

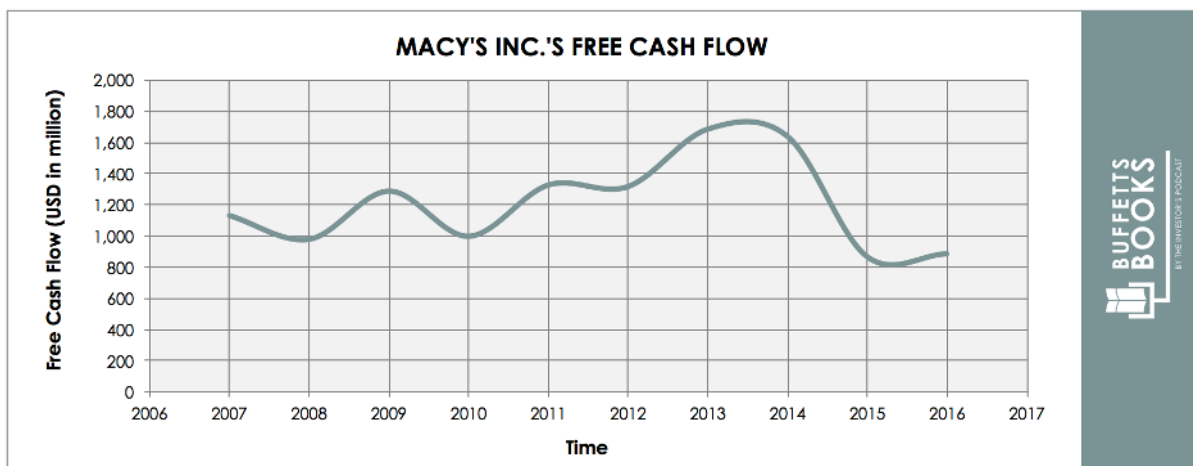
## Introduction

Macy's Inc. is an American holding company which owns the Macy's and Bloomingdale's department store chains. These stores specialize in the sale of footwear, accessories, bedding, furniture, jewelry, beauty products, and housewares. Macy's Inc. is an S&P500 company with a market capitalization of \$7.5 Billion. Its revenues and free cash flow for the financial year 2017 were \$25.78 Billion and \$0.89 Billion respectively. The company's common stock has fluctuated between a low of \$17 and a high of \$40 over the past 52 weeks and currently stands at around \$25. Is Macy's Inc. undervalued at the current price?

