# Chapter 22

# Market Information: Relative Value Analysis

What's in this chapter:

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- financial ratios and relative value
- operational ratios and relative value

THERE ARE NUMEROUS steps in making an investment decision in leveraged finance. One decision is whether an analyst and investment team believe a credit will be able to meet its debt obligations. A second decision is whether the credit is likely to improve, decline, or stay the same over time. A third major decision is how to allocate capital to one investment versus another. Any investment vehicle has a limited amount of capital and decisions must be made as to where to allocate it. To choose between investments requires relative value analysis. This usually involves comparing the risks and the rewards of various investment options. Rarely a simple formula, it involves numerous factors: quantitative, qualitative, objective, and subjective.

# Varied Goals of Relative Value Analysis

Although most investors in stocks or leveraged debt want to maximize their returns, there are different philosophies on how to achieve this. Just as there are macro or momentum investors, and growth or value investing in equities, there are also different investor types in the leveraged debt market. Examples include managers who emphasize bank debt or BB-rated bonds; those who are targeting a cash-plus return; or those who are mandated to mimic an index, or limit volatility. Others are more focused on total return and are less concerned with volatility. Still others need to match assets and liabilities. Some may favor credits with strong debt service and others favor those with particularly strong asset coverage. Many investment mandates set out formal rules about investment goals and formal restrictions on types of investment, even within the leveraged finance market (e.g., loan only, or only debt with at least a B- rating). Given the many types of investor in the market, with different strategies and goals, a bond or loan that may be attractive to one investor may be of no interest to another.

For all these different types of investor, it is usually helpful for analysts to lay out relative value comparisons using various financial and operational metrics and use them as a starting point for an investment decision. After that, other factors can be overlaid, such as subjective views on competitive position or the likelihood of upcoming positive or negative events, as well as structural and covenant analysis.

# Financial Ratios and Relative Value

Relative value analysis can often compare potential investments, either in the same industry or across a broader spectrum. Relative value analysis is not just comparing the credit strength of different companies, but also comparing what return is likely upon investing in each company relative to the financial characteristics. The spread or yield is the most common proxy for the return.

This return from the yield comes over time. The investment must be held for a period of time to get the interest income. Part of the decision an investment team has to make is what they expect to happen to that investment during the holding period. If it is anticipated that it will improve and the prices will go up and the yield decline, the price appreciation can be factored into the return analysis when compared to other potential investments. Even if the analysis

determines that there is a higher probability that the price will decline over the holding period, in some situations the interest income will be enough to make the investment attractive.

The analysis also has to examine risk as well as reward and determine which issuer, or issue, is a riskier investment, and if the investor is getting paid enough to take that additional risk. This risk-reward ratio has to be considered against the investment goals of a portfolio. For example, for a portfolio, is it worth giving up yield to be in an issue that may have less potential price volatility (e.g., duration) or greater operational stability? In relative value analysis, it is not just which credit is better, but a balancing of credit quality, structural issues, and return potential that together drive the decision on value.

Relative value analysis can start with taking market prices, yields, and spreads for various potential investments factors and comparing these value measures to assess credit quality in various ratios. This is often done within an industry group but could also be done across a credit rating category or other grouping. As a simplified example of how this might be done, Exhibit 22.1 looks at one industry: a hypothetical mobile telephone industry. It is assumed that this sector has five issuers.

The exhibit shows that, for relative value, it is important to not just compare companies, but actual securities. If a company has a senior note outstanding and a senior subordinated note outstanding, both need to be shown. Exhibit 22.1 shows two leverage ratios. One is the leverage through the specific debt issue (bond debt/EBITDA), and the other is the all-in leverage for the company (total debt/EBITDA). This is because when considering the asset protection, analysts can look at the level of leverage where the individual security is (e.g., the ranking, such as senior secured leverage or senior subordinated leverage), but they cannot ignore the amount of leverage that has to be serviced on the whole company to avoid a restructuring or distressed credit situation. Do the same analysis when comparing the bank debt to the bonds when they have different seniority rankings and look at the leverage through the loans but also the all-in debt leverage for the company.

