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ECONOMIC VIEW

Making Sense of Elevated Stock Market Prices

Shares are very expensive, but so are bonds. Even at current prices, the economist Robert J. Shiller says, it is reasonable to keep some wealth in stocks.

By Robert J. Shiller

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The stock market is already quite expensive. That is evident when you compare current stock valuations with those from previous eras.

But it is also true that stock prices are fairly reasonable right now.

That seemingly contradictory conclusion arises when you include other important factors: interest rates and inflation, which are both extremely low.

Examined on their own, stock valuations are at giddy levels, yet they are far more attractive when viewed side by side with bonds. That's why it is so hard to determine whether the stock market is dangerously high or a relative bargain.

Consider that the S&P 500 index of U.S. stock prices has repeatedly set records over the past year, while a measure that I helped to create, the CAPE ratio for the S&P 500, is also at high levels.

In my view, the CAPE ratio is the more important of these two measures of overpricing because it corrects for inflation and long-term corporate earnings. John Campbell, now at Harvard University, and I defined CAPE in 1988. This is a bit technical, but please bear with me: The numerator is the stock price per share corrected for consumer price inflation, while the denominator is an average over the last 10 years of corporate reported earnings per share, also corrected for inflation.

Why go to the trouble of looking at the stock market with the CAPE ratio? Averaging earnings over 10 years smooths out year-to-year fluctuations and provides an earnings estimate that should be, for most companies, a better measure of long-term fundamental value. This 10-year average of real earnings is not quite as up to date as the latest earnings data, but it provides a more sober assessment of corporate earnings power.

A high CAPE ratio suggests that the market is overpriced, portending low subsequent returns, while a low CAPE suggests the opposite. Professor Campbell and I showed that the CAPE ratio allows us to forecast over a third of the variance of long-term returns on the stock market since 1881.

The CAPE ratio is 35.0 today, much lower than its highest level, 45.8, which was reached on March 24, 2000, at the peak of the millennium stock market boom. The market fell sharply soon after, and the CAPE has climbed much of the way back, reaching a cyclical high of 35.7 on Feb. 12. Its current

range is the second highest since our data began in 1881.

Unequivocally, the market is expensive compared with past eras. This high pricing of stocks today is peculiar to the U.S. market, which has the highest CAPE ratio of 26 major countries, according to calculations by Barclays Bank. This disparity has been sustained despite the blows of the pandemic of 2020, and the civil unrest and occupation of the U.S. Capitol on Jan. 6.

What does the CAPE ratio tell us? I believe it is an excellent tool for analyzing price levels, but its forecasting ability is limited.

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Imagine that our task is to make a bet on whether a flying bird will be higher or lower an hour from now. Forecasting the bird's flight really accurately is impossible. One could rely on momentum to extrapolate its path for some seconds, but after that, the bird will do what it wants to do.

That said, if the bird is very high in the air, gravity assures us that it will come down eventually. And because it spends most of its time at lower altitudes, betting then that the bird will decline is a solid bet, but there is a good chance that it will be wrong. That is essentially what CAPE helps us do for stock market analysis. It says that the market is high now, but also that it could remain so for quite some time.

The CAPE measure of performance of the stock market may not be the most relevant one at the moment, however.

Consider a different question: Is there a better and safer place to earn money if you sell stocks?

Let's stick with the bird metaphor a little longer. Now there are two birds. One represents stocks, the other bonds. Which bird is more likely to fly higher? The bond bird is flying pretty high, too. (Bond prices are elevated because interest rates are very low, and bond prices and interest rates move in opposite directions.)

For an answer to this question — for a comparison of the likely future returns of stocks and bonds — my colleagues Laurence Black at the Index Standard and Farouk Jivraj at Imperial College London and I came up with another measure. We call it the Excess CAPE Yield, or E.C.Y.

Put simply, the E.C.Y. tells us the premium an investor might expect by investing in equities over bonds. It is defined as the difference between the reciprocal (or the inverse) of CAPE — that is, 10-year average annual real earnings divided by real price — and the real long-term interest rate.

Right now the E.C.Y. is 3.15 percent. That is roughly its average for the last 20 years. It is relatively high, and it predicts that stocks will outperform bonds. Current interest rates for bonds make that a very low hurdle.

Consider that when you factor in inflation, the 10-year Treasury note, yielding around 1.4 percent, will most likely pay back less in real dollars at maturity than your original investment. Stocks may not have the usual high long-run expectations (the CAPE tells us that), but at least there is a positive long-run expected return.

Putting all of this together, I'd say the stock market is high but still in some ways more attractive than the bond market.

For those overexposed to equity risk, selling some stocks now in favor of bonds might be worthwhile. Treasuries, for example, are highly likely to retain their nominal value. In a time of stable inflation, they are generally safer than stocks.

But for most people, a well-diversified portfolio containing both stocks and bonds is generally a good idea. Moreover, stocks may be more attractive than bonds, because if the economy revives, fear of inflation may as well. That could help stocks fly higher and lead to poor performance for bonds.

The markets may well be dangerously high right now, and I wish my measurements provided clearer guidance, but they don't. We can't accurately forecast the moment-by-moment movements of birds, and the stock and bond markets are, unfortunately, much the same.

Robert J. Shiller is Sterling professor of economics at Yale. He is a consultant for Barclays Bank.