CAMBRIDGE ASSOCIATES LLC

# U.S. MARKET COMMENT

# WHY ARE INTEREST RATES SO LOW? EXPLORING THE CONUNDRUM

## July 2005

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## Why Are Interest Rates So Low?
## Exploring the Conundrum

Confounding nearly everyone from the learned army of Wall Street economists to the disordered masses of Main Street investors, the yield curve has been twisting and flattening ever since the Federal Reserve initiated its policy rate tightening program in June 2004. The apparent lack of sensitivity of interest rates to economic growth has even puzzled the otherwise-oracular Fed Chairman Alan Greenspan who complained that long-term rates are far below what one would expect on the basis of economic fundamentals. As long as the economy is recovering and the threat of deflation remains muted, he and classical economic theory argue, nominal and real rates should both rise.

Instead, over the last 12 months, while the Fed funds rate has risen 225 basis points (bps) to 3.25%, the Treasury yield curve has flattened considerably (Table A). Yields on 90-day T-bills have climbed 180 bps to 3.13%, while those on ten-year U.S. Treasuries have fallen 68 bps to 3.94% and 30-year bonds, -122 bps to 4.19%. Since June 2004, ten- and 30-year real yields, as measured by TIPS, have also shed 44 bps and 68 bps, respectively, though those on five-year TIPS have upticked 15 bps to 1.38%. As the yield curve has flattened, risk premiums have also narrowed sharply, with some ticking up in recent weeks (Tables B through D).

Several highly respected pundits have recently intensified the mysterious conundrum by acknowledging the possibility that intermediate-long rates could stay low for longer than they had anticipated. Pimco's Bill Gross, for example, now expects ten-year nominal Treasury yields over the next three to five years to remain in the 3.0% to 4.5% range, while Morgan Stanley's Steve Roach "wouldn't be shocked" if ten-year Treasury yields approached 3.5%. Goldman Sachs' interest rate team foresees real ten-year rates at around 1.6%, primarily due to capital spending weakness. Despite these adjustments, however, their lack of enthusiasm is palpably pungent, like a reluctant bridegroom in a shotgun marriage, who would eagerly abandon his commitment at the earliest opportunity.

### Inflation

Bond bulls and bears are a contentious lot, and there is not much they agree on. At the most fundamental level, their debate centers around the extent to which low yields can be attributed to falling inflation expectations or declining real yields.

They disagree about inflation—of course, where it will go, but also how to measure it, and what causes it. The bulls emphasize core inflation growth, which is a mere 2.2% for the year-ended in May, while the bears worry that rising non-core inflation, which is running a bit hotter at 2.8%, thanks to surging oil prices, will ignite cost-push inflation. Bulls and bears also cheer or worry about, depending on their ideological persuasion, the staying power of the underlying drivers of pricing pressures. Input prices are rising, as are unit labor cost growth, which make up roughly two-thirds of corporate expenses, though they remain low by historical standards (Table E, second panel).

**Economic Weakness**

On the demand side of the interest rate equation, bond bulls, particularly the reluctant kind, emphasize the impact of cyclical economic weakness on shrinking bond yields. In our view, however, while economic growth may be decelerating, it is crucial to keep in mind that it is slowing from a high level (Table E). Real GDP growth has ticked down from 5.0% for the year ending in the first quarter of 2004 to 3.7% for the year ending in the first quarter of 2005, but this remains above long-term trend growth of 3.4%. Productivity growth appears to have leveled off, though at the high level of 3.3%, which is roughly double its 45-year historical average growth of 1.6%. In recent weeks, the capital spending slowdown has made splashes in the headlines. While growth has been flat over the last three quarters, it remains roughly twice the rate of its post-1952 average of 8.7%. Non-defense capital goods ex aircraft and parts growth has halved from 15.2% as recently as February to 7.7% growth, which is still above the long-term average of 6.9%.

Furthermore, other macroeconomic indicators have yet to pick up the scent of economic deterioration: delinquency rates are low, consumer credit quality seems solid, the yield curve has not inverted, equity earnings expectations remain strong, and stock returns respectable. Let's be clear: we are not arguing the economy will *not* decelerate further; rather, it stretches credibility to primarily attribute the falling of bond yields to decelerating economic growth expectations. Other factors are likely at work.

**Global Excess Supply**

In recent months, several academics and financial policymakers have emphasized the role played by the currently global monetary regime—aka "Bretton Woods II" (BWII)—in reducing intermediate-to-long interest rates.[1] They describe BWII as a semi-regulated global structure that helps to generate global demand by promoting the flow of money from countries that want to produce to countries that want to spend. China, Japan, and other Asian countries recycle their reserves into U.S. Treasuries, which in turn allows Americans to finance imports at low interest rates (Table F). According to this view of the world, the enormous U.S. current account deficit is a defining element of BWII and is here to stay, as are low interest rates. In fact, yields may fall even lower until investment matches the high supply of savings—in other words, until the excess labor pool in developing economies dries up and their real wage rates rise, China in particular.

**Supply and Demand in the Bond Market**

On the supply side, the issuance of high-quality corporate bonds has diminished, primarily because corporate coffers are swollen with cash, reducing the need to borrow by issuing debt. In fact, much of the issuance in recent years has originated in the financial sector (Table G). Demand for duration has been

[1] See M. Dooley, D. Folkerts-Landau, and P. Garber, "An Essay on the revived Bretton Woods System," September 2003, http://www.frbsf.org/economics/conferences/0502/w9971.pdf, and B. Bernanke, "The Global Saving Glut and the US Current Account Deficit," March 10, 2005 speech, http://www.federalreserve.gov/boarddocs/speeches/2005/200503102/default.htm

pushed by the asset-liability mismatch in the private sector, while investors are scrambling for yield in the current low-yielding environment.

