

What If ...

[The Six Percent Solution Revisited]

Source: 2002 1Q *Commentary*

Enquiring Minds

Creativity, like marketing savvy, isn't a necessary condition for success in the money management business, but it's sometimes a sufficient one. By devising creative answers to familiar questions — or by asking questions that others lack the creativity or courage to pose — investors can gain a material edge over the competition. While conceding that the tasks this writer and his colleagues perform on behalf of TIFF's members typically don't require acute creativity, we do encounter creative thinkers in our work — people who recognize that Voltaire was on to something when he counseled, "Judge a man not by his answers but rather by his questions." On the assumption that readers of this report will benefit as we have from exposure to some enquiring minds we've encountered of late, we're devoting it to two important questions — questions that begin with words that all investors should keep in mind as they go about their work: "What if ...?"

What If Peter Bernstein Is Right?

A seminal thinker whose writings on investment and finance have attracted a deservedly large audience over the years, Mr. Bernstein is also (flatteringly but inexplicably) a careful and loyal reader of TIFF's reports. Indeed, from time to time he compliments this writer by commenting in writing on TIFF's *Commentaries*, the most recent of which (for 4Q 2001) sought to answer a question many investment committees are asking these days: "How can we deploy our assets in a manner that will give us a fighting chance of maintaining endowment purchasing power in coming years?" Entitled "The Six-Percent Solution: An Asset Allocation Primer," our *Commentary* for 4Q 2001 included an "illustrative policy portfolio" geared to the production of six percent annualized real returns (a figure chosen to cover amply customary withdrawals plus investment-related overhead). Of necessity, the portfolio included a meaningful (40%) allocation to publicly traded stocks, the premise being that most boards can't tolerate the illiquidity inherent in asset mixes tilted less heavily toward marketable stocks and more heavily to less liquid but potentially higher returning alternatives. These alternatives were identified in a table that appeared on the back cover of last quarter's *Commentary*. A revised version of this table (34 kB [2_Percent_Dilemma.pdf](#)) has just been posted on our site. Why? Because Mr. B has argued cogently that the broad US stock market is priced at levels that render suspect this writer's assumption that a globally indexed portfolio of marketable stocks can be expected to produce a 4.5% real or inflation-adjusted return over the 15-year planning horizon specified in last quarter's *Commentary*.

Troubling Gap

A keen student of market history, Mr. B notes that a large fraction of the hefty margins by which stocks have outpaced bonds and inflation over recorded financial history (roughly 5% and 7%, respectively) is attributable to two potentially non-recurring phenomena: juicy dividend yields (averaging almost 5% over the last 200 years) and an upward shift in stock valuations. With the prevailing dividend yield on the broad US stock market being closer to 1% than 5% and with average P/Es remaining at the high end of their historic range, Mr. Bernstein thinks the broad US stock market will be hard pressed to produce over the next 15 years a real return eclipsing the sum of today's starting dividend yield plus a reasonable dividend growth rate. Noting that dividend growth seldom outpaces GDP growth (indeed dividend growth has actually **lagged** per capita GDP growth historically), Mr. B thinks it highly unlikely that US stocks will return more than 3% net of inflation over the practical as distinct from theoretical time horizons that shape endowed charities' investment policy choices. He's slightly more sanguine about non-US stocks but thinks it would be a mistake to assume that most institutions will earn on their marketable stocks over the next 15 years returns equaling those specified in last quarter's TIFC *Commentary*. (See the aforementioned posting of the revised portfolio on our Website for a comparison of this writer's original assumptions with new ones reflecting his metaphorical trip to Mr. B's woodshed. As one wag has said, "Honest criticism is hard to take, particularly from a relative, friend, acquaintance — or stranger.") If our friend Mr. B is right, then the portfolio suggested last quarter is unlikely to constitute a "six-percent solution." Indeed, it's more likely to constitute a "2% dilemma," 2% being the spread between the original goal of a six percent real return and the portfolio's revised expected real return of 4%.

