Ticker: AVY Company: Avery Dennison Corp. Sector: Materials Analyst: Logan Blue

Recommendation: BUY Current Price: $\$ 110.67$ Target Price: \$147.63 Date: 5/29/2020

| Market Snapshot |  |
| :--- | :--- |
| Shares Outstanding (mn) | 83.34 |
| Market Cap (USD bn) | $\$ 9.64$ |
| 52-week low | $\$ 76.96$ |
| 52-week high | $\$ 141.09$ |
| TJua B $/$ /amerg | 17.9 |
| Beta | 1.19 |


| FCFF | Value |  |
| :--- | :--- | ---: |
| PV of FCFF | $\$$ | $9,765.68$ |
| PV of Terminal Value | $\$$ | $15,728.72$ |
| Total PV of Cash Flows | $\$$ | $25,494.40$ |
| + Cash | $\$$ | 253.00 |
| -Net Debt | $\$$ | $4,284.00$ |
| Firm Value | $\$$ | $11,697.72$ |
| Number of Shares |  | 84 |
| Current Price | $\$$ | 102.22 |
| Target Price (FCFE) |  | $\$ 139.26$ |
| Margin of Safety |  | $36.23 \%$ |


| Cost of Equity |  |
| :--- | ---: |
| Weighted Debt | $37 \%$ |
| Weighted Equity | $63 \%$ |
| Cost of Equity | $10.26 \%$ |
| Cost of Debt | $4.11 \%$ |
| WACC | $\mathbf{6 . 3 9 \%}$ |


| FCFF | Price | Weight |  |
| :--- | :--- | ---: | ---: |
| Intrinsic (FCFF) |  | $\$ 139.26$ | $90 \%$ |
| Relative (P/E) | $\$$ | 20.09 | $10 \%$ |
| Target Price: | $\$$ | 127.34 | $100 \%$ |
| Upside: |  | $24.58 \%$ |  |

Cumulative TSR
2013-2019


## Investment Thesis

We issue a BUY recommendation on AVY with a target price of $\$ 147.63$, presenting $33.4 \%$ upside. Our opinion is based on a $90 \% / 10 \%$ mix of intrinsic ( FCFF ) and relative ( $\mathrm{P} / \mathrm{E}$ ) valuation, respectively.

## AVY is uniquely positioned as one of the largest materials manufacturer/distributors in a fragmented industry:

The firm specializes in a wide variety of labeling and functional materials and is diversified across three main business segments: and Industrial \& healthcare Materials. AVY is one of the largest firms by market share in both the Adhesive Tape Manufacturing Industry and the Coated \& Laminated Paper Manufacturing Industry, and they benefit from an economy of scale and a vertically integrated manufacturing and distribution network. AVY also has a unique advantage from the integration of multiple product segments which allows them to control their input prices and hedge against volatility in commodity prices.

## AVY is a lower risk alternative to direct investing in other materials companies

Due to its exposure to different markets in the materials sector, geographic diversification, steady revenue growth, and favorable business prospects, AVY is an inherently diversified company that will produce returns similar to an entire portfolio of diversified material stocks. Growing economic activity in emerging markets could boost AVY's mid- to long-term returns.

## COVID-19 and Industry Trends:

The company's Q1 earnings and revenue beat the consensus estimate by $10.67 \%$. According to AVY's Q1 2020 report, they are experiencing higher demand during the pandemic in their label and packaging materials, as well as a surge of demand in Europe and North America driven by food, hygiene and pharmaceutical labeling. Macro themes in the industry include the importance of labels in creasing as a result of evolving customer requirements, new regulations, and the shift to e-commerce where labels are becoming digitalized to track products through supply cycle.

Revenue by Segment


- Label \& Graphic Materials
- Retail Branding \& Information Solutions
- Industrial and Healthcare Materials




## Business Description

Avery Dennison is a leading global materials science company specializing in the design and manufacturing of a wide variety of labeling and functional materials. The company's products are used in nearly every major industry, include pressure-sensitive materials for labels and graphic applications; tapes and other bonding solutions for industrial, medical, and retail applications; tags, labels and embellishments for apparel; and radio frequency identification (RFID) solutions serving retail apparel and other markets. Headquartered in Glendale, California, the company employs more than 30,000 employees in over 50 countries. Reported sales in 2019 were $\$ 7.1$ billion.

Business Segments: Avery Dennison Corporation operates through three distinct business segments: Label \& Graphic Materials (LGM), Retail Branding \& Information Solutions (RBIS), Industrial \& Healthcare Materials (IHM). The firm's largest segment by revenue is from Label \& Graphic Materials, making up about $68 \%$ of the firm's total revenue.

Label \& Graphic Materials (LGM): This segment is AVY's main revenue driver, and manufactures labels, graphics, packaging, reflective materials, papers, plastic films, metal foils, and other fabrics that are used to decorate everything from food to beverages and other everyday products. This segments makes up roughly $68 \%$ of the firm's total revenue.

Retail Branding \& Information Solutions (RBIS): This segment designs, manufactures and sells various branding and information management products and solutions. Their customers are typically apparel and other general retailers, which use their products such as tickets, graphics, barcodes, radio-frequency identification tags (RFID), labels and inserts, woven and printed labels, external embellishments, price management systems, a variety of fasteners and related supplies and equipment. This segment makes up roughly $23 \%$ of AVY's total revenue.

