

Revisiting the Impact of Low Interest Rates on Equities

Time will tell if 2014 marks a departure from the rapid rise in stock prices of the past two years. A few high flying technology shares have taken a step back this year, yet overall market volatility remains modest. More volatility is on our wish list of economic outcomes. Volatility is our friend – it gives us the opportunity to buy sound businesses when their prices have been indiscriminately reduced. Reminded of the adage to be careful what you wish for, we wish only for a Goldilocks level of volatility. That is, enough to present attractive buying opportunities, not enough to scare everyone into a spending freeze.

Volatility or not, the ACR investment team is searching far and wide for bargains in what we consider over-valued markets. After a dry spell for much of the past year, we have identified two stock investments that we believe warrant purchase. The first selection, ironically, was found in a general asset class with bubble-like prices. We purchased shares in a small, cyclical company.

Small company valuations are in our opinion at extreme highs, and many cyclical companies are not properly discounted for general economic cycle fluctuations. Identifying a bargain in an inflated asset class goes to show that generalizations about prices can be misleading for stock pickers. The second company is a blue chip European firm with excellent past operating performance, solid future prospects, and a very reasonable valuation. Both opportunities appeared after price declines due to specific company issues that we believe are temporary versus secular. We welcome this kind of volatility.

ACR continues to maintain a large cash reserve even after these purchases. Portfolios that have been with us for several years without significant cash flows hold approximately 30-35% cash. Our average cash balance across all accounts is over 40% due to significant new asset growth and our discipline of investing new portfolios slowly. Our large cash position in both old and new portfolios is due mainly to a mismatch between a greater number of sale opportunities and fewer buy candidates as prices have risen above intrinsic values the past few years.

Many have asked how much cash we can deploy given various levels of general market price declines. Since our buy decisions are made entirely at the individual stock level, this is a difficult question to answer. A better distinction would be to describe our likely response to two scenarios, widely drawn, and very possible. A stock market that drifts higher would very likely provide us opportunities to put our cash to work slowly and selectively, one or two stocks at a time. Even in a market of high prices and low volatility, there are often pockets of opportunity, as reflected by our two purchases this year. A significant stock market correction of 20% or greater, on the other hand, would almost certainly allow us to deploy our cash rapidly.

Our July 2013 commentary described why we believe lower interest rates do not support higher stock prices. The remainder of this commentary addresses this topic in more technical detail. Please read at your own peril, or take two aspirin prior to engagement.

Mathematically, we know that for fixed income instruments, a lower interest rate equates to a higher security price. The following chart shows the decline in price for a 30 year bond given interest rate increases from an initial rate of 3%. For example, an increase in interest rates from 3% to 6% results in a bond price decline of 41.5%.



The temptation is to assume the same is true for stocks, but inflation complicates the discussion. Indeed, our fixed income chart also misleads regarding inflation. Fixed instruments are priced in nominal currency. The true value of any fixed instrument is therefore diminished by inflation, or enhanced by deflation. Overly exacting investors would value a 30 year bond by discounting biannual coupon payments and return of principal by their forecast of real interest rates plus inflation expectations from the present time to the date of each future cash flow. The stock investor would employ the same general discounting procedure for each expected dividend payment over the lifetime of the company.

Forecasting a yield curve of real discount rates and inflation expectations over the next hundred years would be an exercise in precision fit only for a madman. The theoretical framework is nevertheless helpful for understanding the impact of a lower real cost of capital on asset values. Before proceeding, there is another technical point worthy of digression.

The valuation difference from a decline in the real rate of interest only impacts the prospective investor. For current investors, holding all else equal, when real rates decline, present value increases, yet income remains unchanged. Therefore, the current investor cannot capitalize on the decline by selling the security, because higher value sale proceeds would be re-invested at equivalently lower income levels.

The assumption is that the current investor wants to stay invested, rather than using the gains to consume additional goods and services, in which case the current investor would be better off economically, subject to the utility of the goods and services consumed. The current investor's only consolation, as an investor, is being better off than the prospective investor. The case of the prospective investor still remains highly relevant: all investors who have cash to invest after a decline in real interest rates are prospective investors, and they are worse off because they will be investing at lower real yields.

