INTRINSIC VALUE ASSESSMENT OF

TILLYS (TLYS)

MAY 12, 2019

This article was written with Robert Leonard from The Investor's Podcast

Introduction

With 229 stores spread across the United States and its headquarters in Irvine, California, Tillys is a specialty brick-and-mortar apparel retailer with a growing e-commerce platform. Through its larger-than-average physical stores and its online store, Tillys sells various well-known brands, such as Nike, Vans, Adidas, and RVCA, as well as its own exclusive brands (Full Tilt, RSQ, Sky & Sparrow, White Fawn, Ivy + Main, and Blue Crown).

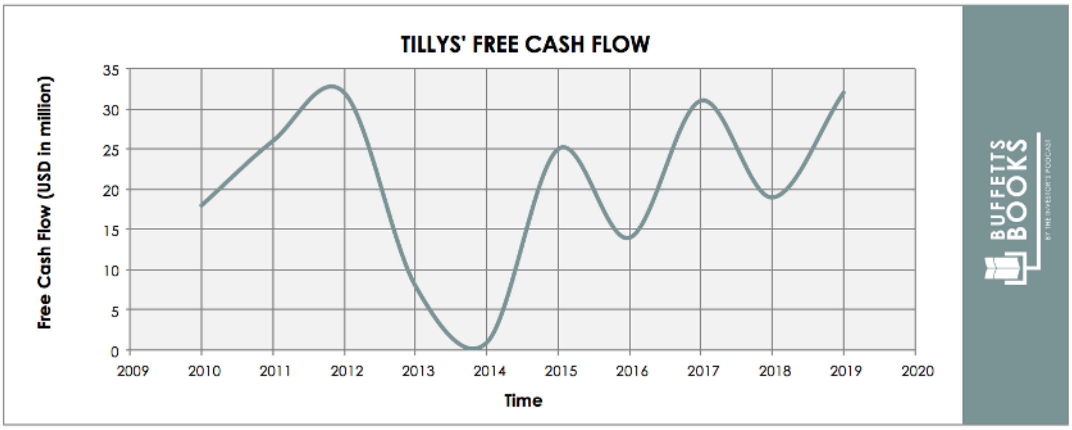
At the time of this writing, Tillys' market capitalization is about $352 million and its revenue and cash flows for the 2018 fiscal year* were $598 million and $32 million, respectively. Currently trading at about $11.82, the stock has hit a 52-week low of $10.19 and a 52-week high of $25.46. At today's price of $11.82, is Tillys' stock undervalued?

TILLYS
CLOTHING • SHOES • ACCESSORIES

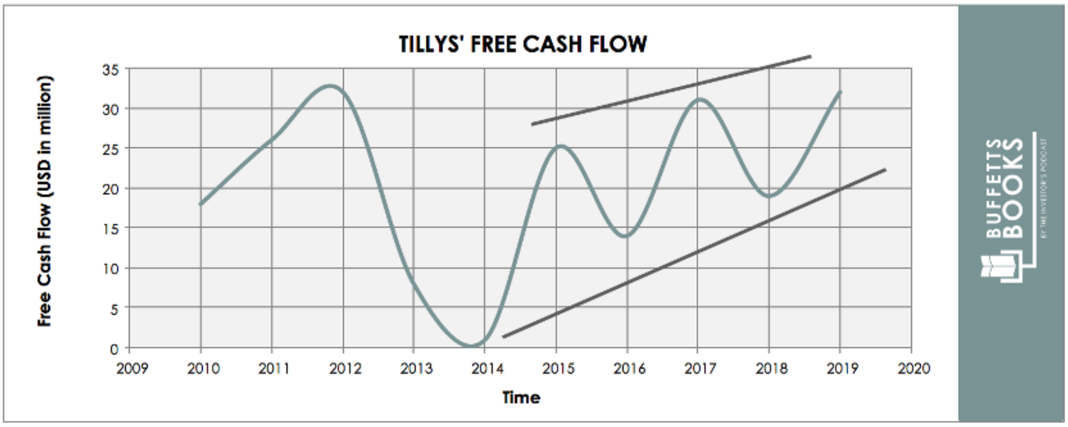
**Note on Tillys' Fiscal Years from its Annual Report: "Our fiscal year ends on the Saturday closest to January 31. For example, "fiscal 2018" refers to the fiscal year ended February 2, 2019; "fiscal 2017" refers to the fiscal year ended February 3, 2018; and "fiscal 2016" refers to the fiscal year ended January 28, 2017.*

The Intrinsic Value of Tillys

With net income being easily manipulated and not a true representation of the cash available to a company's owners, we will use Tillys' free cash flow to value its stock. Using the free cash flow allows investors to value the company based on the actual cash it generated, which can be used to reinvest in the business, pay dividends, or buy back its own stock. Below is a chart of Tillys' free cash flow for the past ten years.