Industrial \& Healthcare Materials (IHM): This segment provides products such as wearable sensors, barrier films, wound dressings, fastening \& sealing systems, mechanical fasteners and other performance polymers. Their main customers include medical supply companies, hospitals, car and automotive manufacturers, as well as other general retailers.


> Adhesive Tape Manufacturing


- Avery Dennison Corp - Tesa Tape ■ Other

Coated \& Laminated Paper Manufacturing


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## Industry Overview

Avery Dennison operates in three main industries: Coated \& Laminated Paper Manufacturing, Packaging \& Labeling Services, and Adhesive Tape Manufacturing. Each of these industries are relatively smaller industries, but Avery Dennison is a leading player in both the Coated \& Laminated Paper Manufacturing industry, as well as the Packaging \& Labeling Services industry.

Adhesive Tape Manufacturing: The main drivers in this industry is consumer spending, demand from paper manufacturing, demand from store retailers and demand from drywall and insulation installers. The industry is not very concentrated, with AVY controlling about $14 \%$ of the industry's market share. The biggest competitor in this industry is Tesa Tape, who owns about one quarter, or $24 \%$ or the market. The remaining $61.6 \%$ of the market is competed for by the rest of the firm's in the industry. The industry is projected to grow roughly $1.8 \%$ a year for the five years leading to 2026, according to IBIS world industry reports.

Coated \& Laminated Paper Manufacturing: The main economic drivers in this industry are consumer spending, demand from food manufacturers, print advertising expenditures, demand from paper wholesaling, and the implications of the trade-weighted index. The industry is less consolidated than the Adhesive Tape Manufacturing industry, as AVY controls just under $10 \%$ of market share, while the largest player in the industry, Verso Corp, controls just over $10 \%$ of market share. According to IBIS World the Coated \& Laminated Paper Manufacturing Industry is projected to grow at an annualized rate of $2.2 \%$ for the five years leading to 2026 .

Packaging \& Labeling Services Industry: The main economic drivers for this industry are consumer spending, e-commerce sales, corporate profits, cosmetic, beauty, pharmaceutical manufacturing, as well as demand from snack food production. The industry is the least concentrated out of the three industries AVY operates within, with no major players holding any significant market share. According to IBIS World, this industry is projected to grow the most in the five years leading to 2026, projected to grow at an annualized rate of $3.2 \%$, mostly from the increasing demand for digitalized tags and other labeling technology. The main driver for this shift to "smart labels", is the ability to track products more efficiently throughout the supply chain and control inventories more efficiently.


## Industry Structure

| Life Cycle Stage |
| :--- |
| Revenue Volatility |
| Capital Intensity |
| Industry Assistance |
| Concentration Level |
|  |
| Regulation Level |
| Technology Change |
| Barriers to Entry |
| Industry Globalization |
| Competition Level |

06-18-2020 Materials 12.39\% SS\&P 500 INDEX 48.68\% 《


## Competitive Positioning

The competitive landscape in the Materials sector is wide ranging and diverse. However, in each industry they operate in, AVY benefits from their size and vertical integration, which allows them to leverage economies of scale and innovation at every step in the value chain. Furthermore, the integration of multiple product segments helps control input prices, while the high amount of M\&A activity in the past decade has outpaced new entrants into the sector, giving bigger players like AVY the benefit of established market share and size.

Threat of New Entrants: Since the three industries AVY operates in require large capital investments in order to operate, the threat of new entrants is relatively low. However, the material sector as a whole has seen a decline in the number of established enterprises, resulting in a fragmented industry with large opportunity zones for innovation and cost leadership. Furthermore, the rise of RFID technology and the expected growth in the labeling industry presents a space for new firms to enter the industry, however it still requires a large upfront investment in order to acquire or build the operational infrastructure. For these reasons the industry has a relatively low threat of new entrants.

Bargaining Power of Suppliers: The bargaining power of suppliers is medium, since they supply the raw material and resources that firms like AVY use to create finished products for consumers. However, since AVY is diversified across multiple product segments, they benefit from being able to control input prices at the margins. They are able to achieve this by ordering larger quantities to be used across all three business segments, and when you buy raw materials from wholesalers, the higher the quantity the lower the price typically.

Bargaining Power of Buyers: The bargaining power of buyers in general is relatively low, however, there's a bifurcation between industrial and healthcare buyers and retail buyers, where the industrial buyers have more influence over the prices they pay because they buy in larger quantities. The main determinant for the power of buyers comes down to size. Smaller retail buyers will have little to no influence over negotiating prices and terms, whereas larger buyers will be able to negotiate the prices more since they are ordering in larger quantities.

Threat of Substitute: Due to the specialized nature of the products Avery Dennison designs and manufactures, the threat of substitutes is low. The main reason for this is because it requires heavy equipment and machinery in order to produce the products, and a specialized operational structure in order to ensure the products are designed, manufactured and distributed properly.


## Interest Expense



Income Tax


Revenue by Segment


## Margins

We estimate that AVY's future margin to stay relatively stable, since a decent amount of upkeep is required for material products. Additionally, this would be supported by the expected increase in revenue and COGS in line with historical growth rates.

