TAM Asset Management, Inc.

AssetClass℠

An update of performance, trends, research, & topics for long-term investors

Asset Class Returns

	2002	2003	2004	Last 10 yrs.	11/30 2005
Bonds					
Short-term	3.9	1.6	0.9	4.9	2.0
Five-Year	10.4	3.0	2.9	7.5	1.5
Intermediate	15.0	2.5	4.3	7.9	0.8
Long-term	16.7	2.7	7.1	9.3	4.2
U.S. stocks					
Large Market	-22.2	28.5	10.7	11.9	4.8
Large Value	-14.9	34.4	18.2	14.5	10.1
Small Micro	-13.3	60.7	18.4	16.4	5.5
Small Market	-19.1	51.5	17.9	14.2	6.4
Small Value	-9.3	59.4	25.4	18.0	7.4
Real estate	4.2	35.6	32.1	14.9	13.1
Int'l stocks					
Large Market	-14.6	36.7	18.8	6.2	7.8
Large Value	-8.5	49.4	28.8	8.8	9.9
Small Market	1.9	58.8	30.9	N.A	14.4
Small Value	5.8	66.5	34.8	8.1	15.8
Emerg. Mkts.	-9.4	60.2	29.9	6.0	22.8

Descriptions of Indexes

Short-term bonds	DFA One-Year Fixed Income fund
Five-Year bonds	DFA Five-Year Global Fixed
Intermediate bonds	DFA Intermed. Gov't Bond fund
Long-term bonds	Vanguard Long-term U.S.Treas.
U.S. Large Market	DFA US Large Co. fund
U.S. Large Value	DFA Large Cap Value fund
U.S. Small Micro	DFA US Micro Cap fund
U.S. Small Market	DFA US Small Cap fund
U.S. Small Value	DFA US Small Value fund
Real Estate	DFA Real Estate Securities fund
Int'l Large Market	DFA Large Cap Int'l fund
Int'l Large Value	DFA Int'l Value fund
Int'l Small Market	DFA Int'l Small Company fund
Int'l Small Value	DFA Int'l Small Cap Value fund
Emerging Markets	DFA Emerging Markets fund

"Last 10 yrs." returns are ended 12/31/04.

This information is obtained from sources we believe are reliable, but we cannot guarantee its accuracy.

Past performance does not guarantee future returns.

This newsletter is published by
TAM Asset Management, Inc.
1100 Mar West St., Suite D
Tiburon, CA 94920
Phone: 415-435-5045
eFax: 781-623-4691
email: jefftroutner@tamasset.com
Web Site: www.tamasset.com

Editor: Jeffrey C. Troutner

December 2005

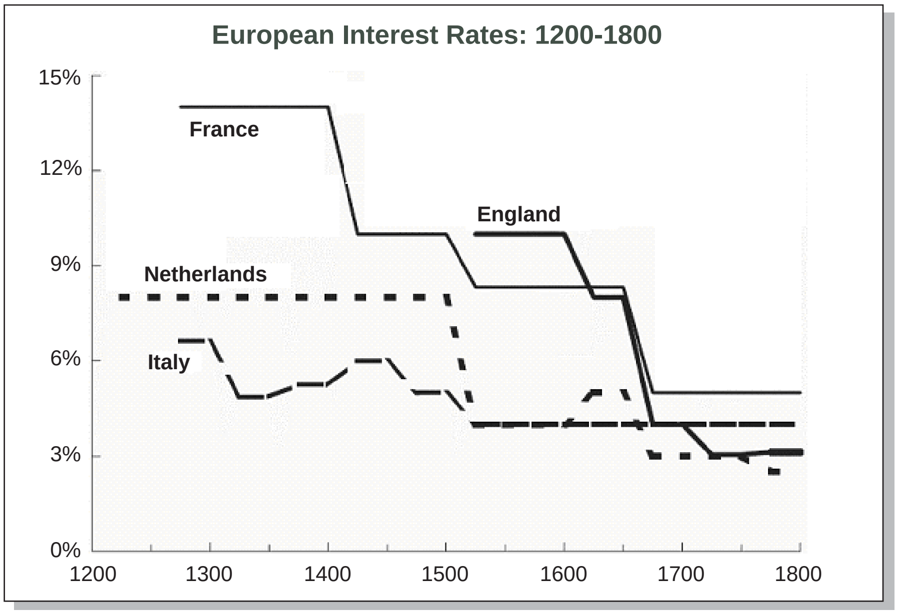
Too Much Capital

Dr. William J. Bernstein, Efficient Frontier Advisors, LLC

Bill Bernstein is a friend, fellow investment advisor, and author of *The Intelligent Asset Allocator* (a must read for serious investors). This article is reprinted with his permission. For other articles by Bill, please visit his web site at www.efficientfrontier.com.

Jeff Troutner, TAM Asset Management, Inc.

Make no mistake about it: over the past several thousand years, the cost of capital, and with it, investment returns, have been falling. Prime credits in Mesopotamia had to borrow at 20% in silver or 33% in grain, and mind you, these were, by definition, real rates. Although loan costs briefly fell as low as 4% during the *Pax Romana*, the historical trace of rates disappeared completely during the Dark Ages, reappearing at low double-digit levels in early medieval Europe. Below is a plot of the falling rates seen in Europe between 1200 and 1800.