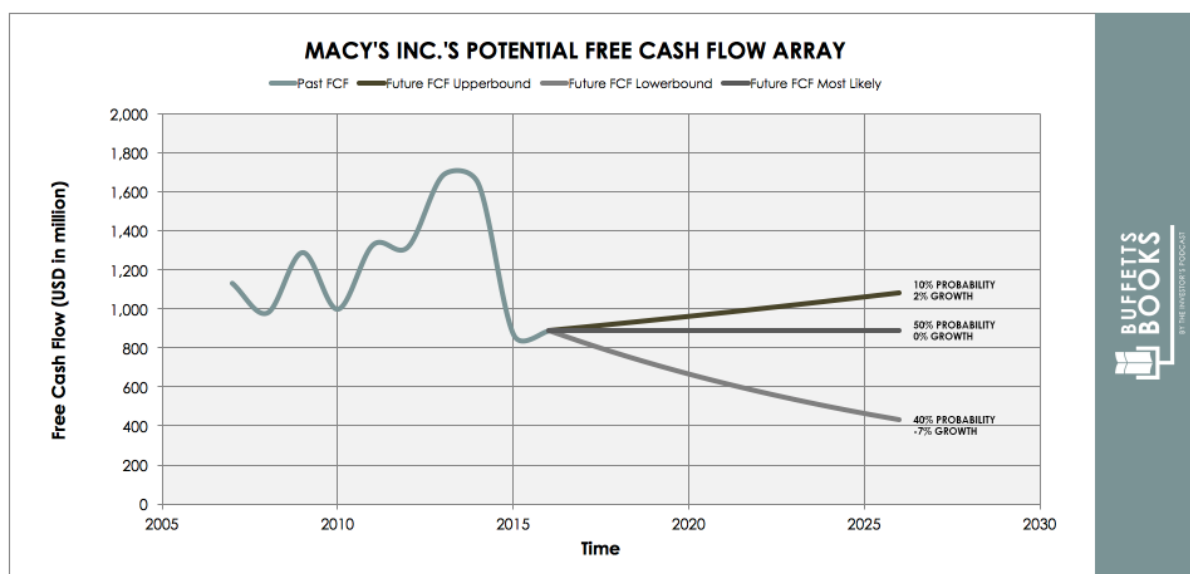


## The Intrinsic Value of Macy's Inc.

To determine the intrinsic value of Macy's Inc., we'll begin by looking at the company's history of free cash flow. A company's free cash flow is the true earnings which management can either reinvest for growth or distribute back to shareholders in the form of dividends and share buybacks. Below is a chart of Macy's Inc.'s free cash flow for the past ten years.



As one can see, the company's free cash flow has fluctuated over the past decade, experiencing a significant decline in recent years as the pressure from online competition has grown. In order to determine Macy's Inc.'s intrinsic value, an estimate must be made of its potential future free cash flows. To build this estimate, there is an array of potential outcomes for future free cash flows in the graph below.



When examining the array of lines moving into the future, each one represents a certain probability of occurrence. The upper-bound line represents a 2% growth rate which assumes that the (trailing twelve months) rise in free cash flow continues. This has been assigned a 10% probability of occurrence since it is unclear as to whether this is merely a temporary improvement. This low level of probability also accounts for the fact that the retail space is facing significant headwinds from the continuing growth of online competition.

The middle growth line represents a 0% growth rate and assumes that free cash flow stagnates and that the recent improvement does not continue. It has been assigned a 50% probability of occurrence since the disruption in the retail space is significant.

The lower bound line represents a -7% growth rate in free cash flow growth and has been assigned a 40% probability of occurrence. This lower bound rate assumes that the company's free cash flow contracts as online competition claim a larger portion of market share and that margins continue to shrink. Macy's has, so far, managed to maintain only slightly decreasing gross margins but rather in the infrastructural investment reflected in lower operating margins. Assuming these potential outcomes and corresponding cash flows are accurately represented, Macy's Inc. might be priced at a 9.2% annualized return if the company can be purchased at today's price. We'll now look at another valuation metric to see if it corresponds to this estimate.

Based on Macy's Inc.'s current earnings yield, which is the inverse of its EV/EBIT ratio, the company is projected to return around 10.8%. This is marginally above the firm's 13-year historical median average of 10.10%, suggesting that the company is marginally undervalued relative to its historical median average. Finally, we'll look at Macy's Inc.'s FCF yield, a metric which measures a company's current free cash flow relative to its market capitalization. At present, the company's FCF yield stands at around 14%, but this ratio does not take into account future growth or contraction in free cash flow and thus should be viewed with caution.

Taking all these points into consideration, it seems reasonable to assume that Macy's Inc. is trading at a marginal discount to fair value at present. Furthermore, the company may return around 9% at the current price if the estimated free cash flows are achieved. Now, let's discuss how and why these free cash flows could be realized.

## The Competitive Advantage of Macy's Inc.

Macy's Inc.'s competitive advantages have been significantly weakened over recent years, and there is a strong likelihood that this trend will continue. As such, it should be assumed that the following competitive advantages are no longer durable.

- **Cost Advantage.** Macy's Inc. is currently undergoing an extensive cost-cutting program which includes the closure of around 100 low-profit stores and the lay-off of around 10,000 employees. Macy's plans to use these savings to boost margins to offset declining sales. This cost advantage is not sustainable in the long-term and as such is not durable. At present, however, these efforts are allowing Macy's to out-perform the industrial averages on some key performance metrics outlined below.