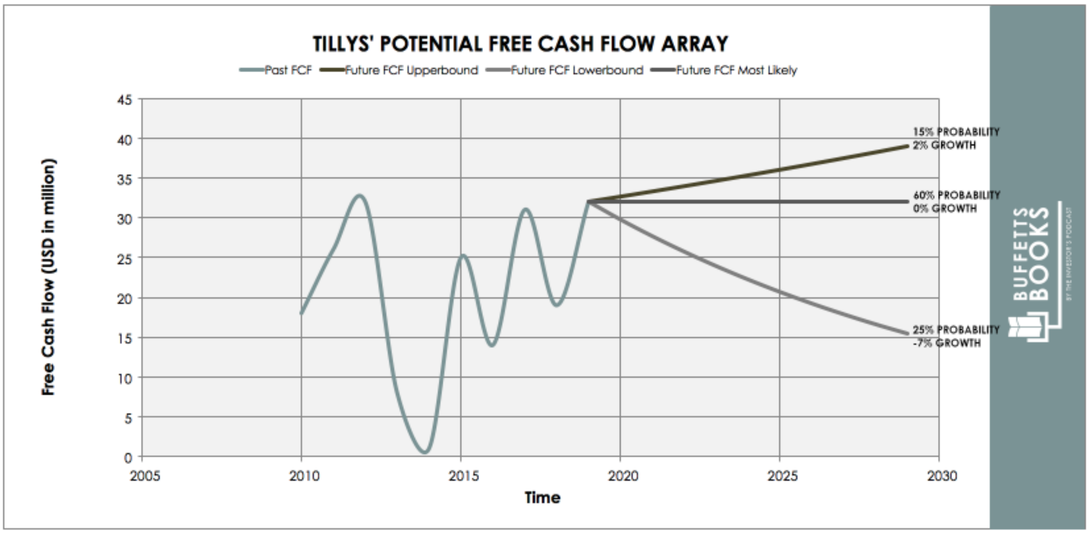


Tillys' free cash flow saw strong growth the three years prior to its Initial Public Offering (IPO) on May 4th, 2012. Likely in an attempt to win over the public markets, management began reinvesting heavily in the business, which significantly increased its capital expenditures (CapEx) and therefore reducing its free cash flow. After 2014, its most capital-intensive year over the past decade, management scaled back its CapEx spending in 2015 and continues to do so to this day. This reduced CapEx spending over the past five years has led to a generally increasing free cash flow trend, as illustrated by the black arrows in the graph below.



From 2010 to 2019, Tillys' free cash flow grew from $18 million to $32 million, for a compounded annual growth rate (CAGR) of 6% (78% cumulatively).

To value Tillys' stock, its future free cash flows must be estimated. To do this, the array model below has been developed to account for three potential outcomes of Tillys' future free cash flows.



The upper-bound line illustrates a 2% growth rate with a 15% probability of occurrence. This growth rate was determined by using the United States governments' target inflation rate of 2%, as well as discounting Tillys' current earnings yield (inverse P/E ratio) by about two-thirds (66%) in order to build in a margin of safety for the risks we will visit in the 'Risks' section below. It was assigned this probability to allow for the potential of some growth - conservatively estimated at the country's target inflation rate - while also accounting for the challenges Tillys would face in the coming years, as its previously obtained growth rates are unlikely to materialize again over the next decade.