## Research \& Development:

We expect AVY to grow its Research \& Development costs a little below $1 \%$ a year, since the company is continuously improving and innovating their products and operations. A big contributor to these costs will be the continued development of "smart tags" or RFID labels.

## Taxes:

AVY has operations globally in multiple tax jurisdictions and has effective tax rates that fluctuate over the past couple of years. Most recently, the Tax Cuts and Jobs Act of 2017 reduced AVY's tax rate to $20.89 \%$ in 2019. Due to the uncertain future for American politics, we decide to increase the effective tax rate gradually over the next 10 years, approaching a $30 \%$ effective tax rate in 2021 to maintain a more conservative approach due to the uncertainty of the 2020 US presidential election which could affect the corporation tax rates in the United States.

## Terminal Growth Rate:

Our $1.9 \%$ terminal growth rate assumption takes into account the long-term growth rate found on Bloomberg until 2040. Additionally, we found multiple other sources that forecasted between a $1.4 \%$ and $2.3 \%$ long-term growth rate, but chose to split the difference at $1.9 \%$ to be conservative.

## WACC:

We arrived at a WACC of $7.62 \%$ for AVY. A detailed breakdown of our WACC is presented below:

| Inputs | Value | Notes |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Valuation Date | 5/13/2020 | Fed LT GDP |  |  |
| Srock Price (5/13/20) | \$ 102.22 |  | Cost of Equity |  |
| Terminal Rate | 1.9\% |  | Weighted Debt | 32\% |
|  |  |  | Weighted Equity | 68\% |
| Risk Free Rate | 0.64\% | Treasury <br> Valueline <br> LT Avg | Cost of Equity | 9.66\% |
| Beta | $\begin{aligned} & 1.2 \\ & 8 \% \end{aligned}$ |  | Cost of Debt | 4.65\% |
| Equity Risk Premium |  |  |  |  |
| CAPM | 9.66\% |  | WACC | 7.62\% |

## Relative Valuation:

We identified 5 peers which have product lines operating in the material sector, specifically with businesses in the three industries AVY operates within. Due to the different sales mix that AVY has, we included businesses of different scales to capture the different revenue percentages that each segment of AVY's business represents. We use P/E due to its common use in industries to determine a price. We also calculated the Forward EPS for AVY as well.

| Relative Valuation Model |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Name | 2Y Corr | Mkt Cap (USD) | P/E |  | EV/EBITDA |
| Avery Dennison Corp |  | 8519018378 |  | 11.08 | 13.6674 |
| Current Premium to Comps Mean |  |  |  | -4.41 | -1.4132 |
| RPM International | 0.6389 | 8607283388 |  | 20.4712 | 13.7008 |
| Ashland Global Holdings | 0.63 | 3570533663 |  | 21.1609 | 10.1487 |
| HB Fuller Co | 0.6287 | 1641042727 |  | 11.9016 | 8.6157 |
| Albemarle Corp | 0.6016 | 6348284442 |  | 15.5373 | 11.6319 |
| Minerals Technologies Inc | 0.5925 | 1401990952 |  | 10.6587 | 6.9393 |
| Median | 0.6287 | 3570533663 |  | 15.5373 | 10.1487 |
| Average | 0.62 | 5014692258.33 |  | 15.95 | 10.21 |
|  |  | Target Price | \$ | 91.25 |  |


| Relative Valuation |  |
| :--- | :---: |
| Forward EPS |  |

Operating Margin by Segment (2016-2019)


## Financial Analysis

## Operating margin by segment:

AVY's operating margin by segment shows that the Label \& Graphic Materials segment has their highest margin. The next best performing segment in the context of operating margin is their Industrial and Healthcare Materials segment, followed by the Retail Branding \& Information Solutions segment.

AVY's operating margin illustrates the ratio of operating income to net sales, which shows us how much profit the firm makes on a dollar of sales.


GROWTH OF GLOBAL GDP


## Annual Revenue Growth by Segment (2016-2019):

In recent years AVY has experienced a much larger increase in annual revenue growth in their Industrial and Healthcare Materials segment, growing at about $9.2 \%$ a year between 2016 and 2019. This represents an opportunity for Avery to continue expanding into the healthcare sector, which can help reduce the cyclicality of their revenue streams due to the steady nature of healthcare services.

## Sustainable Dividends \& Share Buyback

Currently, AVY has a dividend of $0.52 \$$ per share, and has never halted its dividend payments since going public.

## Investment Risk

COVID-19
The company's Q1 earnings and revenue beat the consensus estimate by $10.67 \%$. According to AVY's Q1 2020 report, they are experiencing higher demand during the pandemic in their label and packaging materials, as well as a surge of demand in Europe and North America driven by food, hygiene and pharmaceutical labeling. Macro themes in the industry include the importance of labels increasing as a result of evolving customer requirements, new regulations, and the shift to e-commerce where labels are becoming digitalized to track products through supply cycle.