Beyond Apprehension

Why does a 1.5% reduction in the assumed real return on marketable stocks (40% of our recommended portfolio's assets) cause **more** than a 0.6% downward adjustment (i.e., 0.4 times 1.5%) in the portfolio's expected return? Because the assumed returns on other asset classes and strategies included in the mix logically depend in part on how well marketable stocks perform, private equity being the most obvious example but other strategies too being dependent on rising stock prices. (For example, many long/short equity hedge funds display over time a net long bias, making the assumed return on the typical "absolute return"-oriented portfolio partly dependent on the broad stock market's secular rise.) The larger point is clear — and troubling for trustees seeking to preserve endowment purchasing power while maintaining spending rates at levels to which a whole generation of non-profit administrators have become accustomed: an institution that spends 6% of its endowment in 2002 and holds spending constant in real terms thereafter while earning a 4% real return will experience a 10% reduction in endowment purchasing power by 2007, a 23% reduction by 2012, and an approximate halving by 2022. To avoid such backsliding, endowed non-profits can do three things, singly or in combination: bridge the gap via fundraising (a tough task if Bernstein's forecast of mediocre stock returns proves accurate, and a non-starter for many private foundations); pursue uncommon investment policies that have the potential to produce uncommonly

high returns (an impossibility for many charities in light of governance norms that inhibit unconventional policy choices); or throttle back spending. Alas, most non-profit administrators regard spending cutbacks the way baseball manager Danny Murtaugh regarded the Braves' sweep of his Pittsburgh Pirates during a dismal three-game visit to Atlanta in 1976: "It's beyond my apprehension."

Unexpected

The worrisome declines in real wealth conjectured above assume an inflation rate of 2%, an assumption pulled not from thin air but from the bond market's current implicit forecast of CPI inflation over the next 20 years. This number can be derived by subtracting the real yield on Uncle Sam's inflation-linked bonds (Treasury Inflation Protection Securities or TIPS) from the nominal yield on conventional Treasuries of comparable maturity. Importantly, a portfolio of TIPS purchased today with an average maturity of 20 years will produce a guaranteed real return of about 3.4%, regardless of the CPI's movement between now and 2022. Of course, an average inflation rate materially in excess of 2% over the next 20 years wouldn't be greeted warmly by stock investors, who tend to favor inflation rates that hover in the low single digits and (more importantly) don't bounce around much. Nor would stock investors welcome a negative inflation rate, unless it resulted from "virtuous deflation" of the sort displayed by the US economy during the closing decades of the 19th century — a period characterized by rapid productivity gains arising from big advances in communications, transportation, and manufacturing. Absent such "virtuous deflation" — or uncommonly successful investment or fundraising programs — charities consuming much more than 4% of their endowments per annum could experience material losses in endowment purchasing power between now and the 100th anniversary (in 2018) of the Boston Red Sox's last World Series triumph. Speaking of the Bosox, we're not sanguine that a franchise now owned by a money manager whose portfolios customarily turn over more rapidly than the average mutual fund investor's will undertake the systemic reforms (meaning: farm team investments) needed to produce consistent winners in red stockings over the next decade and a half. An aside on an aside: based on informed guesstimates published by the research firm DALBAR, the average US equity mutual fund investor realized an annualized return over the 17-year period from 1984 through 2000 less than half that of the S&P 500's 17% rise. Why such a stunning shortfall? First, the average fund lagged the S&P 500 by more than 1.5%. Second, the average fund investor got severely "whipsawed," rotating money out of underperforming funds into "hot" ones, only to see the latter's returns backslide. Memo to investment committees: don't let this happen to you!

Paul's Second Law

Why didn't this writer take prevailing stock prices into account when he penned the *Commentary* that elicited Mr. Bernstein's polite but powerful rebuke? He **did** to a considerable extent, noting (by way of defending return assumptions that he knew some readers would view as unduly low by historical standards) that "people tend to forget that the current price of an asset is always more important than historical averages." Which

people? Pension consultants and actuaries come immediately to mind. As Warren Buffett has complained unceasingly of late, many such firms continue to sanction their clients' use of asset allocation models that assume nominal stock returns in the high single digits if not low teens. Unless one assumes CPI inflation much higher than the 2% market-implied rate discussed above — an assumption belied by the modest nominal returns these models project for inflation-linked bonds — the average institutional fund is unlikely to realize returns from marketable stocks over the next 20 years that equal let alone eclipse consensus expectations. To be sure, a projected 58% decline in endowment purchasing power over a time period more than thrice as long as the lamentably brief average tenure of college presidents these days (about six years) may not be troubling enough to induce the typical governing board to throttle back spending immediately. But doing so is clearly the wisest course for boards that assign top priority to maintaining endowment purchasing power from one generation to the next. Those that do not had best hope that "Paul's Second Law" somehow operates in their favor. It reads: "The sooner you fall behind the more time you'll have to catch up." Paul who? We have no idea, although he sounds like a Red Sox fan.