**What if Rates Drop to 3%?**

We do not know where interest rates are going; but neither do the so-called experts. Every six months, *The Wall Street Journal* surveys about 55 economics and strategists about their interest rate forecasts for the subsequent six months. Since the contest began 23 years ago, the consensus has been wrong about the direction of rate moves more than 70% of the time.

In our view, investors should hold bonds as a form of catastrophe "insurance," because they protect both capital value and income streams of a portfolio during periods of extended economic contraction or deflation. The key to surviving a prolonged economic contraction is to make sure there is sufficient duration in the portfolio to realize capital gains large enough to help sustain a minimal level of spending. Investors should ensure not only that they have sufficient duration in the bond portfolio to realize sharp gains in the event of a decline in equities triggered by a prolonged economic contraction, but also that the duration of the insurance is pure—that is, bond prices should not be adversely affected by poor economic conditions (as is the case with low-quality corporate bonds), or fail to participate fully in rallies induced by aggressive rate cuts (as is the case with mortgage-backed securities and callable bonds).

What if ten-year Treasury rates drop even more to 3%? The question, we confess, is something of a red herring, because we believe investors should not modify their interest rate exposures based on what they think interest rates might do. First, the role of insurance is undermined by moving into short-duration bonds. Second, why do investors continue to believe in their ability to forecast interest rates? Investors might just as well flip a coin as try to predict where rates are headed. Finally, even if one had perfect foresight as to the direction of interest rates, one would also have to predict how the yield curve might twist in response to a shift in Fed policy toward higher rates, lest one inadvertently increased exposure to securities that subsequently suffered a greater increase in yield than those further out the curve.[2] Yield curve movements since June 2004 have shown how difficult it is to forecast—let alone explain—the twists and turns of interest rates.

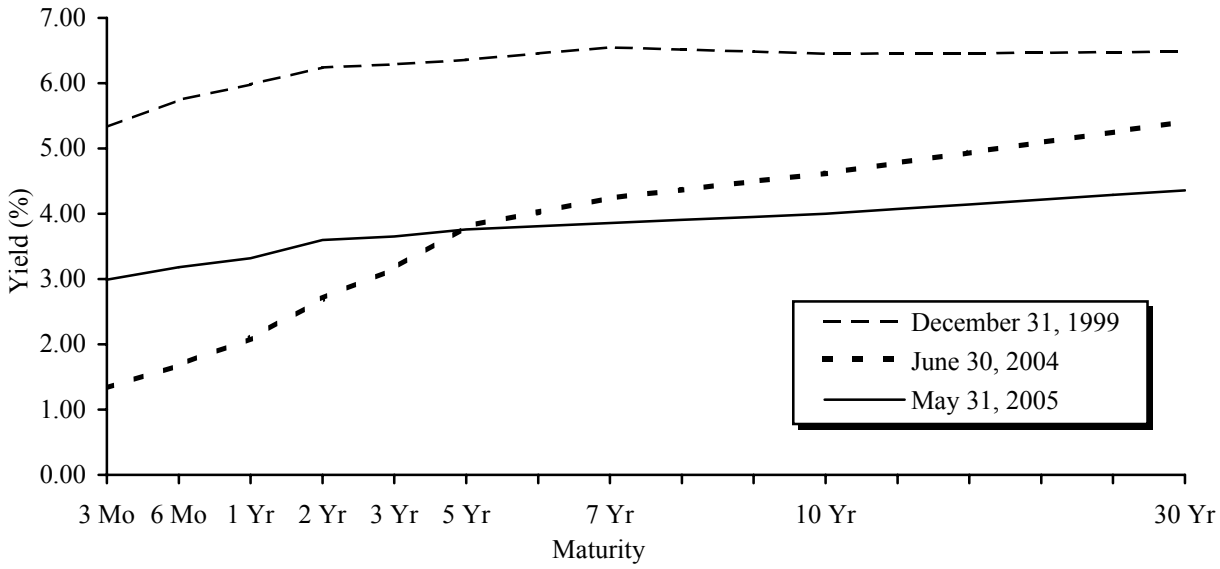
[2] For more discussion, please see our August 2003 report: *Fixed Income Investing in a Rising Interest Rate Environment*.

**Table A**

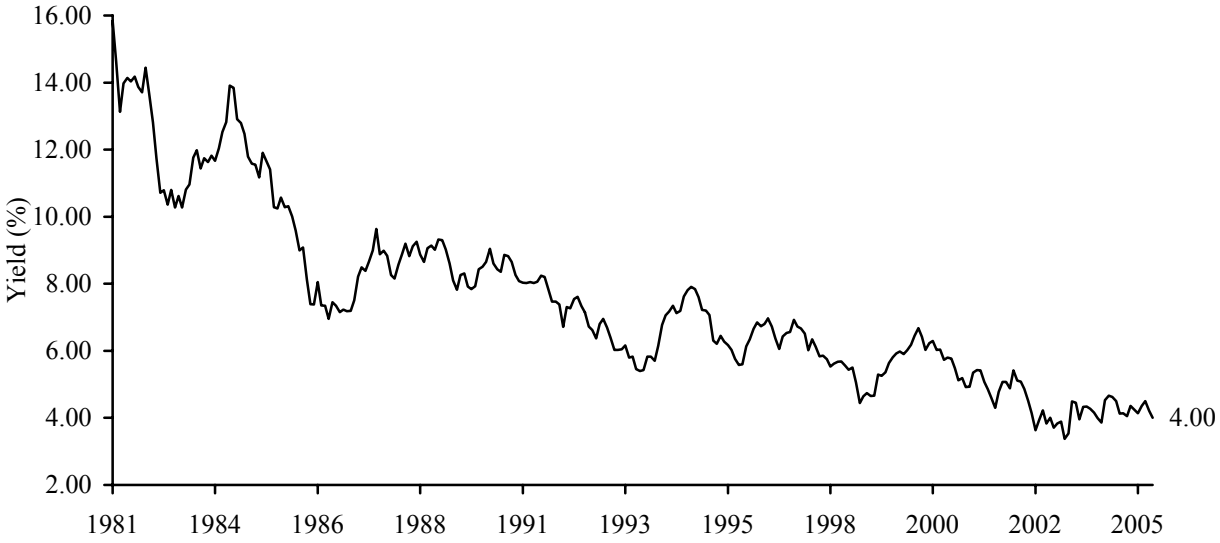
**U.S. INTEREST RATE YIELD CURVES AND BOND YIELDS**

