



Part I: The Value of a Crystal Ball

You probably do not know who Jim Simons is. He likes it that way. Simons is a quiet figure who is not interested in self-promotion and does not need to be told how great he is. Despite undoubted countless interview requests over the past 35 years, Simons has largely declined the opportunity to tell his story. The flagship investment fund he started in 1988 and managed until his retirement in 2009, Renaissance Medallion, is not a well-known brand. You won't find promotional materials from Simons or Renaissance boasting to the investment community of how great they are. Even most investment professionals do not know the [story of Jim Simons](#).

Yet the reality is that Jim Simons is probably the greatest investor ever and that is not written as hyperbole. In the 28 years since its inception, Simon's Renaissance Medallion Fund has produced roughly \$55 billion in profits for its investors. This makes it about \$10 billion more profitable than any other fund ever. Between 1994-2014, the fund averaged a 71.8% annual return meaning that a \$10,000 investment in 1994 would have turned into a modest \$502 million 20 years later.

In making the case for Simons as the greatest investor ever, it is also worth noting that these hard-to-believe returns came with almost no downside. The fund he managed has almost never experienced a negative month and the worst calendar year return since 1990 was a 21.2% gain in 1997. That's right - a 21.2% gain was the *worst* one-year return. In 2008, when financial markets were cratering, the fund earned 98.2% for its investors.

It is reasonable to conclude that not since Biff Tannen^[i] has anyone had a knack like Simons for consistently predicting the future. In fairness, Simons did not necessarily predict economic or market events in the way that Tannen predicted the outcomes of sporting events. Simons and his team of PhDs have just been better than the rest of the world at understanding financial relationships and probabilistically forecasting how those relationships might change in the future – even if the future was measured in nanoseconds.

Simons is the outlier. Many have likely claimed to have the magic touch or predictive abilities but no one has really delivered in the same way. If it were easy to replicate or if everyone could predict the future well, there would not be an advantage and there would be no economic benefit to doing so.

What is the value of a crystal ball?

What if you could predict the future like Simons? How much would you realistically charge others who wanted to purchase this valuable foresight from you? We should be able to agree that if you were a financial advisor who could forecast the future, you would be ill-advised to charge fees of 2% per year. That would be the bargain of bargains. Rather, you would charge egregiously high fees - as in the fees of more than 20% per year^[ii] that Jim Simons charged outside investors to manage their investments. This is how much you charge when you can predict the future.

But don't bother trying to figure out how to invest with Simons, even if the egregious fees are not a dissuading factor. Simons and Renaissance won't take your money. They won't take anyone's

money and it has been a long time since they have. In fact, they gave back all external investor funds well over a decade ago. For the better part of 20 years, Simons and his team have been investing only their own money. When you can predict the future, you don't need other people's money to get rich. Outside capital just becomes a hindrance.

Similarly, Biff Tannen did not need to sell his knowledge of the future via a 'tip of the week' newsletter or an expensive co-investment vehicle. This again would have been an ineffective means to generate wealth. He was far better off using his foresight for his own investments.

What can we learn from Jim Simons and Biff Tannen?

1) As a public service reminder, anyone who can consistently predict the events of tomorrow is not likely to be found selling his or her knowledge for 1% annual management fees or via a \$999/year newsletter. If you catch yourself relying on an investment newsletter or an investment advisor to tell you what stock to buy this week or when to sell before a market correction, you would be well-served to reconsider your decision framework. Moreover, answer this question: if the author of this newsletter or the advisor providing a hot investment idea is so confident about the future, why is he or she sharing that knowledge with me? Like Simons and Tannen, wouldn't he/she be better served to keep that information private and profit from it, individually?

2) The short-term returns of a diversified portfolio are going to be boring and pedestrian compared to the returns of Biff Tannen and Jim Simons. As the late Paul Samuelson said, "Investing should be more like watching paint dry or watching grass grow. If you want excitement, take \$800 and go to Las Vegas."