## International Operations

In 2019, $77 \%$ of AVY's sales were from international operations, representing the majority of their overall business. This represents a unique risk to AVY, since global exogenous factors such as political, social, economic, labor conditions, tax laws, and international trade regulations can drastically disrupt their businesses overseas. Furthermore, these global factors ultimately have a profound effect on underlying demand for AVY's products.

## Macroeconomic Risks

Given the fact that the majority of AVY's revenue comes from international operations, the firm is subject to heightened macroeconomic risk. Namely, economic growth across the different geographic regions they operate in will have a significant impact on their overall profitability. Furthermore, the company has singled out the restructuring of European sovereign debt obligations that will be required from the UK leaving the EU (Brexit). Another macroeconomic risk is the uncertainty surrounding global credit and financial markets due to COVID19. Things like consumer spending, volatility in financial markets, declines in asset prices, etc. will all impact AVY's bottom line due to their international footprint.

## FX Rates \& Trade Risks

AVY employs the use of hedging instruments to mitigate transactional exposure in foreign currencies. The reliability of these hedging techniques, however, rely on their ability to accurately forecast cash flows, which in the current environment is particularly difficult. Another risk is the implications of foreign trade and the U.S.'s recent crackdown on trade relations. Trade relations between the U.S. and trading partners are at historical lows, and since the majority of sales are in foreign countries and in foreign currencies, the implications of trade tensions are especially important for AVY.

