

## CAMBRIDGE ASSOCIATES LLC

# EUROPEAN MARKET COMMENT

# T-BILL RETURNS: WHAT CAN WE EXPECT?

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# T-Bill Returns: What Can We Expect? Some Observations Based On Its History

Over the last five years, cash has proved a safe haven for U.K. investors, although returns have been relatively poor by historical standards. From 1999, U.K. Treasury bills have returned 4.9% on an average annual basis, roughly half the post-1959 average of 8.5%, but close to the longer-term (1904-2003) return of 5.2%. Inflation-adjusted returns show a similar pattern: the real average annual compound return (AACR) of the past five years is 2.6%, 50 basis points higher than the 2.1% average since 1960, and more than double the long-term average of 1.2%.

As the table below indicates, however, recent returns pale beside those of the two decades following 1986, when investors profited handsomely from the gradual ebbing of the huge inflation premium imposed on all fixed interest investments as a result of the inflation shock of the 1970s. These data inspire several questions:

	Current: 2003	Average: 1986-2003	Average: 1960-2003	Average: 1904-2003
Nominal	4.9	8.9	8.5	5.2
Real	2.6	4.8	2.1	1.2
Inflation	2.2%	4.0%	6.4%	4.1%

# First, Has the Inflation Premium Bottomed?

Of course, T-Bill returns depend largely on inflation, which has undergone both cyclical and secular shifts in the past century—the 4.1% average annual rate of inflation since 1900 tells us very little, since the dispersion around this mean has been so large over long interim periods. The inflation premium is effectively a vote of confidence (or no confidence) in the integrity of the Bank of England (BOE), which Gordon Brown unshackled from direct political control in May 1997. Since gaining its independence, the BOE has enjoyed a remarkably successful track record against inflation: over the last seven years, the Bank has targeted an inflation ceiling of 2.5% annually and has, on average, achieved this level. Of course, it is possible that the Bank has simply been the serendipitous beneficiary of disinflationary forces, instead of being directly responsible for reducing inflation, but it seems reasonable to give the Old Lady the benefit of the doubt.

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<sup>&</sup>lt;sup>1</sup> Cash as represented by 91-day T-Bills. Returns in this paragraph refer to five-year AACRs.



However, such optimism runs against the tide of history, for the capital markets have demonstrated during the last 104 years that investors—T-Bill and gilt investors alike—have done well when they *over*estimated actual inflation, and poorly when they *under*estimated actual inflation.<sup>2</sup> If history is any guide for the future, investors should err on the side of caution and incorporate an inflation premium into their return expectations.

This caution may be especially warranted by the fact that the current inflation premium, as measured by the difference between nominal and real cash returns, has hit a low not seen since 1959 (Table B). It is possible, but extremely unlikely, that the premium could sink into negative territory, as it did during the first half of the century during the depressed 1930s, and the BOE would certainly pull out all the stops to prevent this from happening.

#### Second, Will the Downtrend in T-Bill Returns Persist?

After peaking at over 6.0% in 1989, the rolling five-year real AACR of T-bills has steadily declined, although it has remained relatively high by long-term historical standards (see Table C). It is notable that similar downtrends in the past have not usually reversed until after several years in negative territory. The obvious question today is whether the secular disinflation of the past 25 years is now drawing to a close and a new era of rising inflation dawning. On the one hand, it seems implausible that the central banks of the United States and the United Kingdom, having expended so much effort subduing the inflationary boom of the 1970s and early 1980s, would squander all that work by allowing the inflation genii out of the bottle again. On the other hand, consumer pocketbooks are increasingly vulnerable to the rising interest rates that could be necessary to combat cyclical inflationary pressures, and in a democratic society monetizing debt may be more palatable than a rising tide of personal bankruptcies.

On the whole, we suspect both the Federal Reserve and the BOE may be prepared to accommodate somewhat higher rates of inflation—at least temporarily—than those of recent years, but also think it premature to presume that a key inflection point has been reached, the other side of which is a secular rise and yet another *de facto* confiscation of investors' fixed interest savings.

<sup>&</sup>lt;sup>2</sup> Treasury bills have consistently outperformed gilts on a risk-adjusted basis since 1900. Nominal long-term returns on gilts and Treasury bills are almost identical (5.3% for gilts and 5.1% for Treasury bills), despite the greater risk inherent in longer-term fixed interest securities. This runs counter to capital market theories about risk and return, and suggests that for much of the twentieth century bond investors persistently underestimated future rates of inflation (in other words, overestimated the government's fiscal probity) and have paid dearly for the miscalculation.