3) Investors – not all of them but at least many of them – want extraordinary returns like those of Tannen or Simons and they're not patient in waiting for them. They subsequently spend lots of money and time trying to find a crystal ball or at least someone else who has access to a crystal ball. [As evidenced here](#), this quest tends to end badly.

It should come as no surprise to our clients or anyone who has followed our writings that we do not claim any ability predict the future. (Well, that's not totally true. We do claim some ability to predict the future. More on that in [part II of our investment commentary](#).) Instead, we leave our hubris at the door and humbly resign ourselves to adding value for our clients in ways that do not include fortune-telling, predicting short-term market movements, discovering the next great fund manager, or market timing. We instead 'resign' ourselves to adding incremental value from underappreciated and underutilized activities like intentional asset location, tolerance band rebalancing, tax efficient portfolio distribution strategies, regular tax loss harvesting, and the use of smart beta strategies, to name a few. These activities and others that we pursue to add incremental value are not intended to be glamorous. They're intended to help make financial plans more successful.

Now, we'll go back to these unexciting activities and others go back to predicting the future.

Part II: Forecasting the Future

Let's start with a debatable, but widely held fundamental concept of investing: the best predictor of future returns for stocks is the current valuation. This is generally true of a single stock, a sector, or an entire country's stock market. Academics and practitioners debate whether important factors like gross profitability, price momentum, earnings momentum, yield, size, or reinvestment are useful to forecast future returns but you will be hard pressed to find anyone who discredits the importance of valuation. There is just too much overwhelming and robust empirical evidence to argue against it.

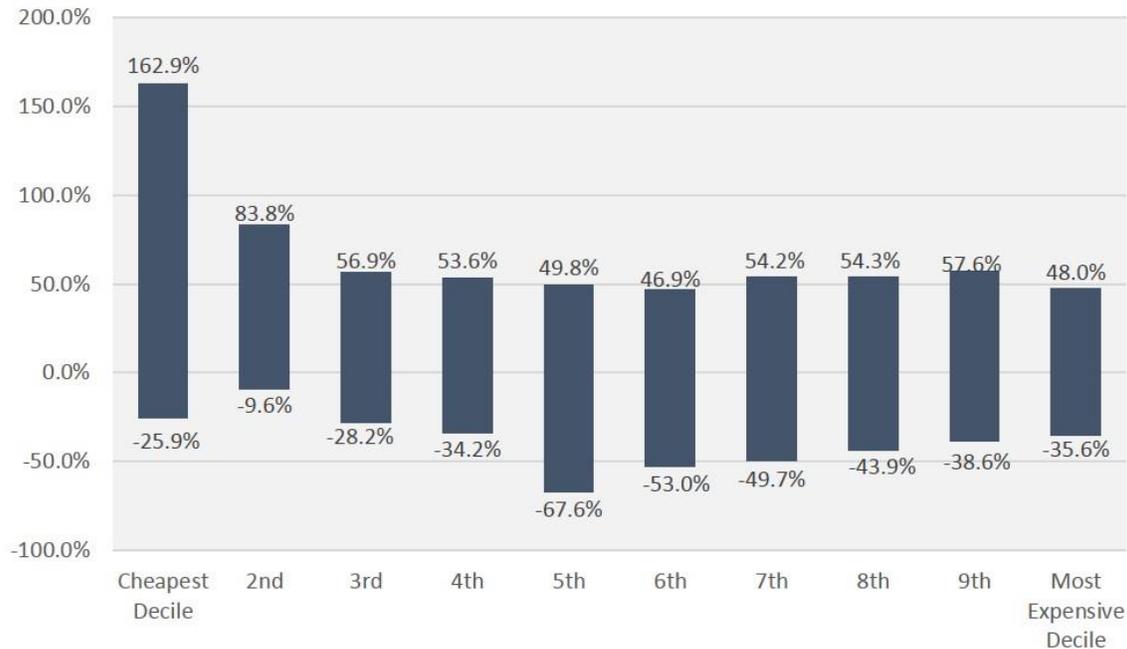
We still have to caveat the claim of valuation being the best predictor of future returns. It is arguably the best predictor of future long-term returns. It is decidedly not so useful as a predictive tool in the short-run. Let us explain.