## APPENDIX 1: Income Statement

PJT Partners Inc (PJT US) - Adjusted

| In Millions of USD except Per Share 12 Months Ending | $\begin{array}{r} 2013 \\ 12 / 28 / 13 \\ \hline \end{array}$ | $\begin{aligned} & \hline \text { FY } 2014 \\ & 01 / 03 / 15 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { FY } 2015 \\ & 01 / 02 / 16 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { FY } 2016 \\ & 12 / 31 / 16 \end{aligned}$ | $\begin{aligned} & \hline \text { FY } 2017 \\ & 12 / 30 / 17 \\ & \hline \end{aligned}$ | $\begin{array}{r\|} \hline \text { FY } 2018 \\ 12 / 29 / 18 \\ \hline \end{array}$ | $\begin{gathered} \hline \text { FY 2019 } \\ \text { 12/28/19 } \\ \hline \end{gathered}$ | $\begin{array}{r} \text { FY } 2020 \text { Est } \\ 12 / 31 / 20 \end{array}$ | $\begin{array}{r} \text { FY } 2021 \text { Est } \\ 12 / 31 / 20 \end{array}$ | $\begin{array}{r} \text { FY } 2022 \text { Est } \\ \text { 12/31/2022 } \end{array}$ | $\begin{gathered} \text { FY 2023 Est } \\ 12 / 31 / 2023 \end{gathered}$ | $\begin{array}{r} \text { FY } 2024 \text { Est } \\ \text { 12/31/2024 } \end{array}$ | $\begin{array}{r} \text { FY } 2025 \text { Est } \\ 12 / 31 / 2025 \end{array}$ | $\begin{array}{r} \text { FY } 2026 \text { Est } \\ 12 / 31 / 2026 \end{array}$ | $\begin{gathered} \text { FY } 2027 \text { Est } \\ \text { 12/31/2027 } \end{gathered}$ | $\begin{array}{r} \text { FY 2028 Est } \\ 12 / 31 / 2028 \end{array}$ | $\begin{gathered} \text { FY } 2029 \text { Est } \\ \text { 12/31/2029 } \end{gathered}$ | $\begin{array}{r} \text { FY 2030 Est } \\ 12 / 31 / 2030 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue | 6,140.0 | 6,330.3 | 5,966.9 | 6,068.5 | 6,613.8 | 7,159.0 | 7,070.1 | 6,980.5 | 7,065.3 | 7,226.1 | 7,462.6 | 7,709.6 | 7,933.1 | 8,139.5 | 8,317.1 | 8,499.3 | 8,686.2 | 8,878.0 |
|  |  | 3.10\% | -5.74\% | 1.70\% | 8.99\% | 8.24\% | -1.24\% | -1.27\% | 1.21\% | 2.28\% | 3.27\% | 3.31\% | 2.90\% | 2.60\% | 2.18\% | 2.19\% | 2.20\% | 2.21\% |
| Sales \& Serices Revenue | 6,140.0 | 6,330.3 | 566.9 | 6.5 | , 13.8 | 7,159.0 |  | 6,980.5 | 7,065.3 | 7,226.1 | 7,462.6 | 7,709.6 | 7,933.1 | 8,139.5 | 8,317.1 | 8,499.3 | 8,686.2 | 8,878.0 |
| Cost of Revenue | 4,502.3 | 4,679.1 | 4,432.1 | 4,386.8 | 4,801.6 | 5,243.5 | 5,166.0 |  |  |  |  |  |  |  |  |  |  |  |
| Cost of Goods and Services | 4,502.3 | 4,679.1 | 4,321.1 | 4,386.8 | 4,801.6 | 5,243.5 | 5,166.0 |  |  |  |  |  |  |  |  |  |  |  |
| Gross Profit | 1,637.70 | 1,651.20 | 1,645.80 | 1,669.70 | 1,812.20 | 1,915.50 | 1,904.10 | 1,881.25 | 1,904.10 | 1,947.43 | 2,011.18 | 2,077.74 | 2,137.97 | 2,193.60 | 2,241.47 | 2,290.56 | 2,340.93 | 2,392.62 |
|  | 26.67\% | 26.08\% | 27.58\% | 27.51\% | 27.40\% | 26.76\% | 26.93\% | 26.95\% | 26.95\% | 26.95\% | 26.95\% | 26.95\% | 26.95\% | 26.95\% | 26.95\% | 26.95\% | 26.95\% | 26.95\% |
| Other Operating Income | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 |
| Operating Expenses | 1,184.2 | 1,159.9 | 1,110.5 | 1,097.0 | 1,103.0 | 1,033.8 | 635.2 | 1,032.1 | 1,043.9 | 1,066.4 | 1,129.8 | 1,165.3 | 1,199.9 | 1,196.5 | 1,221.3 | 1,246.8 | 1,272.9 | 1,335.8 |
| Selling, General \& Admin | 1,078.2 | 1,158.9 | 1,108.1 | 1,097.5 | 1,011.8 | 1,029.3 | 987.8 | 975.28 | 987.13 | 1,009.59 | 1,072.96 | 1,108.47 | 1,140.60 | 1,137.21 | 1,162.03 | 1,187.48 | 1,213.59 | 1,276.45 |
|  | 17.56\% | 18.31\% | 18.57\% | 18.09\% | 15.30\% | 14.38\% | 13.97\% | 13.97\% | 13.97\% | 13.97\% | 14.38\% | 14.38\% | 14.38\% | 13.97\% | 13.97\% | 13.97\% | 13.97\% | 14.38\% |
| Research \& Development | 96.0 | 0.0 | 0.0 | 0.0 | 93.4 | 98.2 | 92.6 | 54.3 | 54.3 | 54.3 | 54.3 | 54.3 | 54.3 | 54.3 | 54.3 | 54.3 | 54.3 | 54.3 |
|  |  |  |  |  |  |  |  | 0.78\% | 0.77\% | 0.75\% | 0.73\% | 0.70\% | 0.68\% | 0.67\% | 0.65\% | 0.64\% | 0.63\% | 0.61\% |
| Other Operating Expense | 10.0 | 1.0 | 2.4 | -0.1 | -2.2 | -93.7 | -445.2 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Operting Income (Loss) | 453.5 | 491.3 | 535.3 | 60.7 | 709.2 | 881.7 | 1,268.9 | 849.1 | 860.2 | 881.0 | 881.4 | 912.5 | 938.1 | 997.1 | 1,020.1 | 1,043.8 | 1,068.0 | 1,056.9 |
|  | 7.39\% | 7.76\% | 8.97\% | 9.93\% | 10.72\% | 12.32\% | 17.95\% | 12.16\% | 12.17\% | 12.19\% | 11.81\% | 11.84\% | 11.82\% | 12.25\% | 12.27\% | 12.28\% | 12.30\% | 11.90\% |
