

CHAPTER ONE

Financial Responsibility and the Net Capital Rule

In the late 1960s, an enormous increase in trading activity led to serious recordkeeping problems in the securities industry. This resulted in significant customer losses. To make matters worse, broker-dealers often used customer securities and funds for their own business purposes. If a firm went out of business, customers sometimes discovered that their securities had disappeared, either because the securities had been liquidated as pledged collateral for bank loans or the securities simply could not be located.

In response to this crisis, Congress enacted the Securities Investor Protection Act of 1970 (SIPA), which, among other things, required the SEC to strengthen the financial responsibility of broker-dealers. The SEC quickly designed and passed two new rules: the customer protection rule and the net capital rule.

The net capital rule (SEC Rule 15c3-1) requires broker-dealers to carry a minimum amount of capital to meet their ongoing financial obligations. These net capital requirements are designed to measure a firm's financial viability and to protect customers and other creditors from insolvent firms.

Insolvency is the inability of a firm to pay its debts when they become due. For the SEC, an insolvent broker-dealer may be the subject of a bankruptcy proceeding to reorganize or liquidate the firm, or it may simply have admitted its inability to meet its obligations to a court or government agency. A broker-dealer may also be insolvent if it is unable to meet the minimum capital requirements of the SEC's net capital rule or its customer protection rule.

By the **net capital rule**, broker-dealers and investment companies must calculate their net capital *daily* to make sure that they meet their minimum requirements.

SEC Rule 15c3-1 defines net capital and describes in great detail how to calculate it. It also lays down the minimum net capital requirements for various types of broker-dealers and describes two methods of making that calculation. Understanding the intricacies of the net capital rule is the subject of the present chapter.

1.1. CALCULATING A FIRM'S NET CAPITAL

Before examining the SEC's net capital requirements for the various types of broker-dealers, let's spend some time understanding the term itself. **Net capital** refers to the *liquid* value of a firm. A firm's liquid value is the amount of liquid assets remaining after its liabilities have been paid off. The following equation is used by the SEC to determine a firm's net capital:

$$\text{net capital} = \text{net worth} + \text{subordinated debt} - \text{non-allowable assets} - \text{haircuts}$$

Clear as mud? We will define each of these concepts in turn. Let's break it down.

1.1.1. NET WORTH

Net worth is the difference between assets and liabilities.

On a balance sheet, assets must always equal liabilities plus owners' equity. **Assets** are what a firm owns. **Liabilities** are what a firm owes to outsiders. **Owners' equity** is what a firm owes to its owners. When a firm first opens for business, owners' equity is the amount of cash owners put into the business or the amount of securities a firm sells to the public. For an existing company, owners' equity is what is left over from a firm's assets after all liabilities have been paid. In other words, it is a residual. Owners' equity can be more or less than the owners' original investment.

Note that when you subtract liabilities from assets you get owners' equity. Net worth and owners' equity are identical.

$$\text{assets} = \text{liabilities} + \text{owners' equity}$$

$$\text{assets} - \text{liabilities} = \text{owners' equity} = \text{net worth}$$

1.1.1.1. Adjustments to Net Worth

Net worth is usually calculated from the assets and liabilities contained on the firm's balance sheet. For purposes of calculating net capital, the SEC requires certain adjustments to be made to a broker-dealer's net worth.

1.1.1.1.1. Unrealized Profits

Unrealized profits are earned profits that have not yet been delivered or cashed in. A stock that has risen in value but not been sold is one example. A listed call option whose underlying security is currently priced higher than its exercise price is another. A market gain on an open forward contract is a third.

Unrealized profits and losses must be added to the net worth calculation. This is achieved by adding the difference between the current market value of a security and its

market value at either the time of the previous net worth calculation or (if the security was purchased in the interim) its purchase price.

1.1.1.2. **Deferred Tax Liabilities**

A **deferred tax liability** represents taxes that a company is able to defer into a future year because of a difference in the tax accounting rules and standard accounting practices. This would include income tax liabilities on unrealized profits and assets subject to haircuts. It also refers to deferred tax liabilities on non-allowable assets. Deferred tax liabilities must be added to the net worth calculation. These liabilities are added because they are counted as liabilities on the balance sheet, but don't have to be paid until a later time.

1.1.1.3. **Other Liabilities**

Broker-dealers sometimes exclude from their balance sheet certain of their expenses or debts for which a third party, such as a parent company or affiliate, has assumed responsibility through an expense-sharing arrangement. These liabilities must be subtracted from net worth, unless the broker-dealer can demonstrate that the third party has sufficient resources, independent of the broker-dealer's own revenues and assets, to assume their payment. Excluding those liabilities from the broker-dealer's net worth calculation may otherwise misrepresent the firm's actual financial condition.