It's not what you buy. It's what you pay.

There is no single agreed-upon perfect measure of value to evaluate stocks. At RPG, we have tested countless measures and rely on three value metrics to forecast stock returns. Of those three, our favorite measure (albeit, still an imperfect one) is the Cyclically Adjusted Price to Earnings ratio or CAPE and so we will use it here as our measure of value. At the end of the day, it generally tells the same story as the other two metrics.

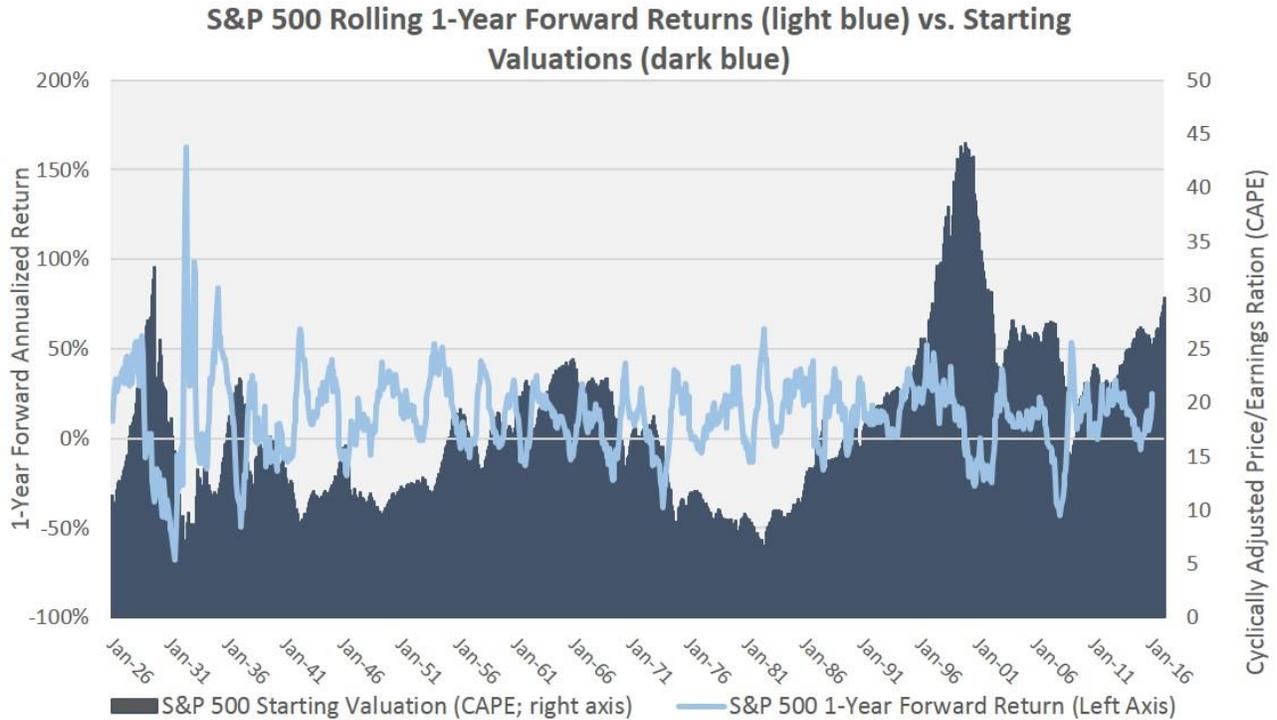
Readily-available CAPE data for the S&P 500 goes back to January 1926. For the charts that follow, we break up this monthly valuation data to find the cheapest 10% of months (1st decile), the 2nd cheapest 10% of months (2nd decile), and so on. These deciles can then be used to evaluate how the US stock market performed from different valuation starting points. The chart below shows those deciles and the range of 1-year returns for each one. For example, when the S&P 500 Index was at its cheapest starting points (far left), the range of returns over the next 12 months was -25.9% to 162.9%.

