Two Power Guys





Don't Cry for Utility Shareholders, America

Maybe Steve Huntoon Was Right

By LEONARD HYMAN AND WILLIAM TILLES

hat do utility shareholders want? Answer: to earn a total return, dividends plus capital gains, at least commensurate with the risk incurred.

That is, to earn a return equal to, or in excess of, the cost of capital.

Did shareholders earn this in the past? And what do they require now?

In a recent piece written for *Public Utilities Fortnightly*, Steve Huntoon didn't directly answer those questions. Rather he concluded, much more elegantly, that

whatever shareholders want, they get too much of it. ¹

Steve is a lawyer. So what does he know?

The authors of this column spent years on Wall Street, complaining that regulators did not provide investors with adequate returns. So we decided to check out the numbers.

Understand first, the market determines cost of capital. Regulators don't.

Second, to determine expected return, investors and academics have lately begun to rely more on historical data.

They are taking into account the tendency of markets to revert to the mean. We will try to apply that technique to answer the questions.

Let's cut to the chase. In the past century or more, globally, common stocks earned real returns of about five and a half percent to six and a half percent. Per year. Adjusted for inflation.

In the U.S., return on stocks have exceeded return on risk-free Treasury bonds. The equity risk premium was roughly two-point-four to five percentage points.

Recent Federal Reserve Bank monetary policy makes Treasuries a dubious benchmark. So we will use seasoned Baa corporate bonds instead.

Those bonds offered yields of one

British-style incentive regulation would offer utilities the opportunity to take higher risks, in order to maintain returns.

to two percentage points more than Treasuries in the past. And two to three percentage points more recently.

We estimate that investors, over the long term, expect that corporate bonds will earn two percentage points over Treasuries. And equities will earn five percentage points over Treasuries.

For a rule of thumb, equities will earn about three percentage points over corporate bond yields. Why bother with a rate case? Just use that handy rule of thumb.

Two additional points. Bond yields track inflationary expectations. So our calculation in current dollars indirectly takes inflation into account.

Also, over the post war period, utility stocks have performed at least as well as industrial stocks. So conclusions derived from the general market probably apply to them as well.

The first question is, what did utility investors earn? And was that good enough?

In the postwar period, investors earned just less than ten percent per year. That's six and a half percent in real terms.

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William Tilles is a senior industry advisor and speaker on energy and finance. He worked as a bond analyst and later headed equity utility research at Dean Witter Reynolds and then Smith Barney. He then became a portfolio manager at Angelo, Gordon & Co. and later at Sandell Asset Management. For a time he ran the largest long/short equity book in the world.

Dividends made up about sixty-three percent of this return. See Figure 1.

FIG.

Our rough-and-ready formula calculated a required return of ten and a half percent per year. That's six-point-nine percent in real terms. See Figure 2.

Utility stocks then earned in-line with long-term market expectations.

But utility stock prices exceeded their book value in fifty-six of the past seventy years. With sub-par pricing during energy and nuclear crises.

This indicates that utilities earned more than the cost of capital in most years.

Thus, utility investors earned an average market return, while taking a lower than average risk. Return probably exceeded the cost of capital.

The numbers tell us about anticipated growth. We define this as expected total return, minus dividend yield.

Over the postwar period, we calculate that investors expected growth of about four and a half percent per year. See Figure 3.

At the end of June 2016, corporate bonds yielded four and a half percent. Utility stocks yielded three-point-four percent.

This indicates, based on historical precedent, that equity investors want a seven and a half percent annual return. Three-point-four percent from dividends. Four-point-one percent from capital gains.

Is seven and a half percent, the number implied by Steve Huntoon, the nominal cost of equity capital? Imagine using that level of return in a utility rate

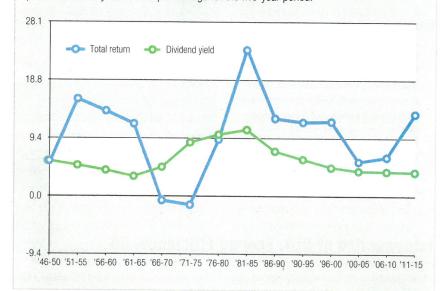
Sooner or later, regulators may see the gap between allowed returns and cost of capital. They might reduce returns.

Or regulators could impose Britishstyle incentive regulation. It would offer utilities the opportunity to take higher risks, in order to maintain returns.