The first important question to ask is – why are real interest rates lower? Today, we posit the underlying cause to be that growth expectations are low, not because the US or world economy has become less risky. In this case, the increase in present value from a decline in the real cost of capital should be offset a priori by a decline in growth expectations. Specifically, the Federal Reserve is maintaining a low interest rate policy because growth and inflation expectations are low. Conversely, an unexpected rise in growth expectations is likely to be offset by a rise in nominal and real rates. In conclusion, holding all else equal, a decline in real interest rates accompanied by a commensurate decline in growth expectations does not change equity values.

Certainly there could be an interim mismatch in the real cost of capital and real growth rates. However, the mismatch is unlikely to last for long, or to be very predictable. In this case, one would discount future cash flows over the forecast horizon of the discrepancy per our discounting framework previously described. For example, the valuation increase would be approximately 30% if the real equity cost of capital were to decline from 6% to 0% and take 10 years to return to 6%. While interesting to note, we believe it would be a mistake to forecast normal economic growth rates and a significantly lower real equity cost of capital for any significant period of time.

Our conclusion, though a level or two deeper, is the same as it was in our July 2013 commentary. Decreasing equity discount rates and increasing equity multiples due to today's low interest rates is incorrect. Since ACR has not lowered our discount rates, valuations appear high to us. We believe the equity market is discounting an approximate 4% real long term return, and the weighted average real cost of capital used to value our EQR stock portfolio today is over 6%. A 2% discount rate difference from 6% to 4% on a perpetual income stream increases present value by over 50%.

Theoretically, we have attempted to demonstrate that a decline in real rates combined with a commensurate decline in growth expectations does not produce an increase in equity value. Practically, equity investors may at any time simply lower their required return. Value, in truth, is in the eye of the beholder – it is determined by whatever price current market participants are willing to pay. One argument for higher multiples is that investors are, for some reason, demanding lower returns for equity risk, and will continue to do so indefinitely.

Two counter-points, in our opinion, help to invalidate this argument. First, given that historical multiples imply an approximate 6% real equity cost of capital, pricing equities at a 4% real cost of capital indefinitely strikes us as optimistic at best, reckless at worst. Why is the present moment a better proxy

for the cost of capital than the historical record? Second, count us as skeptics that the psychological phenomenon of investor fear and exuberance which has historically pushed multiples to extreme lows and highs is a vestige of the past. Our belief is that the mercurial Mr. Market is alive and well (introduced in our May 2001 commentary), waiting in the wings for a reason to change his mind.

Japan provides one final piece of practical evidence that permanently higher multiples are an unlikely product of lower interest rates. Japan is a pointed example of an economy that has experienced low nominal and real rates for an extended period of time. While the Japanese property and stock bubble of the 1980s dwarfed our own, and there are many differences between the Japanese economy and ours, the US and/or Europe could experience an extended period of anemic growth and low nominal and real interest rates. Might P/E multiples remain elevated under such circumstances? The P/E multiple experience in Japan suggests otherwise. The Nikkei Index P/E ended up in the single digits right alongside the US in Q1 of 2009.



A favorite pastime of the ACR investment team is attempting to poke holes in our thesis. Where are we wrong? What are we missing? The closest such hole we have found so far comes from an excellent article by William J. Bernstein entitled the “Paradox of Wealth” (*Financial Analyst Journal*, September/October 2013). Bernstein makes an impressive argument that the cost of capital declines as society employs more capital and becomes more advanced. The article is brief, yet very well written and thought provoking.

Bernstein’s theoretical claims are in our opinion sound, and empirically they move the needle on valuations. For example, Bernstein applies a least squares trend-line to the Shiller P/E (introduced in our October 2013 commentary) which crosses at a P/E of 20.3, 23% higher than the historical average Shiller P/E of 16.5. Yet, Bernstein points out, it is still too early to tell; we need “another century or two” to

prove his theory valid. Put simply, P/Es may be slowly drifting higher, but don't count on it. Most importantly, prices are still high relative to the potential drift.

In summary, the ACR investment team has yet to find a reason to abandon our discount rate discipline for valuing equities. Despite our punitive valuation framework, we remain confident that equity markets will provide us with sufficient volatility to deploy our liquid capital, whether one stock at a time, or in one fell swoop, in the coming months and years.

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As of November 4, 2022, we have provided this supplement to accompany the commentary and satisfy changing regulations: <https://acr-invest.com/commentary-supplement/>

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