Range of 1-Year S&P 500 Returns According to Starting Valuation Decile



There are few well-evidenced conclusions one can draw from this data. What should become clear is that 1-year returns are not closely foretold by the starting valuation. Consider, for example, the investor who decides that she is not going to invest in US stocks when valuations are in the two most expensive deciles. This investor would have missed out on a 1-year gain of 48% starting in April 1997 or a 58% climb starting in September 1928. Alternatively, she would have experienced devastating 12-month losses had she only elected to own stocks when valuations were in the cheapest 50% of historical levels.

The chart below portrays the data differently. The dark-shaded blue area shows the valuation of the S&P 500 over the past 91 years. The Carolina blue line then illustrates the 12-month forward return of the S&P 500 from each starting point (and yes, there needed to be at least one subtle reference to the 2017 college basketball national champions). What should again become quickly clear is that one-year returns are all over the board and not clearly correlated with the market cheapness or richness.



However, when the time horizon is extended, there is far greater explanatory power of market valuation on future returns. The chart below uses all the same data but instead of the light blue line representing 1-year forward returns, it now represents 10-year forward returns. It should be more evident here that when valuations reach elevated valuations (late 1920's, late 1990's), future returns over the next decade are generally depressed. Alternatively, when valuations reach extreme lows (early 1930's, 1940's, late 1970's), future returns over the next decade are generally high.



To demonstrate this connection more clearly, the chart below plots each month dating back to 1926 using the horizontal axis as the starting valuation (stocks rich on the right side, cheap on the left side) and the vertical axis as future returns. Again, there is minimal linkage between valuations and 1-year returns in the first chart but an obvious connection in the 2nd chart using 10-year returns. For our statistically-inclined readers, the valuation model only explains 7% of the variability of 1-year returns but explains 54% of the variability of 10-year returns.