**September 30, 1981 - May 31, 2005**

**Yield Curve**




**Ten-Year Treasury Bond Yields**



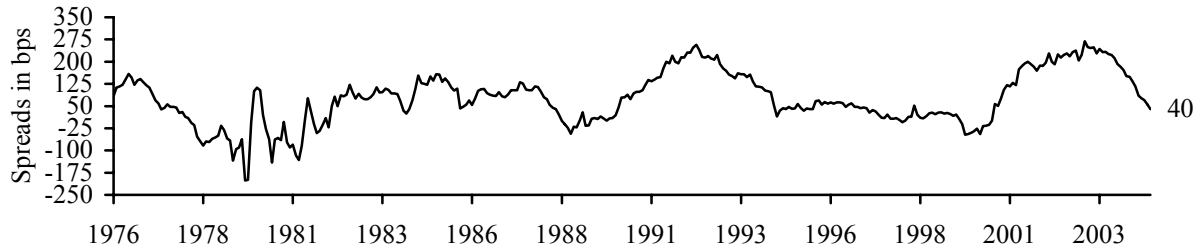

Sources: Thomson Datastream and U.S. Treasury.

Note: The 30-year Treasury yield is an extrapolation of the Long-Term Average Rate series calculated by the Treasury following 2/18/02, when the Treasury ceased publication of the 30-year constant maturity series.

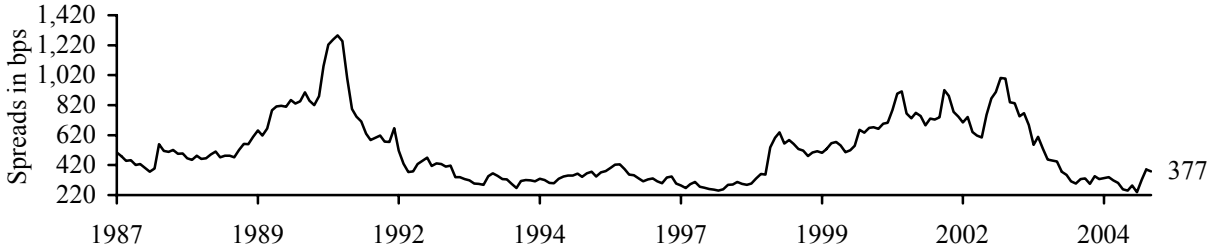
## Table B

## SPREADS BETWEEN TEN-YEAR TREASURY YIELDS AND VARIOUS BOND YIELDS

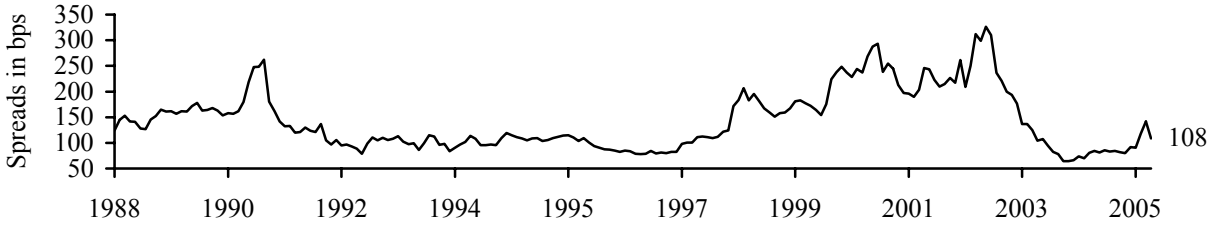
**Ten-Year Treasury and Two-Year Treasury Yields**
**June 30, 1976 - May 31, 2005**



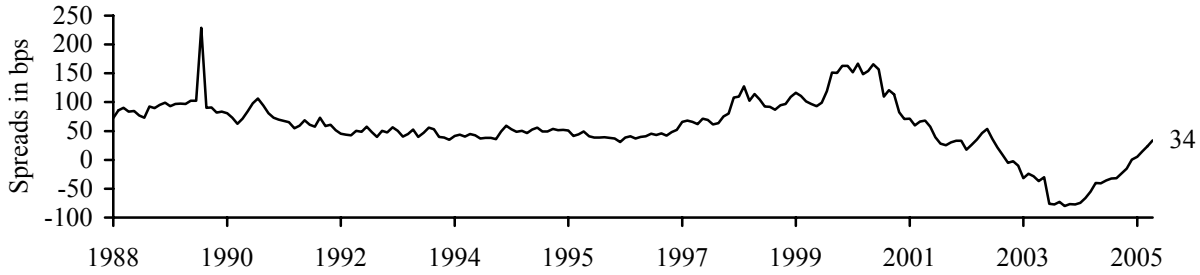

**Ten-Year Treasury and High-Yield Bond Index**
**January 31, 1987 - May 31, 2005**




**Ten-Year Treasury and Corporate Baa Bond Index**
**August 31, 1988 - May 31, 2005**




**Ten-Year Treasury and Corporate Aa Bond Index**
**August 31, 1988 - May 31, 2005**



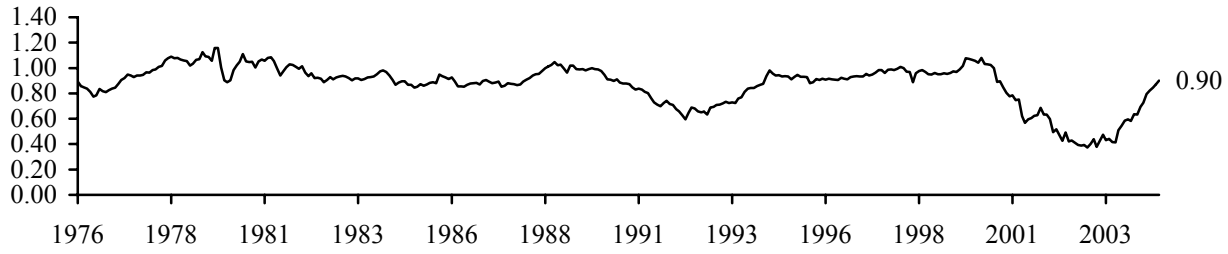

Sources: Lehman Brothers, Inc. and Thomson Datastream.