The decreasing cost of intermediation is certainly one factor explaining the historical fall in rates and returns. The universe of investment open to our Mesopotamian capitalist was pitifully small—basically those farmers and merchants who he personally knew; his informational costs were thus astronomical. By contrast, today's capitalist can diversify to the *n*th degree and move money around the world for a few basis points with a few mouse clicks. Capital has truly become "blind"; the odds that you will be personally acquainted with the mortgage holder or corporate CFO to whom you are providing your hard-earned capital is about the same as your chances of recognizing the voice of the credit-card company rep who answers your next account inquiry. While modern financial theory states that increased diversification opportunities should not drive down the cost of capital, this

continued on back...

is only true in a frictionless world. Over the past several decades, investment frictions have been ruthlessly decreased, driving down investment returns as well.

But something else is happening these days: there's one heck of a lot of money sloshing around the world. In a general-session address at a recent meeting of the CFA Institute, for example, a highly respected finance academic casually let drop that he was directing the management of around $70 billion in assets. Manifestly, a world in which even professors are moving around that amount of dough is a world awash in capital.

In this vein, a recent piece by Greg Ip and Mark Whitehouse of *The Wall Street Journal* (November 3, 2005: "Huge Flood of Capital Spurs Risk Taking") documented "an unprecedented flow of capital flowing around the world, with all of its owners anxiously searching for a better return." The piece went on to point out that this wall of cash not only served to drive down returns, but also to increase risk as investors sought out higher return situations, leveraged themselves up, or both.

During the dot-com mania of the late 1990s, the cost of capital came perilously close to zero, and now at the cusp of the twenty-first century, it is low indeed. As I write, modest single-digit real expected rates of return blanket the asset-class universe while investors frantically shuttle capital among stocks, real estate, venture capital, hedge vehicles, timber land, commodities futures, petroleum companies, and precious metals in a desperate attempt to escape the perverse entropy of frictionless intermediation on a wealthy planet.

How to understand it all? A simple paradigm is useful. Begin with a subsistence level society in which everyone is balanced on the knife-edge of starvation. By definition, there is no excess capital—every last bushel of wheat and barley and every last coin goes entirely towards the purchase of food and shelter. But even subsistence societies need capital for seed corn, tools, and housing. In such a world, the cost of capital is thus infinite—the first fortunate person with an excess shekel or drachma can name his interest rate. As the countryside becomes more productive, fabulous wealth rapidly accumulates in the hands of the fortunate few with money to spare.

In the long run, as nations become wealthier, capital becomes more plentiful, not only in an absolute sense, *but also relative to the need for it*. Yes, wealthy societies consume more capital than poor ones, but the above paradigm makes clear that as societies grow their per capita GDPs beyond the subsistence level, the supply/demand equation shifts in favor of capital's consumers. Between 1200 and 1820, for example, per capita GDP in western Europe rose from approximately the subsistence level to three times it—no wonder that interest rates fell so dramatically between these two dates. By the turn of the twenty-first century, it had risen to nearly fifty times the subsistence level, and in the dot-com U.S., to more than sixty-five times.

The relationship between societal wealth and the cost of capital is not a recent discovery. As early as the beginning of the last century, Irving Fisher observed that where the houses were made of mud and straw, interest rates were high, where they were made of bricks, interest rates were low. And two centuries before that, the director of the East India Company, Sir Josiah Child, observed that "All countries are at this day richer or poorer in exact proportion to what they pay, and have usually paid, for the Interest of Money." (Admittedly, the point he was making is that causation runs from low interest rates to wealth, and not the other way around.)

This phenomenon, Fisher explained, was due to the fact that starving and poorly housed people in less affluent nations were more "impatient" for capital and consumption than the fat, contented citizens of wealthier nations. But whether one explains the current state of affairs in terms of impatience or in terms of a more favorable supply/demand equation for capital, the effect is identical—the more altitude we gain above the subsistence level, the lower are expected investment returns. Rapid technological advancement, far from being the friend of the investor, is a triple-barreled destroyer of investment returns: first, by increasing societal wealth (via increased industrial productivity) and thus decreasing the cost of capital by the above-described mechanism; second, by promoting enthusiasm among, and capital flows from, gullible investors; and third, by the dilution of shares from the increased share issuance necessary to capitalize new technologies.

The signature economic development of the past few decades has been the developing world's rapidly increasing share of the rewards of market capitalism. No longer are the world's less developed nations exclusively consumers of capital. It's a good thing for the U.S. Treasury that the Chinese have dollars to spare. So what if the U.S. is becoming a massive debtor nation because of rampant consumerism, lack of consumer and corporate discipline, and an obese population living in obese houses, driving obese vehicles? Don't worry, be happy: there's plenty of Japanese, Chinese, and Russian money just looking for an American home. (We'll sort out the currency distortions later.)

Of course, the historical trend towards cheaper capital and lower returns is a noisy one. As early as the late seventeenth century, a bubble in English diving companies drove the cost of capital on the London markets as low as that seen in the recent tech bubble. And more recently, in 1974, the entire U.K. stock market could have been bought with a few years' revenue from the Saudi oil flows. In 1982, U.S. equities sold at single-digit multiples, and a mere handful of years ago several corners of the world's stock and bond markets could still reasonably have been called cheap. Certainly, opportunity will return again. It will likely be the instability posited by Messrs. Ip and Whitehouse that creates it. But the overall downward direction of returns is clear.

I, for one, do not despair our low-return world. Who in their right mind would trade the standard of living today, at almost any point on the map, for that of fifty or a hundred years ago? Who would prefer to deal with the horrors of the widespread rural poverty of 1900 or the specter of Hitler and Stalin in the 1940s than with jihadi terrorism or identity theft? The price we pay for this sanguine state of affairs is derisory expected returns. An agreeable piper indeed, and one well worth paying.