Any capital contribution to the broker-dealer where the investor has an option to withdraw the capital within a one-year period must also be deducted from net worth. **Contributed capital** is that portion of shareholders' equity that is purchased directly from the company rather than from the secondary market.

SEC Rule 15c3-1(c)(2)(i)

1.1.2. **SUBORDINATED DEBT**

Subordinated debt is debt that ranks below other debt in its claims on assets or earnings. It is not backed by collateral and is the last kind of debt to be paid back to investors if the firm is forced to liquidate.

From an investor's standpoint, subordinated loans have higher risks compared to senior debt. To attract outside investors, a subordinated debt agreement must offer significantly higher interest rates. Investors who take on subordinated debt may also be parties who already have a large stake in the firm, such as a partner or affiliate, and are willing to take on a riskier loan for the firm's benefit.

From the standpoint of the borrowing firm, issuing subordinated debt is often a matter of necessity. For example, many lending agreements prohibit a borrower from incurring an additional loan, unless it is subordinated to the original loan. At other times, subordinated debt may be incurred for the express purpose of increasing a firm's net capital. Subordinated debt increases the firm's assets without increasing its liabilities.

Since subordinated debt ranks below all other debt in its claims on assets, it is excluded from the firm's liabilities in the net capital calculation. Because subordinated

debt was originally included in liabilities and therefore subtracted from assets to calculate net worth, it now must be added back in.

SEC Rule 15c3-1(c)(2)(iv)

1.1.3. NON-ALLOWABLE ASSETS

A firm's assets include cash, securities, property, inventory, and office equipment. **Liquid assets** are assets that can quickly be converted into cash. The securities a firm owns are a liquid asset. So are the securities a brokerage holds on behalf of a customer, just as the cash acquired from a bank loan is a liquid asset.

Non-allowable assets are illiquid assets, assets that cannot be quickly sold at fair market value. These include fixed assets, receivables, and assets that are unlikely to be collected. Because non-allowable assets should not be included in net capital, their value must be subtracted from net worth.

1.1.3.1. Fixed Assets and Prepaid Items

Fixed assets, like office buildings, real estate, computers, and other equipment, are hard to sell in an afternoon. Prepaid items, such as rent and insurance, are also difficult to recover quickly. These are non-allowable assets.

1.1.3.2. Unsecured Receivables

Receivables are money that is owed a business by its customers or other debtors. Receivables are considered assets, even if they are not currently due. Often, receivables are unsecured "open accounts," designated on the balance sheet as accounts receivable. Unsecured receivables, for purposes of calculating net capital, are non-allowable assets.

1.1.3.2.1. Advances and Loans

Unsecured advances and loans are considered non-allowable assets, as are the following partially secured receivables:

- The market value of stock loaned in excess of any collateral received
- Any collateral deficiencies in secured demand notes
- Deficits in unsecured and partly secured accounts after application of calls for margin or marks to market that are outstanding five business days or less

1.1.3.2.2. Assets Doubtful of Collection

Receivables whose payments are overdue are also non-allowable assets because they are doubtful of collection. Here are some examples:

- Interest receivable, mutual fund concessions receivable, and management fees receivable from registered investment companies, all of which are outstanding longer than 30 days from the date they arise

- Dividends receivable outstanding longer than 30 days from the payable date
- Receivables due from participation in municipal securities underwriting syndicates that are outstanding longer than 60 days from settlement with the issuer
- The amount by which the market value of securities failed to receive that are outstanding longer than 30 calendar days exceeds their contract value

1.1.3.2.3. Insurance Claims

Insurance claims are also non-allowable assets when they meet these conditions:

- Insurance claims that, after seven business days from the date the losses giving rise to the claim are discovered, are not covered by opinions of outside counsel that the claims are valid and covered by insurance policies presently in effect
- Insurance claims that, after 20 business days from the date the losses are discovered and are accompanied by an opinion of outside counsel that the claims are valid, have not been acknowledged in writing by the insurance carrier as due and payable
- Insurance claims acknowledged in writing by the carrier as due and payable but outstanding longer than 20 business days from the date they are so acknowledged

1.1.3.2.4. Repurchase Agreements

A **repurchase agreement** is a short-term contract to sell a security and buy it back later at a set price, usually the next day. For the party on the other end, it is a reverse repurchase agreement. A **reverse repurchase agreement** is a contract to buy a security now and sell it later at a set price.

