Investment Criteria

Applied Optoelectronics (AAOI) seems to be undervalued based on the **obscurity** stock criteria. In the US, a small cap stock is defined as a company with a market capitalization of under $1.4B and AAOI is under this at $495M. While there appear to be more than three analysts covering the company, none of them are from large banks. AAOI could be considered **undesirable** based on industry stock performance. For the past few years, companies in the fiber-optics industry has been growing rapidly and the space has been becoming more competitive. As a result, AAOI's stock price has fallen to the 52-week low. Their P/E is 7.4x, which is under the 13x 'value' threshold. The M/B is 1.5x, which is slightly greater than our 1.2x target. Even still, we feel that AAOI passes the value screening criteria, so we have chosen to further analyze the company.

Industry and Company Analysis

Business Risk (HIGH): AAOI is a vertically integrated provider of fiber optic networking components. The company designs and manufactures high-quality fiber optic solutions for their customers. Further, AAOI can produce products according to the level of integration needed by their customers, from individual components to complete turn-key solutions. The success of the fiber-optics sector is heavily reliant on demand drivers, which are strong given the move away from copper cables and towards fiber optic cables. The industry competes on quality and price, and companies need to place competitive bids for limited large, short-term contracts. However, strong demand drivers have dampened the risk of cyclical downturn, so industry risk is medium. The company historically has dealt with challenges such as customer concentration and a lack of scale. AAOI is a small player in the fiber optics industry, and larger competitors benefit from cost advantages due to size. However, management is perceived as competent, with their core strategy focused on quality products and vertical integration, which allows them greater ability to customize and control costs. Additionally, AAOI's customers are somewhat sticky due to high levels of integration and customization. These factors have manifested in AAOI's recent financial results as revenues and margins have been growing steadily over the past several years. Although this makes ascertaining run-rate operating margins a challenge, it also leads us to believe that AAOI operates on the lower end of high business risk.

Financial Risk (LOW): As a high-risk business, AAOI's optimal capital structure falls between 10%-29%. As management has been consistently deleveraging, we assumed that the AAOI's target capital structure was their last two-year average debt/capitalization of 10.4% (Exhibit 1). Because 10.40% barely falls within the range of the optimal capital structure, we believe the financial risk is LOW as AAOI operates towards the lower end of high business risk (Exhibits 2).

WACC: Analysis of business and financial risk yielded a bond rating of "A" (Exhibit 3). This rating corresponds to a Kd of 3.74%, an equity risk premium of 6%, and results in a Ks of 9.74%. Using AAOI's two-year average debt/capital of 10.4% as a target capital structure and a 21% marginal tax rate, WACC was calculated to be 9.04% (Exhibit 4).

1st Pass ROIC: The first pass ROIC using a two-year average and five-year average is 16.11% and 8.47% respectively (Exhibit 5). Since five-year average ROIC is lower than WACC, EPV is expected to be lower than NAV.

Valuation

NAV: AAOI's calculated NAV/Share is $27.10, with the major contributors being buildings, M&E, and product portfolio because of the high R&D. Capitalized operating leases were calculated by discounting projected lease payments at the company's Kd. Customers consider quality an important factor when making purchase decisions and the industry is concentrated; thus a 1.5x multiplier was used to estimate customer relationship value. Based on a high amount of R&D spending, we believe the product lifecycle to be three years. (Exhibits 6-11)

EPV: AAOI's calculated EPV/Share is $18.60, with the major contributor being the $343 million of present-valued zero growth FCF. (Exhibits 12-14)

2nd Pass ROIC: The second pass ROIC was calculated to be 6.20% (Exhibit 15), further supporting the notion that ROIC is lower than WACC and EPV is lower than NAV.

Catalyst Analysis

Currently, AAOI is a company with rapidly growing operating margins and an asset turnover ratio of 0.95x. While the margins may currently be high, asset turnover is quite low. Over 60% of the company is owned by passive institutional investors, making the likelihood of **replacing management** unlikely. The fiber optics industry is also unlikely to be facing **excess capacity**. Most companies in the industry enjoy high margins and growth, and there has been minimal consolidation. AAOI may simply be at a **competitive disadvantage** compared to peers. If AAOI can increase scale, they will be at less of a competitive disadvantage. Margins have improved dramatically and if they remain high, normalized operating income will increase. We estimate the probability of this catalyst as **medium (50%).**

Recommendation

Our analysis found that **IV = $22.85**, so **EP = IV*(⅔) = $15.23**. Therefore, our recommendation is to **wait**, because the resulting entry price is below the current stock price (Exhibit 16).