**Exhibit 22.1: Simplified Relative Value Sheet**

| | | STW (bps) | Bond Debt/ EBITDA | Total Debt/ EBITDA | FCF/ Debt | TEV*/ EBITDA | STW/ (Bond Leverage) |
|---|---|---|---|---|---|---|---|
| Mobile Co. | 8% senior notes | 400 | 3.0× | 5.0× | 3.0% | 6.0× | 133 |
| | 10% senior-sub. notes | 600 | 5.0× | 5.0× | 3.0% | 6.0× | 120 |
| Cell Co. | 7.5% senior notes | 350 | 4.0× | 5.0× | 2.5% | 6.2× | 88 |
| | 9.5% senior-sub. notes | 600 | 5.0× | 5.5× | 2.5% | 6.3× | 120 |
| Phone Inc. | 9% senior notes | 300 | 3.5× | 3.5× | 5.0% | 7.0× | 86 |
| Wireless Co. | 8% senior notes | 500 | 4.5× | 4.5× | 3.5% | 5.8× | 111 |
| DataFone | 9% senior notes | 475 | 3.5× | 7.0× | 0.1% | 7.1× | 136 |
| | 9.5% senior-sub. notes | 800 | 7.0× | 7.0× | 0.1% | 7.1× | 114 |

\* Total enterprise value

Within Exhibit 22.1, the first column has the company name and a description of the debt instrument. These are followed by the STW, a few key financial metrics, and then a relative value measure. This takes the STW and divides it by the leverage at the bond level to show how many bps of spread an investor would get paid for each turn of leverage.

The last column is an example of the type of tool that can be created using measures of financial strength and potential returns. It is not a perfect answer but a step in the process. This column takes the STW of each bond and divides it by the leverage at the bond level. For example, the DataFone 9% senior notes look the cheapest (most attractive) by this measure, offering the widest spread per point of leverage. The DataFone 9.5% senior subordinated notes also offer the highest total spread. This may be because its all-in leverage (total debt/EBITDA) is higher than any of the other issues at 7×, and its FCF as a percentage of its debt at 0.1% is meaningfully lower than any of the other comparables. A minimal asset value cushion is implied by the equity market

value at DataFone, primarily due to the high leverage. These factors add considerable risk to the DataFone senior notes.

It is also interesting to look at the intracapital relationships. For DataFone and Mobile Co., the senior subordinated notes offer less spread per point of leverage than the senior notes within each company's capital structure. However, for Cell Co., the relationship is inverted, and the senior notes offer less spread per point of leverage. Some of the reasons why this could occur include the fact that the Cell Co. senior notes might have particularly strong covenants or an unusual call feature that could make them more valuable. There is also the possibility that the Cell Co. senior notes are simply overvalued and trading too rich on a relative value basis. Finally, note that in Cell Co., the total debt/EBITDA ratio is higher than the bond level debt/EBITDA of the senior subordinated notes, indicating that there is additional debt outstanding, junior to this issue— perhaps a holding company convertible note or other instrument.

A more detailed relative value page might include the following:

- *Additional loan specifics*: More specific bond or bank loan data may be included, such as the issue size, a credit agency rating, and maybe the next call date and price.
- *Duration and maturity*: This analysis does not include any measure of duration or maturity, which can be a major factor for relative value comparison. Lower duration may indicate lower volatility, but also may indicate less potential upside if the underlying credit improves.
- *Additional market data*: This sheet is only showing one piece of market data: STW. A more detailed sheet could show the price, the YTW, current yield, and even historical price volatility. If the bonds are of varying maturities, the spread is often the more meaningful measure to compare than the yield.
- *Additional risk indications*: Bank debt issues and trading levels of credit default swaps (CDSs) could also be included as indications of how the market is viewing risk.
- *Additional financial ratios*: There are also a multitude of other financial ratios that could be helpful to compare to valuation measures. Most notably absent is the EBITDA/interest expense or EBITDA-capital expenditures/ EBITDA, but liquidity and operational ratios could also be valuable.

It is very important to include structural issues other than just priority ranking in the relative value decision process:

- *Non-priority ranking structural issues:* This can include factors such as any differences in call structures, trading liquidity, or whether it is a fixed coupon bond or a floating-rate loan.
- *Covenant differences:* Covenant differences can also impact relative value between investments.

Choosing the right credit can have just as critical an impact on investment performance as choosing the right part of the capital structure in which to invest.

There are other relative value tools that can be utilized:

- *Average index spreads/yields comparison:* One common tool is to compare a potential investment to the average spreads and yields of an index, or a subset of an index, perhaps by credit rating or duration bucket. This can help put the relative value of a potential investment in context with the market, a larger opportunity set than just industry-comparable credits.
- *Market valuations comparison:* The market valuations of the investment can also be compared to the average valuations of the portfolio in which it is being considered. This can show if an investment can increase or decrease the average yield or spread of the portfolio and also what it might do to the duration, maturity, and average coupon of the larger portfolio.

All these items help to put the relative value of the sector in the context of the universe of investment options.

## Using Averages of Common Trading Relationships

It can be helpful to build out databases of average relative value relationships. This might include what the average difference in spread is between secured and unsecured debt or senior and subordinated debt or holding company and operating company debt. The same can be done for differences in a credit's debt of different maturities or duration. Not all companies have multiple tranches of debt, so the sample size of this data may be smaller than other data sets. An analyst has to be careful that other structural or credit nuances are not skewing the data.