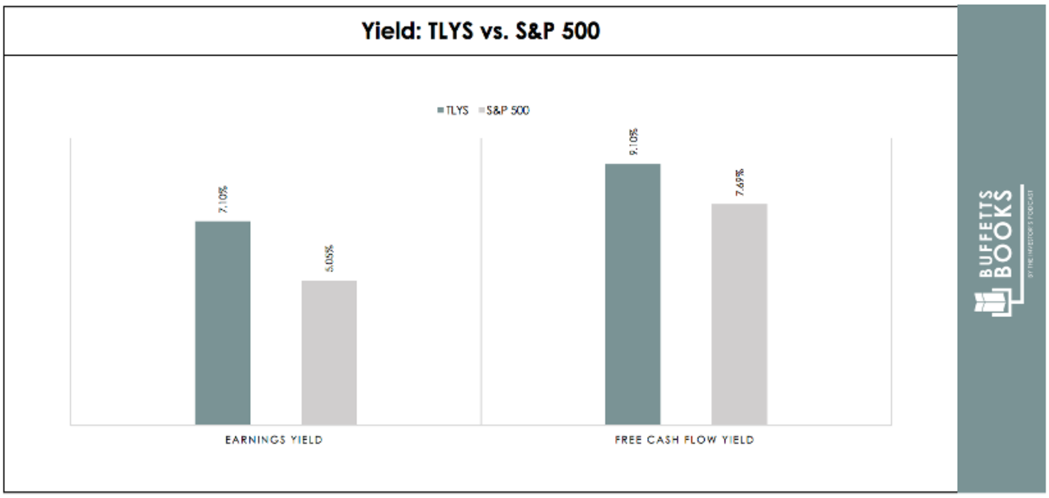
The middle line represents a 0% growth rate with a 60% probability of occurrence. This outcome assumes that Tillys will face competitive and economic pressure, but will be able to maintain its current free cash flow levels by using its large stores to provide an above-average experience for its customers and further improving its online presence.

Finally, the lower-bound line illustrates a -7% contraction with a 25% probability of occurrence. The contraction in Tillys' free cash flow generation is assuming that online retailers, such as Amazon, continue to disrupt the retail industry and that the United States economy enters into a recessionary period, resulting in a significant slowdown in consumer spending on discretionary items.

The noticeable pessimistic skew of growth rates and probabilities to the downside and the 85% probability that Tillys will have zero or negative growth over the next decade may appear high, but this is to allow for a conservative valuation. Given where we currently are in the market cycle, it is likely wise for investors to err on the side of caution when creating valuation models, as we have done here. It certainly is possible for Tillys to outperform these estimates, but it behooves investors to add in a margin of safety and be a bit defensive, especially in market conditions like today. If the expected return is satisfactory with conservative estimates, any outperformance of these growth rates will provide investors with an added bonus.

It is also important to recognize that the above-estimated growth rates are *not* expected to be exact every year for the next decade. The growth rate is expected on an annualized basis. As they have from 2014 to 2019, Tillys' results will likely fluctuate from year-to-year. We shall not try to estimate those results; rather we look to estimate accurate growth rates annualized over the next decade. Assuming the estimated outcomes discussed above prove accurate, Tillys' stock may be priced at a 7.0% annual return at today's price.

Two other valuable quantitative metrics to consider when considering a stock's return are the earnings yield and free cash flow yield. At the time of this writing, Tillys' current earnings and free cash flow yields (inverse P/FCF ratio) are 7.1% and 9.1%, respectively. Its earnings and free cash flow yields both illustrate a similar expected return to that of our discounted cash flow (DCF) analysis above. Tillys also appears to be priced for a better-expected return over the next decade than does the S&P 500. The graph below illustrates the earnings and free cash flow yields for Tillys and the S&P 500.



The Competitive Advantage of Tillys

Tillys has multiple advantages that will be discussed in detail below:

- **Financial Strength.** As of its most recent 10-K, Tillys cash and cash equivalents total about $15 million *more* than its total liabilities. It has no debt, a growing cash position, and inventory levels that have remained satisfactory. Tillys current and quick ratios are 2.2 and 1.5, respectively. Over the last decade, it has shown revenue and free cash flow growth, while maintaining its margins. These characteristics not only allow Tillys to be in a position to take advantage of future opportunities, but it should also help the company weather an economic downturn.

- **Omnichannel Strategy.** Tillys has been successfully implementing an omnichannel strategy that provides its customers with a better, more streamlined experience. Customers are able to purchase products through its e-commerce platform and pick them up in-store. This is an important feature, specifically for clothing retailers, because purchasing clothes/shoes/accessories online has been notoriously frowned upon by consumers. However, Tillys is able to provide a more pleasant experience for customers by allowing them to be able to see the items online and then trying the items on in-store – often preceding the tedious online shopping return process that might arise from purchasing clothing through other online retailers, such as Amazon.
- **Customer Experience.** Tillys' management team has been successfully following the trend of improving the customer experience to compete with online retailers. The physical stores have been designed to not only carry the trendiest clothing but to also provide a great atmosphere to shop. Tillys is also launching a promotion called "Second Saturdays" in which they host in-store parties. The success of this venture is yet to be seen, but it illustrates management's focus on improving the customer experience.

Risk Factors

Although Tillys has competitive advantages, it is not without risks that could weaken an investor's returns.