	<b>Macy's Inc.</b>	<b>Industry Average</b>
<b>ROA (ttm)</b>	3.40%	0.40%
<b>ROE (ttm)</b>	17.40%	2%
<b>Operating Margin % (ttm)</b>	5.70%	2.90%
<b>Net Profit Margin % (ttm)</b>	2.80%	0.30%

- **Brand Value.** While Macy's Inc.'s brand has been declining in value, it is still ranked in the global 500 brands list. According to brand consulting firm Brand Finance, Macy's Inc. is ranked at 298 as of 2017, down from 239 in 2016.
- **Portfolio of Retail Assets.** Macy's Inc. currently owns a huge portfolio of real estate assets worth around \$21 Billion. Gains from asset sales accounted for roughly 20% of profits in 2017 at around \$300 Million. While asset sales are not a long-term solution for declining sales, Macy's Inc. could potentially maintain its current pace of asset sales for several decades to support its future free cash flows.

## Macy's Inc.'s Risks

Now that Macy's Inc.'s competitive advantages have been considered, let's look at some of the risk factors which could impair my assumptions of investment return.

- The disruption in the retail markets is likely to intensify as e-commerce further proliferates and more online competition emerges. If Macy's Inc. does not take steps to adapt to the changing landscape, it is likely to continue its secular decline. Keep in mind that if Macy's Inc. is trying to expand in the online space, the margins will likely shrink even though the top line might improve.
- Macy's Inc.'s cost-cutting program may further damage the company if it results in an impairment of the company's brand value and market presence. This type of cost advantage is not sustainable and will not translate into long-term economic out-performance
- The emergence of a serious economic crisis similar to that witnessed in 2008 could materially impact the company's revenues and profits leading to lower growth in the coming years. While Macy's Inc. is engaging in cost-cutting and asset sales to support profits, a fall in consumer confidence and spending would be detrimental to the company's economic performance.

## Opportunity Costs

Whenever an investment is considered, one must compare it to any alternatives to weigh up the opportunity cost. At present, 10-year treasuries are yielding 2.37%. If we take inflation into account, the real return is likely to be closer to 1%. The S&P 500 Index is currently trading at a Shiller P/E of x 31.4 and, at present, is likely to return around 2-3%. While Macy's Inc. appears only to be trading at a marginal discount to fair value, it may still offer a higher rate of return than both US Treasuries and the S&P 500 Index. There are, however, other individual stocks to be found which may offer a more favorable return relative to the risk profile.

## Macro Factors

Investors must consider macroeconomic factors that may impact economic and market performance as this could influence investment returns. At present, the S&P is priced at a Shiller P/E of 31.4. This is around 87% higher than the historical average of 16.8, suggesting that markets are at elevated levels. U.S. unemployment figures are at a 30-year low, suggesting that the current business cycle is nearing its peak. U.S. private debt/GDP currently stands at 199.6% and is at its highest point since 2009 when the last financial crisis prompted private sector deleveraging.

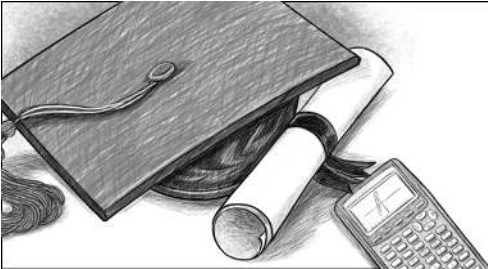


## Summary


The future for Macy's Inc. looks extremely uncertain at present. While the company may be able to compensate for declining sales through its cost-cutting program and asset sales, this is obviously not a long-term solution to address its secular decline. For the company to have a successful future, it must successfully develop its omnichannel e-commerce platform to compete with Amazon and other online competitors. The TIP mastermind group discussed the challenges of the conventional retail sector [in this episode](#).

Macy's Inc. must also take steps to address the weakening of its brand value, which is likely to require significant investment to achieve. The company's \$21 Billion real estate portfolio does offer for the possibility for an activist investor to take control of the firm to unlock value to be returned to shareholders and as such, it may be worth monitoring the situation to see how it develops. It should also be noted that Macy's Inc. currently carries a significant level of debt with a D/E ratio of 1.5. Furthermore, its liquidity position is weak as evidenced by a current and quick ratio of 1.29 and 0.12 respectively.

In an overvalued market, Macy's Inc. appears marginally undervalued with an estimated return of around 9.2%. However, there are likely good reasons for this as it certainly carries a high level of uncertainty and risk. Investors should proceed with caution when considering the stock and to assume that the estimated rate of return is subject to some potentially unstable factors.



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