## Operational Ratios and Relative Value

Relative value analysis should not just include credit metrics, but also an understanding of operational performance of each company. The operational comparison shown in Exhibit 22.2 includes some information that could be meaningful for any industry, such as growth rates in revenue and EBITDA and EBITDA margins, but also industry-specific KPIs, such as growth in subscribers and the average revenue per unit (ARPU).

### Exhibit 22.2: Simple Operational Comparison

|  | Latest Quarter Change in Revenue | Latest Quarter Change in EBITDA | Latest Quarter Change in Subscribers | EBITDA Margin | Monthly ARPU in $ |
|---|---|---|---|---|---|
| Mobile Co. | 12.0% | 9.0% | 7.0% | 22.0% | 56.00 |
| Cell Co. | 10.0% | 10.5% | 5.0% | 20.5% | 45.00 |
| Phone Inc. | 10.0% | 9.5% | 5.0% | 22.0% | 42.00 |
| Wireless Co. | 9.0% | 8.5% | 6.0% | 23.0% | 50.00 |
| DataFone | 7.5% | 8.0% | 4.3% | 20.0% | 39.00 |

There are a significant number of options to include in operational data. One area in particular can be longer-term operational trends and volatility of cash flow generation. It is often good to include on this sheet a dominant industry-leading comparable, even if it is not in the opportunity set of investments.

Anyone performing relative value analysis has to balance several items. This includes thoroughness versus timeliness. If the analysis takes too long, the market information on the potential investments becomes stale, and opportunities to buy and sell may have disappeared. With so many ratios and combinations and permutations of how financial and operational metrics can be mixed with valuation data, it is easy to prepare too many different ways to examine relative value data and make it difficult to reach conclusions. Therefore, an analyst has to learn to prioritize which data is most helpful and be careful not to get too anchored in examining just a few ratios, not recognizing that an industry or the markets are changing, and the relative value analysis needs to be refocused. With the last point in mind, it is good practice to periodically look at some nonstandard or different relative value ratios.

Exhibits 22.1 and 22.2 are based on fairly objective figures. There are also more subjective factors in an analysis. These can be helpful to lay out in tabular form as well. Management quality and strategy are important to consider, as is the potential for positive and negative events. For example, if a company is sold, would the likely acquirers strengthen or weaken the credit? Would the sale require a take-out of the bonds? Forward-looking estimates can be helpful to compare as well as backward-looking data.

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### Relative Value Scenarios for Debt

Using scenarios can be very valuable in determining relative value. If you are comparing investments opportunities in two different bonds and you have three scenarios for each one (e.g., base case, upside, and downside), you should estimate where each scenario would cause the bond to trade a year from now and what the total return would be to determine the best relative value. A probability should be applied to each outcome. These probabilities could be linked to your financial model scenarios and a probability-weighted total return can be calculated. Relatively minor structural issues, such as call prices, can make a meaningful difference in returns. Exhibit 22.3 presents a simple relative value return analysis. Note that the probabilities and the expected trading levels one year out both make a difference in the total return.

## Exhibit 22.3: Relative Value Total Return Scenarios

| | Current | Scenarios 1 Year Forward | | | |
|---|---|---|---|---|---|
| | Current | Base Case | Upside | Downside | Weighted |
| **5.25% Five-Year Bond** | | | | | |
| Probability | | 50% | 30% | 20% | |
| Price | 101.00 | 101.80 | 104.60 | 99.11 | |
| YTW | 5.02% | 4.75% | 4.00% | 5.50% | |
| Total Return | | 5.98% | 8.60% | 3.30% | 6.23% |
| **4.75% Four-Year Bond** | | | | | |
| Probability | | 60% | 20% | 20% | |
| Price | 100.00 | 100.60 | 102.80 | 98.60 | |
| YTW | 4.75% | 4.50% | 3.75% | 5.25% | |
| Total Return | | 5.20% | 7.50% | 3.36% | 5.29% |

# Closing Comment

Relative value is a vital part of the investment process in the credit markets. The data set, or universe, that gets chosen for relative analysis can bias the outcome, so it becomes very important to review the peer group that is being used and to be sure to use some broader measures of value, such as an index or a portfolio average. Establishing relative value between credits, and between individual investments within each credit, involves comparing objective and subjective factors. It is extremely useful not just to lay out the objective data, but also to include some of the key subjective issues that can make a difference. Whenever possible, the analysis should not just be based on historical data, but also utilize forward-looking estimates of where the credit and the debt might be a year ahead or longer.