| Non-Operating (Income) Loss | 60.9 | 63.6 | 60.5 | 59.9 | 81.0 | 163.3 | 521.0 | 113.4 | 103.8 | 109.2 | 113.1 | 116.6 | 122.0 | 127.6 | 130.2 | 133.3 | 136.2 | 140.3 |
| Interest expense, Net |  |  | - |  | 63.0 | 58.5 | 75.8 |  |  |  |  |  |  | - |  | - |  |  |
| Interest Expense, Net | 60.9 | 63.3 | 60.5 | 59.9 | 63.0 | 58.5 | 75.8 | 113.4 | 103.8 | 109.2 | 113.1 | 116.6 | 122.0 | 126.6 | 128.2 | 130.3 | 132.2 | 135.3 |
|  | 5.93\% | 5.51\% | 5.71\% | 4.64\% | 3.98\% | 2.98\% | 3.91\% | 4.65\% | 4.65\% | 4.65\% | 4.65\% | 4.65\% | 4.65\% | 4.65\% | 4.65\% | 4.65\% | 4.65\% | 4.65\% |
| Interest Income |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 |
| Foreign Exch (Gains) Loss | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 |
| Other Non-Op (Income) Loss | 0.0 | 0.0 | 0.0 | 0.0 | 18.0 | 104.8 | 445.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 |
| Pretax Income (Loss), Adjusted | 392.6 | 428.0 | 474.8 | 542.8 | 628.2 | 718.4 | 747.9 | 735.8 | 756.4 | 771.8 | 768.3 | 795.8 | 816.1 | 869.4 | 890.0 | 910.5 | 931.9 | 916.5 |
| Abnormal Losses (Gains) | 26.6 | 67.2 | 65.9 | 65.7 | 38.7 | 163.6 | 498.4 | 36.4 | 40.4 | 38.3 | 39.2 | 42.1 | 42.9 | 40.6 | 40.0 | 40.5 | 40.5 | 40.8 |
| Merger/Acquisition Expense |  |  | -16.8 | 5.5 | 5.2 | -1.6 | 2.6 | -1.0 | -1.0 | -1.0 | 1.2 | 0.6 | 0.0 | 0.2 | -0.1 | 0.0 | 0.1 | 0.3 |
| Disposal of Assets | -17.8 | -0.3 | 1.7 | -1.1 | -2.1 | -2.7 | -3.2 | -4.1 | -2.2 | -2.4 | -2.5 | -2.8 | -2.8 | -2.9 | -2.8 | -2.6 | -2.7 | -2.7 |
| Early Extinguishment of Debt |  | - |  | - |  |  | - | - | - |  |  |  |  | - |  | - |  |  |
| Asset Write-Down | 13.1 |  | 7.0 | 5.2 |  | 10.7 | - | - | - |  | - | - | - | - | - | - | - |  |
| Impaiment of Intangibles |  | 8.9 |  |  |  |  | - | - | - |  | - | - | - | - | - | - | - |  |
| Gain/Loss on Sale/Acquisition of Business | 3.2 | 3.0 | 10.5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| Legal Settlement | 2.5 |  | -0.1 |  |  | - | 3.4 | - |  |  | - | - |  | - | - | - | - |  |
| Restructuring | 27.2 | 56.2 | 50.3 | 14.7 | 33.4 | 63.5 | 45.3 | 41.5 | 43.6 | 41.8 | 40.5 | 44.2 | 45.8 | 43.2 | 42.9 | 43.1 | 43.1 | 43.3 |
| Sale of Investments |  |  |  |  |  |  |  | - |  |  |  |  |  |  |  | - | - |  |
| Other Abnormal Items | -1.6 | 1.6 | 0.3 | 41.4 | 2.2 | 93.7 | 450.3 |  |  |  |  |  |  |  |  |  |  |  |
| Pretax Income (Loss), GAAP | 366.0 | 360.8 | 408.9 | 477.1 | 589.5 | 554.8 | 249.5 | 699.4 | 716.0 | 733.5 | 729.1 | 753.7 | 773.2 | 828.9 | 850.0 | 870.0 | 891.4 | 875.7 |
| Income Tax Expense (Benefit) | 124.3 | 113.5 | 134.5 | 156.4 | 307.7 | 85.4 | -56.7 | 218.7 | 146.1 | 147.7 | 151.1 | 159.5 | 159.0 | 165.5 | 166.4 | 159.7 | 162.2 | 164.7 |
| Current Income Tax | 116.2 | 130.3 | 119.0 | 88.0 | 158.2 | 115.4 | 159.6 | 213.3 | 140.5 | 142.0 | 145.3 | 153.5 | 152.8 | 158.2 | 157.9 | 150.0 | 151.4 | 152.7 |
|  | 31.75\% | 36.11\% | 29.10\% | 18.44\% | 26.84\% | 20.80\% | 63.97\% | 30.50\% | 30.50\% | 30.50\% | 30.50\% | 30.50\% | 30.50\% | 30.50\% | 30.50\% | 30.50\% | 30.50\% | 30.50\% |
| Deferred Income Tax | 8.1 | -16.8 | 15.5 | 68.4 | 149.5 | -30.0 | -216.3 | 5.4 | 5.6 | 5.7 | 5.9 | 6.0 | 6.2 | 6.3 | 6.5 | 6.6 | 6.8 | 7.0 |
|  | 6.97\% | -12.89\% | 13.03\% | 77.73\% | 94.50\% | -26.00\% | -135.53\% | 2.54\% | 2.54\% | 2.54\% | 2.54\% | 2.54\% | 2.54\% | 2.54\% | 2.54\% | 2.54\% | 2.54\% | 2.54\% |
| (Income) Loss from Affiliates |  |  |  |  | 0.0 | 2.0 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 |
| Income (Loss) fomr Cont Ops | 241.7 | 247.3 | 274.4 | 320.7 | 281.8 | 467.4 | 303.6 | 480.7 | 569.9 | 585.8 | 578.0 | 594.2 | 614.2 | 663.4 | 683.6 | 710.4 | 729.2 | 711.0 |
| Net Extraordinary Losses (Gains) | 28.5 | 2.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 |
| Discontinued Operations | 28.5 | 2.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 |
| XO \& Accounting Changes | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 |
| Income (Loss) Inlc. MI | 213.2 | 245.1 | 274.3 | 320.7 | 281.8 | 467.4 | 303.6 | 480.7 | 569.9 | 585.8 | 578.0 | 594.2 | 614.2 | 663.4 | 683.6 | 710.4 | 729.2 | 711.0 |
| Minority Interest |  |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | . 0 | 3.0 | 4.0 | 5.0 |
| Net Income, GAAP | 213.2 | 245.1 | 274.3 | 320.7 | 281.8 | 467.4 | 303.6 | 480.7 | 569.9 | 585.8 | 578.0 | 594.2 | 614.2 | 663.4 | 683.6 | 710.4 | 729.2 | 711.0 |