Note: Yield spreads are based on the difference between the weighted-average yield-to-worst (the lower of yield-to-maturity and yield-to-call) for corporate bonds and the yield-to-maturity for ten-year and two-year Treasury securities.

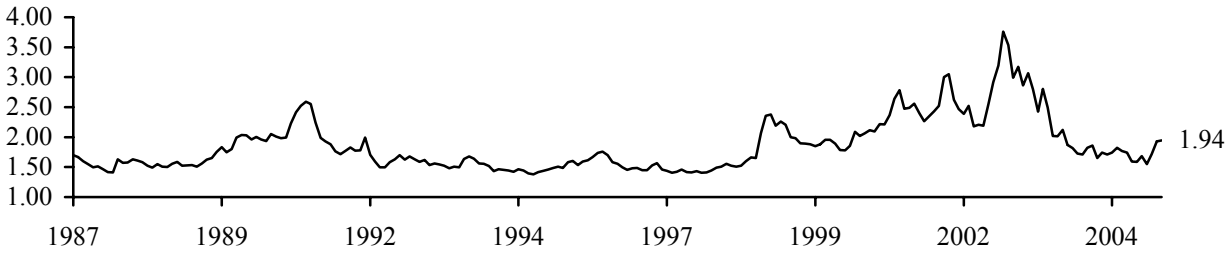
## Table C

## RATIOS OF TEN-YEAR TREASURY YIELDS AND VARIOUS BOND YIELDS

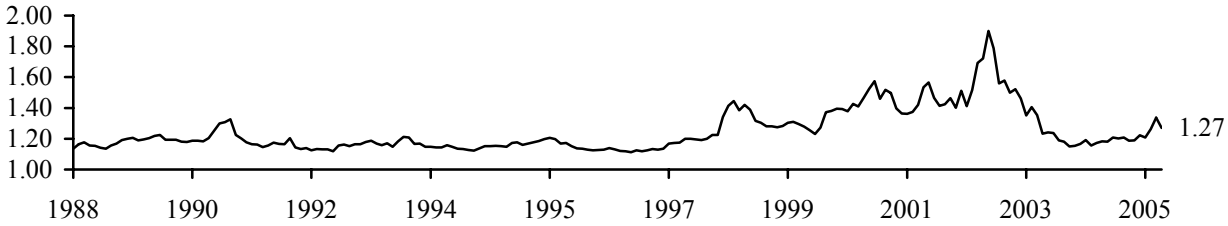
**Ten-Year Treasury and Two-Year Treasury Yields**
**June 30, 1976 - May 31, 2005**



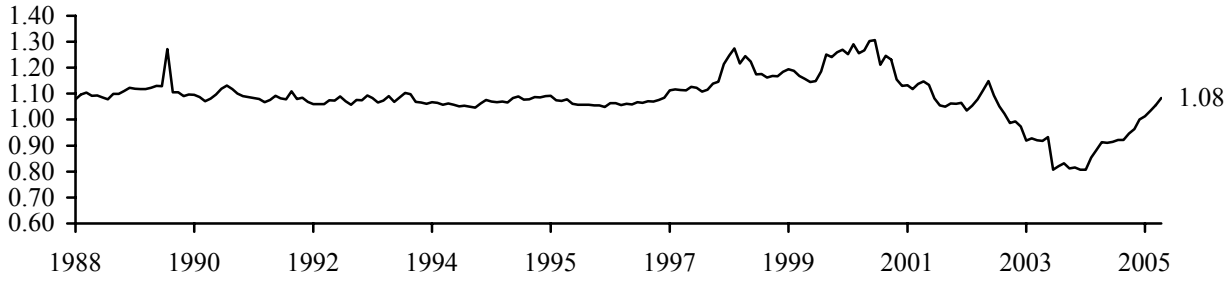

**Ten-Year Treasury and High-Yield Bond Index**
**January 31, 1987 - May 31, 2005**




**Ten-Year Treasury and Corporate Baa Bond Index**
**August 31, 1988 - May 31, 2005**




**Ten-Year Treasury and Corporate Aa Bond Index**
**August 31, 1988 - May 31, 2005**




Sources: Lehman Brothers, Inc. and Thomson Datastream.

Note: Yield ratios are based on the ratios between the weighted-average yield-to-worst (the lower of yield-to-maturity and yield-to-call) for corporate bonds and the yield-to-maturity for ten-year and two-year Treasury securities.