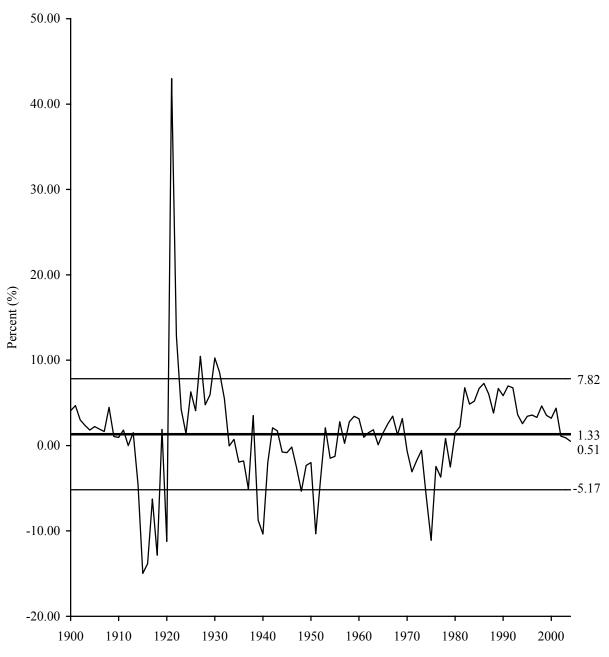


Table A

REAL AVERAGE ANNUAL COMPOUND RETURN OF THE U.K.

3-MONTH TREASURY BILL

# 1 January 1900 - 29 February 2004



Sources: Global Financial Data and Thomson Datastream.

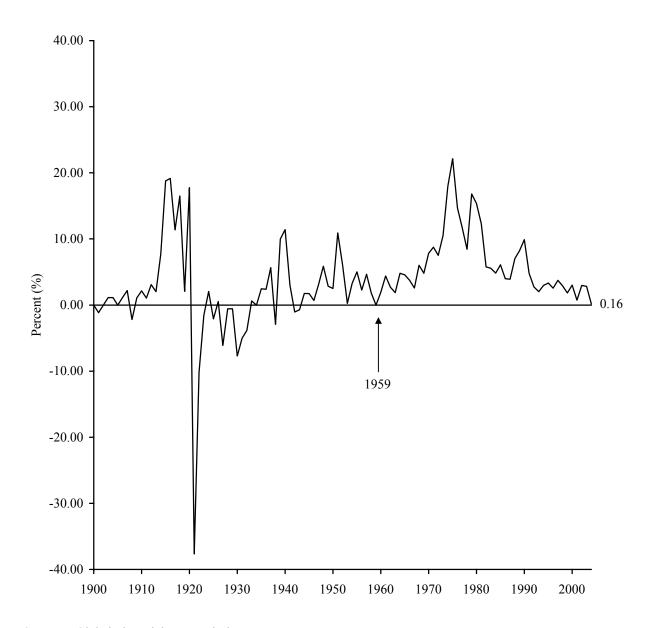
Notes: For consistency purposes, inflation data used to calculate the real T-Bill returns in 2003 and 2004 were based on the RPI series, not the recently adopted CPI data series. Graph represents annual data. Data for 2004 are year-to-date through 29 February.



Table B

INFLATION PREMIUM BETWEEN THE NOMINAL AND THE REAL U.K. 3-MONTH TREASURY BILL RETURNS

## 1 January 1900 - 29 February 2004



Sources: Global Financial Data and Thomson Datastream.

Notes: For consistency purposes, inflation data used to calculate the real T-Bill returns in 2003 and 2004 were based on the RPI series, not the recently adopted CPI data series. Using the CPI series, the inflation premium for February 2004 drops to -0.27, a level last seen in 1943. For more information on the differences between the inflation data, please see our January Market Comment: *Benign Inflation Pressures in the United Kingdom*. Graph represents annual data. Data for 2004 are year-to-date through 29 February.

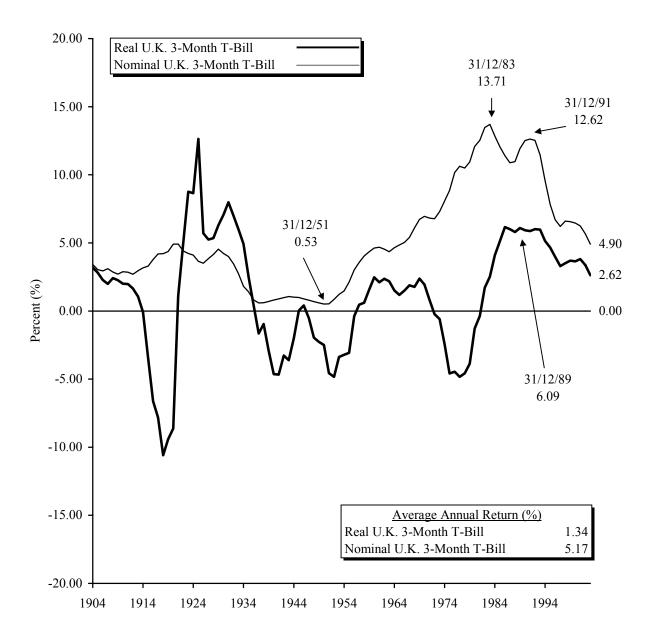


Table C

ROLLING FIVE-YEAR AVERAGE ANNUAL COMPOUND RETURNS (%)

#### Nominal and Real U.K. 3-Month T-Bill Returns

# 1 January 1900 - 31 December 2003



Sources: Global Financial Data and Thomson Datastream.

Notes: For consistency purposes, inflation data used to calculate the real T-Bill returns in 2003 were based on the RPI series, not the recently adopted CPI data series. Graph represents annual total returns.