APPENDIX 2: Balance Sheet


## APPENDIX 3: Cash Flow Statement



## APPENDIX 4: INTRINSIC VALUATION

## Avery Dennison - FCFF

| In Millions of USD 12 Months Ending | $\begin{array}{r} 2013 \\ 12 / 28 / 13 \\ \hline \end{array}$ | $\begin{aligned} & \hline \text { FY 2014 } \\ & 01 / 03 / 15 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { FY } 2015 \\ & 01 / 02 / 16 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { FY } 2016 \\ & 12 / 31 / 16 \end{aligned}$ | $\begin{gathered} \hline \text { FY } 2017 \\ 12 / 30 / 17 \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \text { FY 2018 } \\ & 12 / 29 / 18 \\ & \hline \end{aligned}$ | $\begin{array}{r} \hline \text { FY 2019 } \\ 12 / 28 / 19 \\ \hline \end{array}$ | $\begin{array}{r} \text { FY } 2020 \text { Est } \\ 12 / 31 / 20 \end{array}$ | $\begin{array}{r} \text { FY } 2021 \text { Est } \\ 12 / 31 / 21 \end{array}$ | $\begin{array}{\|c\|} \hline \text { FY } 2022 \text { Est } \\ \text { 12/31/2022 } \\ \hline \end{array}$ | $\begin{array}{\|r\|} \hline \text { FY } 2023 \text { Est } \\ \text { 12/31/2023 } \\ \hline \end{array}$ | $\begin{array}{r} \text { FY } 2024 \text { Est } \\ 12 / 31 / 2024 \\ \hline \end{array}$ | $\begin{array}{r} \text { FY } 2025 \text { Est } \\ 12 / 31 / 2025 \\ \hline \end{array}$ | $\begin{aligned} & \text { FY } 202 \text { Est } \\ & \text { 12/31/2026 } \end{aligned}$ | $\begin{array}{\|r\|} \hline \text { FY } 2027 \text { Est } \\ \text { 12/31/2027 } \\ \hline \end{array}$ | $\begin{array}{\|r\|} \hline \text { FY } 2028 \text { Est } \\ \text { 12/31/2028 } \\ \hline \end{array}$ | $\begin{array}{r\|} \hline \text { FY } 2029 \text { Est } \\ 12 / 31 / 2029 \\ \hline \end{array}$ | $\begin{gathered} \hline \text { FY } 2030 \text { Est } \\ 12 / 31 / 2030 \\ \hline \end{gathered}$ | Terminal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net Income | 213 | 245 | 274 | 321 | 282 | 467 | 304 | 481 | 570 | 586 | 578 | 594 | 614 | 663 | 684 | 710 | 729 | 711 |  |
| Depreciation | 205 | 202 | 188 | 180 | 179 | 181 | 179 | 228 | 238 | 254 | 270 | 285 | 299 | 314 | 328 | 342 | 355 | 369 |  |
| Deferred Income Taxes | -8 | 17 | -16 | -68 | -150 | 30 | 216 | 5 | -6 | -6 | -6 | -6 | -6 | -6 | -6 | -7 | -7 | -7 |  |
| Change in Non Cash Working Capital |  | -338 | -76 | -379 | 395 | 45 | -195 | 51 | 6 | -37 | -24 | 24 | 49 | 46 | 1 | 9 | 6 | 14 |  |
| Cash Flow from Operations |  | 126 | 371 | 53 | 706 | 723 | 504 | 653 | 797 | 871 | 866 | 849 | 858 | 925 | 1004 | 1036 | 1071 | 1059 |  |
| Capital Expenditures |  | 339 | -170 | -143 | -435 | -548 | -232 | -251 | -246 | -241 | -236 | $-232$ | -227 | -222 | -218 | $-214$ | -209 | 205 |  |
| After Tax IE |  | 63 | 61 | 60 | 63 | 59 | 76 | 79 | 72 | 76 | 79 | 81 | 85 | 88 | 89 | 91 | 92 | 94 |  |
| Other Non Cash Changes |  | 311 | 323 | 351 | 302 | 382 | 528 | 120 | 121 | 121 | 121 | 122 | 122 | 122 | 123 | 123 | 123 | 124 |  |
| FCFF |  | 839.2 | 523.8 | 261.3 | 573.3 | 557.4 | 799.9 | 601.3 | 743.6 | 827.0 | 829.5 | 820.2 | 838.3 | 912.8 | 997.9 | 1,036.0 | 1,077.2 | 1,071.2 | 1091.6 |
|  |  |  |  |  |  | Discount |  | 7.62\% | 7.62\% | 7.62\% | 7.62\% | 7.62\% | 7.62\% | 7.62\% |  |  |  |  | . $2 \%$ |
|  |  |  |  |  |  | Time A |  | 0.64 | 1.64 | 2.64 | 3.64 | 4.64 | 5.64 | 6.64 | 7.64 | 8.64 | 9.64 | 10.64 |  |
|  |  |  |  |  |  | PV of |  | 573.9 | 659.4 | 681.4 | 635.0 | 583.3 | 553.9 | 560.5 | 569.3 | 549.1 | 530.5 | 9,216.0 | 19,070.1 |


| Inputs | Value |  | Notes |
| :--- | ---: | ---: | :--- |
| Valuation Date |  | $5 / 13 / 20$ |  |
| Srock Price $(5 / 13 / 20)$ | $\$$ | 102.22 |  |
| Terminal Rate |  | $1.9 \%$ | Fed LT GDP |
|  |  |  |  |
| Risk Free Rate | $0.64 \%$ | Treasury |  |
| Beta | 1.2 | Valueline |  |
| Equity Risk Premium | $8 \%$ | LT Avg |  |
| CAPM | $9.66 \%$ |  |  |


| Cost of Equity |  |
| :--- | ---: |
| Weighted Debt | $32 \%$ |
| Weighted Equity | $68 \%$ |
| Cost of Equity | $9.66 \%$ |
| Cost of Debt | $4.65 \%$ |
| WACC | $\mathbf{7 . 6 2 \%}$ |


| FCFF | Value |
| :--- | ---: |
| PV of FCFF | $15,112.42$ |
| +Cash | 253.00 |
| -Debt | $2,437.90$ |
| Equity Value | $12,927.52$ |
| Number of Shares | $\$ 84.00$ |
| Current Price |  |
| Target Price (FCFF) | $\$ 102.22$ |
| Margin of Safety |  |