- **Large Stores.** Tillys' large stores are the proverbial double-edged sword. They allow Tillys to differentiate itself from its most direct competitors (Pac Sun and Zumiez) by carrying a much larger variety of products and being a destination retailer. When the economy is strong, this plays into Tillys hand by benefiting from strong consumer spending, but when the economy takes a turn for the worse, it has significantly more overhead than its competitors with a smaller store format.
- **Severe Competition.** Tillys not only has competition from online retailers and other brick-and-mortar retailers, but it is also competing directly with the brands it sells, such as Nike. It is competing directly with the major brands it sells in two different ways; The first, Tillys has its own exclusive brands that it sells, which competes in-store with other well-known brands. The second, well-known brands have begun cutting out the middle-man, Tillys in this case, to go directly to the consumer. The rise of e-commerce and the strength of their brands has allowed large consumer brands to sell directly to its customers through its own online stores.
- **Lack of Switching Costs/Stickiness.** Customers cannot get Tillys' RSQ or Ivy + Main products in other stores, but they can get products very similar, as well as the other major consumer brands, in other stores. Customers are able to go to Pac Sun, Zumiez, Foot Locker, Target, Walmart, or various other stores to purchase many of the well-known non-exclusive brands that Tillys carries without suffering from any switching costs.

Opportunity Costs

It is not enough to simply analyze a company in isolation and make an investment decision. Investors must compare the expected return of one investment with the others available in the market. We previously saw that based on earnings and free cash flow yields, Tillys is expected to outperform the S&P 500 over the next decade. We also saw that our free cash flow estimates for Tillys led to a potential annual return of about 7.0%. Assuming the S&P 500 reverts to its long-term mean Shiller P/E ratio from its current level of about 29.4, the expected return for the S&P 500 is -1.4%. 10-year treasuries are currently yielding 2.451% at the time of this writing. These three comparisons indicate that Tillys may outperform the S&P 500 and 10-year treasuries over the next decade. However, there may be other individual stocks that offer a similar, or better, risk-adjusted return.

Macro Factors

Although individual investors should not attempt to time the market, it would be unwise to not at least consider the overall macro environment when making an investment decision. According to one of Warren Buffett's favorite market valuation indicators, Wilshire 5000 Total Market Cap vs. GDP, the overall market is significantly overvalued, and at one of its most expensive points since 1971. The Wilshire 5000 Total Market Cap is currently at 163% of GDP, which is 63% higher than the peak before the Housing Crisis and 45% higher than the peak before the Dot Com Bubble.

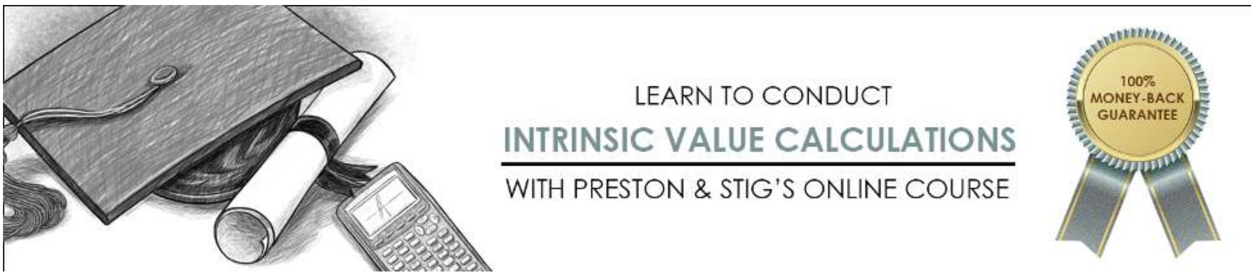
The S&P 500 is currently priced over 70% higher than its historical average on a Shiller P/E basis. Unemployment is current at, or near, 50-year lows, and U.S. private debt levels have exceeded the previous financial crisis. It is not possible to accurately estimate when a downturn will come, but economic and stock market characteristics are pointing towards a potential peak.

Summary

Buffett recommends, "be fearful when others are greedy, and greedy when others are fearful." The market is certainly being fearful towards the retail sector, which indicates there may be an intriguing opportunity for value investors. However, investors must also be careful of falling victim to a value-trap, which many retail companies have been as of late (for example, Bed Bath and Beyond and JC Penney).

Tillys is currently selling at a discount to our calculated intrinsic value due to its economic risk, large overhead costs, competition, lack of switching costs, and being a part of a sector that is out of favor. These risks are very real, and investors must consider them, but when doing so, they must be objectively and realistically compared to the potential upside and advantages Tillys has. Given the assumptions outlined in this analysis, a return of 7% can be expected.

Disclaimer: The author does not currently hold any ownership in Tillys (TLYS) and does not expect to within the next 72 hours.



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