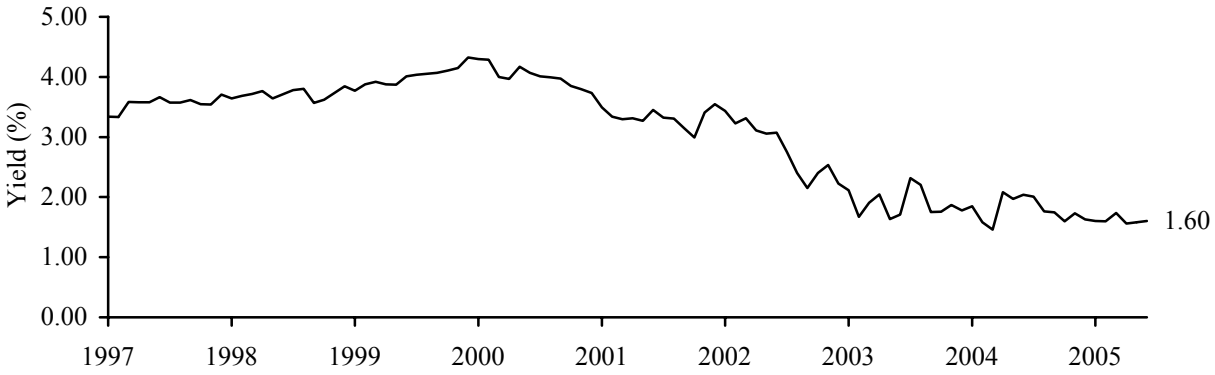
**Table D**

**REAL TEN-YEAR TREASURIES, TEN-YEAR AND FIVE-YEAR TIPS YIELD CURVES**

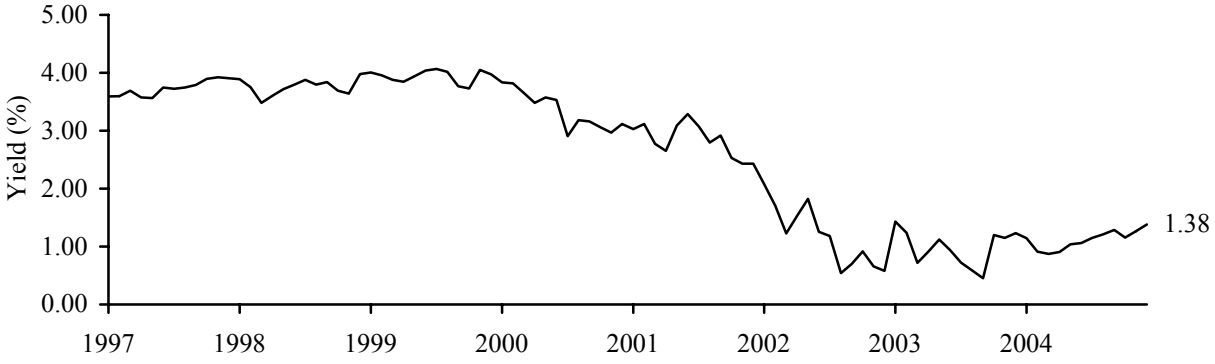
**January 31, 1997 - June 30, 2005**

**Real Ten-Year Treasuries**


**Ten-Year Treasury Inflation-Protected Securities (TIPS)**




**Five-Year Treasury Inflation-Protected Securities (TIPS)**



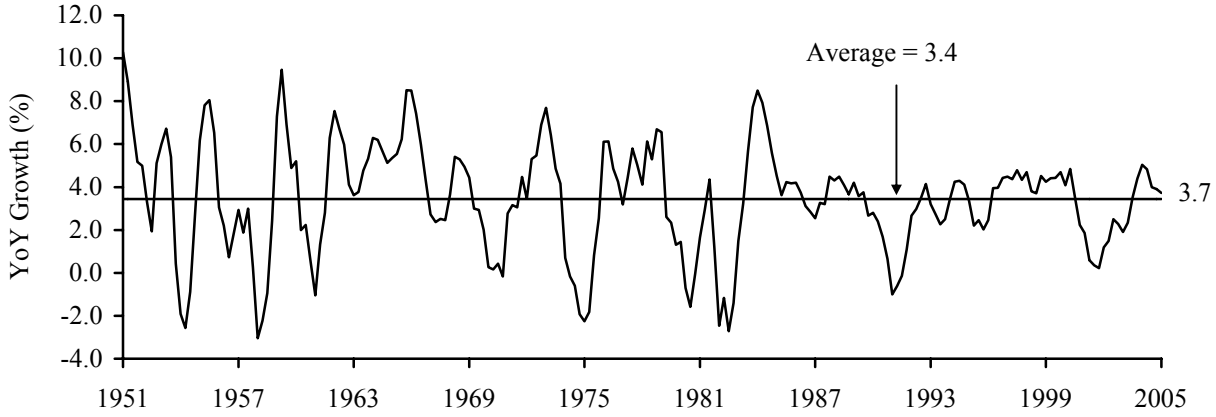

Sources: The Bloomberg, Bureau of Labor Statistics, Federal Reserve, and Thomson Datastream.

Note: Five-year TIPS data start July 1997. Real ten-year Treasury yields are derived from subtracting the 12-month trailing CPI price returns from the nominal ten-year Treasury yields.

