Market Valuations and Future Returns

April 26, 2017

Equity market valuations are unambiguously high today. A Goldman Sachs study covering the last 40 years puts the S&P 500 index today in the 89th percentile of valuations and the median stock in the index at essentially all-time highs (99th percentile of valuations, **Exhibit 1**). This raises two questions: (1) why are equities priced so expensively and (2) what does it portend for future returns.

Exhibit 1: S&P 500 is expensive on most metrics vs. history[1]

	Aggregate Index		Median stock	
S&P 500 valuation metric	**Current**	**Historical Percentile**	**Current**	**Historical Percentile**
P/E to growth (PEG)	1.5 x	**96 %**	1.9 x	**100 %**
EV / Sales	2.2 x	**95**	2.8 x	**100**
EV / EBITDA	11.6 x	**89**	12.0 x	**99**
Forward P/E	18.1 x	**90**	18.2 x	**98**
Cyclically adjusted P/E (CAPE)	24.8 x	**86**	NA	**NA**
Price / Book	3.1 x	**82**	3.4 x	**99**
Free cash flow yield	4.1 %	**55**	4.5 %	**40**
Median metric		**89 %**		**99 %**

High valuations, if economically rational, should reflect either significant optimism about future earnings, a low discount rate for future earnings, or both. Today, a low discount rate is the more plausible explanation given that bond yields and other measures related to discount rates (like real estate cap rates) are at record lows while analysts' forecasts of earnings suggest solid but not spectacular growth.

To separate the earnings outlook from the discount rate question, we think about what would happen if the market's P/E ratio remained constant. In such a scenario, stock prices would track earnings growth and the return to investors would be the change in price (earnings growth) plus dividends. Given that the S&P 500 today has a dividend yield of 2% p.a., if future real EPS growth will be 3% p.a.—in line with forecasts of global GDP growth but 1% higher than forecasted U.S. GDP growth—then a constant P/E ratio would imply a future real return of 5% p.a. for the S&P 500. A 5% real return for equities going

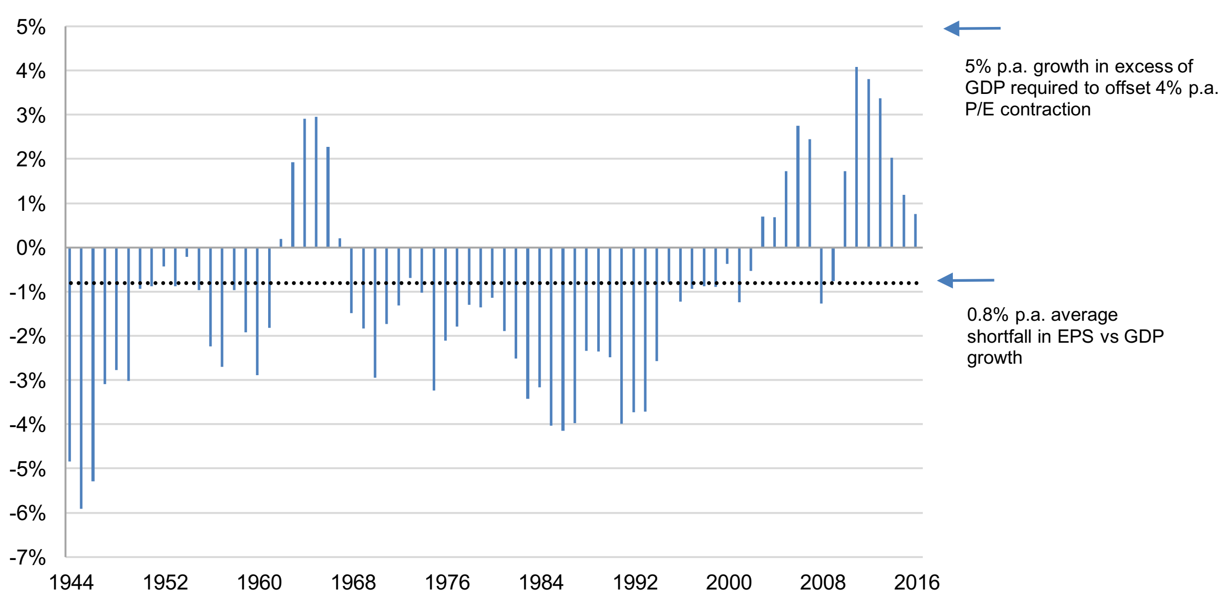
[1] Goldman Sachs, "Where to Invest Now. Gridlock", April 2017

forward would not be a far cry from historical returns—the S&P 500 delivered a 5.9% real return over the last half century and 7.0% real since 1925.