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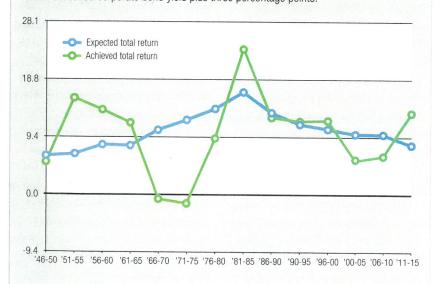


Percent total return, dividend yield for five-year periods, 1946-2015. Data for 1946-1985 from Hyman, America's Electric Utilities: Past, Present and Future, 8th edition, based on Moody's Electric Utility Average. Data for 1986-2015 from Hyman, op. cit., and from Edison Electric Institute, EEI Index. Total return is a compound rate for the five-year period. Dividend yield is a simple average for the five-year period.



PERCENT EXPECTED, ACHIEVED TOTAL RETURN

Percent expected, achieved total return, five-year periods, 1946-2015. See Figure 1 for sources. Total returns compounded by five-year period. Expected return is Baa seasoned corporate bond yield plus three percentage points.



Either option could endanger dividends. That is the downside.

Income-starved investors are looking for means to meet their long-term obligations. They may accept even lower returns than the cost of equity capital

we calculated.

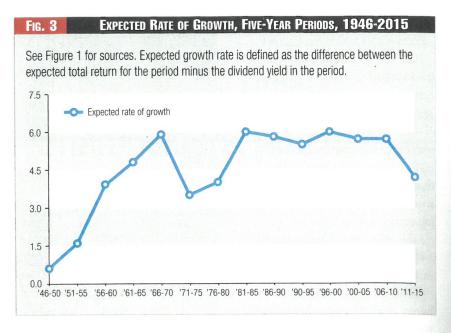
The trick is for utilities to find ways to utilize that pool of capital.

Investors just want a better return on a safe investment than the one and a half percent they can get on ten-year Treasuries. Both utilities and electricity consumers might benefit from this trying financial situation.

And yes, it looks as if Steve Huntoon was right after all. Even if he is a lawyer.

Endnotes:

Steve Huntoon, "Nice Work If You Can Get It,"
 Public Utilities Fortnightly, August 2016.
 Robert D. Arnott and Peter L. Bernstein, "What
 Risk Premium Is Normal?" Financial Analysts
 Journal, March/April 2002, is a pioneering paper
 on the topic. It is comprehensive and comprehensible. For more recent data and analysis, see
 Martin Leibowitz, Andrew W. Lo, Robert C.
 Merton, Stephen A. Ross, and Jeremy Siegel, "Q
 Group Panel Discussion: Looking to the Future,"
 Financial Analysts Journal, July/August 2016.



Intersection of DER, Energy Efficiency, DR

(Cont. from p. 63)

into its grid by 2045.

The company and its regulators are making plans to address the enormous challenges this will create for grid stability on the islands. One of the key features of these plans is to position demand-response as a load following resource.

Through the operation of fast demand response pilot programs, Hawaiian Electric is working with its customers to utilize automation systems that can respond within seconds of receiving a signal of an imbalance between supply and demand.

Notwithstanding the menu of solutions, it is important to recognize that energy efficiency still continues to play an important role in the paradigm. Energy efficiency is by far the least-cost resource available to bridge the advent

of distributed resources.

However, as energy efficiency programs are increasingly being viewed through the distributed resources lens, it is important for energy efficiency efforts to be more focused on meeting changing operational needs on the electrical grid. These changes necessitate that energy efficiency programs be focused on delivering savings at the times when those savings are needed most.

While high-efficiency equipment replacements have been the bedrock of programs for many years, program planners are looking to new and innovative approaches for acquiring additional savings that can meet the changing needs of the grid. More savings opportunities are now being realized through behavioral and operational efficiency initiatives.

There was a recent study we conducted for the California Public
Utilities Commission in response to
the recently passed legislation. From
that study, it was determined that
significant new savings opportunities
are potentially available through operational and behavior-based programs.
These are aimed at tapping existing
lighting controls and building information or energy management system
infrastructures.

Other energy efficiency approaches being investigated are behavioral boosters or kick-starters. These can enhance savings across program administrator portfolios. The notion is to better understand consumers' motives and needs.

The ways that both energy efficiency and demand response operate make them a natural part of the distributed energy resource paradigm. They are now being fully integrated into deployment and management.