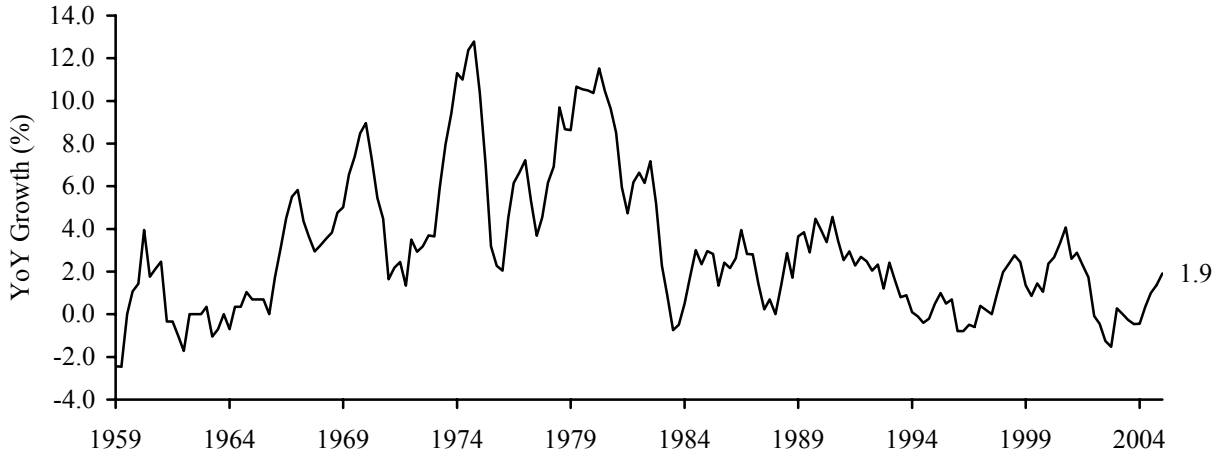
## Table E

## MACROECONOMIC INDICATORS

**Real GDP Growth**
**First Quarter 1950 - First Quarter 2005**




**Unit Labor Cost Growth**
**First Quarter 1958 - First Quarter 2005**




**Productivity Growth**
**1960-2004**

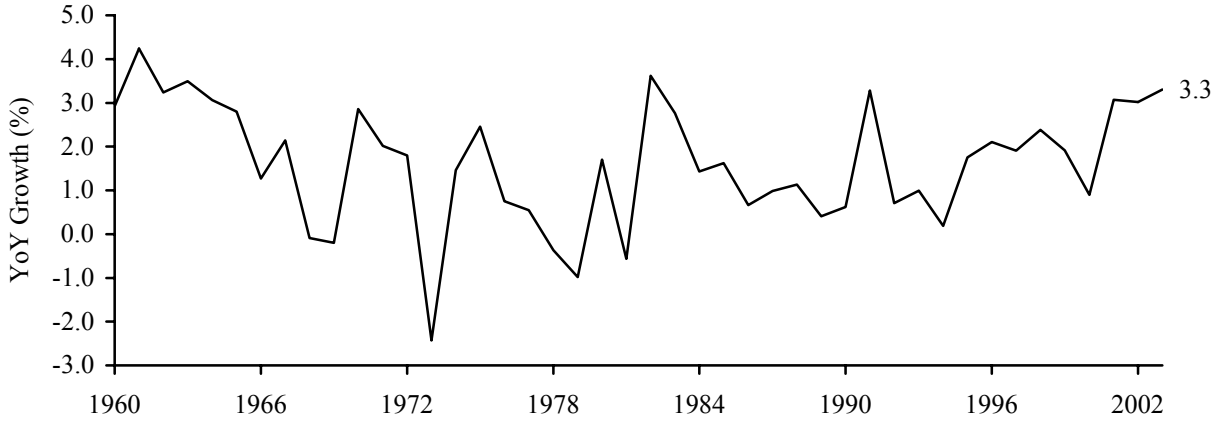
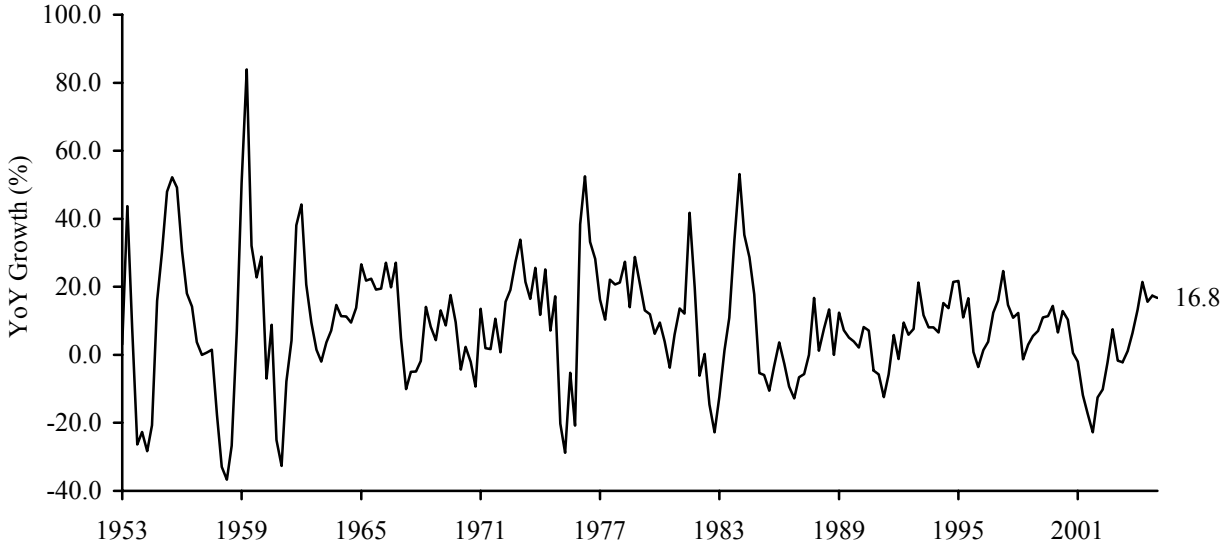