How unusual would 3% p.a. real earnings growth be? Earnings growth is correlated with broad economic growth (GDP) although the earnings of a specific set of firms will generally not participate fully in GDP growth. The broad economy constantly evolves, among other things because of innovation and the creation of new enterprises whose success need not be beneficial to existing firms—and in fact is often disruptive. On average and over the long term, the EPS of the firms in the S&P 500 index have grown 0.8% p.a. more slowly than GDP. This is true over the last 50 years and also since the 1920s (**Exhibit 2**).

In the last three decades, however, things have been different: rather than trail GDP, S&P 500 EPS have grown 1.6% p.a. faster. The reasons include a significant boost to EPS from share buybacks and also the fact that some of the largest firms by market capitalization today have been succeeding in winner-take-all contests and have been major beneficiaries rather than victims of innovation and disruption. Exhibit 2 shows how S&P 500 EPS and GDP growth have differed over trailing 20-year periods since the 1920s, and how earnings growth in the late 1980s onward has been almost unprecedented relative to long-term history.

Exhibit 2: S&P 500 Earnings Per Share Growth in Excess of U.S. GDP (trailing 20 years, annualized)



What if P/E ratios do not remain elevated? If P/E ratios were to revert to their long-term average, it would involve a contraction of at least 20%. If such a valuation decline were to occur over 5 years, it would impact equity returns by about -4% p.a., so what would have been a 5% real return would now become a 1% real return.

Of course, it's entirely possible that we are not being sufficiently optimistic in our base assumption of earnings growth. However, to offset the effect of 4% p.a. multiple contraction, earnings growth would have to exceed forecasted U.S. GDP growth by at least 5% p.a. For S&P 500 earnings growth to exceed U.S. GDP growth by that magnitude over five years would be very remarkable in the context of history. So it's a critical question for future returns whether valuation multiples will remain high (and discount rates low) - or not. The temptation is to believe that multiples and bond yields "have to" revert to historical norms, but that is far from obvious:

1. The market is not predicting a significant increase in interest rates. In the U.S., real yields are currently only 0.9% p.a. for 30-year inflation bonds, and -0.2% p.a. for 5-year inflation bonds. In other developed markets, they are even lower. For example, German 10-year inflation bonds are yielding -1.1% p.a. while U.K. 30-year inflation bonds are yielding -1.8% p.a. It's a real possibility that yields may not increase to historical norms for a long time.
2. An important possible explanation of low real yields is that the productivity of capital is low. It's not that the vast amounts of money on the sidelines today are being held in cash to mitigate risk, rather, that firms and individuals are having difficulty putting that cash to profitable use. Should that be the case, market valuations may well remain high.

It will take very robust corporate earnings for equity indexes such as the S&P 500 to perform better than middling from here given the headwinds of high valuations and low bond yields. But it would also be a strong statement to suggest that investors should get out of equities. Compression in P/E multiples might occur slowly over time and we currently do not see the catalysts that would accelerate that time frame.

In the face of this conundrum we are doing several things:

1. We are maintaining healthy exposures to equities, but we are doing so in a globally diversified fashion and with a strong reliance on bottom-up, value-oriented security selection (which we do primarily through investments with external managers).
2. We are utilizing a variety of risk metrics to actively monitor our portfolio risk exposures and react to changing environments. These indicators include the broad market volatility gauges and correlation estimates that are a cornerstone of our investment process.
3. We are maintaining an active portfolio hedging program, today particularly with regards to currencies. If the correlations between equities and bonds were to change significantly, we would utilize additional fixed income hedges as well.
4. We are emphasizing investing with particular kinds of firms: a) managers that have flexible mandates and have demonstrated skill in putting money to work in dislocated markets; b) managers that have deep experience as short sellers; and c) firms that are more narrowly specialized in attractive niche areas of the capital markets.

With these actions, we are keeping with our goal of achieving solid returns while continuing to protect capital.

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