In the case of a reverse repurchase agreement, the deduction as a non-allowable asset equals the reverse repurchase agreement deficit. A **reverse repurchase agreement deficit** is the difference between the securities' contractual resale price and their market value (if less than the contract price).

In the case of repurchase agreements, the deduction is more difficult to calculate. First, you must calculate the **repurchase agreement deficit**, which is the difference between the securities' market value and the contractual repurchase price (if less than market value). Next, depending on the type of security you have sold, you must find the amount the repurchase agreement deficit exceeds 5% of the contract resale price of Treasury bills, notes, and bonds, 10% of the contract price for the resale of agency or mortgage-backed securities and 20% of the contract price for the resale of other securities.

The deduction is the greater of (1) the excess of the aggregate repurchase agreement deficits with *any one party* over 25% of the broker-dealer's net capital before haircuts or (2) the excess of the aggregate deficits with *all parties* over 300% of its net capital before haircuts.

1.1.3.2.5. Securities Borrowed

A deduction of 1% of the market value of borrowed securities that are collateralized by an irrevocable letter of credit must be applied, regardless of whether the letter of credit is secured or unsecured.

SEC Rule 15c3-1(c)(2)(iv)

1.1.3.3. Securities Differences

A **securities difference** is the difference between the amount of securities listed on a broker-dealer's books and the securities actually in its possession. A **long securities difference** may occur when a broker-dealer has sold a purchased security before it has actually come into its possession. A **short securities difference** occurs when a security is listed as an asset on the books, but neither the security nor a confirmation of its purchase can be found in its possession.

The market value of all short securities differences that remain unresolved after their discovery becomes a non-allowable asset in accordance with the following schedule:

DIFFERENCES*	NUMBERS OF BUSINESS DAYS AFTER DISCOVERY
25%	7
50%	14
75%	21
100%	28

*Percentage of market value of short securities differences

Long securities differences are also non-allowable assets, where the securities have been sold before they are adequately resolved, less any reserves established.

The designated examining authority for a broker or dealer may extend the periods for up to 10 business days if it finds that exceptional circumstances warrant an extension.

SEC Rule 15c3-1(c)(2)(v)

SUMMARY

ADJUSTMENTS TO NET CAPITAL BEFORE HAIRCUTS

Type of Adjustment	Adjustment
Adjustments to Net Worth	
• Unrealized Profit	Add the difference between the market value and the cost of the security
• Deferred Tax Liability	Add full amount
Subordinated Debt	Add full amount
Non-Allowable Assets	
• Fixed Assets	Subtract full amount
• Prepaid Items	Subtract full amount
• Unsecured Receivables	
➤ Advances and Loans	Subtract full amount
➤ Doubtful of Collection	Subtract full amount

ADJUSTMENTS TO NET CAPITAL BEFORE HAIRCUTS

Type of Adjustment	Adjustment
▶ Insurance Claims	Subtract full amount
▶ Reverse Repurchase Agreements	Subtract difference of contractual resale price and market price of security
▶ Securities Borrowed	Subtract 1% of the market value of borrowed securities that are collateralized by an irrevocable letter of credit
▶ Securities Differences	
» Short Position	Subtract 25–100% of market value
» Long Position	Subtract 100% of market value

1.1.3.4. Tentative Net Capital

The subtraction of non-allowable assets from total assets yields another concept that you will need to know: tentative net capital.

$$\text{tentative net capital} = \text{net worth} + \text{subordinated debt} - \text{non-allowable assets}$$

Tentative net capital reflects the total liquid assets of a firm before market and credit risk (haircuts) are deducted from security values.

1.1.4. SECURITIES HAIRCUTS


Haircuts are a discount that the SEC applies to the market value of securities held by a broker-dealer. Since the value of a security is constantly fluctuating, the SEC discounts its current market value to provide a cushion for a possible decrease in value at the time of a firm’s liquidation.

Haircut amounts vary depending on the type of security. Riskier securities tend to have higher haircuts. Here is an exhaustive list of securities haircuts.

1.1.4.1. Common Stock and Other Equity Securities

For common stock, warrants, American Depository Receipts (ADRs), and other equity securities, the haircut is 15% of the market value of the greater of the long or short positions. In addition, if the market value of the lesser position exceeds 25% of the market value of the greater position, the deduction on the amount of that excess will be 15% of market value.

SEC Rule 15c3-1(c)(2)(vi)(J)

 **Example:** Suppose ABC Brokers’ long equities positions total \$100 million and its short equities positions total \$45 million. A 15% haircut is applied on the long