**Table E (continued)**

**MACROECONOMIC INDICATORS**

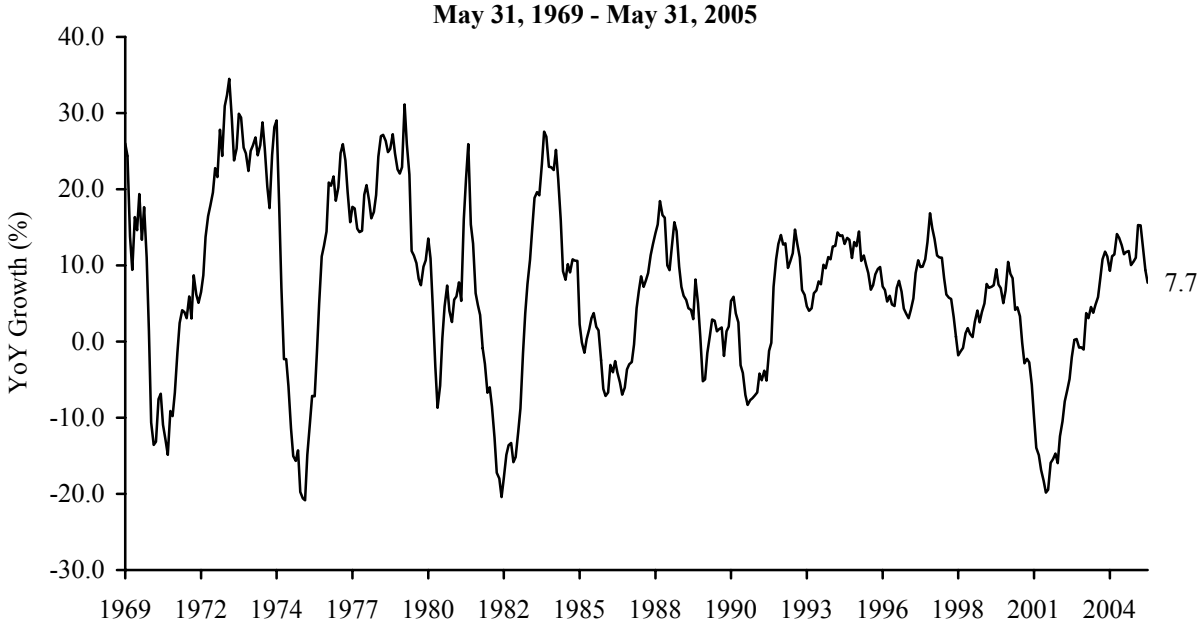
**Capital Spending**

**First Quarter 1952 - First Quarter 2005**




**Non-Defense Capital Goods ex Aircraft and Parts**

**May 31, 1969 - May 31, 2005**



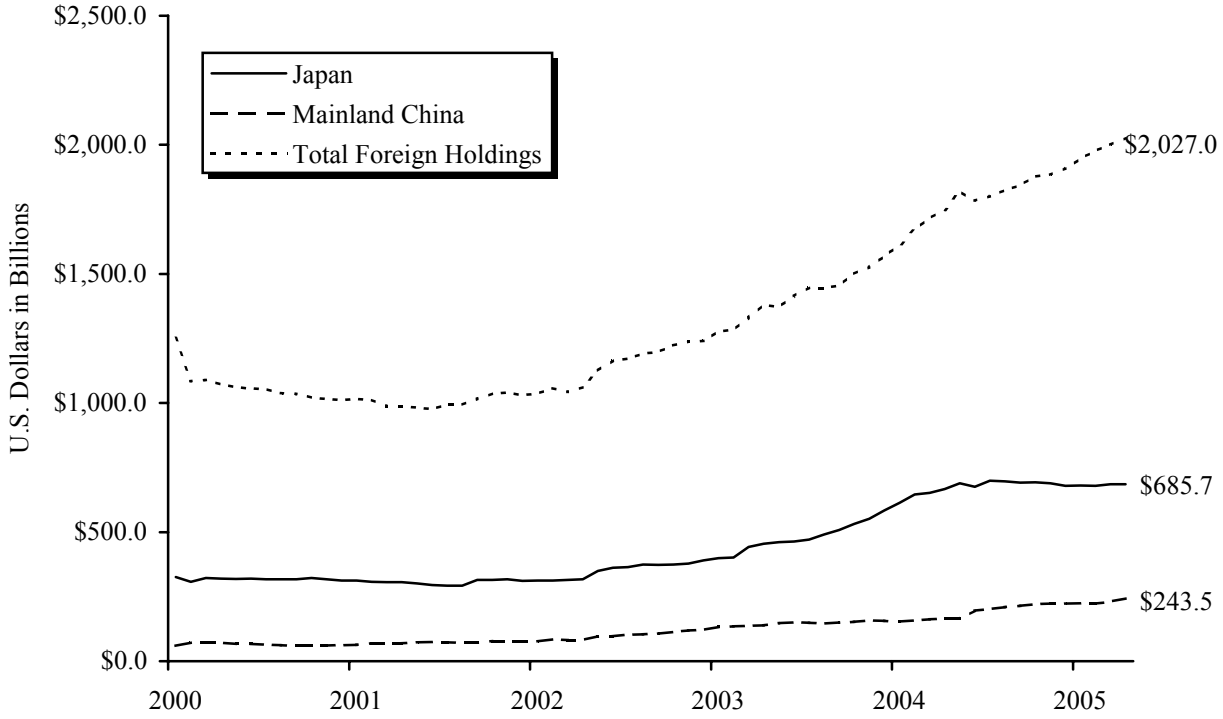

Sources: Ned Davis Research Group and Thomson Datastream.

Note: Real GDP growth, unit labor cost growth, and capital spending graphs represent quarterly data, while productivity growth graph represents annual data and non-defense capital goods graph represents monthly data.

## Table F

## FOREIGN HOLDINGS OF U.S. TREASURY SECURITIES

**February 28, 2000 - May 31, 2005**




Percentage of Total U.S. Treasury Securities (%)

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| Japan | 10.7 | 10.7 | 11.8 | 15.4 | 17.5 | 17.0 |
| Mainland China | 2.0 | 2.6 | 3.7 | 4.4 | 5.7 | 6.0 |
| Total Foreign Holdings | 34.2 | 35.0 | 38.6 | 42.7 | 47.8 | 50.3 |

Percentage of Total Foreign-Held Treasury Securities (%)

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| Japan | 31.3 | 30.6 | 30.5 | 36.1 | 36.6 | 33.8 |
| Mainland China | 5.9 | 7.6 | 9.6 | 10.3 | 11.8 | 12.0 |

Annual Growth in Holdings (%)

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 YTD |
|---|---|---|---|---|---|---|
| Japan | -2.5 | 0.1 | 18.9 | 45.8 | 25.0 | -0.5 |
| Mainland China | 1.5 | 30.3 | 50.6 | 33.2 | 41.3 | 9.2 |
| Total Foreign Holdings | -18.9 | 2.5 | 19.1 | 23.2 | 23.5 | 7.6 |
| Total U.S. Treasury Securities | -7.8 | 0.0 | 8.0 | 11.5 | 10.3 | 2.2 |

Source: U.S. Department of Treasury.