What If Juan Enriquez Is Right?

The second enquiring mind we'll applaud here is Juan Enriquez's. Head of an interdisciplinary center at Harvard focusing on the economic impact of the life sciences revolution, Mr. Enriquez gave a terrific (and in some respects terrifying) talk to the TIFF board in March. Drawing from his new book *As the Future Catches You*, Mr. Enriquez argued that individuals, companies, and countries with the brains and tenacity to remain at the forefront of the genetic and digital revolutions will be the clear winners of the race to economic riches and other desired ends for decades to come. They'll be the more or less exclusive winners too, with policymakers (and by extension educators and grantmakers) who don't appreciate fully the mutually reinforcing impact of these revolutions doing a large disservice to the people they seek to lead or help. Likening the recent cracking of man's genetic code to Columbus's "discovery" of the New World, Mr. E argues that most persons alive today fail to appreciate how materially pending advances in life sciences will alter the course of human history. (Columbus himself misperceived his own discoveries' significance, believing unto his death that he had reached Asia rather than a "new" continent during his four transoceanic voyages. And most persons alive at the same time as Columbus had no idea what he had accomplished.) If Mr. E is right about the changes to be wrought by the genetic and digital revolutions, then many of the assumptions underlying institutional investment policies must be revised, if not jettisoned altogether. (Although the US is the clear leader in genetic and digital technology at present, the ease with which scientific talent can move across national borders and the sorry state of K-12 education in America could undermine US technological hegemony to an extent and within a time frame that would make the current price of some US shares look foolishly high in hindsight.) Moreover, if Mr. E is right, much of the work being done in the non-profit sector is suboptimal if not counterproductive. It's properly characterized as such for several reasons, only one of which space permits us to discuss here. In Mr. E's view, efforts to preserve indigenous cultures (within as well as outside the US) are doomed to fail if the peoples constituting

them lack the skills needed to be value-adding participants in an increasingly digitized and global economy. A veteran of real as well as cultural wars in Latin America (he helped broker a settlement in Mexico's wartorn Chiapas region and has pushed aggressively for educational reforms throughout the region), Mr. E argues that political regimes that do not attach supreme importance to their citizens' cultivation of math and science skills (as distinct from more subjective measures of "self-esteem") are dooming them to declining living standards at best and civil unrest at worst. Not surprisingly, Mr. E is a long-term bear on commodity-oriented companies and countries, arguing forcefully that an overabundance of natural resources could prove as unhelpful to wealth creation in the 21st century as it has proved helpful to wealth creation throughout much of human history. Ditto for an overabundance of **human** resources, unless the persons in question achieve sufficient numeracy and scientific literacy.

Ungreat Expectations

As with Mr. Bernstein's concerns, it will take many years for Mr. Enriquez's forebodings to be validated or refuted, thus permitting persons in positions of authority today to ignore such prognostications at little peril to themselves. If and when the piper must be paid, later generations will do the paying — just as later generations of Red Sox fans have paid the price for owner Harry Frazee's decision to sell Babe Ruth to the Yankees in 1919. The Red Sox, who won five of the first 15 World Series, have not won another since Babe led them to the crown the year before he got shipped to New York. As a new baseball season dawns, this Red Sox fan remains loyal but not unduly hopeful, his expectations for the Bosox having been adjusted in the direction that Bernstein advocates for stock returns and that Enriquez advocates for knowledge-poor companies and countries: downward. Of course, Ruth himself seldom adjusted expectations downward, for himself or any people or places that he encountered. This led to frequent disappointment (Ruth struck out at the plate twice as often as he homered), as when the famed orphan from the slums of Baltimore visited France's capital for the first time. "Paris?" Ruth replied to a reporter's question. "Ain't much of a town."