S&P 500 Rolling 1-Year Forward Returns vs. Starting Valuation

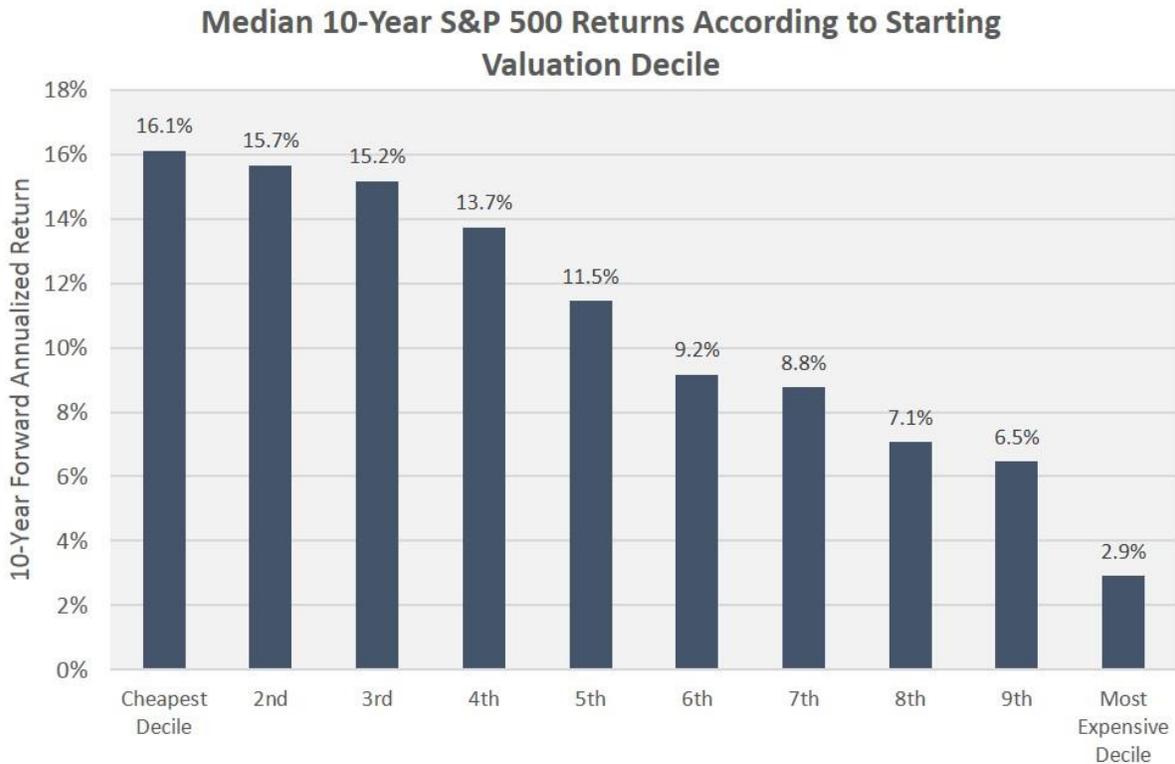


S&P 500 Rolling 10-Year Forward Returns vs. Starting Valuation



If you're not yet tired of charts, here's the final one which also may be the simplest. Below you see data from the same 91-year period with the cheapest markets on the left to the most expensive on the right. The trend here should be obvious to the naked eye: median 10-year returns are highest

when stocks are cheap and gradually decline in almost perfect formation as stocks become more expensive. Notably, the chart looks almost identical for averages but we spare one more chart.



So, what does all this mean?

We're done with charts and almost done with data. What are the takeaways?

We can predict the future...but it may take 10 years. Stock returns over long stretches are fairly predictable as evidenced from the data above. We realize that investing using long-term forecasts as our guide (and the patience they require) may not be ideal but we're committed to investing based on what we can reasonably well-predict rather than speculating on what we cannot.

Current equity valuations in the US are rich and returns over the next decade should be low. As of March 31, 2017, the CAPE stood at 29.2 which puts it cleanly in the most expensive decile of valuations. Per the table below, that does not inherently mean that future returns over the next decade will be negative or that there will be a massive correction. It simply implies that we should expect lower than normal returns from US stocks over the next 10 years.

	Average Valuation (CAPE)	Average 10-Year Forward Return	Median 10-Year Forward Return	Best 10-Year Forward Return	Worst 10-Year Forward Return
Cheapest Decile	8.6	15.3%	16.1%	21.4%	5.3%
2nd	10.3	15.8%	15.7%	21.4%	6.0%
3rd	11.5	14.3%	15.2%	19.2%	4.7%
4th	13.0	12.7%	13.7%	18.7%	2.7%
5th	15.0	12.0%	11.5%	19.5%	0.8%
6th	17.0	10.1%	9.2%	18.8%	0.4%
7th	18.7	8.7%	8.8%	17.4%	-0.4%
8th	21.0	6.3%	7.1%	12.1%	-4.2%
9th	24.1	5.5%	6.5%	10.3%	-1.8%
Most Expensive Decile	33.2	2.9%	2.9%	8.6%	-4.9%

Low expected returns for US stocks do not mean investors should take more risk or seek higher yielding assets. We wrote [here about the implications](#) and the three ways that investors can respond to such an environment.

There is a world beyond US borders. US stocks are expensive. Stocks outside of the US are not. We explained [this dichotomy in last quarter's investment commentary](#). The purpose of today's commentary was to demonstrate the strong long-term relationship between valuation and future returns. We use US data to demonstrate this connection because there is a longer history – not merely to highlight how rich US stocks are (although that's clearly a take-away).

We hope that we have not overwhelmed you with wonky charts and numbers. As always, we invite you to contact us if you have any questions about global investment markets, your finances, or if you wish to review the health of your financial plan.

With warm regards,

Resource Planning Group

[\[i\]](#) Biff Tannen was a fictional character in "Back to the Future", for anyone who missed the 1980s.

[\[ii\]](#) When it closed to new capital, Renaissance Medallion charged an annual fee of 5% and an incentive fee of 44% which translated to an all-in fee of more than 20% in most years.