Notes: Percentage growth figure for 2000 reflects changes in holdings from February 29, 2000 through December 31, 2000. Data for 2005 are as of May 31.

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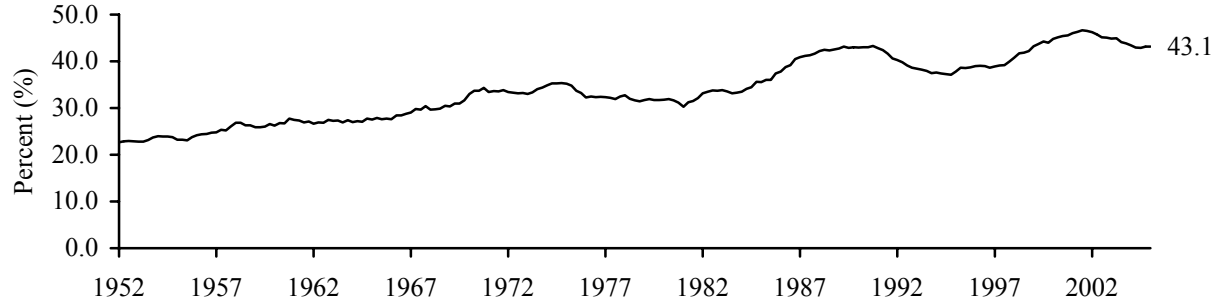
## Table G

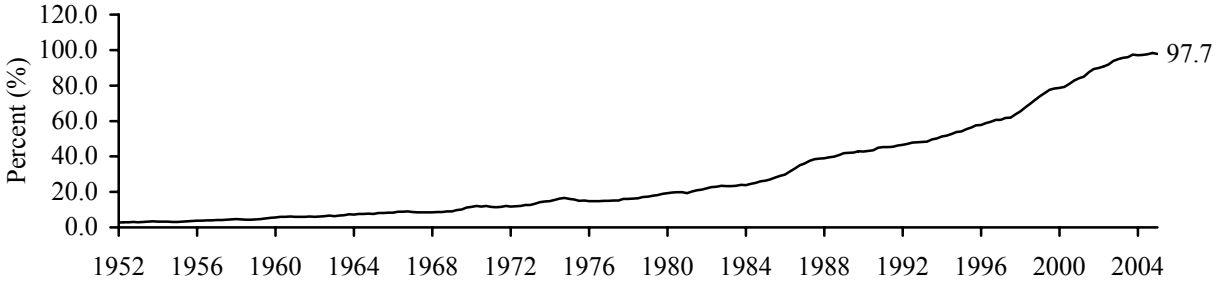
## CORPORATE DEBT

### First Quarter 1952 - First Quarter 2005

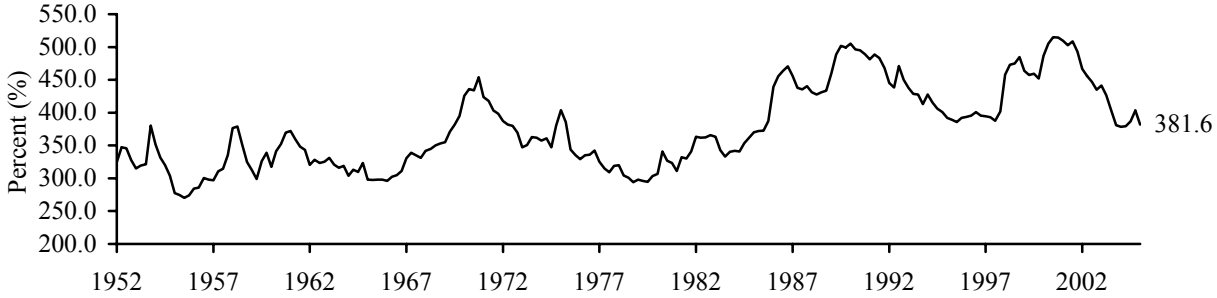
**Total Non-Financial Corporate Debt as a Percent of GDP**



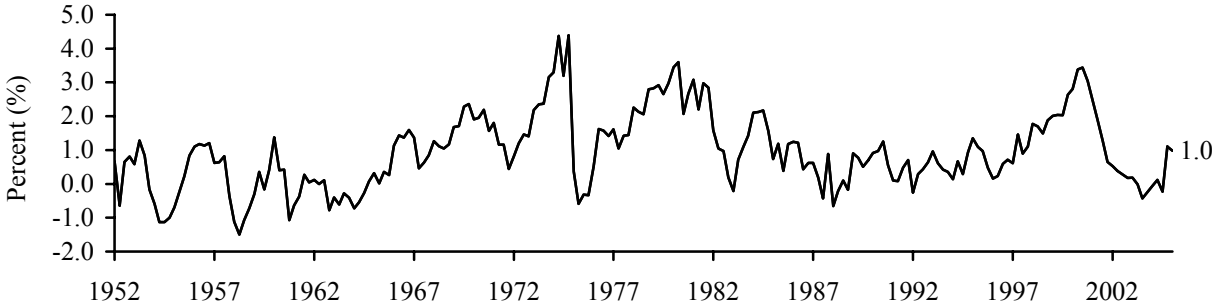

**Total Financial Corporate Debt as a Percent of GDP**




**Total Non-Financial Corporate Debt Relative to Cash Flow**




**Corporate Financing Gap as a Percent of GDP**




Source: Thomson Datastream.

Note: Graphs represent quarterly data.