm manages a mutual fund and would like to calculate the net asset value for a single share. The investment firm is given the following information regarding its mutual fund:

- Value of securities in portfolio: Rs. 75 million (based on end of day closing prices)
- Cash and cash equivalents of Rs. 15 million
- Accrued income for the day of Rs. 24 million
- Short-term liabilities of Rs. 1 million
- Long-term liabilities of Rs. 12 million
- Accrued expense for the day of Rs. 5,00,000
- 20 million shares outstanding

$$\begin{aligned} \text{Net Asset Value} &= \text{Rs. } 75000000 + \text{Rs. } 15000000 + \text{Rs. } 24000000 - (\text{Rs. } \\ &1000000 + \text{Rs. } 12000000 + \text{Rs. } 500000) / 20000000 \\ &= \text{Rs. } 5.025 \end{aligned}$$

Example-2

Assume that a mutual fund has \$100 million worth of total investments in different securities, which is calculated based on the day's closing prices for each individual asset. It also has \$7 million of cash and cash equivalents on hand, as well \$4 million in total receivables. Accrued income for the day is \$75,000. The fund has \$13 million in short-term liabilities and \$2 million in long-term liabilities. Accrued expenses for the day are \$10,000. The fund has 5 million shares outstanding. The NAV is calculated as:

NAV = (Assets - Liabilities) / Total number of outstanding shares

$$\text{NAV} = [(\$100,000,000 + \$7,000,000 + \$4,000,000 + \$75,000) - (\$13,000,000 + \$2,000,000 + \$10,000)] / 5,000,000 = (\$111,075,000 - \$15,010,000) / 5,000,000 = \$19.21$$

- **Interpreting the Net Asset Value**

The net asset value represents a fund's market value. When expressed at a per-share value, it represents a fund's per unit market value. The per-share value is the price at which investors can buy or sell fund units.

When the value of the securities in the fund goes up, the net asset value goes up. Conversely, when the value of the securities in the fund goes down, the NAV goes down:

- If the value of securities in fund increases, then the NAV of the fund increases.
- If the value of the securities in fund decreases, then the NAV of the fund decreases.

Note: Students should practice more practical questions on NAV from their reference book at home.