## APPENDIX 5: RELATIVE VALUATION

| Relative Valuation Model |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Name | 2Y Corr | Mkt Cap (USD) | P/E | EV/EBITDA |  |
| Avery Dennison Corp | 8519018378 |  |  | 11.08 | 13.6674 |
| Current Premium to Comps Mean |  |  |  | -4.41 | -1.4132 |
| RPM International | 0.6389 | 8607283388 |  | 20.4712 | 13.7008 |
| Ashland Global Holdings | 0.63 | 3570533663 |  | 21.1609 | 10.1487 |
| HB Fuller Co | 0.6287 | 1641042727 |  | 11.9016 | 8.6157 |
| Albemarle Corp | 0.6016 | 6348284442 |  | 15.5373 | 11.6319 |
| Minerals Technologies Inc | 0.5925 | 1401990952 |  | 10.6587 | 6.9393 |
| Median | 0.6287 | 3570533663 |  | 15.5373 | 10.1487 |
| Average | 0.62 | 5014692258.33 |  | 15.95 | 10.21 |
|  |  | Target Price | \$ | 91.25 |  |

## APPENDIX 6: REVENUE DRIVERS

PJT Partners Inc (PJT US) - Segment

| In Millions of USD except Per Share | 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 | FY 2027 | FY 2028 | FY 2029 | FY 2030 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 Months Ending | 12/28/13 | 01/03/15 | 01/02/16 | 12/31/16 | 12/30/17 | 12/29/18 | 12/28/19 | 12/29/19 | 12/30/19 | 12/31/19 | 01/01/20 | 01/02/20 | 01/03/20 | 01/04/20 | 01/05/20 | 01/06/20 | 01/07/20 | 01/08/20 |
| Total Revenue | 6,140.0 | 6,330.3 | 5,966.9 | 6,068.5 | 6,613.8 | 7,159.0 | 7,070.1 | 6,980.5 | 7,065.3 | 7,226.1 | 7,462.6 | 7,709.6 | 7,933.1 | 8,139.5 | 8,317.1 | 8,499.3 | 8,686.2 | 8,878.0 |
| Label \& Graphic Materials |  | 3.10\% | -5.74\% | 1.70\% | 8.99\% | 8.24\% | -1.24\% | -1.27\% | 1.21\% | 2.28\% | 3.27\% | 3.31\% | 2.90\% | 2.60\% | 2.18\% | 2.19\% | 2.20\% | 2.21\% |
|  |  |  | 4,250.7 | 4,187.3 | 4,511.7 | 4,851.1 | 4,745.9 | 4,791.0 | 4,910.8 | 5,045.8 | 5,172.0 | 5,301.3 | 5,433.8 | 5,542.5 | 5,653.3 | 5,766.4 | 5,881.7 | 5,999.3 |
|  |  |  |  | -1.49\% | 7.75\% | 7.52\% | -2.17\% | 0.95\% | 2.50\% | 2.75\% | 2.50\% | 2.50\% | 2.50\% | 2.00\% | 2.00\% | 2.00\% | 2.00\% | 2.00\% |
| Retail Branding \& Information Solutions | 1,613.5 | 1,594.0 | 1,522.2 | 1,448.3 | 1,514.4 | 1,617.9 | 1,670.9 | 1,603.2 | 1,619.3 | 1,655.7 | 1,713.6 | 1,773.6 | 1,801.1 | 1,829.0 | 1,857.4 | 1,886.2 | 1,915.4 | 1,945.1 |
|  |  | -1.21\% | -4.50\% | -4.85\% | 4.56\% | 6.83\% | 3.28\% | -4.05\% | 1.00\% | 2.25\% | 3.50\% | 3.50\% | 1.55\% | 1.55\% | 1.55\% | 1.55\% | 1.55\% | 1.55\% |
| Industrial and Healthcare Materials |  |  | 461.0 | 453.8 | 590.9 | 694.7 | 673.9 | 586.3 | 535.3 | 524.6 | 577.0 | 634.7 | 698.2 | 768.0 | 806.4 | 846.8 | 889.1 | 933.6 |
|  |  |  |  | -1.56\% | 30.21\% | 17.57\% | -2.99\% | -13.00\% | -8.70\% | -2.00\% | 10.00\% | 10.00\% | 10.00\% | 10.00\% | 5.00\% | 5.00\% | 5.00\% | 5.00\% |


[^0]:    ■ Avery Dennison Corp ■ Verso Corp ■ Other

